# XMap 6 User Guide

**Updated for XMap 6.2** 

This user guide is a printable version of the XMap Help system. When you are using XMap, use the Help system to take advantage of links to related Help topics and tutorials.

**Note:** Some content from the Help system is not available in the print version.

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# **Getting Started**

# Welcome to XMap 6

## **Tips**

- Double-click a book in the Table of Contents to view all of its associated topics. Click a topic to read its contents.
- Additional information is available in the Technical Support section of our website. Visit www.delorme.com to view tutorials, search the forums, and more.

The following features and more are available in XMap.

- Import or create GIS layers, link attribute data, classify and adjust how the data displays, build queries, and more.
- Add data and manage projects.
- Use the split-screen to simultaneously view two types of data for the same location.
- Print high quality, detailed, single-page maps or mural maps as large as 3 x 3 pages.
- Print route directions and profiles.
- Search for locations on the map.
- Search for residential or business phone listings (Phone Data required).
- Get information about map features.
- Register images to the base map.
- Add annotation or redline edits to the map.
- View profile elevation graphs for a selected linear object on the map.
- View and fly over your map in 3-D.
- Create a route by adding start and finish points on your map. Customize your route by adding stops and vias.
- Connect your GPS device to the program and track your progress on a
  portable computer as you travel. View your next turn as well as the turn after
  that—very helpful when you need to make a turn directly after another turn.
  You can even use the automatic back-on-track feature to recalculate your
  route when detours veer you off course.
- Issue voice commands and receive spoken directions.
- Export a map to a handheld device.
- Create custom keyboard shortcuts or select a DeLorme shortcut scheme, such as 3-D Navigation, to navigate the program more easily than ever.
- Use the toolbar to share maps, open/create/save projects, start/stop GPS, edit your preferences, and more.
- Combine digital photos and data with GPS locations using GeoTagger.

# What's New in XMap 6

## What's New in XMap 6.2

- Updated and enhanced ArcSDE 9.3 support improves the ability to import and deploy GIS databases to the field—synchronize large GIS layers for the field in record time!
- Shapefile support for XMap 6 Professional—import shapefiles into the GIS tab and apply symbolization
  - Note This is already available in XMap GIS Enterprise and XMap GIS Editor
- · Faster data cutting for Earthmate GPS PN-Series GPS devices

## What's New in XMap 6.1

- GIS Options Dialog Box customize your GIS default layer and guery settings
- NetLink Map Library offers data download subscriptions
- Export XMap GIS files to Drawing Exchange (AutoCAD .dxf) format
- Enhanced MrSID import now includes aux.xml support
- Simplified XMap data export (draw layers, GIS layers, user raster data) for the recently released Earthmate GPS PN-40 handheld
- Access downloadable feature enhancements and bug fixes (No re-installation required)

## What's New in XMap 6

- Works with the Windows Vista<sup>™</sup> operating system
- DeLorme Docs folder is in a new location—for more information, see Migrating Data to the New DeLorme Docs Location
- Improved multi-user permissions
- ArcSDE 9.2 support
- GIS layer append and replace features during import
- Improved GIS database synchronization (Enterprise only)
- GIS stationing support for field line assets with user-defined distance measures (Editor and Enterprise only)
- Create map packages with draw and GIS data for use on Earthmate PN-Series GPS devices; independently layer them over other datasets
- Download NOAA charts from NetLink for display in XMap and on Earthmate PN-Series GPS devices
- API access to routing, GPS navigation, and map controls
- GPS NavMode—a new hands free full-screen view that you can view in 2-D or 3-D
- Improved terrain profiling for multi-channel data—show travel speed, temperature, and other variables against the terrain
- GeoTagger, a new toolbar feature, provides updated image and data-tagging features allows you to combine digital photos or data with GPS locations in a completely new way
- New route references for Walking/Jogging, Cycilng, Off-Roading, Driving

 Support for opening DeLorme Topo USA and Street Atlas projects; easily migrate your old projects to XMap

# **Frequently Asked Questions**

These questions are asked most frequently by our customers.

Why doesn't map data display in all projects?

The procedure for adding data to XMap varies; it depends on if you want to add the data to the current project or if you want to add it to all projects. If you added the data to only the current project and you want to view it in all projects, you must add the data as base data in the application.

Use the steps below to add a map dataset as base data.

- 1. Click the **Map Data** tab.
- Click **Data** and then click **Base Data**.
   The Base Data Locations dialog box opens listing each of the data sources on your system.
- 3. Click **Add**, select the hard drive location where you saved your data from the **Browse for Folder** dialog box, and click **OK**. The OK button is enabled when you select a folder containing a file that contains the properties of the map data being added.
- 4. Click **Done**.
- What map data is included with XMap?

XMap includes a worldwide reference base map dataset that includes major roads, cities, boundaries, and geographic features, which is visible between data zoom levels 1 and 6. For more detailed map features or aerial imagery, you can purchase a variety of base map datasets from DeLorme or integrate your own data using XMap's import and data adding tools. Note that most of the maps used by DeLorme to convey the capabilities of the software are created using an optional DeLorme base map dataset and/or data or imagery from third-party sources.

• How do I add non-DeLorme imagery to my map?

Use the Map Data tab to add imagery in MrSID and GeoTIFF format to your map.

- 1. Click the Map Data tab.
- Click **Data** and then click **Add**.The Add Data to Maps dialog box opens.
- 3. Browse to the file you want to add, select it, and then click Add. The imagery is added to the current project.

**Note** Imagery will not display unless projection information is specified in the file.

How do I import files from an earlier version of XMap into this version?

Use the Map Data tab to import projects, routes, draw files, and XData from many other DeLorme mapping programs. For information about migrating data to XMap 6, see Migrating Data to the New DeLorme Docs Location.

## To Open A Project

- 1. Click the Map Data tab.
- 2. Click File and then click Open.
- 3. Select the project you want to view and then click **Open**.
- 4. Click OK.

## To Open a Route

- 5. Click the **Map Data** tab.
- Click **Data** and then click **Add**.
   The Add Data to Maps dialog box opens.
- 7. Browse to the file you want, select it, and then click **Add**. The route is added to the current project.

## To Open a Draw File

- 8. Click the Map Data tab.
- Click **Data** and then click **Add**.The Add Data to Maps dialog box opens.
- 10. Browse to the file you want, select it, and then click **Add**. The draw file is added to the current project.

## To Open an XData File

- 11. Click the Map Data tab.
- 12. Click **Data** and then click **Add**.

  The Add Data to Maps dialog box opens.
- 13. Browse to the file you want, select it, and then click **Add**. The XData file is added to the current project.

## • What is my server name?

XMap uses Microsoft SQL Server as its DeLorme OpenSpace database engine. Your server name varies, depending on if you are connecting to or creating a DeLorme database in Microsoft MSDE SQL Server 2000, Microsoft SQL Server 2005 Express, or a Microsoft Enterprise SQL Server at your company.

- To establish a local connection to MSDE 2000, use localhost\DELORMEMAPPING or (local)\DELORMEMAPPING for the server name.
  - To establish a connection to MSDE 2000 on another computer in your network, use <computer name>\DELORMEMAPPING.
- To establish a local connection to SQL Server 2005 Express, use localhost\XMAP5 or (local)\XMAP6 for the server name.
   To establish a connection to SQL Server 2005 Express on another computer in your network, use <computer name>\XMAP6.
- To establish a connection to a Microsoft Enterprise Microsoft SQL Server, use <Server Name> for the server name. You will need to ensure that you have the proper server and database permissions and you are connected to the network. Contact your IT department if you experience problems.

**Note** MSDE 2000 installs to your computer with XMap 4.5 and SQL Server 2005 Express installs to your computer with XMap 5 and above if MSDE 2000 is not already present.

## Why doesn't my Workspace display any layers?

If there are no layers in your Workspace, you may have accidentally removed them. To retrieve the layers, click the **GIS** tab, click the **Workspace** subtab (if it is not currently selected), click the **Layers** button, and then click **Manage**. Select the Source Database you want to pull layers from, highlight the Layers in the Database, and then click the move or move all button to move the layers into your workspace.

If the database where your layers are present is not listed in the Source Database drop-down list, you can connect to it by selecting the **Other...** option. If you have not yet created a database, you can do so using Database Manager or by selecting the **New...** option in the **Target Database** drop-down list in the Create Layer and Import Wizard dialogs.

## Where do I find the map settings and other Options settings?

Click the **Options** button on the toolbar to modify GPS, voice, GIS, map feature, display, handheld, and keyboard shortcut, and 3-D preferences. For more information, see To Open the Options Dialog Box.

## • <u>Upgraders only: What happens to my projects when I upgrade?</u>

In previous versions of XMap, your projects, draw files, route files, log files, XData files, and other DeLorme files were stored by default in the DeLorme Docs folder on the root of your computer's C drive unless you specified a different directory during installation.

In XMap 6, the DeLorme Docs folder for all files except NetLink downloads is located in the My Documents (Windows XP) or Documents (Windows Vista) folder under your user name. For NetLink downloads, the Downloads folder is located in the DeLorme Docs folder under Shared Documents (Windows XP) or Public Documents (Windows Vista).

For information about migrating data to XMap 6, see Migrating Data to the New DeLorme Docs Location.

#### • Upgraders only: Why doesn't XMap overwrite the older version?

XMap 5 and later versions do not overwrite older versions of XMap, such as XMap 4.5 or earlier. This allows you to view both versions on the same computer.

# • <u>Upgraders only: Should I uninstall my previous version before installing the new version?</u>

You are not required to uninstall XMap 4.5 or earlier versions before installing XMap 6. You do not have to uninstall XMap 6 to upgrade to a later version of XMap6, such as XMap 6.1.

## Can I see imagery and data from Topo USA or Street Atlas USA within XMap?

Yes. The location of the Downloads folder changed in XMap 6. If you stored your data in the DeLorme Docs Downloads folder, it will automatically migrate to the new location. If you stored it in a different location, you can use the Map Data tab to browse to the location and add it.

For information about migrating data to XMap 6, see Migrating Data to the New DeLorme Docs Location.

## How do I get data updates or fix the roads on my map?

If you find there is a local road that is missing, you can add it to the current draw layer using the Routable Roads Draw tool. For more information, see Drawing Routable Roads or Trails on the Map.

To report a correction to us:

- 1. Click the NetLink tab.
- 2. Click the Support subtab.
- 3. Click the Submit Correction link.
- 4. Use the Customer Revisions Wizard to submit the change.

# How do I activate my Earthmate PN-Series GPS device to exchange information with XMap?

Use the following steps to activate your device before you exchange maps.

- 1. With XMap open, connect your device to your computer and power it on.
- PN-40 only: The Connect to Computer screen appears on the device and Data Exchange is highlighted. Press ENTER on the device.
- 3. In XMap, click the **Exchange** button on the toolbar to open the Earthmate PN-Series Exchange Dialog box.

  The device is activated when it appears in the drop-down list in the top right corner of the dialog box.

For more information, see Activating an Earthmate PN-Series GPS.

## How do I initialize my GPS receiver?

Each time you use your GPS receiver, you initialize it, which means you set your starting position on the map by obtaining the initial coordinates of your location. This can be done automatically or manually.

For more information, see Initializing GPS.

# What is the difference between NavMode and the GPS tab view when using GPS?

The default GPS view is NavMode—a hands free full-screen view that you can display in 2-D or 3-D. By default, the Control Panel is hidden and the tabs are minimized; however, you can customize your interface. For more information, see the NavMode tutorial in the application's Help.

The GPS tab view option allows you to use the GPS tab to control navigating and tracking. By default, the tabs and Control Panel are visible, but you can opt to hide them. It is available only in 2-D mode.

To turn NavMode on or off, click the **NavMode** button on the

When the button appears indented, NavMode is on.

**Note** The button is greyed out unless you have a GPS device plugged in or are playing back a GPS log file

You can also change your GPS view in the Options dialog box:

- 1. Click the **Options** button on the toolbar and click the GPS tab. You can also click the **Options** button on the GPS tab.
- 2. Clear the **Use NavMode** check box to turn it off, or select the check box to turn it on.
- 3. Click OK.

## What's the difference between a stop and a via?

When routing, you have the option of adding or inserting stops or vias in the route. A stop is a location in the middle of a route where you want to stop and then proceed from. A via is a road on the map that you want to specifically use when routing.

For example, if you create a route between Portland, Maine, and Yarmouth, Maine, without any stops or vias, the route directions will tell you to take I-295. However, if you want to take US Route 1 instead, you can place vias in the route on US Route 1 to force the route to go by way of US Route 1. If you plan on stopping in Falmouth Foreside for lunch, you will want your route directions to reflect that stop. When you add a stop, the route can be recalculated to include the stop in the middle of your route.

The map below shows the area between Portland, Maine, and Yarmouth, Maine, with two vias and one stop.



## • What's the difference between adding and inserting a stop or via?

The Insert Stop/Via function arranges stops/vias geographically in the route. The Add Stop/Via function adds stops/vias in the order you add them to the route.

## • Why did my route fail to calculate?

Your route will fail to calculate if you create a route:

- With a route start, stop, via, or finish point in an area that you have designated as a Route Avoid.
- That includes route points outside the United States, Mexico, or Canada.
- On an island without roads. In this case, XMap will look for the nearest road to that island to place the route point. If the nearest road is not routable (for example, it is the only road on the island and/or the island does not have ferry access), you will get an error message saying "Route failed to calculate."

## Why do X marks display on the map when I calculate a route?

- When you place a route point in a location that isn't on a street, XMap finds the closest street to that location, marks the space between the point you clicked and the street with X marks, and starts the route at the street.
- If you perform a Find for an address that is on a walkway and place a route point on it, XMap finds the closest street to that location, marks the space between the point you clicked and the street with X marks, and starts the route at the street.

## Why are the tab area and control panel so narrow?

XMap was designed to accommodate resolutions of  $1024 \times 768$  or higher. If you are using a very high resolution (such as  $1920 \times 1200$ ), the tab area and control panel in XMap may appear to be very narrow. You can modify the size of the map and tab area or use the Windows Control Panel to adjust your display settings.

## What's the best way to measure the distance of a road or trail?

The best way to determine the distance of a particular road or trail, is to create a route. You can create a route using right-click functionality, the toolbar, or the Route tab. For more information, see Creating a Route.

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#### What's the best way to measure a large area on the map?

The best way to measure a large area on the map is with the area tools in the Draw tab, such as the polygon tool. When you draw an area object on the map, the area displays next to the object on the map. If you click off of the object, you can view the area again by clicking the Select tool in the Draw tab and then clicking the area object on the map. For more information about drawing area objects, see Drawing a Circle, Rectangle, or Polygon on the Map.

#### What's the best way to measure a short distance on the map?

The best way to measure a short distance that is not made up of a road/trail

on the map is to use the Measure tool on the toolbar. The measure tool allows you to measure linear distance and area on the map based on the units chosen in the Display tab of the Options dialog box. For instructions on how to use the measure tool, see Measuring Distance and Area.

## Why won't 3-D billboards display?

If you receive a message saying that 3-D billboards cannot be displayed, ensure that you have a 32 MB video card with the latest drivers and that it supports DirectX and transparencies. For more information, see the DeLorme Forums.

# **Helpful Tips**

These tips may help you use the features in your DeLorme mapping program. The **Did You Know?** pop-up tutorials provide hints while you are working in the application.

# **Tips**

- To disable a specific pop-up tutorial, select the **Don't Show Again** check box before you close it.
- To disable all pop-up tutorials, click the **Help** button on the toolbar and click **Shut Off All Pop-up Tutorials**.
- To enable all pop-tutorials after you have shut off one or more, click the **Help** button on the toolbar and click **Reset All Pop-up Tutorials**.

## **Control Panel**

If you want to	Use this tip
Zoom the map out/in quickly	Drag the map cursor in an up-left direction to zoom the map out or drag it in a down-right direction to zoom the map in.
Pan the map quickly	Position your cursor on the edge of the map; it becomes a white hand that you can use to drag the map to the new location.
Update the coordinate format that displays in the Control Panel	Update your measurement preferences at any time using the Display tab in the Options dialog box.
View the last map center	Press the middle button in the Compass Rose in the Control Panel to center the map on the previous map view. This button performs an undo function for the last pan or zoom (up to 256 times).

## **Draw**

If you want to	Use this tip
Create a route using a road or trail you have added to the map with the Draw tab	When drawing a routable road/trail, click each existing road it crosses to ensure that you can route on the new road/trail. When you open a track you've imported from your GPS device, join the imported line with existing lines by right-clicking each intersection and selecting Manage Draw/Join.

# Find

If you want to	Use this tip
Modify a Find search result	Right-click a result item in the <b>Find</b> tab to add it as a MapNote, insert it as a stop in your route, copy the information to your clipboard, and so on.
Find a custom point of interest (such as a Chinese restaurant) when performing a GPS radar search in Find	You can use the Custom option to find other categories besides those listed, or to find multiple categories at once.

# **GPS**

If you want to	Use this tip
View a GPS log on the map	Use the Draw tab to import a GPS log file and view it as a line object on the map.

# **Handheld Export**

If you want to	Use this tip
Modify the export area in Handheld Export	When you click Preview, the default export area for the location you selected displays on the map as shaded rectangles. Click <b>Select</b> to confirm the area. To edit the area, click the <b>Select/Edit</b> tool and then click the map to add or remove rectangles to/from the export area.

# Info/NetLink

If you want to	Use this tip
Quickly view information for a location on the map.	Hover your cursor over objects on the map to see information (such as road names, city/town, details about draw objects, etc.) in the status line that appears at the bottom of the map, just above the tab area.

# **Map Data**

If you want to	Use this tip
Learn how to add route and/or draw layers to your project	Add existing route and/or draw files to your project by clicking the <b>Add</b> button and selecting the <b>Draw File</b> or <b>Route File</b> option.

## **Measurement Tool**

If you want to	Use this tip
Measure the area/perimeter of a location on the map	Use the measure tool to draw a polygon on the map and determine its area and perimeter. Just click point-by-point to draw the polygon on the map and then double-click to close the polygon. The area and perimeter display in the center of the polygon.

## **Phone**

If you want to	Use this tip
Get all of the phone listings for a particular road.	You can right-click the map on a road to view phone listings for that road.

**Note** The Phone tab in XMap requires DeLorme Phone Data (available separately from DeLorme). For information on purchasing DeLorme Phone Data, click NetLink, visit www.delorme.com, or call DeLorme Direct Sales at 800-561-5105.

## Print

If you want to	Use this tip	
Stop a page in a multi- page map from printing	If you do not want to print all the pages in a multi- page map, on the Layout graphic, click each page you do not want to print.	

# Route

If you want to	Use this tip	
Reorder inserted stops	Reorder your inserted route stops using the Advanced features in the Route tab.	
Create a route quickly	For quick route creation, right-click the map and select one of the <b>Create Route</b> options or use the Route buttons on the toolbar.	
Reorder the columns in the Route Directions list	Click the <b>Directions</b> list column headers to change the column order.	
Determine the difference between adding and inserting stops and vias	Added stops/vias are placed in the order you add them to the route. Inserted stops/vias are placed in the order you would approach them between the Start and Finish points of the route.	
View information about your second turn	Click the <b>Show Turns</b> button when GPS tracking to view information about the following turn.	

## Tab Area

If you want to	Use this tip
Adjust the size of the tab area	Adjust the size of the tab area by dragging the top or right side of the tab area.
Show, hide, or reorder tabs	Use the Tab Manager option in the Help menu to show, hide, or reorder tabs.
Import or export a tab configuration file	Use the Tab Manager option in the Help menu to import or export a tab configuration file

## Voice

If you want to	Use this tip
Create new speech recognition profiles	You can create a new speech recognition profile for each of your working environments (noisy, quiet) and users (your spouse or child) by clicking the Speech settings in the Windows Control Panel.
Learn how to make the microphone more sensitive to your commands in noisy environments	If there is background noise while you are speaking, it may be helpful to precede all of your voice commands with a special phrase (like Simon Says). See the Voice Settings tab of the Options dialog box.

## **XData**

If you want to	Use this tip
Geoplace XData records that do not have complete address information or were not correctly located during the import process	You can drag a record from the Query list and place it at the correct geo-location on the map.
Add a blank record to your XData database	To add a blank record to an XData database, you must select All Records as the Table Display type.

# Migrating Data to the New DeLorme Docs Locations

In previous versions of XMap, and in other DeLorme products, your projects, draw files, route files, log files, XData files, imagery, and other DeLorme files were stored by default in the DeLorme Docs folder on the root of your computer's C drive unless you specified a different directory during installation.

## In XMap 6:

• The DeLorme Docs folder for all files *except* NetLink downloads is located in the My Documents (Windows XP) or Documents (Windows Vista) folder under your user name.

 The DeLorme Docs folder for NetLink downloads is located in the DeLorme Docs folder under Shared Documents (Windows XP) or Public Documents (Windows Vista). This allows all users on the computer to access NetLink downloads.

# What is Migration?

The migration process does not move your files—it copies them to the new locations. When you are sure your files are working correctly in the new locations, you can delete them from the old locations as long as you are not using them for another DeLorme program. For example, if you have an imagery file you use in a previous version of XMap or in Topo USA or XMap, keep both files. Eventually, all DeLorme programs will be moved to the new file system.

Because all **new** information you add to a project will be saved to the new file location—even if you open it from the old location, we strongly recommend that you migrate your files. If you do not, you could have project data in two DeLorme Docs locations; your project will work correctly, but your data will not all be in the same location.

# **Initial Migration**

The initial migration process, which occurs when you open XMap 6 the first time, copies the data in the existing NetLink Downloads, Symbols, and GPSLogs folders to their new locations as indicated above.

**Note** The automatic migration process copies files from only one existing DeLorme Docs location. If you have more than one DeLorme Docs location on your computer, only one location will be recognized

#### **New Users**

When you installed XMap 6 on your computer, you were asked if you had previously installed a DeLorme program. If you had not, you clicked New User and the application opened. The migration process does not apply to you if you have never installed a DeLorme program on your computer.

## **Existing Users**

When you open XMap 6 for the first time after installation, your computer is scanned for an existing DeLorme Docs directory. If a DeLorme Docs directory is found, any data in the existing NetLink Downloads, Symbols, and GPSLogs folders was copied to their new locations as indicated above.

If an existing DeLorme Docs folder is not automatically detected on your computer, you were asked if you had previously installed a DeLorme program. If you had, you clicked Existing User which opened a dialog box for browsing to the existing DeLorme Docs location and choosing one of the following migration options:

- **Migrate**–The data in the NetLink Downloads, Symbols, and GPSLogs folders was migrated to their new DeLorme Docs locations.
- **Don't Migrate**—The migration was cancelled and any data in the NetLink Downloads, Symbols, and GPSLogs folders was not migrated. You will not be prompted to migrate again.
- **Try Again Later**—Cancels the migration, but you are prompted to migrate the next time you open XMap. You will be prompted each time you open the program until you select Migrate or Don't Migrate.

## **Project Migration**

When you migrate a project, all associated files (routes, draw layers, XData sets, and connections to GIS layers in a database) are moved with it. When you open a project from any location other than the new DeLorme Docs location, you are prompted to migrate it. You can also directly migrate projects.

# To Migrate a Project When You Open It

Use the following steps to migrate a project when you open it.

- 1. Open a project.
- 2. When the Migrate Project dialog box opens, click **Migrate**. The Migration Completed dialog box opens. Go to step 4.
  - If a file with the same name already exists in the new DeLorme Docs location, the Confirm Link to Existing File dialog box opens. Go to step 3.
- 3. Click **Link** to replace the project link to the existing file in the new location and then go to step 4.

OR

Click **Link All** to replace any project links to existing files in the new location and then go to step 4.

OR

Click **Save Copy** to maintain the project link to the current file and save it with a different name.

OR

Click **Cancel** to stop the migration process and roll back any file migration that has occurred up to this point.

4. In the Migration Completed dialog box, click **OK** to open the migrated project. **Note** If there is a problem with the migration, a message will notify you of any corrective action you need to take.

# **To Directly Migrate a Project**

Use the following steps to migrate a project at any time.

1. Click the arrow next to the **Open** button on the toolbar and then click **Migrate Project**.

OR

Click the **Map Data** tab, click **File**, and then click **Migrate Project**. The Migrate Project dialog box opens.

- 2. Browse to the project you want to migrate, click the project, and then click **Migrate**.
- 3. The Migration Completed dialog box opens. Go to step 5.

If a file with the same name already exists in the new DeLorme Docs location, the Confirm Link to Existing File dialog box opens. Go to step 4.

4. Click **Link** to replace the project link to the existing file in the new location and then go to step 5.

OR

Click **Link All** to replace any project links to existing files in the new location and then go to step 5.

OR

Click **Save Copy** to maintain the project link to the current file and save it with a different name.

OR

- Click **Cancel** to stop the migration process and roll back any file migration that has occurred up to this point.
- 5. In the Migration Completed dialog box, click **Open** to open the migrated project or **Close** to close the dialog box and return to your last active project. **Note** If there is a problem with the migration, a message will notify you of any corrective action you need to take.

## **Basic Functions**

## **Zooming In and Out**

You can use the drag and zoom feature, zoom tools, or the <u>data zoom level</u> (Data zoom level is the relationship between what you see in a map view and how it exists in reality. It is the amount of geographic data displayed on a computer monitor. The data zoom level is similar to the traditional fractional relationship expressed on paper maps. For example, 1:24,000, 1:100,000, 1:500,000, and so on.) to quickly change the zoom level of the map view.

#### Notes

- Increasing the data zoom level number shows a smaller geographic area at greater detail.
- Decreasing the data zoom level number shows a larger geographic area at lesser detail.
- If you view both the right (primary) and left (secondary) maps at different data zoom levels, a box (or lines, depending on the current data zoom level) displays on the map that is zoomed out the furthest. The box/lines indicate the area that is in view on the other map. You can disable this feature by clearing the **Show Ref** check box at the top of the secondary map window.
- If you view the right and left maps at the same data zoom level but they are not equally represented on the screen (50/50), a box (or lines) displays on the map that is covering the most screen area. The box/lines indicate the area that is in view on the other map.

## To Drag and Zoom In

Use the following steps to zoom in either the right or left map.

- 1. Click and hold down the left mouse button as you drag the mouse in a down-right direction on the map to encompass the area you want to display. A view box displays on the screen and changes dimension as you move the mouse. A label displays the data zoom level at the current map center.
- 2. Once you reach the map area or data zoom level you want to display, release the mouse button. The area you selected fills the map window, the map recenters, and the map view adjusts to show the appropriate level of detail.
  Tip You can move the view box to another location by pressing the SHIFT key at anytime during this procedure.

#### To Drag and Zoom Out

Use the following steps to zoom in either the right or left map.

- Click and hold down the left mouse button as you drag the mouse in an upleft direction on the map. A staircase with a small circle displays on the screen.
- Continue dragging the mouse in an up-left direction. The small circle moves up the steps, one step per data zoom level. A label displays the data zoom level to the bottom-right of the staircase.
- 3. Once you reach the data zoom level you want to display, release the mouse button. The map view adjusts to display the appropriate level of detail. The map center is retained on your screen.

## To Zoom In/Out Using the Zoom Tools

There are two sets of zoom tools. The zoom tools for the right map are located in the Control Panel. The zoom tools for the left map are located at the top of the left map view.

	Data 3-0	Click the up arrow to zoom out one minor data zoom level at a time. Click the down arrow to zoom in one minor data zoom level at a time.	
Right Map		Click the <b>Zoom In 1</b> tool to increase the detail number to the next full level.	
Controls		Click the <b>Zoom Out 1</b> tool to decrease the detail number to the next full level.	
	<b>"</b> ***	Click the <b>Zoom Out 3</b> tool to decrease the detail number by three full levels.	
Left Map	9-6	Click the plus button to increase the detail number to the next full level.  Click the minus button to decrease the detail number	
Controls		to the next full level.  The data zoom level of the left map displays in the text area to the left of the buttons.	

## Tips

- Press ALT+PAGE UP on your keyboard to zoom out to the next full data zoom level. Press ALT+PAGE DOWN on your keyboard to zoom in to the next full data zoom level.
- Use the mouse wheel to zoom the map in and out. Rotate the mouse wheel to zoom in by individual data zoom level steps or hold the SHIFT key while rotating the mouse wheel to zoom to the next full data zoom level.

## Panning/Centering the Map

Use any of the following methods to pan (move) or center the map.

- Click anywhere on the current map view. The point you click becomes the new map center.
- Double-click a layer name in the GIS workspace.
- When you point near the map edge, a white hand displays. Drag the hand to move the map in that direction.
- Click the **Grab and Pan** button on the toolbar to drag/pan the 2-D or 3-D map in any direction.
- Click anywhere on the overview map. The point you click becomes the new map center. This allows you to traverse greater distances with each mouse click than you can within the main map.

• Point anywhere on the black view box in the overview map window. When the pointer becomes a ‡, drag the view box to the new location.



- Use the search features in the Find tab to center the map on a particular location.
- Assign shortcut keys to pan the map up, down, left, or right in small increments.

# Copying Your Map to the Clipboard

Click the **Copy to Clipboard** button on the Print tab to copy your map to the clipboard. You can then paste it into a graphics program such as Microsoft® Paint or Adobe® Photoshop®.

You can also right-click anywhere on the map and click Copy Map to Clipboard.

# Saving a Map as a Bitmap or JPEG Image

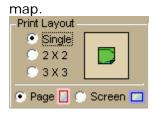
You can save the current map view as a bitmap (.bmp) or JPEG (.jpg) image in all page layout formats: Single, 2 x 2, and 3 x 3. If you select a multi-page format, all the active pages are saved as individual bitmaps or JPEGs. The file name is the specified file name with an incremental page number at the end.

See Printing a Map for information about printing a map without saving it as a file.

#### To Save a Map as a Bitmap or JPEG

Use the following steps to save a map as an image.

- 1. Locate the area on the map that you want to save as an image.
- 2. Click the **Print** tab and then click the **Map** subtab (if it is not already selected).
- 3. Under Map, select Left, Right, or Both.
- 4. Under **Print Layout**, select <u>Page</u> (the map print area is based on the paper size specified in the Setup options) or <u>Screen</u> (the map print area is based on the screen size).
  - The print area for a Page map displays as a red box and the print area for a Screen map displays as a blue box on the overview map.
- 5. If you selected **Page** in step 4, the following options are available.
  - Under **Print Layout**, select a layout option (**Single**, **2 x 2**, or **3 x 3**). The print area displays on both the Map and the Overview Map. In the example below, 2 x 2 is selected. This means the print area encompasses four standard pages at whatever paper size you specified in the Setup options. You can assemble a multipage map into a large



• If you selected 2 x 2 or 3 x 3 and do not want to save all the pages in the multipage map on the map layout graphic, click each page you do not want to save. The page appears dimmed or gray. In the example below, page 4 will not print.



- Verify this is the location and photo zoom you want to save. If not, pan the map to the location and zoom to the level you want.
   Note Changing the photo zoom enlarges/reduces the map features and changes the map area that you save as an image. If you increase the photo zoom level, map text, lines, symbols, etc. are larger and your map area is reduced. If you decrease the photo zoom level, map text, lines, symbols, etc. are smaller and your map area is enlarged. The reduction/enlargement percentages for your photo zoom level display under the Photo Zoom drop-down list.
- If you want to use other tabs and functions but not lose your current print area, print photo zoom, or other settings, select the Lock Print Center check box. This locks the print area and changes the tab label to red.
- Add text or graphics to your map.
- Select the **Print Preview** check box to zoom the map and view the entire area that will be saved as a bitmap image. Clear the check box to return to your previous data zoom level.
- Click the Save button .
   The Save 2D Map Image dialog box opens.
- 7. Type the file name in the **File Name** text box, select to save the file as a .bmp or .jpg from the **Save as Type** drop-down list, select the DPI (dots per inch) value (optional), and click **Save**.

# **Measuring Distance and Area**

Use the **Measure** tool on the toolbar to measure linear distance and area on the map based on the units chosen in the Display tab of the Options dialog box.

The snap function snaps (attaches) the point of a measurement line to a point on a road or another measurement object. This ensures a more accurate measurement of distance or area.

The snap function is essential when measuring area. To measure area, you must completely enclose the area by snapping your finish point to your starting point.

#### **Notes**

- The measure tool is the best way to measure short distances on the map. If you want to measure the distance of a road, try creating a route. If you want to measure a large area on the map, use the area object tools in the Draw tab.
- To disable the auto-snap function, hold down the **ALT** key on your keyboard while using the Measure tool.
- Measure objects (lines and areas) are saved with the current project. When you
  create a new project, the measure objects do not display. If you want the same
  measure objects on your new project, you must recreate them.
- To view information about a measurement line, right-click it and click **Info**. The measurement information is automatically displayed in the Info tab.

#### To Measure Distance or Area

Use the following steps to measure linear distance or area on the map.

- 1. Verify you have the correct units of measure selected in the Display tab of the Options dialog box. For more information, see Setting Units of Measure Preferences.
- 2. On the toolbar, click the **Measure** tool . The pointer changes to .
- 3. Click point-by-point to draw a measurement line on the map. A text box displays next to your pointer indicating the total distance of the measurement taken.
  - **Note** When you pass over a point in a road, measurement line, or measurement area to which you can snap, a yellow circle **②** defines the snap point. Click to snap the point of the measure line to the road or measurement object's point coordinate.
- 4. To end a measurement line, double-click the last point of the measurement line.

OR

Click the last point of your measure line or area and then click the **Measure** tool on the toolbar.

The measure line is a two-pixel wide yellow line and the total length of the line is displayed in a label at each endpoint of the line.

5. To end a measure area, hover over the starting point until the yellow snap circle odisplays, and then double-click the last point to the starting point. The closure area is transparently shaded, and the area and perimeter measurements display.

## **Chart of Supported Coordinate Formats**

These are the supported search formats. Sample coordinates are for Yarmouth, Maine.

**Tip** Examples of search formats are listed in the Advanced search drop-down text boxes along with a history of your most current search criteria.

Coordinate Format	QuickSearch	Advanced Search	
Latitude/Longitude	N 43 48 30, W70 9 52	N 43 48 30	W70 9 52
	N 43 48.4910, W 070	N 43 48.4910	W 070 09.8440

	09.8440		
	N434829.4600, W0700950.6400	N434829.4600	W0700950.6400
	N43-48-30, W70-9-52	N43-48-30	W70-9-52
	N 43:48:29.46, W 70:9:50.64	N 43:48:29.46	W 70:9:50.64
	4348, -7009	4348	-7009
	4348N, 7009W	4348N	7009W
	N4348, W7009	N4348	W7009
	4348n, 7009w	4348n	7009w
	n4348, w7009	n4348	w7009
	4348 N, 7009 W	4348 N	7009 W
	N 4348, W 7009	N 4348	W 7009
	4348 n, 7009 w	4348 n	7009 w
	n 4348 w 7009	n 4348	w 7009
	434829, -700950	434829	-700950
	4348.491, -7009.844	4348.491	-7009.844
	4348.491, -7009.844	4348.491	-7009.844
	434829.46, -700950.64	434829.46	-700950.64
	43.80818333, - 70.16406667	43.80818333	-70.16406667
	43 48.4910 N, 70 09 50.64 W	43 48.4910 N	70 09 50.64 W
	43 48.4910 n, 70 09 50.64 w	43 48.4910 n	70 09 50.64 w
	N 43 48.4910, W 70 09 50.64	N 43 48.4910	70 09 50.64 W
	434829.46 N, 700950.64 W	434829.46 N	700950.64 W
	43, -70	43	-70
MGRS/USNG	19TDJ 06354 51187 19TDJ0635451187 (NAD27)* 19TDJ06355109 19TDJ064511 19TDJ0651	Same as QuickSearch	
UTM/UPS	19T 0406311E 4850964N	Zone: Fas	ting: Northing:
UTIVI/UP3	191 0400311E 4850904IN	Zone: Eas	<u>inorthing:</u>

		19T	0406311E	4850964N
	19T 0406311 4850964	Zone: 19T	<u>Easting:</u> 0406311	Northing: 4850964
	19T / 0406311 / 4850964	<u>Zone:</u> 19T	Easting: 0406311	Northing: 4850964
SPCS	ME-W 0500490 0355150	Zone: ME-W	<u>Easting:</u> 0500490	Northing: 0355150

<sup>\*</sup> Use this example for USNG with non-standard datum.

# **Searching Tips**

When you use the Quick Search subtab on the Find tab or the Route tab to search for a location, you must enter the information in a specific format.

## **Tips**

- Use punctuation as in the examples in the table below.
- Do not use periods.
- Search with the minimum amount of information to increase the number of results. For example, if you are searching for a road, and you are not sure of the spelling, type in part of the name and then scroll through the list of results until you find a match.

This table shows formats for search types.

For this type of search	Use this format	Example	
Address	Street address, City, State	100 Baxter Blvd, Portland, ME	
	Street address, ZIP Code	100 Congress St, 04101	
	Street address, City, State, ZIP Code	100 Congress St, Portland, ME 04101	
City	City, State	Atlanta, Georgia	
ZIP/Postal Code	Within the U.S.: ##### (5-digit ZIP Codes only) or Within Canada: ### 6- digit Postal Codes only)	04096 J8E756	
Minor Point of Interest	POI name, City, State	Subway, Columbus, OH	
Major Point of Interest or	POI/landmark name	Mount Rushmore	
Landmark	POI/landmark name, State	Space Needle, WA	
Latitude/Longitude	See Chart of Supported of Supported Coordinate Formats		

For more information about the Find tab, see the Help topics under Finding a Location on the Map.

# About the Interface

## Tab Area

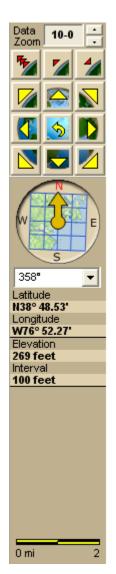
You can access most of the application's functions from the tab area at the bottom of the screen. To access Help for a specific tab, click the **Help** button on the tab. You can also reorder the tabs, show or hide individual tabs or show or hide the tab panel.

- Map Data
- GIS
- Find
- Print
- Phone
- Draw
- GPS
- Voice
- Route
- Profile
- 3-D
- Info
- NetLink
- ImageReg
- Handheld Export
- XData (Hidden by default. Use Tab Manager to view the tab.)

## **Control Panel**

The Control Panel, located to the right of the map view, displays information pertinent to the current map view and map cursor position. It also includes zoom and map pan buttons.

You can customize your interface to show or hide the Control Panel.



**Data Zoom Level**—The current data zoom level of the map view; ranges between 0-0 (maximum zoom out) and 20-0 (maximum zoom in).

**Zoom Tools**—Buttons that quickly zoom out three levels, out one level, or in one level. For more information, see Zooming In and Out.

**Compass Rose**—A group of nine buttons on a globe. The outer buttons have yellow arrows; click one of the arrow buttons to pan the map in that direction. Click the middle button to center the map on the previous map view. This button performs an undo function for the last pan or zoom (up to 256 times).

Map Rotation Tool—The arrow in the graphic indicates True North in relation to the rotated map. Use the Map Rotation Tool to rotate the map in any direction. You can rotate the map by clicking or dragging the square map graphic in the direction you want or by selecting/typing the degree of map rotation from the drop-down list.

**Map Coordinates**—Coordinates for the current map cursor position display based on the units of measurement preferences chosen in the Display tab of the Options dialog box.

**Elevation** and **Interval**—Display in the measurement chosen in the Display tab of the Options dialog box. The data zoom level affects interval display.

**Scale Bar**—Indicates the distance one scale bar unit equals in the measurement chosen under in the Display tab of the Options dialog box.

## Overview Map

The overview map is a small map in the lower-right corner of the screen that offers a wide-angle view of your current map view area. It is approximately three data zoom-levels out from the current map view.

#### **Tips**

- Click anywhere on the overview map and that point becomes the new map center. This allows you to travel greater distances with each mouse click than you can within the larger, current map view.
- Use the black view box in the overview map window to pan the map. Point anywhere on the view box. When the pointer becomes a , drag the view box to the new location.



#### Toolbar

Use the toolbar to perform many functions in the application without navigating through the tab area.

- \*These tools are available only in XMap Editor and XMap Enterprise.
- \*\*These tools appear only when an active database subscription exists.

## **Exchange**

Exchange routes, waypoints, or tracks with a GPS or PDA.
 Note The GPS and Exchange groups are combined into the GPS/Exchange group in XMap Professional.

## GeoTagger

• Combine images and data with GPS information on the map.

## **GIS Layer Management**

- Import a layer into a database from a file or ArcSDE database.
- Add and remove layers from your workspace, delete layers from the source database, or remove a database reference.

## **GIS Tools**

- Select a layer from your workspace as the active layer.
- Save all your changes to the active layer.\*
- Select geometries on the map without risk of accidental editing.
- Analyze the topographical relationship of lines based on their attributes.
- Move or change the size of a geometry.\*
- Edit points in a polygon/line layer.\*
- Rotate a geometry.\*
- Add geometries to a layer.\*
- Build polygon, line, or point geometries by coordinates, angle/distance measurements, or bearing/distance measurements.\*
- Modify the class for a selected geometry or automatically create geometries as with a specified class.\*

## GPS

- Start or stop your GPS connection (also available on the GPS tab).
- Turn GPS NavMode on or off.

**Note** The GPS and Exchange groups are combined into the GPS/Exchange group in XMap Professional.

## Map Navigation

- Recenter the map and zoom it in and out.
- Grab and pan the map in any direction.

## **Map Tools**

- Measure linear distance and area on the map based on the units chosen in the Display tab of the Options dialog box.
- Get information about a location on the map. You can also right-click a location on the map and click **Info**.
- Profile a linear object on the map. You can also select the Profile tab, rightclick the linear object on the map and then click **Profile**.

## MapShare/Portable Maps

- Share maps, route directions, or profiles with friends, family, or associates with MapShare using the Internet.
- Launch the Earth Community Atlas wizard.
- Send static maps to your iPod with Portable Maps.

## Options/Help

- Open the Options dialog box to set GPS, display, map feature, voice navigation, 3-D, handheld export, and keyboard shortcut preferences. This is also available in the tab area on the GPS, 3-D, and Handheld Export tabs).
- Open the Help menu to access the XMap Help topics, Map Legend, and more.

#### Print

- Print your current map screen. See the Print tab for more printing options.
- Quick print with the current Print tab settings.

## Project

• Create, save, and/or open projects. You can also access these options on the Map Data tab.

## Redline/Sync Tools

- Redline/mark up a GIS layer.\*\*
- Refresh subscription layers and send redline layers to the source database.\*\*
- Add all of the layers that are in the active subscription to your workspace.\*\*

#### Route

• Set route start, finish, and stop, and via points and calculate a route. You can also access these options from the Route tab.

#### Undo/Redo

• Undo/redo your last GIS edit and measure tool actions.

## **Notes**

- Not all of the toolbar features are activated by default. To modify which toolbar items you want to view, right-click the toolbar. Toolbar options with selected check box next to them are currently displayed on the toolbar. Click the item to activate or inactivate it on the toolbar.
- In addition to customizing which toolbar features are displayed, you can also reposition the toolbar segments horizontally or vertically. Just drag the vertical

dotted bar that separates each segment to the new location (left, right, up, or down). You cannot move a toolbar segment above the top-most line on the toolbar, customize toolbar groups, or remove toolbar groups from the toolbar.

# Map Legend

# Map Legend

The features that display on the map may display differently depending on which map colors you chose on the Display tab of the Options dialog box. The tables below show the symbolization of each feature, by map color.

#### **Notes**

- Not all features are available at all zoom levels.
- Not all features are available in all datasets.
- High-contrast Color features display the same as Street Color features (except for land, which displays as black).

### **Routable Trail Features**

Topo Colors	Street Colors	Description
		Major Trail
		Important Some trails may cross private property. Contact the applicable trail department to ensure you have the appropriate permissions before following a major trail. For contact information, see Recreational Contacts.
		4-wheel Drive Trail
		Trail/Walkway/Foot Trail

#### **Routable Road Features**

Topo Colors	Street Colors	Description		
		Ferry Passenger		
		Ferry Vehicle		
		Interstate Highway (can also include this symbol: 😇)		
_		Limited Access Road		
_		Local Road		
_		Major Connector, Forest Road		
_	_	Minor Connector		
		Non Limited Access Interstate		
_		Primary State Route		
_	_	State Route (can also include this symbol: 9)		
		Toll Road		
		U.S./National Route (can also include this symbol: ①)		

_	_	Unclassified Road
-		Unimproved Road

## **Land Cover**

Topo Colors	Street Colors	Description			
1000	(2)	Bare Rock or Sand			
		Bureau of Land Management Land			
		Bureau of Mine Reclamation Land			
		Forest, evergreen			
		Forest, mixed			
		Ice or Snowfield			
		Indian Reservation (at data zoom level 11)			
		Indian Reservation (at data zoom level 2 thru 10-7)			
X		Intermittent Water			
		Land			
		Military Area (at data zoom level 11)			
		Military Area (at data zoom level 2 thru 10-7)			
		Mine or Quarry			
		Parks			
$\vee$	>	River/Stream			
988	<b>2</b> //	Transitional Area, Lava, Salt Flats, or Mixed Barren			
		Water			
垫	业	Wetlands			

### **Point Features**

Topo Colors	Street Colors	Description			
À	À	Amusements			
<b>①</b>	<b>₹</b>	Airport (private)			
<b>★</b>	<u>*</u>	Airport (commercial public)			
÷	줖	Airport (general aviation public)			
•	•	Business (Amusement, Recreation, Specialty or Department Store)			
Ä	Ä	Camping (at data zoom level 14)			

Ä	Ä	Camping (at data zoom level 11 thru 13)				
CEM	CEM	Cemetery				
<u> </u>	<u> </u>	Educational Facility				
		Exit, with services (at data zoom levels 10 thru 11-7)				
		Exit, without services (at data zoom levels 10 thru 11-7)				
	<b>(1)</b>	Exit, food (at data zoom levels 12 thru 17)				
0	₿	Exit, gas (at data zoom levels 12 thru 17)				
	Ħ	Exit, lodging (at data zoom levels 12 thru 17)				
	•••	Exit, other (at data zoom levels 12 thru 17)				
<b>&amp;</b>	<u>@</u>	Fast Food				
		Gas				
Н	Н	Hospital				
I	I	Lodging				
•	*	Metropolitan City				
	₩	National Capital (data zoom level 7 thru 10)				
€	€	National Capital (data zoom levels 2 thru 6)				
•		Point of Interest (smaller black square)				
•		Population Center				
1000	ran i	Public Service				
		Religious (buildings)				
田	田	Rest Area with Facilities (at data zoom levels 10 thru 11)				
<del>77.</del>	吞	Rest Area with Facilities (at data zoom level 12)				
#	#	Rest Area without Facilities (at data zoom levels 10 thru 11)				
<del>7</del> .	<del>#</del>	Rest Area without Facilities (at data zoom level 12)				
1	1	Restaurants (general)				
<b>T</b>	T	Restaurants (specialty)				
*	*	Small City				
•	•	State Capital				
<b>⊕</b>	<b>⊕</b>	Unique Natural Feature (at data zoom level 8)				

# **Line Features**

Topo Colors	Street Colors	Description		
A. Carrier		County Boundary		
<del> </del>	<del>-</del>	Dam		
		Game Management District		
<i>6</i>	<b>₽</b>	International Boundary		
_	_	Park Boundary		
		Pipeline		
		Power Line		
+++	+++	Railroad (Abandoned)		
+++	****	Railroad		
-		Runway		
	-	State Boundary		

# **DeLorme Atlas and Gazetteer Symbols**

Symbol	Description			
14	Developed Boat Ramp (at data zoom levels 11 and 12)			
₽	Developed Boat Ramp (at data zoom level 13)			
•	Freshwater Fishing (at data zoom levels 11 and 12)			
<b>C</b>	Freshwater Fishing (at data zoom level 13)			
*	Hunting (at data zoom levels 11 and 12)			
8	Hunting (at data zoom level 13)			
•	Saltwater Fishing (at data zoom levels 11 and 12)			
•	Saltwater Fishing (at data zoom level 13)			
,4	Undeveloped Boat Ramp (at data zoom levels 11 and 12)			
҈	Undeveloped Boat Ramp (at data zoom level 13)			

### Using the Toolbar

# **Showing/Hiding Toolbar Options**

You can customize the toolbar to show the options you use most. You can also activate toolbar options that are not turned on by default.

To modify the toolbar.

- Right-click the toolbar.
   Toolbar options with a selected check box next to them are displayed on the toolbar.
- 2. Click an item to activate or inactivate it in the toolbar.

# **Reordering the Toolbar Options**

To reposition the toolbar segments horizontally or vertically, just drag the dotted vertical bar that separates each segment to the new location (left, right, up, or down). You cannot move a toolbar segment above the top line on the toolbar.

### To Use the GIS Tools

There are many GIS tools available on the toolbar, including tools that allow you to edit geometries, create redline layers, perform COGO editing, and more.

- Click the **Manage Layers** tool to add and remove layers from your workspace, delete layers from the source database, or remove a database reference.
- Click the Import Layers tool to import a layer into a database from a file or ArcSDE database.
- Click the **Selection** tool to highlight geometries on the map without the risk of accidental editing.
- Click the **Edit** tool
   to move or change the size of a geometry.
- Click the Edit Points tool to edit points in a polygon/line layer.
- Click the Rotate tool
   to rotate a geometry.
- Click the **Draw Geometries** tool ( , , or depending on the active layer type) to add points, lines, or polygons to a layer.
- Click the **COGO** tool to place a polygon/line/point by coordinates, angle/distance measurements, or bearing/distance measurements.
- Click the Classification tools ( , or equal depending on the active layer type) modify the classification for a selected geometry.
- Use the **Active Layer** drop-down list to select a layer from your workspace as the active layer.

- Click the Commit Changes tool to save all of the changes you have made to the active layer.
- Click the Undo and Redo tools to undo/redo your last action.
- Click the Redlining tool to mark up a GIS layer.
- Click the **Synchronizing** tool to refresh subscription layers and send redline layers to the source database.
- Click the **Add Synchronized Layers** tool to add all of the layers that are in the active subscription to your workspace.
- Click the Magic Wand tool
   to edit topological lines.

# **To Create New Projects**

To create a new project, click the **New** button on the toolbar. If you made changes to the open project, the Save Changes dialog box opens to ask you if you want to save your changes.

For more information, see Creating and Deleting Projects.

# To Open a Project

To open an existing project:

- 1. Click the **Open** button on the toolbar.
  - Click the arrow next to the **Open** button, and then click **Open Project**. If you made changes to a project that is already open, the Save Changes dialog box opens. **Note** Projects have .xmp extensions and are saved by default in *C:\...\DeLorme Docs\Projects*. The Open File dialog box opens.
- 2. Select the project you want to view and click **Open**. **Note** If the project has not been migrated to the new DeLorme Docs location, you will be prompted to migrate it. Click **Migrate** to create a copy of the file in the new DeLorme Docs location. Click **No** to cancel. For more information about migrating projects, see Migrating Data to the New DeLorme Docs Location.

For more options for opening files, see Opening a Project.

# To Migrate a Project

To migrate an existing project from C:\DeLorme Docs\Projects to C:\...\DeLorme Docs\Projects:

1. Click the arrow next to the **Open** button, and then click **Migrate Project**.



The Migrate Project dialog box opens.

- 2. Browse to the project you want to migrate and click Migrate. After the migration is complete, a confirmation message appears.
- 3. Click **Open** to open the project or **Close** to close the message.

For more information about migrating projects, see Migrating Data to the New DeLorme Docs Location.

# To Save a Project

To save the project that is currently open:

- en the toolbar. 1. Click the **Save** button The Save File dialog box opens.
- 2. Browse to the location where you want to save the project. If you want to rename the project, type a new name in the File Name text box.
- 3. Click Save.

# To Use the Map Navigation Tool

Click the Navigation tool on the toolbar to enable Navigation mode.

- To zoom in, click the map, hold down the left mouse button, and drag down and right. (2-D maps only)
- To zoom out, click the map, hold down the left mouse button, and drag up and left. (2-D maps only)
- To re-center the map, click the map where you want to center it.

### To Print

To print a map using the current settings in the Print tab, click the **Print** button on the toolbar.



For more information, see Printing a Map.

# To Print the Map Screen

To print the current view as it displays on the screen, click the **Print Screen** button



on the toolbar.

## To Share Maps

To share your current map view, a route map and directions, or a profile, click the

MapShare button on the toolbar to open the MapShare Wizard.

MapShare lets you share maps — even 3-D maps, routes, and profiles.

For information on e-mailing maps, routes, and profiles with the MapShare Wizard, click the **Help** button in the MapShare Wizard.

# To Share Online With Eartha Community Atlas

To launch the Eartha Community Atlas (ECA) wizard, click the **ECA** button on the toolbar. You can also access the Eartha Community Atlas website or click here to open the website in a new window.

See Using Eartha Community Atlas for more information.

## To Send Maps to Your Portable Media Player

To send your current map view as multiple static maps to your portable media

player, click the **Portable Maps** button on the toolbar to open the Portable Maps Wizard.

For more information, click the **Help** button in the Portable Maps dialog box or see the Portable Maps tutorial in the application's Help.

### To Create a Route

To set route points using the toolbar:

 Type the location where you want to start your route in the **Start** text box (next to the green **Start** button).
 OR

Click the green **Start** button and then click the location on the map where you want to start your route.

OR

Select an address book entry, a previous location, or your current GPS position from the **Start** drop-down list.

Type the location where you want to end your route in the Finish text box (next to the red Finish button).

Click the red **Finish** button and then click the location on the map where you want to end your route.

OR

Select an address book entry or your current GPS position from the **Finish** drop-down list.

3. Optional. If you want to add a stop or via to your route, click the **Stop** button or the **Via** button and then click the location on the map where you want to add or insert the stop or via. Repeat this step for each stop or via you want to add to your route.

**Note** If the Add option is selected in the Route tab, stops and vias are added in the order they are added to the route. If the Insert option is selected in the Route tab, stops and vias are added in the order they are approached in the route. For more information, see Adding and Inserting Stops and Vias.



**Important** If you have only the left map window open, the route **Start**, **Finish**, and **Stop** buttons on the toolbar and on the Route tab are grayed out. To activate the options, use the map resize tool to expose the right map window.

**Note** To use the current GPS location in a route, you must connect your device to your computer and click the **Start GPS** button on the toolbar or on the GPS tab.

**Tip** Once a route is calculated, you can use the subtabs in the **Route** tab to view route directions, edit a route, and more. Click the **Directions** subtab to view the route directions, the **Advanced** subtab to display the advanced routing options, or click **Back on Track** to add your current GPS position as a stop to the current route.

## To Start/Stop Your GPS Connection

To start or stop your GPS connection, click the **GPS** button on the toolbar.

- If you start a connection and you are using the UMPC option or NavMode, the GPS tab is minimized, but you can show it. For more information, see Customizing the Interface.
- If you start a connection and you are not using the UMPC option or NavMode, the GPS tab area opens so you can monitor your GPS status.

**Note** The GPS button on the toolbar is a toggle button that lets you start your GPS connection if the device is not active or stop the connection if it is active.

# To Exchange Files with a Handheld Device

Use the **Exchange** button on the toolbar (also on the GPS and Handheld Export tabs) to exchange objects such as maps, waypoints, tracks, and routes with a handheld device.

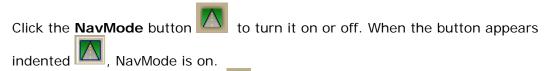
- If you have enabled an Earthmate PN-Series GPS device on your computer, click the **Exchange** button to open the Earthmate PN-Series GPS Exchange dialog. You can switch to another device from this dialog.
- If you have another GPS device, a Palm OS device, or a Pocket PC device, click the **Exchange** button to open the Earthmate PN Series GPS Exchange dialog and then click **Use Other Device**.

For more information on exchanging objects, see Help topics listed under *Using Handheld Devices*.

### To Use GPS NavMode

NavMode—a hands free full-screen view that you can view in 2-D or 3-D — is the default view when you navigate or track with GPS. You can turn off NavMode to display the GPS tab view.

#### To Turn NavMode On/Off



**Note** The button is greyed out unless you have a GPS device plugged in or are playing back a GPS log file.

You can also change your GPS view in the Options dialog box:

- 1. Click the **Options** button on the toolbar and click the GPS tab.

  You can also click the **Options** button on the GPS tab.
- Clear the Use NavMode check box to turn it off, or select the check box to turn it on.
- 3. Click OK.

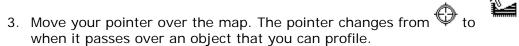
## To Grab and Pan the Map

To drag and pan the 2-D or 3-D map in any direction, click the **Grab and Pan** button on the toolbar.

## To Create a Profile

To create a profile:

- Center your 2-D map on the area with the linear object you want to profile.
   OR
   Center the route you want to profile on the map.
- 2. Click the **Profile** button on the toolbar.



- 4. Select a linear object or route on the map to generate its profile. When the object is selected, it is highlighted and the Profile graph displays in the Profile tab area.
  - **Note** Move your pointer along the elevation profile in the **Profile** graph. The intersection of the vertical and horizontal blue lines travels along the top of the terrain profile. These lines indicate the height and distance of the particular location. A small crosshair follows along the corresponding object on the map.

You can also right-click a linear object or route on the map and click **Profile**. For more information about profiles, see the Help topics under *Profiling Linear Objects*.

### To Measure Distance

Use the following steps to measure linear distances and perimeter/area on the map. For more information, see Measuring Distance and Area.

- 1. Click the **Measure** tool on the toolbar.
- 2. Click point-by-point to draw a measurement line on the map. A text box displays next to your pointer indicating the total distance of the measurement taken.

**Note** When you pass over a point in a road, measurement line, or measurement area to which you can snap, a yellow circle defines the snap point. Click to snap the point of the measure line to the road or measurement object's point coordinate. Press and hold the ALT key on your keyboard to disable snapping.

- 3. To end a measurement line, double-click the last point of the measurement line. The measure line displays as a two-pixel wide yellow line and the total length of the line displays in a label at each endpoint of the line.
- 4. To end a measure area, hover over the starting point until the yellow snap circle <sup>®</sup>displays and then double-click the last point to the starting point. The perimeter measurements display.

### To Get Information About a Location

Use the **Information** button on the toolbar to click a point, symbol, feature, measurement line, track, or area on the map to identify it and view detailed information about it.

Use the following steps to get information about a particular map feature.

- 1. Click the **Information** button.
- Click the map feature you want information for, such as a road, town, measurement line, waypoint, track, draw symbol, or point of interest. The Info tab opens and displays a list of information categories.
   Note Descriptive information may include a name or feature type, length/area, ZIP/Postal Code, town name, county name, state/province, coordinates, and Standard Industrial Classification categories.
- Click the plus sign next to each of the information categories to expand the category to view more detailed information. OR

Right-click in the information box and click **Expand All** to expand all of the information categories. Right-click in the information box again and click **Collapse All** to minimize all of the information categories.

- 4. Optional. Repeat steps 1–3 to get information about another location.
- 5. Optional. Right-click in the information box and click **Print** to print your map feature information.

#### **Notes**

- You can also get information about a location using the right-click option. Just right-click the location and click **Info**.
- The status bar (located above the tab area) displays draw object type, draw file information, point of interest name (if applicable), street name/address,

- highway, city, state/province, and ZIP/Postal Code information for the map location that your cursor is positioned on.
- Some map features (such as campgrounds, national scenic/historic trail information centers, and state parks) display with a blue outline at higher data zoom levels. The blue outline indicates that the feature has a hyperlink to its website. To open the hyperlink, right-click the feature and then click **Open Hyperlink** OR click the URL in the Info tab.

# **To Choose Options**

To open the Options dialog box, click the **Options** button on the toolbar. Use the Options dialog box to set GPS, voice, display, map feature, handheld, 3-D, and keyboard shortcut preferences. An Options button that opens the Options dialog box is also available on the 3-D, Handheld Export, and GPS tabs.

To open the Options menu, click the arrow next to the **Options** button on the toolbar. The following menu options are available:



- Options—Opens the Options dialog box.
- **Tab Manager**—Opens the Tab Manager dialog box where you can show or hide individual tabs and reorder tabs.
- **UMPC Mode**—Allows you to turn the default UMPC view on or off. If UMPC mode is turned on, the check box next to it is selected. Click **UMPC Mode** to turn it on or off. For more information, see Using Small-screen Devices.

You can also customize your interface:

- Show Tab Area Panel—Allows you to show or hide all the tabs. If Show All Tabs is turned on, the check box next to it is selected. Click **Show Tab Area Panel** to show or hide the tab area.
- Show Control Panel—Allows you to show or hide the Control Panel. If Show Control Panel is turned on, the check box next to it is selected. Click **Show Control Panel** to show or hide it.

# To Add Images and Data to a GPS Location

To open the GeoTagger Wizard, where you can combine images and data with GPS

information on the map, click the **GeoTagger** button on the toolbar. For more information, see Getting Started with GeoTagger.

## Customizing the Map and Tab Display

### **Display Options Overview**

The following topics explain how to use the Display options in the Options dialog box:

- Displaying Basic Map Features
- Customizing the Interface
- Customizing the Map Features Preferences
- Changing the Map Colors
- Changing the Map Magnification Level
- Changing How POIs Display on the Map
- Setting Units of Measure Preferences

## Customizing the Interface

You can customize the interface for your application by hiding the tab panel area and the Control Panel. You can also turn UMPC Mode on or off.

### To Customize the Interface

Click the arrow next to the **Options** button



- Click **Tab Manager** to show or hide individual tabs or reorder tabs.
- If the tab panel area is showing and you want to hide it, click Show Tab Area Panel to clear the check box next to it. OR

If the tab panel area is hidden and you want to show it, click Show Tab Area Panel to select the check box next to it.

If the Control Panel is showing and you want to hide it, click Show Control Panel to clear the check box next to it. OR

If the Control Panel is hidden and you want to show it, click Show Control Panel to select the check box next to it.

You can click UMPC Mode to turn the optimized UMPC view on or off. UMPC Mode is on when the check box next to it is selected. For more information, see Using UMPC and Small-screen Devices.

#### **Notes**

- You can also use keyboard shortcuts to hide and show the tab area panel and Control Panel and to optimize the interface for small-screen devices.
- Your settings are saved until you change them.

# **Displaying Basic Map Features**

You can show or hide basic map features on your map.

You can also customize map features and customize the interface.

#### **Notes**

If you cannot make changes to the basic preference check boxes, verify the Use Custom Map Features check box is not selected.

- Click **Use Defaults** to change the map feature settings to the default preferences.
- The options available depend on the datasets you are using.

### **To Select Basic Map Feature Preferences**

Use the following steps to change the basic map feature preferences. Changes made to the map view display almost immediately after selection.

1. Click the **Options** button on the toolbar. OR

Click the arrow next to the **Options** toolbar button to open the menu. Then, click **Options** to open the dialog box.

- 2. Click the Map Features tab.
- Select the check box next to the map features you want to display on the map. OR

Clear the check box next to the map features you want to hide on the map.

- Shaded Relief—Shaded relief becomes visible at data zoom level 6-0 or greater. It simulates the effect of sun shining on terrain features and casting shadows, providing greater depth perception of the image. Lighter shades of gray indicate gentle terrain and darker shades indicate steep terrain. Using shaded relief may slow down the draw time of the map screen as you pan.
- Contours—Contour lines are available at data zoom level 6-0 or greater. Contour lines show the elevation of the land in feet or meters. The closer the contour lines, the greater the slope. The distance between the lines is the contour interval, which is indicated in the Control Panel (distance units are controlled in the Options dialog box).
- Land Cover—Land cover colors are available at all data zoom levels. Colors indicate vegetation and land cover areas on the map such as rock and sand, forests, transitional areas, and wetlands.
- Grids—The Grids option can be used to identify coordinate points on the map. Grid lines automatically adjust for the data zoom level of your map.
- Parks or Reserves—Parks and Reserves are available at data zoom level 7-0 or greater and include areas such as parks, preserves, recreational area and public forests.
- Publicly Managed Lands—Publicly Managed Lands are only available
  when the Bureau of Land Management (BLM) dataset is downloaded
  and installed. The feature includes areas such as lands managed
  through the Bureau of Land Management and displays at all data zoom
  levels.
- Game Management Districts—Wildlife Management Units are only available when the Wildlife Management Units (WMU) dataset is downloaded and installed. The feature includes areas of managed wildlife and game and displays at data zoom level 6-0 or greater.
- USGS Quadrangle Coverage—The USGS 7.5 minute quadrangle coverage is indicated by red lines. These display at data zoom level 8-0 or greater. Quadrangle names display at data zoom level 9-0 and higher. To view quad info such as Orig Date and Quad Order ID

- number (needed when purchasing quads), right-click a point within the quad and then click Info. An information box displays in the lower-right corner of the screen.
- 3DTQ Region Coverage—Displays the DeLorme 3DTQ product CD volume label, which covers each map area at data zoom level 10-0 or greater.
- Map Center Crosshair—The map center crosshair indicates the map center at any data zoom level.
- **Exits**—View exits on primary limited access roads, interstates, and toll roads. Available at data zoom level 10-0 or greater.
- One Ways—One ways display as bright green triangles on roads, pointing toward the direction of travel (most noticeable in large cities). They are available at data zoom level 13-0 or greater.
- **Places (Minor)**—View smaller towns, suburbs, locales, and natural features. Zoom levels vary.
- Roads (Minor)—View secondary roads, local and rural routes, trails, and railroads. Zoom levels vary.
- Points of Interest
  - **Major**—View many different points of interest, including recreational areas, public safety, rest areas, and more.
  - **Minor**—View general points of interest including educational, technology, government, and religious buildings/locations.
  - Business (Major)—View many different travel-related points of interest including hospitals, camping, restaurants, and more.
  - **Business (Minor)**—View general points of interest including small shops and food stores, laundromats, and golfing.
- ZIP-Postal Codes—ZIP/Postal Code boundaries display at data zoom level 8-0 and greater, with ZIP/Postal Code labels displaying at data zoom level 10-0 and greater.
- **Town Borders**—View town borders at data zoom level 10-0 and greater for the following states:

Arkansas Connecticut Illinois Indiana Iowa Kansas	Louisiana Maine Maryland Massachusetts Michigan Minnesota	Mississippi Missouri Nebraska New Hampshire New Jersey New York	North Carolina North Dakota Ohio Pennsylvania Rhode Island South	Vermont Virginia Washington DC West Virginia Wisconsin
			South Dakota	

- **County Borders**—View shaded outlines of U.S. counties at data zoom levels 7-0 or greater.
- International Labels—View country labels at data zoom levels 0-0 through 4-0.
- **Urban Area Color**—Displays a shaded map area in populated regions at data zoom levels 5-0.

3. Click **OK** to commit the change and exit the Options dialog box.

Click **Apply** to commit the change and keep working in the Options dialog box.

# **Customizing the Map Feature Preferences**

You can change the display of a wide variety of map features so you can customize your map to meet your specific needs. You can even customize which POIs display.

### **To Set Custom Map Features**

This is an advanced feature that lets you create a specific, custom set of map features for your map display from hundreds of options. Note that changes are not visible until you click the **Done** button.

- Click the **Options** button on the toolbar.
  - Click the arrow next to the **Options** toolbar button to open the menu. Then, click **Options** to open the dialog box.
- 2. Click the Map Features tab.
- Select the Use Custom Map Features check box and then click Customize Features to display the custom options.
  - **Note** Custom map feature selections override selections in the basic features list.
- 4. To quickly search for a particular type of feature, type the name of the item in the **Search** text box.
  - A list of matching keywords displays and corresponding feature types are listed in the **Search Results** window. Results for the number of keywords and types found also display.

A selected check box indicates the feature displays on the map.

- Select/clear the individual feature check box to show or hide that feature.
- Click the small **None** button to the right of the **Search Results** window to show none of the features listed.
- Click the small **All** button to the right of the **Search Results** window to display all of the features listed.
- Click Only to display only those features listed in the Search Results window.
- Click Exclude to display all features except those listed in the Search Results window.
- 5. To use the map feature tree to select which POIs display on the map, click the plus signs to expand the individual branches. A selected check box indicates the feature type displays on the map.

**Note** Some branches expand further than others. Selecting/clearing a check box at a certain branch of the tree shows/hides all the items below that level.

- Select/clear the individual map feature check box to show or hide that feature.
- Click All to select all map features in the program.

- Click None to select none of the types in the program.
   Note A small number of features cannot be turned off. They are part of the base map display and cannot be changed. This is why certain levels on the tree remain unavailable (appear dimmed or gray).
- Click **OK** to accept the change and exit the Options dialog box.

Click **Apply** to accept the change and keep working in the Options dialog box.

#### Notes

- When you save the current project, the following feature preferences are saved in reference to map features:
  - Major map features preferences
  - o Individual custom feature preferences
- When you create a new project, the current map settings are used. Click Use
   Defaults to return to the default settings.

# **Changing the Map Colors**

When you use a laptop computer while traveling, it can be difficult to see the map display on your screen. This can be especially true at night or on a bright sunny day. Changing your default map colors to high-contrast map colors can make your map display easier to see.

### To Change the Map Colors

Use the following steps to change the map display.

- Click the **Options** button OR

  Options on the toolbar.
  - Click the arrow next to the **Options** toolbar button to open the menu. Then, click **Options** to open the dialog box.
- 2. Click the **Display** tab.
- 3. From the **Map Colors** drop-down list, select **High-Contrast Colors** to make the map display darker for improved in-vehicle visibility, **Street Colors** to emphasize streets and highways on the map, or **Topo Colors** to emphasize contours, parks and public lands, land cover, and so on.
- Click **OK** to accept the change and exit the Options dialog box. OR
  - Click **Apply** to accept the change and keep working in the Options dialog box.

# Changing the Map Magnification Level

If you want to change the size of the map image, but not change the degree of geographic detail on the map, use the magnification settings in the Options dialog box.

### To Change the Map Magnification

Use the following steps to change the map magnification.

Click the **Options** button OR

Options on the toolbar.

- Click the arrow next to the **Options** toolbar button to open the menu. Then, click **Options** to open the dialog box.
- 2. Click the **Display** tab.
- 3. Select a magnification percentage (50%, 75%, 100%, 125%, 150%, 175%, or 200%) from the Magnification drop-down list. **Note** Although the size of the image changes, the degree of geographic detail does not.
- 4. Click **OK** to accept the change and exit the Options dialog box.
  - Click Apply to accept the change and keep working in the Options dialog box.

# Changing How POIs Display on the Map

You can change the data zoom level at which large POI symbols display on the map.

### To Change the Data Zoom Level for Large POI Symbols

Use the following steps to change the data zoom level at which large POI symbols are displayed on the map.

1. Click the **Options** button



- Click the arrow next to the Options toolbar button to open the menu. Then, click **Options** to open the dialog box.
- 2. Click the **Display** tab.
- 3. Select the data zoom level from the Large Symbols At drop-down list.
- 4. Click **OK** to accept the change and exit the Options dialog box.
  - Click **Apply** to accept the change and keep working in the Options dialog box.

#### **Notes**

- The appearance of a POI many change at different data zoom levels.
- The number of points of interest that displays is dependent on the basic map features you selected on the Map Features tab in the Options dialog box. For more information, see Displaying Basic Map Features.

This table shows the actions that may happen if you display major and minor POIs.

If you view large symbols at data zoom level	You will see the following information at data zoom level 13-0	You will see the following information at data zoom level 14-0	You will see the following information at data zoom level 15-0	You will see the following information at data zoom level 16-0	You will see the following information at data zoom level 17-0
14	names and small square symbols	name of the POI and the large symbol			
15	small	name of	name of	name of	name of

	squares only	the POI and a small square symbol	the POI and the large symbol	the POI and the large symbol	the POI and the large symbol
16	N/A	small square symbols only	name of the POI and a small square symbol	name of the POI and the large symbol	name of the POI and the large symbol
17, 18, 19, or 20	N/A	small square symbols and some names of POIs	name of the POI and a small square symbol	name of the POI and a small square symbol	name of the POI and the large symbol

# **Setting Units of Measure Preferences**

You can change the units of measure used to represent how coordinate formats, distance, datum, and bearing listings display. Changing these preferences affects how units of measure display in several areas of the program: such as on the map and in the Control Panel.

As you change your unit of measure preferences, a description of each choice displays in the information box (in the center of the Options dialog box) immediately after you select it.

### To Change the Coordinate Preferences

Changing the coordinate preferences affects the:

- Coordinates display on the Control Panel.
- Coordinate MapNotes.
- Grid label display, if Grids are selected in Map Features.
- Any other place where coordinates display or print.

Use the following steps to change how coordinate measurement units display.

1. Click the **Options** button OR

Click the arrow next to the  ${\bf Options}$  toolbar button to open the menu. Then, click  ${\bf Options}$  to open the dialog box.

- 2. Click the **Display** tab.
- 3. Select the coordinate display format from the **Coordinates** drop-down list.
  - Degrees
  - Degrees, Minutes
  - Deg, Min, Sec
  - UTM/UPS (Universal Transverse Mercator/Universal Polar Stereographic)

- MGRS (Military Grid Reference System)
- USNG (United States National Grid)
- SPCS (State Plane Coordinate System)
   Note When you select SPCS, an additional drop-down box displays for Zone. Select the zone from the list.
- 3. Select the datum from the **Datum** drop-down list.
  - WGS84 (World Geodetic System of 1984)
  - NAD27 (North American Datum of 1927), which also includes OOH (Old Hawaiian) Datum when in Hawaii
  - NAD83 (North American Datum of 1983)
- Click **OK** to commit the change and exit the Options dialog box. OR

Click **Apply** to commit the change and keep working in the Options dialog box.

#### **Notes**

- UTM/UPS and MGRS coordinate systems are best used with NAD27 datum.
   95% of the USGS quads containing UTM grid lines uses the NAD27 datum, which is helpful if you are comparing a map generated from your mapping application to a USGS map.
- If the USNG coordinate system is not matched with NAD83 datum, a warning message displays (unless you selected the Do Not Show This Message Again option).
- If the UTM/UPS or MGRS coordinate system is mismatched to WGS84 datum, a warning message displays (unless you selected the Do Not Show This Message Again option).
- The State Plane Coordinate System originally used NAD27 datum and was measured in statute miles. Some states have updated their systems to WGS84 datum and/or kilometers. If you are working with a site map, verify the datum, distance measures, and zone used and match them in your application.

#### To Change the Distance Preferences

Distance preferences affect how distance and areas display throughout the program. Use the following steps to change the measurement units for distance and area.

- 1. Click the **Options** button on the toolbar and then click **Options**.
- 2. Click the **Display** tab.
- 3. Select the measurement from the **Measurements** drop-down list.
  - Statute Miles (statute feet are used for small distances)
  - Kilometers (meters are used for small distances)
  - Nautical Miles/Feet (statute feet are used for small distances)
  - Nautical Miles/Meters (meters are used for small distances)
- Click **OK** to commit the change and exit the Options dialog box.
  - Click **Apply** to commit the change and keep working in the Options dialog box.

### To Change the Bearing Preferences

Bearing listings are created as the result of creating route directions in the Route tab or from an Advanced (Distance From) search in the Find tab. Bearing refers to the compass direction of a given object measured clockwise in degrees (for example, 30°) or nearest compass point (for example, NNE) and indicated from True North or Magnetic North.

#### Notes:

- Magnetic declination is the difference in degrees between True North and Magnetic North at a specific location.
- The bearing setting does not affect map appearance.

Use the following steps to change the bearing.

- 1. Click the **Options** button on the toolbar and then click **Options**.
- 2. Click the Display tab.
- 3. Select the bearing from the **Bearing** drop-down list.
  - True North—The direction to the north pole. This is the default setting.
  - Magnetic North—The direction that a compass needle points.
- Click **OK** to commit the change and exit the Options dialog box.
   OR
   Click **Apply** to commit the change and keep working in the Options dialog

## Resizing the Map and Tab Areas

You can horizontally and vertically resize the primary (right) map, secondary (left) map, tab area, and overview map with the map and tab area resize tools.

#### Notes

box.

- The tab and overview map window size does not change when you choose another tab.
- Some tab areas that provide search results automatically resize depending on the number of results.
- You can also hide the tab area panel.

### To Resize the Map and Tab Area Using the Drag Method

Use the drag method to horizontally or vertically resize these areas.

1. Point to the frame area between the tab and overview map windows. The pointer becomes a OR

- becomes a ▼
  2. Drag to resize.
- 3. To cancel the resize while dragging, press the ESC key on your keyboard. The size just prior to this resize is restored.

### To Resize the Map Area Using the Resize Tools



The map resize tool runs perpendicular to the tab area. If the secondary and primary maps are both displaying, the resize tool is the bar that separates them. When the bar is moved all the way to the left of the map, only the primary map displays. When the bar is moved all the way to the right of the map, only the secondary map displays.

There are several methods you can use to resize the map area:

- Drag the bar left to expose the area of the primary map you want to see.
- Drag the bar right to expose the area of the secondary map you want to see.
- Click the right arrow on the resize tool once to move the secondary map 1/4
  of the screen width. You can repeat this step until the primary map is no
  longer visible.
- Click the left arrow on the resize tool once to move the primary map 1/4 of the screen width. You can repeat this step until the secondary map is no longer visible.
- Double-click the bar above the right arrow to show only the secondary map.
- Double-click the bar below the left arrow to show only the primary map.
- Double-click the bar between the right and left arrows to display an equal percentage of both the secondary and primary maps.

### To Resize the Tab and Map Area Using the Resize Tools



There are two tab area resize tools. The horizontal resize tool is located above the tab area and lets you adjust the height of the tab area. The vertical resize tool is located between the tab area and the overview map lets you resize the width of the tab area.

### **Using the Horizontal Resize Tool**

- Drag the horizontal bar up/down to expose the tab area you want to see.
- Click the up arrow on the horizontal resize tool once to incrementally increase the tab height. You can repeat this step until the top of the tab area is flush with the bottom of the compass rose in the control panel.
- Click the down arrow on the horizontal resize tool once to incrementally decrease the tab height. You can repeat this step until only the tab names display.
- Double-click the bar to the right of the up arrow to expand the tab height to
  its maximum percentage (if the tab height is at the default mode or higher).
   Note If the tab area is below the default mode, double-click the bar to return
  the tab height to its default percentage.
- Double-click the bar to the left of the down arrow to decrease the tab height to its minimum percentage (if the tab height is at the default mode).
   Note If the tab area is above the default mode, double-click the bar to return the tab height to its default percentage.
- Double-click the bar between the up and down arrows to return the tab height to its default view.

#### Using the Vertical Resize Tool

- Drag the vertical bar left to expose the area of the overview map you want to see.
- Drag the vertical bar right to expose the tab area you want to see.
- Click the right arrow on the vertical resize tool once to incrementally increase the tab width. You can repeat this stop until the overview map is no longer exposed.
- Click the left arrow on the vertical resize tool once to incrementally increase the width of the overview map. You can repeat this step until the tab area is no longer exposed.
- Double-click the bar above the right arrow to show only the tab area.
- Double-click the bar below the left arrow to show only the overview map.
- Double-click the bar between the right and left arrows to return the tab and overview maps to their default views.

# Viewing Two Maps at the Same Time

The split-window lets you view two maps at the same time.

The maps interact as follows:

- If you are viewing both the right and left maps at different data zoom levels, a box (or lines, depending on the current data zoom level) displays on the map that is zoomed out the furthest. The box/lines indicate the area that is in view on the opposite map.
- If you are viewing the right and left maps at the same data zoom level but they are not equally represented on the screen (50/50), a box (or lines) displays on the map that is covering the larger amount of screen area. The box/lines indicate the area that is in view on the opposite map.
- Both windows are centered on the same coordinate position. Panning or rotating in one map causes the same action on both maps.
- The left map window has its own zoom level controls. You can change the zoom level of the left map without affecting the zoom level in the right map window. However, after you adjust the zoom level in the left map window, the zoom tools on the Control Panel incrementally adjust the map. For example, if the left map is at zoom level 6-0 and the right map at zoom level 8-0, and you click the Zoom Out 1 tool, the left map displays at zoom level 5-0 and the right map at 7-0.
- The overview map in the tab area is always associated with the right map window
- Other tab functionality may be affected by use of the split-screen function, as follows:
  - **Draw**—The line and polygon draw tools work in either map window.

    The Select tool highlights the same draw object on both maps and you can then manipulate both objects at the same time. Draw files are created for both windows in the same project.
  - **Route**—You can create routes only in the right window; routes display in both windows.

- GPS—You can log with GPS in the right map window; log playback displays in both windows.
- **3-D**—The 3-D map always displays in the left map window.

# **Showing or Hiding Tabs**

The Tab Manager feature allows you to customize your program by showing or hiding individual tabs. You can access Tab Manager:

- During installation
- After installation using the Tab Manager option in the Options menu
- From the Start menu

#### **Notes**

- If you use Tab Manager while the program is open, you must exit and restart the program to view the tab changes.
- To show or hide the entire tab area panel, click the arrow next to the **Options**

button on the toolbar. If the tab area is showing and you want to hide it, click **Show Tab Area Panel** to clear the check box next to it. If the tab area is hidden and you want to show it, click **Show Tab Area Panel** to select the check box.

#### To Show Individual Tabs

Use the following steps to show tabs using Tab Manager.

 Open XMap, click the arrow next to the **Options** button toolbar, and select **Tab Manager** from the menu.



on the

- From the **Start** menu, point to **Programs> DeLorme>XMap...>Tools**, and then click **Tab Manager**.
- 2. Select the check box next to each tab you want to display in the program.

  Note Click **Default** to show all the tabs in the program in the default order.
- 3. Click OK.
- 4. Exit XMap.
- 5. Open XMap.

### To Hide Individual Tabs

Hiding tabs may significantly increase the startup speed of XMap.

Use the following steps to hide tabs using Tab Manager.

 Open XMap, click the arrow next to the **Options** button toolbar, and select **Tab Manager** from the menu.



on the

From the **Start** menu, point to **Programs> DeLorme>XMap...>Tools**, and then click **Tab Manager**.

2. Clear the check box next to each tab you want to hide in the program. OR

Click **Minimum**. Only the required tabs will display in the program.

**Note** Find, Map Data, Info, GIS, and NetLink are required tabs and cannot be hidden.

- 3. Click OK.
- 4. Exit XMap.
- 5. Open XMap.

# **Importing/Exporting Tab Manager Preferences**

Tab Manager includes a feature that allows you to share your custom tab manager preferences with other XMap users.

### To Import Tab Manager Preferences

Use the following steps to import another user's Tab Manager preferences.

1. If your application is open, click the arrow next to the **Options** button



on the toolbar and click Tab Manager.

OR

From the **Start** menu, point to **Programs> DeLorme>XMap...>Tools**, and then click **Tab Manager**.

2. Click **File** and then click **Import**.

The Import Tab Configuration dialog box opens.

3. Browse to the location of the configuration (preferences) file, select it, and then click **Open**.

Tab Manager displays with the preferences saved in the imported configuration file.

- 4. Click **OK** to close Tab Manager.
- 5. Exit your application.
- 6. Open your application.

### To Export Tab Manager Preferences

Use the following steps to export your Tab Manager preferences as a configuration file.

1. If your application is open, click the arrow next to the **Options** button



on the toolbar and click **Tab Manager**.

OR

From the **Start** menu, point to **Programs> DeLorme>XMap...>Tools**, and then click **Tab Manager**.

- 2. Click File and then click Export.
  - The Export Tab Configuration dialog box opens.
- 3. Type a name for the configuration (preferences) file in the **File Name** text box and then click **Save**. Configuration files are saved by default in *C:\...\DeLorme Docs\Configuration*.
- 4. Click **OK** to close Tab Manager.

# Reordering the Tabs

The Tab Manager feature allows you to customize your program by reordering tabs. You can access Tab Manager:

- During installation
- After installation using the Tab Manager option in the Options menu

From the Start menu

**Note** If you use Tab Manager to make changes while the program is open, you must exit and restart the program to view the tab changes.

#### To Reorder the Tabs

Use the following steps to reorder the tabs with Tab Manager.

- Open XMap, click the arrow next to the Options button toolbar and click Tab Manager.
   OR
   From the Start menu, point to Programs> DeLorme>XMap...>Tools, and then click Tab Manager.
- 2. Click the tab you want to reorder to highlight it.
- 3. Click the up arrow or the down arrow to move the tab to the new position.
- 4. Repeat steps 2 and 3 for each tab you want to reorder.
- 5. Optional. Click **Default** to cancel the reordering process and use the default tab order (showing all available tabs).
- 6. Click OK.
- 7. Exit XMap.
- 8. Open XMap.

## **Using Keyboard Shortcuts**

# Selecting a Keyboard Shortcut Scheme

Your application comes with the following DeLorme keyboard shortcut schemes:

- 3-D Navigation
- Desktop Mapping
- In-vehicle Navigation

You cannot edit DeLorme schemes; however, you can create custom schemes that you can edit. You can create as many additional custom schemes as you need.

### To Select a Keyboard Shortcut Scheme

Use the following steps to select a keyboard shortcut scheme.

- Click the **Options** button on the toolbar.
   OR
   Click the arrow next to the **Options** toolbar button to open the menu. Then,
  - click **Options** to open the dialog box.
- 2. Click the **Keyboard Shortcuts** tab.
- 3. Select a scheme from the **Scheme** drop-down list.
- 4. Click **Apply** to activate the selected scheme.

## Creating a New Custom Scheme

You can create a custom keyboard shortcut scheme for different program uses.

#### To Create a Custom Scheme

Use the following steps to create a custom scheme.

- 1. Click the **Options** button on the toolbar.
  - Click the arrow next to the **Options** toolbar button to open the menu. Then, click **Options** to open the dialog box.
- 2. Click the Keyboard Shortcuts tab.
- 3. Click **File** and then click **New**.
  - The Scheme drop-down list is completed with Custom Scheme# (where # indicates the incremental number for the number of custom scheme files you have created).
  - **Note** If you want to rename the new scheme file, click **File**, click **Rename**, and then type a new name in the **Scheme** text box. Press the ENTER key on your keyboard when finished. The new name displays.
- 4. Assign keyboard shortcuts for the commands that are listed.

# Assigning Keyboard Shortcuts in a Custom Scheme

There are three DeLorme keyboard shortcut schemes that you cannot edit; however, you can create a custom scheme that you can edit with Keyboard Shortcuts tab in the Options dialog box.

### To Assign Keyboard Shortcuts in a Custom Scheme

Use the following steps to edit a custom scheme.

OR



Click the arrow next to the Options toolbar button to open the menu. Then, click **Options** to open the dialog box.

- 2. Click the **Keyboard Shortcuts** tab.
- 3. Select a custom scheme from the **Scheme** drop-down list. Note You cannot edit DeLorme schemes.
- 4. Select the **List** option (if it is not already selected).
- 5. Select the command grouping you want to assign shortcuts to from the Commands drop-down list. If you want assign shortcuts to several groupings, select All Commands.
- 6. Click to select the command you want to assign a shortcut to.
- 7. Click inside the Customize Shortcut text box.
- 8. Press the shortcut key combination on your keyboard that you want to assign for that command.
- 9. Click Assign. The shortcut for that command changes to the combination you assigned and displays as "pending."
- 10. Repeat the steps for each command you want to assign.
- 11. Click **Apply** to save the changes.

Click **OK** to save the changes and close the Options dialog box.

Click Cancel to cancel your pending changes and close the Options dialog box.

#### **Notes**

- You can sort the command list view at any time by clicking the heading you want to sort by (Group, Command, or Shortcut).
- You cannot change the following keyboard shortcut combinations:
  - o ALT+F4 (Close Window)
  - o F1 (Help)
  - ALT+F1 (Help Menu)
  - SHIFT+F10 (Context Menu)
  - CTRL+C (Copy)
  - CTRL+V (Paste)
  - o CTRL+X (Cut)
  - o CTRL+Y (Redo)
  - CTRL+Z (Undo)
  - ALT+M (Set Focus on Map)
- a. You cannot use the following keys when assigning shortcuts:
  - Windows Key
  - Application Key
  - Print Screen

- Scroll Lock
- o Sleep
- o Pause/Break
- Enter
- Caps Lock
- Num Lock
- Spacebar
- Insert
- Backspace
- o Multi-media Keys
- b. You cannot assign a letter or number on its own. For example, you cannot assign a keyboard shortcut with the number **3**; you must use a modifier (such as CTRL or ALT) with letters and numbers.

# Customizing a DeLorme Scheme

You cannot edit DeLorme schemes; however, you can create a copy of a DeLorme scheme that you can modify to fit your needs.

#### To Customize a DeLorme Scheme

Use the following steps to customize a DeLorme scheme.

- 1. Click the **Options** button on the toolbar.
  - Click the arrow next to the **Options** toolbar button to open the menu. Then, click **Options** to open the dialog box.
- 2. Click the **Keyboard Shortcuts** tab.
- Select the DeLorme scheme you want to copy from the **Scheme** drop-down list.
- 4. Click **File** and then click **Copy**. The active scheme changes to Copy of Desktop Mapping#, Copy of In-vehicle Navigation#, Copy of 3-D Navigation#, etc. (depending on the DeLorme scheme you chose to copy).
- 5. Assign keyboard shortcuts for the copied scheme.
- 6. Optional. Rename the scheme.

# Renaming a Custom Scheme

Custom schemes can be renamed to whatever name you choose. You cannot rename DeLorme schemes.

### To Rename a Custom Scheme

Use the following steps to rename a custom scheme.

Click the **Options** button OR

Options on the toolbar.

Click the arrow next to the **Options** toolbar button to open the menu. Then, click **Options** to open the dialog box.

- Click the Keyboard Shortcuts tab.
- 3. Select the custom scheme you want to rename from the **Scheme** drop-down list
- 4. Click File and then click Rename.

The Scheme text box becomes active.

- 5. Type the name in the Scheme text box.
- 6. Click **Apply**. The new name displays.

OR

Press the ENTER key on your keyboard. The new name displays.

ΟR

Press the ESC key on your keyboard to keep the old name.

## Deleting a Custom Scheme

Once you have created a custom scheme, you can delete it at any time. You cannot delete DeLorme schemes.

#### To Delete a Custom Scheme

Use the following steps to delete a custom keyboard shortcut scheme.

1. Click the **Options** button on the toolbar. OR

Click the arrow next to the **Options** toolbar button to open the menu. Then, click **Options** to open the dialog box.

- 2. Click the Keyboard Shortcuts tab.
- Select the custom scheme you want to delete from the **Scheme** drop-down list.
- 4. Click File and then click Delete.
- 5. Click **Yes** when asked if you are sure you want to delete the scheme.

# Importing a Custom Scheme

You can share their keyboard shortcut schemes with other DeLorme users.

### To Import a Custom Scheme

Use the following steps to import a custom scheme.

Click the **Options** button OR

Options on the toolbar.

Click the arrow next to the **Options** toolbar button to open the menu. Then, click **Options** to open the dialog box.

- 2. Click the **Keyboard Shortcuts** tab.
- Click File and then click Import.
   The Import Scheme File dialog box opens.
- 4. Browse to the location where you saved the .keyscheme file, select it, and then click **Open**.

The imported file is now your active scheme.

# **Exporting a Custom Scheme**

You can share their keyboard shortcut schemes with other DeLorme users.

### To Export a Custom Scheme

Use the following steps to export a custom scheme.

- 1. Click the **Options** button on the toolbar.
  - Click the arrow next to the **Options** toolbar button to open the menu. Then, click **Options** to open the dialog box.
- 2. Click the **Keyboard Shortcuts** tab.
- 3. Select the scheme you want to export from the **Scheme** drop-down list.
- Click File and then click Export.
   The Export Scheme File dialog box opens.
- 5. Type a name in the **File Name** text box, browse to the location where you want to save the .keyscheme file, and then click **Save**.

# **Searching For Commands**

The Keyboard Shortcuts tab in the Options dialog box has a Search feature that lets you search for a specific command or command group.

**Note** You can sort the command list view at any time by clicking the heading you want to sort by (**Group**, **Command**, or **Shortcut**).

### To Search For a Command or Command Group

Use the following steps to search for a command or command group.

- 1. Click the **Options** button on the toolbar.
  - Click the arrow next to the **Options** toolbar button to open the menu. Then, click **Options** to open the dialog box.
- 2. Click the Keyboard Shortcuts tab.
- 3. Select the **Search** option.
- 4. In the **Commands** text box, begin typing the name of the command or command group you are searching for. As you type, the list box under the Commands text box displays word matches.

# Viewing All of the Shortcut Keys for a Scheme

The Reference Card option in the Keyboard Shortcuts tab lets you view a complete list of all of the scheme's shortcut keys.

### To View a List of Shortcut Keys

Use the following steps to view a list of shortcut keys for a scheme.

Click the **Options** button OR

Options on the toolbar.

- Click the arrow next to the **Options** toolbar button to open the menu. Then, click **Options** to open the dialog box.
- 2. Click the **Keyboard Shortcuts** tab.
- 3. Select the scheme that contains the shortcut keys you want to view from the **Scheme** drop-down list.
- 4. Optional. To sort the list view, click the heading you want to sort by (**Group**, **Command**, or **Shortcut**).
- 5. Click **Reference Card**.

  The list displays in your default Web browser and is sorted by the same column you selected in step 3.
- 6. Optional. Print the list from your Web browser.

### Tips for printing a reference card from your Web browser

- Use the Print Preview functionality in your Web browser to see if the list will display as you want it to. If you do not like the way the list looks in the preview (for example, the list prints without grid lines in the table or does not print in color), change the advanced print settings in your Web browser.
- If you want to remove the header and footer text from the printout, from the **File** menu, select **Page Setup**. Remove the text and the header and footer text boxes and then click **OK**.
- Changes made to the browser's advanced print settings and page setup affect the printing of all Web pages.

## **Using Projects**

### Map Data Overview

XMap lets you save all of the work that you have done as a single project file so you can open it again later. You can create various map views and save each in a different project.

### What is a Project?

A project includes the current GIS workspace, map center coordinates, the current data zoom level, the current magnification, rotation, preferences, and links to routes or draw layers you have added to it.

As you create routes, draw, and GIS layers, they are added to the currently selected project. Projects are saved by default in *C:\...\DeLorme Docs\Projects*.

Each associated file is saved in its respective folder in the DeLorme Docs directory. For example, a draw layer is saved in *C:\...\DeLorme Docs\Draw*.

### Can I Reuse Draw Layers and Routes in Other Projects?

After you create routes or add your own roads, you may not want to do all of the work again in another project. You can share routes and draw layers between projects using the Add button on the Map Data tab.

### Can I Send Routes or Draw Layers to Another XMap User?

You can package projects, including their routes and draw layers, into one transfer file for convenience. The transfer file facilitates e-mailing, copying project information to other computers, and copying projects between DeLorme programs.

You can use MapShare to share maps, routes, or profiles with non-XMap users. For more information, see To Share Maps.

# Migrating Data to the New DeLorme Docs Locations

In previous versions of XMap, and in other DeLorme products, your projects, draw files, route files, log files, XData files, imagery, and other DeLorme files were stored by default in the DeLorme Docs folder on the root of your computer's C drive unless you specified a different directory during installation.

#### In XMap 6:

- The DeLorme Docs folder for all files *except* NetLink downloads is located in the My Documents (Windows XP) or Documents (Windows Vista) folder under your user name.
- The DeLorme Docs folder for NetLink downloads is located in the DeLorme Docs folder under Shared Documents (Windows XP) or Public Documents (Windows Vista). This allows all users on the computer to access NetLink downloads.

#### What is Migration?

The migration process does not move your files—it copies them to the new locations. When you are sure your files are working correctly in the new locations, you can delete them from the old locations as long as you are not using them for another DeLorme program. For example, if you have an imagery file you use in a previous

version of XMap or in Topo USA or XMap, keep both files. Eventually, all DeLorme programs will be moved to the new file system.

Because all **new** information you add to a project will be saved to the new file location—even if you open it from the old location, we strongly recommend that you migrate your files. If you do not, you could have project data in two DeLorme Docs locations; your project will work correctly, but your data will not all be in the same location.

### **Initial Migration**

The initial migration process, which occurs when you open XMap 6 the first time, copies the data in the existing NetLink Downloads, Symbols, and GPSLogs folders to their new locations as indicated above.

**Note** The automatic migration process copies files from only one existing DeLorme Docs location. If you have more than one DeLorme Docs location on your computer, only one location will be recognized

#### **New Users**

When you installed XMap 6 on your computer, you were asked if you had previously installed a DeLorme program. If you had not, you clicked New User and the application opened. The migration process does not apply to you if you have never installed a DeLorme program on your computer.

#### **Existing Users**

When you open XMap 6 for the first time after installation, your computer is scanned for an existing DeLorme Docs directory. If a DeLorme Docs directory is found, any data in the existing NetLink Downloads, Symbols, and GPSLogs folders was copied to their new locations as indicated above.

If an existing DeLorme Docs folder is not automatically detected on your computer, you were asked if you had previously installed a DeLorme program. If you had, you clicked Existing User which opened a dialog box for browsing to the existing DeLorme Docs location and choosing one of the following migration options:

- **Migrate**—The data in the NetLink Downloads, Symbols, and GPSLogs folders was migrated to their new DeLorme Docs locations.
- Don't Migrate

  —The migration was cancelled and any data in the NetLink

  Downloads, Symbols, and GPSLogs folders was not migrated. You will not be
  prompted to migrate again.
- **Try Again Later**—Cancels the migration, but you are prompted to migrate the next time you open XMap. You will be prompted each time you open the program until you select Migrate or Don't Migrate.

### **Project Migration**

When you migrate a project, all associated files (routes, draw layers, XData sets, and connections to GIS layers in a database) are moved with it. When you open a project from any location other than the new DeLorme Docs location, you are prompted to migrate it. You can also directly migrate projects.

### To Migrate a Project When You Open It

Use the following steps to migrate a project when you open it.

- 1. Open a project.
- 2. When the Migrate Project dialog box opens, click **Migrate**. The Migration Completed dialog box opens. Go to step 4.

OR

If a file with the same name already exists in the new DeLorme Docs location, the Confirm Link to Existing File dialog box opens. Go to step 3.

3. Click **Link** to replace the project link to the existing file in the new location and then go to step 4.

OR

Click **Link All** to replace any project links to existing files in the new location and then go to step 4.

OR

Click **Save Copy** to maintain the project link to the current file and save it with a different name.

OR

Click **Cancel** to stop the migration process and roll back any file migration that has occurred up to this point.

4. In the Migration Completed dialog box, click **OK** to open the migrated project. **Note** If there is a problem with the migration, a message will notify you of any corrective action you need to take.

### To Directly Migrate a Project

Use the following steps to migrate a project at any time.

Click the arrow next to the **Open** button on the toolbar and then click **Migrate Project**.

OR

Click the **Map Data** tab, click **File**, and then click **Migrate Project**. The Migrate Project dialog box opens.

- 2. Browse to the project you want to migrate, click the project, and then click **Migrate**.
- 3. The Migration Completed dialog box opens. Go to step 5.

If a file with the same name already exists in the new DeLorme Docs location, the Confirm Link to Existing File dialog box opens. Go to step 4.

4. Click **Link** to replace the project link to the existing file in the new location and then go to step 5.

OR

Click **Link All** to replace any project links to existing files in the new location and then go to step 5.

OR

Click **Save Copy** to maintain the project link to the current file and save it with a different name.

OR

Click **Cancel** to stop the migration process and roll back any file migration that has occurred up to this point.

5. In the Migration Completed dialog box, click **Open** to open the migrated project or **Close** to close the dialog box and return to your last active project. **Note** If there is a problem with the migration, a message will notify you of any corrective action you need to take.

## **Managing Data**

### Adding Data and Imagery to XMap

XMap is compatible with a variety of DeLorme datasets and imagery formats. You may have some of these datasets installed on your hard drive, or you may access the data on a DVD.

Whether the data is on a DVD or saved on your hard drive, you can choose to add the data to current and future projects or only the current project.

#### Notes

- When adding third-party imagery formats, such as MrSID (.sid) and GeoTIFF (.tif), a DeLorme .adc file is automatically created in the directory where the data resides. This file is a connection between the original data and the DeLorme application.
- When you add MrSID or GeoTIFF to future projects, you can select the .adc file to automatically add the data. If you select the .sid or .tif extension, an .adc file with the same name is created and you are prompted to overwrite the file name if it exists.

### **Adding Data to Current and Future Projects**

Data that is in current and future projects is considered "base data." If your data is saved on your hard drive, you must update the Base Data settings in the Map Data tab to include that data in your current and future projects.

**Note** If you are accessing data from a DVD, your data is added to every project you create while the DVD is in the DVD drive and it is not necessary for you to follow the steps below.

Use the following steps to add data to current and future projects.

- 1. Click the Map Data tab.
- 2. Create a new or open an existing project.
- Click **Data** and then click **Base Data**.
   The Data Locations dialog box opens listing each of the data sources on your system.
- 4. Click **Add**, select the hard drive location where your saved your data from the Browse for Folder dialog box, and click **OK**. The OK button is enabled when you select a folder containing a file that contains the .adc file of the map data being added.
  - **Note** Your hard drive location may already be listed in the Data Location dialog box, but the check box for that location might not be selected. Ensure all of the data locations you want to display in your current and future projects have selected check boxes.
- 5. Click Done.

#### Adding Data to the Current Project

You can choose to add data to only the current project if the data is saved on your hard drive. Any data on a DVD in your DVD drive displays in your projects as long as the DVD is in the drive.

Use the following steps to add data to the current project.

1. Click the Map Data tab.

- 2. If the project you want to add data to is not displaying, open the project.

  Note To verify the project you want is displaying, check the title bar. The project name displays directly after the product name.
- Click **Data** and then click **Add**.
   The Add Data to Maps dialog box opens.
- 4. Browse to the folder where the file you want to add is located and click the file to select it.
- 5. Select the map you want to add the file to (primary, secondary, or both) from the **Add To** drop-down list.
- 6. Click **Add**. The file is added to the current project under the selected map. **Note** If you add a file to a project and later update the file, the file is updated in every project you have added to.
- 7. Save your project. Projects have .xmp extensions and are saved by default in *C:\...\DeLorme Docs\Projects*.

#### **Notes**

- For information about migrating data to XMap 6, see Migrating Data to the New DeLorme Docs Location.
- Select the check box next to a file to display it. Clear the check box to hide it.
- Use the Move to Primary Map and Move to Secondary Map buttons to move datasets from one map to the other.

### Adding/Removing Base Data

Use the Base Data function in the Map Data tab to modify the default map data source(s) for your current and future projects.

#### To Add Base Data

Use the following steps to add base data to your current and future projects.

- 1. Click the Map Data tab.
- 2. Create a new or open an existing project.
- Click **Data** and then click **Base Data**.
   The Data Locations dialog box opens and lists each of the data sources on your system.
- Select the check box next to the data source you want to use as a data source for your current and future projects. AND/OR
  - Click **Add**, select a data folder from the Browse for Folder dialog box, and click **OK**.
- 5. Click Done.

### To Remove Base Data

Use the following steps to remove base data from your current and future projects.

- 1. Click the **Map Data** tab.
- 2. Create a new or open an existing project.
- 3. Click **Data** and then click **Base Data**.

  The Data Locations dialog box opens and lists each of the data sources on your system.
- 4. Click to select the data source you want to remove from your current and future projects. Click **Remove**. Click **OK** when the confirmation message

displays. The base data is removed from the list.  $\ensuremath{\mathsf{OR}}$ 

Clear the check box next to the base data you want to remove. The base data is kept in the list, but is removed from the current and future projects.

Click Done.

### **Setting Data as Routing Data**

The first dataset added to your project is the default routing dataset; however, not all datasets support road and direct routing. If you are using more than one dataset in XMap, you can determine which dataset to use for routing.

#### To Set Data to be Used as Routing Data

Use the following steps to assign a dataset for routing.

- 1. Click the **Map Data** tab. In the Primary Map window, the dataset that is currently set to be used for routing displays the routing icon to the left of the dataset name.
- 2. Under **Primary Map**, highlight the dataset you want to assign as your routing dataset.
- Click Data and then click Set as Routing Data.
   The routing data is updated and the routing icon displays next to the dataset highlighted in step 2.
   OR

Right-click the selected dataset and click **Set as Routing Data**. The routing data is updated and the routing icon displays next to the dataset highlighted in step 2.

### Viewing Data from NetLink

When you use NetLink to download imagery and data, the dataset is automatically listed as base data. Downloaded imagery is saved by default in saved in *C:\...\DeLorme Docs\Downloads*. If you purchased a DVD, you can add your imagery and data to your current and future projects by adding it as base data. **Note** Not all data displays at all data zoom levels.

#### To View Imagery

Use the following steps to view imagery.

- 1. Click the Map Data tab.
- 2. Under **Primary Map** and/or **Secondary Map** (depending on the map window you want to use to view the dataset), click the plus sign next to the dataset.
- Double-click the file name.The imagery displays on the map(s).

#### **ADP Data**

If you have an ADP (Aerial Data Packet) dataset from a previous version of a DeLorme application, you still have access to it.

#### To Designate Which ADP Layer Displays on the Map

Once the dataset is listed in the Map Data tab, you can designate which layer you want to display on the map. For example, an ADP dataset may consist of DOQQ data and Sat 10 data. If you select both of these, the last check box you select is the data that displays on the map.

Use the following steps to designate which data layer to display on the map.

- 1. Click the **Map Data** tab.
- Under Primary Map and/or Secondary Map (depending on the map window you want to use to view the dataset), click the plus sign next to ADP Dataset.

Each of your ADP datasets display.

- 3. Click the plus sign next to the ADP location. The contents of the dataset display.
- 4. If the check box next to the data layer you want to display on the map is selected, clear the check box and then select it again. The data layer displays on the map.

OR

If the check box next to the data layer you want to display is cleared, select the check box. The data layer displays on the map.

# **Managing Projects**

### **Creating and Deleting Projects**

You can create different data configurations and save them in separate projects.

### To Create a New Project

When you create a new project, all of the data selected as your base data is available in the new project. For more information, see Adding/Removing Base Data. Use the following steps to create a new project.

- 1. Click the Map Data tab.
- 2. Click **File** and then click **New**.

A new untitled project opens, using the last map view as the default view. Untitled # displays in the title bar after the product name. OR

To name the file and save it, click **File** and then click **Save As**. Type the name in the **File Name** text box and then click **Save**.

**Note** Projects have .xmp extensions and are saved by default in *C:\...\DeLorme Docs\Projects*.

### To Delete a Project

Use the following steps to delete a project.

- On your computer, browse to the location of the project you want to delete.
   Note Projects have .xmp extensions and are saved by default in C:\...\DeLorme Docs\Projects. Projects created in XMap 5.x or earlier are stored in the DeLorme Docs folder on the root of your C drive. For more information, see Migrating Data to the New DeLorme Docs Location.
- Select the file from the file list and then click the **Delete** button on the toolbar or press the DELETE key on your keyboard. OR

Right-click the file in the file list and click **Delete**.

**Tip** You can open a project to verify it is the one you want to delete. For more information, see Opening a Project.

#### Opening a Project

You can open projects created in all versions of XMap.

#### To Open a Project

Use the following steps to open a project.

1. Open a project from the toolbar.

Click the Map Data tab, click File, and then click Open.

The Open File dialog box opens.

Note If you made changes to a project that is already open, the Save Changes dialog box opens. **Note** Projects have .xmp extensions and are saved by default in C:\...\DeLorme Docs\Projects.

2. Click the project and then click **Open**.

The last saved map view for that project displays.

Double-click the project. The last saved map view for that project displays. **Note** If the project has not been migrated to the new DeLorme Docs location, you will be prompted to migrate it. Click Migrate to create a copy of the file in the new DeLorme Docs location. Click No to cancel. For more information about migrating projects, see Migrating Data to the New DeLorme Docs Location.

### Saving a Project

Use the Map Data tab to save each of your projects quickly and easily using one of the following methods:

Click File and then click Save or click the Save button



- o If you have not saved the project before, the Save File dialog box opens. Type a file name in the **File Name** text box and click **Save**.
- If you have saved the project before, the Save dialog box opens. All of the changes made to the current project display as a check list. Select the check box next to each change you want to save and clear the check box next to each change you do not want to save. Click Yes to save the selected changes, click **No** to save the file without the changes, or click **Cancel** to cancel the saving process.
- Click File and then click Save As. The Save File dialog box opens. Type a file name in the **File Name** text box and click Save.

You can also click the **Save** button lon the toolbar.

#### Adding/Removing Files in a Project

As you create new GIS layers, routes, draw layers, XData datasets, and so on, or need to add more datasets to the Map Data tab, they are added to the current project.

#### To Add Files to a Project

Use the following steps to add specific files to a particular project.

- 1. Click the Map Data tab.
- 2. If the project you want to add files to is not displaying, open the project. The contents of the current project display in the primary map window on the right side of the dialog area.

**Note** To verify the correct project is displaying, check the title bar. The project name displays directly after the product name.

3. To add a new route or draw file, click **Data**, click **New**, and then click **Draw File** or **Route File**.

A new draw or route file is added to your project. OR

To add an existing route, draw, .adc, .dcf, .tif, .sid, .txt, or .dds file:

- a. Click **Data** and then click **Add**.
   The Add Data to Maps dialog box opens.
- b. Browse to the folder where the file you want to add is located and click to select it.
- c. Select the map you want to add the file to (primary, secondary, or both) from the **Add To** drop-down list.

#### **Notes**

- .adc, .txt, .tif, and .sid files are the only files you can add to both the primary and secondary maps.
- .sid and .tiff/.tif files must contain spatial reference information to add them. If they do not, an error message displays and you must use a third-party application to specify the spatial reference information.
- d. Click Add.

The file is added to the current project under the selected map. **Note** If you add a file to a project and then edit and save it later, the file is updated in every project you have added it to. This does not apply to raster property settings for .sid and .tiff/.tif data.

4. Save the project. Projects have .xmp extensions and are saved by default in *C:\...\DeLorme Docs\Projects*.

#### To Remove Files in a Project

Use the following steps to add or delete specific files in a particular project.

- 1. Click the Map Data tab.
- 2. If the project you want to remove files from is not displaying, open the project.

The contents of the current project display in the primary map window on the right side of the dialog area.

**Note** To verify the correct project is displaying, check the title bar. The project name displays directly after the product name.

3. To remove a file, select that file from the project list on the Map Data tab and then click the **Remove** button.

**Note** This does not delete the file; it removes it from the selected project.

4. Save the project. Projects have .xmp extensions and are saved by default in *C:\...\DeLorme Docs\Projects*.

#### **Notes**

- Projects created in XMap 5.x or earlier are stored in the DeLorme Docs folder on the root of your C drive. For more information, see Migrating Data to the New DeLorme Docs Location.
- Select the check box next to a file to display it. Clear the check box to hide it.
- Use the Move to Primary Map and Move to Secondary Map buttons to move datasets from one map to the other.

### Renaming a Project

Projects are untitled when you first add them to XMap. When you save the map, you can accept the default name or give it a specific name. When you have many different projects and are trying to locate a specific map view, you may find it more helpful to rename the project.

### To Rename a Project

Use the following steps to rename a project.

- 1. Click the Map Data tab.
- 2. If the project you want to add/delete files for is not displaying, open the project.

The contents of the current project display in the Primary Map window on the right side of the dialog area.

**Note** To verify the correct project is displaying, check the title bar. The project name displays directly after the product name.

- 3. Click **File** and then click **Save As**. The Save File dialog box opens.
- 4. Type the name in the text box and then click **Save**. You now have two files; one with the original name and one with the new name.

## **Using Transfer Files**

### **Using Transfer Files Overview**

This section describes how to create, import, and e-mail a transfer file. You can package projects, including their routes, draw layers, and other contents, into one transfer file for convenience. The transfer file facilitates e-mailing, copying project information to other computers, and copying projects between DeLorme programs. Transfer files do not include map data or GIS data.

### **Creating Transfer Files**

A project and its contents can be packaged into a single file, called a transfer file, to facilitate e-mailing or copying.

You can create a transfer file with or without hyperlinked file attachments. When you create a transfer file with hyperlinked files, you have the option of saving the common directory structure of the hyperlinked files. Saving the directory structure of common files can be helpful when you are sharing and updating transfer files. Transfer files do not include map data or GIS data.

#### To Create a Transfer File

Use the following steps to create a transfer file.

- 1. Click the **Map Data** tab.
- 2. Open the project you want to create as a transfer file.
- 3. Click **File**, click **Transfer**, and then click **Create**. The Create Transfer File dialog box opens.
- 4. In the **File Name** text box, type the file name.

  Transfer files have .dmt extensions and are saved by default in C:\...\DeLorme Docs\Projects.
- 5. Click Create.

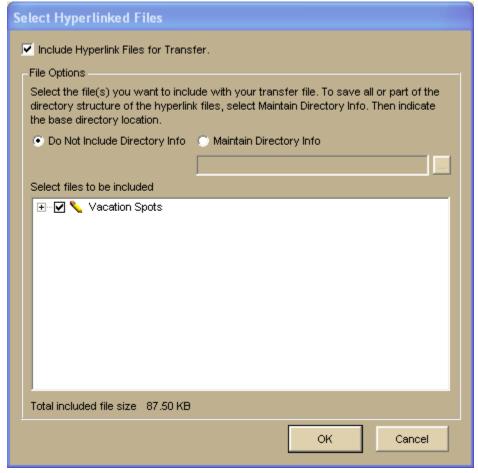
Your file is created and saved in the specified location.

# To Maintain the Directory Structure When Creating a Transfer File with Hyperlinked Files

When you create a transfer file containing hyperlinked files, you can select to maintain part of the directory structure for files with at least a common drive location.

Use the following steps to create a transfer file with hyperlinked files.

- 1. Click the Map Data tab.
- 2. Open the project you want to create as a transfer file.
- 3. Click **File**, click **Transfer**, and then click **Create**. The following dialog box opens.



- 4. Verify the Include Hyperlink Files for Transfer check box is selected. If you do not want to include hyperlink files in your transfer file, clear this check box and go to step 8.
- 5. Under File Options, select Maintain Directory Info to save the directory structure of the hyperlinked files.
  If you do not want to include the directory information for the hyperlinked files in the transfer file, select Do Not Include Directory Info and go to step 7.
- Type the common base directory location of the hyperlinked files (up to the folder location that you want to maintain) in the text box. OR

Click the **Browse** button and browse to the common base directory location.

- 7. Under **Select Files to Be Included**, clear the check box next to each file you do not want to include in your transfer file.
- 8. Click OK.

The Create Transfer File dialog box opens.

In the File Name text box, type the file name.
 Transfer files have .dmt extensions and are saved by default in C:\...\Delorme Docs\Projects.

#### 10. Click Create.

Your file is created and saved in the specified location. The default location for imported transfer file attachments is *C:\...\DeLorme Docs\Transfer Files*.

### **Importing Transfer Files**

You can package a project and its contents into a single file, called a transfer file, to facilitate e-mailing or copying. You can also import transfer files, allowing you to share your projects with other DeLorme users.

You can import a transfer file with or without attached hyperlink files. When you create a transfer file with hyperlinked files, you can choose to maintain the directory information of common files. By doing this, the recipient of the transfer file can keep a similar directory structure as the creator. This is helpful when a transfer file is shared and updated between users. Transfer files do not include map data or GIS data.

#### To Import a Transfer File

Use the following steps to import a transfer file, including transfer files that have been e-mailed to you by other DeLorme users.

- 1. Click the Map Data tab.
- Click File, click Transfer, and then click Import.
   The Import Transfer File dialog box opens. The default location is
   C:\...\DeLorme Docs\Projects. Browse to another location to change it.
   Transfer files have .dmt extensions.
- 3. Click a file to select it.

  The name displays in the File Name text box.
- 4. Click **Import** to finish the import process. The imported project opens and displays in the map view.

#### To Import a Transfer File with Hyperlinked Files

Use the following steps to import a transfer file that includes hyperlinked file attachments.

- 1. Click the **Map Data** tab.
- 2. Click **File**, click **Transfer**, and then click **Import**.
  The Import Transfer File dialog box opens. The *C:\...\DeLorme Docs\Projects* directory displays by default. Browse to another location to change it. Transfer files have .dmt extensions.
- 3. Click a file to select it. The name displays in the File Name text box.
- 4. Click **Import**. The Browse for Folder dialog box opens.

- 5. Select the folder where you want to save the hyperlinked files. The default location is *C:\...\DeLorme Docs\Transfer Files*. Transfer files have .dmt extensions.
- Click **OK**.The imported project opens in the map view.

### E-mailing a Transfer File

You can package a project and its contents into a single file, called a transfer file, to facilitate e-mailing or copying. Transfer files do not include map data or GIS data.

#### To E-mail a Transfer File

This procedure creates an attachment file but does not permanently save a file to *C:\...\DeLorme Docs\Projects*.

Use the following steps to e-mail a transfer file.

- 1. Click the **Map Data** tab.
- 2. Open the project you want to e-mail as a transfer file.
- 3. Click **File**, click **Transfer**, and then click **E-mail**.

  A transfer file is created and your computer's default operating system e-mail program opens with the transfer file included as an attachment.
- 4. Complete the e-mail in accordance with your e-mail program.

# Changing the Properties of Your Data

### Changing the Properties in Your Data Overview

You can adjust the properties of some data categories to accommodate your needs. For example, you can adjust the shaded relief properties to account for the sun shining in a different direction, have contours display at varying densities at particular zoom levels, etc.

Each dataset contains its own sub-categories of data (raster, vector, contours, etc.). Because of this, not all of the property information in this section of the Help will pertain to every dataset.

**Note** It is important to remember that any changes made to the dataset properties are permanent only when saved in a project.

#### Changing Imagery Display

When you use the Map Data tab to add imagery files, such as GeoTIFF, imagery, and ImageReg data, or data and imagery downloads from NetLink, to a map—by default, the image appears on top of any DeLorme vector base map by default. However, you can customize the layering sequence so that selected vector map features (roads, contours, etc.) appear on top of the image. Any added imagery files are listed in the Map Data tree view under the appropriate series.

#### To Change the Properties of an Imagery File

Use the following steps to change the properties of an imagery file.

- 1. Click the Map Data tab.
- 2. Under **Secondary Map** or **Primary Map**, click the plus sign next to the imagery series you want to modify.
- 3. Click the plus sign next to the specific imagery file you want to modify. The types of imagery in the file display.

- 4. Right-click the imagery file and click **Properties**. The Raster Properties dialog box opens.
- 5. Optional. For MrSID and some types of GeoTIFF data, you may be able to select a color to display as transparent (for example, black). To do so, select the **Transparent Color** check box, select a color, and click **OK**. Note that doing so makes the default transparent color (bright pink) show around the imagery.

OR

- If you do not want to select a color to display as transparent, click Next.
- 6. Type the minimum and maximum data zoom range for your custom raster properties in the text boxes.
- 7. Select the raster data position for that data zoom range from the drop-down list.
  - **Note** The raster data position you select includes all of the options above it in the list.
- 8. Click **Add Change** to update your data positioning selections to the map. You must perform this step to apply any change.
- 9. Click Next.
- 10. Drag the gray tab markers to the minimum and maximum data zoom levels at which you want to see the imagery file on the map.
- 11. Click Next.
- 12. Select the check box next to each connection usage you want to include with your raster properties.
- 13. Click Finish.

### **Changing Point Properties**

Use the Properties option on the Map Data tab to change the properties of various map features such as rasters, vectors, shaded relief, contours, points, etc.

**Note** You must select to show points of interest in the Display tab of the options dialog box to view any changes made to the point properties on the map. See Displaying Basic Map Features for information on showing/hiding points of interest.

#### **To Change Point Properties**

Use the following steps to change the properties of point data.

- 1. Click the **Map Data** tab.
- 2. Under **Secondary Map** or **Primary Map**, click the plus sign next to the dataset for which you want to modify the properties.
- 3. Click the plus sign next to the sub-data category.
- 4. Highlight **Map Points**, click **Data**, and then click **Properties**. The Point Properties dialog box opens.

OR

Right-click Map Points and click Properties.

The Point Properties dialog box opens.

5. Under **Set Data Zoom Range For Display**, drag the gray tab markers to the minimum and maximum level you want.

The minimum and maximum zoom range displays above the Set Zoom Range For Display area.

**Note** The Show URLs check box is enabled if your dataset supports showing points as hyperlinks on the map.

- 6. Click Next.
- 7. Review the dataset information and click **Next**, if applicable.
- 8. Select the check box next to each connection usage you want to include with your point properties.
- 9. Click Finish.

The Point Properties for that dataset are modified and are visible on the map. **Note** The point property changes are made only in the current project. You must save your project to retain the property changes.

### **Changing Vector Properties**

Use the Properties option on the Map Data tab to change the properties of various map features such as rasters, vectors, shaded relief, contours, points, etc.

**Note** You must select to show land thoroughfares in the Display tab of the Options dialog box to view any changes made to the vector properties on the map. See Customizing the Map Features Preferences for information on showing/hiding land thoroughfares.

### To Change Vector Properties

Use the following steps to change the properties of vector data.

- 1. Click the **Map Data** tab.
- 2. Under **Secondary Map** or **Primary Map**, click the plus sign next to the dataset for which you want to modify the properties.
- 3. Click the plus sign next to the sub-data category.
- 4. Highlight Vectors, click Data, and then click Properties.

The Vector Properties dialog box opens.

OR

Right-click **Vectors** and click **Properties**.

The Vector Properties dialog box opens.

5. Under **Set Data Zoom Range For Display**, drag the gray tab markers to the minimum and maximum level you want.

The minimum and maximum zoom range displays above the Set Zoom Range For Display area.

- 6. Click Next.
- 7. Select the check box next to each connection usage you want to include with your vector properties.
- 8. Review the dataset information and click **Next**, if applicable.
- 9. Click Finish.

The vector properties for that dataset are modified and are visible on the map.

**Note** The vector property changes are made only in the current project. You must save your project to retain the property changes.

#### **Changing the Contour Properties**

Use the Properties option in the Map Data tab to change the properties of various map features such as rasters, vectors, shaded relief, contours, points, DEM properties, etc.

#### **Notes**

- You must select to show contours in the Display tab of the Options dialog box to view any changes made to the contour properties on the map. See Displaying Basic Map Features for information on showing/hiding contours.
- XMap remembers the last customized contour values. For example, if you
  customize your contour settings and then change the settings to the default, the
  next time you try to customize your contour settings the last saved customized
  values display.

### To Change the Contour Properties

Use the following steps to change the properties of contours.

- 1. Click the Map Data tab.
- 2. Under **Secondary Map** or **Primary Map**, click the plus sign next to the dataset for which you want to modify the properties.
- 3. Click the plus sign next to the sub-data category.
- Right-click Contours and click Properties.
   The Contour Properties dialog box opens (for Contours).
- 5. Select a contour option (Default, High Density, Low Density, or Custom) from the drop-down list.
  - Default—Uses the default values for displaying contours and labels.
  - High Density—Approximately doubles the default values for displaying contours and labels.
  - Low Density—Approximately halves the default values for displaying contours and labels.
  - Custom—Allows you to customize how contours and labels display on the map.
- 6. For Contours, select the data zoom level at which you want labels to begin to display.
- 7. Click Next.
- If you selected Default, High Density, or Low Density in step 5, go to step 9.
  - If you selected Custom in step 5, you can customize the contour display by choosing the distance (in feet or meters) between contours and how many minor (unlabeled) contour lines for every major (labeled) contour line.
    - For a given range of data zoom levels, type the distance (in feet or meters) between contour lines for those data zoom levels.
    - Type the number of minor lines for each major line. For example, type 0 to label every contour line or type 2 to label every third contour line.
       Note Labels display only on major lines beginning at the zoom level that you specified step 6.
    - Click Add/Change to update the contour rules list.
       OR
      - Click **Reset** to reset the settings to what displayed when you first launched the dialog box.

OR

Click **Use Defaults** to use the default values to display contours and labels.

- 9. Click Next.
- 10. Under **Set Data Zoom Range For Display**, drag the gray tab marker to the minimum and maximum level you want.

The minimum and maximum zoom range displays above the Set Zoom Range For Display area.

- 11. Click Next.
- 12. Select the check box next to each connection usage you want to include with your point properties.
- 13. Click Finish.

The Contour Properties for that dataset are modified and are visible on the map.

#### Notes

- The contour property changes are only made in the current project. You must save your project to retain the property changes.
- Selecting Custom changes the Interval section in the Control Panel to read, "Custom."

### **Changing Coordinate Grid Properties**

Use the Properties option on the Map Data tab to change the properties of various map features, such as coordinate grids, rasters, vectors, shaded relief, contours, points, and so on.

You must select to show grids in the Display tab of the Options dialog box to view any changes made to the coordinate grid properties on the map. See Displaying Basic Map Features for information on showing/hiding grids.

### **To Change Coordinate Grid Properties**

Use the following steps to change the properties of coordinate grids.

- 1. Click the Map Data tab.
- 2. Under **Secondary Map** or **Primary Map**, click the plus sign next to the dataset for which you want to modify the properties.
- 3. Click the plus sign next to the sub-data category.
- 4. Highlight Grid Lines, click Data, and then click Properties.

The Coordinate Grid Properties dialog box opens.

OR

Right-click **Grid Lines** and click **Properties**.

The Coordinate Grid Properties dialog box opens.

- 5. Under **Set Data Zoom Range For Displa**y, drag the gray tab markers to the minimum and maximum level you want.
  - The minimum and maximum zoom range displays above the Set Zoom Range For Display area.
- 6. Click Next.
- 7. Select the check box next to each connection usage you want to include with your coordinate grid properties.
- 8. Click Finish.

The Coordinate Grid Properties for that dataset are modified and are visible on the map.

**Note** The coordinate grid property changes are made only in the current project. You must save your project to retain the property changes.

### **Changing USGS Quad Line Connection Properties**

Use the Properties option on the Map Data tab to change the properties of various map features such as USGS quad line connections, rasters, vectors, shaded relief, contours, points, etc.

**Note** You must select to show USGS quadrangle coverage in the Display tab of the Options dialog box to view any changes made to the USGS quad line connection properties on the map. See Displaying Basic Map Features for information on showing/hiding USGS quadrangle coverage.

#### To Change USGS Quad Line Connection Properties

Use the following steps to change the properties of USGS quad line connections.

- 1. Click the Map Data tab.
- 2. Under **Secondary Map** or **Primary Map**, click the plus sign next to the dataset for which you want to modify the properties.
- 3. Click the plus sign next to the sub-data category.
- Highlight USGS Quad Lines, click Data, and then click Properties.
   The USGS Quad Line Connection Properties dialog box opens.
   OR
  - Right-click USGS Quad Lines and click Properties.
  - The USGS Quad Line Connection Properties dialog box opens.
- 5. Under **Set Data Zoom Range For Display**, drag the gray tab markers to the minimum and maximum level you want.
  - The minimum and maximum zoom range displays above the Set Zoom Range For Display area.
- 6. Click Next.
- 7. Select the check box next to each connection usage you want to include with your USGS quad line connection properties.
- 8. Click Finish.
  - The USGS quad line connection properties for that dataset are modified and are visible on the map.
  - **Note** The USGS quad line connection property changes are only made in the current project. You must save your project to retain the property changes.

#### **Changing Draw Connection Properties**

Use the Properties option on the Map Data tab to change the properties of various map features, such as draw objects, rasters, vectors, shaded relief, contours, points, and so on.

#### **To Change Draw Connection Properties**

Use the following steps to change the properties of draw objects.

- 1. Click the Map Data tab.
- 2. Under **Secondary Map** or **Primary Map**, click the plus sign next to the draw file for which you want to modify the properties.
- 3. Right-click the draw file and click **Properties**. The Draw Connection Properties dialog box opens.
- 4. Under **Set Data Zoom Range For Display**, drag the gray tab markers to the minimum and maximum level you want.
  - The minimum and maximum zoom range displays above the Set Zoom Range For Display area.
- 5. Click Next.
- 6. Select the check box next to each connection usage you want to include with your draw connection properties.
- 7. Click Finish.

The Draw Connection Properties are modified and are visible on the map.

**Note** The draw connection property changes are made only in the current project. You must save your project to retain the property changes.

### **Changing the Raster Properties**

Use the Properties option on the Map Data tab to change the properties of various map features such as rasters, vectors, shaded relief, contours, points, DEM properties, etc.

**Note** You must select to show images in the Display tab of the Options dialog box to view any changes made to the raster properties on the map. See Customizing the Map Features Preferences for information on showing/hiding images.

### **To Change Raster Properties**

Use the following steps to change the raster properties.

- 1. Click the Map Data tab.
- 2. Under **Secondary Map** or **Primary Map**, click the plus sign next to the dataset for which you want to modify the properties.
- 3. Click the plus sign next to the sub-data category.
- 4. Right-click **Quad Rasters** and click **Properties**. The Raster Properties dialog box opens.
- 5. Under Set Data Zoom Range For Display, drag the gray tab marker to the minimum and maximum level you want.
  The minimum and maximum data zoom range displays above the Set Data Zoom Range For Display area.
- 6. Click Next.
- 7. Type the minimum and maximum data zoom range for your custom raster properties in the text boxes.
- 8. Select the raster data positions from the drop-down list for that data zoom range.
  - **Note** The raster data position you select also includes all of the options above it in the list.
- 9. Continue to enter data zoom ranges and choose a position for each range.
- 10. Click **Add Change** to update your data positioning selections to the map. **Note** You must perform this step to apply any change.
- 11. Optional. Click **Use Default** to use the default zoom range and data positioning options.
- 12. Click Next.
- 13. Review the dataset information and click **Next**, if applicable.
- 14. Select the check box next to each connection usage you want to include with your raster properties.
- 15. Click Finish.

The Raster Properties for that dataset are modified and are visible on the map.

**Note** The raster property changes are only made in the current project. You must save your project to retain the property changes.

### **Changing the Shaded Relief Properties**

Use the Properties option on the Map Data tab to change the properties of various map features such as rasters, vectors, shaded relief, contours, points, etc.

**Note** You must select to show shaded relief in the Display tab of the Options dialog box to view any changes made to the shaded relief properties on the map. See Displaying Basic Map Features for information on showing/hiding shaded relief.

### To Change the Shaded Relief Properties

Use the following steps to change the properties of shaded relief.

- 1. Click the Map Data tab.
- 2. Under **Secondary Map** or **Primary Map**, click the plus sign next to the dataset for which you want to modify the properties.
- 3. Click the plus sign next to the sub-data category.
- Right-click Shaded Relief and click Properties.
   The Digital Elevation Model (DEM) Properties dialog box opens (for Shaded Relief).
- 5. Select the direction from which you want the sun to shine for displaying the shaded relief from the **Sun Bearing** drop-down list.
- 6. Select how many degrees you want the sun to be above the horizon from the **Sun Inclination** drop-down list.
- 7. Under **Brightness Range**, drag the gray tab markers to the minimum and maximum levels you want.
- 8. Optional. Click **Reset** if you have previously changed your shaded relief properties and want to return to the settings which were in effect before you opened the Properties dialog.
- 9. Optional. Click **Use Defaults** to change to the product defaults.
- 10. Click Next.
- 11. Under **Set Data Zoom Range For Display**, drag the gray tab markers to the desired minimum and maximum levels.
  - The minimum and maximum zoom range displays above the Set Zoom Range For Display area.
- 12. Click Next.
- 13. Select the check box next to each connection usage you want to include with your shaded relief properties.
- 14. Click Finish.

The Shaded Relief Properties for that dataset are modified and are visible on the map.

**Note** The shaded relief property changes are made only in the current project. You must save your project to retain the property changes.

### Changing the Radio Coverage Ellipses Properties

Use the Properties option on the Map Data tab to change the properties of various map features such as radio ellipses, rasters, vectors, shaded relief, contours, points, etc.

### To Change the Radio Coverage Ellipses Properties

Use the following steps to change the properties of radio coverage ellipses.

- 1. Click the **Map Data** tab.
- 2. Under **Secondary Map** or **Primary Map**, click the plus sign next to the dataset for which you want to modify the properties.
- 3. Click the plus sign next to the sub-data category.

Highlight Radio Coverage Ellipses, click Data, and then click Properties.
 The Ellipse Connection Properties dialog box opens.

Right-click Radio Coverage Ellipses and click Properties.

The Ellipse Connection Properties dialog box opens.

- 5. Under **Set Data Zoom Range For Display**, drag the gray tab markers to the minimum and maximum level you want.
- 6. Click Next.
- 7. Select the check box next to each connection usage you want to include with your properties.
- 8. Click Finish.

The Radio Coverage Ellipse Connection Properties for that dataset are modified and are visible on the map.

**Note** The radio coverage ellipse property changes are made only in the current project. You must save your project to retain the property changes.

### **Changing the Elevation Properties**

Use the Properties option on the Map Data tab to change the properties of various map features such as elevations, rasters, vectors, shaded relief, contours, points, DEM properties, etc.

#### To Change the Elevation Properties

Use the following steps to change the properties of elevation.

- 1. Click the Map Data tab.
- 2. Under **Secondary Map** or **Primary Map**, click the plus sign next to the dataset for which you want to modify the properties.
- 3. Click the plus sign next to the sub-data category.
- Right-click Elevation and click Properties.
   The Digital Elevation Model (DEM) Properties dialog box opens (for Elevation).
- Select a priority (1-100) from the **Priority** scroll list.
   **Note** When the program has more than one elevation connection, the connection with the highest priority takes precedence in areas where there is coincident data.
- 6. Select the data zoom level at which you want elevations to begin to display.
- 7. Click Next.
- 8. Under **Connection Usages**, select or clear the appropriate check boxes to show or hide elevation data.
- Click Finish.

The Elevation Properties for that dataset are modified and are visible on the map.

**Note** The elevation property changes are made only in the current project. You must save your project to retain the property changes.

#### **Changing XData Dataset Properties**

Use the Properties option on the Map Data tab to change the properties of various map features such as XData datasets, radio ellipses, rasters, vectors, shaded relief, contours, points, etc.

### To Change the XData Dataset Properties

Use the following steps to change the properties of XData datasets.

- 1. Click the **Map Data** tab.
- 2. Under **Secondary Map** or **Primary Map**, click the plus sign next to the XData dataset for which you want to modify the properties.
- Highlight the dataset name, click **Data**, and then click **Properties**.
   The User Database Connection Properties dialog box opens.
   OR
  - Right-click the XData dataset and click **Properties**. The User Database Connection Properties dialog box opens.
- 4. Under Set Data Zoom Range For Display, drag the gray tab markers to the minimum and maximum level you want. The minimum and maximum zoom range displays above the Set Zoom Range For Display area.
- 5. Click Next.
- 6. Select the check box next to each connection usage you want to include with your properties.

Note Select the Include in Name Search check box to search for the contents of your XData dataset using the Find tab (additional address information is required). If you select the Add to World Placename Dictionary check box in addition to the Include in Name Search check box, you can use the Find tab to search the contents of your XData dataset without providing additional address information.

7. Click Finish.

The properties for that XData dataset are modified and are visible on the map.

**Note** The property changes are made only in the current project. You must save your project to retain the property changes.

# **Working With GIS**

### **GIS Overview**



The topics that are in the *Working with GIS* Help section cover functionality that is included in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise. Be sure to check the important note at the top of each topic to see if its content pertains to your version of XMap.

With the GIS tab, you can view and analyze the data in your ESRI files (.shp, .e00), MapInfo (.mif, .tab), AutoCAD (.dxf, .dwf, dwg), OGIS Geographic Markup Language files (.gml, .xml), Geocode Type files (.asc, .csv, .dbf, .txt, .tab, .mdb, .xls), XData datasets (.dds), Draw files (.an1), or DeLorme OpenSpace transfer files (.openspace) on the map. Once the data is imported as a layer, you can choose to classify, symbolize, and label the data in the layers to your specifications. You can also:

- Create a database on a network server to share data among group members.
- Create attribute queries using the fields in your layer.
- Create spatial queries between layers.
- Add fields to your layer.
- Create a new layer— a new empty layer or a new layer based on an existing layer, query results, or map selections.
- Use XMap Web to publish your newly analyzed data and let other registered users view the information.
- Send GIS data to an Earthmate® PN-Series GPS device.
- Create default option settings for layers and queries.
- And much more!

The GIS tab has five subtabs:

Subtab Name	Description
Workspace	The Workspace subtab is the primary area for using the GIS tab. You can use the tools in the Workspace subtab to manage and analyze layers in your databases as well as manage the databases themselves. See also, Handling Disconnected or Deleted Layers.
Attributes	The Attributes subtab has two different views, the Datasheet View and the Design View. The Datasheet View displays the fields that are selected to be "visible" in the Design View and lets you edit the attribute values. The Design View lets you edit properties of the fields, view field metadata, create fields, and import and link additional fields to your layer.
Query	The Query subtab lets you create custom attribute and spatial queries to perform analysis on your layers. You can also rename, save, copy, delete, and symbolize custom queries in the selected layer.

Layering	The Layering subtab lets you move the layers in your workspace above, below, or equal to other layers and/or the standard DeLorme data layers. Moving a layer up in the list helps to ensure the layer will be visible on the map.
Check- out/in	The Check-out/in tab lets you check out/reserve portions of layers for editing outside of the source database and then check them back in, updating the source layer.
Registration	The Registration tab appears when you import a CAD layer that has no spatial reference to the Earth's surface. The tab functions the same as the ImageReg tab by allowing you to place control points between the unregistered layer (in the left map) and the corresponding location on the ground (in the right map).

**Note** If a shared layer in a single database is being manipulated by more than one user at the same time, any analysis of that layer may produce unpredictable results.

# **Handling Disconnected or Deleted Layers**

When a layer is disconnected or deleted, a red exclamation point (disconnected) or a red X (deleted) displays next to the layer name in the Workspace.

This happens if the database the layer was connected to has been moved or deleted or if the local source is unavailable (for example, if the database is on a laptop computer that is turned off, the connection will be broken).



You can try to refresh the connection, establish a new connection, or remove the disconnected or deleted layer from the Workspace.

 To refresh the connection for all layers, click the Layers button and click Refresh All Layers.

OR

To refresh the connection for specific layers; highlight the layers, right-click the highlighted area, and click **Refresh Selected Layers**.

 To reconnect all layers to the original database or to connect them to a new database, click the Layers button and click Reconnect. The Connect Layers dialog box opens.

OR

To reconnect/connect specific layers, highlight the layers, right-click the highlighted area, and click **Reconnect**. The Connect Layers dialog box opens.

To remove the active layer, click the Layers button and click Remove.
 OR

To remove specific layers, highlight the layers, right-click the highlighted area, and click **Remove**.

# **GIS Options**

### **GIS Layer Options**

You can customize the default settings for managing GIS layers.

### To Set GIS Layer Options

Use the following steps to create default settings for GIS layers.

- Click the Options button
   OR
   Click the arrow next to the Options toolbar button to open the menu. Then, click Options to open the dialog box.
- 2. Click the GIS tab, and then click the Layers subtab.
- 3. Set the following options:
  - Add imported layers to Workspace
    –Select this check box to automatically add imported layers to the Workspace subtab.
  - Show imported layers on map—If you selected the above check box, select this check box to show layers on the map after they are imported to the Workspace subtab.
  - Show layers added from Manage Layers on map—Select this check box to show layers on the map when you add them from the Manage Layers dialog box.
  - **Zoom map when centering on points**—Use the drop-down list to select the zoom level to use when you double-click a point geometry to center it on the map in the Attributes subtab Datasheet View.
  - Default attribute records filter—Use the drop-down list to select the
    default setting for the Show drop-down list on the Attributes subtab for
    layers added to the Workspace. You can manually change the filter
    after a layer is added to Workspace. Options are Mag Region (default),
    All, and Toolbar Select.
  - Refresh attribute records for Map Region filter—Select this check box to automatically refresh the Attributes subtab Datasheet View when the map extent changes and Map Region is selected in the Show drop-down list. The Map Region filter hides all attribute records whose map bounding region (MBR) is not currently within the map window.
  - Large layer definition (# of geometries)—Type the minimum number of geometries a layer must include to define it as a large layer. When a layer includes at least that number of geometries, XMap will handle the layer differently to improve processing speed. For example, the map will not zoom to the location of the geometries and the count function for query results is suppressed. The default number of geometries for a large layer is 50,000.
  - **Geometry selection color**—Click the button to open the Color dialog box and click the color for selection highlights on the map. Select
    - geometries with the Selection Tool in the toolbar or by selecting records on the Attributes subtab in datasheet view.

### **GIS Query Options**

Use the Query subtab on the GIS tab in the Options dialog box to create default settings for managing queries.

**Note** Changes to query options apply only to the queries you create after you make the changes.

#### To Set GIS Query Options

Use the following steps to create default settings for GIS queries.

- Click the **Options** button on the toolbar.
  - Click the arrow next to the **Options** toolbar button to open the menu. Then, click **Options** to open the dialog box.
- 2. Click the GIS tab, and then click the Queries subtab.
- 3. Set the following options:
  - **Zoom map to query results**—Select this check box to zoom the map to show the results of a query.
  - Count results when running query—Select this check box to show a count of the results in the Query Results area on the Query subtab when you run a query.
  - Attribute effect—Use the drop-down list to select the default attribute effect of a new query for any layer. Options are Highlight, Filter, and None.
  - Map effect—Use the drop-down list to control the default map effect of a new query for any layer. Options are Highlight, Filter, and None.

# **Using Database Manager**

### **Database Manager Overview**

Database Manager delivers essential tools for DeLorme OpenSpace database management. Its easy-to-use interface allows database administrators to add new SQL server connections, add server account users, create databases and add users, modify database permissions, create database subscriptions, and more. You can open the Database Manager from the GIS tab or from the XMap GIS install directory.

The following topics are covered in this section.

Connecting to a Server

Adding a User to a Server

Disconnecting from/Reconnecting to a Server

Removing a Server

Creating a New Database

Attaching a Database

Adding/Removing a Database User

Activating/Deactivating a Database

Deleting a Database

**Database User Roles** 

Creating User Subscriptions

XMap Database Limitations

Backing Up a Database Restoring a Backed Up Database

### Connecting to a Server



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

You can use Database Manager to connect to single or multiple SQL servers.

#### To Connect to a Server

Use the following steps to connect to a server with Database Manager.

- 1. Click the GIS tab.
- 2. Click the Workspace subtab if it is not selected.
- 3. Click **DB Manager** to open Database Manager.
- 4. From the **Server** menu, click **New Connection**. The Connect dialog box opens.
- 5. Type the name of the server in the Server text box. Note If SQL Server was installed on your local machine, type localhost\xmap6 (or localhost\delormemapping if SQL Server was installed in a previous version of XMap). If you are connecting to a remote server, see your Database Administrator to obtain the server name information.
- 6. Select the authentication method; Windows Authentication or SQL Server Authentication.
- 7. If you selected SQL Server Authentication, type the appropriate login name and password in the applicable text boxes.
- 8. Click Connect.

#### Adding a User to a Server



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

Once you connect to a SQL server, you can give users access to the databases on the server. The Server Administrator can modify a user's role on that server to be Server User (default), Database Creator, or Server Administrator.

### To Add a User to a Server

Use the following steps to add a user to a server.

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not selected.
- 3. Click **DB Manager** to open Database Manager.
- 4. On the left side of the window (tree view), click the server to which you want add a new user.
- 5. From the **Server** menu, click **New User**. The Add Server Account dialog box opens.
- 6. Type the individual's network user name in the **User Name** text box.

7. If you are using Windows Authentication, select that option and then type the user's network domain.

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If you are using SQL Server Authentication, select that option and then type and confirm a password for that user in the applicable text boxes.

- 8. Click OK.
- 9. On the left side of the window (tree view), expand the server menu and click **Server Users**.

A list of all of the users who have access to the server displays on the right side of the window.

- 10. To change a user's role for that server, find the name in the list and click the System Role. Double-click to select a role (Server User, Database Creator, or Server Administrator) from the drop-down list.
  - Server Users have limited access to the server. They can log in and access any databases that they have been granted access to, but they cannot create or delete (drop) databases. Their permissions on each OpenSpace database are governed by the database role they have been assigned.
  - Database Creators can log in to the server and create databases. Database creators have full access to the databases that they create, including deleting the databases. Their database role on their own OpenSpace databases is automatically XMap Owner. Their permissions on OpenSpace databases that they did not create are governed by the database role they have been assigned.
  - **Server Administrators** have full access to the server and any database on the server regardless of their database roles. They can add and remove server users and assign server roles to users.

**Tip** Users can modify their SQL Server Authentication passwords at any time using the Change Password feature in Database Manager.

### Disconnecting from/Reconnecting to a Server



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

Use Database Manager to disconnect a server or completely remove the connection. Connected servers display in Database Manager with a green arrow next to the server icon. Disconnected servers display with a red arrow next to the server icon. Once a server is disconnected, XMap cannot connect to it.

For information on removing a server, see Removing a Server.

#### To Disconnect a Server

Use the following steps to disconnect from a server with Database Manager.

- 1. Click the **GIS** tab.
- 2. Click the **Workspace** subtab if it is not selected.
- 3. Click **DB Manager** to open Database Manager.
- 4. On the left side of the window (tree view), click the server that you want disconnect.
- 5. From the **Server** menu, click **Disconnect**.

#### To Reconnect a Server

Use the following steps to reconnect to a server with Database Manager.

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not currently selected.
- 3. Click **DB Manager** to open Database Manager.
- 4. On the left side of the window (tree view), click the server that you want reconnect.
- 5. From the **Server** menu, click **Connect**.

### Removing a Server



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

Use Database Manager to completely remove a server connection or simply disconnect it. For information on disconnecting a server, see Disconnecting from/Reconnecting to a Server.

#### To Remove a Server

Use the following steps to remove a server and the databases it contains with Database Manager.

- 1. Click the **GIS** tab.
- 2. Click the Workspace subtab if it is not selected.
- 3. Click **DB Manager** to open Database Manager.
- 4. On the left side of the window (tree view), click the server that you want remove.
- 5. From the **Server** menu, click **Remove**.

#### Creating a New Database



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

There are two ways to create a new database in XMap. You can use the Create Database dialog box within XMap, which is accessed from the Import Layer wizard or Create Layer dialog box, or use the Database Manager utility to create a new database.

#### To Create a New Database with the Create Database Dialog Box

Use the following steps to create a new database.

- 1. Click the **GIS** tab, click the **Workspace** subtab if it is not selected.
- 2. Click the Layers button, point to Create, and then click Empty Layer. The Create Empty Layer dialog box opens. OR

Click the **Import Layer** menu button on the toolbar, and then click Import - New Layer.



The Import Layer Wizard opens.

3. At the bottom of the dialog box, select **New** from the **Target Database** drop-down list.

The Create Database dialog box opens.

4. Select the server you want the database to be created on from the **Server** drop-down list.

If the server you want to use does not display in the list, type the server name in the text box.

**Note** If SQL Server was installed on your local machine, type localhost\xmap6 (or localhost\delormemapping if SQL Server was installed in a previous version of XMap). If you are connecting to a remote server, see your Database Administrator to obtain the server name information.

- 5. Select the authentication method; Windows authentication or SQL Server authentication (Windows Authentication (NTLM) is an authentication process used by all members of the Windows NT family of products. It uses a challenge/response process to prove the client's identity without requiring that either a password or a hashed password be sent across the network. If Use Windows Authentication is selected, the user does not need to provide login name or password information to create a new database on the specified server machine. This is because SQL Server revalidates the Windows user account name and password. SQL Server Authentication uses credentials stored in a SQL Server database to get access to the server. When this choice is selected, the Login and Password text boxes are enabled.)
- 6. If you selected to use SQL Server Authentication, type a login name in the **Login** text box and a password in the **Password** text box.
- 7. Type a name for the new database in the **Database Name** text box. The name should be alphanumeric (not case sensitive), may include underscores, has a 128 character limit, and cannot include spaces or start with a number.
- 8. From the Compatibility drop-down list:

Select  $XMap\ 6$  if you want the layers you import into this database to have access to all of the features of  $XMap\ 6$ .

OR

Select **XMap 5** if you want the layers you import into this database to have access to all of the features of XMap 5.

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Select **XMap 4.5** if the layers that you import into this database need to be accessed from that version of XMap. This option is only available if you are using Microsoft SQL 2000.

**Note** XMap 4.5 databases will not have access to all of the functionality available in XMap 5 and above. See XMap Database Limitations for more information.

9. Click OK.

The database is added to the server.

#### To Create a New Database with Database Manager

Use the following steps to create a new database.

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not selected.
- 3. Click **DB Manager** to open Database Manager.
- 4. Connect to the server where your new database will be stored.

- 5. Use the tree view on the left to select the server where you will store the new database.
- 6. From the **Database menu**, click **New**.
- 7. Type a name for the new database in the **Database Name** text box. The name should be alphanumeric (not case sensitive), may include underscores, has a 128 character limit, and cannot include spaces.
- 8. Select a schema type (XMap 6, XMap 5, or XMap 4.5) from the **Schema** drop-down list.
- 9. Click **OK**.
  The database is added to the server.

### Attaching/Connecting a Database



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

**Attach Database**: When importing a layer with the Import Layer or Manage Layers dialog box, the Attach Database dialog opens if you Other as the database.

**Connect Database**: If you are attempting to reconnect to a database for a disconnected or deleted layer, the Connect Database dialog opens.

#### To Attach/Connect a Database

Use the following steps to attach a database.

- 1. Select the server you want the database to be connected to from the **Server** drop-down list.
  - If the server you want to use does not display in the list, type the server name in the text box.
  - **Note** If SQL Server was installed on your local machine, type localhost\xmap6 (or localhost\delormemapping if SQL Server was installed in a previous version of XMap). If you are connecting to a remote server, see your Database Administrator to obtain the server name information.
- 2. Select the authentication method; <u>Windows Authentication or SQL Server Authentication</u>. (Windows Authentication (NTLM) is an authentication process used by all members of the Windows NT family of products. It uses a challenge/response process to prove the client's identity without requiring that either a password or a hashed password be sent across the network. If Use Windows Authentication is selected, the user does not need to provide login name or password information to create a new database on the specified server machine. This is because SQL Server revalidates the Windows user account name and password. SQL Server Authentication uses credentials stored in a SQL Server database to get access to the server. When this choice is selected, the Login and Password text boxes are enabled.)
- 3. If you selected to use SQL Server Authentication, type a login name in the **Login** text box and a password in the **Password** text box.
- 4. Type a name for the new database in the **Database Name** text box.
- 5. Click **OK**. The database is added.

### Adding/Removing a Database User



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

Once you add users to a server, you can give them access to the databases that are on that server. Once a user is added to a database, an administrator can assign the user's role for using the database (for example, XMap User, XMap Edit, XMap Checkout Creator, XMap Administrator, or XMap Owner). You can add or remove individual users or a Windows Group.

#### To Add a Database User

Use the following steps to give a user access to a particular database.

- 1. Click the **GIS** tab.
- 2. Click the Workspace subtab if it is not selected.
- 3. Click **DB Manager** to open Database Manager.
- 4. On the left side of the window (tree view), expand the server and databases menus.
- To add a user to an individual database, click a database in the tree view or in the working view (right side).OR
  - To add a user to multiple databases, in the working view (right side of the window), hold the CTRL key on your keyboard while you click each of the databases to which you want to add a user.
- From the **Database** menu, click **Add User**.
   The Add Users dialog box opens all of the users who have access to the database's server.
- 7. Click to select a user from the **Add Users** dialog box. If you want to add multiple users at once, press the CTRL key on your keyboard and click each user.
- 8. Click OK.
- On the left side of the window (tree view), expand the database's menu and then click the **Database Users** option underneath it.
   A list of all of the users who have access to the database displays on the right side of the window.
- 10. To change a user's role for that database, find the name in the list, click the role, and then select a new role (XMap User, XMap Edit, XMap Checkout Creator, XMap Administrator, or XMap Owner) from the available drop-down list. For definitions of each role, see Database User Roles.

#### To Remove a Database User

Use the following steps to remove a user's database privileges.

- 1. Click the **GIS** tab.
- 2. Click the **Workspace** subtab if it is not currently selected.
- 3. Click **DB Manager** to open Database Manager.
- 4. On the left side of the window (tree view), expand the server and database menus to view the database to which you want to remove a user.
- Expand the database and then click the **Database Users** option underneath it.

A list of all of the users who have access to the database displays on the right side of the window.

- 6. Click to select the user that you want to remove.
- 7. From the **Database** menu, click **Remove User**.

### Activating/Deactivating a Database



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

You can deactivate and then reactivate a database using Database Manager. In Database Manager, active databases have a green arrow next to the database icon. Inactive databases have a red arrow next to the database icon.

Deactivating a database removes it from the list of databases in the Manage Layers and Import Layer dialog boxes. XMap® will not try to connect to an inactive database.

You can also use the remove connection feature in the Manage Layers dialog box to deactivate a database.

### To Activate/Deactivate a Database with Database Manager

Use the following steps to deactivate a database with Database Manager.

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not selected.
- 3. Click **DB Manager** to open Database Manager.
- 4. On the left side of the window (tree view), expand the server and database menus to find the database you want to activate/deactivate.
- To deactivate a database, click the database to deactivate. Then, from the Database menu, click Deactivate.
   OR

<u>To activate a database</u>, click the database you want to activate. Then, from the **Database** menu, click **Activate**.

### To Deactivate a Database with the Manage Layers Dialog Box

Use the following steps to remove a database using the Manage Layers dialog box.

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not currently selected.
- Click the Layers button and then click Manage.
   The Manage Layers dialog box opens.
   OR

Click the **Manage Layers** tool on the toolbar. The Manage Layers dialog box opens.

- 4. From the **Source Database** drop-down, select the database that you want to deactivate.
- 5. Click the **Remove Database Connection** button
- 6. Click **Yes** to confirm that you want to deactivate (remove) the database connection.

### **Deleting a Database**



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

Once you create a database, you can use Database Manager to delete (drop) it from the server.

#### **Notes**

- You can delete a database only if you are the database owner or if you are a SQL System Administrator.
- You cannot delete a database that is currently in use. If the database is currently
  in use, you will receive the following error, "A database error occurred while
  dropping the database..."
- The process of deleting a database may take over a minute.

#### To Delete a Database

Use the following steps to delete a database.

- 1. Click the GIS tab.
- 2. Click the Workspace subtab if it is not selected.
- 3. Click **DB Manager** to open Database Manager.
- 4. On the left side of the window (tree view), click the database that you want to delete.
- 5. From the **Database** menu, click **Delete**. A confirmation message displays.
- Click Yes to delete the database.
   Deleted databases and their contents cannot be retrieved unless you created a backup using Backup/Restore.
   OR
  - Click **No** to cancel the deletion process.

#### **Database User Roles**



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

A Server Administrator can give multiple users access to one or all of the databases that are stored on a server. Each user must be assigned a role for using a particular database; the default role is XMap User. The table below shows the functionality that is available for each of the role types; XMap User, XMap Edit, XMap Checkout Creator, XMap Administrator, or XMap Owner.

Feature	XMap User	XMap Edit	XMap Checkout Creator	XMap Administrator	XMap Owner
View GIS layers and associated information (attributes, classifications, layer properties,	X	X	X	X	Х

etc.)					
Run queries	Х	Х	Χ	X	Х
Export layers	X	Х	Χ	X	X
Subscribe to an Enterprise database	Х	Х	X	X	Х
Create redlines	Х	Х	Χ	X	X
Synchronize to an Enterprise database	Х	Х	Х	X	Х
Create queries		Х	Χ	X	Х
Edit geometries and attributes		Х	Χ	Х	Х
Create check-outs from an Enterprise database			Х	X	Х
Save check-outs on an existing database			X	X	Х
Import layers				X	X
Delete layers				X	X
Add/delete attribute fields				Х	Х
Import/link attribute sets				Х	Х
Edit layer properties				X	Х
Create classifications				Х	Х
Save classification templates				Х	Х
Enable subscriptions on an Enterprise database*				Х	Х
Create subscriptions on an Enterprise database*				Х	Х
		l			

layer for check- outs			
Add users to a database			X
Change database user roles			Х
Drop (delete) databases			Х

<sup>\*</sup> Requires XMap GIS Enterprise.

### **Creating User Subscriptions**



This Help topic describes features that are available in XMap GIS Enterprise.

A subscription is a read-only copy of a layer in an enterprise database. A subscription must be created by an administrator and activated on a user's computer. When a user clicks the Synchronize button on the toolbar, a copy of the Enterprise database that contains read-only copies of all layers they are subscribed to is created on the user's local machine. Layer copies are updated to include changes to each original layer every time the Synchronize button is clicked. This allows XMap users to quickly ensure they have the most up-to-date versions of the layers they need for reference in the field or office.

**Note** Enterprise databases can be created only with XMap GIS Enterprise.

#### To Create a User Subscription

Use the following steps to create a user subscription.

- 1. Click the **GIS** tab.
- 2. Click the Workspace subtab if it is not selected.
- 3. Click **DB Manager** to open Database Manager.
- 4. On the left side of the window (tree view), expand the server menu that includes the database where your layers are stored.
- 5. Expand the **Database** menu and click **Subscriptions**. If Subscriptions are disabled for that database (if the sync arrows next to the option are red and not green), right-click **Subscriptions** and click **Enable Subscriptions** or select **Enable Subscriptions** from the **Database** menu.
- 6. In the middle section of the Database Manager window, click to select each database user whose subscription you will create. You can select multiple users at once by holding the CTRL key on your keyboard while you click to select each user.
  - **Note** Only server users are available in this list. See Adding a User to a Server for more information.
- 7. On the right side of the window (working view), select the check box next to each layer you want to include in the subscription.
- 8. Click Create Subscription File.
- 9. Browse to the location where you want to save the subscription file and name the file. When you are finished, click **Save**.

10. Outside of XMap, send the subscription file to each user you selected in step 6.

### Changing Your SQL Server Authentication Password



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

If you have been given rights to access a server with SQL Server Authentication, you can change your password at any time using Database Manager.

### To Change Your Password

Use the following steps to change your SQL Server Authentication password.

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not selected.
- 3. Click **DB Manager** to open the Database Manager.
- 4. On the left side of the window (tree view), expand the server for which you want to change the password.
- 5. On the left side of the window (tree view), click Server Users.
- 6. Select your account from the working view on the right side of the screen.
- 7. From the **Server** menu, click **Change Password**. The Change Password dialog box opens.
- Type your current password in the Old Password text box.
   Note This option is unavailable when the system administrator is changing a user's password.
- 9. Type the new password in the **Password** text box.
- 10. Re-type the password in the **Confirm Password** text box.
- 11. Click **OK**.

The password is changed.

#### **XMap Database Limitations**

### XMap 4.5 Database Limitations

You can view layers created using XMap 4.5 in XMap 5.0 GIS or later versions; however, until they are saved in an XMap 5.0 or later-compatible database, the following features will not be available:

- View attribute changes in real while modifying corresponding geometries on the map
- Enterprise databases will not be able to be created
- Database synchronization
- Check-out/in
- Redlining
- Spatial queries
- Limited attribute data types (the following data types are unavailable: Double, Boolean, Byte, Small Integer, Big Integer, Memo, Currency, Document and GUID)
- Multiple classifications
- Classification templates

- Attribute column precision for Float and Double during layer import
- Geocoding
- GeoID is not a stored attribute column and cannot be accessed by Query or Label

You can import the layers into an XMap 5.0 or later-compatible database using the Import Wizard in the GIS Workspace subtab or the New/Duplicate Layer feature in the GIS tab. Advanced users can convert multiple files using the XMap GIS Bulk Importer/Exporter.

#### XMap 5.x Database Limitations

Layers created in XMap 5.x do not support self-intersecting polygons.

### Backing Up a Database



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

Use the Backup/Restore feature in Database Manager to create backups (duplicates) of databases in case of a computer crash or database corruption. You can restore the backups if such an event occurs, preserving the user's layers in the database. You can create multiple backup databases for a single source database.

In case of computer failure, it is strongly recommended that you store database backups on separate media (CD, DVD, remote server, etc.).

#### To Back up a Database

Use the following steps to backup a database.

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not selected.
- 3. Click **DB Manager** to open Database Manager.
- 4. On the left side of the window (tree view), click **Databases** or expand the Databases menu and select an individual database.
- 5. From the **Database** menu, click **Backup/Restore**. The Backup/Restore dialog box opens.
- 6. Select the database you want to backup from the **Source Database** drop-down list.
- 7. Click Backup.

The Backup dialog box opens.

- 8. Type the name for your backup database in the **Name** text box.
- 9. Type the location where you want to save the backup database or click the browse button to browse to the location.
- 10. Optional. Type any related information about the backup database in the **Description** text box.
- 11. Click **OK**.

The new backup database (as well as any other backup databases) that have been created for the selected Source Database display in the Backup History table. The backup database consists of two files; a file that contains the data and a file that contains metadata about the backup.

**Note** To remove a backup database from the Backup History table, select the backup database and click **Remove From History**. The backup database is removed from the table but not deleted from the location where you saved it.

To permanently delete a backup database, browse to the location on your computer where you saved the backup files and delete the files. The backup database displays in the Backup History table until you select it and click **Remove From History**.

### Restoring a Backed Up Database



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

Once you create a backup database, you can restore it as the source database using the Backup/Restore functionality in Database Manager.

#### To Restore a Database

Use the following steps to restore a backed up database.

- 1. Click the **GIS** tab.
- 2. Click the **Workspace** subtab if it is not selected.
- 3. Click **DB Manager** to open Database Manager.
- 4. On the left side of the window (tree view), click **Databases** or expand the Databases menu and select an individual database.
- 5. From the **Database** menu, click **Backup/Restore**. The Backup/Restore dialog box opens.
- 6. Select the database that was originally backed up from the **Source Database** drop-down list.
  - **Note** Select **Select All** from the **Source Database** drop-down list to view a list of all of the databases that are currently backed up.
- 7. Select the backup database you want to restore from the **Backup History** table and click **Restore**.

The Restore dialog box opens.

OR

- If the backup database that you want to restore does not display in the Backup History table, click **Restore from File**, browse to the location where you saved the backup database, and then click **Open**.
- 8. If you want to overwrite the original source database with the backup database, leave the Restore dialog box as is and click **OK**. Then, click **Yes** to confirm that you want to replace the existing database with the backup database.

OR

If you want to restore the backup database but not overwrite the original database, type a new name for the restored database in the **Database** text box and then click **OK**.

# Using Layers in a Subscription

### Opening a Subscription File



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

Once a database administrator sends you a subscription file, you must open it in XMap to activate the subscription. A subscription to an Enterprise database allows you to synchronize your local copy of the layers with the Enterprise database and/or "mark up" the layer using the redlining tools.

**Note** Only one subscription file can be active at a time.

### To Open a Subscription File

Use the following steps to open a subscription file.

- 1. Double-click the file either within an e-mail or after you save it locally.
- If XMap is not already open, XMap launches automatically; however, you will be prompted to restart the application.
   Note If XMap is already open, you will be prompted to restart the application.
- 3. Click the **Synchronize** button on the toolbar. A progress bar indicates the synchronization percentage complete.
- 4. Click **OK** to acknowledge the synchronization completed. The layers that were included in the subscription are added to the workspace. **Note** If an error occurs during the synchronization process, you will receive an error message with a option for viewing the error log.
- 5. To view the layer on the map, click the **GIS** tab, click the **Workspace** subtab, and then select the check box next to the layer in the workspace.
- 6. To center the layer on the map, double-click the layer in the workspace.
- 7. To create redline edits against the layer(s), click the **Redline** tool on the toolbar and then use the draw annotation tools to mark up the layer(s). All redline edits are automatically saved in a Redline draw layer (RedlineLayer#.an1) file. For more information, see Creating Redline Edits.

### Refreshing the Layers in a Subscription



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

To ensure the layers that were part of your subscription are the most recent files available, click the **Synchronize** button on the toolbar. The layers are refreshed with the latest version from the source database.

### **Adding Subscription Layers to Your Workspace**



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

Click the **Add Synchronized Layers** tool on the toolbar for a quick and easy way to add all of the layers that are in the active subscription to your workspace. The tool is active only when at least one layer in the active subscription has been removed from the workspace.

# Using ArcSDE Databases

## Importing a Layer from an ArcSDE Database



This Help topic describes features that are available in XMap GIS Enterprise.

You can directly import layers from ESRI ArcSDE databases to DeLorme OpenSpace databases. To import layers, you must establish a connection to an ArcSDE database.

You can import a new layer, import a layer to append to an existing layer, or import a layer to replace an existing layer.

#### To Import a Layer from an ESRI ArcSDE Database

Use the following steps to import a layer from an ArcSDE database.

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not selected.
- Click the Layers button, point to Import, and then click and then click New Layer, Append Layer, or Replace Layer.
   The Import Layer wizard opens.
   OR

Click the Import Layers tool on the toolbar, and then click Import - New Layer, Import - Append Layer, or Import - Replace Layer.

- 4. Under Source, select Database.
  - **Note** This option is unavailable if the ArcSDE SDK client tools are not detected on your system. You can install the tools using these steps; for more information, see your ArcSDE administrator.
- 5. Select the database from which you want to add the layer from the **Database** drop-down list or click **Other** to connect to a database.
- 6. From the **Layer** drop-down list, select the layer within the database that you want to import.
  - The layer information appears in the Layer info box.
- 7. If you are importing a new layer, you have the option to type a name for the layer in the **Name** text box.
- 8. From the **Database** drop-down list, select the destination database for the imported layer or select **Other** to attach a different database to add layers to. If you are importing a new layer, you also have the option to click **New** if you want to create a new database.
- 9. If you are appending or replacing a layer, select the destination layer from the **Layer** drop-down list.
- 10. Click Next.

The layer is imported into the destination database you selected in step 8.

## Connecting to an ArcSDE Database



This Help topic describes features that are available in XMap GIS Enterprise.

When you import a layer from a database and select Other from the Database drop-down list, the Connect to Database dialog box opens and ArcSDE displays in the Type drop-down list.

#### To Connect to an ArcSDE Server

The information needed to complete the Connect to Database dialog should be provided to you by your system administrator. Make sure you have the correct information before continuing.

1. In the **Server** text box, type the name of server on which the ArcSDE installation resides and the instance (for example, 5151 or esri\_sde) in this format:

server:instance

 For a database with SQL Server Authentication, type your information in the Login and Password boxes.

For Windows Authentication, leave the Login and Password boxes blank.

- 3. To save your login and password information, if applicable, select the **Store login and password** check box.
  - **Note** This saves all the connection information for the Database selected under Import From Database in the Import Layer dialog.
- 4. For non-Oracle databases, once you establish a successful connection to the ArcSDE instance, click the **Search** button to locate the database from which to import (only databases to which access is permitted are listed). If the search is successful, select the database from the **Databas**e drop-down list. OR
  - Type the database name in the **Database** box.
- 5. Click **OK** and use the Import Wizard to import the layer from that database.



# **Installing ArcSDE SDK Tools**

Use these steps to install the ArcSDE SDK tools on your computer. For more information, see your ArcSDE administrator.

- 1. Browse to the System Properties dialog in your computer's Control Panel.
- 2. Click the Advanced tab.
- Click Environment Variables.
- 4. Under System variables, click Path and then click Edit.
- 5. At the end of **Variable value**, type a semi-colon and then the path to the bin directory.
  - Example: .....; C:\ArcSDE\ArcSDE\_9.3\bin
- 6. Click OK.
- 7. Click OK.
- 8. Click OK.
- 9. If XMap is open, restart it for the settings to take effect.

# Redlining

# **Creating Redline Edits**



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

Redlining refers to the process of adding MapNotes/symbols or drawing shapes to "mark up" GIS layers without actually editing the layers themselves. Redlines utilize the draw capabilities of the Draw tab and are saved in a draw layer that is created when redlining begins.

Redline draw layers have connections with a special type of GIS layer (called Redline Layer) on an Enterprise Database that the user has a subscription to. After redlines are made on the map, they will be synchronized with the redline GIS layer during the subscription synchronization process. The layers are stored as attribute records within the redline GIS layer, with the draw file imbedded in a column with a document link that opens the draw file when clicked.

#### To Create Redline Edits

Use the following steps to create redline edits.

- 1. View a layer that is part of a subscription.
- Click the **Redline** tool on the toolbar. The Redline toolbox opens.
- 3. If you want to place a symbol on the map, click the **Symbol** tool select the symbol set that contains the symbol you want from the **Set** dropdown list, and then select the symbol from the **Style** drop-down list. Then, click the location on the map where you want to place the symbol. OR

If you want to draw a line on the map, click the **Line** tool , select the line color and line style, and then draw the line at the map location. OR

If you want to draw freehand on the map, click the **Scribble** tool select the scribble color and style, and then draw the scribble at the map location.

OR

If you want to place a MapNote on the map, click the **MapNote** tool select the font color and size, and then click the location on the map where you want to place the MapNote.

OR

If you want to draw a polygon on the map, click the **Polygon** tool , select the polygon fill color and fill style, and then draw the polygon at the map location.

4. Click the **Close** button in the upper-right corner of the Redline toolbox to close the toolbox.

**Note** You can access the full range of draw options for each symbol type in the Redline toolbox by selecting the same option in the Draw tab.

# Sending Redline Edits to the Source Database



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

Once you create redline edits in the GIS layers included in a subscription, you can

send those edits to the source database by clicking the **Synchronize** button the toolbar. This also refreshes the layers that were part of your subscription and retrieves the most recent changes.

# **Viewing Redline Edits**



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

After users synchronize their redline layers with the redline GIS layer in the enterprise database, those users with permissions to view the redline GIS layer can review all of the redlines created by those users.

- 1. Add the redline GIS layer to your workspace.
- 2. Once the redline layer is in your workspace, select the check box next to the layer in the Workspace view.
  - Outlined boxes display on the map (red indicates incomplete redline edits and blue indicates completed redline edits), depicting the map bounding rectangles for each redline record.
- 3. Click the **Attributes** subtab.
- 4. If it is not already in Datasheet View mode, click the **Datasheet View** button

The attributes of the layer display. Each record in the redline layer has the user's name, date, and a copy of the original redline file (.an1).

5. To view a specific redline draw layer:

Click its hyperlink in the **Redline Layer** column.

A message asks if you want to save or open the file. OR

Hover your cursor in the specific cell in the Redline Layer column.

A floating arrow displays. Click the arrow and then select **Open**.

A message asks if you want to save or open the file.

6. Click **Save** to save the file to your hard drive (ensure that the Open in XMap check box is selected).

The draw layer is added to your project and displays on the map.

Click **Open** to open the file from its current location (ensure that the Open in XMap check box is selected).

The draw layer is added to your project and displays on the map.

7. Use the notes and annotations in the draw layer to make the appropriate edits to the corresponding GIS layers to which the user was subscribed.

# Stationing

# Stationing



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

Stationing is a linear referencing method that calculates numeric values along a line based on user-defined From and To values. These values are entered into Fr\_Station and To Station attribute fields for a line in a GIS layer, which are automatically assigned by XMap to the start and end points of the line.

Stationing is commonly used in the pipeline industry to locate station values (numeric point locations) along pipelines. For example, field personnel may be given work orders of sections of pipeline to inspect or repair. These locations may be referenced by their station values or a range of values along the pipeline. Using a GIS line layer of the pipeline that has the station values present, the field worker is able to locate the exact point of the station along the line and navigate to it.

Although stationing has its roots in the pipeline industry, it is a convenient method of referencing data to a location for any type of linear data.

## To Add Stationing Attributes to a Layer

Use the following steps to add stationing attributes to a layer.

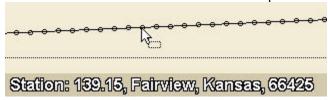
- 1. Click the GIS tab.
- 2. Click the Workspace subtab if it is not selected.
- 3. View an existing line layer, create a new line layer, or import a line layer.
- 4. Highlight the layer to which you want to add stationing points.
- 5. Click the Attributes subtab.
- 6. If it is not already in Design View mode, click the **Design View** button



- 7. Add fields "Fr\_Station" and "To\_Station" to the line layer. From the **Data Type** drop-down list, select any numeric type: Integer, Big Integer, Byte, Double, Float, or Small Integer.
- 8. Click the **Datasheet View** button.
- 9. Type numeric values in the Fr\_Station and To\_Station records for the layer. The Fr\_Sation value is automatically assigned to the start point of the line, and the To\_Station is automatically assigned to the end point of the line. The station value for every location along the line is calculated based on the start and end point values.

## To View Stationing Attributes

Hover over a line on the map that includes stationing data. Stationing values display in the Info bar at the bottom of the map.



# **Bulk Importing and Exporting**

# **Bulk Importing**



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

XMap includes a command prompt utility that allows you to import multiple files (from potentially different locations) into a database at one time through user-created batch files (.bat or .cmd). You can also import entire directories of files using the wildcard capability of command prompt. Import individual files either through manual entry of the import commands or by referencing user created .ini files on the command line. You can use the XMap Bulk Importer to import all file types that can be imported with the XMap Import Wizard, except for non-spatial types that require geocoding.

You can import files with the bulk importer through four different mechanisms:

- Enter import parameters directly into the command line
- Create a .ini file that specifies the import parameters, then reference this .ini file in the command line
- Create a .bat or .cmd batch file that specifies the import parameters for multiple files, then run this batch file directly in the command line
- Use a wild card entry to import all files of a like type in the same directory. This option imports only files of the type that is specified by the wild card and that contain spatial reference information.

**Note** For more information on importing parameters, see Bulk Importing Parameters.

#### To Import Multiple Files Using the Command Line

All import command lines of this type begin with xmapimport in the command line. All parameters are separated by a single space and parsed with -- on the command line.

- 1. From the **Start** menu, point to **Programs>DeLorme>XMap 6>Tools**, and then click the **XMap Bulk Importer-Exporter** option.
- 2. Type the following in the command line: xmapimport --target-server=server name --target-db=database name --source-file=file path [--datum=datum of the file (e.g., NAD83) --coordinate-system=the coordinate system of the file (e.g., SPCS) --spcs-zone=me-w --spcs-units=surveyfeet] only needed when spatial reference information is not specified in the file.

#### **Notes**

- The coordinate information varies depending on the type of coordinate system you specify (for example, if you select SPCS, you must also specify the SPCS zone and units).
- If you created the server on your local machine, type localhost\xmap6 (or localhost\delormemapping if the server was created in a previous version of XMap). If you are connecting to an "external" server, see your Database Administrator to obtain the server name information.
- 3. Press the ENTER key on your keyboard.
  A confirmation message displays after the file is imported; the message includes the file name, number of geometries, and the time it took for the file to import.
- 4. Add the layer to your workspace.

## To Import Files Creating an .ini File

This option works on a single file or wild card basis using the parameters described in previous sections. You can create the initialization file (.ini) using a text editor such as Notepad or Wordpad. All parameters are separated by a return in the .ini file. The name and path of the .ini file are referenced in the command line.

- 1. Open your preferred text editing program, such as Wordpad or Notepad.
- 2. Type the following parameters in the text document:

target-server=server name
target-db=database name
source-file=file path
datum=the datum of the file
coordinate-system=the coordinate system of the file

**Note** The coordinate information varies depending on the type of coordinate system you specify (for example, if you select SPCS, you will also need to specify the SPCS zone and units).

- 3. Save the text document with an .ini extension (rather than a .txt extension).
- 4. From the **Start** menu, point to **Programs>DeLorme>XMap 6>Tools**, and then click the **XMap Bulk Importer-Exporter** option.
- 5. Type the following parameters in the command line: xmapimport the path to the .ini file you created in steps 1-3.
- 6. Press the ENTER key on your keyboard.
  A confirmation message displays after the file is imported; the message includes the file name, number of geometries, and the time it took for the file to import (in days, hours, minutes, and seconds).
- 7. Add the layer to your workspace.

#### To Import Files Creating a Batch File

This option allows you to automate several iterations of import with a user-created batch file. You can create batch files with a text editor such as Notepad or Wordpad. Each line of the batch file pertains to a single import command line and contains the same parameters as would be specified with manual entry in the command line. You can import multiple file types located in different folders into different OpenSpace databases using the automated method.

1. Open your preferred text editing program, such as Wordpad or Notepad.

2. Type the following parameters in the text document (text in red reflect the user's information):

```
xmapimport --target-server=server name --target-db=database name --source-file=file path --datum=datum --coordinate-system=coordinate system --spcs-zone=specify --spcs-units=surveyfeet
```

**Note** Ensure that the text is contained within a single line and there are no character returns.

- 3. Save the text document with a .bat or .cmd extension (rather than a .txt extension).
- 4. From the **Start** menu, point to **Programs>DeLorme>XMap 6>Tools**, and then click the **XMap Bulk Importer-Exporter** option.
- 5. Type the path for the .bat/.cmd file you created in steps 1-3 in the command line (for example, c:\test\_batch.bat).
- 6. Press the ENTER key on your keyboard.
  A confirmation message displays after the file is imported (the message includes the file name, number of geometries, and the time it took for the file(s) to import (in days, hours, minutes, and seconds).
- 7. Add the layer(s) to your workspace.

#### To Import Files with a Wild Card

This option allows you to import all files of the same type located within the same directory. These files must contain the same spatial reference information. This type of import is useful for importing entire directories of files in a quick and automated process. A wild card has an asterisk, a period, and then the extension abbreviation (for example, \*.shp). Type an asterisk to indicate any number of characters. Type a question mark to indicate any single character or nothing.

- 1. From the **Start** menu, point to **Programs>DeLorme>XMap 6>Tools**, and then click the **XMap Bulk Importer-Exporter** option.
- 2. Type the following parameters in the command line (text in red reflects the user's information):

```
xmapimport --target-server = server name --target-db = database name --source-file = file path (e.g., *.shp)
```

**Note** Ensure that the text is contained within a single line and there are no character returns.

- 3. Press the ENTER key on your keyboard.
  A confirmation message displays after the file is imported; the message includes the file name, number of geometries, and the time it took for the file(s) to import (in days, hours, minutes, and seconds).
- 4. Add the layer(s) to your workspace.

# **Bulk Importing Parameters**



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

Type **xmapimport** on the command line and then press the ENTER key on your keyboard to display a list of instructions and general required import parameters (parameters vary based on the type of files being imported).

#### **Notes**

- File names with embedded spaces should be in quotes (for example, "Yarmouth Parcels.shp").
- If the server was created on your local machine, type localhost\xmap6 (or localhost\delormemapping if the server was created in a previous version of XMap). If you are connecting to an "external" server, see your Database Administrator to obtain the server name information.

# **Viewing the Supported File Types and Required Parameters**

Type **xmapimport --list-supported-files** in the command line and then press the ENTER key on your keyboard to see a list of supported file types.

#### File Types That Contain Spatial Reference Information

Supported spatial file types that contain spatial reference information include:

- ESRI Shapefiles (.shp)\*
- ArcInfo Interchange files (.e00)\*
- MapInfo Table files (.tab)\*
- MapInfo Exchange files (.mif)\*
- DeLorme OpenSpace files (.openspace)
- DeLorme Draw files (.an1)
- DeLorme XData files (.dds)
- OGIS Geographic Markup Language files (.gml or .xml)\*
- AutoCAD Draw file (.dwg)\*
- AutoCAD Data Exchange file (.dxf or .dwf)\*
- ArcSDE Geodatabase layers\*

## Required parameters for this file type:

```
xmapimport
```

- --target-server=SQL Server
- --target-db=OpenSpace DB
- --source-file=file and path OR, for ArcSDE import, --source-sde=[server,instance,database,login,password](Note If using Windows Authentication, leave the login and password blank)

# Optional parameters include:

- --layer-name=name of the layer to be created
- --replace-layer=name of the layer to be replaced
- --append-layer=name of the layer to append to

Additional parameters required when spatial reference information is not included.

<sup>\*</sup> These files often contain intrinsic spatial reference information, but this is not always the case. When they do not, additional parameters will need to be supplied in the command line to enable import. If these parameters are not specified, you will receive the following notice when trying to import: "The spatial data source does not offer spatial hints and none were specified on the command line."

## File Types That Do Not Contain Spatial Reference Information

Supported spatial file types that do not contain spatial reference information include:

- ESRI Shapefiles (.shp) that do not have an accompanying Projection file (.prj)
- All file types marked with \* above

## Required parameters for this file type:

```
XMapimport
```

- --target-server=SQL Server
- --target-db=OpenSpace DB
- --source-file=file and path OR, for ArcSDE import, --source-sde=[server,instance,database,login,password]
- --datum=datum\*\*
- --coordinate-system=coordinate system\*\*

If the coordinate system is UTM, you must specify two additional parameters in the command line:

```
--utm-zone-number=zone-number***
```

--utm-band-letter=band letter\*\*\*

If the coordinate system is SPCS, you must specify two additional parameters in the command line:

```
--spcs-zone=zone**
--spcs-units=units***
```

- \*\* obtain valid options for these parameters by running a separate command in the command prompt.
- \*\*\* valid options for these parameters are listed in the instructions that display when running xmapimport in the command line.

#### Optional Parameters include:

- --layer-name=name of the layer to be created
- --replace-layer=name of the layer to be replaced
- --append-layer=name of the layer to append to

#### Viewing a List of Supported Coordinate Systems

Type **xmapimport --list-coordinate-systems** to see a list of supported coordinate systems. All files are converted to the Latitude/Longitude coordinate system with the World Geodetic System datum during import.

Note that the list of supported coordinate systems is for spatial file types that do not contain spatial reference information. For spatial file types that do contain spatial reference information, the XMap Import Command Prompt is able to convert from a much larger library of coordinate systems.

# Viewing a List of Supported Datums

Type **xmapimport --list-datums** to see a list of supported datums.

Note that the list of supported coordinate systems is for spatial file types that do not contain spatial reference information. For spatial file types that do contain spatial reference information, the XMap Import Command Prompt is able to convert from a much larger library of coordinate systems.

## Viewing a List of State Plane Zones

Type **xmapimport --list-spcs-zones** to see a list of the state plane coordinate system zones.

# **Bulk Exporting**



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

XMap includes a utility that allows you to export one layer at a time (from potentially different OpenSpace databases) to one of the supported file formats at one time through user-created batch files (.bat or .cmd). You can also export individual layers, either through manual entry of the export commands or with referencing user created .ini files on the command line. You can use the XMap Bulk Importer-Exporter to export all file types supported in the Export dialog box.

You can export files with the bulk exporter in three different ways:

- Enter export parameters directly into the command line
- Creating a .ini file that specifies the export parameters, then reference this .ini file in the command line
- Creating a .bat or .cmd batch file that specifies the export parameters for multiple files, then run this batch file directly in the command line

All exported OpenSpace layers require you to specify at least four parameters in the command line following the xmapexport command.

The required exporting parameters include (text in red reflect the user's information):

- source-server=the SQL server where the database for exporting resides

  Note If the server was created on your local machine, type
  localhost\xmap6 (or localhost\delormemapping if the server was created in
  a previous version of XMap). If you are connecting to an "external" server,
  see your Database Administrator to obtain the server name information.
- source-db=the OpenSpace database the layers are being exported from
- output-file=the file format and extension for the exported layers
- source-layer=the name of the OpenSpace layer being exported OR source-layerid=the identification number of the layer in the openspace database

Optional exporting parameters include (text in red reflect the user's information):

- query=name of the query being referenced OR queryid=identification number of the query in the database being referenced
- attributes=the name of attribute field to include in the exported layer
   Note If this parameter is left blank, all attribute fields in the layer will be exported. Also, not all attribute field data types that are supported in XMap are supported in the exported file formats.

## To Export Multiple Files Using the Command Line

All export command lines of this type begin with xmapexport in the command line. All parameters are separated by a single space and parsed with -- on the command line.

- 1. From the **Start** menu, point to **Programs>DeLorme>XMap 6>Tools**, and then click the **XMap Bulk Importer-Exporter** option.
- 2. Type the parameters into the command line. An example of the format would be:
  - xmapexport --source-server=localhost\delormemapping --source-db=database\_test --output-file-file=C:\gisdata\states.shp --source-layer=states
- 3. Press the ENTER key on your keyboard.
  A confirmation message displays after the file is exported; the message includes the file name, number of geometries, and the time it took for the file to export (in days, hours, minutes, and seconds).

**Note** To send the results of a command to a logfile, type '>path\filename.log 2>1' at the end of the command. Results and errors will be sent to the logfile and will not appear in the command line. If no path is specified, the logfile will be created in the default target directory.

## To Export Files Creating an .ini File

This option works on a single file basis using the parameters described in previous sections. You can create the initialization file (.ini) with a text editor such as Notepad or Wordpad. All parameters are separated by a return in the .ini file. The name and path of the .ini file are referenced in the command line.

- 1. Open your preferred text editing program, such as Wordpad or Notepad.
- 2. Type the following export parameters in the text document:
  - source-server=the SQL server where the database for exporting resides
  - source-db=the OpenSpace database from which the layers are being exported
  - output-file=the file format and extension for the exported layers
  - source layer=the name of the OpenSpace layer being exported OR
    - sourcelayerid=the identification number of the layer in the OpenSpace database

The following parameters are optional:

- query=name of the query being referenced OR queryid=identification number of the query in the database being referenced
- attributes=the name of the attribute field to include in the exported layer

**Note** If this parameter is left blank, all attribute fields in the layer will be exported.

- 3. Save the text document with an .ini extension (rather than a .txt extension).
- 4. From the **Start** menu, point to **Programs>DeLorme>XMap 6>Tools**, and then click the **XMap Bulk Importer-Exporter** option.

- 5. Type the following parameters in the command line: xmapexport=-the path to the .ini file you created in steps 1-3.
- 6. Press the ENTER key on your keyboard. A confirmation message displays after the file is exported; the message includes the file name, number of geometries, and the time it took for the file to export (in days, hours, minutes, and seconds).

# To Export Files Creating a Batch File

This option allows you to automate several iterations of export with a user-created batch file. You can create batch files with a text editor such as Notepad or Wordpad. Each line of the batch file pertains to a single export command line and contains the same parameters as would be specified with manual entry in the command line. Multiple layers located in different OpenSpace databases can be exported into different file formats and directories using this method.

- 1. Open your preferred text editing program, such as Wordpad or Notepad.
- Type the export parameters in the text document.
   Note Ensure that the text is contained within a single line and there are no character returns.
- 3. Save the text document with a .bat or .cmd extension (rather than a .txt extension).
- 4. From the **Start** menu, point to **Programs>DeLorme>XMap 6>Tools**, and then click the **XMap Bulk Importer-Exporter** option.
- 5. Type the path for the .bat/.cmd file you created in steps 1-3 in the command line (for example, c:\test\_batch.bat).
- 6. Press the ENTER key on your keyboard. A confirmation message displays after the file is exported; the message includes the file name, number of geometries, and the time it took for the file(s) to export (in days, hours, minutes, and seconds).

To send the results of a command to a logfile, type '>path\filename.log 2>1' at the end of the command. Results and errors will be sent to the logfile and will not appear in the command line. If no path is specified, the logfile will be created in the default target directory.

## **Bulk Exporting Parameters**



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

Type **xmapexport** on the command line and then press the ENTER key on your keyboard to display a list of instructions and general required export parameters; parameters vary based on the type of files you are exporting.

All OpenSpace layers that you export require you to specify at least four parameters in the command line following the xmapexport command.

The required exporting parameters include (text in red reflect the user's information):

- source-server=the SQL server where the database for exporting resides
- source-db=the OpenSpace database the layers are being exported from

- output-file=the file format and extension for the exported layers
- source-layer=the name of the OpenSpace layer being exported OR

source-layerid=the identification number of the layer in the OpenSpace database

Optional exporting parameters include (text in red reflect the user's information):

- query=name of the query being referenced OR queryid=identification number of the query in the database being referenced
- attributes=the name of the attribute column to include in the exported layer

**Note** If this parameter is left blank, all attribute columns will be exported.

• relax-polygon=yes|no (When no (default value,) polygons may be restructured when exporting a shapefile to ensure they conform to the shapefile standard; if the restructuring fails, the polygon is excluded. When yes, all polygons are exported without being restructured.

To send the results of a command to a logfile, type '>path\filename.log 2>1' at the end of the command. Results and errors will be sent to the logfile and will not appear in the command line. If no path is specified, the logfile will be created in the default target directory.

# Managing Layers in Your Workspace

## Workspace Overview



Some of the features that are introduced in this topic are not included in XMap Professional.

The Workspace subtab is the primary area for using the GIS tab. You can use the Workspace subtab to manage and analyze layers in your databases, as well as manage the databases themselves.

## What is a Layer?

A layer consists of geometries (points, lines, or polygons) that have corresponding attribute records and contain information that describes the properties of the geometries. In the GIS tab, a layer is considered to be the contents of an imported file that you can view and analyze on the map.

## What is a Workspace?

A workspace is the area where you import layers to a database and visualize the data on the map. Within this area is a table that displays in the center of the Workspace subtab. To modify which columns display in the workspace, right-click the bar at the top of the table to see all of the available columns (column names with a selected check box are currently displaying in the table). You can also sort the table by a particular column by clicking the column you want to sort by, change the order of the workspace columns by dragging a column to the desired location, or resize the width of the columns by dragging the line that separates the column names to a different position.

Your workspace is saved in your current project. Each time you create a new project, the workspace is reset; resetting a workspace does not delete layers.

#### Managing Databases

Use the Database Manager utility in XMap to:

- Create a new database
- Delete an existing database
- Connect to a server
- Add users to a server
- Remove a server
- Add/remove database users
- Activate/deactivate databases
- Create user subscriptions

## Managing the Layers in a Database

Use the Layers button in the Workspace subtab to make changes to the local workspace, such as:

- Create a new layer to add to a database
- Import a layer into a database
- Delete a layer from a database
- Add a layer from a database to your workspace
- · Remove a layer from your workspace
- Export a layer as a Shapefile, GML file, text file, or DeLorme OpenSpace Transfer File
- Refresh all layers in the workspace (from the database)
- Rename a layer in a database
- Copy a layer from one database to another

#### Modifying How Your Layers Display on the Map

Once you highlight a layer in your workspace, you can use the Tools button (or rightclick menu) to modify how the layer displays on the map. Use the Tools button to:

- Classify your layer according to the attributes (properties) of the layer
- Symbolize your layer so that you have complete control of how the layer displays on the map
- Label your layer by using a formula based on the attributes in the layer
- Modify the display properties of a layer
- View a legend of the visual characteristics of a layer
- Create a buffer around geometries in a layer
- Open the Options dialog box to modify the default layer settings

# **Publishing Your Layer Information to the Web**

Once you configure the layers, you can publish them on an XMap Web site and view them with a Web browser. Use the XMap Web functionality in the Workspace subtab to view, remove, download, and manage published layers on your XMap Web site. You can also use XMap Web to share layers.

## Downloading a Layer from XMap Web



This Help topic describes features that are available only in XMap Professional.

Use the Download option to download a layer from an XMap Web site.

#### To Download a Layer

Use the following steps to download a layer from an XMap Web site.

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not selected.
- 3. Click the Layers button and then click Download.
- 4. From the **Select Site** drop-down list, select the site that includes the layer you want to download.

The available layers on that site display in the download table. **Note** Only permanent sites display in the Select Site drop-down list.

- 5. Select the layer you want to download.
- 6. Click **Download**.
- 7. Click OK.

# Importing a Layer Into a Database



Not all of the import types listed in this Help topic are available in XMap Professional.

You can import ESRI (.shp, .e00), MapInfo (.mif, .tab), AutoCAD (.dxf, .dwf, .dwg), OGIS Geographic Markup Language (.gml, .xml), Geocode Types (.asc, .csv, .dbf, .txt, .mdb, .xls. .tab), XData datasets (.dds), DeLorme draw files (.an1), and DeLorme OpenSpace Transfer Files (.openspace) into a database that you can then query, classify, symbolize, and label. The import process depends on the type of file you are importing (if the file contains spatial reference information, if it is a geocode file type, etc.). You can also import layers from an ESRI ArcSDE database.

You can import a new layer, import a layer to append to an existing layer, or import a layer to replace an existing layer.

## To Import a Layer from a File

Use the following steps to import a layer from a file.

1. Click the **GIS** tab.

OR

- 2. Click the **Workspace** subtab if it is not selected.
- Click the Layers button, point to Import, and then click New Layer, Append Layer, or Replace Layer.
   The Import Layer wizard opens.

Click the Import Layers tool on the toolbar, and then click Import - New Layer, Import - Append Layer, or Import - Replace Layer.

4. If you are an XMap GIS Enterprise user, under **Source**, select **File**.

5. Under **Data File**, click the **Browse** button and browse to the file location you want to import. Once you find the file, double-click it or select it and then click **Open**.

The Layer text box is automatically completed with the default layer name (the file name portion of the file location or the name within the file) once you select the file you want to import. The file information, such as file name, location, file geometries, attribute fields, and coordinate boundaries, displays in the information area.

#### Notes

- To rename layers once the file is imported, right-click the layer in Workspace, click **Rename**, and then type a new name for the layer. Layer names need not be unique in the database.
- If the layer you are importing contains many layers, select the layer you want to import from the **Layer** drop-down list. You can import only one layer at a time.
- 6. Optional. For a new layer, type a new name for the layer in the **Name** text box.
- 7. From the **Database** drop-down list, select the database that you want to add the layer to. You can also select **Other** to attach a different database to add layers to. If you are importing a new layer, you can select **New** if you want to create a new database.
- 8. If you are appending or replacing a layer, select the destination layer from the **Layer** drop-down list.
- 9. Click Next.
- 10. <u>If you are importing a layer that contains spatial reference information</u> (coordinates, datum, and projection), a progress bar displays and the import process is complete.

OR

<u>If you are importing a layer that does not contain spatial reference information and is not a Geocode File Type</u> (.asc, .csv, .dbf, .txt, .mdb, .xls, .tab), go to the next step.

OR

If you are importing a Geocode File Type...

- a. Verify how the data displays under Geocode Fields. If it does not display correctly, under **Data Delimiter Type**, select the option that separates your data into the appropriate columns. If your first row is not a header row, clear the **First Row is Header** check box.
- b. Under **Geocode Fields**, click the header for each column and select the appropriate field option from the drop-down list.
- Under Geocode By, select how you want to locate your field information (Street Address, ZIP/Postal Code, or Latitude/Longitude).
   Note The available Geocode By options are based on which fields are assigned to the columns in step b.
- d. Click **Next**. If you selected Street Address or ZIP/Postal Code as the Geocode By option in step c, the import process is complete. If you selected the Lat/Lon Geocode By option in step c, proceed to step 7.

OR

If you are importing a layer that contains a relative coordinate system...

- a. Select a transform from the **Solution** drop-down list. For more information about transforms, see Registering an Image). If you select Bilinear or Linear Conformal, you must also provide rotation and distance unit information.
- b. Click the **Select** tool and place one point on the image and a corresponding point on the map.

  OR

If you do not know the rotation or units of the imported file, click the **Select** tool and place two pairs of points on the image and the map. XMap automatically calculates the rotation and scale automatically when you place two pairs of points.

#### **Notes**

- If you want to delete a pair of points you have placed, highlight the point information in the **Point** list and click the delete button.
- You cannot pan or zoom the map when the Select tool is enabled.
- When you place a point on the image, the coordinates for that point display in the ImageX and ImageY columns of the Point list; the coordinates are based on the coordinates in the imported image file. When you place a point on the map, the coordinates for that point display in the Latitude and Longitude columns.
- The X and Y values for the image update as your cursor moves over the image. Move your cursor over the image to view the X and Y coordinates for a point in the image for the image at a given point. You should be able to tell what the coordinate format of the image is by viewing the X and Y coordinates.
- c. Optional. Use the **Magnify** drop-down list in the upper-left corner of the Image Window to magnify the image in the Image Window and zoom in on the map in the Map Window until the image and map are approximately the same viewing resolution.
   **Note** Use the Magnify function and zoom in on the map to place more
- accurate points and more accurately register.
- d. Optional. Click the **Rotate Left** tool to rotate the image left. OR
  - Click the **Rotate Right** tool to rotate the image right.
- e. Optional. If you want to change the color of the background of the image, select a color from the **Background** drop-down list.
- f. Click **Done**.
   The image and map are linked and display at the same scale.
   **Note** Click Cancel at any time to cancel the import process.
- 11. Under **Datum Selection**, select a coordinate format from the **Coordinate** drop-down list and then select the datum that applies to your imported file (**WGS84**, **NAD83**, or **NAD27**) from the **Datum** drop-down list.

If you selected this coordinate system	Perform this action	
Lat/Lon	Go to step 8.	

UTM/UPS	Type the applicable zone number and band letter in the text boxes.
SPCS	Select the applicable zone and units from the drop-down lists.

**Note** If you select a coordinate format that does not match the data in the file you are importing, the information area under Converted Boundaries displays, "Invalid Boundary Coordinates."

#### 12. Click Finish.

**Note** If you click Cancel while the progress meter is displaying, it cancels the import process.

## **Append and Replace Examples**

This topics provides additional information about appending and replacing imported files. Go to Replace Examples.

# **Append**

This import method is used to append, or merge, a new layer to an existing GIS layer. The new layer must be of the same geometry type as the existing layer, and attribute columns must have an exact name match in order to append to each other.

In addition, like-named attributes in the incoming layer must be of the same type family in order to append. The importer will be as tolerant as possible within a type family, allowing data to convert or widen. For example, a 100-character string column in the source layer will widen to match a 200-character string in the target layer, and vice versa.

The following list shows which attributes are compatible, and the direction of compatibility:

Boolean -> Byte -> Small Interger -> Interger -> Big Integer

String <-> URLs

String -> Memo

Float -> Double

Datetime

Document

Currency

Memo

#### Notes

- By definition, any attribute is automatically compatible with itself, and its precision, if applicable, can widen or narrow.
- The master attribute and changes tables of the target layer are not emptied. The incoming data is written to the primary attributes table. The changes table has an entry written to it for each geometry that is added to the target layer.
- Geocoded point layers can be appended only if all their attribute columns match AND the source layer is geocoded by the same procedure as the target layer (Address & Address, Zip Code & Zip Code, Lat/Lon & Lat Lon).
- Layers that are left unregistered during the import process and have not had
  any registration applied to them after import can only have other
  unregistered layers appended to them. This is possible for .dxf, .dwf, and
  .dwg files that have no spatial reference to the earth surface. However, once

registration is applied to a layer, it cannot have other unregistered layers appended to it.

# **Append Example**

Below are two examples of how an append operation would affect the primary attribute table. Any attribute columns present in the import but absent in the target layer will be added. Any columns absent in the import but present in the target layer will be left in place. All unpopulated records are given NULL values. The spatial effect of Append is the same as a copy/paste operation; abutting or overlapping geometries are not joined.

## Example 1

#### SOURCE LAYER

ID	Name	Туре
1	Rt 1	Pavement
2	Deering Ave	Pavement
3	Higgins Rd	Dirt

## TARGET LAYER

ID	Name	Туре
4	Rt 46	Pavement
5	DeLorme Drive	Pavement
6	Merrill Lane	Dirt

## RESULT

ID	Name	Туре
1	Rt 1	Pavement
2	Deering Ave	Pavement
3	Higgins Rd	Dirt
4	Rt 46	Pavement
5	DeLorme Drive	Pavement
6	Merrill Lane	Dirt

#### Example 2

## SOURCE LAYER

ID	Name	Туре
1	Rt 1	Pavement
2	Deering Ave	Pavement
3	Higgins Rd	Dirt

TARGET LAYER

DFCC	FOO	BAR
1566	1	1
34	1	1
34	1	1

#### **RESULT**

ID	Name	Туре	DFCC	FOO	BAR
1	Rt 1	Pavement	<null></null>	<null></null>	<null></null>
2	Deering Ave	Pavement	<null></null>	<null></null>	<null></null>
3	Higgins Rd	Dirt	<null></null>	<null></null>	<null></null>
<null></null>	<null></null>	<null></null>	1566	1	1
<null></null>	<null></null>	<null></null>	34	1	1
<null></null>	<null></null>	<null></null>	34	1	1

#### OpenSpace Considerations

When appending OpenSpace layers, the following rules apply:

- 1) If the source layer has a column with a formula that differs from the formula of the same column in the target layer, the target layer's formula overwrites the source's layer's formula and is automatically applied to the entire layer.
- 2) If the target layer is schema 310-330, its classification overwrites the source layer's classification(s). If the target layer is schema 400+, all classifications are preserved in both the target layer and source layer. The target layer's active and default classifications are adopted in the resulting layer.
- 3) If the source layer and target layer have identically named Extended Attribute Sets that contain different attributes and join rules, the attribute sets are automatically unlinked from the source layer when appending occurs. The target layer maintains the link for its Extended Attribute Sets.
- 4) If the source layer has a different label structure than the target layer, the target layer's formula is adopted and automatically applied to the entire layer.

#### Replace

This import method is used to replace, or overwrite, an existing GIS layer with a new layer. The new layer must be of the same geometry type as the existing layer, and attribute columns must have an exact name match in order to append to each other.

In addition, like-named attributes in the incoming layer must be of the same type family in order to append. The importer will be as tolerant as possible within a type family, allowing data to convert or widen. For example, a 100-character string column in the source layer will widen to match a 200-character string in the target layer, and vice versa.

The following list shows which attributes are compatible, and the direction of compatibility:

Boolean -> Byte -> Small Interger -> Interger -> Big Integer

String <-> URLs

String -> Memo

Float -> Double

Datetime

Document

Currency

Memo

#### **Notes**

- The master attribute and changes tables of the target layer are emptied. The extended attributes tables are not emptied, but they must be manually rejoined after the import process is completed. The changes table has an entry written to it indicating a replace operation occurred to ensure OpenSpace Synchronization still operates. The changes table has an entry written to it for each geometry that is added to the target layer.
- By definition, any attribute is automatically compatible with itself, and its precision, if applicable, can widen or narrow.
- The same conditions that exist for Append for Geocoded point layers and unregistered .dxf, etc layers also exist for Replace.

## Replace Examples

Below are two examples of how a replace operation would affect the primary attribute table. Any attribute columns present in the import but absent in the target layer will be added. Unpopulated records are given NULL values. Any columns absent in the import but present in the target layer will be left in place, the data will be erased and populated with NULL values. The spatial affect of Replace is the same as deleting all geometries in the target layer and pasting in all geometries from the source layer.

#### Example 1

#### SOURCE LAYER

ID	Name	Туре
1	Rt 1	Pavement
2	Deering Ave	Pavement
3	Higgins Rd	Dirt

#### TARGET LAYER

ID	Name	Туре
4	Rt 46	Pavement
5	DeLorme Drive	Pavement
6	Merrill Lane	Dirt

#### **RESULT**

ID	Name	Туре
1	Rt 1	Pavement
2	Deering Ave	Pavement
3	Higgins Rd	Dirt

#### Example 2

#### **SOURCE LAYER**

ID	Name	Туре
1	Rt 1	Pavement
2	Deering Ave	Pavement
3	Higgins Rd	Dirt

#### TARGET LAYER

DFCC	FOO	BAR		
1566	1	1		
34	1	1		
34	1	1		

## **RESULT**

ID	Name	Туре	DFCC	FOO	BAR
1	Rt 1	Pavement	<null></null>	<null></null>	<null></null>
2	Deering Ave	Pavement	<null></null>	<null></null>	<null></null>
3	Higgins Rd	Dirt	<null></null>	<null></null>	<null></null>

# **OpenSpace Considerations**

When appending OpenSpace layers, the following rules apply:

- 1) If the source layer has a column with a formula that differs from the formula of the same column in the target layer, the target layer's formula overwrites the source's layer's formula and is automatically applied to the entire layer.
- 2) If the target layer is schema 310-330, its classification overwrites the source layer's classification(s). If the target layer is schema 400+, all classifications are preserved in both the target layer and source layer. The target layer's active and default classifications are adopted in the resulting layer.
- 3) If the source layer and target layer have identically named Extended Attribute Sets that contain different attributes and join rules, the attribute sets are

automatically unlinked from the target layer when replace occurs. The source layer maintains the link for its Extended Attribute Sets, and the new result layer adopts it.

- 4) If the source layer has a different label structure than the target layer, the target layer's formula is adopted and automatically applied to the entire layer.
- 3) If the source layer and target layer have identically named Extended Attribute Sets that contain different attributes and join rules, the attribute sets are automatically unlinked from the target layer when replace occurs. The source layer maintains the link for its Extended Attribute Sets, and the new result layer adopts it.

## Creating a New Layer



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

You can create new layers by:

- · Creating an empty layer
- Duplicating a layer
- Creating a layer from geometry selections on the map
- Creating a layer from query results

#### To Create an Empty Layer

Use the following steps to create an empty layer.

- 1. Click the GIS tab.
- 2. Click the Workspace subtab if it is not selected.
- 3. Click the **Layers** button, point to **Create**, and then click **Empty Layer**. The Create Empty Layer dialog box opens.
- 4. Select the layer type: **Point**, **Line**, or **Polygon**.
- 5. From the **Shape** drop-down list, select the shape for the layer type.
- 6. In the **Name** text box, type a name for the layer.
- 7. From the **Target Database** drop-down list, select the database where you want to store the new layer. If the database is not listed, select **Other** from the drop-down list and attach the existing database. If you want to create a new database, select **New**.
- 8. Click OK.

#### To Duplicate a Layer

**Important** This feature allows for cross-database transfers and is the mechanism that you should use to upgrade an XMap 4.5 database to an XMap 5.0 or later database.

This option is available only for the selected layer in the workspace.

Use the following steps to duplicate a layer.

- 1. Click the GIS tab.
- 2. Click the Workspace subtab if it is not selected.
- 3. In the Workspace table, click the layer that you want to duplicate.
- 4. Click the **Layers** button, point to **Create**, and then click **Copy Layer**. The Create Copy of Layer dialog box opens.

- 5. From the **Source Layer** drop-down list, select the layer you want to copy. The layer you selected in step 3 displays in the Layer Name text box. To change the layer name, type a new name in the box.
- 6. From the **Target Database** drop-down list, select the database where you want to store the new layer. If the database is not listed, select **Other** from the drop-down list and attach the existing database. If you want to create a new database, select **New**.
- 7. Click **OK**.

## To Create a New Layer From Current Geometry Selections

This option is activated when geometries in the selected layer in the workspace have been selected with a GIS tool or within the Attributes Datasheet View. Only one layer can have active selections at a time.

Use the following steps to create a new layer from current geometry selections.

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not selected.
- Click the Layers button, point to Create, and then click Layer from Selection.

The Create Layer from Selection dialog box opens.

- 4. To change the layer name, type a new name in the **Name** text box.
- 5. From the **Target Database** drop-down list, select the database where you want to store the new layer. If the database is not listed, select **Other** from the drop-down list and attach the existing database. If you want to create a new database, select **New**.
- 6. Click OK.

## To Create a New Layer From Query Results

This option is available only when there is an active query for the selected layer in the workspace.

Use the following steps to create a new layer using query results.

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not selected.
- Click the Layers button, point to Create, and then click Layer from Query Results.

The Create Layer from Query Results dialog box opens. The name of the active query displays in the Active Query text box and the number of query results display.

**Note** To change the active query, click **Cancel** to exit the Layer from Query Results dialog, click the **Query** subtab, and select the query you want to make active from the **Query** drop-down list. To proceed, repeat steps 2–4.

- 4. To change the layer name, type a new name in the **Name** text box.
- 5. From the **Target Database** drop-down list, select the database where you want to store the new layer. If the database is not listed, select **Other** from the drop-down list and attach the existing database. If you want to create a new database, select **New**.
- 6. Click OK.

## Viewing Layer Information in the Workspace Subtab



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

The Workspace subtab displays all of the GIS layers in your project; you can view the following information:

- The layer name (right-click and then click **Rename** to edit; double-click to center the map on the layer)
- The database in which the layer is stored
- The server on which the database resides
- The date on which the layer was last updated
- The date on which the layer was created
- The Z-level (display order) of the layer
- The map on which the layer displays; primary, secondary, or both (doubleclick to edit)
- The layer type (point, line, or polygon)
- The minimum data zoom level at which that layer displays on the map (double-click to edit)
- The maximum data zoom level at which the layer displays on the map (double-click to edit)
- The geometry shape (spherical, planar, topological (line layers only), geocode, unregistered, or redline)
- The database version used for the layer (401 represents an XMap 6 database; 400 represents an XMap 5.x database; 310 represents an XMap 4.5 database)
- The user's role for the database
- The number of geometries in the layer
- The active classification for the layer (double-click to edit the classification) available only when more than one classification has been created for the layer

If any of the columns do not display, right-click the table heading in the Workspace subtab and click the column name you want to view. To show/hide a column from the table, right-click the table heading and click the column name you want to show/hide. You can also right-click the table heading and click **Show All Columns** to view all of the available columns.

**Note** To sort columns, click the column header, drag it to the new position, and drop it. The sort order is saved in your project file.

## Adding and Removing Layers In Your Workspace



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

You can use the Manage Layers function to change the set of layers currently listed

in your workspace. Click the remove **Database Connection** button in the Manage Layers dialog box to deactivate the selected source database.

## To Add a Layer to Your Workspace

Use the following steps to add a layer to your workspace.

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not selected.
- Click the Layers button, and then click Manage.
   The Manage Layers dialog box opens.
   OR

Click the **Manage Layers** button on the toolbar. The Manage Layers dialog box opens.

4. From the **Source Database** drop-down list, select the database that contains the layer(s) you want to add to your workspace or select **Other** to attach a new database to add layers to.

The available layers for that database display under Layers in the Database.

5. Under Layers in the Database, click the layer that you want to add to your workspace and then click the Add button.

The layer displays in the Layers in the Workspace list.

OR

Under **Layers in the Database**, double-click the layer that you want to add to your workspace.

The layer displays in the Layers in the Workspace list.

**Note** You can also click the **Add All** button to add all of the layers in the database to your workspace.

6. Click OK.

#### To Remove a Layer From Your Workspace

This process removes the layer from the workspace, but does not remove it from the database. For information on removing a layer from a database, see Deleting a Layer.

Use the following steps to remove a layer from your workspace.

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not selected.
- Click the Layers button, and then click Manage.
   The Manage Layers dialog box opens.
   OR

Click the **Manage Layers** button on the toolbar. The Manage Layers dialog box opens.

4. From the **Source Database** drop-down list, select the database that contains the workspace you want to remove or select **Other** to attach a new database you want to modify.

The available layers for that database display under Layers in the Database and the layers in the workspace display under Layers in the Workspace.

5. Under Layers in the Workspace, click the layer in the workspace that you want to remove and then click the Remove button.

The layer displays in the Layers in the Database list.

OR

Under **Layers in the Workspace**, double-click the layer in the workspace that you want to remove.

The layer displays in the Layers in the Database list.

**Note** You can also click the **Remove All** button to remove all of the layers in the workspace.

6. Click OK.

**Note** You can also remove a layer from the database by highlighting the layer(s) in the workspace table, clicking the **Layers** button, and then clicking **Remove**. Or, just right-click the highlighted layers that you want to remove and click **Remove**.

## Viewing a Layer on the Map



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

You can view several layers on the map at once.

## To View a Layer on the Map

Use the following steps to view a single layer or multiple layers on the map.

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not selected.
- 3. Optional. Add layers to your workspace.
- To view a layer on the map, ensure the check box next to each layer you want to display is selected.
   OR
  - To view multiple layers on the map, hold the CTRL key on your keyboard while you click each of the layers you want to display. Then, click the **Layers** button and click the **Check Selected** option.
- 5. To determine which map (primary, secondary, or both) in which to view the layer, double-click the **Map** column for the layer you want to view. Then, select **Both**, **Primary**, or **Secondary**.

**Note** If you want to hide multiple layers on the map, hold the CTRL or SHIFT keys on your keyboard while you click each of the layers you want to hide. Then, click the **Layers** button and click the **Clear Selected** option.

## Viewing a Legend for all Visible Layers



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

Use the Legend feature to view a legend for all of the visible layers in your workspace. The legend title is the name of the layer's active classification, which is set to match the layer name by default. Use the Symbolize dialog box to modify the Legend Class labels.

## To View the Legend

Use the following steps to view the legend for all visible layers.

- 1. Click the **GIS** tab.
- 2. Click the **Workspace** tab if it is not selected.

3. Select the check box next to each layer you want to make visible in the legend.

**Note** To select multiple layers, hold the CTRL or SHIFT keys on your keyboard while you click each of the layers you want to include in the legend. Then, click the **Layers** button and click **Check Selected**.

Click **Tools** and then click **Legend** to view the legend information.

Right-click the layer(s) for which you want to view legend information and click **Legend**.

5. Click the **Close** button in the upper-right corner of the legend to close the Legend window.

# **Deleting a Layer**



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

When you delete a layer, it is permanently removed from the database.

#### To Delete a Layer

Use the following steps to delete a layer in a database.

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not selected.
- 3. In the **Workspace** list, click the layer you want to delete. To highlight multiple layers for deletion, hold the CTRL or SHIFT keys on your keyboard while you click each layer you want to delete.
- 4. Right-click the layer(s) in the list and click **Delete**.

A confirmation message displays.

OR

Click the Layers button and then click Delete.

A confirmation message displays.

5. Click **Yes** to delete the layer(s) from the database.

**Note** You can also delete layers from a database using the Manage Layers dialog

box. Click the **Manage Layers** tool on the toolbar; under **Layers in the Database**, click the layers you want to delete; and then click the **Delete** button .

## **Exporting a Layer**



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

Once you edit your layer, you may want to export the layer to another program that supports shapefiles, GML files, text files (point layers in XMap 5.0 GIS Enterprise and later only), or DeLorme OpenSpace transfer files (XMap 4.5 and later).

DeLorme OpenSpace transfer files contain all of your GIS data, including classification, symbolization, attributes, query information, etc. (shapefiles and GML files do not). If you have an active query against the layer you are exporting, you

can choose to export the results of the query only. You can also control which attribute fields are exported by turning them on/off in the Attributes Design View.

**Note** Not all attribute field data types are supported in the export file types (for example, .shp, .gml, .txt).

#### To Export a Layer

Use the following steps to export a layer as a shapefile, GML file, text file, or DeLorme OpenSpace transfer file.

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not selected.
- 3. Highlight the layer you want to export in the workspace table.
- 4. Edit the layer as needed, by changing the attributes, classifying, symbolizing, querying, etc.
- 5. Click the **Layers** button and then click **Export**. The Export Layer dialog box opens.
- 6. Browse to the location where you want to save the exported file, type the file name in the **File Name** text box, and, from the **Save as Type** drop-down list, select to save the file as a shapefile, ESRI GML file, text file, or DeLorme OpenSpace Transfer File.
  - **Note** If you choose .shp as the type, a .prj file that stores all of the project information for the layer is created.
- 7. If you want to export only the active query results, select the **Export Results** of Active Query check box.
- Click Save.

# **Refreshing Your Database Connection**



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

XMap has a Refresh View option that refreshes the data connections for each selected layer in the workspace, getting the latest updates from the SQL server. This is especially helpful when multiple users are accessing the same layers in a database.

#### To Refresh Your Database Connection

Use the following steps to refresh your database connections and get the latest update from the SQL server.

- 1. Click the GIS tab.
- 2. Click the Workspace subtab if it is not selected.
- Click the Layers button and then click Refresh View. OR

Right-click in the workspace table and click **Refresh View**.

## Modifying the Properties of a Layer



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

Use the Layer Properties dialog box to modify a layer's name, minimum and maximum data zoom levels, geometry shape, layering level and more.

# To Modify the Properties of a Layer

Use the following steps to modify the properties of a layer.

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not selected.
- 3. Click the layer for which you want to view/modify the properties.
- Right-click the selected layer and then click **Properties**.
   The Layer Properties dialog box opens.
   OR
  - Click the **Tools** button and then click **Properties**.
  - The Layer Properties dialog box opens.
- 5. To change the layer's name, type a new name in the **Layer Name** text box. **Tip** You can also change a layer's name in the workspace table by clicking the layer name twice. Be sure to click the layer name twice instead of double-clicking; double-clicking centers the map on the layer and does not activate the layer name cell for editing.
- 6. To change the geometry shape of the layer, select an option from the **Geometry Shape** drop-down list.
  - Planar (default)-This geometry shape is best for medium or large-scale mapping and is a simpler, and subsequently faster when performing spatial analysis, way of storing spatial data. It does not take the curvature of the earth into account, so line and polygon geometries that span long distances do not appear curved on the map.
  - **Spherical-**This geometry shape is best for large-scale mapping and is more complex than Planar. As a result, spatial analysis operations may take more time. It does take the curvature of the earth into account, so line and polygon geometries that span long distances appear curved on the map.
    - **Note** Changing a layer to or from the Spherical Geometry type may lock up the database while you perform the operation.
  - **Topological** (line layers only)-This geometry shape is used to store connections between nodes of intersecting lines. Once two or more nodes are connected, any repositioning of that node automatically repositions all the line segments that share that node. The Topological geometry shape is stored as a Planar type.
  - **Unregistered** (.dxf, .dwg, and .dwf layers only)-This geometry shape is used for imported layers (dxf, .dwg, .dwf) that have no spatial reference on the Earth. Until these layers are registered with the Register tool, you cannot perform spatial analysis. Once registration is completed for a layer, it is automatically assigned the Planar type.
  - **Geocode** (geocoded layers only)-This geometry shape is used for geocoded point layers and has special attribute properties. When you

- edit the attributes of a geometry by which the layer was geocoded, the spatial location of that geometry is repositioned accordingly.
- Redline (redline layers only)-This geometry shape is used for the GIS Redline layer automatically produced in Enterprise databases. GIS Redline layers are special layers that are the repositories of all redlines produced by the redlining/sync process as part of an Enterprise database subscription. The Redline geometry shape is stored as a Planar type.

If the layer is a point layer, Planar is the only Geometry Shape option available unless the point layer was geocoded and then the option is Geocode Points. If the layer is a polygon layer, the Geometry Shape options are Planar and Spherical. If the layer is a line layer, the Geometry Shape options are Planar, Spherical, and Topological. If the layer is a redline layer, Redline is the only Geometry Shape available.

**Note** The Geometry Shape option is disabled when there are uncommitted edits against the layer.

- 6. To change the minimum and maximum zoom levels at which the layers display on the map, select the zoom levels from the **Min. Zoom Level** and **Max. Zoom Level** drop-down lists.
- 7. To change on which map the layer is viewed (primary, secondary, or both), select the option from the **Map** drop-down list.
- 8. To change the layering level, click inside the **Layering Level** text box and edit the value. For more information, see Reordering Layers.
- 9. If you want to show labels related to the layer, select the **Labels** check box. 10. Click **OK**.

# Creating a Buffer Around a Geometry



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

Use the Buffer feature in XMap to create a buffer around a geometry based on a specific distance. This tool is helpful in GIS spatial analysis when proximity issues are of concern, such as site planning or risk assessment.

#### To Create a Buffer

Use the following steps to create a buffer around a geometry.

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not selected.
- 3. Click **Tools** and then click **Buffer**. The Buffer Layer dialog box opens.
- 4. From the **Source Layer** drop-down list, select the layer that for which you want to create a buffer (only layers in the workspace will display in this list).
- 5. Select the **Source Geometries** option:
  - All to build buffers around all geometries in the source layer.
  - **Selected** to build buffers around selected geometries in the source layer. (Selections are made with the GIS tools on the toolbar or by selecting attribute records within the Attributes subtab.)

**Note** This option is grayed out when there are no selections in the source layer.

- Query Results to build buffers around geometries in the source layer that are contained within the results of the active query.
   Note This option is grayed out when there is no active query in the source layer.
- 5. Under Output Location, select New Layer or Existing Layer.
- 6. If you selected the New Layer option in step 5, specify the name of the new layer in the Layer Name text box. Then, select the database for the new layer from the Target Database drop-down list or select Other to attach a new database to add layers to.
  OR
  - If you selected the Existing Layer option in step 5, from the **Layer Name** drop-down list, select an existing polygon layer in your workspace that will include the buffer information.
- 7. Type the buffer distance in the **Distance** text box. Then, select the distance measurement (feet, meters, miles, kilometers, nautical miles) from the drop-down list.
- 8. Select the **Merge Overlapping Buffer Regions** check box if you want to convert buffer polygons that overlap each other into one continuous polygon. OR
  - Clear the **Merge Overlapping Buffer Regions** check box if you want to retain the individual buffer polygons even when the buffers overlap.
- 9. Click OK.

# Adding Geometries to a Layer



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

Use the toolbar to edit existing GIS data or build GIS data in an empty/existing layer.

#### **Notes**

- When you click the Edit Points tool on the toolbar, the default map mode, which provides several right-click features when you click the map, is disabled on the map area (primary, secondary, or both) where the layer is
  - displayed. To return to the default map mode, click the **Navigation** tool on the toolbar.
- While adding polygon or line geometries, you can disable snapping by holding the ALT key on your keyboard. To enable the measurement information box, which can display on the map when adding geometries, hold the SHIFT key while you draw.
- To undo your last action, click the **Undo** button on the toolbar. To redo your last action, click the **Redo** button.
- To save all of the changes you make to a layer, click the Manual Commit

Mode tool . If you do not want to be prompted to save your changes each time you switch the Active Layer or when you work outside of the tab, click the down arrow next to the commit changes tool and select the **Automatic** 

Commit Mode tool

to automatically commit your changes.

#### To Add Geometries to a Layer

Use the following steps to add geometries (points, line, or polygons) to a layer.

- 1. From the **Active Layer** drop-down list on the toolbar, select the layer you want to edit.
- 2. To add points to a point layer, click the **Draw Point** tool on the toolbar and then click the location on the map where you want to place the points. OR

To add lines to a line layer, click the **Draw Line** tool on the toolbar and then click the map to designate the start and end points of each line segment you want to add, or drag the cursor to create a freehand line. To finish the line, double-click the last point of the line.

If the layer to which you are adding lines to is a topological line layer, the start and end nodes are annotated with the following symbols:

- Used for a start or end node of a line that has connections with three or more nodes (for example, a four-way intersection). The number on the symbol indicates the number of connections at that node.
- Used for a start or end node of a line that has connections with two other nodes (for example, a three-way intersection).
- Used for a start or end node of a line that has connections with one other node (for example, a two-way intersection).
- Used for the start or end node of a line that has no connections with other nodes (for example, a dead end).
- A node and a shape point are coincident.

OR

To add polygons to a polygon layer, click the **Draw Polygon** tool on the toolbar and then click the map to enter each point of the polygon. To finish the polygon, double-click the last point of the polygon.

# Editing Points in a Polygon/Line Layer



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

Use the Edit Points button on the toolbar to edit existing GIS data or build GIS data in an empty/existing layer.

# Notes

• When you click the **Edit Points** tool on the toolbar, the default map mode, which provides several right-click features when you click the map, is disabled on the map area (primary, secondary, or both) where the layer is

displayed. To return to the default map mode, click the **Navigation** tool on the toolbar.

- To undo your last action, click the **Undo** button on the toolbar. To redo your last action, click the **Redo** button.
- To save all of the changes you make to a layer, click the Manual Commit

**Mode** tool . If you do not want to be prompted to save your changes each time you switch the Active Layer or when you work outside of the tab, click the down arrow next to the commit changes tool and select the **Automatic** 

Commit Mode tool to automatically commit your changes.

- Many right-click options are available when editing topological lines, including:
  - Deleting points
  - Joining/splitting lines
  - Breaking the selected node—breaks the selected node from the nodes it is connected to but keeps the other nodes connected
  - Breaking multiple nodes—breaks all nodes away from each other at the selected point of connection
  - Extending a line
  - Deleting an object

## To Edit Points in a Polygon/Line Layer

Use the following steps to edit shape points in a polygon/line layer.

- 1. From the **Active Layer** drop-down list on the toolbar, select the polygon/line layer you want to edit.
- 2. Click the **Edit Points** tool on the toolbar and select a geometry. The shape points in the geometry display as white squares outlined in black. If you edit a line or polygon layer, the start and end nodes are annotated with the following symbols:
  - Used when the edited shapepoint is being snapped to the start node

of a polygon geometry or the end node of a line geometry.

- Used when the edited shapepoint is being snapped to the shapepoint of another geometry.
- Used when the edited shapepoint is being snapped to the edge of another geometry when there are no shape points.

If you edit a topological line layer, the start and end nodes of the lines in the layer are annotated with the following symbols:

- Used for a start or end node of a line that has connections with three or more nodes (for example, a four-way intersection). The number on the symbol indicates the number of connections at that node.
- Used for a start or end node of a line that has connections with two other nodes (for example, a three-way intersection).
- Used for a start or end node of a line that has connections with one other node (for example, a two-way intersection).
- Used for the start or end node of a line that has no connections with other nodes (for example, a dead end).
- A node and a shape point are coincident.
- 3. Move your cursor over the shape point you want to edit. The cursor turns into when you hover over shape points.
- 4. Drag the point you want to edit to the new position.

## Moving or Changing the Scale of a Geometry



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

Use the Edit tool on the toolbar to edit existing GIS data or build GIS data in an empty/existing layer.

### Notes

When you click the Edit Points tool
 on the toolbar, the default map mode, which provides several right-click features when you click the map, is disabled on the map area (primary, secondary, or both) where the layer is

displayed. To return to the default map mode, click the **Navigation** tool on the toolbar.



• To save all of the changes you make to a layer, click the **Manual Commit**Mode tool

If you do not want to be prompted to save your changes each

time you switch the Active Layer or when you work outside of the tab, click the down arrow next to the commit changes tool and select the **Automatic** 

**Commit Mode** tool to automatically commit your changes.

- You cannot edit read-only geometries.
- Hold the SHIFT key on your keyboard to add/remove an object to/from a multi-selection.

## To Move a Geometry

Use the following steps to move a geometry.

- 1. From the **Active Layer** drop-down list on the toolbar, select the layer you want to edit.
- 2. Click the **Edit** tool on the toolbar
- 3. Move your cursor over the geometry (a gray box displays over each object as you hover it) and click the object you want to edit. Small white squares indicate the edges and corners of the object.

**Note** To move multiple geometries, drag your cursor to encompass all of the geometries you want to move. Then, position your cursor over one of the geometries and move it in the direction you want to move all geometries.

4. Drag the object to the new location.

## To Change the Scale of a Geometry

Use the following steps to change the scale of a geometry.

- 1. From the **Active Layer** drop-down list on the toolbar, select the layer you want to edit.
- 2. Click the **Edit** tool on the toolbar
- 3. Move your cursor over the geometry (a gray box displays over each object as you hover it) and click the object you want to edit. Small white squares indicate the edges and corners of the object.
- 4. Drag any of the small white squares to achieve the size and proportion you want.

### Rotating a Geometry



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

Use the Rotate tool on the toolbar to edit existing GIS data or build GIS data in an empty/existing layer.

#### **Notes**

When you click the Edit Points tool
 on the toolbar, the default map mode, which provides several right-click features when you click the map, is disabled on the map area (primary, secondary, or both) where the layer is

displayed. To return to the default map mode, click the **Navigation** tool



on the toolbar.

- To undo your last action, click the **Undo** button on the toolbar. To redo your last action, click the **Redo** button.
- To save all of the changes you make to a layer, click the Manual Commit

**Mode** tool . If you do not want to be prompted to save your changes each time you switch the Active Layer or when you work outside of the tab, click the down arrow next to the commit changes tool and select the **Automatic** 

Commit Mode tool to automatically commit your changes.

• The rotate tool is not available for topological line layers.

## To Rotate a Geometry

Use the following steps to rotate a geometry.

- 1. From the **Active Layer** drop-down list on the toolbar, select the layer you want to edit.
- 2. Click the **Rotate** tool on the toolbar.
- 3. Click the geometry on the map that you want to rotate.
- 4. Position your cursor over one of the green circles and drag the object until it has reached the new position.

**Note** Geometries are rotated based on the geographic center point of the object, which may produce confusing results.

## **Deleting a Geometry**



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

Use the Edit tool on the toolbar to delete geometries on the map.

### **Notes**

When you click the Edit Points tool
 on the toolbar, the default map mode, which provides several right-click features when you click the map, is disabled on the map area (primary, secondary, or both) where the layer is

displayed. To return to the default map mode, click the **Navigation** tool on the toolbar.



• To save all of the changes you make to a layer, click the **Manual Commit**Mode tool

If you do not want to be prompted to save your changes each time you switch the Active Layer or when you work outside of the tab, click the down arrow next to the commit changes tool and select the **Automatic** 

Commit Mode tool to automatically commit your changes.

· You cannot edit read-only geometries.

## To Delete a Geometry

Use the following steps to delete a geometry.

- 1. From the **Active Layer** drop-down list on the toolbar, select the layer you want to edit.
- 2. Click the **Edit** tool on the toolbar
- 3. On the map, click the geometry you want to delete.
- 4. Right-click the geometry and click **Delete Object**. OR

Press the DELETE key on your keyboard.

## Making COGO Edits



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

COGO editing (coordinate geometry editing) is used for precision data creation or editing. Points, lines, or polygons can be built, edited, or centered by coordinates, angle/distance measurements, or bearing/distance measurements.

COGO editing is useful when you know the exact location of points or the shape points of the line or polygon geometries you would like to create or edit. It is also helpful when you know the exact location of the points, lines, or polygons on which you want to center.

### To Make COGO Edits

Use the following steps to use the COGO dialog box.

- Select the layer you want to edit from the Active Layer drop-down list on the toolbar.
- If you want to place your point/line/polygon by coordinate, click the Coordinates tab. The information that is required in this tab varies depending on the coordinate system chosen in the Display settings in the Options dialog box.

OR

If you want to place your point/line/polygon by angle and distance measurements, click the **Angle** tab. The angle information is based on the angle from the last point that was placed. The distance information is the distance from the last point that was placed. OR

If you want to place your point/line/polygon by bearing and distance measurements, click the **Bearing** tab. The bearing information is not related to the last point, rather fixed angular measurements.

 Select the **Zoom to Points** check box if you want the map to center on each COGO placement you make in the next step.

Clear the **Zoom to Points** check box if you do not want the map to center on the COGO points.

5. For point layers, type the coordinates/angle/bearing of the point in the applicable text boxes and then click **Apply**. Repeat this step for each point that you want to place.

OR

For line layers, type the coordinates/angle/bearing for the first point in the line in the applicable text boxes and then click **Apply**. Repeat this step for each line segment that you want to place.

OR

For polygon layers, type the coordinates/angle/bearing of a corner of the polygon in the applicable text boxes and then click **Apply**. Repeat this step for each corner of the polygon that you want to place.

6. Click Finish to close the COGO point/line/polygon.

7. Click the **Close** button in the upper-right corner of the COGO Editing dialog box to close the dialog box.

#### Note

You can also center single/multiple geometries with the COGO tool.

- From the Active Layer drop-down list on the toolbar, select the layer you want to edit.
- 2. Click the **Edit** tool on the toolbar and then, on the map, click the geometry (or geometries) that you want to center.
- 3. Click the **COGO** tool on the toolbar. The COGO Editing dialog box opens.
- 4. Adjust the coordinates/angle/bearing values to center the geometries at that location.

## **Analyzing Topological Line Layers**



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

Use the Magic Wand tool on the toolbar to make selections on the map that allow you to edit the attributes of the selected lines. You can run dynamic attribute queries against topological line geometries based on connectivity. The tool works by highlighting all line geometries (within the extent of the current map display) that have the same attribute criteria as the selected line and that are connected to a line selected with the tool. The magic wand tool becomes active on the toolbar only when a topological line layer is selected in the Active Layer drop-down list.

### Notes

- Hold the SHIFT key on your keyboard to add additional geometries to the selection and query them one at a time.
- The Magic Wand tool is unavailable for spatial gueries.
- XMap Professional users can access User Input queries but cannot create queries or edit the topological line layers.

### To Analyze Topological Line Layers

Use the following steps to analyze a topological line layer.

- 1. Ensure you have a topological line layer in your workspace and then select it from the **Active Layer** drop-down list on the toolbar.
- 2. Click the **Query** tab and create a query.
- 3. Select the **User Input** check box.
  The query displays in the Magic Wand drop-down list.
- 4. Repeat steps 2-3 for each query you want to create.
- 5. Select the query from the **Magic Wand** drop-down list. The cursor changes to selection mode.
- 6. Click to select a line on the map.
  All lines that satisfy the attribute query criteria equal to the selected line and

are connected to that line will be highlighted.

**Note** Only the section of that line that is displaying in the map rectangle is selected. To select a larger segment, press the W key on your keyboard or click the **Magic Wand** tool on the toolbar again.

## **Copying/Cutting and Pasting Geometries**



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

You can copy/cut and paste geometries in a layer or between layers.

## To Copy/Cut and Paste Geometries

Use the following steps to copy/cut and paste geometries in a layer or between layers.

- 1. From the **Active Layer** drop-down list on the toolbar, select the layer that includes the geometry (or geometries) you want to copy.
- 2. Click the **Edit** tool on the toolbar



4. To copy the geometry, click **Copy**. OR

To cut the geometry from the layer, click Cut.

**Note** To select multiple geometries to copy at the same time, press the SHIFT key on your keyboard while you click each geometry.

5. To paste the geometry in the current layer, right-click the location on the map where you want to paste the geometry and click **Paste**.

OR

To paste the geometry in a different layer, ensure the layer is in your workspace (and selected to be shown on the map) and then select a different layer from the **Active Layer** drop-down list on the toolbar. Right-click the map and click **Paste**.

The geometry is placed in the same location where it was in the original layer. To move the geometry to a different location, see Moving or Changing the Scale of a Geometry.

# Classifying, Symbolizing, and Labeling a Layer

## Classifying

### Classifying a Layer



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

You can classify a layer based on one of the following three options:

• Unique Value—When you classify a layer in a database with a unique value, each attribute with fewer than 100 values displays differently on the map.

- Range—When you classify a layer with a range, the data in the layer can be grouped, given color (or size) characteristics, and labeled so that it can be visually analyzed.
- Single Value—When you classify a layer in a database with a single value, you make all the records look the same on the map. For example, they all have the same fill color on the map.

## Classifying a Layer with a Unique Value



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

When you classify a layer in a database with a unique value, each attribute with fewer than 100 values that you classified is put into its own class and displays differently on the map.

**Note** If you classify a layer with a unique value on a float/double column, undesirable results may occur due to precision limitations. Try classifying the layer with a range instead.

### To Classify a Layer with a Unique Value

Use the following steps to classify a layer with a unique value.

- 1. Click the **GIS** tab.
- 2. Click the Workspace subtab if it is not selected.
- 3. Click the layer you want to classify.
- 4. Click the **Tools** button and then click **Classify**.

The Classify Layer dialog box opens.

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Right-click the layer and click Classify.

The Classify Layer dialog box opens.

5. To edit/view an existing classification for the selected layer, select it from the **Classification** drop-down list.

OR

To create a new classification for the selected layer, click the **Manage** button and then click **New**.

- 6. From the **Type** drop-down list, select **Unique Value**.
- 7. From the **Field** drop-down list, select the field in your layer that you want to classify.
  - **Note for small layers** Only fields containing fewer than 100 unique values display in the Field drop-down list. The options in the Field list are based on the visible attributes in the Design View of the Attributes subtab. When you select Unique Value as the classification method, all visible numbers and strings are available in the Field drop-down list.
- 8. If you selected a numeric field in step 7, select the field by which you want to divide the field in step 6 from the **Normalize By** drop-down list. **Note** When you select a field to normalize by, classes are created based on the ratio of data in the first field to the second field for each attribute record.

- 9. If you selected a numeric field in step 7, select the decimal place to which you want to round your value from the **Round At** drop-down list.
- 10. From the **Vary By** drop-down list, select how you want to vary your value. **Note** The Custom option allows you to customize classifications that do not follow a set scheme or pattern. If you change the symbolization of a class in an existing classification, the Vary By option automatically changes to Custom and any new classes that you add to the classification are assigned the default symbology for that layer's geometry type; for example, green in color.
- 11. If you selected Fill Color in step 10, select a color scheme from the **Scheme** drop-down list.
  - **Sequential**–Displays a color that progresses from low to high (or high to low) in color value.
  - **Qualitative**–Displays colors that vary in color hue to represent different legend classes.
  - **Diverging**—Puts equal emphasis on mid-range critical values and extremes at both ends of the data range.

Then, select a color pattern from the **Pattern** drop-down list.

12. Optional. Click the **Reverse Order** button to reverse the style for how your classes are varied.



- 13. Optional. To edit an existing classification, click the **Recalculate** button to recalculate the classification.
- 14. Optional. To add a class to your classification, click the **Add Class** button

  Double-click in the **Value** and/or **Legend Label** fields to edit the values.
- 15. Optional. To remove a class from your classification, click the **Remove Class** button
- 16. Click **OK**.

**Note** Once you create a unique value classification, you can use the classification menu on the toolbar to edit the classification of a selection on the map. The classification tool on the toolbar is available only for active layers with a unique value classification and only after you click either the edit points tool, the edit tool, or the draw tool and select a geometry.

## Classifying a Layer with a Range



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

When you classify a layer with a range, the data in the layer is clustered into classes based on a statistical algorithm and each class is varied by color or size) characteristics.

The Classification drop-down list in the Classify Layer dialog box displays all classifications created for a layer.

### To Classify a Layer with a Range

Use the following steps to classify a layer with a range.

- 1. Click the GIS tab.
- 2. Click the Workspace subtab if it is not selected.
- 3. Click the layer you want to classify.
- 4. Click the **Tools** button and then click **Classify**.

The Classify Layer dialog box opens.

OR

Right-click the layer and click Classify.

The Classify Layer dialog box opens.

 To edit/view an existing classification for the selected layer, select it from the Classification drop-down list.

To create a new classification for the selected layer, click the **Manage** button and then click **New**.

- 6. From the Type drop-down list, select Range.
- 7. From the **Field** drop-down list, Select the field in your layer that you want to classify.

**Note** The options in the Field list are based on the visible layers in the Design View of the Attributes subtab. When Range is selected as the classification method, all visible numeric fields are available in the Field dropdown list.

8. From the **Normalize By** drop-down list, select the field by which you want to divide the field in step 7.

**Note** When you select a field to normalize by, classes are created based on the ratio of data in the first field to the second field for each attribute record.

- 9. From the **Method** drop-down list, select the method you want to use.
  - **Equal Interval**–Divides the range of attribute values into equal sized sub-ranges.
  - Natural Break-Identifies breakpoints among groups using the Jenk's Optimization statistical formula and finds groupings and patterns inherent in the data.
  - **Quantile**–Divides the range of attribute values so that each group contains the same number of records in the classification field.
  - **Standard Deviation**–Measures the difference between a single record and the average of all of the records in the layer.
  - Maximum Break-Identifies large gaps between groups and finds groupings and patterns inherent in the data.
  - **Custom**–Lets you manually update the classification boundaries of any of the other methods.

Note Minimum and maximum range values cannot overlap.

10. If you selected Standard Deviation in step 9, from the Classes drop-down list, select the number of standard deviations you want to use. OR If you did not select Standard Deviation in step 9, in the **Classes** text box, type how many classes you want to set in the range method.

- 11. From the **Round At** drop-down list, select the decimal place to which you want to round your range.
- 12. From the **Vary By** drop-down list, select how you want to vary your ranges (options vary based on layer type).

**Note** The Custom option is used for classifications that do not follow a set scheme or pattern and are customized by the user. If you change the symbolization of a class in an existing classification, the Vary By option will change to Custom automatically and any new classes that are added to the classification will be assigned the default symbols for that layer's geometry type (for example, green in color).

- 13. If you selected a color option in step 12, from the **Scheme** drop-down list, select a color scheme.
  - Qualitative—Displays colors that vary in color hue to represent different legend classes.
  - **Sequential**–Displays a color that progresses from low to high (or high to low) in color value.
  - **Diverging**—Puts equal emphasis on mid-range critical values and extremes at both ends of the data range.

Then, select a color pattern from the **Patter**n drop-down list.

- 14. Optional. Click the **Reverse Order** button to reverse the style for how your ranges are varied. For example, if you selected to vary your range by color and the color represents the lowest value as the lightest color and the highest value as the darkest color, you can click the reverse button to have the darkest color represent the lowest value and the lightest color represent the highest value (or vice versa).
- 15. Optional. If you are editing an existing classification, click the **Recalculate** button to recalculate the row counts for each class.
- 16. Optional. To add a class to your classification, click the **Add Class** button

  Double-click in the **Min**, **Max**, **Legend Label** fields to edit the values.
- 17. Optional. To remove a class from your classification, click the **Remove Class** button
- 18. Click **OK**.

The classification is saved for future use. To view it again, select it from the **Classification** drop-down list.

## Classifying a Layer with a Single Value



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

When you classify a layer in a database with a single value, all of the records are in the same class and look the same on the map. For example, they all have the same fill color on the map. By default, single-value classifications are automatically assigned to all layers.

### To Classify a Layer with a Single Value

Use the following steps to classify a layer with a single value.

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not selected.
- 3. Click the layer you want to classify.
- 4. Click the **Tools** button and then click **Classify**.

The Classify Layer dialog box opens.

OR

Right-click the layer and click Classify.

The Classify Layer dialog box opens.

5. To edit/view an existing classification for the selected layer, select it from the **Classification** drop-down list.

OR

To create a new classification for the selected layer, click the **Manage** button and then click **New**.

- 6. Select **Single Value** from the **Type** drop-down list.
- 7. Click OK.

## Saving a Classification to a Template File



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

Use the Save as Template feature in the Classify Layer dialog box to save the parameters of a selected classification into a template that you can apply to another layer. The Save as Template feature is useful only when the layer to which you are applying the template has the same attribute fields (name and data type) as those used in the original template. If the layer does not have the same attribute fields as those used in the template, an error will appear when applying the template to the layer.

## To Save a Classification to a Template File

Use the following steps to save a classification as a template.

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not selected.

- 3. Click the layer that contains the classification that you want to save as a template.
- 4. Click the Tools button and then click Classify.

The Classify Layer dialog box opens.

OR

Right-click the layer and click **Classify**.

The Classify Layer dialog box opens.

- 5. From the **Classification** drop-down list, select the classification you want to save as a template .
- 6. Click the **Manage** button and then click **Save as Template**. The Save Template dialog box opens.
- 7. Browse to the location where you want to save the template, name the template, and click **Save**.

**Note** Classification templates have .xmc extensions.

8. Click OK.

## Creating a Classification From a Template File



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

Use the Load Template feature in the Classify Layer dialog box to attach a classification template to classification. The layer to which you are applying the template must have the same attribute fields (name and data type) as those used in the original template. If the layer does not have the same attribute fields as those used in the template, an error will appear when you apply the template to the layer.

#### To Apply a Template to a Classification

Use the following steps to attach a template to a classification.

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not selected.
- 3. Click the layer that you want to classify.
- 4. Click the Tools button and then click Classify.

The Classify Layer dialog box opens.

OR

Right-click the layer and click **Classify**.

The Classify Layer dialog box opens.

- 5. Click the **Manage** button and then click **Load Template**.
  - The Open Template dialog box opens.
- 6. Browse to the location where the template was saved and click **Open**. **Note** Classification templates have .xmc extensions.
- 7. Optional. Recalculate or classify the layer based on the settings in the template.
- 8. Click OK.

## Copying a Classification



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

You can copy an existing classification if you want to make minor adjustments to it without overwriting the classification. Copied classifications are created as new, independent classifications.

### To Copy a Classification

Use the following steps to create a copy of an existing classification.

- 1. Click the GIS tab.
- 2. Click the Workspace subtab if it is not selected.
- 3. Click the layer that contains the classification that you want to copy.
- 4. Click the **Tools** button and then click **Classify**.

The Classify Layer dialog box opens.

OR

Right-click the layer and click **Classify**.

The Classify Layer dialog box opens.

- 5. From the **Classification** drop-down list, select the classification you want to copy.
- 6. Click the Manage button and then click Copy.
- 7. The original classification is retained and the new classification is named "Copy of <classification name>."
- 8. Click OK.

## Renaming a Classification



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

Classifications names are based on the layer name by default. You can change the default classification name using the Rename feature in the Classify Layer dialog box. The classification is used in the print legend.

### To Rename a Classification

Use the following steps to rename a classification.

- 1. Click the GIS tab.
- 2. Click the Workspace subtab if it is not selected.
- 3. Click the layer that contains the classification that you want to rename.
- Click the **Tools** button and then click **Classify**.
   The Classify Layer dialog box opens.
   OR

Right-click the layer and click **Classify**. The Classify Layer dialog box opens.

- 5. From the **Classification** drop-down list, select the classification you want to rename.
- 6. Click the **Manage** button and then click **Rename**. The Classification text box opens for editing.
- 7. Edit the classification name and then press the ENTER key on your keyboard.
- 8. Click **OK** to close the Classify Layer dialog box.

## **Deleting a Classification**



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

Because all completed classifications are retained, you may want to delete an existing classification that you no longer need.

#### To Delete a Classification

Use the following steps to delete an existing classification.

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not selected.
- 3. Click the layer that contains the classification that you want to delete.
- 4. Click the **Tools** button and then click **Classify**.

The Classify Layer dialog box opens.

OR

Right-click the layer and click **Classify**.

The Classify Layer dialog box opens.

- 5. From the **Classification** drop-down list, select the classification you want to delete.
- 6. Click the **Manage** button and then click **Delete**.
- 7. Click OK.

## Symbolizing and Labeling

### Symbolizing and Labeling Overview

You can symbolize your layer so that you have complete control of how the layer displays on the map. The symbolize options vary based on the type of layer—point, polygon, or line—you are modifying. With the Symbolize Layer dialog box, you can make line changes, color changes, symbol changes, and font changes (for labels).

**Tip** Click the icon next to the layer name to quickly open the Symbolize Layer dialog box.



## Symbolizing a Line Layer

Use the Symbolize Layer dialog box to customize the layer's visual properties or select to show/hide certain elements or classes of the layer produced by a classification. If you change the visual property of a class produced from a classification, the Vary By scheme is automatically set to Custom in the Classify Layer dialog box.

### To Change the Color/Outline/Label Properties of a Line Layer

Use the following steps to change the color/outline/label properties of a feature in a line layer.

- 1. Click the **GIS** tab.
- 2. Click the **Workspace** subtab if it is not selected.
- 3. Click the layer you want to symbolize.
- 4. To open the Symbolize Layer dialog box:

Click the layer icon next to the layer name.

OR

Click the Tools button and then click Symbolize.

The Symbolize Layer dialog box opens.

OR

Right-click the layer and click Symbolize.

OF

**XMap GIS Editor and Enterprise only** Right-click a line on the map and click **Symbolize**.

Under Symbolization, each row in the table displays each of the classes in the layer. Each column in the table indicates:

This Column	Displays
Field name/Feature	The minimum and maximum (or unique) values of each class.
Sample	The current visual property for each class.
Legend Label	The current label for each class. The Null Class indicates any object for which the attribute value falls out of the classification. The Highlight Features label lets you visually identify which records have been queried.  Note Records that are symbolized with a highlight are saved in the layer when it is published to XMap Web.

The field you chose while classifying the layer displays each of the features for that layer. Each of the features are selected by default to show on the map.

5. Click the feature for which you want to change the properties. Note To select multiple features, press the CTRL key on your keyboard while you select multiple features. To select a block of features, press the SHIFT key on your keyboard while you select the first and last records in the block. To select all features, press CTRL + A.

- 6. To change the opacity of the color of your feature, from the **Opacity** dropdown list, select **Opaque** (0% transparent), **Transparent** (100% transparent), **Blended** (50% transparent), or **XOR** (combination of the source and background pixels—most useful when records with the same symbolization overlap).
- 7. To change the line color of your feature, click the **Color** button and select a standard or custom line color. Then, select a line width from the **Width** dropdown list and a line style from the **Style** drop-down list.
- 8. To change the outline color of your feature, click the **Outline Color** button and select a standard line color or create a custom line color. Then, select how wide you want your outline to display from the **Width** drop-down list and an outline style from the **Style** drop-down list. **Note** An outline is placed underneath a line. Therefore, if the outline is thinner than the line, the outline may not be visible. To ensure an outline will be visible, make sure the outline is at least 1 pixel greater than the line. **Tip** By outlining a line, you can make a line look like a highway.
- 9. To change the properties of your label, ensure the **Show Label** check box is selected and then:
- a. Select a different font from the **Font** drop-down list.
- b. To change the font style, click the **Bold** button **B**, **Italic** button **J**, or **Underline** button **Y**. You can also click **More Styles** for additional font style options.

**Tip** Select the **Outline** option under **More Styles** to outline the text with white, making the text easier to read on the map.

- c. To change the font color, click the **Font Color** button and select a standard font color or create a custom font color.
- d. To change the font size, select a size from the **Size** drop-down list.
- e. To hide the label on the map, clear the **Show Label** check box.
  - **Tip** Once you modify the font properties of labels, the text may appear cluttered on the map. If this is the case, ensure the **Declutter Text** check box is selected to remove some of the text on the map.
  - 10. Repeat the steps for each layer feature you want to symbolize.
  - 11. Click **OK**.

### Note

You can also show/hide a feature on the map:

To show a feature that is currently disabled, select the feature and then select the **Show Feature** check box under **Line Feature**.

OR

To hide a feature, select the feature and then clear the **Show Feature** check box under **Line Feature**. The feature displays as "Disabled" in the Symbolization dialog box. To hide multiple features, press the CTRL key on your keyboard while you click the features you want to hide and then clear the **Show Feature** check box. To hide a block of features, press the SHIFT key on your keyboard while you click the first and last records in the block.

## Symbolizing a Point Layer

You can use the Symbolize Layer dialog box to modify the symbols, modify the text properties, and show/hide certain features in a layer.

### To Change the Symbolization of a Point Layer

Use the following steps to change the symbolization of a point layer.

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not selected.
- 3. Select (highlight) the layer you want to symbolize.
- 4. To open the Symbolize Layer dialog box:

Click the layer icon next to the layer name.

OR

Click the **Tools** button and then click **Symbolize**.

The Symbolize Layer dialog box opens.

ΩR

Right-click the layer and click **Symbolize**.

OR

**XMap GIS Editor and Enterprise only** Right-click a point on the map and click **Symbolize**.

Under Symbolization, each row in the table displays each of the classes in the layer. Each column in the table indicates:

This Column	Displays
Field name/Feature	The minimum and maximum (or unique) values of each class.
Sample	The current visual property for each class.
Legend Label	The current label for each class. The Null Class indicates any object whose attribute value falls out of the classification. The Highlight Features label lets you visually identify which records have been queried.
	<b>Note</b> Records that are symbolized with a highlight are saved in the layer when it is published to XMap Web.

The field you chose while classifying the layer displays each of the features for that layer. Each of the features are selected by default to show on the map.

5. Click the feature for which you want to change the properties.

**Note** To select multiple features, press the CTRL key on your keyboard while you click multiple features. To select a block of features, press the SHIFT key on your keyboard while you click the first and last records in the block. To select all features, press CTRL + A.

- 7. To change the opacity of the color of your feature, from the **Opacity** dropdown list, select **Opaque** (0% transparent), **Transparent** (100% transparent), **Blended** (50% transparent), or **XOR** (combination of the source and background pixels—most useful when records with the same symbolization overlap).
- 8. To change the type of symbol you want to display, select a symbol set from the **Set** drop-down list and then use the symbol list below the **Set** drop-down

list to select a new symbol.

**Note** To add a new symbol set, click the **Add** button and then use the dialog box to add a new symbol set. The symbol set must contain .dim or .bmp symbols (.bmp symbols do not scale well).

- 9. To change the color of your "stock" symbol, click the **Color** button and select a standard fill color or create a custom fill color.
- 10. To change the size of your "stock" symbol, select a size from the **Size** drop-down list.
- 11. To change the properties of your label, ensure the **Show Label** check box is selected and then:
- a. Select a different font from the **Font** drop-down list.
- b. To change the font style, click the **Bold** button **B**, **Italic** button **Underline** button You can also click **More Styles** for additional font style

**Tip** Select the **Outline** option under **More Styles** to outline the text with white, making the text easier to read on the map.

- c. To change the font color, click the **Font Color** button and select a standard font color or create a custom font color.
- d. To change the font size, select a size from the **Size** drop-down list.
- e. To hide the label on the map, clear the **Show Label** check box.

**Tip** Once you modify the font properties of labels, the text may appear cluttered on the map. If this is the case, ensure the **Declutter Text** check box is selected to remove some of the text on the map.

- 12. Repeat the steps for each layer feature you want to symbolize.
- 13. Click **OK**.

#### Note

You can also show/hide a feature on the map:

To show a feature that is currently disabled, select the feature and then select the **Show Feature** check box under **Point Feature**.
OR

To hide a feature, select the feature and then clear the **Show Feature** check box under **Point Feature**. The feature displays as Disabled in the Symbolization dialog box. To hide multiple features, press the CTRL key on your keyboard while you click the features you want to hide and then clear the **Show Feature** check box. To hide a block of features, press the SHIFT key on your keyboard while you click the first and last records in the block.

### Symbolizing a Polygon Layer

Use the Symbolize Layer dialog box to modify the layer's color, text, and outline properties or select to show/hide certain features.

To Change the Color/Outline/Label Properties of a Polygon Layer

Use the following steps to change the color/outline/label properties of a feature in a polygon layer.

1. Click the GIS tab.

- 2. Click the **Workspace** subtab if it is not selected.
- 3. Select (highlight) the layer you want to symbolize.
- 4. To open the Symbolize Layer dialog box: Click the layer icon next to the layer name. OR

Click the **Tools** button and then click **Symbolize**.

The Symbolize Layer dialog box opens.

OR

Right-click the layer and click **Symbolize**.

OR

**XMap GIS Editor and Enterprise only** Right-click a polygon on the map and click **Symbolize**.

Under Symbolization, each row in the table displays each of the classes in the layer. Each column in the table indicates:

This Column	Displays
Field name/Feature	The minimum and maximum (or unique) values of each class.
Sample	The current visual property for each class.
Legend Label	The current label for each class. The Null Class indicates any object whose attribute value falls out of the classification. The Highlight Features label lets you visually identify which records have been queried.
	<b>Note</b> Records that are symbolized with a highlight are saved in the layer when it is published to XMap Web.

The field you chose while classifying the layer displays each of the features for that layer. Each of the features are selected to be shown on the map by default.

- 5. Click the feature for which you want to change the properties. Note To select multiple features, press the CTRL key on your keyboard while you click multiple features. To select a block of features, press the SHIFT key on your keyboard while you click the first and last records in the block. To select all features, press CTRL + A.
- 6. To change the opacity of the color of your feature, from the **Opacity** dropdown list, select **Opaque** (0% transparent), **Transparent** (100% transparent), **Blended** (50% transparent), or **XOR** (combination of the source and background pixels—most useful when records with the same symbolization overlap).
  - **Tip** The Blended option is very useful for viewing polygons and map data.
- 7. To change the fill color of your feature, ensure the **Show Fill** check box is selected, click the **Fill Color** button, and select a standard fill color or create a custom fill color. To change the fill style for your feature using one of the many hatch-fill options, click the **Fill Style** drop-down list and select a style. OR
  - To hide the fill color on the map, clear the **Show Fill** check box.
- 8. To change the outline color of your feature, ensure the **Show Outline** check box is selected, click the **Outline Color** button next to Outline under **Polygon Features**, and select a standard line color or create a custom line color. Then, select how wide you want your outline to display from the **Width**

drop-down list.

OR

To hide the outline color on the map, clear the **Show Outline** check box.

- To change the properties of your label, ensure the **Show Label** check box is selected and then:
  - a. Select a different font from the Font drop-down list.
  - b. To change the font style, click the **Bold** button **B**, **Italic** button or **Underline** button You can also click **More Styles** for additional font style options.
  - c. To change the font color, click the **Font Color** button and select a standard line color or create a custom line color.
  - d. To change the font size, select a size from the **Size** drop-down list.
  - e. To hide the label on the map, clear the **Show Label** check box. **Tip** Once you modify the font properties of labels, the text may appear cluttered on the map. If this is the case, ensure the **Declutter Text** check box is selected to remove some of the text on the map.
- 10. Repeat the steps for each layer feature that you want to symbolize.
- 11. Click **OK**.

#### Note

You can also show/hide a feature on the map:

To show a feature that is currently disabled, select the feature and then select the **Show Feature** check box under **Polygon Feature**.

OR

To hide a feature, select the feature and then clear the **Show Feature** check box under **Polygon Feature**. The feature displays as "Disabled" in the Symbolization dialog box. To hide multiple features, press the CTRL key on your keyboard while you click the features you want to hide and then clear the **Show Feature** check box. To hide a block of features, press the SHIFT key on your keyboard while you click the first and last records in the block.

## Adding a Symbol Set to the List of Available Symbol Sets

When you symbolize a point layer, you can identify the points with a variety of stock symbols. However, you can also use the Add button in the point layer Symbolize dialog box to add a different symbol set to the list of available symbol sets.

### To Add a Symbol Set

Use the following steps to add a symbol set to the list of available symbol sets.

- 1. Click the **Add** button in the Symbolize Layer (for a point layer) dialog box. The Add Symbols dialog box opens.
- 2. Under Add New Symbol Set, click Browse.
- 3. Browse to the location where your .dim symbol set file is located, select the file, and then click **Open**.
- 4. Click Add to List.

The symbol set displays under Existing Symbol Sets.

**Note** Select the new symbol set in the **Existing Symbol Sets** list to preview the symbols it contains.

5. Click **OK** to return to the Symbolize Layer dialog box.

## Deleting a Symbol Set from the List of Available Symbol Sets

Use the following steps to delete a symbol set from the list of available symbol sets.

- Click the Add button in the Symbolize Layer (for a point layer) dialog box.
   The Add Symbols dialog box opens.
- 2. Under **Existing Symbol Sets**, click to highlight the symbol set you want to remove.
- 3. Click Delete From List.
- 4. Click Yes to confirm the deletion.
- 5. Click **OK** to return to the Symbolize Layer dialog box.

## Labeling a Layer

You can use the attribute information in your layer to label the features on the map using the Set Label dialog box.

#### **Notes**

- To view labels created using these steps, the Show Label check box on the Symbolize Layer dialog box must be selected.
- Labels have a 100-character limit in XMap 4.5-compatible databases and a 1000-character limit in XMap 5.0 and later-compatible databases.

### To Label a Layer

Use the following steps to label a layer.

- Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not selected.
- 3. Select (highlight) the layer you want to label.
- 4. Click the **Tools** button and then click **Label**.

The Label Layer dialog box opens.

OR

Right-click the layer and click **Label**.

The Label Layer dialog box opens.

- 5. Type any text you want to display in the label in the Label Formula text box.
- 6. Optional. Under Label Columns, select a column header from the file to add

as a label. Then, click the right arrow button to move the header to the label area. Repeat this step for each column header you want to include in the label. As you add headers to the label area, the Label Formula updates and shows an example of what the label will look like.

**Note** You can click **Clear** to clear the selections you made in steps 5 and 6.

7. Optional. To reorder how the label displays, select the column under

Selected Columns you want to move and then click the up arrow to

move the column near/at the beginning of the label or click the down arrow



8. Click OK.

### Tips

- Once you have modified the font properties of labels, the text may appear cluttered on the map. If this is the case, ensure the **Declutter Text** check box is selected in the Symbolize Layer dialog box.
- To create a multi-line label, type **\n** between the segments of the label that you want to separate in the **Label Formula** text box.

# Using XMap Web

## Creating an XMap Web Site



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

When you logged into XMap Web for the first time, you were asked to create an XMap Web site. If you want to create additional sites, follow these steps.

## To Create an XMap Web Site

Use the following steps to create an XMap Web site.

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not selected.
- 3. Click the **XMap Web** button and then click **Create Site**. The Create New Site dialog box opens.
- 4. Type the appropriate information in the text boxes. Text boxes with asterisks next to them are required.
- 5. Select the security for your site from the **Site Access** drop-down list.
  - Anonymous–Users can access the selected site without restrictions.
  - Mixed-Users can access the default layers without entering login information; login required to access secure layers.
- 6. Click OK.

You will receive an e-mail from DeLorme once your new site is set up.

### Logging Into XMap Web



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

Registered users can use the XMap Web button in the Workspace subtab to create a site on the Internet where you can publish layer information for your personal use or share layer information with other registered users.

### To Log In

Use the following steps to log in.

1. Click the GIS tab.

- 2. Click the **Workspace** subtab if it is not selected.
- 3. Click the **XMap Web** button and then click any of the XMap Web shortcut options.
  - The Login dialog box opens.
- 4. Type your e-mail address and password in the text boxes.
  Note If you forget your password, click the hyperlink below the text boxes. If you are a new XMap Web user and do not have a password, click Sign Up and complete the registration information.
- 5. Click Sign On.

**Tip** You can select to have your computer remember your e-mail address and password by selecting the **Remember My E-mail and Password on This Machine** check box.

## **Logging Out of XMap Web**



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

You can log out of XMap Web from any of the XMap Web dialog boxes. Logging out is a useful way of ensuring your site is not altered by other users in a multiple-user environment.

## To Log Out

Use the following steps to log out of XMap Web.

- 1. Click the GIS tab.
- 2. Click the **Workspace** tab if it is not selected.
- Click the XMap Web button and then click any of the XMap Web options except Download Layer.
   A dialog box opens.
- 4. Near the bottom-left corner of the dialog box, click the link to log out. The Login dialog box opens.

### Publishing a Layer to Your XMap Web Site



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

Once you have established a site in XMap Web, you can publish your layers on the site.

## To Publish a Layer

Use the following steps to publish a layer on your XMap Web site.

- 1. Click the GIS tab.
- 2. Click the Workspace subtab if it is not selected.
- 3. Select the layer you want to publish from the workspace table.
- 4. Click the **XMap Web** button and then click **Publish Layer**. The Publish Layer dialog box opens.

- 5. Select the site you want to publish the layer on from the **Select Site** drop-down list.
  - All of the layers available on that site display in the table.
- 6. If you want the layer to published with a different name other than the layer name in the Workspace subtab, type the new name in the **Layer Name** text box.
- 7. Click OK.

## Removing a Layer From Your XMap Web Site



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

Use the Remove Layer option in the XMap Web shortcut menu to remove a layer from your XMap Web site.

### To Remove a Layer From Your Site

Use the following steps to remove a layer from your XMap Web site.

- 1. Click the **GIS** tab.
- 2. Click the **Workspace** subtab if it is not selected.
- 3. Click the **XMap Web** button and then click **Remove Layer**. The Remove Layer(s) dialog box opens.
- 4. Select the site that includes the layer you want to remove.
- 5. Select the check box next to the layer you want to remove.
- 6. Click Apply.
- 7. Click OK.

### Downloading a Layer From XMap® Web



This Help topic describes features that are available in XMap GIS Professional, XMap GIS Editor and XMap GIS Enterprise.

Use the Download Layer option in the XMap Web shortcut menu to download a layer from your XMap Web site or a shared XMap Web site.

### To Download a Layer using XMap GIS Editor or XMap GIS Enterprise

Use the following steps to download a layer from an XMap Web site.

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not selected.
- Click the XMap Web button and then click Download Layer.
   The Download Layer dialog box opens.
   OR
  - If you have not selected the option to remember the login e-mail address and password on this computer, the Login dialog box opens.

    Once you log in, the Download Layer dialog box opens.
- 4. From the **Select Site** drop-down list, select the site that includes the layer you want to download.

The available layers on that site display in the download table.

**Note** Only permanent sites display in the Select Site drop-down list.

- 5. Click **Download** next to the layer you want to download.
- 6. Click OK.

OR

### To Download a Layer using XMap Professional

Use the following steps to download a layer from an XMap Web site.

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not selected.
- 3. Click the **Layers** button and then click **Download Layer**. The Download Layer dialog box opens.

If you have not selected the option to remember the login e-mail address and password on this computer, the Login dialog box opens.

Once you log in, the Download Layer dialog box opens.

4. From the **Select Site** drop-down list, select the site that includes the layer you want to download.

The available layers on that site display in the download table.

Note Only permanent sites display in the Select Site drop-down list.

- 5. Click **Download** next to the layer you want to download.
- 6. Click OK.

## **Managing Your Site**



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

Once you publish layers on your site, you can use the Manage Site Layers option to change the visibility of the layers and the ability to download them.

### To Manage the Layers on Your Site

Use the following steps to manage the layers on your site.

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not selected.
- 3. Click the **XMap Web** button and then click **Manage Site**. The Manage Site Settings dialog box opens.
- 4. Select the site you want to manage from the **Select Site** drop-down list.
- 5. Select the desired security for your site from the Site Access drop-down list.
  - **Anonymous**–Users can access the selected site without restrictions.
  - **Mixed**–Users can access the default layers without entering login information; login required to access secure layers.
  - Login Required-Users must type login information to access the site.
- 6. Click the **Layers** tab if it is not already selected.
- 7. Select the check box in the **Allow Download** column next to each layer you want to share with other users.
- 8. Under **Startup Layer**, select the layer you want the website to center on when the site is opened.
- 9. To change the visibility of a layer, select the check box in the **Initial Visibility** column for that layer.

- 10. To change the minimum and maximum zoom level for a layer, select the zoom level number from the **Min Zoom Level** and/or **Max Zoom Level** drop-down lists.
- 11. If you selected Mixed or Login Required in step 5, select the check box in the **Allow Access** column for the layers you want to be available by default.
- 12. Click Apply.
- 13. Click **OK**.

## To Manage the Data on Your Site

Use the following steps to manage the data on your site.

- 1. Click the GIS tab.
- 2. Click the Workspace subtab if it is not selected.
- Click the XMap Web button and then click Manage Site. The Manage Site Settings dialog box opens.
- 4. Select the site you want to manage from the **Select Site** drop-down list.
- 5. Select the desired security for your site from the Site Access drop-down list.
- 6. Click the **Data** tab.
- 7. Select the check box in the **Enabled** column for each data option you want users to have access to by default.
- 8. To change the visibility of the data, select the check box in the **Initial Visibility** column for that data option to display by default.
- 9. Click Apply.
- 10. Click **OK**.

## To Manage the Accessibility to Your Site

Use the following steps to manage the accessibility of your site.

- 1. Click the **GIS** tab.
- 2. Click the **Workspace** subtab if it is not selected.
- Click the XMap Web button and then click Manage Site. The Manage Site Settings dialog box opens.
- 4. Select the site you want to manage from the **Select Site** drop-down list.
- 5. Select the desired security for your site from the Site Access drop-down list.
- 6. Click the Users tab.
- 7. If you selected Mixed or Login Required in step 5, select **Yes** from the **Require User Approval** list to require the admin of the site to approve the use of logging into the site to view secure layers. Select **No** from the list to give Mixed and Login Required users immediate access to secure layers.
- 8. To update a user's access level or status, click to select the user and then select an option from the applicable drop-down list.
  - Admin

    An admin controls every part of the XMap Web site, from
    updating user information to determining which layers on the site can
    be downloaded. There can be only one admin per site.
  - **User**–A user can view layers on that site that the site's admin has selected to be visible by default.
  - Granted—A user or admin has full access.
  - **Pending**–A user has access to the site, but has not registered yet.
  - Denied—A user does not have access to the site.

- 9. If you selected Mixed or Login Required in step 5, you can adjust the default layers that display on your site using the Can(not) View and Can Download options at the bottom of the dialog box.
  - To view a layer by default, verify it is displaying under Can View. If it is not, select it under **Cannot View** and then click the left arrow button to move the layer to the Can View list. If you want the user to be able to download the layer, select the **Can Download** check box next to the layer name.
  - To remove a layer from the default list, select the layer name under Can View and then click the right arrow button to move the layer to the Cannot View list.

## To Update User Information for Your Site

Use the following steps to update user information for your site.

- 1. Click the **GIS** tab.
- 2. Click the **Workspace** subtab if it is not selected.
- 3. Click the **XMap Web** button and then click **Manage Site**. The Manage Site Settings dialog box opens.
- 4. From the **Select Site** drop-down list, select the site you want to manage.
- 5. From the Site Access drop-down list, select the security for your site.
- 6. Click the **User Details** tab. OR

Click the **Users** tab and click the **Information** button next to the user for whom you want to update information.

- 7. Click the **New Record** button
- 8. Type/select the user's name, address, city, state, ZIP/Postal Code, country, phone number, e-mail address, and password in the applicable text boxes. You can also type notes related to the user in the Notes text box.
- 9. Click the **Save** button ...

## Viewing a Report for Your XMap Web Site



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

Use the View Site Reports option in the XMap Web to create and view monthly and custom reports for your XMap Web site.

### To View Monthly Site Reports

Use the following steps to view site reports.

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not selected.
- 3. Click the **XMap Web** button and then click **View Site Reports**. The Site Reports dialog box opens.
- 4. Click Monthly Reports.
- 5. Click the report month you want to view. The report information displays in the dialog box.

6. Click **Download Results** to download a text file containing the report information.

OR

Click View Line Chart to view a line chart of your report information.

7. Click OK.

## To View Custom Site Reports

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not selected.
- 3. Click the **XMap Web** button and then click **View Site Reports**. The Admin Reports dialog box opens.
- 4. Click Custom Reports.
- 5. Select the type of custom report you want to view (Map Statistics, Browser Statistics, OS Statistics, or Site Statistics).
- 6. From the **Choose Grouping Method** drop-down list, select to group the report by day, month, week, or quarter.
- 7. Type the start and end dates for your report in the applicable text boxes.
- 8. Click Get Report.

The report information displays in the dialog box.

9. Click **Download Results** to download a text file containing the report information.

OR

Click View Line Chart to view a line chart of your report information.

10. Click **OK**.

## **Attributes-Datasheet View**

## **Editing the Attributes of a Layer**



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

Use the Attributes subtab to view and/or edit the attributes of a layer. The columns that display in the Datasheet View of the Attributes subtab are field headings that were selected to be "visible" in the Design View of the Attributes subtab. You can make some headings invisible by clearing the appropriate check boxes in the Design View.

### To Edit the Attributes of a Layer

Use the following steps to edit the attributes of a layer.

- 1. Click the GIS tab.
- 2. Click the Attributes subtab.
- 3. If it is not already in Datasheet View mode, click the **Datasheet View** button

The attributes of the layer display.

4. From the **Layer** drop-down list, select the layer for which you want to edit the attributes.

5. If you want to view all of the attributes for the selected layer regardless of what is currently displaying on the map, select **All** from the **Show** drop-down list.

OR

If you only want to view only the attributes in the current map rectangle, select **Map Region** from the **Show** drop-down list. OR

If you want to only view attribute information for geometries you click on the map, select **Toolbar Select** from the **Show** drop-down list.

- 6. Optional. From the **Query** drop-down list, select a query against which to run the layer.
  - **Note** This option is unavailable when there have been no queries made against the layer.
- 7. To change a value in the layer, double-click inside the cell you want to modify (attribute information that appears in bold, such as GeoIDs and XMapgenerated area, length, perimeter values, etc. are not editable), type your edits in the appropriate cell, and then press the ENTER key on your keyboard. **Notes** 
  - Use the arrow keys or the TAB key to move through the cells in the table.
  - Press the ESC key on your keyboard to cancel the editing process.

#### **Notes**

- You cannot edit the Area, Length, Perimeter, or other XMap-generated fields because they are maintained by XMap. These fields are automatically updated when a geometry is edited.
- When editing dates, ensure the date is between 1/1/1753 and 12/31/9999. If you have a date that is outside of these parameters, change your date value to a string value in the source database.
- Geocoded point layers have special properties that may significantly alter the layer when edited.

### Tips

- To edit multiple records, press the SHIFT key on the keyboard to select the records. Then, hold the ALT key on the keyboard while you double-click within the row you want to edit. Make the change and then press ENTER. Click **Yes** when asked if you are sure you want to apply the edit to all of the selections.
- Click a heading in the Datasheet View to sort the contents of the layer by that heading.
- To change the size of a column in the Datasheet View, drag the bar to the right of the heading name to the new column size.
- To view the history of changes made against each geometry in a layer, click and hold the **View Changes** button until the drop-down list displays and then select the format for which to view the changes (vertical table, horizontal table, or not at all). This feature is available only for XMap 5.0 and later-compatible databases.
- You can link documents and URLs to certain attributes. For more information, see Linking Documents and URLs to Attributes.

## Linking Documents and URLs to Attributes



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

Use the Add Field feature in XMap to create multiple custom fields, including Document and URL fields. You can then customize these fields in the Datasheet View of the Attributes subtab to link documents/websites to particular attributes.

#### To Link a Document to an Attribute

Use the following steps to link a document to an attribute.

- 1. Click the GIS tab.
- 2. Click the Workspace subtab if it is not selected.
- 3. Highlight the layer to which you want to add a field.
- 4. Click the **Attributes** subtab. The Attributes dialog area displays.
- 5. If it is not already in Design View mode, click the **Design View** button



- 6. Click **Options** and then click **Add Field**. The Field Creation dialog box opens.
- 7. Type a name for your new field in the **Field Name** text box; for example, Documents.
- 8. From the **Data Type** drop-down list, select **Document**.
- 9. Click **OK**.
- 10. Click the **Datasheet View** button

Your new field is added at the end of the Attributes table.

- 11. Find the attribute to which you want to link a document. Then, hover your cursor over the new field's cell. An arrow displays.
- 12. Click the arrow and then click **Upload**. The Upload File dialog box opens.
- 13. Browse to the file to which you want to link the attribute and then click Open. A hyperlink to that document displays. The document is embedded in the source database.

#### To Link a URL to an Attribute

Use the following steps to link a URL to an attribute.

- 1. Click the **GIS** tab.
- 2. Click the Workspace subtab if it is not selected.
- 3. Click the layer to which you want to add a field.
- Click the Attributes subtab. The Attributes dialog area displays.
- 5. If it is not already in Design View mode, click the **Design View** button
- 6. Click **Options** and then click **Add Field**. The Field Creation dialog box opens.

- 7. Type a name for your new field in the **Field Name** text box; for example, URL.
- 8. Select **URL** from the **Data Type** drop-down list.
- 9. Click **OK**.
- 10. Click the **Datasheet View** button

Your new field has been added at the end of the Attributes table.

11. Find the attribute to which you want to link a URL. Then, double-click in the new field's cell.

The text box is activated.

12. Type the URL in the text box and then press the ENTER key on your keyboard.

A hyperlink to that URL displays.

## Viewing the Attributes of a Geometry on the Map



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

To view the attributes of a geometry that is in the active layer on the map, right-click the location on the map and then click **Show Attributes**. You can also select the geometry with one of the GIS tools, such as the selection tool. The attribute information for that geometry is highlighted in the Datasheet View of the Attributes subtab and is also highlighted on the map.

## **Viewing Redline Edits**



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

After users synchronize their redline layers with the redline GIS layer in the enterprise database, those users with permissions to view the redline GIS layer can review all of the redlines created by those users.

- 1. Add the redline GIS layer to your workspace.
- Once the redline layer is in your workspace, select the check box next to the layer in the Workspace view.Outlined boxes display on the map (red indicates incomplete redline edits and

blue indicates completed redline edits), depicting the map bounding rectangles for each redline record.

- 3. Click the Attributes subtab.
- 4. If it is not already in Datasheet View mode, click the **Datasheet View** button

The attributes of the layer display. Each record in the redline layer has the user's name, date, and a copy of the original redline file (.an1).

5. To view a specific redline draw layer:

Click its hyperlink in the **Redline Layer** column.

A message asks if you want to save or open the file.

Hover your cursor in the specific cell in the **Redline Layer** column.

A floating arrow displays. Click the arrow and then select **Open**. A message asks if you want to save or open the file.

6. Click **Save** to save the file to your hard drive (ensure that the Open in XMap check box is selected).

The draw layer is added to your project and displays on the map. OR

Click **Open** to open the file from its current location (ensure that the Open in XMap check box is selected).

The draw layer is added to your project and displays on the map.

7. Use the notes and annotations in the draw layer to make the appropriate edits to the corresponding GIS layers to which the user was subscribed.

## Using Right-Click Options in the Datasheet View



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

Several right-click options are available in the Datasheet View when you right-click inside the attributes table. Below are the right-click options and their descriptions.

If you click this right-click option	Then the following will result
Zoom to Selection	The map zooms to display all of the selected records.
Reverse Selection	All of the selected records become unselected and unselected records become selected.
Clear Selection	Clears the selection.
Select All	All of the records in the Attributes subtab are selected in the attributes table and on the map.
Copy to Clipboard	Each selected record in the attributes table is copied and can be pasted into another program.
Place Point*	When selected for a record, the corresponding point geometry is selected with the Edit Tool, and the cursor changes to the Edit tool. Click the map to move the point from its previous location to the clicked location.
Geocode Selection*	When selected, the selected records are re-geocoded (placed on the map according to the attributes they were geocoded by). This option is relevant when a user removes their map data (Streets or Topo) after geocoding a layer during import, and they edit the attributes of the geometry that were used in geocoding.
Zoom to Query Results**	The map zooms to display all of the geometries that satisfy the query results.
Zoom to Record	The map centers on the selected record.
Refresh	The attributes table refreshes (updates) to include any changes that were made.

- \* These right-click options display only for geocoded point layers.
- \*\* This right-click option displays only when there is an active query.

## **Searching for Attributes**



This Help topic describes features that are available in XMap Professional, XMap GIS Editor, and XMap GIS Enterprise.

Use the Attribute Search feature in the Attributes subtab to quickly search for particular attributes within a layer. Once the search is complete, the results are saved as a query and display in the Query drop-down list as Attribute Search.

**Note** Attribute Searches filter the attribute table in the Datasheet View to only show the results of the search; the geometries are not highlighted or filtered on the map.

### To Search for Attributes

Use the following steps to use the Attribute Search dialog box.

- 1. Click the **GIS** tab.
- 2. Click the Attributes subtab.
- 3. If it is not already in Datasheet View mode, click the **Datasheet View** button . The attributes of the layer display.
- 4. From the **Layer** drop-down list, select the layer from which to search the attributes.
- 6. From the **Attribute** drop-down list, select the Attribute field for which you want to search.
- 7. Type the specific attributes for which you want to search in the **Values** text box. Separate multiple values with a comma or a comma and a space (for example; portland, me OR portland, me).
  - **Note** If you copy a column of attributes or multiple attributes from an application such as Microsoft® Excel and paste them into the Values text box, they are automatically comma delimited.
- 8. Click Apply.
  - The Datasheet View of the Attributes subtab is filtered and shows only the results of the search.
  - **Note** To view all of the attributes of the layer, select **Cancel Query** from the **Query** drop-down list.
- 9. Click Close.

# **Attributes-Design View**

## **Showing/Hiding Attributes in a Layer**



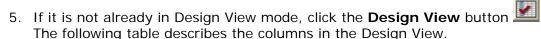
This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

Use the Attributes Datasheet View to view and/or edit the attributes of a layer. The columns that display in the Datasheet View of the Attributes subtab are headings that were selected to be visible in the Design View of the Attributes subtab. You can make some headings invisible by clearing the appropriate check boxes in the Design View.

## To Show/Hide Attributes in a Layer

Use the following steps to show/hide attributes in a layer.

- 1. Click the **GIS** tab.
- 2. Click the Workspace subtab if it is not selected.
- 3. Highlight the layer for which you want to show/hide attributes.
- 4. Click the Attributes subtab.



Column Name	Description
Attribute Set	Displays the name of the attribute set that contains the attributes for that layer.
Source Name	Displays all of the headings available within the layer.
Field Name	Displays any associated field labels for the heading. This column is editable by double-clicking within the cell you want to edit, making the necessary change, and then pressing the ENTER key on your keyboard.
Visible	Selected check boxes indicate that the fields display in the Datasheet View of the Attributes subtab, the Classification dialog box, and the layer export results.
Data Type	Displays the data type for that particular field.
Description	Displays user and DeLorme-added descriptions.  This field is editable by double-clicking within the cell you want to edit, making the necessary change, and then pressing the ENTER key on your keyboard.  XMap-managed fields are not editable.

6. From the **Attribute Sets** drop-down list, select a dataset . Select **All Sets** to view attributes for all of the datasets or select a particular set to view the attributes contained in that dataset. Your selection determines which attributes display in the Datasheet View and Design View.

7. To show an attribute in a layer, ensure the check box under Visible in the row for that attribute is selected. OR

To hide an attribute in a layer, clear the check box under Visible in the row for that attribute.

8. Click Options and then click Save.

Note To undo a previous change before you save, click Options and then click **Reset** to return the table to the previously saved view.

## Adding a Field to a Layer



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

Use the Add Field function within the Design View to add a field to the layer.

### To Add a Field to a Layer

Use the following steps to add a field to a layer.

- 1. Click the GIS tab.
- 2. Click the Workspace subtab if it is not selected.
- 3. Highlight the layer to which you want to add a field.
- 4. Click the **Attributes** subtab.
- 5. If it is not already in Design View mode, click the **Design View** button



- 6. To add a field to the layer, click Options and then click Add Field. The Field Creation dialog box opens.
- 7. Type a name for your new field in the **Field Name** text box.
- 8. Select a data type from the **Data Type** drop-down list.

Data Type	Description
Big Integer	A 64bit integer (-9 quintillion to 9 quintillion).
Boolean	A true/false value represented by 1 and 0.
Byte	An 8bit integer (0-255).
Currency	A currency value from -900 trillion to +900 trillion.
Date time	A date and time value covering 1/1/1753 through 12/31/9999.
Document	A binary object with a maximum size of 2GB.
Double	A 64bit floating point number.
Float	A 32bit floating point number.
Integer	A 32bit integer (-2 billion to 2 billion).
Memo	An ANSI string of unknown length (up to 2

	billion characters).	
Small Integer	A 16bit integer (-32,000 to 32,000).	
String	A simple ANSI character string (0-8000 characters).	
URL	An ANSI string which identifies as web resource.	

- 9. If you selected String, Unicode String, or URL, type the number of characters of the string/URL in the **String Size** text box.
- 10. Under **Fields**, select a data type from the drop-down list.
- 11. *Optional* Double-click a field or function name to insert that field/function into the formula text box. For more information, see Function and Operator Descriptions.

**Note** The fields available are based on the data type you chose.

12. Click **OK**.

#### Notes

- To undo a change, click **Clear**.
- After you add a field, to edit the formula, right-click it in the Description column of the Design View and then select **Edit Formula**.
- Dates must be between 1/1/1753 and 12/31/9999. If you have a date that is outside of these parameters, change your date value to a string value.
- Formulas are not required.

# Editing a Field's Formula



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

Once you add a field with a formula, you can edit the formula at any time by rightclicking the formula in the Description column of the Design View and then selecting **Edit Formula**. Then, edit the formula using the Add Field dialog.

# Deleting a Field from a Layer



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

Use the Delete Field feature to delete custom fields you have added to your layer or to delete default fields that came with your imported layer. When you delete a field from a layer, it is permanently deleted from the database (including all involved elements such as labels, dependent formulas, classifications, etc.).

#### To Delete a Field from a Layer

Use the following steps to delete a field from a layer.

- 1. Click the GIS tab.
- 2. Click the Workspace subtab if it is not selected.
- 3. Click the layer from which you want to delete a field.

- 4. Click the **Attributes** subtab.
- 5. If it is not already in Design View mode, click the **Design View** button ...



6. Click the Options button and then click Delete Field.

A confirmation message displays.

OR

Right-click the field you want to delete and then click **Delete Field**. A confirmation message displays.

7. Click **OK** to permanently delete the field from the database.

Click Cancel if you do not want to delete the field from the database.

# **Function and Operator Descriptions**



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

The following definitions describe some of the terms used in the function descriptions table below.

Data\_type-One of integer, float, string or datetime. String may have an optional length specification: string(integer). For example, string(40).

**Date\_expression**–An expression yielding a datetime result.

Datepart-A special specifier used in date functions. Jump to the bottom of this topic for a list of datepart specifiers.

**Expression**—The result of combining several functions or operators.

**Field**—The name of a field in the table, enclosed in brackets. For example: [Population2000]. A field has an associated data type in the table.

**Logical\_expression**–An expression yielding either TRUE or FALSE.

Float\_expression-An expression yielding a float result.

**Integer\_expression**–An expression yielding an integer result.

Numeric\_expression—An expression yielding a numeric result, either integer or float.

**String\_expression**–An expression yielding a string result.

Function	Basic Function Syntax	Description
AND	logical_expression AND logical_expression	Returns TRUE if both of two logical expressions are TRUE, and FALSE otherwise. The result type is logical_expression.
AVG	AVG( field )	Returns the average of a field's values. The result type is the same as the data type of field.
CAST	CAST( expression AS data_type )	Transforms an expression of one data type into another data type. The result type is as specified by data_type.

CEILING	CEILING( numeric_expression)	Returns the smallest integer greater than or equal to a number. The result type is integer_expression.
CHARINDEX	CHARINDEX( string_expression, string_expression[, integer_expression])	Returns the index to the beginning of the first string expression in second string. An optional starting location may be specified. The result type is integer_expression.
CONTAINS	CONTAINS( string_expression, string_expression)	Return TRUE if the first string contains an instance of the second string, and FALSE otherwise. The result type is logical_expression.
COUNT	COUNT	Return the number of rows in table. The result type is integer_expression.
DATEADD	DATEADD( datepart, numeric_expression, date_expression )	Returns a new datetime value based on adding an interval to the specified date, in units specified by datepart. The result type is date_expression.
DATEDIFF	DATEDIFF( datepart, date_expression, date_expression )	Returns the interval between two datetime values, in units specified by datepart. The result type is integer_expression.
DATENAME	DATENAME( datepart, date_expression )	Returns a string representing the specified datepart of the specified date. The result type is string_expression.
DATEPART	DATEPART( datepart, date_expression )	Returns an integer representing the specified datepart of the specified date. The result type is integer_expression.
DAY	DAY( date_expression )	Returns an integer representing the day datepart of the specified date. The result type is integer_expression.
EQUALS	expression EQUALS expression	Returns TRUE if the two expressions are equal and FALSE otherwise. 'EQUALS' is synonymous with the '=' operator. The result type is logical_expression.
FLOOR	FLOOR( numeric_expression)	Returns the largest integer less than or equal to a number. The result type is integer_expression.
GETDATE	GETDATE()	Returns the current date/time as a datetime value. The result type is

		date_expression.
IF	IF( logical_expression , value_if_true , value_if_false )	Returns one value if a condition you specify evaluates to TRUE and another if it evaluates to FALSE. The result type is derived from value_if_true and value_if_false, which must either be both string or both numeric. If numeric, then if either of the values is float, then the return type is float_expression, and otherwise it is integer_expression; if string, then the result type is string_expression.
IS [NOT] EMPTY	field IS [ NOT ] EMPTY	Returns TRUE if the string field field is empty and FALSE otherwise. NOT may be use to reverse the sense of the test. The result type is logical_expression.
IS [NOT] NULL	field IS [ NOT ] NULL	Returns TRUE if field is NULL and FALSE otherwise. NOT may be use to reverse the sense of the test. The result type is logical_expression.
LEN	LEN( string_expression )	Returns the length of a string. The result type is integer_expression.
LEFT	LEFT( string_expression , number_of_characters )	Return the leftmost number_of_characters characters of a string, where number_of_characters is of type integer_expression. The result type is string_expression.
LTRIM	LTRIM( string_expression )	Return a string with spaces removed from its left end. The result type is string_expression.
LOWER	LOWER( string_expression )	Returns a string with its letters converted to lowercase. The result type is string_expression.
MAX	MAX( field )	Return the maximum value of a field. The result type is the same as the data type of field.
MID	SUBSTRING( string_expression, start, length)	Return the length characters of a string beginning at start. start and length are both of type integer_expression. MID is synonymous with the SUBSTRING function. The result type is string_expression.

MIN	MIN( field )	Return the minimum value of a field. The result type is the same as the data type of field.
MONTH	MONTH( date_expression )	Returns an integer representing the month datepart of the specified date. The result type is integer_expression.
OR	logical_expression OR logical_expression	Returns TRUE if either of two logical expressions are TRUE, and FALSE otherwise. The result type is logical_expression.
POWER	POWER( numeric_expression, power)	Raise a number to a power. power must be of type integer_expression . The result type is float_expression.
PREFIX	PREFIX( string_expression , string_expression )	Return TRUE if the first string begins with the second string, and FALSE otherwise. The result type is logical_expression.
REPLACE	REPLACE( string_expression, string_expression, string_expression)	Returns the string generated by replacing all occurrences of the second string expression in the first string expression with the third string expression. The result type is string_expression.
RIGHT	RIGHT( string_expression , number_of_characters )	Return the rightmost number_of_characters characters of a string. number_of_characters must be of type integer_expression. The result type is string_expression.
RTRIM	RTRIM( string_expression )	Return a string with spaces removed from its right end. The result type is string_expression.
ROUND	ROUND( numeric_expression , number_of_digits )	Round number to number_of_digits decimal places to the right of the decimal point (negative values of number_of_digits are to the left of the decimal point). number_of_digits must be of type integer_expression. The result type is float_expression.
SQRT	SQRT( numeric_expression)	Returns the square root of a number. The result type is float_expression.
STUFF	STUFF( string_expression , start , length , string_expression )	Return the string formed by replacing the length characters of the first string beginning at start with the second string. length and

		start must be of type integer_expression. The result type is string_expression.
SUBSTRING	SUBSTRING( string_expression, start, length)	Return the length characters of a string beginning at start. SUBSTRING is synonymous with the MID function. length and start must be of type integer_expression. The result type is string_expression.
SUFFIX	SUFFIX( string_expression , string_expression )	Return TRUE if the first string ends with the second string, and FALSE otherwise. The result type is logical_expression.
SUM	SUM( field )	Return the sum of the values of a numeric field. The result type is the same as the data type of field.
UPPER	UPPER( string_expression )	Returns a string with its letters converted to uppercase. The result type is string_expression.
YEAR	YEAR( date_expression )	Returns an integer representing the year datepart of the specified date. The result type is integer_expression.
+	numeric_expression + numeric_expression	Returns the result of adding one number to another. If either of the expressions is floating point, then the result type is floating point; otherwise the result type is integer.
-	numeric_expression - numeric_expression	Returns the result of subtracting one number from another. If either of the expressions is floating point, then the result type is floating point; otherwise the result type is integer.
*	numeric_expression * numeric_expression	Returns the result of multiplying one number by another. If either of the expressions is floating point, then the result type is floating point; otherwise the result type is integer.
/	numeric_expression / numeric_expression	Returns the result of dividing one number by another. If either of the expressions is floating point, then the result type is floating point; otherwise the result type is integer.
%	numeric_expression % integer_expression	Returns the remainder of dividing one number by an integer. If the first expression is floating point,

		then the result type is floating point; otherwise the result type is integer.
&	string_expression & string_expression	Returns the concatenation of two strings. The result type is a string.
=	expression = expression	Returns TRUE if the two expressions are equal and FALSE otherwise. '=' is synonymous with the EQUALS operator. The result type is logical_expression.
<>	expression <> expression	Returns TRUE if the two expressions are not equal and FALSE otherwise. The result type is logical_expression.
<=	expression <= expression	Returns TRUE if the first expression is less than or equal to the second expression, and FALSE otherwise. The result type is logical_expression.
<	expression < expression	Returns TRUE if the first expression is less than the second expression, and FALSE otherwise. The result type is logical_expression.
>	expression > expression	Returns TRUE if the first expression is greater than the second expression, and FALSE otherwise. The result type is logical_expression.
>=	expression >= expression	Returns TRUE if the first expression is greater than or equal to the second expression, and FALSE otherwise. The result type is logical_expression.

#### **Datepart Specifiers**

Dates are made up of dateparts: hours, minutes, seconds, years, months, days, and so on. For example, the month datepart of the date July 4, 1776 is 7. The day part is 4, and the year part is 1776. In a field creation formula, datepart specifiers are used as parameters to date functions (e.g. YEAR(), DATEDIFF(), etc.).

**D**: A datepart representing the day part of a date. 'DD' is a synonym for 'D'.

**DW**: A datepart representing day of the week for a date.

DY: A datepart representing the day of the year for a date. 'Y' is a synonym for 'DY'.

**HH**: A datepart representing the hour part of a date.

M: A datepart representing the month part of a date. 'MM' is a synonym for 'M'.

MI: A datepart representing the minutes part of a date. 'N' is a synonym for 'MI'.

MS: A datepart representing the milliseconds part of a date.

Q: A datepart representing quarters. 'QQ' is a synonym for 'Q'.

S: A datepart representing the seconds part of a date. 'SS' is a synonym for 'S'.

WK: A datepart representing the week part of a date. 'WW' is a synonym for 'WK'.

YY: A datepart representing the year part of a date. 'YYYY' is a synonym for 'YY'.

# Importing a Set to Link to an Attribute



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

Each layer contains a set of attributes relative to that layer; you can import an additional attribute set relative to that layer. Once you import the attribute set, you can link it to the layer's attributes to view additional information about the layer.

#### To Import a Set to Link to an Attribute

Use the following steps to import a set to link to an attribute.

- 1. Click the **GIS** tab.
- 2. Click the **Workspace** subtab if it is not selected.
- 3. Select a layer from the workspace list.
- 4. Click the **Attributes** subtab.
- 5. If it is not already in Design View mode, click the **Design View** button



- 6. Click Options.
- 7. Click Manage Sets and then click Import.

The Append Attributes dialog box opens.

OR

Click Import.

The Append Attributes dialog box opens.

8. Click the browse button to locate the file you want to import (supported file types include: .xls, .dbf, .sds, .txt, .csv, .tab, .asc, .mdb, .mdw, .mda). The name of the set displays in the Set Name text box and descriptive text displays in the Set Statistics area.

Note The Set Name text box is editable.

- 9. If you are importing a file other than a text file, select the table/spreadsheet you want to append from the list.
- 10. Click Next.
- 11. If the file you are importing is a text file, select whether it is a tab delimited, comma delimited, or other delimited text file. If you want to use the first row as the header, select the Use First Row as Header check box.
- 12. Click **Finish**. See Linking a Set to an Attribute for more information.

Note If your imported set includes date information, ensure the dates are between 1/1/1753 and 12/31/9999. If you have a date that is outside of these parameters, change your date value to a string value in the source database.

# Linking a Set to an Attribute



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

Once you import an attribute set using the option in the Design View of the Attributes subtab, you can link that attribute set to view more specific attribute information for your layer.

#### **Notes**

- XMap supports only one-to-one linking.
- Once you link an attribute set to a layer, you can unlink it by clicking the Options button, clicking Manage Sets, selecting the attribute set, and then clicking **Unlink**.

#### To Link a Set to an Attribute

Use the following steps to link a set to an attribute.

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not selected.
- 3. Select a layer from the workspace list.
- 4. Click the Attributes subtab.
- 5. If it is not already in Design View mode, click the **Design View** button



- 6. Click **Options**.
- 7. Click Link.

The Link Attribute Sets dialog box opens.

Click Manage Sets and then click Link.

The Link Attribute Sets dialog box opens.

- 8. Under Layer Attribution, select the existing layer or previously imported attribute set you want to link to the imported file from the **Set** drop-down list. Then, select the attribute in the attribute set that has an identical field in the imported file from the Attribute drop-down list
- 9. Under Additional Attribution, select the attribute set that contains the attribute selected in step 8 from the **Set** drop-down list. Then, select the attribute you want to link from the Attribute drop-down list. The attribute selected must be the same type as the attribute selected in step 8 (for example, if you selected a "string" attribute in step 8, you must select a "string" attribute in this step).
- 10. The results display in the various tabs in the Link table at the bottom of the dialog box. The table below describes the various tabs in the Link table:

Tab Name	Description
Results	Displays all of the records that were successfully linked.
Unmatched in <layer attribution<br="">Set&gt;</layer>	Displays all unmatched records in the Layer Attribution Set. Unmatched records can be edited so that they can be successfully linked.

Unmatched in <additional Attribution Set&gt;</additional 	Displays all unmatched records in the Additional Attribution Set.
Duplicates in <layer attribution<br="">Set&gt;</layer>	Displays any duplicate records from the Layer Attribution Set. Duplicate records can be edited so that they can be successfully linked.
Duplicates in <additional Attribution Set&gt;</additional 	Displays any duplicate records from the Additional Attribution Set.

11. Click **OK**.

# Selecting a Geometry to be Read Only



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

You can use the Design View in the Attributes subtab to save existing geometries to be read only, ensuring that the geometry will not be edited. Read-only geometries display in the Attributes table with a yellow padlock 🔔 next to them.

## To Make a Geometry Read Only

Use the following steps to set a geometry to be read only.

- 1. Click the **GIS** tab.
- 2. Click the **Workspace** subtab if it is not selected.
- 3. Select the layer that includes the geometry you want to modify as read only from the workspace list.
- 4. Click the **Attributes** subtab.

- 5. If it is not already in Design View mode, click the **Design View** button 6. In the table, select the Visible check box for the Source Name ReadOnly.
- 7. Click the **Datasheet View** button The attributes of the layer display and the new ReadOnly column displays.
- 8. To select an individual geometry, click to select it in the Attributes table. Double-click in the **ReadOnly** cell and select **True** from the drop-down list. Then, press the ENTER key on your keyboard. OR
  - To select multiple geometries:
- Hold the CTRL key on your keyboard while you click each geometry you want to make read only, or hold the SHIFT key to select a block of geometries.
- Hold the ALT key on your keyboard and double-click in one of the geometries' b. ReadOnly cells.
- Select **True** from the drop-down list. C.
- d. Press the ENTER key on your keyboard.
- At the confirmation message, click Yes to confirm that you want to apply the e. edit to the entire selection.

# Query

## Creating a Query



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

Use the Query subtab to build custom attribute queries to run against the layer selected in the workspace. You can also use the Query subtab to create spatial queries, allowing you to see patterns between two layers. Queries saved in a database are available to everyone you share your data with either as a DeLorme OpenSpace transfer file or on your XMap Web site.

You can customize your default query option settings.

## To Create an Attribute Query

Use the following steps to create an attribute query using the GIS tab.

- 1. Click the **GIS** tab.
- 2. Click the Query subtab.
- 3. Select the layer you want to query from the **Layer** drop-down list; only layers in the workspace display in this list.
- 4. If a query is already displaying in the Query subtab, click the **Manage** button and then click **New**.
- 5. Optional. To name the query something other than the default (the default name is Query#), click the **Manage** button and then click **Rename**. The Query text box activates and lets you edit the query name.
- Click the cell under Attribute.
   A drop-down list displays all of the attribute fields in the selected layer. Select the field you want to query.
   Note Selecting the GEOMETRY attribute creates a spatial query (see next section below).
- 7. Click the cell under **Operator** and select an operator from the drop-down list. The options in this list vary based on the attribute field's data type.
- 8. Click the cell under **Criteria**. A drop-down list displays all of the records available for the field selected in step 6. Select the value (or enter a custom value) that you want to use in your query.
- 9. If you want to create a complex query, click the cell under **Logical Operator** and select a logical operator (**And**, **Or**, or **And Not**) from the drop-down list.
- 10. Optional. If you want to allow Web users or other XMap users to enter their own values for the query, select the **User Input** check box next to the query you want to share.
- 11. Optional. Repeat steps 6-10 in the next row(s) if you are creating a complex query.
- 12. Click Run.
- 13. If you selected User Input in step 10, the Run Query dialog box opens. Verify the query is correct and then click **Run**.
- 14. All objects that satisfy the query are highlighted on the map and the number (count) of query results displays under Query Results. You can change how query results display on the map using the tools in the Query tab. You can

change how the highlight is symbolized by clicking the **Edit** button to the right of the Query table.

**Note** To decrease the time it takes to run a query, disable the Count function by clicking the Query button and then clicking Count to toggle the feature on/off.

# To Create a Spatial Query

Use the following steps to create a spatial query using the GIS tab.

- 1. Click the GIS tab.
- 2. Click the **Query** subtab.
- 3. If a query is already displaying in the Query subtab, click the **Manage** button and then click **New**.
- 4. Optional. To name the query something other than the default (the default name is Query#), click the **Manage** button and then click **Rename**. The Query text box activates and lets you edit the query name.
- 5. Click the cell under **Attribute** and select the **GEOMETRY** option from the drop-down list.
- 6. Click the cell under **Operator** and select an operator from the drop-down list.
  - INTERSECTS—Available for all geometry types. Returns any geometries in the source layer that touch the boundary of, partially contain, completely contain, are partially within, or are completely within the geometries in the specified layer/criteria.
  - CONTAINS—Available for only for polygon layers. Returns any geometries in the source layer that completely contain the geometries in the specified layer/criteria.
    - **Note** If any portion of a polygon or line is outside of the polygons in the source layer, the polygons will not be returned in the query results.
  - IS CONTAINED BY—Available for all geometry types. Returns any geometries in the source layer that are completely contained by the geometries in the specified layer/criteria.
  - DOES NOT INTERSECT–Available for all geometry types. Returns the inverse of INTERSECTS for the selected source layer.
  - DOES NOT CONTAIN—Available only for polygon layers. Returns the inverse of CONTAINS for the selected source layer.
     Note If any portion of a polygon or line is outside of the polygons in the source layer, the polygons are returned in the guery results.
  - IS NOT CONTAINED BY—Available for all geometry types. Returns the inverse of IS CONTAINED BY for the selected source layer.
  - WITHIN A DISTANCE OF—Available for all geometry types. Returns any
    geometries in the source layer that are within the user-specified
    distance of the geometries in the specified layer/criteria. If you select
    this option, the Edit Query dialog box opens and you are prompted to
    specify the distance parameters.
  - IS NOT WITHIN A DISTANCE OF—Available for all geometry types. Returns the inverse of WITHIN A DISTANCE OF for the selected source layer. If you select this option, the Edit Query dialog box opens and you are prompted to specify the distance parameters.

- 7. Click the cell under **Criteria**. A drop-down list displays all applicable layers that are loaded into Workspace (the list varies depending on the source layer and operator chosen), as well as the following options:
  - SELECTED—Acts against the geometries in the active selection, if any. (Selections are made with the Selection tool, Edit tool, Edit Points tool, or Rotate Geometry tool).
  - MAP CENTER-Acts against the coordinate of the current map center and updates the query every time the map center is changed.
  - COORDINATE—Acts against the user-specified coordinate. If you select this option, the Edit Query dialog box opens and you are prompted to specify the coordinates (in latitude/longitude format only) or you can click Map Center to use the current map center
- 8. Click the cell under **Logical Operator** and select a logical operator (**And**, **Or**, or **And Not**) from the drop-down list.
- 9. Optional. Repeat steps 5-8 in the next row(s) to create a complex spatial query.
- 10. Click Run.
- 11. All objects affected by the query are highlighted on the map and the number (count) of query results displays under Query Results. You can change how query results display on the map using the edit tools in the Query tab.
  Note To decrease the time it takes to run a query, disable the Count function by clicking the Query button and then clicking Count to toggle the feature on/off.

**Note** Click the **Delete** button  $\times$  in the left column of the Query table to delete that row in the query.

## Tips

- You can copy a query and use it as a base for another query. To copy a query, click the **Manage** button and then click **Copy**. The copied information is placed in a new query.
- You can combine spatial and attribute queries to build powerful complex queries.

#### Changing How Query Results Display on the Map



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

The Query subtab has a Map Effect feature that lets you change how query results display on the map:

- **Highlight**–Depicts the query results on the map based on the selected query results color/style.
- **Filter**—Changes the look of the geometry so that only the area(s) affected by the query display on the map.
- **None**–Does not show any visual cue of the query results on the map but shows how many records were affected if the Count option is enabled. Selecting this option makes the query process run more quickly.

If you selected the Highlight Map Effect option in the Query tab, query results display on the map with the specified highlight color. You can use the editing tools in the Query tab to create custom highlight colors for your query results. The steps for

creating a custom highlight color/design vary based on the type of layer you are querying.

#### **Notes**

- To delete the default highlight color or any other custom highlight colors you've created, right-click the highlight feature in the Symbolization table and click **Delete Feature**.
- To add multiple highlight colors, right-click the Symbolization table and select **Insert Feature**. The highlight colors are in the Symbol drop-down list to the right of the Query table (in the Query Results group box).
- After running a custom highlight query, changing the active classification of the layer may cause the currently highlighted objects to display with a different symbolization.

## To Change How Query Results Display on the Map

Use the following steps to change how query results display on the map.

- 1. Click the GIS tab.
- 2. Click the **Query** subtab.
- 3. Click the **Manage** button, click **Map Effect**, and then select **Highlight**, **Filter**, or **None**. The option with a selected check box next to it is the currently selected option).

Proceed with the steps below if you chose Highlight in step 3.

- Under Query Results, click Edit.
   The Symbolize Highlight Query dialog box opens.
- 5. Right-click in the Symbolization table and click Insert Feature.
- 6. You can change highlight options—the options available depend on the type of laver:
- To change the opacity of the color of your feature...
  - From the **Opacity** drop-down list, select **Opaque** (0% transparent), **Transparent** (100% transparent), **Blended** (50% transparent), or **XOR** (combination of the source and background pixels—most useful when records with the same symbolization overlap.
- To change the highlight color/design for a polygon layer...
  - To change the fill color of your feature, click the Fill Color button next to Fill under Polygon Features and select a standard fill color or create a custom fill color. To change the fill style of your feature, click the Fill Style drop-down list and select the style.
     OR
    - To hide the fill color on the map, clear the **Show Fill** check box.
  - To change the outline color of your feature, ensure the Show Outline check box is selected, click the Outline Color button next to Outline under Polygon Features) and select a standard line color or create a custom line color. Then, select how wide you want your outline to display from the Width drop-down list.

To hide the outline color on the map, clear the **Show Outline** check box.

- To change the highlight color for a line layer...
  - To change the line color of your feature, click the **Color** button and select a standard or custom line color. Then, select a line width from

the **Width** drop-down list and a line style from the **Style** drop-down list.

 To change the outline color of your feature, click the Outline Color button, and select a standard line color or create a custom line color. Then, select how wide you want your outline to display from the Width drop-down list.

**Note** An outline is placed underneath a line. Therefore, if the outline is fewer pixels wide than the line, the outline may not be visible. To ensure an outline will be visible, make sure the outline is at least 2 pixels greater than the line.

- To change the highlight color for a point layer...
  - To change the type of symbol you want to display, select a symbol set from the **Set** drop-down list and then use the symbol scroll list below the drop-down list to select a new symbol.

**Note** To add a new symbol set, click the Add button and then use the dialog box to add a new symbol set. The symbol set must contain .dim or .bmp symbols (.bmp symbols do not scale well).

- To change the color of your symbol, click the **Color** button and select a standard fill color or create a custom fill color.
- To change the size of your symbol, select a size from the Size dropdown list.
- To change the properties of your label...
  - Ensure the Show Label check box is selected and then:
    - Select a different font from the Font drop-down list.
    - To change the font style, click the **Bold** button **B**, **Italic** button , or **Underline** button . You can also click **More Styles** for additional font style options.
    - To change the font color, click the Font Color button and select a standard line color or create a custom line color.
    - To change the font size, select a size from the Size drop-down list.
    - To hide the label on the map, clear the Show Label check box.

**Tip** Once you modify the font properties of your labels, the text may appear cluttered on the map. If this is the case, ensure the **Declutter Text** check box is selected.

#### 11. Click **OK**.

## **Changing How Query Results Display in the Attributes Subtab**



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

The Query subtab contains an Attributes Effect feature that lets you change how query results display in the Attributes subtab.

#### To Change How Query Results Display on the Map

Use the following steps to change how query results display on the map.

- 1. Click the **GIS** tab.
- 2. Click the **Query** subtab.
- Click the Manage button, click Attributes Effect, and then select Highlight, Filter, or None. The option with a selected check box next to it is the currently selected option.
  - **Highlight**–Highlights the query results yellow in the Attributes subtab.
  - **Filter**–Filters the Datasheet View of the Attributes tab so that only the query results display.
  - None-Does not show any visual cue of the query results in the Attributes subtab but will show how many records were affected as long as the Count option is enabled. Select this option to make the query process run more quickly.

## **Deleting a Query**



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

You can delete a query from a workspace or a database.

#### To Delete a Query

Use the following steps to delete a query.

- 1. Click the GIS tab.
- 2. Click the Query subtab.
- 3. Select the query you want to delete from the **Query** drop-down list.
- 4. Click the Manage button and then click **Delete**.

#### Cancelling a Query



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

When you cancel a query, the map and attribute effects used by the query are no longer applied to the layer but the query is still available in the Query list in the Query subtab and the Datasheet View of the Attributes subtab.

To permanently delete a query from a workspace or database, see Deleting a Query.

#### To Cancel a Query

Use the following steps to cancel a query.

- 1. Create a query.
  - **Note** You must click **Run** to make the Cancel option available.
- 2. Click Options and then click Cancel.

The query results are no longer highlighted on the map or in the Attributes subtab, but the query is available in the query list in both the Query and Attribute subtabs.

**Note** The query will not disappear from the query view until you click out of the Query subtab.

# Layering

# **Reordering Layers**



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

When you import layer, the layer is automatically set to appear at Z-level 4500. You can use the Layering subtab to drag and drop layers and adjust their Z-levels. Layers are placed according to their Z-level; layers with a high Z-level are placed on top of the map display, layers with a low Z-level are placed on the bottom of the map display.

## To Reorder Layers

Use the following steps to reorder layers.

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not selected.
- 3. Select the check box next to each layer you want to reorder.
- Click the Layering subtab.
   The Layering dialog area displays. All standard, DeLorme layers display in light gray font. Custom layers display in bold font.

**Note** You can only move custom layers.

5. Click to select the custom layer you want to move and then drag the layer to the desired position. When you drag the layer, a light gray line displays between each layer you pass (see graphic below).

**Note** You can also double-click in the layer's Z-Level cell and re-type a new Z-level for the layer. Doing this automatically moves the layer to the appropriate position.

Layer Name	Z-Level (	
parcels	12000	
metwp24	4020	
User images	4020	
Rasters	4019	
Major points of interest	3029	
Exits	3026	
Road labels	3024	
Route shields	3013	
Business POIs	3001	
User Map Lines	2009	
Roads	1039	
User Map Polygons	1027	
Polygons & contours	15	

6. To move the layer between existing layers, release the mouse button when the light gray line displays between the two layers you want to move your layer above/below. The Z-level adjusts according to the placement of the layer.

OR

To move the layer so that it has the same Z-level as an existing layer, release the mouse button when the existing layer is highlighted (see graphics below).

The graphic below depicts what the table looks like when you drag the custom layer on top of existing layer.

Layer Name	Z-Level
parcels	12000
metwp24	8010
User images	4020
Rasters	4019
Major points of interest	3029
Exits	3026
Road labels	3024
Route shields	3013
Business POIs	3001
User Map Lines	2009
Roads	1039
User Map Polygons	1027
Polygons & contours	15

The graphic below depicts what the table looks like once the custom layer has been moved and assigned the same Z-level as the existing layer.

Layer Name	Z-Level	
parcels	12000	
User images	4020	
Rasters	4019	
metwp24	3029	<u> </u>
Major points of interest	3029	4
Exits	3026	
Road labels	3024	
Route shields	3013	
Business POIs	3001	
User Map Lines	2009	
Roads	1039	
User Map Polygons	1027	
Polygons & contours	15	
· <del>-</del>		

# Checking Layers Out and In

## Checking Layers Out and In



This Help topic describes features that are available in XMap GIS Editor and XMap GIS Enterprise.

Use the Check-out/in subtab to create check-out layers for editing portions of or an entire source layer. The area that a check-out layer includes is then locked until the layer is checked back into the source layer, ensuring that new edits are not overwritten. Once the check-out layer is checked back into the source layer, all edits that were made will be available to the XMap users who have access to that layer.

#### Notes

- Only layers in Enterprise databases can be checked out and in.
- After a check-out layer has been created, you can cancel (and delete) it by highlighting it and then clicking the **Cancel** button in the Check-out/in subtab.
- Once a layer has been enabled for check-outs, you can disable it by selecting

the Disable Layer for Check-outs check box.

- All geometries that intersect the selected checkout grids (both the geometry itself and the MBR) are included in the check-out.
- Any geometries that are part of a check-out will be locked for editing in any
  other subsequent check-outs. Locked geometries display with a lock icon next
  to the Geoid number in the Datasheet View of the Attributes subtab.
- Check-out layers cannot have check-outs made against them.
- Check-out layers display with check-out grids over them as a reference.
- The number of check-out layers that have been created for a particular layer display underneath the Check-out Grid Size drop-down list.

## To Check-out a Layer

Use the following steps to create a check-out layer.

- 1. Click the GIS tab and then click the Check-out/in subtab.
- Select a layer that you want to check-out from the Source Layer drop-down list. If the layer is not enabled for check-out/in, you receive a message asking if you want to enable it. If you select not to enable the layer, you will be asked to select a different layer.
- 3. Under Parameters, select the grid size for the source layer check-outs from the Check-out Grid Size drop-down list; this option is only available only when there are no other check-outs in the source layer. Note You may need to adjust the data zoom level of the map if you choose a small grid size.
- 4. Click **Select** and then click inside the grids on the map that include the area you want to check-out. To select multiple grids, drag your cursor over each of the grids you want to include in the check-out or hold the CTRL or SHIFT keys on your keyboard while you click inside multiple grids. **Note** To remove an individual selected grid, press the SHIFT key and then slick inside the grid. To remove multiple selected grids drag your surger ever
  - click inside the grid. To remove multiple selected grids, drag your cursor over each of the selected grids that you want to remove from the check-out region (be sure to start the drag method within a selected grid).
- 5. Click **Check-out**.
  - The Check-out Layer dialog box opens.
- 6. Type a name for your check-out layer in the Layer Name text box.
- 7. Select a destination database for the check-out layer from the **Target Database** drop-down list; the target database and the source database cannot be the same. If the database you want is not listed, you can select **Other** to attach a new database to add the check-out layer to or **New** if you want to create a new database.
  - **Note** You must have a database role of XMap Checkout Creator or higher to create a check-out layer. You must have a database role of XMap Administrator or XMap Owner for the target database to save the check-out layer in that target database.
- 8. Optional. Type comments related to the check-out layer in the **Comments** text box.
- 9. If you want to add the check-out layer to your workspace automatically, select the **Add Layer to Workspace** check box.

**Note** If you do not select the Add Layer to Workspace check box, you can add the layer to your workspace layer using the Manage Layers dialog box.

#### 10. Click Check-out.

The grids selected in step 4 are highlighted on the map with the layer name selected in step 6. The check-out layer's user name, layer name, target database, creation date, grid count, and comments display in the Check-out/in table.

**Note** If any warnings were detected during the check-out process, you receive a message asking you if you want to continue (and also if you want to save the warnings in a text file by clicking Save to File).

# To Check-in a Layer

**Important** Once a check-out layer is checked-in, the changes cannot be undone. Be sure to visually inspect the attribute and geometry changes in the check-out layer before checking them into the source layer.

Use the following steps to check-in a check-out layer.

- 1. Click the GIS tab and then click the Check-out/in subtab.
- 2. Select the source layer that contains the check-out layer you want to check-in from the **Source Layer** drop-down list.
- 3. Click Check-in.

The layer is checked into the source layer and the check-out layer is deleted from its database.

# **Printing**

# Printing a Map

You can print a 2-D or 3-D map based on your paper size or screen size. If you choose to print a map based on your paper size, you can also print a multi-page map that you can assemble using the Manually Assembling a Multi-page Map instructions.

# To Print a Map

Use the following steps to print a map.

1. Locate the area you want to print.

display as a blue box on the overview map.

- 2. Click the Print tab.
- 3. Click the **Map** subtab.
- 4. Under Map, select Left map, Right map, or Both maps. Note If the left or right and/or both options are unavailable, it is because only one map view is displayed. To make all selections available, use the map resize tool to expose the left and right map views. To print a full-page 3-D map, use the map resize tool to expose only the left map window.
- 5. Under **Print Layout**, select **Page** (the map print area is based on the paper size you have specified in the Setup options) or **Screen** (the map print area is based on the screen size).
  The print area for a Page map displays as a red box on the map, which may not always be visible. The overview map and the print area for a Screen map
- 6. If you selected **Screen** in step 5, go to step 7. If you selected **Page** in step 5, the following options are available.
  - Under **Print Layout**, select a layout option (Single, 2 x 2, or 3 x 3). The print area displays on both the map and the overview map.
  - If you selected 2 x 2 or 3 x 3 on the map layout graphic, and you do not want to print all the pages in the multi page map, click each page you do not want to print. The page appears dimmed or gray. (You can click a dimmed/gray page again to print it.)
    - **Note** In the example below, page 4 will not print for the 2 x 2 map.



- Verify this is the location and photo zoom you want to print.
  - If not, pan the map to a new location and zoom to the correct level.
     OR
  - To change the photo zoom, select an option from the Photo Zoom drop-down list or type the photo zoom in the text box. Note Changing the photo zoom enlarges or reduces the map features and changes the map print area. If you increase the photo zoom level, map text, lines, symbols, etc. display larger and your map print area is reduced. If you decrease the photo zoom level, map text, lines, symbols, etc. display smaller and your map print area is enlarged. The reduction/enlargement

percentages for your photo zoom level display under the Photo Zoom drop-down list.

- If you want to use other tabs and functions but not lose your current print area or other settings, select the Lock Print Center check box.
   Selecting this check box locks the print area and changes the tab label to red.
- Select the Print Preview check box to zoom the map and view the entire print area. Clear the check box to return to your previous data zoom level.
- Add text or graphics to your map
- To change printers or make choices for transparent/yellow background, paper orientation, paper size, and paper source, click **Setup**. The Print Setup dialog opens.

**Note** From the **Setup** dialog box, click **Properties** to view additional options. If the options are available, set the graphics mode to use raster graphics and set TrueType fonts to print as graphics. Consult your printer manual for additional information.

8. Click the **Print** button to print your map.

## Tips

- To save a map to a file, see Saving a Map as a Bitmap or JPEG Image.
- To adjust the print area of a Page map, select the **Lock Print Center** check box, select the **Select** tool , and then drag the frame to the new position.

# **Printing a Route and Directions**

You can print maps of your route and route directions for any route you create. Additionally, you can save your directions or along the way results in a text file. For more information, see Saving Route Directions as Text.

For specific recommendations on best printing results, see your printer manual.

#### To Print a Route

Use the following steps to print an existing route.

- Click the **Print** tab and then click the **Route** subtab.
   **Note** If you do not have a route on this project, the route options are unavailable.
- 2. Optional. Click **Setup** to open the Print Setup dialog box and select a printer, change printer properties, select a transparent/yellow background, select paper size, and select paper orientation. Click **OK** when finished. If the options are available under **Printer Properties**, set the graphics mode to use raster graphics and set TrueType fonts to print as graphics.
- 3. Select the route you want to print from the **Name** drop-down list. Only routes contained in the current project display in this list.
- 4. Under **Options**, select from one of the following choices:
  - **Overview**–Provides an optimized map of your route and the route summary—trip distance, trip time, start, total stops, and finish.
  - **Travel Package**–Provides maps of the route with corresponding directions.

- **Turn Details**–Prints 2" x 2" maps of each of the turns in your route directions.
- Directions—Provides action-based directions (turn, merge, bear, depart, arrive, and continue) including the time frame for each action.
   Note You can save route directions as a text file.
- Along the Way
   —Prints the search results of a previous Advanced Find search within a current route. The search results are listed as they are listed in the Find results. The Along the Way option is only available if you have recently performed a find/category within current route search in the Advanced Find subtab. For more information, see Performing an Advanced Search.
- **Strip Maps**–Provides detailed maps in the direction of travel of the route along with directions that appear in the map margin. Strip maps are not printed North Up like other printed maps. They are printed so that the direction of travel is always at the top of the printed map.
- 5. If you selected Travel Package or Strip Maps in step 4, select the miles per page that you want your route to cover from the Miles Per Page drop-down list.
  - **Note** When setting the number of miles per page, keep in mind that the number of miles is not the distance of the route. Instead, it equals the width of the strip map and determines the scale of the map.
- Select Increasing from the Trip Time/Distance drop-down list to end the route directions with the total time and distance.
   OR
  - Select **Decreasing** from the **Trip Time/Distance** drop-down list to start the directions with the total time and distance similar to a countdown.
- 7. Optional. To view a preview of your selection, click View.
- 8. Click Print.

# Printing a Profile

You can print a profile you have created.

#### To Print a Profile

Use the following steps to print a profile.

- 1. Create a profile.
- 2. Click the **Print** tab and click the **Profile** subtab to display the Profile options.
- Optional. Click **Setup** to open the Print Setup dialog box and select a printer, change printer properties, select paper size, and select paper orientation. Click **OK** when finished.
- 4. Under **Profile**, select **On Map** or **Profile Only**. If you select On Map, select whether you want to print the profile as shown on the **Left** or **Right** map.

IF you select this option	THEN you will print
On Map	The background map with the main Profile graph at the bottom of the page.
Profile Only	The main Profile graph without the map.

Note Click the Copy to Clipboard button to copy your profile to the clipboard so that you can paste it into a graphics program such as Microsoft Paint or Adobe Photoshop. When you copy the map to the clipboard, the map is saved at current monitor resolution.

5. If you want to print all of the profile's Statistical Data Options, select the **Profile Stats** check box.

The statistics are printed on the same page as the profile.

- 6. Optional. Click the **Save** button to save your profile as a bitmap or JPEG image. Rename the file (if necessary) and click **Save**.
- 7. Optional. To view a preview of your selection, click View.
- 8. Click **Print** to print the map using the selected print options.

# **Adding Text or Graphics to Your Map**

You can add text (framed or unframed) and graphics (north arrows, scale bars, images, and GIS legends) to your map.

- To modify the properties of a text/graphic item, click the **Select** tool and click the item on the map.
- To make graphic items added to your map the same size, press and hold the SHIFT key on your keyboard or drag to select two items, right-click, select **Make Same Size**, and select **Width**, **Height**, or **Both** from the menu.
- After you add text/graphic items to your map, you can align, snap, or layer them on the map.

# To Add Text to Your Map

Use the following steps to add text to your map.

- 1. Click the **Print** tab and then click the **Map** subtab.
- Select your Map and Print Layout options. For more information, see Printing a Map.
- 3. Under **Layout Tools**, click and hold the text and graphics button to reveal the hidden text and graphic tools.
- 4. Click the **Framed Text** tool OR
  - Click the **Unframed** Text tool
- 5. Click the location on the map where you want to add your text. A text box displays.
  - When not in editing mode, you can reposition your text by dragging the text box to the new position.
- 6. Type the text in the text box. To type more than one line of text, press SHIFT+ENTER on your keyboard to advance to another line. Press the ENTER key on your keyboard when finished typing your text.
- 7. Under **Layout Tools**, select the font, style, and size for your text from the drop-down lists.

- 8. To underline your text, click the **Underline** tool ...
- 9. To change the color of your text, click the **Font Color** tool . From the **Color** dialog box, you can:
  - Click to select an alternative color. Click OK when finished.
  - Click **Define Custom Colors** and create a custom color by assigning red/green/blue or hue/sat/lum values. Click **Add to Custom Colors** and then click **OK**.
- 10. Click the **Align Left** button to align the text in your text box to the left. OR

Click the **Center** button to align the text in the center of the text box. OR

Click the **Align Right** button to align the text in your text box to the right.

11. Click the **Text Box** Size button if you want the size of your text box to grow with the amount of text typed.

The Text Box Size button is a toggle button. If the button is not activated, any text placed on the map is placed in a default-sized text box. You can resize the default size text box by selecting the text box on the map and dragging any of the white boxes on the corners/sides of text box.

# To Add a North Arrow to Your Map

Use the following steps to add a North arrow to your map.

- 1. Click the **Print** tab and then click the **Map** subtab.
- Select your Map and Print Layout options. For more information, see Printing a Map.
- 3. Under **Layout Tools**, click and hold the text and graphics button to reveal the hidden text and graphic tools.
- 4. Click the **North Arrow** tool . All of the North Arrow styles display to the right.
- 5. Select the North Arrow style and then click the location on the map where you want to add the graphic.
  Once you place the North Arrow on the map, you can resize it by dragging any of the white boxes on the corners/sides of the graphic. Reposition the North Arrow at any time by dragging the graphic to the new position.

# To Add a Scale Bar to Your Map

Use the following steps to add a scale bar to your map.

- 1. Click the **Print** tab and then click the **Map** subtab.
- 2. Select your **Map** and **Print Layout** options. For more information, see Printing a Map.
- 3. Under **Layout Tools**, click and hold the text and graphics button to reveal the hidden text and graphic tools.
- 4. Click the **Scale Bar** tool . All of the Scale Bar styles display to the right.

5. Select the check box to the left of the Scale Bar style options and then select the Scale Bar style.

AND/OR

Select the Scale check box to display the current scale on the map.

AND/OR

Select the **Scale Reference Length** check box to display the scale reference length on the map.

AND/OR

Select the **Zoom** check box to display the current data zoom level on the map.

6. Click the location on the map where you want to add the graphic.

Once you place the Scale Bar on the map, you can resize it by dragging any of the white boxes on the corners/sides of the graphic.

# To Add an Image to Your Map

Use the following steps to add an image to your map.

- 1. Click the **Print** tab and then click the **Map** subtab.
- Select your Map and Print Layout options. For more information, see Printing a Map.
- 3. Under **Layout Tools**, click and hold the text and graphics button to reveal the hidden text and graphic tools.
- 4. Click the **Image** tool
- 5. Click the location on the map where you want to add your image. The Select Image File dialog box opens.
  - You can reposition the image at any time by dragging it to the new position.
- 6. Select an image file (.jpg, .bmp, or .gif) to place on your map and then click **Open**. The image displays on the map and the file name displays in the text box next to the Image tool under Layout Tools.
  - You can update the image at any time by clicking the **Browse** button and browsing to an alternative image.
- 7. Select the **Maintain Aspect Ratio** check box to maintain the image's width-to-height ratio while resizing.
- 8. Select the **Preview I mage** check box to preview the image on the map.

#### To Add a GIS Legend to Your Map

Use the following steps to add a GIS legend to your map.

- 1. Click the GIS tab.
- 2. Click the **Workspace** subtab if it is not currently displaying and then select the check boxes next to each layer for which you want to add the legend to your map.
- 3. Click the **Print** tab and then click **Map** to view the Print/Map dialog area.
- 4. Select your **Map** and **Print Layout** options. For more information, see Printing a Map.
- 5. Under **Layout Tools**, click and hold the text and graphics button to reveal the hidden text and graphic tools.
- 6. Click the GIS Legend tool 🔼

- 7. Select the layer with the legend you want to add to the map from the **Layer** drop-down list.
- 8. Click the location on the map where you want to add your GIS legend. The legend displays on the map. You can reposition or resize legends on the map. To reposition, drag the legend to the new location. To resize, drag any of the white boxes on the corners/sides of the legend.
- 9. Select the **Show Highlight Feature** check box to view the highlight color in the legend.

# Aligning Text and Graphic Items on Your Map

After you add a text or graphic tool to your map, you can use the right-click options to align each object with a certain location on the map.

# Aligning Multiple Text and Graphic Items on Your Map

Use the following steps to align multiple text and graphic items on the map.

- 1. Click the **Print** tab and then click the **Map** subtab.
- 2. Place more than one text or graphic item on your map. For more information, see Adding Text or Graphics to Your Map.
- While pressing the SHIFT key on your keyboard, click each text/graphic item on the map. OR
  - Drag your mouse over the text/graphic items on the map to select multiple items at once.
- 4. Right-click one of the items, point to Align, and then click:
  - **Left** to align the left sides of all of the items; placement is based on the left side of the left-most item.
  - **Right** to align the right sides of all of the items; placement is based on the right side of the right-most item.
  - **Top** to align the top side of all of the items; placement is based on the top side of the top-most item.
  - **Bottom** to align the bottom side of all of the items; placement is based on the bottom side of the bottom-most item.
  - **Vertical Center** to center the items based on the average of the vertical placement of the items.
  - Horizontal Center to center the items based on the average of the horizontal placement of the items.
  - **Center** to center the items based on the center of the average area that the items cover on the map.
  - Stack Vertically to stack the items vertically on top of each other.
  - Stack Horizontally to position the items side-by-side.

#### Tips

• To make multiple graphic items the same size, press the SHIFT key on your keyboard and select each item. Then, right-click, point to **Make Same Size**, and click **Width**, **Height**, or **Both**. When you attempt to make multiple items the same size, the largest item is always the basis for the size change. *Important:* For an item to be made the same size as another item, the item must not be locked — for example, the Maintain Aspect Ratio check box should be cleared for

- any images, only text items with default size text boxes can be resized, and so on.
- To delete multiple text or graphic items, click the **Edit** tool, drag the mouse on the map to encompass the items you want to delete, and then press the DELETE key on your keyboard.

# **Snapping Text and Graphic Items on Your Map**

After you add a text or graphic tool to your map, you can snap each item to the location you want it by dragging the item along the edges of the map or by dragging the item to snap it to the horizontal center of the page.

To disable the auto-snap function, hold down the ALT key on your keyboard while dragging the text/graphic items on the map.

# To Snap Text and Graphic Items on Your Map

Use the following steps to snap text and graphic items on a printed map.

- 1. Add text or graphics to your map.
- 2. Drag each text/graphic item you placed on the map to the location you want them on the map. If you drag an item to the edge of the map print area, the text/graphic snaps to the edge. If you drag the item to the horizontal center of the edge of the map print area, the text/graphic snaps to the center of the edge. You can also drag the item to the center of the map print area to snap it to the center of the printed map.

#### Tips

- To make multiple text and graphic items the same size, press the SHIFT key on your keyboard and select each item. Then, right-click, select Make Same Size, and click Width, Height, or Both. When you attempt to make multiple items the same size, the largest item is always the basis for the size change.
- To delete multiple text/graphic items, select the **Edit** tool, drag the mouse in a down-right direction on the map to encompass the items you want to delete, and then press the DELETE key on your keyboard.

# Layering Multiple Text and Graphic Items on a Printed Map

You may want to layer text or graphic items on your printed map. In this case, use the right-click Bring to Front/Send to Back options so that each can still be displayed.

# To Layer Multiple Text or Graphic Items on a Printed Map

Use the following steps to layer multiple text or graphic items on the map.

- 1. Click the **Print** tab and then click the **Map** subtab.
- 2. Place more than one text or graphic item on your map (see Adding Text or Graphics to Your Map), placing the text/graphic items on top of each other.
- 3. If one of the text/graphic items you want to display is partially underneath another text/graphic item, select the item you want to display, right-click, and click **Bring to Front**.

To reverse this step, right-click the item and select **Send to Back**.

#### Tips

- To make multiple text and graphic items the same size, press the SHIFT key on your keyboard and select each item. Then, right-click, point to Make Same Size, and click Width, Height, or Both. When you attempt to make multiple items the same size, the largest item is always the basis for the size change.
- To delete multiple text/graphic items, select the **Edit** tool, drag the mouse in a down-right direction on the map to encompass the items you want to delete, and then press the DELETE key on your keyboard.

# Changing the Background Color of a Printed Map

When you print a map, a yellow (or black if you are using High Contrast Colors) background automatically displays on the printout. If you want a transparent background — for example, if you are printing transparencies — you can change the Print settings to print with a transparent background.

# To Print Maps With a Transparent Background

Use the following steps to turn off the yellow background when printing a map.

- 1. Center the map on the area you want to print.
- 2. Click the **Print** tab and then click the **Map** subtab.
- 3. Select the **Print Layout** options. For more information, see Printing a Map.
- 4. Click **Setup**.
  - The Print Setup dialog box opens.
- 5. At the bottom of the dialog box, select the **Print Maps with a Transparent Background** check box.
- Click **OK**.
   All map printouts print with a transparent background.

#### To Print Maps With a Yellow/Black Background

Use the following steps to turn on the yellow/black background when printing a map.

- 1. Center the map on the area you want to print.
- 2. Click the **Print** tab and then click the **Map** subtab.
- 3. Select the **Print Layout** options. For more information, see Printing a Map.
- 4. Click Setup.
  - The Print Setup dialog box opens.
- 5. At the bottom of the dialog box, clear the **Print Maps with a Transparent Background** check box.
- 6. Click **OK**.

  All map printouts print with a ve
  - All map printouts print with a yellow background (or black if you are using High Contrast Colors).

# Manually Assembling a Multi-page Map

After you have printed the sheets for your multi-page map, you are ready to assemble the map.

Before you begin, be sure you have a clear work surface large enough to accommodate the final map size.

You will need the following tools to assemble your map:

- Pencil
- Razor knife

- Straight-edge ruler (longer than the edge of the longest sheet)
- Permanent tape (invisible or "magic" type)
- Removable tape

# To Manually Assemble a Multi-page Map

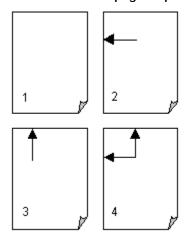
Use the following steps to manually assemble a multi-page map.

- 1. For each sheet that needs to be trimmed, mark the edges of the sheet to indicate the areas to trim.
- 2. Use the straight edge ruler and razor knife to trim each sheet to the thin black line bordering the map.

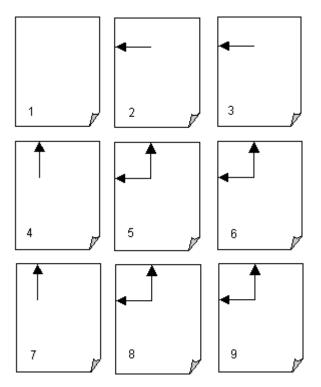
**Note** For adjacent sheets, trim only one page. This makes piecing the sheets together easier.

The following diagrams of a  $2 \times 2$  and  $3 \times 3$  multi-page map provide additional information on where to trim the sheets. The arrows indicate the edges to be trimmed.

#### 2 x 2 multi-page Map



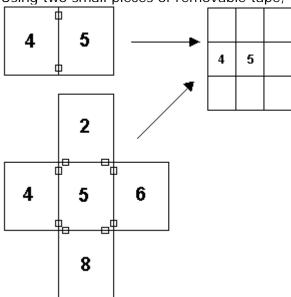
3 x 3 multi-page Map



3. Align two adjacent sheets, placing the trimmed edge on top of the non-trimmed edge.

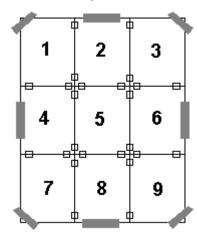
#### **Notes**

- Piece together the multi-page map one seam at a time. This is especially important for a 3 x 3 multi-page map.
- Build the multi-page map from the inside out to minimize any misalignment.
- 4. Using two small pieces of removable tape, tack together the aligned sheets.



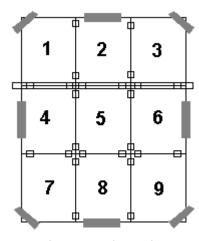
**Note** This is a temporary measure. Steps 6 through 10 describe how to completely secure the sheets.

- 5. Repeat steps 3 and 4 until all the sheets are pieced together.
- 6. With the multi-page temporarily pieced together, use small pieces of removable tape to secure the corners and edges of the multi-page map.



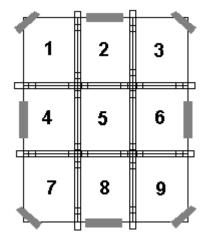
**Note** Place the removable tape on the corners and edges, not along the seams.

- 7. For each seam, fix the tape to the work surface, not on the sheet, so the tape is in alignment with the seam.
- 8. Spool off enough permanent tape to cover the entire seam. Be careful not to let the tape touch the map until you are ready to apply it (in step 9).
- 9. Keeping the length of the tape taut, carefully apply the tape to the seam until both sides are fixed to the work surface.



10. Press the tape along the seam to remove any air gaps.

11. Repeat steps 6 through 10 until all seams are completely pieced together.



- 12. Using the straight-edge ruler, carefully trim the edges of the map at the seams (where the tape is affixed to the workspace).
- 13. Peel off the removable tape at the corners and the edges. You are now ready to display your multi-page map.

# Finding a Location on the Map

## **Find Overview**

There are four Find options you can use to search for and locate places and other map items. The search options available depend on your datasets.

- QuickSearch—Search for places, addresses, cities/towns, ZIP/Postal Codes, and coordinate positions. If the item you are looking for is not recognized, the Advanced tab displays automatically.
- POIs—Search for specific points of interest, such as hotels, restaurants, hospitals, department stores, etc. Search a specified distance from the current map center or along an active route.
- GPS Radar

  Search for points of interest, waypoints, and GIS points within a
  designated distance from your current location while tracking a route with a
  GPS receiver.
- Advanced—Control what you are looking for with the Find field, and where
  you are looking for it with the Within field while you conduct a more detailed
  search.

# Performing a Basic Search

Use the QuickSearch tab to locate places, addresses, ZIP/Postal Codes, coordinate positions, and more. To search for other items, such as an area codes, street intersections, or a category (such as Park, Interstate, and so on), use the Advanced subtab. The search options available depend on your datasets.

#### To Perform a Basic Search

Follow the steps below to use the QuickSearch tab.

- Click the **Find** tab and then click the **QuickSearch** subtab. OR
  - Press CTRL+F on your keyboard.
- Type a name, address, ZIP/Postal Code, town name, coordinate, draw object label, address book contact name, street intersection, etc. in the Search For text box. See Searching Tips for a description of input formats.

  OR

Select **From Address Book** from the **Search For** drop-down list to find an address book entry in your DeLorme Address Book and then click **OK**. **Notes** 

- The Book check box (under the Address Book buttons) must be selected to search for address book contacts. For more information, see Searching for Address Book Contacts.
- Do not enter more than five digits for a ZIP Code search or six characters for a Postal Code search (you do not need to include spaces in a Postal Code).
- Address searches should be in the following formats: street address, city, state OR street address, ZIP/Postal Code OR street address, city, state, Zip/Postal Code.
- 3. Click Search. If your search is:

- Very Successful—The results list displays and, if there is one excellent match, the map centers on that place. A MapTag displays if the MapTags check box is selected. The only time a MapTag is not placed is when you find and then go to a labeled area that has no single map point associated with it (for example, a large park).
- Successful—The results list displays. Scroll or browse through the list of search results until you find the one you want to locate. To center an item on the map, double-click it or select it and then click Go To. A MapTag displays if the MapTags check box is selected.
  Tip Single click an item in the results list to highlight it on the map without adding a MapTag or centering it in the map view. For more information on viewing results, see Tips on Viewing Search Results.
- Not Successful—The Advanced dialog area displays. The program makes its best guess about the type of search you were trying and your search word(s) display in the upper-right text box. Click Search to proceed. For more information, see Performing an Advanced Search.

#### **Notes**

- Use a comma to separate city and state/country (Atlanta, Georgia; Montreal, Canada), major point of interest and state (Mt Washington, NH), parts of an address (444 E Pk Drive, Milford, CT or 444 E Pk Dr, 06460), or coordinate points (N 43.8, W 70.2).
  - **Tip** You can find major landmarks or points of interest, such as Yellowstone National Park and Mount Rushmore, without using the state as part of the search criteria.
- Separate street intersections with an ampersand (Congress St & High St, Portland, ME or Congress St & High St, 04101).
- Avoid entering a period in your text.
- Click the **Search For** down arrow to view a drop-down list of previously used search words and examples.
- The Search For drop-down list keeps a history of your successful search words during a session and between sessions. To delete your search history, select Clear History from the drop-down list. Click No to delete the search history in the QuickSearch drop-down list. Click Yes to delete the search history in both the QuickSearch and Advanced subtabs.
- Use the right-click feature to copy search result information to the clipboard; center a search result on the map (go to); select all search results; add a result as a MapTag, MapNote, Detailed MapNote, Waypoint, or Address Book Entry; or assign it a start, stop, or finish in a route. Just right-click a search result and select the applicable option from the menu.

# Performing an Advanced Search

The Advanced search option allows you to perform more detailed searches by controlling *what* you are looking for using the Find field and *where* you are looking for it using the Within field.

- The fields available for selection under Within vary based on your Find selection.
- Type text in the fields and use the drop-down list to see examples and your recent searches.

• The fill-in fields located in the center of the tab vary based on both your Find and Within selections.

You can also search for more types of items than you can in the QuickSearch tab, such as by category, street intersection, and more.

#### To Perform an Advanced Search

Follow the steps below to use the advanced search function.

- Click the Find tab and then click the Advanced subtab.
   Note This screen automatically displays if you performed an unsuccessful QuickSearch.
- 2. From the **Find** drop-down list, select the Find type from the list. When more than one match is available, the closest match displays first in the Results list.

Click a Find type in the list below for more information.

#### Name

Use Name to locate a city, town, landmark, object label, and so on.

#### • Street Address

Use Street Address to locate by street number and name, highway number, and so on.

You can use standard abbreviations like Rd (Road), St (Street or Saint), Mt (Mount), Dr (Drive), and Ct (Court).

#### • Street Intersection

Use this search to locate the intersection of two specified roads.

## • <u>ZIP/Postal Code(s)</u>

Use at least a partial ZIP/Postal Code to locate the covered regions. The results display in a browse list.

Use at least a partial ZIP/Postal Code to locate the covered regions. The results are displayed in a browse list. This means you are taken into the ZIP/Postal Code database at the closest matching, valid ZIP/Postal Code. You can browse through results in either direction.

Use at least a partial ZIP Code to locate the covered regions. The results are displayed in a browse list.

#### Name and/or Category

Searches for a specific name in a specific category. For example, if you want to find a particular restaurant in your town, you would type restaurant in the Keywords text box, type the name of the restaurant in the Name text box, and then type your location information in the available text boxes.

For more information on category searches, see Keywords for Category Searches.

**Note** Category keywords must be at least three characters in length.

## <u>Category</u>

Searches for a category of items within the specified area. For more information on category searches, see Keywords for Category Searches.

#### **Notes**

- In all category searches, the Keywords field is optional. If the Keywords field is left blank, all objects in the selected Within area display in the Results list.
- Category keywords must be at least three characters in length.

### Area Code and Exchange

There are no Within options for Area Code and Exchange search. Use at least a partial Area Code and Exchange to locate the covered regions. This is not an individual phone search. The results display in a browse list.

### Latitude/Longitude

A single result is returned using a latitude/longitude coordinate search. There are no Within options. Coordinates must be in one of the many formats recognized by the program and are based on your Display settings in the Options dialog box.

3. From the **Within** drop-down list, select an option. Available choices are based on what you selected as your Find type.

Click a Within type in the following list for more information.

#### World

Searches for a name or ZIP/Postal Code within these countries.

#### US/Canada

Searches for ZIP/Postal Code within the United States and Canada. Available only when ZIP/Postal Code(s) is selected as the Find parameter.

### • <u>City or County</u>

Searches for the specified name within the ZIP/Postal Codes associated with the city/county and state/province specified in the text boxes.

### ZIP/Postal Code

Searches for the specified name within a ZIP/Postal Code. Displays a ZIP/Postal Code text field. A U.S. search for a ZIP+4 Code is treated the same as a five-digit ZIP Code. A Canadian search for a 3-character Postal Code is treated the same as a six-character Postal Code.

Searches for the specified name within a ZIP/Postal Code. Displays a ZIP/Postal Code text field. A U.S. search for a ZIP+4 Code is treated the same as a 5-digit ZIP Code. A Canadian search for a 3-character Postal Code is treated the same as a 6-character Postal Code.

Searches for the specified name within a ZIP Code. Displays a ZIP Code text field. A search for a ZIP+4 Code is treated the same as a five-digit ZIP Code.

#### U.S. State

Searches for a name within a specific U.S. state. This option is available only when Category or Name and/or Category is selected as the Find parameter.

**Note** If you are searching within a larger state, this type of search may take longer than others because a lot of data is being searched to obtain a result.

### Current Map City

Searches for the specified name within the boundaries of all ZIP/Postal Codes associated with the city at the current map center.

## Current Map Rectangle

Searches for the specified location within the currently visible map area.

### Distance from Map Center

Performs a search in all directions from the center of the map using the specified distance. Also called a radius search. The minimum distance you can use is 50 feet; the maximum distance is 100 miles.

### Current Route

Searches for objects within the specified distance from your currently active, calculated route. The minimum distance you can use is 500 feet; the maximum distance is 10 miles. Results are listed in the sequence they occur along the route, from start point to finish point.

Note This search may take longer than other types of searches.

- 4. Type information in the text boxes to the right of the Find and Within fields. The text boxes available are based on the selected Find and Within fields. Tip A few text boxes are optional and you may get more results by leaving them blank. To see if a text box is optional, hold your cursor over the text box label or down arrow and read the ToolTip for that text box.
- 5. Click **Search** or press the ENTER key on your keyboard. The Results list displays your search results with closest matching items at the top of the list.
- 6. Scroll or browse through the list of search results until you find the one you want to locate. To center an item on the map, select it and then click Go To or double-click it.
  A yellow MapTag displays at the location if the MapTags check box is

### Tips

selected.

- Single click an item in the results list if you want to highlight it on the map without adding a MapTag or centering it in the map view. For more information on viewing results, see Tips on Viewing Search Results.
- Use the right-click feature to copy search result information to the clipboard; center a search result on the map (go to); select all search results; add a result as a MapTag, MapNote, Detailed MapNote, Waypoint, or Address Book entry; or assign it a start, stop, or finish in a route. Just right-click a search result and click the applicable option.

**Note** The program keeps a history of your search words during a session. If you want to delete your Advanced search history, click the **QuickSearch** subtab and select **Clear History** from the **Search For** drop-down list. Then, click **Yes** to delete the search history in both the QuickSearch and Advanced subtabs.

# Performing a POI Search

Points of interest (POIs) are available with XMap Street Level Data and Topographic Data. To purchase data, please visit www.delorme.com, or call DeLorme Direct Sales at 800-561-5105.

The POIs subtab gives you an easy way to find the places of interest you are looking for. You can search over four million places of interest including Wal-Mart stores, post offices, hospitals, and much more.

- Some POIs contain extended information, such as website links, hours of operation, and so on. To view this extended information, right-click the POI search result, point to **Add**, and then click **Detailed MapNote** to view the information on the map. Or, right-click the POI search result and click **Info** to view the extended information in the Info tab.
- POI searches will find more objects than may be currently visible on the map. To see all POIs on the map, click the **Options** button on the toolbar

(or click the menu arrow and click **Options**), click the **Map Features** tab, select the **Points of Interest (Minor)** and the **Business Points of Interest (Minor)** check boxes, and click **OK**.

### To Find a Point of Interest

Use the following steps to find a point of interest with the POIs subtab.

- 1. Click the Find tab.
- 2. Click the POIs subtab.
- 3. Type the name of the point of interest you are searching for (for example, Wal-Mart or Sheraton) in the **Name** text box.
- 4. Type the category that best fits your POI name (for example, type Hotel if you are searching for a Sheraton, type Department Store if you are searching for Wal-Mart) in the Keywords text box. See Keywords for Category Searches for more information.
  OR
  - Select an appropriate keyword from the **Keywords** drop-down list examples and history.
- 5. Type the distance you want to search in the **Distance** text box. Type the number of miles followed by "mi" for example, 5 mi.
- 6. Select From Map Center or Along Current Route.
- 7. Click **Search**. If your search is:
  - Very Successful—The results list displays and, if there is one excellent match, the map centers on that place and a yellow box displays at the location of the POI match.
  - Successful—The results list displays. Scroll or browse through the list
    of search results until you find the one you want to locate. To center
    an item on the map, double-click it or select it and then click Go To.

#### Tips

• Single click an item in the results list to highlight it on the map without adding a MapTag or centering it in the map view. For more information on viewing results, see Tips on Viewing Search Results.

 Use the right-click feature to copy search result information to the clipboard; center a search result on the map (go to); select all search results; add a result as a MapTag, MapNote, Detailed MapNote, Waypoint, or Address Book entry; or assign it a start, stop, or finish in a route. Just right-click a search result and click the option you want.

# **Finding Points Near Your Current Location**

Points of interest (POIs) are available with XMap Street Level Data and Topographic Data. For more information, please visit www.delorme.com, or call DeLorme Direct Sales at 800-561-5105.

Use the GPS Radar subtab on the Find tab to search for points of interest (POIs) such as gas stations, restaurants, accommodations, rest areas, and so on near your current location (if tracking with a GPS) or near the center of the map. You can also search for waypoints you created using the Draw tab and GIS points. If you enable the speech button, you can hear the nearest search result. Once you find the waypoint, GIS point, or POI you want, you can use the GPS Radar subtab to center the map on the route on that point or POI and get directions to it.

#### **Notes**

- In GPS NavMode, GPS Radar results display in an orange bar at the bottom of the map area. Important To enable GPS Radar in NavMode, you must select the Repeat Search Every check box and enter the number of minutes for repeating the search.
- A GPS Radar search finds items that are the shortest driving distance from your current location—within just a few miles. Unless you select the **Only in Direction of Travel** check box, some of the search results may be behind you.
  GPS radar calculates a route to each point and the fastest destination for you to drive to is listed first. If you are on a one-way road or freeway, GPS Radar takes into account the fact that you need to drive further to get off at an exit. You can click each item in the result list to see each option, to highlight the route to each destination, and to see a description of each one as well as driving directions. This should help you choose the best one for your needs.
- The time required for a GPS Radar search varies by the distance, density of objects in the area, the categories chosen, and whether you are searching only in the direction of travel.
  - If you are using GPS NavMode, a long search will automatically be interrupted; click the **More Info** button on the orange status bar to open the GPS Radar subtab and adjust your settings for a shorter search.
  - If you are using GPS tab view, click the Interrupt button to interrupt a long search and see a listing of the nearby points. Driving directions will not be provided.

### To Find Points Near Your Location

Use the following steps to find points near your location.

- 1. Click the **Find** tab.
- 2. If you are not tracking with a GPS, type a specified location in the **Search** For text box and click **Search**.
- 3. Click the GPS Radar subtab.

4. Under **Search For**, select the point you want to locate within the specified area.

**Note** You can also use the custom search to search for multiple POI types, such as "Chinese restaurant or Mexican restaurant."

To use the Custom search to search for waypoints or GIS points, use search general or specific terms such as "draw symbol," "map pin," "GIS layer," "GIS point," "GIS layer or waypoint", "<layer name> for example, "hydrant," or "waypoint."

- 5. Select the **Only in Direction of Travel** check box if you do not want GPS Radar to search for points of interest that are outside of your direction of travel; for example, points of interest that are behind you.
- 6. Enable the **Speech** button by clicking it if you want to hear the nearest search result in the computer's voice.
- 7. If you want to automatically repeat your search after a designated amount of time, select the **Repeat Search Every** check box and then select the number of minutes for automatically repeating the search. This is required if you are using GPS NavMode.

**Note** Searches are not repeated when the GPS position is stationary.

- 8. Select a distance in miles from the **Search Area** scroll list to limit your search to a certain driving distance from your current location.
- 9. Click Search.

The search results display in the list box to the right of the Search button.

10. Click a search result to select it.

A green, highlighted line displays on the map between your current/specified location and the point of interest's location.

**Note** Click **Recenter** to center the map on the selected point in the route. Click **Insert Stop** to insert the selected search result into your current route.

11. Select the **Info** option to view the information about the point, including the distance from the current location.

OR

Select the **Directions** option to view directions to the point from your current/specified location.

# Finding a Symbol by its Name

Within the Draw tab, you can attach a name to any symbol you add to your map. For more information on adding symbols to the map, see Adding a Waypoint, Symbol, MapNote, or Text Label to the Map.

You can use a name to help locate a symbol you have already placed on a map using the QuickSearch feature on the Find tab. For example, if you named a symbol "My House" when you placed it on the map, use the following steps for conducting a search on the unique symbol name.

## To Find a Symbol by its Name

Use the following steps to find a symbol by its name.

1. Click the Find tab.

- 2. Using **QuickSearch**, type the symbol name followed by the town and state abbreviation (for example, **My Office**, **Yarmouth**, **ME**) in the **Search For** text box.
- 3. Click **Search**. The closet matches display in the list view to the right of the Search For text box. The symbol name displays in the Name column.
- 4. Double-click the item or select the item and click **Go To** to locate your selection on the map. The map view centers on the item. A MapTag displays the symbol name at the symbol location.
  - Note To display MapTags, select the MapTags check box on the Find tab.

# Tips on Viewing Search Results

These tips can help you view Find tab search results.

- To make it easier to view a long list of search results, increase the height of the tab by dragging the top of the tab area up or by clicking the increase (up) tab height arrow at the top of the tab.
- To sort results by another column, click the column header. An arrow identifies the sort column. Click a second time to reverse the sort order.
   Note This feature is not available when in browse mode; see last item in this list.
- To copy the information for the selected item or items, press CTRL+C on your keyboard. You can then paste the text into another program, such as a word processing program.
- Right-click an item in the results list to display the following options:
  - **Copy to Clipboard**—Copies the detailed information for the selected item or items and is available for pasting into another program.
  - Go To-Centers the map on the selected item.
  - Select All-Selects all items in the list and highlights up to 350 on the map. If you right-click again with all items selected, you can select Copy to Clipboard; point to Add and then click MapTag, MapNote, Detailed MapNote, Address Book Entry, or Waypoint; or point to Route and click Insert Stop. You must have the MapTags checkbox on the Find tab selected to add a MapTag.
  - Add-Adds a MapTag, MapNote, Detailed MapNote, Address Book Entry, or Waypoint for the selected item or items. You must have the MapTags checkbox on the Find tab selected to add a MapTag.
  - Route—Places a start, stop, or finish point at that location on the map based on your selection. The location is listed in the Start text box, Stop text box, or Finish text box in the Route tab.
- To locate an item on the map without moving the map, single click an item in the results list. It is highlighted on the map as long as it is in the current map view. This is especially helpful when you are at the data zoom level you want but point labels are not displaying.
  - **Notes** To select multiple items, press and hold the CTRL key while clicking up to 350 items in the results list. If the items are listed continuously, click the first item in the list and then press and hold the SHIFT key while clicking the last item you want.
- You can adjust column widths. The new size is retained until changed again.
   You cannot rearrange the column order. Different search types result in different column orders.

- There are two types of results lists:
  - Most searches provide a fixed number of results. If all of the results do not fit in the screen area, a scroll bar automatically displays.
  - Name in ZIP/Postal Code searches, Name in U.S. or Canada searches, and Area Code/Exchange searches provide results you can browse. This means the entire database displays with the best match highlighted. It is possible to continue browsing to the first or last item in the database.



# **Keywords for Category Searches**

Your DeLorme application recognizes hundreds of English words to generate both general and specific searches using category keywords. Try entering words that seem appropriate.

## **Keyword Samples**

The list below shows a few of the categories that expand to reveal sample keywords. Sample keywords may be listed in more than one category.

Boundaries, Map, and Surveying

Border

Boundary

Contour

Crosshair

Grid

Line

Point

ZIP/Postal Code

**Buildings and Structures** 

Airport

Bridge

**Business** 

Landmark

Library

**Businesses** 

Hotel

Gasoline

Restaurant

Pizza

**Education and Cultural** 

College

Local Park

Park

## XMap User Guide

School

State Park

University

## Natural Features

Beach

Canyon

Crater

Desert

Forest

Glacier

Hill

Island

Mountain

River

Stream

Valley

Water

## <u>Miscellaneous</u>

Cemetery

Hiking

Mine

Note

Park

## Object Types

All of the stock draw symbols (such as blue map pin, red flag, canoe, etc.)

Draw symbols

XData objects

GIS Layers

Phone objects

Objects in non-DeLorme data

Roads and Trails

Bridge

Exit

Ferry

Foot Trail

Highway

Hiking

Interstate

One Way

Railroad

Road

Street

Trail

Tunnel

**Travel Amenities** 

Airport

Exit

Landmark

Rest Area

**Unique Natural Features** 

Geographic Feature

Landmark

Locale

Mining

Trail

Park or Other Open Space

**Tourist Attraction** 

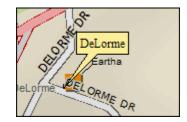
## **Notes on Category Searches**

The following list provides notes you may find helpful for performing category searches.

- Category keyword searches must be at least three characters in length.
- Keywords are not case-sensitive. Using all capital letters or no capital letters does not affect the search.
- Some generic keywords (water, for example) match many categories and display a dialog box with specific categories. Select or clear these categories, depending on what you want to locate.
- In the Keyword Category samples below, some keywords are used together to narrow the search. The following two examples provide information on how results may differ using words together and separately:
  - Example 1-Using Local Road provides many category results, such as Ferry Crossing Local Road, Local or Rural Road, and Railroad Local Line.
  - Example 2–Using Road provides over 100 results from more categories.
- Partial words are recognized when performing a search.
- You can use keywords in any order. You get the same results using Local Road as for Road Local.
- A keyword may find categories related to the word rather than including the word.
- Use the word "or" in the Keywords text box to search for multiple categories. For example, "pizza" or "fast food."

# MapTags: Converting, Moving, Hiding, and Deleting

When you search for and go to a Find search result, a yellow MapTag displays at that location if the MapTags check box on the Find tab is selected. If MapTags are cluttering your view of the map, you can move the text area of the MapTag, hide them from view, or delete one, several, or all MapTags.



## To Convert MapTags to MapNotes

To change all of the MapTags on the map to MapNotes, which can be retained when you save the project, right-click the map, click **Manage Draw**, and then click **Convert All MapTags to MapNotes**. A new draw layer called MapNotes is created in your project.

## To Move a MapTag

You cannot detach a MapTag from its anchor point; you can move only the text area. Use the following steps to move the MapTag text area.

- 1. Use the **Find** tab, search for a place, street address, coordinate, category item, or street intersection. MapTags are placed on the map at each point you locate.
- 2. Click the **Select** tool 2.
- 3. Click the text area for the MapTag you want to move and drag it to the position on the map where you want it. The anchor point does not move.
- 4. Click the **Select** tool again to resume normal map operations.

### To Hide MapTags

The MapTags check box controls if existing MapTags display on the map.

- MapTags are visible when the MapTags check box is selected.
- MapTags are hidden from view when the MapTags check box is cleared. Select the MapTags check box at any time to display existing MapTags.

### To Delete MapTags

You can delete one, several, or all MapTags.

## To delete MapTags from the Find tab:

- To delete one MapTag, click the Select tool , click the MapTag, click the Delete Tag tool , and click the Select tool again.
   OR
  - Right-click the MapTag you want to delete and select **Delete MapTag**.
- To delete several MapTags, click the Select tool , hold down the SHIFT key on your keyboard while clicking the MapTags, click the Delete Tag tool, and click the Select tool again.

• To delete all MapTags, click the **Delete Tag** tool . A message box displays "Delete all MapTags?" Click **OK** to confirm deletion. Click **Cancel** to retain all MapTags.

## To delete MapTags from other tabs:

• Right-click the MapTag and click **Delete MapTag**.

# **Using Address Book Contacts**

# Searching for Address Book Contacts

You have several ways to search for address book contacts:

- Use the QuickSearch function on the Find tab to search for the name of a contact; browse for the contact or type the name of the contact
- Use the Route tab to search for an address book entry as a route start, stop, or finish; browse for the contact or type the name of the contact
- Use the toolbar to search for an address book entry as a route start or finish;
   browse for the contact or type the name of the contact

With these functions, you can select the **<From Address Book>** option from the applicable drop-down list or you can type the name of the contact directly in the text box to find the entry. If you type the name of the contact, you must select the **Book** check box in the Find tab (underneath the Address Book buttons). To disable the address book search functionality, clear the **Book** check box.

#### **Notes**

- The address book has a 200-record limit.
- You can resize and move the Address Book dialog box.
- You can resize the columns inside the Address Book dialog box.

# **Importing Existing Address Book Information**

You can import an existing address book or build a new address book by manually entering each record. Imported address book items are merged with your existing address book. Items with identical names are not replaced during the import process.

## To Import an Existing Address Book

Use the following steps to import an existing address book and view its contents on the map.

- 1. Click the **Find** tab.
- 2. Click the **Address Book** button The DeLorme Address Book dialog box opens.
- 3. Click Import.
- 4. Click **Browse** to find the .dab, .txt, .csv, or .tab address book file. Click the file and then click **Open**.
- 5. If the first line of the title contains column names, select the **First Row is Header** check box.
- 6. If you want to adjust the column headers for your address book information, select a default column label from the available drop-down lists. There is a list for Name, Street Address, City, State Abbreviation, ZIP/Postal Code, Telephone, Latitude, Longitude. The information in your address book displays to the right of these lists.

#### 7. Click **OK**.

The address book contacts are imported into the program. All street address or latitude/longitude matches display on the map with the following symbol

• and the name of the contact.

**Note** If your contacts do not display on the map, check the Located? column in the Address Book dialog box to verify a successful match was made. If Not Located displays next to any of your records, either address/coordinate information was not provided with the contact or the address/coordinate information could not be found in the program.

#### Notes

- The address book has a 200-record limit.
- You can resize and move the Address Book dialog box.
- You can resize the columns inside the Address Book dialog box.

# Manually Entering Address Book Information

You can import an existing address book or build a new address book by manually entering each record.

You can also add an address book entry by right-clicking the map, selecting **Create Address Book Entry**, and following steps 4–6 below. If you right-click the map at the location for the address book entry, some of the information, such as coordinates, street name, city, state, etc., automatically complete the Edit a DeLorme Address Book Entry dialog box.

## To Manually Enter Address Book Information

Use the following steps to manually enter address book information.

- 1. Click the **Find** tab.
- 2. Click the **Address Book** button The DeLorme Address Book dialog box opens.
- Click New. The Edit a DeLorme Address Book Entry dialog box opens.
- 4. Enter the information for the entry.
- 5. From the **Update Location** drop-down list, select the method for updating the location on the map; **From Street Address**, **From Lat/Lon**, or **No** (if you do not want to update the location.
- 6. Click OK.
- 7. Repeat steps 2-6 for each contact you want to add.

### Notes

- The address book has a 200-record limit.
- You can resize and move the Address Book dialog box.
- You can resize the columns inside the Address Book dialog box.

# Centering the Map on an Address Book Contact

You can center the map on any address book contact you have with the Go To function in the Address Book dialog box.

## To Center the Map on an Address Book Contact

Use the following steps to center the map on an address book contact.

- 1. Click the **Find** tab.
- 2. Click the **Address Book** button The DeLorme Address Book dialog box opens.
- 3. Click the contact.
- Click Go To.
   The map centers on the selected contact.

#### Notes

- The address book has a 200-record limit.
- You can resize and move the Address Book dialog box.
- You can resize the columns inside the Address Book dialog box.

# **Editing a Contact In Your Address Book**

Once you have imported your address book contacts, you may need to edit the information if your contacts have moved, changed phone numbers, etc. Instead of importing the information again, you can simply edit the information.

### To Edit a Contact In Your Address Book

Use the following steps to edit a contact in your address book.

- 1. Click the **Find** tab.
- 2. Click the **Address Book** button ... The DeLorme Address Book dialog box opens.
- Double-click the record you want to edit. OR
- Click the record you want to edit and then click **Edit**.
- 4. Edit the applicable information.
- 5. If you want to move the contact, select the method to place it on the map from the **Update Location** drop-down list.
- 6. Click OK.

### Notes

- The address book has a 200-record limit.
- You can resize and move the Address Book dialog box.
- You can resize the columns inside the Address Book dialog box.

# Manually Moving a Contact on the Map

Once you have created a contact in an address book, you can manually move it on the map using the move address book entry function.

### To Manually Move a Contact's Location on the Map

Use the following steps to manually move a contact's location on the map.

1. Click the **Find** tab.





Your cursor changes to \$\frac{\psi}{\psi}\$ when you hover over the location of an address

- 3. Click and drag the contact to a different location on the map. The Located status for that record (in the Address Book dialog box) changes
- 4. Click the move address book entry icon again to resume normal map operations.

#### Notes

- The address book has a 200-record limit.
- You can resize and move the Address Book dialog box.
- You can resize the columns inside the Address Book dialog box.

# Relocating Address Book Contacts

Once you import an address book from a previous version of your application, you can relocate your address book entries (except for manual entries) so they match the most recent data. You are prompted to do this the first time you open the address book after installing a new version of your application; however, if you do not relocate the entries at that time, you can do it later.

Important If you do not relocate your address book, the entries may not be accurately placed according to the latest DeLorme road data.

#### To Relocate Contacts In Your Address Book

Use the following steps to relocate address book entries (except manual entries) on the map.

- 1. Click the **Find** tab.
- 2. Click the **Address Book** button The DeLorme Address Book dialog box opens.
- 3. Click Relocate All. A confirmation message displays.
- 4. Click **OK** to relocate the entries.

### Notes

- The address book has a 200-record limit.
- You can resize and move the Address Book dialog box.
- You can resize the columns inside the Address Book dialog box.

# Showing/Hiding Address Book Contacts on the Map

Once you add contacts to your address book, you can show or hide the contact information on the map.

## To Show/Hide Address Book Contacts on the Map

Use the following steps to show/hide address book contacts on the map.

1. Click the Find tab.

Select the **Book** check box to show address book contacts on the map and enable address book searching with the Find tab, Route tab, and toolbar. OR

Clear the **Book** check box to hide address book contacts on the map and disable address book searching with the Find tab, Route tab, and toolbar.

#### **Notes**

- The address book has a 200-record limit.
- You can resize and move the Address Book dialog box.
- You can resize the columns inside the Address Book dialog box.

# Deleting a Contact In Your Address Book

Once you successfully create an address book, you can delete the contact information at any time.

### To Delete a Contact In Your Address Book

Use the following steps to delete a contact in your address book.

- 1. Click the **Find** tab.
- 2. Click the **Address Book** button The DeLorme Address Book dialog box opens.
- 3. Click the record you want to delete.
- 4. Click Delete.
- 5. Click **OK** to confirm the deletion.
- 6. Click Done.

#### Notes

- The address book has a 200-record limit.
- You can resize and move the Address Book dialog box.
- You can resize the columns inside the Address Book dialog box.

# **Deleting Your Entire Address Book**

Once you have created an address book, you can delete the records it contains one at a time or all at once.

## To Delete an Entire Address Book

Use the following steps to delete an entire address book.

- 1. Click the **Find** tab.
- 2. Click the **Address Book** button . The DeLorme Address Book dialog box opens.
- 3. Click Clear All.

A confirmation message displays.

- 4. Click **OK** to delete the address book.
- 5. Click **Done**.

## Notes

- The address book has a 200-record limit.
- You can resize and move the Address Book dialog box.

You can resize the columns inside the Address Book dialog box.

# **Exporting Your Address Book**

You can export your address book to another program using the Export function in the Address Book dialog box. Exported address books are in DeLorme Address Book binary format (\*.dab) or comma-separated file (\*.csv) format. Latitude and longitude values are not exported.

## **To Export Your Address Book**

Use the following steps to export your address book.

- 1. Click the Find tab.
- 2. Click the **Address Book** button ... The DeLorme Address Book dialog box opens.
- Click Export.The Save As dialog box opens.
- 4. Browse to the location where you want to save the exported address book file
- 5. Type the file name for your exported file in the **File Name** text box.
- 6. Select **DeLorme Address Book (\*.dab)** or **Comma-separated File (\*.csv)** from the **Save as Type** drop-down list. DeLorme Address Book files retain all of their information and can be imported into compatible DeLorme programs. Comma-separated files <u>do not</u> contain coordinate information. You can view text files in third-party applications such as Microsoft Excel.
- 7. Click Save.
- 8. Click **OK** to acknowledge the export location.
- 9. Click Done.

#### **Notes**

- The address book has a 200-record limit.
- You can resize and move the Address Book dialog box.
- You can resize the columns inside the Address Book dialog box.

# **Searching for Phone Book Listings**

# **Using Phone Data**

The Phone tab in XMap requires DeLorme Phone Data, available from DeLorme. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

You can install the phone data to your hard drive or use it from the DVD.

## To Install Phone Data to your Hard Drive

If you install the phone data to your hard drive, it is always accessible when you use the Phone tab.

To install the data:

- 1. Insert the Phone Data DVD into your computer's DVD drive. The Installation Wizard opens.
- 2. Follow the on-screen steps to install the phone data to your hard drive.

### To Use Phone Data from the DVD

You can use the phone data from the DVD without installing it to your hard drive.

- 1. Insert the Phone Data DVD into your computer's DVD drive. The Installation Wizard opens.
- 2. Click Cancel, click Yes when prompted, and then click Finish to exit the wizard.
- 3. Click the **Phone** tab.
- 4. Click Data.

The Browse for Folder dialog box opens.

- 5. Browse to your computer's DVD drive and click the **Phone** folder.
- 6 Click **OK**

The states/provinces on the DVD are available in the State/Prov drop-down list in the Phone tab.

# Searching for a Phone Book Listing

With the Phone tab, you can search for a name and address based on a given phone number or search for a phone number based upon a specified name and/or address. You can pick and choose your selections to add to map, make a dataset, and so on.

#### Notes

- The Phone tab in XMap requires DeLorme Phone Data, available from DeLorme. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.
- A hyphen (-) before the name in a search result indicates a business listing.
- An asterisk (\*) before the name in a search result indicates a <u>Do Not Call</u> preference <u>The person or business listed has registered a preference to not be solicited by telephone (as provided by law). DeLorme products cannot be relied upon as a method for legal compliance with state and federal regulations. A number is flagged as Do Not Call if at least one of the following is true:</u>

The phone number is unlisted. Unlisted phone numbers allow customers to have their phone number be available from directory assistance but not published in any phone directories.

**Note** Customers paying for non-published service desire complete privacy of their phone number, which means it is not published in the phone book and is unavailable from directory assistance. Non-published numbers are not available in Phone Data.

<u>The phone number is on the Federal Trade Commission's National Do Not Call Registry.</u>

You can register your home or mobile phone number or verify your registration at https://www.donotcall.gov.

The address is on a mail preference list that limits mail solicitations.

You can register your preference for mail and e-mail solicitations with the Direct Marketing Association at http://www.the-dma.org/.

- Click **Clear** at any time to remove all of your search criteria from the Phone text boxes.
- Select the **Any State** option to include all states in your search or if you do not know the state for your query.

## To Search for a Phone Book Listing

Use the following steps to search for a phone book listing.

- 1. If you have not installed the phone data to your hard disk drive, you can access it from the DVD.
- 2. Click the **Phone** tab to display the Phone dialog area.
- Select the **Residential** check box to view residential phone book listings. AND/OR
  - Select the  ${\bf Business}$  check box to view business phone book listings. AND/OR
  - Select the **Hide Multiple YP Headings** check box to display only one Yellow Pages heading for each business phone number.
- 4. Select the country you want to search within from the **Country** drop-down list

The States/Provinces drop-down list updates according to the selected country.

**Note** If you are using an older version of DeLorme Phone Data, only U.S. will be available in the Country drop-down list. Phone Data 2009 and later includes both U.S. and Canadian phone data if you install all of the regions.

**5.** Type/select the name, street address, city, state, and/or ZIP/Postal Code to search for the phone number(s) associated with that information.

OR

Type the phone number to search for the name, address, city, state/province, and ZIP/Postal Code associated with that phone number.

OR

Type yellow page keywords in the **Yellow Pg** text box to find all of the phone book listings available based on your search criteria.

#### Notes

- Type a city in the **City** text box to narrow your yellow page search. Do not enter more than five digits for a ZIP Code search or three digits for a Postal Code search.
- Yellow page keywords must be at least three characters in length.

Text Box	Tip
Name	Name searches do not require punctuation.
	Type the last name first.
	The Phone tab recognizes partial last names. You may get better results (for longer names or if you are unsure of the spelling) if you only type a portion of the name.
	Many business names are abbreviated in phone book listings. For best results, try additional searches using alternate spellings or abbreviations.
Street Address	Street name descriptors (e.g., street, road, drive) should not be used for address searches. However, you can use street name abbreviations (e.g., st, rd, dr).
	You can use street address ranges (such as 100-200 Main St) for address searches.
City	Long city names may be abbreviated in the Phone data. Try shortening the city name until the search finds the city name you recognize, then use that abbreviation. You must also select a State, or type a full or partial ZIP/Postal Code or phone number.
	City listings may have variances in spelling, such as "Saint Louis" rather than St Louis".
ZIP/Postal Code	ZIP Code searches must contain at least three digits. Postal Code searches must contain at least three characters.
Phone	Phone number searches must contain at least six digits (the area code and exchange; no punctuation is necessary).
Yellow Pg (Yellow Pages)	Yellow page searches should be singular (for example, type restaurant instead of restaurants).
	If you use multiple words, all of the words are required to form a match.
	There are over 34,000 yellow page headings possible. Use keywords you would expect to find in the yellow pages.
	Yellow page searches must be at least three characters in length.

6. Press the ENTER key on your keyboard or click **Search**.

The search results display in the Search Results area on the lower-left corner of the dialog area.

## Notes

• If you do not receive any results from your yellow page search, use an alternative keyword for your search attempt. For example, if you are looking for a clothing store, type "clothing" instead of "clothes." Or, if

- the alternative keyword still does not work, search (by name) for a clothing store and see what category it is listed under (the category displays in parenthesis at the end of the result).
- If more than 1000 search results match your search criteria, the More button becomes activated. Click More to browse to the next 1000 search results.
- 7. Click one or more search results in the Search Results area and then click Add (or right-click the search results and click Add) to add your search result to the Selection area in the lower-right corner of the dialog area.

**Note** Press the CTRL key on your keyboard to select more than one search result at a time. You can also double-click a search result to add it to the Selections area

OR click **Add All** (or right-click the search results and click **Add All**) to include all of your search results to the Selection area.

**Note** The Selection area has a 1,000 listing limit, as described in the license agreement.

- 8. Use one of the following options to modify the selections in the Selections area:
  - Click Map (or right-click your selections and click Map) to add your phone book listings to the map. To add all of the phone book listings in the Selections area to the map, right-click the selections, click Select All, and then click Map. Once a phone selection is on the map, you can view details about the listing by right-clicking its symbol and clicking Info.

**Note** Mapped businesses are indicated with a square symbol on the map and mapped residences are indicated with a small house symbol on the map. Phone selections (symbol and label) that are placed on the map appear in red if they have been located reliably to a street address. Otherwise, the approximate location appears light gray on the map.

- Click a listing in the Selections area and click Remove (or right-click a listing and click Remove) to remove the phone book listing from your list of selections.
- Click Remove All (or right-click on your selections and click Remove All) to remove all of the phone book listings from the Selection area.
   All mapped selections will be removed from the map.
- Click To File to save all of the phone book listings in the Selections area in a .txt file. The default location is C:\...\DeLorme Docs\Datasets..
- Click To XData to copy all of the phone book listings in the Selections area to the XData tab as a dataset (using the Import Wizard).
   Note This option is unavailable when the XData tab is hidden with Tab Manager.
- Click a previously mapped listing in the Selections area to highlight it on the map.
- Double-click a listing in the Selections area to center the map on that listing.

**Note** You can also copy, search, and sort search results and selections using right-click mouse options.

# Finding Phone Book Listings for a Specific Road

You can right-click a road to view all of the residential and business phone book listings on that road.

### **Notes**

- The Phone tab in XMap requires DeLorme Phone Data, available from DeLorme. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.
- A hyphen (-) before the name in a search result indicates a business listing.
- An asterisk (\*) before the name in a search result indicates a <u>Do Not Call preference</u>. The person or business listed has registered a preference to not be solicited by telephone (as provided by law). DeLorme products cannot be relied upon as a method for legal compliance with state and federal regulations. A number is flagged as Do Not Call if at least one of the following is true:

The phone number is unlisted. Unlisted phone numbers allow customers to have their phone number be available from directory assistance but not published in any phone directories.

**Note** Customers paying for non-published service desire complete privacy of their phone number, which means it is not published in the phone book and is unavailable from directory assistance. Non-published numbers are not available in Phone Data.

The phone number is on the Federal Trade Commission's National Do Not Call Registry.

You can register your home or mobile phone number or verify your registration at https://www.donotcall.gov.

The address is on a mail preference list that limits mail solicitations. You can register your preference for mail and e-mail solicitations with the Direct Marketing Association at http://www.the-dma.org/

- Click **Clear** at any time to remove all of your search criteria from the Phone text boxes.
- Select the Any State option to include all states in your search or if you do not know the state for your query.

## To Find Phone Information for a Specific Road

Use the following steps to find available phone information for a specific road. If you did not install the phone data to your hard drive, you can use the DVD.

 To find all of the phone listings for a particular address, search for a phone book listing, right-click a search result, and then click **Search This Address**. All of the phone listings for that address display. OR

To find phone information using the map, pan the map or click the **Find** tab and use the QuickSearch function to locate the road you want to use for your phone book listing search. Then, right-click the road and click **Phone Listings**.

All the phone book listings for that road (in that city) display in the Search Results area on the lower-right corner of the dialog area.

**Notes** If more than 1,000 search results match your search criteria, the

More button becomes activated. Click More to browse to the next 1,000 search results.

 Click one or more search results in the Search Results area and then click Add (or right-click the search results and click Add) to add your search result to the Selection area on the lower-right corner of the dialog area.

**Note** Press the CTRL key on your keyboard to select more than one search result at a time. You can also double-click a search result to add it to the Selections area.

OR

Click **Add All** (or right-click the search results and click **Add All**) to include all of your search results to the Selection area.

**Note** The Selection area has a 1,000 listing limit, as described in the license agreement.

OR

Click Clear All (or right-click on the search results and click Clear All) to remove all of the search results from the Selection area.

- 3. Use one of the following options to modify the selections in the Selections area:
  - Click Map (or right-click on your selections and click Map) to add your phone book listings to the map. If only one item is selected, the map centers on the object. To add all of the phone book listings in the Selections area to the map, by right-click the selections, point to Select All in the menu, and then click Map. To view details about a phone selection once it's on the map, right-click its symbol and click Info.

**Note** Mapped businesses are indicated with a square symbol on the map and mapped residences are indicated with a small house symbol on the map. Phone selections (symbol and label) that are placed on the map appear in red if they have been located reliably to a street address. Otherwise, the approximate location appears light gray on the map.

- Click a listing in the Selections area and click Remove (or right-click a listing and click Remove) to remove the phone book listing from your list of selections.
- Click Remove All (or right-click your selections and click Remove All) to remove all of the phone book listings from the Selection area. All mapped selections are removed from the map.
- Click **To File** to save all of the phone book listings in the Selections area in a .txt file.
  - The default location for the file is C:\...\DeLorme Docs\Datasets.
- Click To XData to copy all of the phone book listings in the Selections area to the XData tab as a dataset (using the XData Import Wizard).
   Note This option is unavailable when the XData tab is hidden with Tab Manager.
- Click a previously mapped listing in the Selections area to highlight it on the map.
- Double-click a listing in the Selections area to center the map on that listing.

## **Using the Draw Tools**

## **Draw Overview**

You can add draw objects, such as routable roads, routable trails, waypoints, tracks, text, symbols, MapNotes, images, lines, arcs, splines, circles, polygons, and rectangles to your map with the tools provided in the Draw tab. You can save draw objects in a single draw file or in multiple draw files. You can view draw files individually or with other draw files.

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

#### What is a Draw File?

Imagine a draw file as a sheet of glass laying on top of your map. You can add various objects to the draw file to help enhance or pinpoint specific areas on the map, but these objects do not become part of the map. They exist in a draw file that overlays the map.

There are five different types of draw files: draw, road, trail, waypoint, and track. You can create more than one draw file and overlay one on top of the other while still viewing the map beneath. See Editing/Locking Draw Files.

When you clear or delete a draw file, the objects in the draw file do not display and are deleted along with the draw file. When you create and save draw files, they are saved within the current project.

Some additional draw file facts:

- A draw file is automatically generated the first time you add a draw object to the map.
- As you create draw files, they are added to the current project.
- You can add draw files to multiple projects.
- You can control the creation of new draw files in the draw file editing area.
- Draw files are saved by default in C:\...\DeLorme Docs\Draw with the default name; for example, DrawLayer#.an1, with # indicating the number order in which the file was created. You can rename draw files to better identify your specific information. See Creating a New Draw File.
- You can have multiple draw files displaying at once while working on your map. Work can be done on one draw file at a time, while viewing other files beneath it. You can select different draw files to be the active, editable file from within the Draw tab. For more information, see Editing/Locking Draw Files
- Draw files created in a particular project are displayed only if that project is currently displaying. For example, if DrawLayer27 is created in a project named *Yarmouth Zoom 14* only, DrawLayer27 does not display if a project named *Old Port* is currently displaying.
- Routable roads and routable trails are not tied to a project; they do not change even when a project is changed.

## What Are Draw Objects?

Draw objects are those objects you add to a draw file with the tools provided in the Draw tab. Draw objects consist of line, area, or point objects. You can copy, move, delete, and add draw objects to other draw files and add them to another project.

- Line objects are those objects consisting of line segments and points, such as:
  - Routable Roads
  - Routable Trails
  - Tracks
  - Lines
  - Arcs
  - Splines
- Area objects are those objects consisting of one or more closed line objects, such as:
  - Polygons
  - Rectangles
  - Circles
- Point objects consist of one anchor point attached to either a waypoint, symbol, MapNote, image, or text label. The anchor point is the pixel position on the symbol that corresponds to the geographic coordinate of the point selected on the map when the symbol is placed.

Draw objects added to a draw file contain points that give the object its shape or allow you to snap one object to another object. Points display and act in different ways within the various draw objects.

 Points in Routable Roads, Routable Trails, Tracks, Lines, Splines, and Polygons

Draw objects such as routable roads, routable trails, tracks, lines, splines, and polygons consist of shape points and end points.

 Shape points are the points you place on the map when creating the object. They give the object its shape. When you select a draw object on the map, shape points display along the active object as small magenta squares.

The line object below was drawn with the spline tool.



• End points are the first and last points of individual line segments on a draw object. When you select a shape point of a line segment within an active line, spline, or polygon:

- A small green circle indicates the start end point of the selected line segment.
- A small red circle indicates the last end point of the selected line segment.

The same spline with end points indicating a selected spline segment.



#### Notes

- When you click the start or last end point of the line segment within a line draw object and the Show Measurement check box is available (when using the Polygon or Line tool) and selected, it displays the bearing or angle of that point of the line, the length of the line segment (leg), and the total length of the entire line object on the map.
- When you click the start or end point of the line segment within a
  polygon draw object, a text box displays the bearing or angle of
  that point of the line, the length of the line segment (leg), and the
  total area of the polygon on the map.

Draw objects such as routable roads, routable trails, tracks, lines, splines, and polygons consist of shape points and end points.

 Shape points are the points you place on the map when creating the object. They give the object its shape. When you select a draw object on the map, shape points display along the active object as small magenta squares.

The line object below was drawn with the spline tool.



- End points are the first and last points of individual line segments on a draw object. When you select a shape point of a line segment within an active line, spline, or polygon:
  - A small green circle indicates the start end point of the selected line segment.
  - A small red circle indicates the last end point of the selected line segment.

The same spline with end points indicating a selected spline segment.



#### **Notes**

- When you click the start or last end point of the line segment
  within a line draw object and the Show Measurement check box is
  available (when using the Polygon or Line tool) and selected, it
  displays the bearing or angle of that point of the line, the length of
  the line segment (leg), and the total length of the entire line
  object on the map.
- When you click the start or end point of the line segment within a
  polygon draw object, a text box displays the bearing or angle of
  that point of the line, the length of the line segment (leg), and the
  total area of the polygon on the map.

Draw objects such as routable roads, routable trails, tracks, lines, splines, and polygons consist of shape points and end points.

 Shape points are the points you place on the map when creating the object. They give the object its shape. When you select a draw object on the map, shape points display along the active object as small magenta squares.

The line object below was drawn with the spline tool.



- End points are the first and last points of individual line segments on a draw object. When you select a shape point of a line segment within an active line, spline, or polygon:
  - A small green circle indicates the start end point of the selected line segment.
  - A small red circle indicates the last end point of the selected line segment.

The same spline with end points indicating a selected spline segment.



#### **Notes**

- When you click the start or last end point of the line segment
  within a line draw object and the Show Measurement check box is
  available (when using the Polygon or Line tool) and selected, it
  displays the bearing or angle of that point of the line, the length of
  the line segment (leg), and the total length of the entire line
  object on the map.
- When you click the start or end point of the line segment within a
  polygon draw object, a text box displays the bearing or angle of
  that point of the line, the length of the line segment (leg), and the
  total area of the polygon on the map.

### Points in Rectangles, Circles, and Arcs

Draw objects such as rectangles, circles, and arcs also contain points, but they are treated differently.

**Rectangles**—Contain shape points at the four corners, but the lines between the shape points contain no editable end points. When you click one of these shape points, a text box displays the width, height, and area of the rectangle on the map.

**Circles**—Contain no shape points, but have a central point that does not display until you snap it (see Note below) to another object. Clicking the circle displays a central crosshair within the circle and a text box containing information on the area and radius of the circle on the map.

**Arcs**–Contain three shape points. When you click any of the points, a text box displays the angle or bearing of the selected point, the radius of the arc, and the total length of the arc line on the map.

Only the first and second points you placed on the map when creating the arc are treated as start and end points (i.e., show red or green when clicked). The central magenta shape point, or third point you placed, determines the shape of the arc.

**Note** For information on snapping a draw object to another draw object, see Snapping Draw Objects.

### Points in Point Draw Objects

Point objects, such as waypoints, symbols, and text, do not have shape or end points. Text label objects contain a point at the bottom center of the text label box and are only visible during a snap.

#### Points in MapNotes

MapNotes do not have shape or end points. They contain an anchor point at the end of the text box. Clicking the MapNote displays a central crosshair at the anchor point.

# **Viewing Hidden Draw Tools**

The Draw tab tools allow you to add routable roads, trails, waypoints, tracks, lines (straight lines, arcs, and splines), shapes (polygons, rectangles, and circles), MapNotes, text labels, images, and symbols to a draw file. Some of these tools are hidden tools available in pull-out menus.

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

## To View the Hidden Draw Tools

Five draw tool options have pull-out menus with hidden tools. These draw tools each have a small arrow at the bottom-right of the draw tool button as shown in this sample .

Use the following steps to view the hidden draw tools.

- 1. Click the **Draw** tab.
- 2. Click and hold one of the visible tools shown below to display and select one of the options. Selecting a hidden tool changes the default option.



# **Geocaching Features**

Geocaching is a fun outdoor activity that uses a GPS device for treasure hunting. Geocaching is enjoyed by all kinds of people—from families with small children to active outdoor adventurers. You use your GPS device to follow clues to caches hidden by other geocachers.

Your application has several features designed to enhance the interaction between a GPS device and the cache information provided at Geocaching-The Official Global GPS Cache Hunt Site.

- Use the import file option in the Draw tab to import:
  - Geocaching.com Location (.loc) files. These files contain the cache code, cache name, and the latitude and longitude for the cache location.
  - GPS Exchange (.gpx) files have full cache descriptions and hints that you can view in the Waypoint comment field.

• When you import geocaches, you create a link back to the detailed www.geocaching.com website from each waypoint.

# **Draw File Management**

## Creating a New Draw File

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

There are five different types of draw files:

- **DrawLayer**—Created when you add a line, arc, spline, circle, rectangle, polygon, symbol, MapNote, or text label to the map.
- RoadLayer—Created when you add a routable road.
- **TrailLayer**—Created when you add a routable trail to the map.
- WaypointLayer—Created when you add a waypoint to the map.
- TrackLayer—Created when you add a track to the map.

A draw file is automatically created when you add a draw object to the map and there are no draw files of that type included in or contained in the current project.

You can control the creation of new draw files in the draw file editing area.

### To Create a New Draw File

Use the following steps to create a new draw file.

- 1. Click the **Draw** tab.
- 2. Click **File** to open the draw file editing area.
  - A selected check box next to the draw file's name in the file list indicates the file is displaying on the map.
  - **Note** The draw file editing area is categorized by draw file type. For example, all roadlayer files are grouped together in the list, all drawlayer files are grouped together, and so on.
- 3. Click **New** and then click **Draw**, **Road**, **Trail**, **Waypoint**, or **Track**. The new file is now the active draw file. Each draw file type has an active file.
- 4. Optional. If you want to rename the draw file: Right-click the draw file in the draw file editing area and click **Rename**. Type the new name in the **Name** box and press the ENTER key on your keyboard. OR
  - Click the draw file in the draw file editing area and then click it again (do not double-click). Type the new name in the **Name** box and press the ENTER key on your keyboard.
- 5. Optional. If you want to ensure no changes are made to a particular draw file, select the **Lock** check box for that draw file in the draw file editing area.
- 6. Click Save.
- 7. Click **Done** to return to the main Draw tab area.

**Note** You can save new draw files any time. For more information, see Saving a Draw File.

## Saving a Draw File

After you finish adding draw objects to a draw file, you can save them in a draw file that you can view or edit later. Any time you edit a draw file, click **Save** to save your changes.

### To Save a New Draw File

Use the following steps to save a draw file.

- 1. Click the **Draw** tab.
- 2. Click File.
- 3. Click Save.

Draw files are saved by default in *C:\...\DeLorme Docs\Draw* with .an1 extensions.

4. Click **Done** to return to the main Draw tab area.

## **Deleting a Draw File**

You can delete a draw file you just created or one you previously saved.

#### To Delete a Draw File

Use the following steps to delete a draw file.

- 1. Open the project that contains the draw file you want to delete.
- 2. Click the **Draw** tab.
- 3. Click **File** to open the draw file editing area.

A draw file with a selected check box displays on the map.

**Note** The draw file editing area is categorized by draw file type (for example, all road layers are grouped together in the list, all draw layers are grouped together, and so on).

4. Select a draw file from the file list and then click **Delete**.

Click **Yes** in the confirmation message box to delete the object or click **No** to cancel.

OR

Right-click the draw file in the list and click **Delete**.

Click **Yes** in the confirmation message box to delete the object or click **No** to cancel.

5. Click **Done** to return to the main Draw tab area.

## **Hiding Draw Files**

You can hide draw files you created. This removes from view all the draw objects in that file without permanently deleting them.

### To Hide a Draw File

Use the following steps to hide a draw file.

- 1. Click the **Draw** tab.
- 2. Click **File** to open the draw file editing area.

Note The draw file editing area is categorized by draw file type. For example,

all road layers are grouped together in the list, all draw layers are grouped together, and so on.

- 3. Hide any files in the file list by clearing the check box next to the file name.
  - A draw file with a selected check box displays on the map.
  - A draw file with a cleared check box does not display on the map.
- 4. Click **Done** to return to the main Draw tab area.

## **Editing/Locking Draw Files**

You can edit the current active (editable) draw file. You can also lock a draw file, making it uneditable.

### To Edit a Draw File

Use the following steps to edit a draw file.

- 1. Click the **Draw** tab.
- 2. Click **File** to open the draw file editing area.
- 3. Verify the draw file you want to edit is displaying on the map. A draw file with a selected check box displays on the map.
- 4. Verify that the file is selected in the **Active** column in the file editing area.
- 5. Click **Done** to return to the main Draw tab area.
- 6. Click the **Select** tool and then click the draw file object on the map that you want to edit.
- 7. Click File and then click Save to save the changes you made to the draw file.
- 8. Click **Done** to return to the main Draw tab area.

#### To Lock a Draw File

Use the following steps to lock a draw file.

- 1. Click the **Draw** tab.
- 2. Click **File** to open the draw file editing area.
- Select the Lock check box for each draw file you want to lock.
   Note Clear the Lock check box to make changes to a draw file.
- 4. Click **Done** to return to the main Draw tab area.

## **Exporting Draw Files to Text Files**

You can export draw files as text files. Draw objects exported to text files contain coordinate information for each line, area, or point object. You can open these text files in other DeLorme products.

#### To Export Draw Files to Text Files

Use the following steps to export an existing draw file to a text file.

1. Click the Draw tab.

- Click File to open the draw file editing area.
   A draw file with a selected check box displays on the map. The Active column shows the active layers.
- 3. From the file list, click the draw file to export.
- 4. Click Export.
  - The Export Draw File dialog box opens.
- 5. Browse to a directory in which to save the file or use the default destination *C:\...\DeLorme Docs\Export.*
- 6. Select **Text File** from the **Save as Type** drop-down list.
- 7. Type a name for the file in the **File** name text box. The default name is root name of the layer.
- 8. Select the datum and coordinate format for the text file.
- 9. Click Save.
- 10. Click **Done** to return to the main Draw tab area.

## **Exporting Track or Waypoint Files to GPX Files**

You can export track or waypoint files as GPX files. GPX files derived from tracks contain the elevation, time, and GPS status for each point in the track. GPX files derived from a waypoint file include the waypoint name, comment, URL, lat/lon, elevation, time, GPS status and the symbol name. You cannot export more than one waypoint/track layer into a single GPX file.

## To Export Track or Waypoint Files to GPX Files

Use the following steps to export an existing track or waypoint file to a GPX file.

- Open the project containing the track or waypoint file you want to export.
   OR
  - Create a new track or waypoint file for exporting.
- 2. Click the **Draw** tab.
- Click File to open the draw file editing area.A draw file with a selected check box displays on the map. The Active column shows the active layers.
- 4. Select the track or waypoint file to export from the file list.
- 5. Click Export.
  - The Export Draw File dialog box opens.
- 6. Browse to a directory in which to save the file or use the default destination *C:\...\DeLorme Docs\Export*.
- 7. Select **GPX File** from the **Save as Type** drop-down list.
- 8. Type a name for the file in the **File** name text box. The default name is DrawExport.
- 9. Click Save.
- 10. Click **Done** to return to the main Draw tab area.

## Importing Files to Draw Files

You can import many types of files as draw files. The file items display as draw objects within the draw file.

You can also use the Exchange dialog to download waypoint and tracks to the Draw tab. See the Help topics under *Using Handheld Devices* for more information.

See the chart at the end of this topic to learn what is imported for each type of file.

**Important** To add a track Draw file (\*.an1), to a project, click the **Add** button on the Map Data tab. For more information, see Adding/Removing Files in a Project.

## To Import Files

Use the following steps to import a file.

- 1. Click the **Draw** tab.
- 2. Click **File** to open the draw file editing area.
- Click Import.The Import Draw File dialog box opens.
- 4. Browse to the source folder of the file. The default location is *C:\...\DeLorme Docs\Export*.
- 5. From the **Files of type** drop-down list, select the type of file you want to import.
- If you selected Text File or All Files from the Files of Type drop-down list, select the file's coordinate and datum from the applicable drop-down lists. OR
  - If you selected GPS Log File format, select how you want the file to display on the map from the **Import As** drop-down list.
- 7. Select the file and then click **Open**. The draw objects in the imported file display. A new draw file is automatically created for the imported file.
- 8. Click **Done** to return to the Draw dialog area.

#### Notes

You can import a file containing survey information as long as the survey information is formatted correctly.

- The file must start with **Begin Survey** and end with **End**.
- The second line must be a coordinate.
- The remainder of the file can be made up of lines or arcs. A line is defined by direction and length.
- A curve is defined by the word curve, followed by a letter representing the side of the arc to put the radius. This is followed by the length of the radius and the length of the arc. The arc is completed with a bearing from the start to finish point.
- For more information, see Sample Survey File.

If you import this type of file	That results from this source	The following is imported
Address Book (.txt, .csv)	Address Book File	Draw objects display with the current symbol and style selections.

		Notes Files must be tab or commadelimited. Format: name, address, city, state, ZIP Code, phone. Files must be less than 250 records long.
Text File (.txt)	Lat/Lon Text File	Draw objects display with the current symbol and line style selections.
GPS Log File (.gpl)	Any DeLorme product that supports GPS tracking	Line or waypoint object displays with the current line preferences.
GPX File (.gpx)	DeLorme product on third-party application	May contain one or more routes, tracks, or waypoints, as well as comments.  Notes
		When you import a GPX file, all the waypoints, tracks, comments, and routes found in the file are imported at the same time.
		When you download a GPX file from www.geocaching.com, the hints on the website are added to the Comments column of the file. When you export the file to an Earthmate PN series GPS device, the comments are included.
Location File (.loc)	Waypoint file from www.geocaching.com	Coordinate information, name, and URL link.
Magellan Track File (.log)	Magellan Track Log	Latitude, longitude, elevation, name and date/time (if specified).
Magellan Waypoint File (.upt)	Magellan Waypoint File	Latitude, longitude, elevation, name, comment, and symbol are imported.
Draw Layer Files	Topo USA 2.0 (.ano)	Draw objects display with the current symbol and line style selections.
MapDocs (.sa7, .sa8, .sa9, .mn5, .mn6, .mn7)	<ul> <li>Street Atlas USA 8.0, 8.0, and 9.0.</li> <li>AAA Map'n'Go 5.0, 6, and 8.0</li> </ul>	Draw objects display with the current symbol and line style selections.

# Formatting a Text File to Import as a Draw File

These are the formatting conventions, with examples, for creating a text file to import as a draw file.

Draw Object	Format	Example
Line	BEGIN LINE LAT, LON LAT, LON LAT, LON END	BEGIN LINE 43.807801,-70.164440 43.807629,-70.163801 43.807211,-70.162746 43.806707,-70.163400 43.806696,-70.163905 43.807125,-70.164768 43.807801,-70.164440 END
Spline	BEGIN SPLINE LAT, LON LAT, LON LAT, LON LAT, LON END	BEGIN SPLINE 43.807801,-70.164440 43.807629,-70.163801 43.807211,-70.162746 43.806707,-70.163400 43.806696,-70.163905 43.807125,-70.164768 43.807801,-70.164440 END
Arc	BEGIN ARC LAT, LON LAT, LON LAT, LON LAT, LON END	BEGIN ARC 43.807801,-70.164440 43.807704,-70.162775 43.807211,-70.162746 43.807430,-70.163644 END
Polygon Rectangle	BEGIN POLY LAT, LON LAT, LON LAT, LON LAT, LON END	BEGIN POLY 43.808692,-70.165392 43.808692,-70.162493 43.806621,-70.162493 43.806621,-70.165392 43.808692,-70.165392 END
Circle	BEGIN CIRCLE LAT, LON, Radius END	BEGIN CIRCLE 43.807662,- 70.163935,0.114611 END

Symbol	BEGIN SYMBOL LAT, LON, Name, Symbol Name END	BEGIN SYMBOL 43.807662,- 70.163935,DeLorme, Blue Pin END
MapNote	BEGIN NOTE LAT, LON, Text END	BEGIN NOTE 43.807662,- 70.163935,DeLorme END
Text Label	BEGIN TEXT LAT, LON, Text END	BEGIN TEXT 43.807662,- 70.163935,DeLorme END

# Copying a Map Line to a Draw File

Map lines that you can copy to draw objects include segments of all types of roads and highways, railroads, power lines, pipelines, rivers or streams, Zip Code boundaries, and grid lines.

#### To Copy a Map Line

Use the following steps to copy a map line to a draw file.

- Pan the map and zoom to the data zoom level.
   OR
  - Open the project with the map view you want.
- Right-click the object on the map you want to bring into the draw file, point to Manage Draw, point to Copy to Draw Object, and then click the object in the list.

The object is copied into the draw file using the current line style selections.

#### Saving a Track as a GPS Log

You can save any track as a GPS log with the right-click feature.

# To Save a Track as a GPS Log

Use the following steps to save a track as a GPS log.

- 1. Place a track on the map.
- 2. Right-click the track, point to **Manage Draw**, and then click **Save as GPS Log File**.
- 3. Browse to the location where you want to save the .gpl file. The default location is *C:\...\DeLorme Docs\GPSLogs*.
- 4. Type the file name in the **File Name** text box.
- 5. Click Save.

The original track is retained in its draw file and a new GPS log is created.

#### Viewing the Contents of a Draw File

Once you create a draw file (draw, road, trail, waypoint, or track layer), you can view the contents of that file using the More button in the File view of the Draw tab.

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

#### To View the Contents of a Draw File

Use the following steps to view the contents of a draw, road, trail, waypoint, or track file.

- 1. Click the **Draw** tab.
- 2. Click **File** to open the draw file editing area.
  All the files you have created display in a table. A draw file with a selected check box displays on the map.
- 3. Click to select the file that includes the contents you want to view.
- 4. Click More.

The tab area increases in height and the file contents table displays. The information that displays in the table is dependent on the file type that is selected.

- **Draw layer** contents include the draw object label (name), comments about the draw object, the URL assigned when the draw object was added to the map, the date and time the object was last modified, and the draw object type (symbol, line, polygon, circle, etc.).
- Road layer contents include the routable road name, comments about the routable road, the URL assigned when the routable road was added to the map, the date and time the routable road was last modified, and the length of the road (in the measurement chosen in the Display settings).
- Trail layer contents include the routable trail name, comments about the routable trail, the URL assigned when the routable trail was added to the map, the date and time the routable trail was last modified, and the length of the trail (in the measurement chosen in the Display settings).
- Waypoint layer contents include comments about the waypoint, the URL assigned when the waypoint was added to the map, the date and time the waypoint was last modified, the coordinates of the waypoint, the elevation of the waypoint, and the symbol name.
- Track layer contents include comments about the track, the URL assigned when the track was added to the map, the date and time the track was last modified, the start and finish time of the track, the total time of the track, the distance of the track (in the measurement chosen in the Display settings), and the number of readings that the track includes.
- 5. Optional. Double-click a draw object in the table to center the map on its location.

OR

- Right-click the draw object in the table and click **Go To**.
- 6. Optional. To sort the columns of data in the table in ascending order, click the column header. Click the column header again to sort in descending order.

7. Optional. To modify a draw object's name, comment, or URL, in the table, click the draw file in the draw file editing area and then click it again (do not double-click). Type the new name in the **Name** box and press the ENTER key on your keyboard.

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Right-click the draw file in the draw file editing area and click **Rename**. Type the new name in the **Name** box and press the ENTER key on your keyboard. **Note** To add a line break to text in the Comment field, press CTRL+ENTER on your keyboard.

- 8. Optional. To view the contents of a track file in a dialog box, right click the file in the draw file editing area and click **Details**.
- 9. Optional. To launch a Web browser for a draw object that includes a URL, right-click the file in the draw file editing area and click **Launch Browser**.
- 10. Optional. To delete a draw object, click the draw object in the table and click the **Delete** button.

Click  $\mathbf{Yes}$  in the confirmation message box to delete the object or click  $\mathbf{No}$  to cancel.

OR

Right-click the draw object in the table and click **Delete**.

Click **Yes** in the confirmation message box to delete the object or click **No** to cancel.

11. Optional. Click **Less** to return the tab height to its default height.

**Note** To edit the Comments field, click once in the cell, type your text in the box, and then press ENTER on your keyboard. When you hover your cursor over a comment, the entire comment displays as a ToolTip.

#### Copying a Draw File

There are two different ways to copy a draw file. You can create an exact copy of an existing file, retaining its draw file type, or you can copy the contents of an existing file and save it as a different file type (for example, convert a road layer to a draw layer).

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

#### To Copy a Draw File

Use the following steps to copy a draw file.

- 1. Click the **Draw** tab.
- 2. Click **File** to open the draw file editing area.
- 3. Click to select the file that you want to copy.
- 4. Click Copy To.

A menu displays the available layer types; Road, Trail, Waypoint, Track, and GIS Layer.

**Note** If a layer type is not available in the menu, it is because the original draw file that you are copying does not contain data that is pertinent to that file type. For example, you cannot copy a draw layer that contains area objects (such as circles) to a road layer that requires line objects.

5. If you want to create an exact copy of the original file, select the layer type that matches the original file. GIS Layer has options for New Layer, Append Layer, and Replace Layer. When you select an option, the Import Source Selection dialog box opens so you can define the import parameters. A new file is created and inserted into the table.

If you want to copy the file and save it as a different layer type, select the option you want.

A new file is created and inserted into the table.

**Tip** You can also change a draw object type using the right-click feature. For more information, see Changing Draw Object Types.

# **Changing Draw Object Types**

When you add a draw object to the map, a draw file is automatically created that includes that object. The draw file type varies depending on the draw object that was created.

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

Draw Object Type	Draw File Type
Routable Road	Road Layer
Routable Trail	Trail Layer
Waypoint	Waypoint Layer
Track	Track Layer
Area Object (Polygon, Circle, Rectangle)	Draw Layer
Point Object (MapNote, Text Label, Symbol, Image)	
Line Object (Line, Arc, Spline)	

You can right-click a draw object on the map and change it to a road, track, trail, waypoint, or draw layer, depending on the type of draw object you selected. When the draw file type is changed, the original draw file is maintained and a copy is made and switched to the new draw file type, leaving you with two files: the original draw file and the copied draw file, which has a new draw file type.

#### To Change a Draw Object

Use the following steps to change a draw object type.

- 1. Use the **Draw** tab to place a draw object on the map.
- To change a routable trail, track, or line to a road layer, right-click the object on the map, point to Manage Draw, and then click Copy to Active Road Layer.
   OR

To change a routable road or routable trail to a track layer, right-click the object on the map, point to **Manage Draw**, and then click **Copy to Active** 

#### Track Layer.

OR

To change a routable road, track, or line to a trail layer, right-click the object, point to **Manage Draw**, and then click **Copy to Active Trail Layer**. OR

To change a routable road, routable trail, waypoint, or track to a draw layer, right-click the object on the map, point to **Manage Draw**, point to **Copy to Draw Object**, and then click the object to copy to.

OR

To create a copy of an existing area object, point object, or line object, right-click the object on the map, point to **Manage Draw**, point to **Copy to Draw Object**, and then click the object to copy to.

To change a track to a GPS log, right-click the track on the map, point to **Manage Draw**, and click **Copy Track to GPS Log**. OR

To change a symbol to a waypoint, right-click the symbol on the map, point to **Manage Draw**, and click **Copy Symbol to Waypoint**.

**Tip** You can also change a draw file type using the File section of the Draw tab. For more information, see Copying a Draw File.

# Renaming a Draw File

Once you create a draw file, you can rename it in the draw file list or on the map.

#### To Rename a Draw File

Use the following steps to rename a draw file.

- 1. Click the **Draw** tab.
- Click File to open the draw file editing area.
   All the files you have created display in a table. A draw file with a selected check box displays on the map.
- 3. Right-click the draw file and click **Rename**.

The file name area activates.

OR

Click within the file name cell once. Then, click it again (do not double click). The file name area activates.

4. Type the new file name in the cell and press the ENTER key on your keyboard.

#### Creating a Direct Route from a Line Object

Once you have placed a routable road, trail, line, arc, or spline on the map, you can use the right-click feature to create a direct route using the points in that line object.

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

#### To Create a Route from a Routable Road, Trail, Line, Arc, or Spline

Use the following steps to create a direct route from a road, trail, line, arc, or spline.

- 1. Place a routable road, trail, line, arc, or spline on the map.
- 2. Right-click the line object on the map and click **Create Route from Line**. The original line object is retained in its draw file and a new direct route is created.
- 3. To view information about the route, click the **Route** tab and then click the **Directions** subtab.

#### Copying a Draw Object From One Draw File to Another

You can copy draw objects from one draw file to another using the right-click feature in the draw file list. Copying retains the draw object in the original draw file while placing a copy of it in a selected draw file. If you want to move a draw object to another draw file, see Moving a Draw Object to a Different Draw File.

#### To Copy a Draw Object to a Different Draw File

Use the following steps to copy a draw object.

- 1. Click the **Draw** tab.
- 2. Click **File** to open the draw file editing area.
  All the files you created display in a table. A draw file with a selected check box displays on the map.
- 3. Click to select the file that includes the contents you want to copy.
- 4. Click More.
  - The tab area increases in height and the file details table displays. The information that displays in the table is dependent on the file type that is selected.
- 5. Right-click the draw object that you want to copy to another draw file, point to **Copy To**, and then click the draw file you want to copy the object to. The draw object remains in the original draw file and is copied to the selected draw file.

# Moving a Draw Object to a Different Draw File

You can move a draw object to a different draw file using the right-click feature in the draw file list. In order to move a draw object to another draw file, a secondary, compatible draw file must exist.

Moving a draw object removes it from the current draw file. If you do not want to remove it, but copy it to another draw file, see Copying a Draw Object from One Draw File to Another.

# To Move a Draw Object to a Different Draw File

Use the following steps to move a draw object.

- 1. Click the **Draw** tab.
- Click File to open the draw file editing area.
   All the files you have created display in a table. A draw file with a selected check box displays on the map.
- 3. Click to select the file that includes the contents you want to copy.

- 4. Click **More**. The tab area increases in height and the file details table displays. The information that displays in the table is dependent on the file type that is selected.
- 5. Right-click the draw object you want to move, point to **Move To**, and then click the draw file you want to copy the object to—all compatible draw files display in the Move To list.

The draw object is moved to the new destination.

# **Using Draw Objects**

# **Copying and Placing Draw Objects**

You can copy any draw object you place on the map.

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

# To Copy Draw Objects

Use the following steps to copy draw objects.

- 1. Open the project that contains the draw object you want to copy.
- 2. Click the **Draw** tab.
- 3. To copy a single draw object, click the **Select** tool and then click the draw object on the map. A box displays around the active object.

  OR

To copy multiple draw objects, click the **Select** tool and then drag a box over the draw objects you want to copy.

- 4. To copy, press the CTRL+C keys on your keyboard.
- 5. To paste, press CTRL+V on your keyboard. The newly copied object is placed directly **on top of** the original (copied) object.
- 6. To move the copied object, use the table below.

If the draw object is a	Then
Routable Road, Routable Trail, Track, Line, Arc, Spline, Polygon, Rectangle, Circle, or MapNote	Press and hold the SHIFT key on your keyboard and drag the object to the new location.
Symbol or Text	Drag the object to the new location.

#### **Tips**

- To undo the move of the pasted draw object, click the **Undo** button undo the last action. If you decide not to undo the last action, click the **Redo** button.
- If you undo the first move of the pasted object, the object is placed back on top of the original (copied) object.

- To copy and move a single object, select the draw object you want to copy, press the CTRL key on your keyboard, and drag the draw object to the new location.
- If the item you copied does not successfully paste, it may be because you clicked out of the map display. To focus the cursor back on the map, click inside the map display. Then, try pasting again.

# **Moving Draw Objects**

You can move any draw object you place on the map using the Draw tab from one location to another.

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

# **To Move Draw Objects**

Use the following steps to move draw objects.

- 1. Open the project that contains the object you want to move.
- 2. Click the Draw tab.
- 3. Click the **Select** tool and click the draw object you want to move. A box displays around the active object.
  You can move draw objects in different ways:

If the object is a(n)	Then
Routable Road, Routable Trail, Track, Line, Arc, Spline, Polygon, Rectangle, or Circle	Press and hold the SHIFT key on your keyboard and drag the object to the new location. OR Press the arrow keys on your keyboard to move the object up, down, right, or left.
Symbol or Text	Press the arrow keys on your keyboard to move the object up, down, right, or left.  OR  Drag it to the new location.
MapNote	To move the entire MapNote, press and hold the SHIFT key on your keyboard and drag the object to the new location, or position your cursor between the MapNote text and the anchor and drag the entire MapNote to the desired location.  OR  To move the MapNote's anchor, drag the MapNote's anchor to the new location.  OR  To move the MapNote's text, drag the MapNote's text to the desired location.

**Tip** To undo a draw object move, click the **Undo** button to undo the last action. If you decide not to undo the last action, click the **Redo** button.

**Notes** You can also move draw objects or their points by typing a new coordinate or distance and bearing/angle number within the corresponding text boxes.

- Type new coordinates and click Apply to move circles, symbols, text, and MapNotes. The whole object moves to the entered location. If you change the distance and bearing numbers, the object moves in relationship to the object's last location.
- Type new coordinates and click **Apply** to move individual end points (small red circles) in line segments in routable roads, trails, lines, splines, polygons, rectangles, and arcs. If you change the distance and bearing numbers of the individual points (not recommended for rectangles), the end point's distance and bearing/angle change in relationship to the start point of the segment.

#### Renaming a Draw Object

Once you create a draw object, you can rename it in the draw file list or on the map.

# To Rename a Draw Object in the File List

Use the following steps to rename a draw object in the file list.

- 1. Click the **Draw** tab.
- 2. Click **File** to open the draw file editing area.
  All the files you have created display in a table. Any draw file with a selected check box displays on the map.
- 3. Click to select the file that includes the draw object you want to rename.
- 4. Click More.
  - The tab area increases in height and the file details table displays. The information that displays in the table is dependent on the file type that is selected.
- 5. Right-click the draw object and select **Rename**.
  - Click within the file name cell once. Then, click it again (do not double click).
- 6. The file name area activates. Type the file name and press the ENTER key on your keyboard.

#### To Rename a Draw Object on the Map

Use the following steps to rename a draw object on the map.

- 1. Open the project that contains the draw object you want to rename.
- 2. Right-click the waypoint, point to **Manage Draw** and click **Edit Draw Object Text**. The waypoint text box opens.

**Note** If you have more than one waypoint close together, you may have to select from a list.

OR

Click the **Select** tool , click the waypoint, and click the waypoint again (do not double-click). The waypoint text box opens.

3. Type the new name in the box and press ENTER on your keyboard OR click away from the box.

#### **Deleting Draw Objects**

Once you place a draw object on a draw file, you can delete the object. You can also delete multiple or all draw objects in the active draw file.

#### To Delete One Draw Object

Use the following steps to delete a draw object.

- 1. Open the existing project that contains the draw object you want to delete.
- 2. Click the Draw tab.
- 3. Click the **Select** tool and then click the draw object on the map to select it. A box displays around the selected object.
- 4. Click **Delete** in the Draw dialog area.

OR

Press the DELETE key on your keyboard.

OR

Right-click the object and then select Manage Draw/Delete Draw Object.

**Tip** To bring back the last draw object you deleted, click the **Undo** button button undo the last action. You can undo approximately 200 events in a single project.

**Note** You can also delete a draw object using the right-click feature in the draw file list. Click the **File** button in the Draw tab, click to select the Draw File that contains the object you want to delete, click **More**, right-click the object, and then click **Delete**.

# To Delete Multiple Draw Objects

Use the following steps to delete several draw objects.

- 1. Click the **Draw** tab.
- 2. To select multiple draw objects, click the **Select** tool , click the first draw object on the map to select it, and then press and hold the SHIFT key on your keyboard while clicking each additional draw object you want to delete. A box displays around each selected object.

  OR

To select multiple draw objects, click the **Select** tool , drag a box over the draw objects you want to delete.

3. Click the **Delete** button in the Draw dialog area.

OR

Press the DELETE key on your keyboard.

OF

Right-click the object and then click Manage Draw/Delete Draw Object.

A message box displays asking if you want to delete the draw objects from the current file.

- If you click **Yes**, all selected draw objects in the file are deleted. You cannot undo this action.
- If you click **No**, no objects are cleared from the file.

#### To Delete All Draw Objects

To delete all draw objects from an unsaved draw file, click the Draw tab and, click a draw object button that represents the draw file you want to clear (for example, if

you want to clear a RoadLayer, click the Routable Roads tool will and then click Clear All. A message box displays asking if you want to clear all draw objects from the current file.

- If you click Yes, all draw objects in the file are cleared. You cannot undo this action.
- If you click No, no objects are cleared from the file.

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call Delorme Direct Sales at 800-561-5105.

#### **Snapping Draw Objects**

You can snap any draw object to the exact coordinates of a point in another draw object. You can also snap the central shape point of an arc to another object.

#### To Snap a Draw Object to the Coordinates of Another Object

Use the following steps to snap a draw object to the coordinates of another draw object.

- 1. Click the **Draw** tab.
- 2. Click the **Select** tool and then click the draw object on the map. A box displays around the active object. Shape points display as small, magenta squares.
- 3. Select an end point from any of the line segments within the draw object. It displays as a red or green circle.
- 4. Drag the point to:
  - Any other shape point within a line, spline, polygon, arc, or rectangle.
  - The center point of a circle.
  - The anchor of a symbol.
  - The base point of a text label.
  - The text box anchor point of a MapNote.

When you drag your shape point over a point on the draw object, a yellow

diamond defines the snap point . Release the point you dragged when the snap point displays. The active draw object is then snapped to the other object's point coordinate.

**Tip** To undo a draw object snap, click **Undo** to undo the last action. If you decide not to undo the last action, click **Redo**.

#### Notes

- Do not snap one end point of an arc to the other end point in the same arc.
- To turn the snapping feature off, press the ALT key on the keyboard while dragging the draw object.

#### To Snap the Central Shape Point of an Arc to Another Object

Use the following steps to snap the central shape point of the arc to another object.

- 1. Click the **Draw** tab.
- 2. Click the **Select** tool and then click the arc on the map.
  A box displays around the active object. Shape points display as small, magenta squares.
- 3. While pressing the SHIFT key on the keyboard, drag the center point of the arc line over a point on the draw object until the snap point (the yellow diamond) displays.
- 4. Release the arc. It is snapped to the other object's point coordinate.

# **Adding Points to Draw Objects**

You can add points to routable road, trail, line, spline, and polygon draw objects to change the shape of the object.

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

#### To Add Points to Draw Objects

Use the following steps to add points to routable roads, trails, lines, splines, and polygons.

- In the Draw tab, click the **Select** tool , and then click the draw object you want to edit.
   A box displays around the line indicating it is active. The shape points of the draw objects display as small, magenta squares.
- 2. Click the line between two shape points in the object and drag. A new point is created, as well as a new line segment within the object. The new segment displays with its first and last end points, as well as a text box indicating the new point's bearing or angle, length of the new segment (leg), and total object's length on the map.

**Tip** To undo the addition of the point to the draw object, click the **Undo** button to undo the last action. If you decide not to undo the last action, click the **Redo** button .

#### Deleting Points and Line Segments from Draw Objects

You can delete points from routable road, routable trail, track, line, spline, and polygon draw objects to change the shape of the object.

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

#### To Delete Points and Line Segments from Draw Objects

Use the following steps to delete points and line segments from draw objects.

- 1. Click the **Draw** tab.
- 2. Click the **Select** tool and click the draw object you want to edit.

  A box displays around the line indicating it is active. The shape points of the linear objects display as small, magenta squares.

- 3. Select the shape point.
  - The point displays as either a green or red end point depending upon the line segment it is associated with.
- 4. Click **Delete** in the Draw display area.

OR

Press the DELETE key on your keyboard.

The point is deleted, as well as the line segment within the draw object that was associated with that point.

**Tip** To undo the addition of the point to the draw object, click the **Undo** button to undo the last action. If you decide not to undo the last action, click the **Redo** button.

# Labeling a Draw Object

You can label any draw object. Once you label a draw object, you can search for it using the QuickSearch function in the Find tab or by typing the draw object label in any of the routing fields in the Route tab.

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

# To Label a Draw Object

See the labeling procedures below for each of the draw objects.

For this Draw Object	Use this labeling procedure
Routable Roads Routable Trails	Type the name of the street/trail in the text box available in the Draw dialog area.
Arcs Circles Lines Polygons Rectangles Splines Tracks Waypoints	<ol> <li>Place the object on the map.</li> <li>Using the Select tool once.         A gray box displays around the draw object.</li> <li>Click the draw object again. A text box displays.</li> <li>Type the label name in the text box and then press the ENTER key on your keyboard.</li> </ol>
Images MapNotes Symbols Text Labels Waypoints	<ol> <li>Place the object on the map.         The URL/Label text box opens.</li> <li>Type the label for your draw object in the Label section of the text box.</li> <li>Note When viewing a hyperlinked draw object on the map, the object displays as an active hyperlink. If you want to click the object without opening the hyperlink, press the CTRL key on your keyboard while you click the draw object.</li> </ol>

# Routable Roads, Trails, Tracks, Lines, Arcs, and Splines

#### Drawing Routable Roads or Trails on the Map

The Routable Road and Routable Trail tools allow you to add a new road or trail to a draw layer in the current project. You can then incorporate any new roads you add to a route when you create a route. You must be at data zoom level 11-0 or greater when adding roads or trails with the Routable Road tool or Routable Trail tool.

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

#### To Draw Routable Roads or Trails

Use the following steps to add routable roads/trails to a road layer.

1. Click the **Draw** tab.



- 2. Click and hold the **Routable Road/Routable Trail** tool the tool you want.
- 3. Type the name of the road or trail you want to add in the **Road/Trail Name** text hox
  - Name each routable road/trail you add so you can locate it using the find feature.
- 4. Hover the mouse pointer over existing roads and trails to display the yellow diamond symbol . The yellow diamond symbol indicates where on an existing road the point for your new road will connect (connection point).

  Notes
  - The new road must connect to an existing non-limited access road for routing to occur on the new road.
  - Each time you intersect an existing road or trail, hover the mouse over the road/trail to display the yellow diamond symbol and click to create a connection point before continuing to draw. If you draw the line over the road/trail without creating a connection point, routing cannot occur along the intersection.
- 5. Once you locate the connection point for your new road or trail, click the map to place the first point. Click point-to-point or drag to add the new road/trail to the draw layer.

The following information is available as you add each point in your road or trail:

- The coordinates of each point display in the corresponding text boxes.
- The distance and bearing/angle of each new point from its previous point display in the corresponding text boxes.
- 6. To finish the line draw for the new road or trail, enter the last point on the map screen and click **Done**.
  - The new road or trail displays on the map with the name you typed in the Road/Trail Name text box.
  - You can also finish the line draw by pressing the ENTER key on your keyboard or double-clicking while entering the last point of the line.

#### Drawing a Line, Arc, or Spline on the Map

You can add lines, arcs, and splines to a draw file and adjust their line style, color, width, and display them with map line features.

- Use **lines** to mark boundaries or to add railroads or utility lines. You can draw lines with varied line styles, weights, and colors, including lines that reflect actual map line types.
- Use **arcs** to add curved line features to a draw file. You can draw arcs with varied line styles, weights, and colors, including lines that reflect actual map line types.
  - **Note** An arc is created by entering only three points on the map. The first and second points determine the distance of the first arc base from the last arc base. The third point, placed between the first two, determines the radius of the arc and fixes the arc in place.
- Use **splines** to add trails or any other map feature that contains curves. You can draw splines with varied line colors, weights, and styles, including lines that reflect actual map line types.

**Note** As you draw a spline, points are entered in much the same way as those entered when creating a line. The difference between a line and a spline is that when you enter each point, the line segment between the points curves instead of staying straight.

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

#### To Draw a Line, Arc, or Spline

Use the following steps to draw a line/arc/spline.

1. Click the **Draw** tab.



Click and hold the Line/Arc/Spline tool you want.

- 3. Select a line/arc/spline style from the **Style** drop-down list.
- 4. Click the color button next to the **Style** drop-down list to select a line/arc/spline color.
- 5. If available, select a line/arc/spline width from the Width drop-down list.
- 6. If available, select the **Highlight** check box to make your line/arc/spline appear translucent on the map.
- 7. Select the **Show Measurement** check box to display information about the points on the map as you draw the line/arc/spline.
  - As you add each point, a text box displays next to your pointer indicating the bearing or angle, leg (line segment) length, and total length of the line/arc/spline on the map. Labels display when end points are clicked if the Show Measurement check box is selected.
- 8. To draw a line or spline, click the map to designate the start and end points of each line segment.
  - You can also drag your cursor on the map to draw a squiggly line. OR

To draw an arc, click the map to designate the start and end points of the arc.

• The coordinates of each point display in the corresponding text boxes to the right of the line options.

- The distance and bearing/angle of each new point from its previous point display in the corresponding text boxes.
- 9. To finish the line/arc/spline, click the last point on the map screen and then click **Done**.

OR

Click the last point on the map screen and press the ENTER key on your keyboard.

OR

Double-click the last point of the line/arc/spline.

# Drawing a Track on the Map

You can add tracks to the map and adjust their line style, color, width, and display them with map line features.

#### To Draw a Track

Use the following steps to draw a track.

1. Click the **Draw** tab.



2. Click and hold the **Track/Waypoint** tool

- 3. Select a track style from the **Style** drop-down list.
- 4. Click the color button next to the Style drop-down list to select a track color.
- 5. Select a track width from the Width drop-down list.
- 6. Select the **Highlight** check box to make your track appear translucent on the map.
- 7. Select the **Show Measurement** check box to display information about the points on the map as you draw the track.
  - As you add each point, a text box displays next to your pointer indicating the bearing or angle, leg (line segment) length, and total length of the track on the map. Labels display when end points are clicked if the Show Measurement check box is selected.
- 8. Click the map to designate the start and end points of each line segment. You can also drag your cursor on the map to draw a squiggly line.
  - The coordinates of each point display in the corresponding text boxes to the right of the line options.
  - The distance and bearing/angle of each new point from its previous point display in the corresponding text boxes.
- 9. To finish the track, click the last point on the map screen and then click **Done**.

OR

Click the last point on the map screen and press the ENTER key on your keyboard.

OR

Double-click the last point of the track.

**Tip** To get information about a track, right-click it on the map and click **Info**. The Info tab opens with information about the track.

# Editing a Routable Road, Routable Trail, Line, Arc, or Spline

Once you create a line object (routable road, routable trail, line, arc, or spline) you can edit (including reshaping or changing line color or width), copy, move, or delete it at any time.

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

# To Edit a Line Object

Use the following steps to edit the shape of a routable road/trail, line, arc, or spline.

- Open the project containing the draw layer with the line object you want to edit.
- 2. Click the **Draw** tab.
- 3. If the line object you want to edit is not active, click **File** and activate the draw file in the file list. Then, click **Done**.
- 4. Click the **Select** tool and then click the line object you want to edit.
  - A box displays around the selected line.
  - The shape points used to create the line object display as small, magenta squares.
- 5. Perform any of the following edits to the line object:
  - To edit any label on the line object, select it twice, then type the label in the text box that displays next to the line object.
     OR
    - Select the line object and edit its label.
  - Reshape the line object by dragging any of its points to a new location.
     When you select a shape point of a line segment within an active line object:
    - A small green circle indicates the start end point of the selected line segment.
    - A small red circle indicates the last end point of the selected line segment.
  - Select the Coordinate or the Distance and Bearing/Angle option and edit the numbers. Click Apply to initiate the changes.
     Note You can display either bearing or distance by clicking the dropdown arrow next to the Bearing or Angle text located below the distance text in the Distance and Bearing/Angle option.
- 6. Click **Done** to finish your edit.

ЭR

Press the ENTER key on your keyboard.

OR

Click outside the object's active box on the map.

# **Editing a Track**

Once you download a track from a GPS receiver, you can edit (including reshaping or changing line color or width), copy, move, or delete it at any time.

#### To Edit a Track

Use the following steps to edit a track.

1. Open the project containing the draw file with the track you want to edit.

- 2. Click the **Draw** tab.
- 3. If the track you want to edit is not in the active draw file, click **File** and select the draw file from the draw file dialog area. Then, click **Done**.
- 4. Click the **Select** tool and click the track you want to edit.
  - A box displays around the selected track.
  - The shape points used to create the line display as small, magenta squares.
- 5. Change any of the track style, color, or weight options of the existing track.
  - To edit any label on a track, click the **Select** tool, select the line twice, then type the label in the text box that displays next to the track.
  - Reshape the track by dragging any of the points in the line to a new location. When you select a shape point of a line segment within an active line:
    - A small green circle indicates the start end point of the selected track segment.
    - A small red circle indicates the last end point of the selected track segment.
  - Select the **Coordinate** or the **Distance and Bearing/Angle** option and edit their numbers. Click **Apply** to initiate the changes.
- 6. Click **Done** to finish your edit.

OR

Press the ENTER key on your keyboard.

OR

Click outside the object's active box on the map.

# Placing a Routable Road, Routable Trail, Line, Arc, or Spline at a Specific Location

You can place any line object (routable road, routable trail, line, arc, or spline) at a specific coordinate location.

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

#### To Place a Line Object at a Specific Location

Use the following steps to place your line object at a specific coordinate location.

- 1. Click the **Draw** tab.
- 2. To place a routable road or trail, click and hold the **Routable**

Road/Routable Trail tool and select the tool you want.

To place a line/arc/spline, click and hold the Line/Arc/Spline tool

and select the tool you want. Then, select the line, style, width (if available), and color for your line/arc/spline.

3. Select the **Coordinate** option, or use the **Distance and Bearing/Angle** option in conjunction with the Coordinate option, and enter the appropriate coordinates or numbers into the corresponding text boxes to the right of the text style options box.

**Note** If you are placing an arc, enter new numbers into the Distance and Bearing/Angle text boxes for the two base points of the arc only. When the central shape point of the arc is selected, the text options change from Distance and Bearing/Angle to Radius and Direction. Enter the appropriate radius number and direction to change the radius for this point.

4. Click **Apply** and repeat the procedure for the second point. The line object displays on the map at those coordinates, distance, and bearing or angle.

OR

After placing the first point coordinate, move your pointer to the map screen and place the other points by hand by clicking on the screen.

5. To place additional points, lines, or other draw objects on the map in reference to the first line, enter a specific distance and bearing into the corresponding text boxes and click **Apply**.

# Joining and Breaking Linear Objects

You can join two or more routable roads/trails, tracks, lines, arcs, or splines into a single entity. You can also break routable roads/trails, tracks, lines, or splines. You cannot break arcs.

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

#### To Join

Use the following steps to join linear objects.

- 1. Click the **Draw** tab.
- 2. Click the **Select** tool , press and hold the SHIFT key on the keyboard, and select any lines, arcs, or splines you want to join.
  OR

Click the **Select** tool and drag a box around the linear objects you want to join.

**Note** When joining the preceding types of line objects, you can mix and match lines, arcs, and splines. The result is always a line. However, when you join multiple splines, the resulting joined object is a spline.

Right-click, point to Manage Draw, and then click Join Lines. OR

Join the lines by pressing CTRL+J or the keyboard shortcut combination you assigned for the joining function.

The selected lines are joined.

**Note** Any other objects selected during the multi-select process are ignored.

#### To Break

Use the following steps to break linear objects.

- 1. Click the **Draw** tab.
- 2. Click the **Select** tool and select the line object you want to break.
  - A box displays around the active line.
  - The shape points used to create the line display as small, magenta squares.

 Click the shape point where you want to break the line, right-click, point to Manage Draw, and then click Break Line.

Break the line by pressing CTRL+B or the keyboard shortcut combination you assigned for the breaking function.

The line is broken into two segments at the designated point and you can edit each line separately.

**Note** It is important that you perform steps 2 and 3 consecutively. If you pan the map, use another tab, and so on between steps, you may need to repeat the steps again to break your linear object.

# Circles, Rectangles, and Polygons

# Drawing a Circle, Rectangle, or Polygon on the Map

You can add area objects (circles, rectangles, and polygons) to a draw file in your current project. Area objects are those objects consisting of one or more closed line objects.

- Use **circles** to designate circular map features.
- Use **rectangles** to designate land boundaries or any other rectangular map feature.
- Use **polygons** to designate water bodies, land boundaries, or any other irregular map feature.

Once you have created an area draw object, you can edit (including reshaping or changing line color or weight), copy, move, or delete it at any time.

**Note** The best way to measure a large area on the map is with the circle, rectangle, and polygon tools in the Draw tab. When you draw an area object on the map, the area displays next to the object on the map. If you click off of the object, you can view the area again by clicking the **Select** tool in the Draw tab and then clicking the area object on the map.

#### To Draw a Circle, Rectangle, or Polygon

Use the following steps to add circles, rectangles, or polygons to the map.

1. Click the **Draw** tab.



- 3. From the **Fill** drop-down list, select the fill style you want to apply to the area object.
- 4. Click the **Fill Color** button to the right of the **Fill** drop-down list to select the color for your fill style.
- 5. Select an outline style for your circle from the **Outline** drop-down list.
- 6. Click the outline color button to select a color for the outline of your area object.
- 7. Select the width for your area object outline from the Width drop-down list.
- 8. Select the **Show Measurement** check box to display area (and radius information for circles) on the map as you draw the object.
- 9. To draw a **circle**, click the location for the circle's center on the map and drag away from center to set the radius for the circle. Release as soon as you

achieve the radius you want. The radius of the circle and the coordinates of the circle's center display in the corresponding text boxes to the right of the circle fill option area.

OR

To draw a **rectangle**, click the location for the rectangle's upper-left corner on the map and drag away from the corner to set the width, height, and area for the rectangle. Release as soon as you achieve the size you want. The coordinates of the upper-left corner point display in the corresponding text boxes to the right of the fill options. The distance and bearing/angle of the final corner point from the first corner point display in the corresponding text boxes to the right of the fill options. OR

To draw a **polygon**, click the map to enter each point of the polygon. The coordinates of each point display in the corresponding text boxes to the right of the fill options. The distance and bearing/angle of each new point from its previous point display in the corresponding text boxes. Labels display when end points are clicked if the Show Measurement check box is selected.

- 10. Click the **Select** tool and then click the area object on the map. A box displays around the object indicating that it is active.
- 11. Click the object again. A text box displays. Type the label in the text box and press the ENTER key on your keyboard.

# Editing a Circle, Rectangle, or Polygon

Once you have created an area draw object, you can edit (including reshaping or changing line color or weight), copy, move, or delete at any time.

#### To Edit a Circle, Rectangle, or Polygon

Use the following steps to edit an area draw object.

- 1. containing the draw file with the area object you want to edit.
  - 2. Click the **Draw** tab.
  - 3. If the object you want to edit is not in the active draw file, click **File** and select the draw file from the draw file dialog area. Then, click **Done**. The Draw dialog area displays.
- 4. Click the **Select** tool and then click the object on the map. A box displays around the object indicating that it is active. OR

To edit multiple objects, click the **Select** tool and then drag a box around the objects that you want to edit.

5. Change the object's fill, outline, and/or width option.

<u>If you selected a single circle</u>, drag one of the magenta squares around the circle to change the circle's size. The center of the circle remains in its original location.

OR

<u>If you selected a single rectangle</u>, click one of the corner points of the rectangle and drag to change its width, height, and area on the map. OR

<u>If you selected a single polygon</u>, click one of the shape points of the polygon and drag to change its bearing or angle, the leg length, and polygon area on the map. Reshape the polygon by dragging any of the points in the polygon to

a new location. When you select a shape point of a line segment within an active polygon, a small green circle indicates the start end point of the selected line segment and a small red circle indicates the last end point of the selected line segment. Select the **Coordinate** option or the **Distance and Bearing/Angle** option and edit their numbers. Click **Apply** to initiate the changes.

**Notes** You can display either bearing or distance by clicking the drop-down arrow next to the Bearing or Angle text located below the distance text in the Distance and Bearing/Angle option. You can also delete points and line segments from or add points to a polygon.

Press the ENTER key on your keyboard to finish your edit. OR

Click outside the object's active box on the map.

# Placing a Circle, Rectangle, or Polygon on the Map

You can place any area object (circle, rectangle, or polygon) at a specific coordinate location.

# To Place an Area Object on the Map

Use the following steps to place a circle, rectangle, or polygon on the map.

1. Click the **Draw** tab.



- 2. Click and hold the **Polygon/Rectangle/Circle** tool the tool you want.
- 3. Select the circle fill, outline, and/or width options.
- 4. To place a circle on the map, enter the coordinates for the circle's center into the corresponding text boxes. Then, enter the radius for the circle into the radius text box.

OR

To place a rectangle on the map, select the **Coordinate** option or use the **Distance and Bearing/Angle** option in conjunction with the **Coordinate** option. Enter the appropriate coordinates or numbers for the rectangle's upper-left corner point into the corresponding text boxes to the right of the fill options box.

OR

To place a polygon on the map, select the **Coordinate** option or use the **Distance and Bearing/Angle** option in conjunction with the **Coordinate** option, and enter the appropriate coordinates or numbers for the first polygon point into the corresponding text boxes to the right of the fill options box.

Click Apply.
 Note If you are placing a polygon on the map, repeat the procedure for the other points.

# Waypoints, Symbols, MapNotes, Text Labels, and Images

# Adding a Waypoint, Symbol, MapNote, Text Label, or Image to the Map

You can add point draw objects to a draw file in your current project. Point objects consist of one anchor point attached to a waypoint, symbol, MapNote, image, or text

label. The anchor point is the pixel position on the symbol that corresponds to the geographic coordinate of the point selected on the map when the symbol is placed.

- Use the Waypoint tool to label waypoints on a map. You can exchange waypoints with a GPS receiver.
- Use the **Symbol** tool to identify certain areas on the map such as houses, monuments, or points of interest.
- Use the MapNote tool to point to and label a specific area on the map. See Map Notes for more information.
- Use **text labels** to name features or give details about features on the map.
- Use the **Image** tool to add, edit, or place .bmp, .jpg, and .gif images on the map.

#### To Add a Point Object to the Map

Add a MapNote, text label, or symbol

From the Draw tab:

- 1. Click and hold the **MapNote/Text/Label/Symbol/Image** tool and select the tool you want. Then, select the font, style, size, and color for your point object's label from the text style options.
- 2. Click the location for the point object on the map. The URL/Label text box opens.
- 3. Optional. Click the **Hyperlink** button and browse to the document you want to link your point object to. Then, click the file name and click **Open**. The address appears in the URL field.
- 4. Type the name or phrase into the **Label** field. The coordinates or distance and bearing/angle numbers of the location appear in the corresponding **Coordinate** or **Distance and Bearing/Angle** text boxes.
- 5. Press the ENTER key on your keyboard or click the map outside of the object's active area when you are finished.

#### **Notes**

These steps describe how to add Draw MapNotes. To show/delete Route MapNotes, see Setting Your Routing Preferences.

You can also add a MapNote by right-clicking the map on the point you want to label, pointing to **Add MapNote**, and then selecting a MapNote option.

#### Add a waypoint

From the Draw tab:

- Click and hold the Tracks/Waypoints tool and select Waypoint
   Then, select the waypoint symbol from the Symbols options.
   You can also select a different font, style, size, and color for the waypoint name.
- 2. Click the location for the point object on the map. The URL/Label text box opens.
- 3. Optional. Click the **Hyperlink** button and browse to the document you want to link your point object to. Then, click the file name and click **Open**. The address appears in the URL field.
- 4. Type the name or phrase into the **Label** field. The coordinates or distance and bearing/angle numbers of the location appear in the

- corresponding Coordinate or Distance and Bearing/Angle text boxes.
- 5. Press the ENTER key on your keyboard or click the map outside of the object's active area when you are finished.

#### Add an image

From the Draw tab:

- 1. Click and hold the MapNote/Text Label/Symbol/Image tool and
  - select Image. Under Images, select an existing image, or click Add, browse to an image, and click Open to add a new image to your Images selection.
  - **Note** To delete an image from the Images selection, select the image and then click **Delete**.
- 2. Click the location for the point object on the map. The URL/Label text box opens.
- 3. Optional. Click the **Hyperlink** button and browse to the document you want to hyperlink your point object to. The address appears in the URL field.
- 4. Type the name or phrase into the **Label** field. The coordinates or distance and bearing/angle numbers of the location appear in the corresponding **Coordinate** or **Distance and Bearing/Angle** text boxes.
- 5. Press the ENTER key on your keyboard or click the map outside of the object's active area when you are finished.

**Tip** Search for a point object by its label name using the QuickSearch function in the Find tab or by typing the label name in the **Start**, **Finish**, **Stop**, or **Via** text boxes when creating a route in the Route tab.

# Editing a Waypoint, Symbol, MapNote, Text Label, or Image

Once you add a point object to a draw file, you can edit (name only), copy, move, or delete it at any time. You can edit multiple point objects at the same time by dragging a box around the objects you want to edit. Any changes are made to all of the point objects included in the box.

#### To Edit a Point Object

Use the following steps to edit a waypoint, symbol, MapNote, text label, or image.

- 1. Click the Draw tab.
- 2. Click the **Select** tool and then click the point object on the map twice.
- 3. Type a new name or phrase in the **Label** field, change the name's font, style, size, or color; select a new symbol; or click the **Hyperlink** button to change the URL address.
- 4. Press the ENTER key on your keyboard or click the map outside of the point object's active area when you are finished.

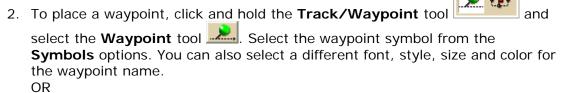
# Placing a Waypoint, Symbol, Text Label, or Image at a Specific Location

You can place any point object (waypoint, symbol, text label, or image) at a specific coordinate location.

#### To Place a Point Object at a Specific Location

Use the following steps to place a waypoint, symbol, text label, or image at a specific coordinate location.

1. Click the **Draw** tab.



To place a symbol, click and hold the MapNote/Text

Label/Symbol/Image tool and select the Symbol tool and select the symbol tool Select the symbol from the Symbol Selection list. You can also select a different font, style, size and color for the symbol name.

OR

To place a text label, click and hold the MapNote/Text

**Label/Symbol/Image** tool and select the **Text Label** tool . Select the font, style, size, and color from the text style options. A sample of how your text display appears to the left of the options. OR

To place an image, click and hold the **MapNote/Text Label/Symbol/Image** tool to view its hidden options. Select the **Image** 

- tool . Under I mages, select an existing image or click Add, browse to an image, and click Open to add a new image to your Images selection.
- 3. Select the **Coordinate** option, or use the **Distance and Bearing/Angle** option in conjunction with the **Coordinate** option, and type the appropriate coordinates or numbers into the corresponding text boxes to the right of the text style options box.
- 4. Click **Apply**. The point object displays on the map at those coordinates, distance, and bearing or angle.
- 5. If you are placing a text label, enter the text and press the ENTER key on your keyboard or click the map outside of the text label active area when you are finished.

#### Moving and Deleting Draw MapNotes

You can add your own MapNotes to a map. MapNotes have a white background that make them highly visible on the map. They can contain multiple lines of text and can be moved off of the labeled area without losing their visual links with the points. You can use MapNotes for directions or explanations.

#### **Notes**

- This Help topic describes the steps necessary to move and delete Draw MapNotes. To show/delete Route MapNotes, see Setting Your Routing Preferences
- When you use right-click functionality to add a MapNote, it is light blue unless it is a blank MapNote.

 You can search for a MapNote by its label name using the QuickSearch function in the Find tab or by typing the label name in the Start, Finish, Stop, or Via text boxes when creating a route in the Route tab.

# To Move a MapNote

Use the following steps to move a MapNote.

- 1. Click the **Draw** tab.
- 2. Click the **Select** tool
- 3. Click the **MapNote** to select it. The MapNote is enclosed with a box.
- 4. You can:
  - Drag the stem to a new location to move the MapNote.
  - Drag the text box to a new location, leaving the anchor point in the same location on the map.

• Drag the anchor point to a new location, leaving the text box in the same location on the map.



#### To Delete a MapNote

Use the following steps to delete a MapNote.

- 1. Click the **Draw** tab.
- 2. Click the **Select** tool
- 3. Click the **MapNote** to select it.
- 4. Press the DELETE key on your keyboard.

# **Custom Symbols**

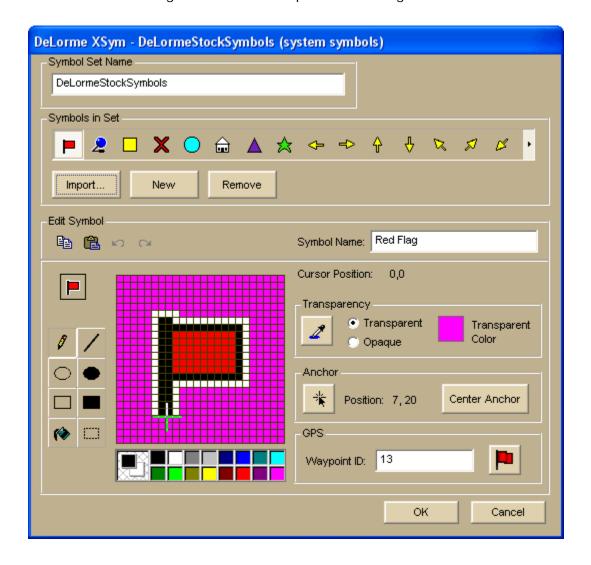
# **Custom Symbols Overview**

DeLorme XSym lets you create and edit your own symbols, which you can edit and add to maps within DeLorme mapping programs. The symbols created are 24 x 24 pixels. New and edited symbols are saved within a symbol set (.dim file) and can contain up to 250 symbols. Symbol set files are located at *C:\...\DeLorme Docs\Symbols*.

#### The DeLorme XSym Dialog Box

The XSym dialog box provides all the tools you need to create and edit symbols for your DeLorme mapping program. Click an area on the diagram below to view information on the various parts of the dialog box.

**Tip** To close the pop-up information box that displays when you click the diagram, click outside the image or click another part of the image.



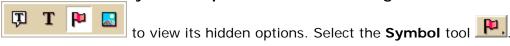
#### Opening a Symbol Set

Open an existing symbol set (.dim) to add new symbols or edit existing ones.

#### To Open a Symbol Set

Use the following steps to open a symbol set.

- 1. Click the **Draw** tab.
- 2. Click and hold the Symbol/MapNote/Text Label/Image tool



3. Under **Symbols**, select the symbol set from the drop-down list. The DeLorme XSym dialog box opens. The symbol selection for the new symbol set displays under Symbols in Set and the Symbol Editing Grid displays the first symbol of the new symbol set.

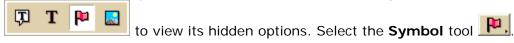
# Creating a New Symbol Set

Symbols created in DeLorme XSym are saved within a symbol set (.dim file) which can contain up to 250 symbols.

# To Create a New Symbol Set

Use the following steps to create a new symbol set.

- 1. Click the **Draw** tab.
- 2. Click and hold the Symbol/MapNote/Text Label/I mage tool



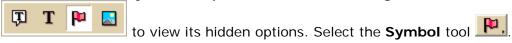
- 3. Under **Symbols**, select **[New...]** from the drop-down list. The DeLorme XSym dialog box opens.
- 4. Under **Symbol Set Name**, type the name for your new symbol set. The default name for the new symbol set is CustomSymbolSet.
- Import a bitmap into your new symbol set. OR

Create a new symbol to add to your new symbol set.

#### To Create a New Symbol Set from an Existing Symbol Set

You can make a copy of an existing symbol set and save it as a custom symbol set.

- 1. Click the **Draw** tab.
- 2. Click and hold the Symbol/MapNote/Text Label/Image tool



- 3. Under **Symbols**, select the symbol set you want to copy from the drop-down list.
  - The DeLorme XSym dialog box opens.
- 4. Under **Symbol Set Name**, type the name for your new symbol set. You can edit symbols, create symbols, or import bitmaps for your new symbol set.

#### Creating a New Symbol

With DeLorme XSym you can add a new symbol to an existing or new symbol set (.dim) file. You can assign a new category name for the symbol to help locate it under the Find tab in the DeLorme mapping program.

# To Create a New Symbol

Use the following steps to create a new symbol.

- 1. Click the **Draw** tab.
- 2. Click and hold the Symbol/MapNote/Text Label/Image tool



- 3. Under **Symbols**, select the symbol set you want to add your new symbol to from the drop-down list OR select **New** to create a new symbol set.
- 4. Under **Symbols**, click **Edit** to display the DeLorme XSym dialog box.
- 5. Under **Symbols in Set**, click **New** to clear the Symbol Editing Grid.
- 6. Use the tools in the Draw Tool Box and the tools under Transparency and Anchor to create the new symbol.
  - To undo the last action, click the **Undo** button outline under **Edit Symbol**.
  - To repeat the last action, click the **Redo** button under **Edit Symbol**.
- 7. To assign a symbol name to the current symbol, type a name or phrase in the **Symbol Name** text box under Edit Symbol.

**Note** Once a name is assigned to a symbol in a symbol set, each occurrence of that symbol placed on the map retains the new symbol name in addition to the default symbol name of "symbol."

8. Click **OK** when finished.

#### **Notes**

- As you create a symbol, an image preview displays to the upper-left of the Symbol Editing Grid. You can make edits to the symbol in either the Image Preview or the Symbol Editing Grid. Any edits done in one view are mirrored in the other view.
- See also: Importing a Bitmap, Copying and Pasting, Pasting a Bitmap into XSym, Dragging a Bitmap into XSym

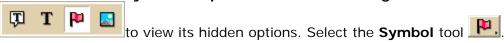
#### **Editing a Symbol**

With DeLorme XSym, you can edit an existing symbol in a symbol set (.dim) file and save the change or save it as a new symbol to be added to another symbol set. You can assign a new category name for the symbol to help locate it under the Find tab in the DeLorme mapping program.

#### To Edit a Symbol

Use the following steps to edit a symbol.

- 1. Click the **Draw** tab.
- 2. Click and hold the Symbol/MapNote/Text Label/Image tool



- 3. Under **Symbols**, select the symbol set that contains the symbol you want to edit.
- 4. Click **Edit**. The DeLorme XSym dialog box opens.
- 5. Select the symbol you want to edit from the symbol selection of the default symbol set or from another symbol set you have created. The symbol displays in the Symbol Editing Grid.

- 6. Use the tools in the Draw Tool Box and under Transparency and Anchor to edit the symbol.
  - To undo the last action, click the Undo button under Edit Symbol.
  - To repeat the last action, click the **Redo** button under **Edit Symbol**.
- 7. To assign a symbol name to the current symbol, type a name or phrase in the **Symbol Name** text box under **Edit Symbol**.

**Note** Once you assign a name to a symbol in a symbol set, each occurrence of that symbol you place on the map retains the new symbol name in addition to the default symbol name of "symbol."

8. Click **OK** when finished.

#### Note

- As you create a symbol, an image preview displays to the upper-left of the Symbol Editing Grid. You can make edits to the symbol in either the Image Preview or the Symbol Editing Grid. Any edits done in one view are mirrored in the other view.
- See also: Importing a Bitmap, Copying and Pasting, Pasting a Bitmap into XSym, Dragging a Bitmap into XSym

# Finding a Custom Symbol

The symbol name you assign to a symbol in XSym is different than the label you attach to the symbol on the map using the symbol draw tool. You can use the symbol name to help locate a custom symbol you have already placed on a map using the Advanced feature under the Find tab.

# To Find a Custom Symbol

Use the following steps to find a symbol by its symbol name.

- 1. Click the Find tab and then click Advanced.
- 2. Select **Category** from the **Find** drop-down list
- 3. Select the applicable option from the **Within** drop-down list.
- 4. Type the symbol name in the **Keywords** text box.
- 5. Click Search.
- 6. Click OK.

The closet matches display in the list view to the right of the Search For text box. The Symbol Name displays in the Map Feature Type column just before the symbol's feature type (draw object).

7. Double-click the item or select the item and click **Go To** to locate your selection on the map.

The map view centers on the item. If you assigned a name for the symbol under the Draw tab, a MapTag displays the name at the symbol location. If you did not assign a name for the symbol, a MapTag displays the Symbol Name at the symbol location.

#### **Notes**

If you do not assign a symbol name to a symbol in XSym, you can locate it
with the generic keyword of "symbol" or by the name or phrase given the
symbol in the Draw tab. For more information, see Finding a Symbol by its
Name.

• If you assigned a Symbol Name to a custom symbol in XSym and placed the symbol on the map, the Symbol Name displays in the demographic information area when you right-click the symbol and select **Info**.

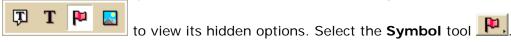
# Importing a Bitmap

You can import a bitmap into DeLorme XSym to use as a symbol, but any bitmap you import must be 24 x 24 pixels or less. You can assign a new category name for the symbol to help locate it under the Find tab in the DeLorme mapping program.

#### To Import a Bitmap

Use the following steps to import a bitmap to use as a symbol.

- 1. Click the Draw tab.
- 2. Click and hold the Symbol/MapNote/Text Label/I mage tool



- Under Symbols, click Edit.The DeLorme XSym dialog box opens.
- 4. Under Symbols in Set, click New to clear the Symbol Editing Grid.
- Click Import to display the Open Bitmap File dialog box. Browse to the location of the bitmap and click Open.
   The imported bitmap displays in the Symbol Editing Grid. See important Notes below.
- 6. Use the tools in the Draw Tool Box and under Transparency and Anchor to edit the symbol.
  - To undo the last action, click the **Undo** button under **Edit Symbol**.
    - To repeat the last action, click the **Redo** button under **Edit Symbol**.
- To assign a symbol name to the current symbol, type a name or phrase in the Symbol Name text box under Edit Symbol.
   Note Once you assign a name to a symbol in a symbol set, each occurrence of that symbol you place on the map retains the new symbol name in addition
- 8. Click **OK** when finished.

to the default symbol name of "symbol."

#### **Notes**

- If you attempt to import a bitmap larger than 24 x 24 pixels into XSym, a message box warns you the selected bitmap is larger than 24 x 24 pixels and the image is reduced.
- If the bitmap is less than 24 x 24 pixels, the remaining area is filled to the edge of the Symbol Editing Grid with one of the symbol pixel colors.
- As you create a symbol, an image preview displays to the upper-left of the Symbol Editing Grid. You can make edits to the symbol in either the Image Preview or the Symbol Editing Grid. Any edits done in one view are mirrored in the other view.

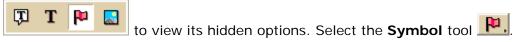
#### **Copying and Pasting**

You can copy and paste portions of a symbol or whole symbols to create new symbols or edit existing ones.

#### To Copy and Paste in XSym

Use the following steps to copy a symbol or portions of a symbol to edit an existing symbol or to create a new symbol.

- 1. Click the **Draw** tab.
- 2. Click and hold the Symbol/MapNote/Text Label/I mage tool



- 3. Under **Symbols**, select the symbol set that contains the symbol you want to edit.
- Click Edit.
   The DeLorme XSym dialog box opens.
- 5. Under **Symbols in Set**, select a symbol from the symbol selection.
- 6. In the Draw Tool Box, click the Select tool.
- 7. Select the area of the symbol you want to copy or select the whole symbol, and then click the **Copy** button under **Edit Symbol**.
- 8. Click the **Paste** button under **Edit Symbol**. The copied image is pasted into the current symbol in the Symbol Editing Grid. Drag the pasted piece into the place you want it within the current symbol.

To create a new symbol with the copied image, click **New** under **Symbols in Set** to clear the Symbol Editing Grid, and then click the **Paste** button to add the pasted image into the grid.

**Note** You can assign a new symbol name for the symbol to help locate it under the Find tab in the DeLorme mapping program. To assign a symbol name to the current symbol, type a name or phrase in the **Symbol Name** text box under **Edit Symbol**.

9. Click **OK** when finished.

#### **Notes**

- To undo an action, click the **Undo** button under Edit Symbol.
- To repeat an action, click the Redo button under Edit Symbol.

# Pasting a Bitmap into XSym

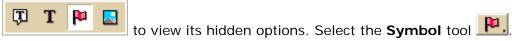
You can copy a bitmap or part of a bitmap to the clipboard and paste the image into DeLorme XSym to use as a symbol. Ideally, the pasted bitmap should be 24 x 24 pixels in size. You can assign a new symbol name for the symbol to help locate it under the Find tab in the DeLorme mapping program.

#### To Paste a Bitmap into XSym

Use the following steps to paste a bitmap into XSym.

1. Click the **Draw** tab.

2. Click and hold the Symbol/MapNote/Text Label/I mage tool



- Under Symbols, select the symbol set that contains the symbol you want to edit.
- Click Edit.
   The DeLorme XSym dialog box opens.
- 5. Under **Symbols in Set**, click **New** to clear the Symbol Editing Grid.
- 6. Open a bitmap in another image editing program, and select the bitmap or a part of the bitmap you want to copy. Press CTRL+C on your keyboard to copy the selection to the clipboard.
- 7. Click the **Paste** button under **Edit Symbol**.

  The copied image is pasted into the current symbol in the Symbol Editing Grid. See important **Notes** below.
- 8. Use the tools in the Draw Tool Box and under Transparency and Anchor to edit the symbol.
  - To undo the last action, click the **Undo** button under **Edit Symbol**.
  - To repeat the last action, click the **Redo** button under **Edit Symbol**.
- 9. To assign a symbol name to the current symbol, type a name or phrase in the **Symbol Name** text box under **Edit Symbol**.
- 10. Click **OK** when finished.

#### **Notes**

- If you attempt to import a bitmap larger than 24 x 24 pixels into XSym, a message box warns you the selected bitmap is larger than 24 x 24 pixels and the image is reduced.
- If the bitmap is less than 24 x 24 pixels, the remaining area is filled to the edge of the Symbol Editing Grid with one of the symbol pixel colors.
- As you create a symbol, an image preview displays to the upper-left of the Symbol Editing Grid. You can make edits to the symbol in either the Image Preview or the Symbol Editing Grid. Any edits done in one view are mirrored in the other view.

#### Dragging a Bitmap into XSym

You can drag a bitmap into DeLorme XSym to use as a symbol. Using drag to bring in an image is much like importing a bitmap into XSym. Ideally, the new bitmap should be 24 x 24 pixels in size. You can assign a new symbol name for the symbol to help locate it under the Find tab in the DeLorme mapping program.

#### To Drag a Bitmap into XSym

Use the following steps to drag a bitmap into XSym.

- 1. Click the **Draw** tab.
- 2. Click and hold the Symbol/MapNote/Text Label/Image tool



3. Under **Symbols**, select the symbol set that contains the symbol you want to edit.

- 4. Click Edit.
  - The DeLorme XSym dialog box opens.
- 5. Under **Symbols in Set**, click **New** to clear the Symbol Editing Grid.
- 6. Browse your computer to locate the bitmap (.bmp) file.
- Drag the file into XSym.
   The bitmap image displays in the Symbol Editing Grid. See important Notes
   below
- 8. Use the tools in the Draw Tool Box and under Transparency and Anchor to edit the symbol.
  - To undo the last action, click the **Undo** button under **Edit Symbol**.
  - To repeat the last action, click the Redo button under Edit Symbol.
- 9. To assign a symbol name to the current symbol, type a name or phrase in the **Symbol Name** text box under **Edit Symbol**.
- 10. Click **OK** when finished.

#### Notes

- If you attempt to import a bitmap larger than 24 x 24 pixels into XSym, a message box warns you the selected bitmap is larger than 24 x 24 pixels and the image is reduced.
- If the bitmap is less than 24 x 24 pixels, the remaining area is filled to the edge of the Symbol Editing Grid with one of the symbol pixel colors.
- As you create a symbol, an image preview displays to the upper-left of the Symbol Editing Grid. You can make edits to the symbol in either the Image Preview or the Symbol Editing Grid. Any edits done in one view are mirrored in the other view.

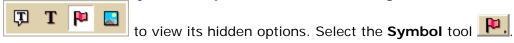
# Removing a Symbol

You can remove a symbol from the default symbol set or from any other symbol set you have created.

#### To Remove a Symbol

Use the following steps to remove a symbol from a symbol set.

- 1. Click the **Draw** tab.
- 2. Click and hold the Symbol/MapNote/Text Label/Image tool

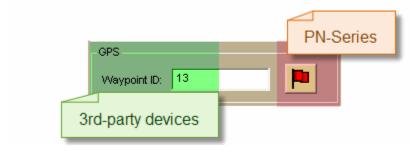


- 3. Under **Symbols**, select the symbol set that contains the symbol you want to edit.
- 4. Click Edit.
  - The DeLorme XSym dialog box opens.
- 5. Select the symbol to remove from the symbol selection. The symbol displays in the Symbol Editing Grid.
- 6. Click Remove.
  - The symbol disappears from the symbol selection under **Symbols in Set** and the next symbol within the selection displays in the Symbol Editing Grid.
- 7. Click **OK** when finished.

#### **GPS Device Custom Symbols**

You can use DeLorme XSym to create custom symbol sets for use with your DeLorme PN-Series GPS device or a compatible third-party GPS device.

If you are assigning waypoint IDs to symbols for a third-party device, use the Waypoint ID text box (shaded green) to make the assignment. If you are assigning symbols to use with a PN-Series GPS, click the button in the GPS area (shaded orange). The image on the button changes based on the symbol you have selected.



#### **PN-Series Devices**

You can create a custom symbol set and assign the symbols to the symbols on your PN-Series GPS.

#### To Assign Symbols to Symbols on a PN-Series GPS

- 1. Click the **Draw** tab.
- 2. Click and hold the **Waypoint/Track** tool options. Select the **Waypoint** tool
- 3. Create a new symbol set.
- 4. Create a symbol.
- 5. Under **GPS**, click the symbol button (the image on the button varies) to open the PN-Series symbol set.
- Click the PN-Series symbol to which you want to map your symbol.
- 7. Click **OK**.

# **Third-Party GPS Devices**

You can create a custom symbol set that includes all of the waypoint symbols on your third-party GPS device. By creating this custom symbol set, the waypoints you create display the same in both the mapping application and on your third-party GPS device, no matter where they originated.

Third-party GPS waypoint symbols are identified by their waypoint ID number, which is assigned by the device's manufacturer. To successfully view third-party GPS waypoint symbols in the mapping application, you must assign the proper waypoint identification number to each symbol you add to the custom symbol set.

**Important** To create a custom symbol set of your third-party GPS device's waypoint symbols, you must contact the device's manufacturer to obtain the graphic files and the waypoint ID number associated with each symbol.

### To Assign a Waypoint ID to a Custom Symbol

Use the following steps to assign a waypoint ID to a custom symbol.

1. Click the **Draw** tab.



- 2. Click and hold the **Waypoint/Track** tool options. Select the **Waypoint** tool
- 3. Create a new symbol set.
- 4. Paste the third-party GPS device's waypoint symbol into XSym.
- 5. Use the transparency option to make the area behind the symbol transparent.
- Type the waypoint identification number for the symbol in the Waypoint ID text box.
- 7. For each additional symbol, click **New** and then repeat steps 4–7.
- 8. Click **OK** when finished.

#### **Notes**

- Waypoint ID numbers vary by manufacturer and model.
- If you import multiple waypoints from a third-party GPS device without assigning a waypoint ID to each first, all of the waypoints display in the mapping application with a single default symbol.
- If you do not know the identification number for a third-party GPS device's waypoint, import the waypoint file into the mapping application. Then, use one of the two methods below to learn the waypoint ID:
  - Open the symbol set that holds the waypoint and view the waypoint's ID number in XSym.
  - Click the Info tool on the toolbar and click the symbol on the map.
     The waypoint ID displays in the Info tab.

### Symbol Editing Tools

#### **Draw Tool Box**

DeLorme XSym has a Draw Tool Box that lets you create and edit symbols within the Symbol Editing Grid independently of the DeLorme mapping program. The tools provided help you to create unique symbols to add to your map.

The following are the tools available in the Draw Tool Box.



**Pencil**—Draw freehand lines within the grid.



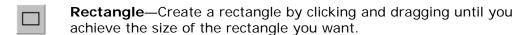
**Line**—Draw lines by clicking and dragging to the end point you want within the grid.



**Ellipse**—Create an ellipse by clicking and dragging until you achieve the size or shape of the ellipse you want.



**Filled Ellipse**—Create a filled ellipse by clicking and dragging until you achieve the size or shape of the filled ellipse you want.



**Filled Rectangle**—Create a filled rectangle by clicking and dragging until you achieve the size of the filled rectangle you want.

**Fill**—Use the fill tool to fill an area of the grid with a color chosen from the color palette.

Select—Use select to choose an area of the symbol to copy from the Symbol Editing Grid and then paste into the same symbol or another symbol in the grid.

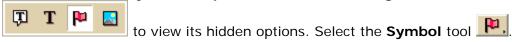
# **Using the Transparency Option**

The transparency option in DeLorme XSym lets you display a selected color as transparent in the final symbol image you place on a map within a DeLorme mapping program. For example, you may want to view the symbol object without the square of the surrounding background color. You would then select the background color to appear transparent.

#### To Make Part of a Symbol Transparent

Use the following steps to make part a symbol transparent.

- 1. Click the **Draw** tab.
- 2. Click and hold the Symbol/MapNote/Text Label/Image tool



- 3. Under **Symbols**, select the symbol set that contains the symbol you want to edit.
- 4. Click Edit.

The DeLorme XSym dialog box opens.

- 5. Select the symbol you want to edit from the **Symbol Selection**. The symbol displays in the Symbol Editing Grid.
- 6. Select the **Transparent** option under **Transparency**.
- Click the **Select Color** tool \_\_\_\_\_\_.
   The pointer changes to a dropper tool.
- 8. Select the color on the symbol you want to appear transparent.
  The Transparent Color display box updates with the selected color, and the Image Preview displays the chosen color area as transparent.
- 9. To display all colors, select the **Opaque** option under **Transparency**. The Image Preview reflects this change.
- 10. Click **OK** when finished.

**Note** Be sure the color in the symbol you want to appear transparent is not repeated in another part of the symbol you want to display as opaque. Select a new color from the color palette and fill the area on the symbol you want to display as transparent with the new color. Use the Select Color tool to select the new color in the symbol grid.

#### **Anchor Position**

Being aware of Cursor Position is important for choosing the anchor position of a symbol. The anchor is the pixel position on the symbol that corresponds to the geographic coordinate of the point selected on the map when the symbol is placed. Any newly created symbol, whether imported, pasted or dragged into the XSym Symbol Editing Grid, has a default position of center anchor.

XSym lets you change the anchor position of your symbol.

#### To Select the Anchor Position

Use the following steps to select the anchor position of a symbol.

- 1. Once your symbol is created, click the **Anchor Position** button. When you pass your pointer over the Symbol Editing Grid, it changes to a small cross hair (plus sign).
- Click the pixel grid within the symbol to position your anchor.
   The anchor location pixel coordinate numbers display after the position text to the right of the Anchor Position button. The large cross hair in the Symbol Editing Grid moves from its default anchor position to the new anchor position.

#### To Center the Anchor Position

Click **Center Anchor** to place the anchor point in the exact center of the Symbol Editing Grid.

#### **Cursor Position**

Any symbol created in XSym is 24 x 24 pixels square. Each of these pixels is represented in the Symbol Editing Grid. When you move your cursor over the Symbol Editing Grid, the cursor position by pixel number displays to the right of the Cursor Position text next to the Image Preview (as shown below).

#### **Image Preview and Cursor Position**



As you move the cursor over the grid, the numbers update according to where you are in the 24 x 24 grid. The first number in the above sample, 16, refers to the number of pixels across (the X coordinate) from the upper left corner of the grid, beginning with zero. The second number, 14, refers to the number of pixels down (the Y coordinate) from the upper-left corner of the grid, beginning with zero.

# **Using XData**

# **XData Overview**

- The XData tab is hidden by default. Use Tab Manager to show the XData tab.
- Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.
- Supported file formats include:
  - Microsoft Access (.mdb, .mdw, and .mda)
  - Microsoft Excel (.xls)
  - Microsoft Visual FoxPro (.dbf)
  - dBase (.dbf)
  - Text files (.txt, .csv, .tab, and .asc)
- XData labels, names, and URLs cannot be more than 255 characters.

You can use the XData tab to import your data so you can view the location of each record on detailed maps. To geoplace (locate) your records on the map, the data file must contain either a coordinate (in decimal degrees), a city and state, a ZIP/Postal Code, or a complete physical address (street address, city, state) for each record.

Whatever your business needs, you have powerful database management tools to help you plan accordingly.

#### You can:

- Import most database, spreadsheet, and text file formats for use within the program.
- Select symbols (or design your own) to represent the locations of your records.
- Display or hide databases so you can use them one at a time or together. You can also use your data with other program functions.
- Customize an existing dataset and then save the new dataset by using the Export function.
- Create a route using your XData records as a start, stop, and/or finish point.

# **Importing Data**

You can import your own data and view the location of each record on detailed maps. To locate (or geoplace) your records on the map, the file must contain either a coordinate, a ZIP/Postal Code, or a complete physical address (street address, city, state) for each record.

- The XData tab is hidden by default. Use Tab Manager to show the XData tab.
- Supported file formats include:
  - Microsoft Access (.mdb, .mdw, and .mda)
  - Microsoft Excel (.xls)
  - Microsoft Visual FoxPro (.dbf)

- dBase (.dbf)
- Text files (.txt, .csv, .tab, and .asc)
- XData labels, names, and URLs cannot be more than 255 characters.

# To Import a Database

Use the following steps to import a database into the current map file.

- 1. Click the XData tab.
  - Each dataset included in the current map file is listed under Available Datasets.
  - **Note** If the check box is selected, it indicates that the dataset is displayed on the map. Clear the check box to hide the dataset's symbols on the map.
- 2. Click Import to open the Import Wizard.
- 3. On the Select Data Source screen, click **Data Source** to locate and select the file from the **Open** dialog box and then click **Next**.
  - **Note** If your file is not available in the directory as expected, you may need to change the file type in the Files of Type drop-down list.
- 4. If your data source is a .csv or .txt file, complete this step. If not, go to step 5.

The Select Schema screen displays. Verify how the data displays in the columns. If it is not displaying correctly, under **Schema Type**, select the option that separates your data into the appropriate columns. If your first row is not a header row, clear the **First Row is Header** check box. Click **Next**. The Assign Field Types screen displays.

#### Notes

- Select **Other** under **Schema Type** to use a non-standard file schema definition. You can then select any combination of Tab, Space, Comma, and Other. If you select **Other** under Delimiter, type the character(s) that separate your data in the text entry box.
- The First Row is Header check box is selected by default. The program attempts to automatically assign field names based on the data in the first row.
- 5. Select the column you want to display as a label on the map using the available radio buttons.
  - **Note** You can clear a selection to have no label displayed on the map.
- 6. Click the **Assignment** header for each column and select the appropriate field option from the menu.

The Status text box indicates how your data will be geoplaced on the map.

7. Select how you want to locate your field information (street address or ZIP/Postal Code).

**Note** The available Locate By options are based on which fields have been assigned to the columns.

Click Next.

The Select Data Symbol screen displays.

9. Under **Match Status**, click **Exact**, **Street Name**, **Area**, or **ZIP Center** and then select the unique symbol and text properties you want to display for each match status.

Assigning different symbols/text to your records based on match status shows a

visual representation on the map of which records in your dataset were geoplaced exactly, only by street name, only by area, or only by ZIP Center.

Under Match Status, select the Use the same symbol/text for all categories check box to identify all of your records on the map using the same symbol without taking match status into consideration.

**Note** Click **Edit to use XSym** to create a new symbol or edit an existing symbol. For more information, see topics listed under Custom Symbols in the Draw section of the Help.

#### 10. Click **Next**.

The Data Options screen displays.

11. Type the name for the dataset along with any additional identifying comments.

The date and time of creation are automatically recorded.

#### 12. Click Finish.

A progress bar displays with the status of matched records. When the import process is complete, the dialog box automatically closes, the dataset name displays in the Available Datasets list, and the symbol you chose displays on the map for every record which was geolocated.

**Note** Datasets have .dds extensions and are saved by default to *C:\...\DeLorme Docs\Datasets*.

**Note** If you decide to interrupt the import process, you can finish importing the dataset later by selecting the dataset from the **Available Datasets** list in the XData tab and then clicking **Resume**.

# **Managing Datasets**

The XData tab is hidden by default. Use Tab Manager to show the XData tab.

You can manage your dataset after you have imported/copied it as a dataset.

#### To Manage Your Datasets

Use the following steps to manage your datasets.

- 1. Click the **XData** tab.
  - A list of the datasets available in the current project displays in the Available Datasets window. From this screen you can:
    - Update the symbols in the selected dataset by clicking Symbolize and updating the symbol properties.
    - Delete the selected dataset by clicking **Delete**. The dataset is deleted from the map, the current project, and from your computer.
    - View the records within the selected dataset by clicking Query. For more information, see Viewing Dataset Records.

**Note** A selected check box indicates that the dataset is displayed on the map. Clear the check box to hide the dataset's symbols on the map.

- 2. Click a dataset to select it and then click the **Query** subtab. You can then:
  - Edit a record in the dataset by double-clicking inside the cell you want to edit or by right-clicking the record (in the Query subtab) and clicking **Edit**.

- Press the TAB key on your keyboard to advance through the cells in the record. When you are finished editing the record, press the ENTER key on your keyboard.
- Create a route using a record in the dataset by right-clicking the record you want to use as your start, stop, or finish route point, clicking Route, and then clicking the route option.
- Add a blank record to the end of the records list by clicking Add.
- Duplicate a record in the dataset by right-clicking the record and clicking **Duplicate Record(s)**. Duplicates of the records will be available at the bottom of the record list.
- Delete a record in the dataset by selecting the record and clicking
   Delete or by right-clicking the record and clicking Delete Record(s).
- Center the map on the selected dataset by double-clicking it or clicking
   Go To. The map view changes to encompass all of the geoplaced records within that dataset.
  - **Note** To geoplace those records again, click **GeoCode** or right-click the records and select **GeoCode Record(s)**.
- Center the map on a particular record by double-clicking the first column of the record or by selecting the record and clicking **Go To**.

# **Viewing Dataset Records**

The XData tab is hidden by default. Use Tab Manager to show the XData tab.

After you have imported your data as a dataset, you can view information about the dataset, view the data records within a dataset, and select a specific record and view its symbol on the map.

### **To View Records**

Follow the steps below to view records within a particular dataset.

- 1. Click the **XData** tab.
  - A list of the datasets available in the current project is displayed in the Available Datasets window.
  - **Note** A selected check box indicates that the dataset is being displayed on the map. Clear the check box to hide the dataset's symbols on the map.
- 2. Click a dataset to select it.
  - The name, date, and time that the dataset was created display in the Dataset Statistics window. Any additional comments that you added during the import process also display here.
- 3. Click Query.
  - The records for the selected dataset display in the records window. You can then:
    - View a dataset other than the one currently selected by selecting the
      dataset from the **Use Dataset** drop-down list. The records contained
      within the dataset display in the table below. The Located To column
      indicates how each record was geoplaced on the map (by Address,
      ZIP/Postal Code, Street, Coordinate).

**Note** You can adjust the size of the tab area to expand the table.

• Limit which records of the dataset display in the table by selecting one of the options from the **Table Display** drop-down list. Some of the Table Display options provide additional drop-down lists to choose a more limited query. For example, selecting the Records by Placement option provides an additional drop-down list of options so you can choose to display only those records placed to specific addresses, only those records placed manually, and so on.

# **Additional Viewing Tips**

The following list provides information on how to view records or obtain information about the dataset symbols on the map while in the Query dialog area.

- To select records and view the corresponding symbol on the map:
  - To select one record, click the record.
  - To select multiple records individually, press the CTRL key on your keyboard while clicking each of the individual records.
  - To select a block of records, press the SHIFT key while clicking the record at the beginning of the block, and then click the record at the end of the block. All of the records are selected.
- To center the map on the selected record(s), click Go To.
   Note To geoplace records again, click GeoCode.
- To delete one or more records within the dataset, while in the Query dialog area, select each record using one of the methods described above and then click **Delete**. Click **Yes** to confirm the deletion. Deleted records are unrecoverable.
- To view the record of a particular dataset symbol on the map, click Select and then click the symbol on the map. Only the corresponding records display in the record window.
- To resize columns, place the pointer near the column border in the header of the desired column. When the pointer changes to a double arrow, drag the column in the direction you want to increase or decrease its size.
- To arrange the records in ascending order according to a particular column, click the header of that column. Click the column header again to arrange the records in descending order.

# Creating a Route with XData Records

- The XData tab is hidden by default. Use Tab Manager to show the XData tab.
- Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

Once you import an XData dataset, you can use the individual records within the dataset to create a route.

### To Create a Route with XData Records

Use the following steps to create a route with XData records.

- 1. Import a database into the XData tab.
- 2. Click the Query subtab.
- 3. Right-click the record you want to use as a start for your route, click **Route**, and then click **Set as Start**.
- 4. Optional. Right-click the record you want to use as a stop in your route, click Route, and then click Insert as Stop to add the stop geographically in the route or click Add as Stop to add the stop in the order it was added to the route.
- 5. Right-click the record you want to use as a finish in your route, click **Route**, and then click **Set as Finish**.

# Geocoding or Moving a Record's Location

The XData tab is hidden by default. Use Tab Manager to show the XData tab.

During the import process, the program attempts to geocode all records. This means it places the symbol for the record on specific map coordinates (based on address or coordinate information). Once you have imported your data, you may want to make changes to the data and manually geocode each record to a new location. How an item has been located displays in the Located To column of the dataset's records.

#### To Move a Record's Location

Use the following steps to move a record's location.

- 1. Click the **XData** tab.
- 2. Click Query.
- 3. Select the dataset you want to view from the Use Dataset drop-down list.
- 4. Select Records by Placement from the Table Display drop-down list.
- 5. Select All Placed Records from the Record Placement drop-down list.
- 6. Scroll right to the **Located To** column and view how each record in the dataset was placed.
  - You can manually geocode any item listed as Not Placed or ZIP Code.
- 7. Select the record you want to move.
- 8. To manually place a record that has not been placed on the map, drag the record from the table to the location on the map. The Located To field for that record now reads as Manual Placement.

OR

Click **GeoCode** to geocode a record again.

OR

Right-click the record(s) and then click **GeoCode Record(s)**.

# **Exporting Data**

The XData tab is hidden by default. Use Tab Manager to show the XData tab.

You can export datasets to another dataset or a text file. It is important to export datasets because:

- If you have modified a dataset after you have imported it, you may want to save the new dataset for use in as a dataset in your application or as a text file
- If you have exported a copied dataset (resulting from conducting a phone book listing search) and then used the To XData function within the Phone tab, you can modify and export it to a new dataset or export it as a text file.

### To Export Data

Use the following steps to export data.

- 1. Click the XData tab.
- 2. Click Query.
- 3. Select a dataset from the **Use Dataset** drop-down list.

  The records contained within the dataset display in the records window.
- To limit which records of the dataset are available for export, you can: Select one of the options from the **Table Display** drop-down list. OR

Select records manually from the existing dataset. To select multiple records individually, press the CTRL key on your keyboard while clicking each of the desired records. To select a block of records, press the SHIFT key while clicking the record at the beginning of the block, and then click the record at the end of the block; all of the records between the two you clicked are now selected.

- 5. Click Export.
- 6. Under **Export Options**, select one of the following options:
  - Export to New Dataset-Exports the file as a .dds file for use within the program as another dataset.
  - Export to Text File—Exports the file as a .txt file for use in other programs.
- 7. Under **Records to Export**, select one of the following options.
  - Entire Dataset-Exports all records in the selected dataset, including records that have not been placed.
  - Records in List (#)-Exports the records currently displaying in the Query table. The number of records is in parentheses. This may be a subset of the dataset, if you selected one of the Table Display options from the drop-down list in the Query dialog area.
  - Only Selected (#)-Exports only those records currently selected in the Query table. The number of records is in parentheses. These are the records you selected manually.
- 8. To export your dataset as another dataset, click **Create Dataset** and follow the instructions provided to select a data symbol for each match status, type a dataset name, and select the map display option(s). Click **Finish** when prompted. Exported files are available immediately in the Available Datasets list in the Datasets dialog area of the XData tab. These files have .dds extensions and are saved by default in *C:\...\DeLorme Docs\Datasets*. OR

To export your dataset as a text file, make sure the **Export to Text File** option is selected. Type the file name in the **File** text box and click **Save**. Exported files have a .txt extension and are saved by default in the *C:\...\DeLorme Docs\Datasets*.

# **Printing XData Dataset Records**

The XData tab is hidden by default. Use Tab Manager to show the XData tab.

You can print records from datasets imported with the XData tab. For information on viewing records from imported datasets, see Viewing Dataset Records.

#### To Print XData Dataset Records

Use the following steps to print dataset records.

- 1. Click the XData tab and then click Query.
- Select a dataset from the Use Dataset drop-down list. Set Table Display or Record Placement options if they are available for your dataset.
- Click the **Print** tab and then click **XData** to display the Print/XData dialog area.
  - The title of the currently selected dataset displays in a text box in the Dataset Print Title area.
- Optional. Click **Setup** to open the Print Setup dialog box; select a printer, change printer properties, select paper size, and select paper orientation. Click **OK** when finished.
- Click Columns to view the Columns display area if the Print dialog area is minimized.
- 6. Under **Dataset Print Title**, select the **Print Title** check box to display a title on each printed page. Select the **First Page Only** check box to only display the title on the first printed page.
  - Note Click Font to change the font, style, size, and/or script.
- 7. Under **Records**, select an option.

**Note** Various options are available under the Records drop-down box depending on options you chose under the Table Display drop-down box in the XData dialog area. You can choose specific options available or to print All Records in the dataset.

Option	Action	
Print Column Names	Displays column names on each printed page. Clear the check box to have no column names display.	
First Page Only	Displays column names on the first page only. This option is unavailable if the Print Column Names check box is cleared.	
Print Column Borders	Displays borders around table columns.	
Shade Alternate Records	Displays shading in alternate rows in the table.	

8. Under **Columns**, select an option.

**Note** Selected check boxes indicate the columns that will print. Clear a column check box if you do not want the column to print or click:

- Select All to select and print all columns.
- Select None to clear all columns (no columns will print).
- **Reverse Selection** to alternate selections. For example if you have selected columns 1, 3, and 5 to print and decide you want to print columns 2, 4, and 6 instead. The Reverse Selection option selects those columns that were cleared.
- 9. When all options are selected, click Print.

**Note** For specific recommendations on best printing results, see your printer manual.

# Registering Images

# ImageReg Overview

Use the ImageReg tab to register an image to a base map by adding corresponding control points on the image and the map. Once these control points are then pinned to the map, the ImageReg tab transforms all points from the image to the map using a user-selected transformation.

# Creating Data for a Registered Image

The information in a WorkFile (the image reference and control point pairs) is used to make the necessary calculations to create a map dataset. Once the dataset has been created, it can be used as a base map and utilized in a project map view.

# To Create Data for a Registered Image

Use the following steps to create data for a registered image.

- 1. Register an image or open an existing WorkFile.
- 2. Click Create Data.
- 3. In the **Name** text box under **Dataset**, type a name for the new dataset to create.
  - The dataset has a .dat extension and an associated index file with a .ind extension.
- 4. Use the default path to the *C:\...\DeLorme Docs\ImageReg* directory within the Path text box or click the browse button if you want to select another path for the dataset.
- 5. In the **Comments** text box, type information related to the registered image. This information can help you identify the dataset later.
- 6. Click **Process** to generate a raster dataset.
- 7. Click **OK** when data creation is complete.

  The new dataset displays in the map window on top of your original source data.
- 8. To view the new image in the entire screen, click **WorkFile** and click **Close** to close the image window.

# **Opening and Closing Existing WorkFiles**

You can save your control point list and a reference to the image in a WorkFile.

# To Open an Existing WorkFile

Use the following steps to open an existing WorkFile.

- 1. Click the ImageReg tab and then click WorkFile.
- 2. Select an existing WorkFile in the WorkFile directory and click **Open** to load the image.

The registered image and the points you created display in the Image Window on the left side of your screen. You are now in the Register mode and the Point Box displays your point information.

### To Close a WorkFile

Use the following steps to close a WorkFile.

- 1. Click the ImageReg tab and then click WorkFile.
- 2. Click Close.

The image window closes and the registration/control point values are cleared.

# Registering an Image

You can register any image to a map by placing control points on both the imported image and the (previously registered) map.

**Note Registration** is the process by which you identify matching locations (control points) on the image and the referenced map.

# To Register an Image

Use the following steps to register an image.

- Locate an area within the source raster image or vector image on your map window to which you want to register. Click the ImageReg tab and then click WorkFile.
  - **Note** The source raster can be a base map, aerial photo, or satellite image that has been previously registered.
- 2. Click **Load Image** to open the Open File dialog box.
- 3. Select the image file you want to register from its directory and click **Open**. The source image loads and the Image Window displays on the left side of the screen and the map window is on the right. You are now in Register mode.
- 4. Select a magnification percentage from the **Magnify** drop-down box or type a magnification percentage to increase/decrease magnification and get an overall view of the image area.
  - **Note** You can also increase/decrease the magnification of your source image using drag and zoom functionality or the Page Down and Page Up keys on your keyboard press Page Down to zoom in or press Page Up to zoom out.
- 5. Optional. Move your cursor to the edge of the image window until a white hand displays. Drag the hand to move the map in that direction or click on the image area to center the image on the point clicked.
- 6. Optional. To aid with readability of the image in the Image Window, click the
  - Rotate Left tool to rotate the image left. Click the Rotate Right tool to rotate the image right.
- 7. Click within the map window on the right to center the source or base map on the point clicked. You should enter both the image window and the map window on the same area for registration.
- 8. Select a solution from the **Solution** drop-down list.
  - Affine

Use this transform to correct an image that appears sheared; parallel lines are acceptable, but lines that should be perpendicular are not. Use the control point tool to associate points on the layer to register (left window) with corresponding points on the primary map (right window). Three control points are required.

#### Bilinear

Use this transform to correct an image that appears tilted so that lines that should be parallel appear to converge; for example, if the data is in a conic projection. Use the control point tool to associate points on the layer to register (left window) with corresponding points on the primary map (right window). Two control points are required at or near opposite corners of the dataset.

# • Polynomial 2d Order

Use this transform when objects in the image appear curved, such as when a page is scanned from a bound book near the binding. Use the control point tool to associate points on the layer to register (left window) with corresponding points on the primary map (right window). At least three control points are required. Undesirable interpolation effects are likely for data points that fall outside the cluster of control points. Consider placing control points around the border of the data to register, then adding interior points.

#### Polynomial 3d Order

Use this transform when the image to register contains a more complex curve. Use the control point tool to associate points on the layer to register (left window) with corresponding points on the primary map (right window). At least 10 control points are required. Undesirable interpolation effects are likely for data points that fall outside the cluster of control points. Consider placing control points around the border of the data to register, then adding interior points. Depending on how the layer to register is distorted, the control points may define a solution with more curves than required to correct the distortion. If this occurs, consider using the second order polynomial or triangulated transform.

9. Click in the image window to place a point.

A point displays on the image with a label for the point number (the label "Point" with a number is the default label).

**Note** For helpful hints on placing points, see Hints for Placing Points.

10. Move your cursor to the map window. Center the cursor over the same intersection location you chose in the image window and click that same point in the map window.

ΟR

If you know the coordinates for the intersection point in the map window, enter the latitude and longitude numbers in the **Latitude** and **Longitude** fields for the current point.

- 11. Repeat steps 9–10 for each additional point, evenly distributing points throughout the image. The number of points that are required varies depending on the solution you chose in step 8.
- 12. Optional. If you want to register a portion of the image, click the **Crop** tool and draw a polygon around the area you want to crop out of the image.
- 13. Optional. If you want to make an area in your image transparent, click the

**Transparency** button to switch to the transparent image mode. Then click the area within the image that you want to make transparent when displayed on the map. To alter the tolerance of the transparency, select

# **Normal**, **Sharp**, or **Broad** from the drop-down list. **Notes**

- To reduce 24-bit images to 8-bit, click the Reduce button.
- To modify the transparency color that displays in the image window, select a color from the drop-down list to the right of the transparency button.

#### 14. Click WorkFile.

**Note** The WorkFile contains the registration points and a reference to the source image file. WorkFiles are saved in *C:\...\DeLorme Docs\WorkFiles*.

- 15. Change the WorkFile name in the WorkFile text box.
- 16. Click Save.

The WorkFile is available in the table in the WorkFile subtab.

### Tips

- Magnify the image in the image window and zoom in on the map in the map window until image and source are approximately the same viewing resolution. For example, zoom in on the source map in the map window to a street that appears to be about an inch in length on your screen. Now, adjust the magnification of the image in the image window until the same street is also about an inch in length on the screen. If your images or maps appear too pixilated, decrease magnification on the left and zoom out on the right.
- Clear the **Link to Map** check box to pan and zoom the map window without affecting the map center of data zoom level of the image window.
- Select the **Enable** check box to preview the map features which were not made transparent.
- To undo/redo a transparency selection, click the **Undo** tool or **Redo** tool. Click **Reset** to clear all transparency edits to the image.

# **Modifying Existing WorkFiles**

You can modify an existing image by adding or deleting points.

### To Modify an Existing WorkFile

Use the following steps to modify an existing WorkFile.

- 1. Click the ImageReg tab and then click WorkFile.
- 2. Select an existing WorkFile in the WorkFile directory and click **Open** to load the image.
  - The registered image and the points you created display in the image window on the left side of the screen. You are now in Register mode and the Point Box displays your point information.
- 3. Modify the points as appropriate. To change a specific point, enter new coordinate information by clicking and typing in the point information boxes in the **Point Box** or click the point number in the **Point Box** and then click the highlighted point in the image or map window and drag it to a new location.

  Note If you must move the same point in each window, the best method is to delete that point and then add a new point. To delete a point, click it in the **Point Box** and then click **Delete**.
- 4. Click **Done** when edits are complete.
- Click WorkFile.

- 6. Change the WorkFile name in the **WorkFile** text box if you want to save your previous point information.
- 7. Click Save.

# **Deleting an Existing WorkFile**

### To Delete an Existing WorkFile

Use the following steps to delete an existing WorkFile.

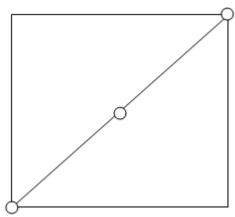
- 1. Click the ImageReg tab and then click WorkFile.
- 2. Select an existing WorkFile in the WorkFile directory and click **Delete**. The workfile is deleted from the WorkFile directory.
- Click Yes to confirm the deletion.
   The WorkFile is deleted from the WorkFile directory.
   Note The image to which it refers is not deleted.

# **Hints for Placing Points**

Place control points in locations where it is easy to distinguish the same location on both the image and the map. For example, you might find it helpful to place control points at survey points, street intersections, or other point features.

It is also important to remember that the more corresponding control points you place on your image and map, the better. A large number of control points should only increase the accuracy of your resulting map.

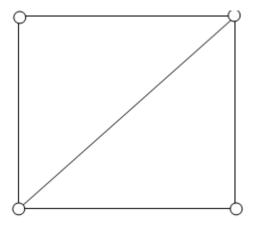
**Note** Collinear points should be avoided. A small number of points in a line will not produce a good solution. See example below.



To Place Control Points on an Image With Flat Terrain

If your image covers relatively flat terrain and/or has some distortion, the easiest method for registering an image on a map is to find four matching points on the image and the map. These four matching points can be on or near the four corners of the image and base map (see example to the right). Selecting matching points ties the image you are registering to the map and warps it accordingly. The resulting map will be the most accurate in areas where the points were more closely matched.

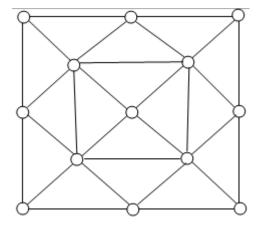
**Note** If your image covers a large area, you may want to add some matching points in the center of the image and map.



# To Place Control Points on a Distorted Image and/or an Image With Varied Terrain

If your image is distorted or covers terrain with varied elevation, the best method for registering your image to the map is to have control points distributed evenly around the image and the map (see example to the right).

**Note** For this method, it is preferable, but not essential, for the points to be evenly spaced.



# **Profiling Linear Objects**

# **Creating a Profile**

You can use the Profile tab to create elevation graphs of linear objects on the map. Linear objects can be part of the map or part of a draw layer. A linear object is profiled from one end of the line to the other. The profile includes statistical data; you can determine which available data you want to display. You can also create a profile that includes user data from some athletic devices from Timex and Suunto.

The list below includes samples of map features and draw objects that you can profile.

- Routes (created using the Route tab)
- Trails
- Roads
- Boundaries
- Railroads
- Power lines
- Pipelines

- Streams
- Tracks (created using the Draw tab or imported from a GPS device)
- Lines (created using the Draw tab)
- Arcs (created using the Draw tab)
- Splines (created using the Draw tab)
- Measure Lines (created with the Measure tool)

#### **Notes**

- You can create profiles only on 2-D maps; however, with split-screen functionality, you can view the highlight of the profiled object on a 3-D map.
- To profile an object or route at any time, right-click the item and click **Profile**.
- The Profile graph automatically updates when you select a new object to profile.
- Double-click a location on the Profile graph to center the map on the location without changing the data zoom level.
- The highlighted profile object on the map is retained if you go to another tab and then return to the Profile tab. The selected object is not retained between program sessions.
- To view all the features available on the Profile tab, click the **More** button near the bottom of the tab to expand the view.

#### To Create a Profile

Use the following steps to create a profile.

- Center your map on the area with the linear object you want to profile.
   OR
  - Center the route you want to profile on the map.
- 2. Click the **Profile** button on the Profile tab or on the toolbar to activate
- 3. Move your pointer over the 2-D map. The pointer changes from to



when it passes over an object that you can profile.

- 4. Select a linear object or route on the map to generate its profile. When you select the object, it is highlighted and the Profile graph displays in the Profile tab area
- 5. Move your pointer along the elevation profile in the Profile graph. The intersection of the vertical and horizontal blue lines travels along the top of the terrain profile. These lines indicate the elevation and distance of the particular location. A small crosshair follows along the corresponding object on the map. An Info box displays the profile statistics and user data (see Statistical Data and User Profile Data for more information).

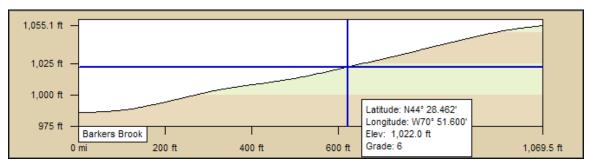
# To Profile Multiple Linear Objects

- To profile multiple linear objects, press the SHIFT key on the keyboard while clicking the items you want to profile. Thin vertical dashed lines display in the Profile graph indicating the beginning and end of each chosen segment.
- To make it easier to profile multiple linear objects, use the Draw tab to join them.
- To clear one of the multiple objects you have profiled, press the CTRL key on your keyboard while clicking the profiled object on the map.

# **Viewing the Profile Elevation Graphs**

The Profile tab lets you view two profile elevation graphs; the profile graph and the overview profile graph.

# To View the Profile Graph



The profile graph automatically displays when you select an object to profile. It shows a two-dimensional image of the elevation associated with the selected object. Distance and elevation are indicated below and to the left of the graph respectively. Use the following steps to view a profile graph.

- Create a profile of an object or route. For more information see Creating a Profile.
- 2. Move your cursor along the elevation profile in the profile graph.
  - The intersection of the vertical and horizontal blue lines travels along the top of the terrain profile. These lines indicate the height and distance of the particular location as you move along the graph.
  - As you move your cursor along the graph, an info box provides statistical data about the profile, such as coordinates, elevation, grade, and so on. See Statistical Data for more information about this data. If you downloaded an object with supported profile data, the info box may also include additional data (for example, speed). See User Profile Data for more information.

- As you move your cursor along the profile graph, a small crosshair follows along the corresponding object on the map.
- 3. Click the **More** button near the bottom of the tab area to expand the view.
- 4. <u>If you generate a profile from a route you have created</u>, select the **Show Text** check box to view route numbers, road names, waypoint numbers, and their associated waypoint names.

**Notes** The route displays in the profile graph with small markers indicating the start and finish for the route as well as any waypoints it contains.

- 5. <u>If the profile object contains additional supported data</u>, such as that downloaded from an athletic device, a toolbar appears above the graph. See User Profile Data for more information about viewing and managing this data.
- 6. View the current statistical information options you have selected to the right of the profile graph. See Statistical Data for more information about adding, removing, and reordering the statistics.

1 01110 11119			
Terr Dist:	3.6 mi		
Climb Dist:	3.1 mi		
Desc Dist:	2,571.0 ft		
Elev Gain:	1,230.9 ft		
Desc Elev:	76.2 ft		
Climb Elev:	1,307.1 ft		
Avg Grade:	7		
Min. Elev:	718.8 ft		
Max. Elev:	1,949.8 ft		
Lin Dist:	3.5 mi		

### Tips

- You can also profile an object or route on the map by right-clicking the item and then clicking **Profile**.
- To view your object's profile in the opposite direction, click the **Reverse** button The profile order flips horizontally.
- The profile graph automatically updates when you select a new object to profile.
- Double-click a location on the profile graph to center the map on the location without changing the data zoom level.
   OR

Right-click the place on the graph you want to see on the map and click  ${\bf Go}$   ${\bf To}$ .

# To View the Overview Profile Graph



Use the following steps to view the overview profile graph.

- Click More More
   Mores
   The overview profile graph displays at the bottom of the screen—it is a smaller version of the main profile graph.
- 2. To zoom in to a specific part of the profile, place the cursor over one of the horizontal bars on either side of the overview profile graph. When the pointer changes to a horizontal arrow, drag the bar towards the center of the overview profile graph.
  - When you move the bars, the main profile graph adjusts to show the
    area within the borders and the right and left vertical scales adjust to
    fit the data you are viewing. The area you are not viewing in the main
    graph is highlighted with grey in the overview graph.
  - When you hover your cursor over the area within the bars, the cursor changes to a hand. Left-click to grab the area and drag it horizontally to reposition the border focus area or to center the selection on that point.
- 3. To hide the overview profile graph, click Less Less▼

# Statistical Data

You can manage the type of statistical data you want to view for a profile graph.

The profile statistic options display to the right of the profile graph. The applicable selected options display in the info box when move your cursor along the profile graph. An info box can also contain user data that you add to the mapping program—see User Profile Data for more information.

### **To View Your Current Options**

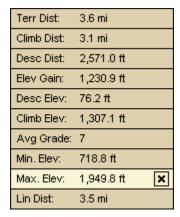
To view all options you currently have selected, click the **More** button near the bottom of the Profile tab to expand your view.

Terr Dist:	3.6 mi	
Climb Dist:	3.1 mi	
Desc Dist:	2,571.0 ft	
Elev Gain:	1,230.9 ft	
Desc Elev:	76.2 ft	
Climb Elev:	1,307.1 ft	
Avg Grade:	7	
Min. Elev:	718.8 ft	
Max. Elev:	1,949.8 ft	
Lin Dist:	3.5 mi	

# To Remove an Option

Use the following steps to remove an option from the statistics list.

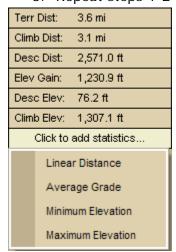
- 1. Move your cursor over the statistic you want to delete. An X appears in the cell.
- 2. Click the X to remove the option.



# To Add an Option

When one or more options have been removed, use the following steps to made additions to the statistics list.

- Move your cursor over Click to add statistics and click.
   A list of available statistic options opens.
- 2. Click an option to add it.
- 3. Repeat steps 1-2 to add more options.



This table describes the statistic options available in the statistic list and/or the profile info box. List options are bold.

Statistical Data Option	Description	
Linear Distance*	The flat distance of the profile. Does not take elevation into account.	
Terrain Distance*	The 3-D distance of the profile accounting for elevation rise and descent.	
Climbing Distance*	The total distance where the terrain is uphill.	
Descending Distance*	The total distance where the terrain is downhill.	
Current Elevation	The elevation above sea level at a specific point.	
Elevation Gain*	The difference in elevation from the start of the profile to the end of the profile.	
Climbing Elevation	The amount of ascending vertical distance.	
Descending Elevation*	The amount of descending vertical distance.	
Grade	Actually percent grade, rise over run (100 x (rise/run)). For example, 6 means that for every 100 ft, you gain 6 ft in elevation.	
Average Grade*	Average of the grade from the start to the current cursor position (or finish).	
Minimum Elevation	The elevation of the lowest point on a profile.	
Maximum Elevation	The elevation of the highest point on a profile.	
Zone**	A named grid system of any of the UTM/UPS, MGRS, or State Plane coordinate systems used as a basis for coordinate display. For example, UTM zone 19 specifies the six-degree swath between longitude 66W to 72W and running from 84S to 80N. Another example is zone ME-W in the State Plane coordinate system, which specifies an area that covers the western half of Maine. When using one these coordinate systems, the current zone and coordinates east and north (the eastings and northings) of the zone origin are displayed.	
Easting**	The measure of a position relative to the x-axis (horizontal) of a grid system.	
Northing**	The measure of a position relative to the y-axis (vertical) of a grid system.	

Latitude***	The measure of a position on the earth's surface north or south of the equator in degrees, minutes, and seconds. Defined as the angle from the equator's horizontal plane perpendicular to the polar axis. Latitude is measured in degrees minutes and seconds. All lines of latitude are parallel and are often referred to as parallels.	
Longitude***	The measure of a position on the surface of the earth east or west of the Prime Meridian in degrees, minutes, and seconds. Defined as the angle from the vertical plane running through the polar axis and the prime meridian. Longitude is measured in degrees minutes and seconds. All lines of longitude meet at the poles and are often referred to as meridians.	

<sup>\*</sup>Calculated from the start of the profile to the current cursor position. If the cursor is not in the profile area, then the value is calculated from the start of the profile to the end of the profile.

**Note** For information on manually setting your minimum and maximum elevation, see Manually Setting Minimum and Maximum Elevation.

# Manually Setting Minimum and Maximum Elevation

You can manually set a maximum or minimum elevation to display in your profile graph.

# To Manually Adjust Minimum and Maximum Elevation

Use the following steps to manually adjust minimum and maximum elevation.

- 1. Create a profile.
- 2. Click the **More** button
- To control the maximum height displayed on the profile graph, under Manual Scale, select the Max Elev check box and type the maximum height in the text box.
  - This adjusts the top end of the vertical scale of the profile graph to not display heights above the defined height.
- 4. To control the minimum height displayed on the profile graph, under **Manual Scale**, select the **Min Elev** check box and type the minimum height in the text box.
  - This adjusts the base level of the vertical scale of the profile graph to not display heights below the height specified.

**Note** Distance displays in the units you set in the Options dialog box. For more information, see Setting Units of Measure Preferences.

<sup>\*\*</sup>This statistical information is available only if UTM/UPS, SPCS, USNG, or MGRS is selected as the coordinate system in the Display tab of the Options dialog box.

<sup>\*\*\*</sup>This statistical information is available only if a latitude/longitude format is selected as the coordinate system in the Display tab of the Options dialog box.

# Clearing a Profile

Once you select an object to profile, you can clear the highlighted feature from the map and the profile graphs from the Profile tab.

# To Clear a Profile

Use one of the options below to clear the map object highlight and the currently displaying Profile graph.

- Click the **Clear** button on the Profile tab.
- Press the CTRL key on your keyboard while clicking a profiled object on the map.

OR

• Right-click the profiled object and click Clear Profile.

# **User Profile Data**

User profile data is data you add to a DeLorme mapping program. You can attach it to a track or .gpl file using GeoTagger or use the Exchange Wizard to download a track that contains the data from a device that records GPS data, such as some athletic devices from Timex and Suunto or an Earthmate PN-Series GPS device.

# **Types of Data**

You can profile several types of data. When you profile a track or a .gpl file that includes the data, the profile graph displays a colored line for each type of data. The types of data, their scales, and default graph colors (modifiable) are:

Data Type	Default Color	Scale
Map Elevation  Default type - from map topographic data	Black	ft, mi, m, or km  Matches the units set on the Display tab in the Options dialog box.
Track Elevation	Green	ft, mi, m, or km  Matches the units set on the Display tab in the Options dialog box.
Speed	Blue	fps, mph, mps, or kmh  Matches the units set on the Display tab in the Options dialog box.
Pedal Cadence	Purple	rps, rpm, rph Depends on data.
Heart Rate	Red	bpm
Temperature	Maroon	°F or °C Depends on data.

# To View Information for a Specific Data Type

When you have multiple types of user data, you can choose which type to focus on using the "follow" function.

- Profile a track with user data.
   The data types display in the profile toolbar. The scale for the currently followed data type displays to the right of the graph.
- 2. To follow a different data type:
  - In the toolbar, click the arrow next to the data type and click Follow.
     OR
  - Right-click the line for the data type on the graph, point to **Follow** in the menu, and click the data type.
- 3. Move your cursor along the data profile in the profile graph to view the data in the info box. For more information about viewing the profile graph, see Viewing the Profile Elevation Graphs.

# To Hide or Show a Specific Data Type

You can hide and show data on the profile graph.

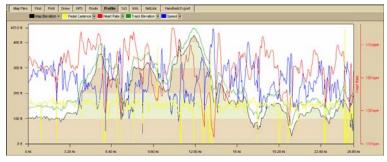
- 1. Profile a track with user data.

  The data types display in the profile toolbar. The scale for the currently followed data type displays to the right of the profile graph.
- 2. To hide or show a data type, on the toolbar, click the data type button to toggle it on or off.

# To Change the User Data Type Color

You can change the user data type default colors or change from a user-defined color back to the default.

- Profile a track with user data.
   The data types display in the profile toolbar. The scale for the currently followed data type displays to the right of the profile graph.
- 2. To change the default data type color:
- To a new color—on the toolbar, click the arrow next to the data type, click Choose Color, and select a new color in the color dialog box. OR
- 4. To the default color—on the toolbar, click the arrow next to the data type and click **Use Default Color**.



# Viewing Your Map in 3-D

# Viewing a 3-D Map

On the 3-D tab, you can view your map data in 3-D and change the look of your 3-D map using the tools on the tab or keyboard shortcuts.

#### Notes

- You can view 3-D maps only in the left (secondary) map window; however, you can expand the left map window to fit the entire map area. For more information, see Resizing the Map and Tab Areas.
- You can customize how a 3-D map displays with the 3-D tab in the Options dialog box. For more information, see Setting Your 3-D Map Preferences.
- The 3-D Navigation keyboard shortcut scheme is for 3-D use. When you select the scheme, you can use keyboard shortcuts to perform all of the same functions that you can complete on the 3-D tab. For more information, see Flying Over a 3-D Map.
- If the 3-D tab does not work properly, it may be because you have turned off hardware acceleration in your display settings. To check you hardware acceleration status, view the Advanced Display Settings in the Windows Control Panel.

# To View a Map in 3-D

Use the following steps to view a 3-D map.

Expose the left map window using the map resize tool and then select 3-D from the drop-down list at the top of the left map window.
 A progress bar displays in the lower-left corner of the map to display the 3-D drawing status.

OR

Click the **3-D** tab and then click **Show 3-D**.

A progress bar displays in the lower-left corner of the map to display the 3-D drawing status.

2. On the 3-D tab, under **3-D View**, select the viewing mode.

The top option is an Outside-looking-in perspective. This view focuses on the center of the map — this allows you to spin the map around the center point.

The bottom option is an Inside-looking-out perspective. This view is from the center of the map — this allows you to spin the map around you.

- 3. Use the **Rotate** controls to rotate the 3-D map to the new position. The reference arrow points to the direction that you will be viewing on the map, which varies depending on the 3-D View selection you made in step 2). The degree of map rotation displays above the Rotate arrows. You can rotate the 3-D map using one of the following methods:
  - Press and hold the left arrow button to rotate the map clockwise.
  - Press and hold the right arrow button to rotate the map counterclockwise.
  - Drag the square map in the **Rotate** graphic to the new position.

- Click anywhere on the square map in the **Rotate** graphic to move the map in that direction.
- Click a directional letter (N, S, W, or E) to rotate the map in that direction.
- Click the brown area that surrounds the square map to rotate the map in that direction.
- 4. Use the **Pitch** controls to change the pitch of the 3-D map.

The pitch range depends on the terrain. 90° looks straight up, -90° looks straight down, and 0° is horizontal.

You can control the pitch using one of the following methods:

- Press and hold the up arrow to increase the pitch.
- Press and hold the down arrow to decrease the pitch.
- Drag the reference arrow to the new pitch.
- Click anywhere on the graphic to update the pitch.
- 5. If you selected the Outside-looking-in perspective, you can adjust the distance from the map center using the **Distance** up/down buttons, by clicking the **Distance** graphic at the distance you want or by dragging the numeric distance display in the **Distance** graphic.
  OR

If you selected the Inside-looking-out perspective, you can adjust the elevation of the view over the 3-D map using the **Elevation** up/down buttons, by clicking the **Elevation** graphic at the elevation, or by dragging the numeric elevation display in the Elevation graphic.

**Note** Elevation indicates the height above terrain, not the height above sea level.

- 6. To pan the 3-D map and simulate a fly-over, drag the circle in the **Pan** graphic in the direction you want.
- 7. Click **Hide 3-D** when finished.

The map changes to a 2-D view.

OR

Select **2-D** from the drop-down list at the top of the left map window when finished.

#### Tips

- When the 3-D map window is open, you can use the grab and pan tool on the toolbar, Compass Rose navigation tools, zoom tools, and/or the overview map window to adjust the 3-D map.
- Scroll along the edges of the 2-D map or pan with the navigation tools to redraw the 2-D background; the 3-D map redraws with the new map center.
- Click a point on the 3-D map to center the map on that point.
- When you move your cursor on the right map, a 3-D cursor echoes that movement on the left map.

# Flying Over a 3-D Map

You can simulate flying over the 3-D terrain. Access these features using the Pan feature in the 3-D tab or by activating the 3-D Navigation keyboard shortcut scheme.

### To Fly Over a 3-D Map Using Keyboard Shortcuts

Use the following steps to fly over a 3-D map using keyboard shortcuts.

- 1. View a map in 3-D.
- Click the Options button on the toolbar and then click the Keyboard Shortcuts tab.
   OR

Click the **3-D** tab, click the **Options** button and then click the **Keyboard Shortcuts** tab.

- Select 3-D Navigation (DeLorme Scheme) from the Scheme drop-down list.
- 4. Click **OK** to activate the selected scheme.
- To rotate the map to the right, press ALT+D on your keyboard. OR
  - To rotate the map to the left, press ALT+A on your keyboard.
- To increase the pitch, press ALT+W on your keyboard. OR
  - To decrease the pitch, press ALT+S on your keyboard.
- 7. To increase the distance/elevation, press ALT+Page Up on your keyboard . OR
  - To decrease the distance/elevation, press ALT+Page Down on your keyboard.
- 8. To pan the map to the right, press ALT+Right (the right arrow) on your keyboard.

OR

- To pan the map to the left, press ALT+Left on your keyboard.
- To pan the map forward, press ALT+Up on your keyboard. OR

To pan the map backward, press ALT+Down on your keyboard.

### To Fly Over a 3-D Map Using the Pan Tool

Use the following steps to fly over a 3-D map.

- 1. View a map in 3-D.
- 2. Click the **3-D** tab to open it and drag the circle in the **Pan** graphic in the direction to view.



# **Setting Your 3-D Map Preferences**

Use the 3-D tab in the Options dialog box to customize your 3-D maps with increased vertical exaggeration, billboards, a GPS tracking cursor type, and more.

### To Set Your 3-D Map Preferences

Use the following steps to set your 3-D map preferences.

1. Click the **Options** button on the toolbar and then click **Options**. Then, click the **3-D** tab. (You may have to scroll the tab area to see the 3-D tab.)

OR

Click the **3-D** tab to open it and click the **Options** button

- If you want the right map to rotate/pan in the same direction as the left map, select the Link 2-D and 3-D Map Rotation check box. The 2-D map updates after the 3-D map finishes panning/rotating.
  Note If you do not select this check box, you can use the data zoom level tools above the left map window to adjust the zoom level of the 3-D map.
- If you want to view billboards on your 3-D map, select the Show Billboards check box.
   Note If you receive a message saying that 3-D billboards cannot be displayed, ensure that you have a 32 MB video card with the latest drivers and that it supports DirectX and transparencies.
- To select the cursor graphic that you want to display on the 3-D map when GPS tracking, select the symbol type from the GPS Tracking Cursor drop-down list.
- To select a vertical exaggeration value, click one of the vertical exaggeration graphics (from left to right—flat, 1x, 2x, 4x, or 8x).
- Click **OK** to accept the changes and close the Options dialog box. OR

Click **Apply** to accept the changes and remain working in the Options dialog box.

# Routing

# **Creating a Route**

You can create a road, trail, or direct route using the Route tab, right-click feature, or the toolbar. Once you create a route, you can use the Route tab to view route directions, edit a route, and display routes on a map.

Routes are calculated using the default routing preferences. To show/remove routing MapNotes, waypoint labels, state borders, and route vias, enable/disable GPS voice navigation, or to change the default speed, road type, or routing preference, see Setting Your Routing Preferences.

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

**Important** If you have only the left map window open, the route start, finish, via, and stop icons in the Route tab and on toolbar are grayed out. To activate the options, use the map resize tool to expose the right map window.

See also, the Creating a Route tutorial in the application's Help.

# To Create a Route Using the Route Tab

Use the following steps to create a route.

- 1. Click the Route tab and then click New/Edit (if it is not already selected).
- 2. Click **File**, click **New**, and then type the name for your route in the **Name** text box.
- 3. Click the **Start** tool and then click the point on the map where you want to begin your route.

OR

To use an address book entry as your start location, select **Start From Address Book** from the **Start** drop-down list, click to select an Address Book entry, and then click **OK**.

OR

To use your current GPS position as your start location, select **Start From GPS Location** from the **Start** drop-down list.

OR

Type your start location in the **Start** drop-down text box. You can type the name of an address book contact, user-added waypoint, or address.

#### **Notes**

An address must be in one of the following formats: street address, city, state **OR** street address, ZIP/Postal Code.

The Book check box (underneath the Address Book buttons in the Find tab) must be selected to search for address book contact names.

4. Click the **Finish** tool and then click the spot on the map where you want to end your route.

OR

To use an address book entry as your finish location, select **Finish From Address Book** from the **Finish** drop-down list, click to select an Address Book entry, and then click **OK**.

OR

Type your finish location in the **Finish** drop-down text box. You can type in

the name of an address book contact, user-added waypoint, or address. **Notes** 

An address must be in one of the following formats: street address, city, state **OR** street address, ZIP/Postal Code.

The Book check box (underneath the Address Book buttons in the Find tab) must be selected to search for address book contact names.

5. Select a calculation method — the program adjusts the default calculation values based on your selection:

**Driving**—Use this method to calculate the route when you are driving a vehicle.

**Cycling**-Use this method to calculate a bicycle route.

Walking/running-Use this method to calculate routes when you are on foot.

- 6. Select a route type (Road-Shortest, Road-Quickest, Trail, or Direct) from the drop-down list.
- 7. If the Auto check box is not selected, click **Calculate**. If the program is unable to find an exact match for the item that you typed, a dialog box opens with a list of the closest matches. Scroll through the list of search results until you find the one you want to locate, click the item to select it, and then click **OK**.
- 8. Click **Directions** to view the route directions.

AND/OR

Click **Advanced** to display the advanced routing options.

AND/OR

Click **Back on Track** to add your current GPS position as a stop to the current route.

### To Create a Route Using the Right-click Function

Use the following steps to create a route.

- 1. Right-click the map location where you want to begin your route, point to **Create Route**, and click **Set as Start**.
- 2. Right-click the map location where you want to end your route, point to **Create Route**, and click **Set as Finish**.
- 3. If the route doesn't automatically calculate, right-click the route, point to Manage Route, and click Calculate Road Quickest, Calculate Road Shortest, Calculate Trail, or Calculate Direct.

**Note** If the program is unable to find an exact match for the item that you typed, a dialog box opens with a list of the closest matches. Scroll through the list of search results until you find the one you want to locate, click the item to select it, and then click **OK**.

4. Optional. Click the Route tab. Then click the Directions subtab to view the route directions, the Advanced subtab to display advanced routing options, Plan Trip to assign end of day or fuel breaks to your route, or Back on Track to add your current GPS position as a stop to the current route.

# To Create a Route Using the Toolbar

Click here to view the steps for creating a route using the toolbar.

# Adding and Inserting Stops and Vias

You can add or insert stops or vias in any route you create.

- A stop is a location along a route where you want to stop and then proceed from.
- A via is a point on the map that you want your route to go through. You can
  use stops and vias to route you through a particular place or along a
  particular road.
- Add stops or vias to follow a route in a particular order.
- Insert stops or vias to arrange them geographically in the route.

#### Tips

- Turn off Auto Calculate when you are adding many stops and vias.
- Use Add instead of Insert when your start and finish are at the same place.
- Don't place the finish point until you add all your stops and vias.
- Place vias near the beginning of the road or trail you want to use.
- When you calculate the route, if it goes to a via and then returns to the original path, insert another via toward the end of that road (where you want to turn onto the next road) to force it to use that road.
- When using a road as a stop or via, zoom in to ensure you select the correct road. The selected road segment is highlighted when you click it.

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

### To Add a Stop or Via To Your Route

The Add Stop/Via function adds stops and vias in the order you add them to the route. Use the following steps to add a stop or via to your route.

- 1. Create a route.
- 2. In the **New/Edit** dialog area in the **Route** tab, make sure the button next to the **Stop** tool (if you are adding a stop) or the **Via** tool (if you are adding a via) is labeled Add. If it is not, click the arrow next to the button and select **Add**.
- To add a stop or via to the route, click the Stop or Via tool and then click the location on the map.OR
  - To use an address book entry as your stop or via location
    - Select Stop From Address Book from the Stop drop-down list.
       OR
    - Select Via From Address Book from the Via drop-down list.
    - 2. Select an Address Book entry, and then click OK.
  - To use your current GPS position as your stop or via location
     Select Stop at GPS Location from the Stop drop-down list.
     OR
    - Select Via at GPS Location from the Via drop-down list.
  - Type the stop or via location in the **Stop** or **Via** text box

Type the name of an address book contact, user-added waypoint, or address.

If you type an address, it must be in one of the following formats: street address, city, state **OR** street address, ZIP/Postal Code. The Book check box (underneath the Address Book buttons in the Find tab) must be selected to search for address book contact names.

- Right-click the map to add a last stop or via
  - 1. Right-click the map where you want to add the last stop or via.
  - 2. Point to CreateRoute, and then click Add as Last Stop or Add as Last Via.
- Use the toolbar to add a stop or via.
- If the Auto check box is not selected, click Calculate to recalculate your route to include the stop or via.
   OR

Click the **Calculate** button



on the toolbar.

If the Auto check box is not selected, right-click the route, point to **Manage Route**, and click **Calculate Road Quickest**, **Calculate Road Shortest**, **Calculate Trail**, or **Calculate Direct**.

**Note** If the program is unable to find an exact match for the item that you typed, a dialog box opens with a list of the closest matches. Scroll through the list of search results until you find the one you want to locate, click the item to select it, and then click **OK**.

3. Click **Directions** to view the route directions.

AND/OR

Click **Advanced** to display the advanced routing options.

AND/OR

Click **Plan Trip** to assign end of day or fuel breaks to your route. AND/OR

Click **Back on Track** to add your current GPS position as a stop to the current route.

### To Insert a Stop or Via Into Your Route

The Insert Stop/Via function arranges stops/vias geographically in the route. Use the following steps to insert a stop or via to your route.

- 1. Create a route.
- 2. In the **New/Edit** dialog area in the **Route** tab, make sure the button next to the **Stop** tool (if you are adding a stop) or the **Via** tool (if you are adding a via) is labeled Insert. If it is not, click the arrow next to the button and select **Insert**.
- To insert a stop or via to the route, click the Stop or Via tool and then click the location on the map.
   OR
  - To use an address book entry as your stop or via location
    - 1. Select **Stop From Address Book** from the **Stop** drop-down list.

OR

Select Via From Address Book from the Via drop-down list.

- 2. Select an Address Book entry, and then click OK.
- To use your current GPS position as your stop or via location Select **Stop at GPS Location** from the **Stop** drop-down list.

Select Via at GPS Location from the Via drop-down list.

Type the stop or via location in the **Stop** or **Via** text box

Type the name of an address book contact, user-added waypoint, or address.

If you type an address, it must be in one of the following formats: street address, city, state **OR** street address, ZIP/Postal Code. The Book check box (underneath the Address Book buttons in the Find tab) must be selected to search for address book contact names.

- Right-click the map where you want to insert the stop or via
  - 1. Right-click the map where you want to insert the stop or via.
  - 2. Point to CreateRoute, and then click Insert Stop or Insert Via.
- Use the toolbar to insert a stop or via.
- 3. If the Auto check box is not selected, click Calculate to recalculate your route to include the stop or via.

OR



Click the **Calculate** button

If the Auto check box is not selected, right-click the route, point to Manage Route, and click Calculate Road Quickest, Calculate Road Shortest, Calculate Trail, or Calculate Direct.

**Note** If the program is unable to find an exact match for the item that you typed, a dialog box opens with a list of the closest matches. Scroll through the list of search results until you find the one you want to locate, click the item to select it, and then click **OK**.

4. Click **Directions** to view the route directions.

AND/OR

Click **Advanced** to display the advanced routing options.

AND/OR

Click **Plan Trip** to assign end of day or fuel breaks to your route.

AND/OR

Click Back on Track to add your current GPS position as a via to the current

# Changing the Routing Method

You can change your routing calculation method at any time. You may need to do this to update your routing preferences.

Note Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

# To Change the Route Calculation Method

1. From the Route tab, click the **New/Edit** subtab.

- 2. Select a calculation method:
  - **Driving**—Use this method to calculate the route when you are driving a vehicle.
  - Cycling-Use this method to calculate a bicycle route.
  - Walking/running-Use this method to calculate routes when you are on foot.
- 3. Select a route type (Road-Shortest, Road-Quickest, Trail, or Direct) from the drop-down list.

# Changing the Properties of a Stop Along Your Route

You can change the properties of a stop along your route by using the Stop Prefs function in the Advanced sub-tab under Route.

## To Change the Properties of a Stop

Use the following steps to change the properties of a stop.

- 1. Click the Route tab and then click Advanced.
- 2. Click a stop from the waypoint list and then click **Stop Prefs**. The Stop Time Preferences dialog box opens.
- To designate the stop as an end of day stop, select the End of Day check box, click Apply, and then click Done. AND/OR

To designate the stop as a fuel break, select the **Fuel** check box, click **Apply**, select the **Duration** check box, select the duration of the fuel break using the Hrs and Mins drop-down lists, and then click **Done**.

**Note** It is not necessary to allocate a fuel stop duration.

# **Viewing Route Directions**

After you create a route, you can view the accompanying route directions.

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

#### To View the Route Directions

Use the following steps to view the route directions.

- 1. Click the **Route** tab and then click **Directions** to open the Route Directions dialog area.
  - The list of routes you have created display in the route list on the left. A selected check box indicates the route is displaying on the map.
- Click a route to select and highlight it.
  - Double-click a route to center it on the map.
- 3. The route directions for the selected route display in the right window. Adjust the size of the tab area to expand the view.
  - **Tip** Click the header of a column to open a menu from which you can select the type of information you want to display in each column.

 Click a leg to select it and then click Go To to center the map on the leg. OR

Double-click a leg to center the map on the leg.

**Tip** When tracking with a GPS receiver, select the **GPS Track** check box to follow along with the route directions in real time as you travel. Click **Show Turns** to display the current distance and time to your finish.

# Avoiding a Specified Area When Routing

If you know you will be travelling in an area that is under construction or is a highly-populated area with a lot of traffic congestion, you can draw a circle/rectangle/polygon over that area to avoid it when you calculate your route. You can create multiple regions to avoid.

### To Avoid a Specified Area When Routing

Use the following steps to designate an area to avoid when calculating your route.

- 1. Create a route.
- 2. Click the **Draw** tab to open the Draw dialog area.
- Click and hold the Polygon/Rectangle/Circle tool to view its hidden options. Select the tool you want to use.
- 4. Optional. Select one or more of the following:
  - From the **Fill** drop-down list, select the fill style you want to apply to the draw object.
  - Click the fill color button to the right of the **Fill** drop-down list to select the color for your fill style.
  - Select an outline style for your draw object from the Outline dropdown list.
  - Click the outline color button to select a color for the outline of your draw object.
  - Select the width for your draw object outline from the **Width** drop-down list.
  - Select the **Show Measurement** check box to display measurement information for your draw object as your draw it on the map.
- 5. If you selected the **Circle** tool, click the location for the circle's center on the map and drag away from center to set the radius for the circle. Release as soon as you achieve the radius you want.

The radius of the circle and the coordinates of the circle's center display in the corresponding text boxes to the right of the circle fill option area.

If you selected the **Polygon** tool, click the map to enter each point of the polygon.

OR

If you selected the **Rectangle** tool, click the location for the rectangle's upper-left corner on the map and drag away from the corner to set the width, height, and area for the rectangle. Release as soon as you achieve the size you want.

6. Click the **Select** tool and then click the draw object on the map. A box displays around the object indicating that it is active.

- 7. Right-click the draw object, point to **Manage Draw**, and click **Route Avoid**. If the object has no name, it the name "Route Avoid" is visible on the map.
- 8. If you do not have the Auto Calculate option selected in the Route tab, click the **Route** tab and then click **Calculate** to recalculate your route.

**Note** To undo your route avoid, click the **Select** tool in the Draw tab and click the draw object on the map. Then, press the DELETE key on your keyboard.

# **Saving Route Directions as Text**

You can save your directions and along the way results as a text file.

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

### To Save Your Route Directions

Use the following steps to save your directions.

- Click the **Print** tab and then click the **Route** subtab.
   If you do not have a route in this project, the Route Options are unavailable.
- 2. Select the route you want to save from the **Name** drop-down list. If the route you want to save is not available in the Name drop-down list, you may not have the correct project open.
- 3. Under Options, select Directions or Along the Way.
- 4. Click the **Save** button on the Route tab.
- 5. To rename the .txt file, type the new name in the **File Name** text box and click **Save**.

# **Setting Your Routing Preferences**

Once you master basic routing, you can customize your routing preferences and create more advanced routes.

The routing preferences allow you to favor or avoid various road types when calculating your route. You can also set your speed preferences.

The default settings are based on the calculation method you chose when creating the route.

To change your route calculation method, see Changing the Routing Methods.

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

### **To Set Your Routing Preferences**

Use the following steps to set your routing preferences.

- 1. Click the **Route** tab and then click the **Advanced** subtab.
- 2. Click **Route Prefs** to display the Route Preferences dialog area.
- Select the route type (Direct, Trail, or Road) from the Route Type dropdown list.
- 4. From the **Road Type** drop-down list, select the road type for which to set preferences.

- 5. If you selected Trail or Road as your route type in step 3, select **Preferred**, **Standard**, or **Avoid** from the **Routing Preference** drop-down list. Preferred favors this type of road whenever possible, Standard is the default level, and Avoid avoids this type of road whenever possible. An avoided road may be used when no other road is available.
- 6. In the **Speed** text box, type your average driving speed for this road type. These speeds are used to compute the travel time for a route.
- 7. If you selected Road as your route type in step 3, type your average driving speed within an urban area for this road type in the **Urban Speed** text box. These speeds are used to compute the travel time for a route. The Urban Speed text box is available only for road routes.
- 8. Repeat these steps for each road type.
- 9. When you are finished setting your road preferences, click **Review** to display your settings.
- 10. In the **Route Features** list, select the check box for each feature you want to display:
  - **Show Location MapNotes**—Displays Location MapNotes with their coordinate information for each point in your route.
  - **Show Comments MapNotes**–Displays comments about your route.
  - **Show Summary MapNotes**–Displays time and distance information for each waypoint and the finish point of your route.
  - Display Waypoint Labels—Displays start/stop/via/finish labels on the map when the route is created.
  - Include State Borders—Shows or hides state borders in your route directions (only available when Road is the selected route type).
  - **GPS Voice Navigation**—Provides spoken route directions when you are tracking with a GPS receiver. After initializing, the computer speaks the directions for the next turn in your route. It repeats the instructions approximately 90 seconds prior to arriving at the turn.
  - **Display Route Vias—**Shows or hides your route vias on the map.
- 11. In the Voice Alert text box, type the amount of time (in seconds) that you want to elapse before the computer alerts you of your next two turns.
  Note Because it may take the computer a while to speak turn information, it is recommended that you designate at least 60 seconds for the voice alert.
- 12. Click Done.

**Note** Click **Use Defaults** to restore all route preferences and road type preferences to the default settings.

# **Editing a Route**

You can modify existing routes by:

- Adding, removing, and rearranging stops and vias.
- Adjusting your route preferences based on road type.
- Customizing your route based on your driving style and speed.
- Reversing a route.

#### Tips

Zoom in to set accurate points for your route.

• Use the right-click option for routing. Just right-click the route, stop, or via, point to **Manage Route**, and click the applicable option.

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

#### To Edit a Route

To edit a route, click the **Route** tab and then click the **Advanced** subtab. Select the route from the **Name** drop-down list box. The route becomes active. The following list describes the edit functions.

- To change the route name, select the name in the **Name** text box, type the new route name, and then press the ENTER key on your keyboard.
- To change a route point, click the corresponding tool and then click the new spot on the map.
   OR

Select a route point on the map and drag it to the new location on the map. **Note** If you try to add a start or finish point to an existing route, the "Would you like to move your Start location or create a New route?" message opens. Click **New** to begin creating a new route. Click **Move** to move the Start or Finish point to the last location clicked.

- To add or insert a stop or via to your route, click the corresponding tool and then click the spot on the map where you want to add or insert your stop or via. For more information, see Adding and Inserting Stops and Vias.
- To rearrange stops and vias, click the point to select it and then click the Move Up tools to relocate it in the route.
- To delete a stop or via, select the stop or via in the route list and then click the **Delete** button.
- To change a stop to a via, select the stop and click Make Via. To change a
  via to a stop, select the via and click Make Stop.
- Click **Reverse Rte** to reverse the order of all of the points in the route.
- Click Calculate if the Auto check box is not selected in the New/Edit subtab.
- Click **Stop Prefs** to make a stop in your route a fuel or end of day stop. For more information, see Setting Your End of Day and Fuel Break Preferences.

# **Editing Roads**

You can change the characteristics of any road on a map to:

- Two Way
- One Way N or E
- No Left Turn N or E
- No Right Turn N or E
- No Way
- One Way S or W
- No Left Turn S or W
- No Right Turn S or W

#### To Edit a Road

Use the following steps to edit a road.

- 1. Click the Route tab and then click the Advanced subtab.
- Click Edit Roads.
- Select the **Display Road Edits** check box to show existing road edits on the map.
- 4. Click the **Select** tool and select the road on the map you want to edit.
- 5. Select a direction.
  - If you select **Two Way**, you can also select No Left Turn No Right Turn.
  - If you select **One Way**, you can also select No Left Turn or No Right Turn.
  - If you select **No Way**, you cannot select any other options.

**Note** Click **Default** to change the road properties to the default settings. Click **Clear All Edits** to remove all road options and return all road properties to their default settings.

6. Click Done.

# Labeling a Route Point with a MapNote

The easiest way to label your route points (start, stop, via, and finish) with a MapNote is to use the Route Preferences section of the Route tab.

If you select more than one option, each category of information (location, comments, and/or summary) displays in the same MapNote.

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

### To Label a Route Point with a MapNote

Use the following steps to label a route point with a MapNote.

- 1. Click the **Route** tab and then click the **Advanced** subtab.
- 2. Click **Route Prefs** to display the Route Preferences dialog area.
- 3. Under **Route Features**, select the check box next to each MapNote you want to display at your route points:
  - **Show Location MapNotes**–Displays the coordinate information for each point in your route.
  - Show Comments MapNotes—Displays comments about each point of the route as specified in the Route Advanced subtab.
     To modify route comments, click the Route tab, click the Advanced subtab, select the route, and then click in the Comments column twice (do not double click) next to the route point you want to create a comment for. The information you type in the Comments field for that point is placed in a Comments MapNote when you selected to show it on the map.
  - **Show Summary MapNotes**—Displays time and distance information for each point in your route.
- 4. Click Done.

# Moving Route MapNotes

You can move route MapNotes. The text box moves, but the point stays on the map location.

To show/delete route MapNotes, see Setting Your Routing Preferences.

To move and delete draw Map Notes, see Moving and Deleting Draw MapNotes.

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

### To Move a Route MapNote

Use the following steps to move a MapNote.

- 1. Click the **Route** tab and then click the **Advanced** subtab.
- 2. Click the **Move Route MapNotes** button
- 3. Click the MapNote to select it.
- 4. Drag the text box to the new location.

# Displaying and Centering Routes on the Map

All the routes you create are automatically displayed. The active route displays as a gold line outlined in red. Each inactive route displays as a dashed, orange line outlined in green. You can choose to display only certain routes without deleting them from the map.

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

### To Display a Route on the Map

Use the following steps to display a hidden route on the map.

- 1. Click the **Route** tab and then click the **Directions** subtab.
- 2. In the route list on the left, select the check box next to the route you want to display.

OR

To center the map on the route, double-click the route name.

### To Hide a Route from the Map

Use the following steps to hide a route from view on the map.

- 1. Click the **Route** tab and then click the **Directions** subtab.
- 2. In the route list on the left, clear the check box next to each route you want to hide from view on the map.

OR

Right-click the route you want to clear from the map view, point to **Manage Route**, and then click **Hide Route**.

### To Center the Map on a Route

Use the following steps to center a route on the map.

1. Click the **Route** tab and then click the **Directions** subtab.

2. Double-click the route in the route list on the left.

**Tip** To center a route that is not in the current map view, click the **Route** tab, click the **New/Edit** subtab, and select the route from the **Name** drop-down list.

## Saving a Route

The route in memory is retained as you create it. You are prompted to save your route when you create a new project or exit the program.

- Creating a new project—When you click File/New in the Files dialog area on the MapData tab, you are asked if you want to save changes to the most recently used project. A separate dialog box asks if you want to save changes to an unsaved route.
- Exiting the application—The Save Changes dialog box asks if you want to save your changes.

You can also save the route using the Route tab.

Routes have .anr extensions and are saved by default in *C:\...\DeLorme Docs\Navigation*.

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

### To Save a Route Using the Route Tab

Use the following steps to save a route using the Route tab.

- 1. Create a route.
- 2. Click the **Route** tab and then click the **New/Edit** subtab.
- 3. Click File and then click Save.

# **Deleting a Route**

You can permanently delete routes.

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

#### To Delete a Route

Use the following steps to delete a route.

- 1. Click the **Route** tab and then click the **New/Edit** subtab.
- 2. Select the route from the **Name** drop-down list.
- 3. Click **File** and then click **Delete**.

Right-click the route, point to Manage Route, and then click Delete Route.

# **Importing Routes**

Routes can be imported from many other DeLorme mapping programs using the Route tab.

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

### To Import an Existing Route Using the Route Tab

Use the following steps to import an existing route using the Route tab.

- 1. Click the **Route** tab and then click the **New/Edit** subtab.
- Click File and then click Import. The Import dialog box opens.
- Browse to select the route file and then click **Open**.
   The map centers on the imported route and is available in the Name dropdown list.

# **Setting Your End of Day and Fuel Break Preferences**

You can schedule end of day and fuel breaks along a route by using the Plan Trip option in the Route tab. You can schedule end of day breaks according to the miles (or other distance unit selected in Map Display) or hours driven and you can schedule fuel breaks according to your current fuel level, your vehicle's fuel consumption rate, and so on.

This feature works with the route preferences you have designated with the Route Preferences option under Route. For more information, see Setting Your Routing Preferences.

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

### To Set Your End of Day and Fuel Stop Preferences

Use the following steps to set your time preferences.

- 1. Create a route.
- 2. Click the Route tab and then click Plan Trip.
  - Select the Estimate End of Day Breaks check box to schedule end of day breaks for your trip.
    - Select Hours per day to schedule your end of day breaks after a designated number of hours traveled per day. Then, type the number of hours you want to travel per day in the Hours Per Day text box. Use the Flexibility drop-down list to determine the amount of time you want to be flexible between breaks and defined stops. For example, if you selected 1.5 Hrs from the Flexibility drop-down list and have an end of day break within 1.5 hours of a planned stop, the end of day break is moved to the planned stop.

OR

Select mi per day to schedule your end of day breaks after a
designated number of miles traveled per day. Then, type the
number of miles you want to travel per day in the Mi Per Day
text box. Use the Flexibility drop-down list to determine the
number of miles you want to be flexible between breaks and
defined stops. For example, if you selected 50 mi from the

Flexibility drop-down list and have an end of day break within 50 miles of a planned stop, the end of day break is moved to the planned stop.

- Select the Estimate Fuel Breaks check box to schedule fuel breaks for your trip.
  - Type the fuel tank capacity (in gallons) in the Tank Cap text box.
  - Type the fuel consumption rate (in miles per gallon or the distance unit you have selected in the Display tab of the Options dialog) for your vehicle in the Fuel Rate text box.
  - Select the amount closest to your current fuel tank level from the **Starting** level drop-down list.
  - Select the amount of fuel you would like to have in your tank when warned to stop for fuel from the Warning Level dropdown list.
- 3. Click Apply.

# **Estimating the Fuel Cost of Your Route**

The Plan Trip subtab of the Route tab lets you estimate the fuel cost of your route using the fuel rate (how many gallons of fuel your vehicle uses per mile/kilometer traveled) and fuel price per gallon.

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

#### To Estimate the Fuel Cost of Your Route

Use the following steps to estimate the fuel cost of your route.

- 1. Create a route.
- 2. Click the **Plan Trip** subtab on the Route tab.
- 3. Click Fuel Cost.
- 4. Type the fuel rate for your vehicle in the **Fuel Rate** text box. The fuel rate can often be found in the vehicle's owners manual.
- 5. Type the price of your fuel in the **Fuel Price** text box. The estimated fuel cost (in U.S. dollars) for your route automatically calculates when the Fuel Rate and Fuel Price text boxes are completed. The estimated fuel cost for your route displays in the Total Fuel Cost field.
- 6. Click **Close** to close the dialog box and return to the Plan Trip subtab.

# Converting a Route to a GPS Log

You can convert any route to a GPS log file (.gpl).

**Note** Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

## To Convert a Route to a GPS Log File

Use the following steps to convert a route to a GPS log file.

1. Create a route.

- 2. Right-click the route, point to **Manage Route**, and then click **Save as GPS Log File**. The Save Route as GPS Log File dialog box opens.
- 3. Browse to the location where you want to save the .gpl file. The default location is *C:\...\DeLorme Docs\GPSLogs*.
- 4. Type the file name in the **File Name** text box.
- 5. Click **Save**.

# **Using GPS**

### **GPS Overview**

You can take advantage of the Global Positioning System (GPS) through an interface with most GPS receivers, such as DeLorme Earthmate devices.

Using your DeLorme application, a portable computer, and your GPS receiver, you can display a "bread crumb trail" to track your progress as you travel.

You have two ways to use GPS in your mapping application:

- **NavMode**—This is the default GPS view—a hands free full-screen view that you can display in 2-D or 3-D. By default, the Control Panel is hidden and the tabs are minimized; however, you can change your display options.
- **GPS tab view**—This option allows you to use the GPS tab to control navigating and tracking. By default, the tabs and Control Panel are visible, but you can opt to hide them. It is available only in 2-D mode.

To turn NavMode on or off, click the **NavMode** button on the toolbar. When the button appears indented NavMode is on.

**Note** The button is greyed out unless you have a GPS device plugged in or are playing back a GPS log file.

You can also change your GPS view in the Options dialog box:

- 1. Click the **Options** button on the toolbar and click the GPS tab.

  You can also click the **Options** button on the GPS tab.
- 2. Clear the **Use NavMode** check box to turn it off, or select the check box to turn it on.
- 3. Click OK.

DeLorme software interfaces with different GPS devices as outlined below.

- DeLorme GPS Devices: DeLorme GPS devices will interface with a current DeLorme software release.
- USB GPS Support: DeLorme software can use the data output from a USB GPS if the device meets one of the following criteria:
  - When the GPS is attached to the computer, it is recognized and displayed under Ports in the Microsoft Windows Device Manager.
  - The unit is a GARMIN USB device and the GARMIN drivers are installed.

**Note** Magellan USB devices are not currently supported.

- Serial GPS Support: DeLorme software can use the data output from a serial GPS device. The device must be connected to a free COM port and output a generic NMEA (National Marine Electronics Association) stream.
- Bluetooth GPS Support: DeLorme software can use the data output from a Bluetooth GPS device. You must configure your Bluetooth software to create a virtual serial port.



- Bring a passenger along to serve as GPS operator while you are driving a vehicle.
- Do not use this application with automatic navigation, guidance systems or for any purpose requiring precise measurement of distance or direction.

# **Initializing GPS**

Before you can begin GPS tracking, you must connect your GPS receiver to your portable computer. Select the correct GPS receiver and change location, time, and preference settings as needed.

Before beginning your GPS setup, read the user manual for your GPS receiver. Also, ensure you have the appropriate cable and any necessary adapters to connect your GPS receiver to the communications port of your portable computer.

If you have an Earthmate GPS device, it is not necessary to follow these instructions. Your device is automatically enabled when it is connected. Just click **Start GPS** to begin tracking.

### To Initialize Your GPS Receiver

The initializing process can take several minutes before the program detects the correct communications (COM) port and updates the current settings. Use the following procedure to initialize your GPS receiver for use with your application.

- 1. Connect your GPS receiver to your computer, set the receiver to the mode specified in your user manual, and then turn the on receiver, if necessary.
- 2. Click the **GPS** tab and then click **Clear Trail** to delete any GPS points from the current map display.
- 3. Click the **Options** button on the toolbar (or click the menu arrow and click **Options**) and then click the **GPS Settings** tab.

  OR
  - Click the GPS tab and click the Options button
- 4. Select any or all of the following check boxes and click **OK** when finished. The description is for the state when the check box is selected:
  - Use NavMode—Enables a hands free full-screen view that you can view in 2-D or 3-D.
  - **Snap to route**—Automatically locates the place on the route that is closest to your vehicle's current location.
  - Start GPS log—Automatically generates a GPS log.
  - Use High-Contrast colors—Automatically enables high-contrast map colors
  - **Magnify map**—Automatically magnifies the map view to the specified magnification (125%, 150%, 175%, or 200%).
  - Recenter map on GPS-Automatically centers the map on the GPS.
  - Rotate map in GPS direction—Automatically rotates the 2-D/3-D map in the direction of travel. Direction of travel always displays as the top of the screen, regardless of compass direction.

- Auto zoom to turn (2-D only)—Automatically pans and zooms the map to display both the current GPS position and the position of the next turn. Select data zoom levels from the Minimum zoom and Maximum zoom drop-down lists to stop the map from zooming out/in further than you want it to when approaching the next turn.
- Show GPS bread-crumb trail—Automatically displays your GPS progress on the map as a "bread-crumb" trail up to the maximum specified number of points. 5,000 points is approximately one hour and 20 minutes worth of points. This setting does not affect the number of points captured in the GPS log file. To change the point number, type the new number in the Trail length box.
- **Enable GPS Voice Navigation—**Provides spoken directions when tracking a route with a GPS receiver.
- Recalculate When Off Route—Automatically recalculates the route by the designated threshold distance (100 ft, 200 ft, 300 ft, 400 ft, or 500 ft) when the GPS is off of the route.
- Enable Stationary Logging—Displays all GPS points on the map when the GPS device is stationary; for example, when the recorded speed is below a certain threshold. You must select this option to record points for Averaging.
- Disable Screen Saver
   – Overrides the system screen saver so that the display stays activated during GPS tracking.
- Start GPS with the Program—Automatically starts GPS tracking each time you open the program.
- Automatically Detect GPS

  –Automatically sets up your GPS connection.
  - Suggestion: If your GPS receiver has a USB cable, select Automatically Detect GPS to ensure the correct COM port is detected for your device and that a connection can be made.
- Enable WAAS Use—This option is available only when Earthmate is the selected device (see step 4A). Enables WAAS use. This option is selected by default.
- Enable LED on GPS Device—This option is available only when Earthmate is the selected device. Turns on the LED on the Earthmate. When the check box is cleared, the LED on the Earthmate does not display. This option is selected by default.

OR

Use the following procedures to manually configure your GPS connection. Click a procedure to view the step-by-step directions.

Select the correct GPS device

Use the steps below to select the correct GPS receiver and settings.

- 1. Connect your GPS receiver to your computer, set the receiver to the mode specified in your user manual, and then turn the receiver on.
- 2. Click the **Options** button and then click the **GPS Settings** tab.
- 3. From the **Device** drop-down list, select the type of GPS receiver you are using. If your device is not listed, select

Generic NMEA.

**Note** The Settings text box automatically displays the default settings for the selected device.

4. From the **Port** drop-down list, select the communications port you are using to attach the GPS receiver to your computer. See your computer manual for further information.

### Manually change the location coordinates

Each time you track with GPS, the initialization process uses the coordinates from the last initialized location.

Use the following steps to change these coordinates to those of your choice.

- 1. Connect your GPS receiver to your computer, set the receiver to the mode specified in your owner manual, and then turn the receiver on.
- 2. Click the **Options** button and then click the **GPS Settings** tab.
- 3. Under GPS Options, verify that the Automatically Detect GPS check box is cleared.
- Type the coordinates in the text boxes.
   Note Coordinates display in the format specified in the Display tab of the Options dialog box.
   OR

Click **Use Map Center** to set the coordinates to the latitude and longitude of the current map center.

### Update the date/time options

You can use the date and time on your computer or you can change the date and time settings used by the GPS device to those of your choice.

Use the following steps to change the date and/or time settings.

- 1. Connect your GPS receiver to your computer, set the receiver to the mode specified in your user manual, and then turn the receiver on.
- 2. Click the **Options** button and then click the **GPS Settings** tab.
- To use the date and time on your computer, select the Use Current System Date/Time check box. OR

To use the time and date of your choice, clear the **Use Current System Date/Time** check box, and then:

- To manually set the time, select the time zone from the Zone drop-down box, and if Daylight Saving Time is currently in effect where you are, select the DST check box. Then, use the scroll box to select the desired time.
   Note Time is displayed in 24-hour format, with Midnight as 00:00:00.
- To manually set the date, click the down arrow next to the **Date** field and select the date from the calendar.

- 5. Click **OK** to exit the Options dialog and return to the GPS tab in the tab area.
- Click Start GPS.
   Your GPS receiver begins acquiring satellite data and the GPS Status dialog area displays.

#### **Notes**

- The status of your GPS connection displays on the screen. Once your GPS receiver acquires a fix on your location, your position on the map displays as a yellow or green dot that changes to an arrow as you travel. For more information, see Monitoring Your GPS Status.
- While your receiver is acquiring data, many red dots display on your map (except with Magellan receivers). You may have to zoom in to see them clearly. These red dots are positioned at the readings taken by the GPS receiver as it is acquiring data.
- Magellan receivers do not display any data until you are moving.
- If you have the HotSync manager loaded in the startup (the default configuration), it reserves the COM port. If that is the one where the GPS receiver is attached, you must exit HotSync manager for the GPS receiver to initialize. To do this, right-click the HotSync icon on the taskbar and click **Exit**. If you have two COM ports, verify the correct COM port is selected for use with your application. This pertains to older devices.
- Any questions or problems regarding the operation of your GPS receiver should be directed to its manufacturer.

# Using NavMode or GPS Tab View

The default GPS view is NavMode — a hands free full-screen view that you can display in 2-D or 3-D. By default, the Control Panel is hidden and the tabs are minimized; however, you can change your display options.

The GPS tab view option allows you to use the GPS tab to control navigating and tracking. By default, the tabs and Control Panel are visible, but you can opt to hide them. It is available only in 2-D mode.

To turn NavMode on or off, click the **NavMode** button on the toolbar. When the button appears indented , NavMode is on.

**Note** The button is greyed out unless you have a GPS device plugged in or are playing back a GPS log file.

You can also change your GPS view in the Options dialog box:

- 1. Click the **Options** button on the toolbar and click the GPS tab.

  You can also click the **Options** button on the GPS tab.
- 2. Clear the **Use NavMode** check box to turn it off or select the check box to turn it on.
- 3. Click OK.

See the NavMode tutorial in the application's Help for more information.

# Tracking a Route with GPS

When tracking, you can follow along a road route you created. As you travel, the current leg (segment) of your route is highlighted on the map.

#### **Notes**

- To automatically recalculate your route when off track, on the Route tab, select the Auto check box next to the Back on Track button on the New/Edit subtab.
   If you do not want the program to automatically recalculate your route when off track, clear the Back on Track check box and click Back on Track whenever you want to recalculate the route based on the current GPS position.
- If you want to create a log of your travels, select the **Start GPS Log** check box in the GPS tab of the Options dialog to log automatically. Or, click the **Record** button in the GPS Log subtab to log manually.
- The Turns option is available only during GPS tracking.
- Routable roads require a routable DeLorme dataset. Routable trails require a topographic DeLorme dataset. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.

## To Start GPS Tracking

Use the following steps to track your movement as you travel.

- 1. Create a route.
  - **Important** If the current project includes hidden routes, they may recalculate if you selected the Auto Back on Track check box or if you selected the Recalculate When Off Route check box in the GPS Settings. To ensure this does not occur, clear these check boxes or delete the routes you do not want to recalculate.
- 2. Connect your GPS device to your computer.
- 3. Initialize the device. This step is not necessary if you are using an Earthmate GPS device.
- In NavMode, click the GPS button on the toolbar. <u>Click here for a description of the screen display.</u>
   OR

In GPS tab view, click the **GPS** tab and then click the **Status** subtab. For more information, see Monitoring Your GPS Status. Then, click **Start GPS** or

click the **GPS** button on the toolbar.

Click here for a description of the Show Turns area on the Route tab.

- **Next Turn**–Displays the next turn and a turn graphic indicating the direction; the distance to the next turn, based on the units selected on the Display tab in the Options dialog box; and the time to the next turn.
- **Next Stop**–The distance and estimated time to the next stop.
- Finish

  The distance and estimated time to the finish.

Click the **Show More Turns** button to view information for the turn after the following turn.

click **Show List** to return to the Directions dialog area.

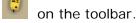
- Compass—The default map setting is North up in 2-D and in the GPS direction in 3-D. To change the compass, select or clear the Rotate Map in GPS option on the GPS tab in the Options dialog box.
- Next Turn—The distance to the next turn, based on the units selected on the Display tab in the Options dialog box.
- **Dist to Finish**—The distance to the finish point on your route, based on the units selected on the Display tab in the Options dialog box.
- **ETA**–The estimated time of arrival at the finish of your route. This is based on the time and time zone set on your computer. If your trip goes beyond the current day, the day of arrival also displays. The ETA does not include any layover time at a stop.
- **GPS Fix**—Indicates if your GPS fix is 2-D or 3-D. If you do not have a fix or if the GPS is acquiring a fix, "No Fix" displays.
- **Speed**–Displays the speed you are traveling, based on the units selected on the Display tab in the Options dialog box.
- Heading—Displays as degrees T (True North) or M (Magnetic North) based on the bearing selected on the Units area in the Options dialog box.
- Radar Results—If you are using GPS Radar, an orange bar displays
  the closest search result. Click Stop Here to insert a stop into your
  route. Click More Info to open the GPS Radar subtab on the Find tab
  and get more information about the result. Click Stop Radar to stop
  searching.
- Progress Bar

  The progress bar displays below the orange bar. It shows how far along you are in your route by distance.
- **Turns**—The blue area at the bottom of the screen shows the next turn in large text and the following turn in smaller text. An arrow showing the direction of each turn displays next to the text.
- **Zoom In/Out**–Click the plus sign in the Turns area to zoom the map in. Click the minus sign to zoom the map out.
- Left 2-D or 3-D/Right 2-D—You can choose to view the left map in 2-D or 3-D or the right map in 2-D. Click the button for the view you want. To view both the right and left map, use the resize tool to change the map area.

## To Stop GPS Tracking

In NavMode, click the **GPS** button on the toolbar.

In GPS tab view, click the  $\ensuremath{\mathsf{GPS}}$  tab and then click  $\ensuremath{\mathsf{Stop}}$   $\ensuremath{\mathsf{GPS}}$  or click the  $\ensuremath{\mathsf{GPS}}$  button



# Getting Back on Track When Off Course

To automatically recalculate your route when off course, select the **Auto** check box next to the Back on Track button in the Route tab. If you do not want the program to automatically recalculate your route when off track, clear the **Auto** check box and click the **Back on Track** button to manually recalculate the route.

# Panning the Map Automatically While GPS Tracking

When using the application with a GPS receiver to track a route, your map automatically pans and redraws as you travel, always indicating your position on the map when Center on GPS is activated.

### To Automatically Pan the Map

The following procedure demonstrates how the check box and button work together to automatically pan the map.

1. Click the **Options** button arrow and click **Options**) and then click the **GPS Settings** tab.

OR

Click the GPS tab to open it and click the **Options** button

Under When Tracking, clear the Recenter Map on GPS check box. If you pan the map manually during GPS tracking, Center on GPS displays in the Control Panel.

OR

Select the **Recenter Map on GPS** check box. If you pan the map manually during GPS tracking, the map automatically re-centers itself on your location after 5 seconds.

- 3. Click OK.
- Click the GPS tab and click Start GPS. OR

Click the **GPS** button on the toolbar.

### Notes

- The **Center on GPS** button displays and is activated by default on the Control Panel when the Recenter Map on GPS option is selected.
- If you deactivate the Center on GPS button, you can continue to manually pan the map or use the search function in the Find tab.
- When you are done with other tasks, click **Center on GPS** in the Control Panel to resume tracking.

# Playing Back a Log File

After you log a route with your GPS receiver, you can play it back in the mapping application and review your entire journey on-screen.

Your log will play back in NavMode unless you have it turned off. For more information, see Using NavMode or GPS Tab View.

#### **Notes**

- You cannot play back a log file if you are currently tracking with a GPS receiver.
- Zooming in on the map allows you to see the log file in greater detail.
- When you play back a log file in NavMode, the tab area is not minimized; this allows you to control the playback.

## To Play Back a Log File

Use the following steps to play back and review a log file.

- 1. Click the **GPS** tab and then click the **GPS** Log subtab.
- 2. Click Clear Trail to clear any existing GPS points from the map display.
- 3. Click File and then click Open.
- 4. Single click the file you want to view.

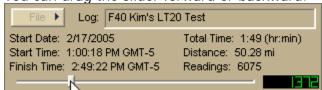
  The bottom of the Open a GPL File dialog box opens the start location, start time, start coordinate, total distance, duration, finish location, finish time, finish coordinate, and the number of readings for the selected log. Log files have .gpl extensions and are saved by default in C:\...\DeLorme Docs\GPSLogs.
- 5. Click **Open**.
- 6. Click the **Play** button to begin playing back your log. OR

Drag the slider in the **Progress Bar** (see graphic at the end of this topic) to the point in the log you want to play.

**Note** Playing back a log file defaults to 1x, which occurs in real time and takes the same amount of time as the original trip did; for example, if your trip took six hours, the on-screen tracking process also takes six hours.

#### You can also:

- From the Playback Speed drop-down list, select an option (2x, 5x, 10x, 25x, or 50x) to increase the tracking speed accordingly.
- Click the **Pause** button to pause the tracking of the log file. The Pause button turns blue to indicate the file is paused. Click the **Play** button to continue playing back the file.
- Click the **Stop** button to stop the play back. To start the file over, click the **Play** button again.
- Click and hold the **Rewind** button to rewind the log file to a particular point.
- Click and hold the **Forward** button to fast forward the log file to a particular point.
- Drag the slider in the Progress Bar to view a particular point in the log.
   You can drag the slider forward or backward.



# Previewing a GPS Log File

There are two ways to view an existing GPS log. You can play it back and watch it in real time (point-by-point), or you can preview it and view the entire log area without waiting for the playback to finish.

## To Preview a Log File

Use the following steps to preview a log file.

- 1. Click the **GPS** tab and then click the **GPS** Log subtab.
- 2. Click Clear Trail to clear any existing GPS points from the map display.
- 3. Click File and then click Open.
- 4. Single click the file you want to view.
  The bottom of the Open a GPL File dialog box opens the start location, start time, start coordinate, total distance, duration, finish location, finish time, finish coordinate, and the number of readings for the selected log.
- 5. Click Open.
- 6. Click **File** and then click **File Preview**. The map centers on your log location.

# Viewing File Details for a GPS Log

If you want more information about your GPS log than just seeing where you've been on the map, the File Details feature in the GPS Log subtab can give you a variety of information about your journey.

For even more specific information about your log, simply play back or preview your log and then right-click a specific GPS point on the map to learn the date and time the point was obtained as well as the speed, bearing, elevation, and GPS status for that particular point.

### To View File Details for a GPS Log

Use the following steps to view log file details.

- 1. Click the **GPS** tab and then click the **GPS** Log subtab.
- 2. Click Clear Trail to clear any existing GPS points from the map display.
- 3. Click File and then click Open.
- 4. Select the file you want to view details for and then click **Open**.
- Click File and then click File Details.
   A dialog box shows information about your log.
- 6. Click **OK** to exit the dialog box.

# **Monitoring Your GPS Status**

Once you initialize your GPS and begun tracking, you can continue to monitor the status of your GPS connection and other information. Status information accuracy is affected by speed (3 mph or more) and your GPS status. 3-D status provides the most accurate information.

### To Monitor Your GPS Status in NavMode

### **Speed**



Displays the speed you are traveling based on the units you selected on the Display tab in the Options dialog box.

### Heading



Displays the direction you are traveling in as degrees T (True North) or M (Magnetic North) based on the bearing selected on the Units area on the Display tab in the Options dialog box. Heading is provided as a numerical value as well as a compass direction.

#### **GPS Fix**



No GPS-Displays "No Fix"
Acquiring-Displays "No Fix"
2-D-Displays "2-D"

**3-D**—The GPS receiver is receiving sufficient satellite data to determine your location. When the status reads 3-D, your current heading and traveling speed are displayed. **Note** If you are tracking with a WAAS-enabled device, a 3-D fix displays as "3-D DGPS."

### To Monitor Your GPS Status in GPS Tab View

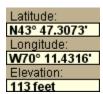
### Speed and Heading



**Speed**–Displays the speed you are traveling based on the units you selected on the Display tab in the Options dialog box.

Heading-Displays the direction you are traveling as degrees T (True North) or M (Magnetic North) based on the bearing selected on the Units area on the Display tab in the Options dialog box. Heading is provided as a numerical value as well as a compass direction.

#### Coordinates/Elevation



**Coordinates**—The coordinate fields display based on the units you selected on the Display tab in the Options dialog box.

**Elevation**–Displays the current elevation if the GPS status is 3-D and is based on the selected Units preference. Elevation can be displayed with a 2-D status; your position is indicated accurately on your screen as you travel unless you are in an area where your elevation varies greatly.

#### **GPS Status**



**No GPS**—A red circle with a slash indicates the GPS receiver is not yet detected by your computer. This status usually displays when initialization first begins.

**Acquiring**—A red blinking circle indicates the GPS receiver is not yet receiving sufficient satellite data to determine your position. This status displays while the GPS receiver is acquiring satellite data and can take several minutes.

**2-D**–A yellow circle indicates the GPS connection is successful but there is insufficient satellite data to determine your GPS position. This usually indicates insufficient data for an accurate location due to:

- Only three satellites being used
- Poor signals from the satellites.

Move your receiver to another location until you get better reception.

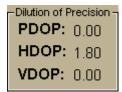
**3-D**–A green circle indicates the GPS receiver is receiving sufficient satellite data to determine your location. When the status reads 3-D, your current coordinates, elevation, and heading are displayed, along with the speed you are currently traveling.

**Note** If you are tracking with a WAAS-enabled device, a 3-D fix displays as "3-D DGPS."

# Monitoring GPS Satellite Information

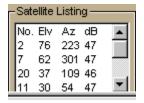
Click **Sat. Info** in the GPS tab to view the current satellite status. Sat. Info is a toggle button that switches to Status. Click **Status** to return to the original Status dialog area.

#### **Dilution of Precision**



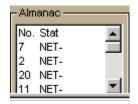
The Dilution of Precision area lists your Position Dilution of Precision, your Horizontal Dilution of Precision, and your Vertical Dilution of Precision. For definitions of these terms, see Glossary Terms.

### Satellite Listing



The Satellite Listing window displays the satellites that are currently visible in the sky. The columns list the satellite number, elevation, azimuth, and signal-to-noise ratio. Satellite Listing information is only available for DeLorme receivers and NMEA-compatible receivers.

#### **Almanac**



When using a DeLorme GPS receiver, the Almanac window displays the satellite number and its current status.

**N**–Indicates the satellite is being used for navigation.

**E**–Indicates ephemeris data is available for the satellite.

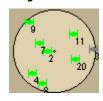
**T**–Indicates the satellite is currently being tracked by your GPS receiver.

**D**–Indicates differential data is available for that satellite.

#### **Notes**

- Differential data is available on WAAS-enabled devices.
- Almanac information is available only for DeLorme receivers.

### **Skyview**



The Skyview diagram indicates visible satellites, their number (assigned by the Department of Defense), and their position in the sky relative to your current position. Each satellite is color coded, based on the quality of data it is transmitting.

**Gray**-Indicates the satellite's position in the sky.

**Red**—Indicates your GPS receiver is tracking the satellite but it is not receiving data from it.

**Yellow**–(DeLorme GPS receivers only) Indicates your receiver is tracking the satellite, ephemeris data is available, but the satellite is not being used for navigation.

**Green**–Indicates your GPS receiver is tracking the satellite, ephemeris data is available, and the satellite is being used for navigation.

**Dark Green—**WAAS-enabled receivers only. Indicates your receiver is tracking the satellite, ephemeris data is available, the satellite is being used for navigation, and the satellite has DGPS and WAAS corrections available.

**Blue**–WAAS-enabled receivers only. Indicates a WAAS satellite used for corrections.

# Viewing Sun and Moon Information

You can use the Sun/Moon subtab in the GPS tab to view information about the rising and setting of the Sun and Moon relative to a specified date, time, and location.

### To View Sun and Moon Information

Use the following steps to view Sun and Moon information in the GPS tab.

- 1. Click the GPS tab.
- 2. Click the **Sun/Moon** subtab.
- 3. Click the down arrow next to the date to change the date.
- 4. Use the scroll arrows to change the time.
- 5. After you update the date and time, you can view:

- The Sun and Moon traveling across the compass as time passes with the Sun/Moon compass. In the center of the compass, a shadow grows and shrinks and changes direction as the Sun moves across the compass (similar to a sun dial).
- Sun rise/set and Moon rise/set information.
- Moon cycle information (such as the day of the moon cycle and the phase).

# **Averaging**

The Averaging option allows you to load .gpl files and average the data points they contain. With the Averaging option, you can select and delete average points and customize the names of average points.

## **To Average Points**

**Note** Click **Undo** at any point in the Averaging process to undo your last action. Click **Clear All** to remove all of the GPS points from the map window.

- 1. Click the GPS tab and then click Average.
- 2. Select a .gpl file from the file directory and click **Open**.
- 3. From the **Edit Points** group box, click the **Select Points** button
- Drag a box around the points you wish to average. The points you included are highlighted.
   OR

Press the SHIFT key on your keyboard and click to select individual points. **Note** Click Delete to delete selected points.

- Under Edit Points, click Average.
   The selected points are now represented by one averaged point.
- 6. Type a label for your averaged point in the **Point Label** text box. The default label is "GPS Average."
- 7. Click Save.

The averaged point is now part of the active draw layer and is not a valid GPS point. All averaged points that have not been saved are saved to the active draw layer. You can no longer manipulate these points using the GPS Averaging option.

### **About GPS**

#### What is GPS?

The Global Positioning System (GPS) applies modern technology to the ancient basics of navigation. The U.S. Department of Defense has developed and launched a series of positioning satellites in an orbiting constellation. These satellites are used as reference points much the same way stars have been used in conventional navigation.

Using these satellites, a GPS receiver can determine your position anywhere on the globe. GPS provides accurate information about coordinate position, elevation, speed, and direction of travel. Many people have discovered the benefits of GPS for tracking vehicles, recording routes, and much more.

#### How Does GPS Work?

The GPS constellation consists of 24 satellites, each carrying several atomic clocks to ensure the most accurate time possible. The satellites broadcast low-power radio waves containing the satellite's identity code and the exact time (to the nanosecond) that the message was sent.

When a GPS receiver picks up a satellite signal, it identifies the satellite and compares the signal time with its own clock. The time difference represents the time it has taken for that radio wave to travel from the satellite to the receiver. Since radio waves travel at the speed of light, the time difference can be used to calculate the distance from the satellite to the GPS receiver.

The satellite's identity code provides the location of the satellite, and the distance to the receiver creates a sphere of possible locations for the GPS receiver. Without more information, the receiver only knows that it is located somewhere on that sphere.

Two additional satellites are necessary to narrow down the receiver's possible position. Each of these satellites sends a similar radio message containing time and identity information. The GPS receiver checks the orbital location of each satellite and uses the elapsed time to create two additional spheres of possible locations. These three spheres intersect at two points; however, one of these points is eliminated because it is far away from the earth's surface. Therefore, the second point is assumed to be correct. The data from these three satellites provides the receiver with a two-dimensional location.

Data acquired from a fourth satellite pinpoints the receiver's exact location. This additional positioning information allows the GPS receiver to calculate its elevation, which is particularly important for GPS users in mountainous locations.

## **GPS Position Accuracy**

The accuracy of the data your GPS receiver provides is dependent upon many factors, including the quality of your equipment. A low-quality clock within the receiver decreases the accuracy of your location. The atmosphere, the ionosphere, and the number of channels your receiver can handle all affect the accuracy of your system. Consult your GPS hardware manuals for information on how your receiver adjusts for errors.

Any buildings, natural structures, or heavy foliage that obstruct the GPS antenna's view of the sky prevent satellite signals from reaching the receiver and decreases the accuracy of your position.

Your accuracy will also depend on your level of clearance with the U.S. Department of Defense. There are two available radio signals that receivers can use: the Standard Positioning Service (SPS) for civilians and the Precise Positioning Service (PPS) for military and authorized personnel.

# Using Voice Navigation and Speech Recognition

## **Voice Overview**



To use voice navigation, you must have a 2-D or 3-D GPS fix and a route calculated.

Using the speech recognition and text-to-speech technology included in your application, you can issue a series of voice commands to a laptop computer. The voice commands activate basic navigation, map control, and GPS features, providing you with hands-free program navigation so you can concentrate on your driving. When tracking with a GPS receiver, you can receive spoken updates about your route directions, next turn, next stop, current location, etc.

#### **Notes**

- The Voice label on the Voice tab displays red when the microphone is activated.
- Your application comes equipped with Microsoft English Recognizer Version 5.1. You can also use other speech recognition engines that you may have purchased separately from other software companies. Such speech recognition engines must support SAPI 5.1 to be available to you in your application. See the Speech settings in the Windows Control Panel for more information about your engine.
- If you have purchased other "voices" (text-to-speech engines) that are SAPI 5.1-compatible, they are available in your application.
- You must have a microphone attached to your computer to use speech recognition (for input).
- For tips on using the speech recognition feature and setting up your microphone, see Speech Recognition Tips.
- If you are having difficulty hearing the voice output, adjust the volume on your external speakers or adjust your computer's volume using the settings in the Windows Control Panel.
- If you chose the custom installation option when you installed your application, you were asked whether or not to install a speech recognition engine for voice input. If you want to use voice input and selected not to install a speech recognition engine when you installed the program, you must uninstall and then reinstall the application, making sure to select to install the speech recognition engine.
   Notes
  - The speech recognition engine is automatically installed on Windows Vista operating systems.
  - If you have another DeLorme product installed and already opted to install the speech recognition engine, you may not see the option to install it again.

# **Voice Options Overview**

The following topics are covered in this section:

- Voice Overview
- Activating and Monitoring Speech Recognition
- Training the Speech Recognition Engine
- Voice Commands
- Speech Recognition Tips
- Changing Voice Output
- Voice Preferences
- Voice Prompts

# **Activating and Monitoring Speech Recognition**



To use voice navigation, you must have a 2-D or 3-D GPS fix and a route calculated.

Use the Voice tab to view status information about your microphone and the list of available voice commands.

- The Microphone bar (VU meter) indicates the level of sound received from the microphone.
- The Command Status area displays either the last recognized voice command or one of the following error messages:
  - Too noisy
  - No signal
  - Input too loud
  - Input too quiet
- The Commands box lists the voice commands for accessing the Voice tab, navigating, using the map, and using GPS. It shows the availability of the commands and their shortcut keys. You can double-click a command to issue it.

### To Activate and Monitor the Speech Recognition Feature

Use the following steps to activate and monitor the speech recognition feature.

- 1. Click the Voice tab.
- 2. Select the **Microphone** check box to activate your microphone and to turn on the speech recognition feature.
  - The tab name turns red if the microphone is listening to your commands. **Note** If your microphone is active when you exit the program, it will still be active when you re-enter the application.
- 3. To trigger an audible signal when a voice command is recognized, select the **Beep When Heard** check box.
- 4. To display all of the possible voice commands, including variations of the commands, select the **Show All Commands** check box.
  - Both enabled 💪 and disabled 📞 commands are displayed.

**Note** Some commands are disabled if a route is not calculated or if the GPS is not initialized.

# Training the Speech Recognition Engine



To use voice navigation, you must have a 2-D or 3-D GPS fix and a route calculated.

You should train the speech recognition engine to provide good speech recognition results. Before training, ensure your microphone is active and the speech recognition feature is on. For more information, see Activating and Monitoring Speech Recognition.

## To Train the Engine to Recognize Your Speech Patterns

You should train the speech recognition engine to recognize your specific speech patterns. This is often done by reading a predetermined piece of text supplied by the creator of the speech recognition engine. If the engine supports multiple user models, you can train the engine to recognize more than one speech pattern. Use the following steps to train the speech recognition engine to recognize your speech patterns.

- Click the **Options** button
  OR
- on the toolbar.
  - Click the arrow next to the **Options** toolbar button to open the menu. Then, click **Options** to open the dialog box.
- 2. Click the Voice Settings tab.
- 3. Select the microphone you intend to use from the **Microphone** drop-down list.
- 4. Select your preferred user voice model from the **User Profile** drop-down list. **Note** To create a new speech recognition profile for each of your working environments (noisy, quiet) and users (your spouse, your child), click **Speech** in the Windows Control Panel.
- 5. Select your preferred speech recognition engine from the **Recognizer** drop-down list.
  - Note Select the most recent version available in the drop-down list.
- 6. Click **Speech Profile Training** to display the speech training wizard specific to your speech recognition engine.
  - **Note** This feature is available only if it is supported by your speech recognition engine.
- 7. Follow the on-screen instructions.

#### Tips

For best results:

- Use a close-talk microphone that rests near the side of your mouth instead of a desktop or built-in microphone.
- Train the speech recognition engine in the same environment in which you will use it. For example, if you use the engine mostly in the car, perform training in the car. Perform three training sessions to get the best results.

- When training, speak the same voice as you will when giving voice commands to the computer. Speak distinctly and at an average speed, as if giving a command.
- Use the Microphone Wizard to ensure your microphone is working correctly and to view tips on microphone selection and placement. To use the wizard, click **Microphone Setup** on the Voice tab of the Options dialog. Or, from the Start menu on your computer, browse to the Control Panel and double-click the **Speech** icon to open the Speech Properties dialog box.
- To increase the likelihood of correct speech recognition, on the Voice Settings tab in the Options dialog box, select the Commands start with check box and then type the appropriate word/phrase in the text box (if using a single word, use a word with more than one syllable). For example, if you type computer, you would then say "Computer, zoom in."

### Voice Commands



To use voice navigation, you must have a 2-D or 3-D GPS fix and a route calculated.

Your application includes Route, Map, GPS, and Voice tab control commands. Select the **Show All Commands** check box to view all options, including those which are variations or unavailable.

### **Route Tab Commands**

The following table shows navigation voice commands for the Route tab. If there is a keyboard shortcut available, it is listed after the command.

Spoken Command	Response
What is the next turn? (F5)	Speaks the next turn name, time to turn, distance to turn, bearing to turn, and turn direction. Displays the Directions subtab in the Route tab.
What's the next turn? (F5)	
Next turn. (F5)	
Show next turn. (F6)	Displays current location and next turn. Displays the Directions subtab in the Route tab.
Center on next turn.	Centers map on the next turn. Displays the Directions subtab in the Route tab.
What is the next stop?	Speaks the next stop name, distance to stop, bearing to stop, and time to stop. Displays the Directions subtab in the Route tab.
What's the next stop?	
Next stop	
Show next stop. (F7)	Displays current location and next stop. Displays the Directions subtab in the Route tab.
Center on next stop.	Centers map on the next stop. Displays the Directions subtab in the Route tab.

After that.	Speaks the next stop or turn information, depending on the previous spoken direction.
Are we there yet?	Speaks the finish name, time to finish, and distance to finish.
Show finish. (F8)	Displays current location and finish on the map.
Center on finish.	Centers map on the finish. Displays the Directions subtab in the Route tab.
Directions.	Speaks the next turn, next stop, finish, name, time, and distance. Displays the Directions subtab in the Route tab.
Where am I?	Speaks current route segment, heading, speed, town, county, and state.
Coordinates.	Speaks the coordinate of your current location.
Shush.	Silences GPS voice navigation, but does not turn it off.
Be quiet.	Silences GPS voice navigation, but does not turn it off.
Voice nav on. (F2)	Turns voice navigation (spoken turn directions) on.
Voice nav off. (F2)	Turns voice navigation (spoken turn directions) off.
Show route.	Displays your route on the map.
Back on track.	Adds current GPS location as a stop and recalculates the route.
Continue route from here. (F9)	Adds current location as a stop and recalculates the route.
Show turns.	Activates the Show Turns dialog area in the Route tab.
Show directions.	Activates the Directions subtab in the Route tab.
Show list.	

# **Map Commands**

The following table shows main map voice commands. If there is a keyboard shortcut available, it is listed after the command.

Curalisas Camanaand	Description
Spoken Command	Response
Pan left. (ALT+Left)	Pans (or scrolls) the map left.
Scroll left. (ALT+Left)	
Pan right. (ALT+Right)	Pans (or scrolls) the map right.
Scroll right. (ALT+Right)	
Pan up. (ALT+UP)	Pans (or scrolls) the map up.
Scroll up. (ALT+UP)	
Pan down. (ALT+DOWN)	Pans (or scrolls) the map down.

Scroll down. (ALT+DOWN)	
Zoom in. (ALT+PAGE DOWN)	Zooms in one level.
Zoom out. (ALT+PAGE UP)	Zooms out one level.
Zoom in <#> times.	Zooms in the specified number of levels.
Zoom out <#> times.	Zooms out the specified number of levels.
Zoom level <#>.	Zooms to specified level.
Previous map.	Displays the previous map.
Go back.	

## **GPS Tab Commands**

The following table shows GPS voice commands. If there is a keyboard shortcut available, it is listed after the command.

Spoken Command	Response
Start GPS. (CTRL+G)	Starts GPS tracking.
Stop GPS. (CTRL+G)	Stops GPS tracking.
GPS status.	Displays the GPS Status subtab.
Monitor GPS.	Displays the GPS Monitor subtab.
GPS Monitor.	
Center on GPS. (ALT+P)	Recenters the map on the current GPS location.
Stop centering on GPS. (ALT+P)	Stops the map from recentering on your current GPS location.
Stop center on GPS. (ALT+P)	
Clear GPS.	Clears the GPS "bread crumb trail" from the map.
Autorotate map on. (ALT+R)	Turns automatic map rotation on.
Autorotate map off. (ALT+R)	Turns automatic map rotation off.
Autozoom map on. (ALT+Z)	When GPS tracking, turns automatic zoom on.
Autozoom map off. (ALT+Z)	When GPS tracking, turns automatic zoom off.

### **Voice Tab Commands**

The following table shows Voice tab voice commands and the response. If there is a keyboard shortcut available, it is listed after the command.

Spoken Command	Response
What can I say?	Displays the Monitor dialog box.
More commands.	Displays next page of voice commands.
Repeat last command.	Repeats your last spoken command.

# **Speech Recognition Tips**



To use voice navigation, you must have a 2-D or 3-D GPS fix and a route calculated.

The following tips provide information on using the speech recognition feature and setting up your microphone.

- Speech recognition is only active when your application is the active window.
- Commands become enabled based on your current GPS status, your data zoom level, and other factors. Enabled commands do not have a red "x" on the icon.
- Disabled commands have a red "x" on the icon.
   Note Some commands are disabled if a route is not calculated or if the GPS has not been initialized.
- Avoid noisy environments when using voice command navigation.
- Use a close-talk microphone for best speech recognition results.
- Properly position your microphone to achieve the best speech recognition results. For a close-talk microphone, the recommended position is a thumbwidth from the corner of your mouth and slightly to the side. For more information, see the note at the end of this topic.
- When issuing commands to the computer, use the same tone that was used when during the speech recognition engine training.
- Keep the microphone as far as possible from the car radio or console, computer speakers, or other speakers.
- If your microphone is near your speakers, and you are using the microphone together with voice reminders (GPS VoiceNav), the program may recognize some of the words that it is speaking and react to them. Here are ways to eliminate this problem:
  - Make sure that you have chosen the Voice Output device (speakers, headset) and the Input device (on-board microphone, headset microphone) that you intend to use with DeLorme GPS voice navigation. Use the selections that are available in the Voice settings tab in the Options dialog box.
  - If more than one speech recognizer is available in the drop-down list, choose the most recent (highest version number).

- Your best speech recognition responses will always be to use a closetalk microphone with voice output using the laptop speakers rather than a headphone speaker so that the computer will not "hear itself."
- If you are speaking with someone else in the room, have a radio or television on, and so on, the computer may think those sounds are commands to follow. Select the Microphone check box on the Voice tab only when you intend to use it. If you exit the program with the Microphone check box selected, the program will start speech recognition again when you restart the program. Voice recognition requires a lot of disk space and slows down the system if you are not using it. Remember: the Voice tab displays with red font whenever the microphone is listening.
- Use the Commands Start With feature in the Voice tab in the Options dialog to clearly distinguish commands from other noise and speech. Set the Commands Start With phrase to something like "computer" or "Simon Says" to reduce the chances of an unexpected command recognition. When choosing a phrase, make sure that it is more than one syllable. The phrases "computer" or "Simon Says" work well. But the simple word "map" probably will not.
- Train the speech recognition system in the environment in which you will use it (for example, in a noisy car).

**Note** To find out the proper position for your microphone model, or to find tips on

how to purchase a microphone, click the **Options** button (or click the arrow next to the **Options** toolbar button to open the menu; then, click **Options** to open the dialog box), click the **Voice Settings** tab, and then click **Microphone Setup**. Or, from the Start menu on your computer, browse to the Control Panel and double-click the **Speech** icon to open the Speech Properties dialog box.

# **Changing Voice Output**



To use voice navigation, you must have a 2-D or 3-D GPS fix and a route calculated.

Your application offers text-to-speech technology so you can receive spoken updates about your route directions, next turn, next stop, current location, time to finish, or current coordinates when navigating with a GPS receiver. Text-to-speech allows hands-free navigation of the program on your computer.

Use your text-to-speech engine to change and preview the tone and quality of the computer's voice.

### To Change the Voice Output

Use the following steps to change your computer's voice.

Click the Options button
 OR
 Click the arrow next to the Options toolbar button to open the menu. Then, click Options to open the dialog box.

- 2. Click the Voice Settings tab.
- 3. From the **Voice** drop-down list box, select a voice from the list of options. A description of the selected voice displays to the right of the drop-down list box
  - **Note** If you have purchased SAPI 5.1-compatible voices from another software vendor, they are included in this list.
- 4. From the **Device** drop-down list box, select the output device from which you want to hear the computer's voice (for example, your speakers or a headset).
- 5. To preview the voice, click **Test Voice**, type a sample sentence, and then click **OK**.
  - The sample sentence is spoken in the selected voice.
- 6. Use the Voice Volume spin box to adjust the output volume relative to the other programs you are running. By default, this is set to 100 (maximum). Note that you cannot set the volume higher than your speakers or Windows Control Panel settings capabilities.
  - **Note** Click Audio Controls to access additional volume settings.
- 7. Use the **Speaking Rate** spin box to adjust the rate at which the computer's voice will speak. A value of 50 is normal.

### **Voice Preferences**



To use voice navigation, you must have a 2-D or 3-D GPS fix and a route calculated.

The Voice tab in the Options dialog displays a series of Engine Option buttons. These option buttons allow you to view information or change preference settings in your speech recognition or text-to-speech engines. Some speech recognition or text-to-speech engines do not support some of the preference options.

### To View and Update Speech Recognition Preferences

To change speech input preferences, click the **Options** button toolbar (or click the arrow next to the **Options** toolbar button to open the menu; then, click **Options** to open the dialog box), and then click the **Voice Settings** tab. The following options are available under the Speech Recognition area of the dialog box.

- **Microphone Setup**—Opens the Microphone Wizard to adjust speech recognition whenever you change microphone or noise environments.
- **Speech Profile Training**—Opens Voice Training Wizard to train the engine to recognize your speech patterns. This process may take 10–15 minutes to complete.
- **DeLorme Training**—Opens an abbreviated version of the Voice Training Wizard. This dialog trains the system on DeLorme voice commands.
- Add/Delete Words
   – Opens the Add/Delete Words Wizard with the
  pronunciation wizard specific to your speech recognition engine. You can
  enter, edit, or view the words in your pronunciation vocabulary. Use this
  wizard when the speech recognition has trouble understanding a specific word
  that you are saying.

Recognition Settings—Opens the Recognition Profile Settings dialog. Use
this to change preferences for sensitivity and tolerance of errors in
recognizing your voice.

**Note** Your application comes equipped with Microsoft English Recognizer Version 5.1. You may have a premium version (for example, Microsoft Office 2003 installs Microsoft English U.S. Version 6.1 Recognizer). Select the most recent version.

## To View and Update Voice Output Preferences

To change voice output preferences, click the **Options** button on the toolbar (or click the arrow next to the **Options** toolbar button to open the menu; then, click **Options** to open the dialog box), and then click the **Voice Settings** tab. The following options are available under the Voice Output area of the dialog box.

- **Test Voice**—Choose to display the preview voice dialog box for your text-to-speech engine. Type in a sentence and click **OK** to hear it spoken.
- Audio Controls
   –Choose to adjust the speaker volume for all programs on your computer. This is equivalent to the same adjustment in the Windows Control Panel.

# **Voice Prompts**

### Directions (spoken first or alone)

Proceed...

Continue straight...

Bear right...

Bear left...

Turn right...

Turn left...

Turn hard right...

Turn hard left...

Go east...

Go west...

Go north...

Go northeast...

Go northwest...

Go south...

Go southeast...

Go southwest...

### Direction distance modifiers (spoken second)

...in [distance in tenths of a mile]

### Other (spoken alone)

At finish. [was: "Destination reached."]

Last leg.

Approaching finish.
Off route.

## **Using Handheld Devices**

## Handheld Export

#### **Setting Your Handheld Export Preferences**

You can customize your map export options so that you export exactly the map data types and data zoom level ranges you want to view on your handheld device or Earthmate PN-Series GPS device.

**Note** You must have Street Atlas USA® Handheld installed to view exported maps on a PDA.

#### To Set Your Handheld Export Preferences

Use the following steps to customize your map cutting preferences.

- 1. Click the **Options** button on the toolbar (or click the menu arrow and click **Options**) and then click the **Handheld Export** tab.

  OR
  - Click the **Handheld Export** tab and click the **Options** button
- Under Export Map Format and Location, select DeLorme Earthmate to send maps to an Earthmate PN-Series GPS device.
   OR
  - Under Export Map Format and Location, select Palm OS/Pocket PC to send maps to a Palm OS or Pocket PC PDA.
  - **Note** Map packages are saved in the location displayed. To change where you save map packages, click **Browse** and navigate to the new location.
- Under Export Data Zooms, select the check box next to each map data type you want to export. All user map data types are listed. For other data types, only connected map data types are listed.
  - **Tip** XMap USA Topographic Data is the same data that is on the detailed data DVDs that came with your PN-Series GPS. If you installed the detailed data for the map you are creating, clear the **XMap USA Topographic Data** check box so you do not duplicate data in your map.
- 4. Under **Zoom Range**, drag the slider controls to the minimum and maximum data zoom levels at which to view the data.
- 5. For Draw Layers or GIS Layers, select **Less Detail** or **Full Detail**. Less Detail creates a smaller file size and the data on the device has less detail than it does on the map. Full Detail creates a larger file size and the data on the device is identical to the data on the map.
- 6. Repeat the steps for each selected map data type. The minimum and maximum data zoom levels display to the right of each map data type.
- 7. Click **OK** to accept the changes and close the Options dialog box. OR
  - Click **Apply** to accept the changes and remain working in the Options dialog box.

#### Notes

- Click **Use Defaults** to return the slider controls to their default minimum and maximum values.
- Raster imagery (such as USGS Quads, aerial imagery, NOAA nautical charts,

and satellite imagery) includes color-coded data zoom level suggestions under Zoom Range.

- **Green** indicates the data zoom levels at which the data is best viewed. The default values are set to only export data zoom levels that are in the green area.
- Red indicates zoom levels at which the data is available but not necessarily the best viewed.
- DeLorme Street Level Data and DeLorme Topographic Data are available separately. For information, visit www.delorme.com or call DeLorme Direct Sales at 800-561-5105.
- Maps with multiple data types have large file sizes. To decrease the file size
  when exporting multiple map data types, try exporting raster data with small
  data zoom level ranges. The following list provides the optimum data zoom
  level ranges for each raster data type:
  - o GIS Layers 0-20

User GIS layers in the current GIS workspace. See Adding GIS Layers to a Map Package for more information.

o Draw Layers — 1-20

All draw layers in the current project, excluding waypoints and tracks. See Adding Draw Layers to a Map Package for more information.

o <u>User Raster Data</u> — 0-20

User MrSID and GeoTIFF data in the current project.

o Image Data Series — 0-20

User raster data registered to the map using the ImageReg tab.

o <u>DeLorme Topographic Data</u> — 9-17

DeLorme XMap USA Topographic Data. All vector data (points, lines, and polygons), excluding draw objects, in DeLorme Topographic Data and all user vectors on the map (XData datasets, MapTags, Phone book points, and so on). The Topographic Data must be installed separately from the XMap application. If you do not have this data installed, you do not see this option.

DeLorme USA Street Level Data — 9-17

DeLorme XMap USA/Canadian Street Level Data. All vector data (points, lines, and polygons), excluding draw objects, in XMap Street Level Data and all user vectors on the map (XData datasets, MapTags, Phone book points, and so on). The Street Level Data must be installed separately from the XMap application. If you do not have this data installed, you do not see this option.

**Note** DeLorme Street Level data is not included in the map if the Export Map Format is set to DeLorme Earthmate.

Satellite Imagery (SAT10) — 9-11

True-color 10-meter resolution imagery from the French based SPOT satellite (Satellites d'observation de la Terre). Downloaded using the NetLink tab.

o <u>USGS Quads (3DTQ)</u> — 12-14

Color contour topographic maps produced by the United States Geological Survey. Downloaded using the NetLink tab.

- o Aerial Imagery (DOQQ) 15-17
  - Black and white 1-meter resolution digital aerial photography. Downloaded using the NetLink tab.
- o Color Aerial Imagery (DOQQ) 13-17
  - True-color 1-meter resolution digital aerial photography. Downloaded using the NetLink tab.
- o NOAA Nautical Charts (varies)
  - Color bathymetric nautical charts produced by the National Oceanic and Atmospheric Administration (NOAA). Downloaded using the NetLink tab.
- USGS Hi-resolution 133 City Imagery 13-17
   Color aerial imagery over the country's largest metropolitan areas with a resolution of approximately 1/3 meter (or about 1 foot).
- For information on how data zoom levels display on Earthmate PN-Series GPS devices, see Data Zoom Level/Scale Bar Translation.

## Creating a Map Package

You can export maps to use on a DeLorme Earthmate® PN-Series device or a compatible Palm® OS or Pocket PC PDA. You must have Street Atlas USA® Handheld installed to view exported maps on a PDA.

See the Creating Maps for an Earthmate PN-Series GPS tutorial in the application's Help for more information.

#### To Create a Map Package

Use the following steps to create a custom map to send to an Earthmate PN-Series GPS or PDA.

- Set your handheld export preferences using the Handheld tab in the Options dialog box. Be sure to specify if you are exporting maps to a **DeLorme** Earthmate or Palm OS/Pocket PC device.
- 2. Click the Handheld Export tab.
- 3. To manually select the export area, choose an appropriate grid size from the **Grid Size** drop-down list (see Grid Size Comparisons for more information), click the **Select/Edit** button Select/Edit, and click grids on the map to add

or remove them. Grids selected for export are shaded red.

OR

Select the grid size from the **Grid Size** drop-down list (see Grid Size Comparisons for more information), type a location in the **Search for and select a location** box, click a result in the results list, and then click the

Preview button Preview. The default export area is defined with shaded grids. Click the Select All button to select the default export area or click the Select/Edit button to add or remove grids. Grids selected for export are shaded red.

**Note** Click the **Clear All** button to clear the highlighted grids from the map.

4. Type a name for your map package in the **Save your map for Exchange** box.

- 6. Send the map package to your Earthmate PN-40, Earthmate PN-20, Palm OS, or Pocket PC PDA.

#### **Notes**

- Your saved map packages display in the Saved Map Packages list.
- To view a previously exported map, select it from the **Saved Map Packages** list and then click **View**
- To delete a previously exported map, select it from the Saved Map
   Packages list and then click Delete
- You may experience a performance issue if you try to export a map that
  covers a very large area. To improve performance, decrease the size of the
  map. If the map does not cover the area you need, export several smaller
  maps until they cover the entire area you need.

#### **Grid Size Comparisons**

When you use the Handheld Export tab to export maps, you can choose a grid size. A grid of the same size gets progressively larger in coverage (square area) the closer it is to the equator. This is because the grid system is based on the latitude/longitude coordinate system.

60 seconds = 1 minute 60 minutes = 1 degree

A 1.5 degree grid = 9 30 minute grids, 324 5 minute grids, 8,100 1 minute grids, or 202,500 12 second grids.

A 30 minute grid = 36 5 minute grids, 900 1 minute grids, or 22,500 12 second grids.

A 5 minute grid = 25 1 minute grids or 625 12 second grids.

A 1 minute grid = 25 12 second grids.

Grid Size	Factor	# of Grids	# of Grids	# of Grids	# of Grids	Display Range
1.5 degree	9 x 30 minute	1	N/A	N/A	N/A	4-20
30 minute	36 x 5 minute	9	1	N/A	N/A	6-20
5 minute	25 x 1 minute	324	36	1	N/A	8-20
1 minute	25 x 12 second	8,100	900	25	1	11-20
12 second	N/A	202,500	22,500	625	25	13-20

#### Data Zoom Level/Scale Bar Translation

Your DeLorme application and your Earthmate PN-Series GPS device use different methods for representing the map's scale. In XMap, scale is represented as a data zoom level (1-19). The Earthmate PN-Series GPS device uses a scale bar, based on the measurement units chosen in Device Setup.

The following table describes the correlation between data zoom levels in your DeLorme application and the scale bars on the device.

Data	Scale Bar Label						
Zoom Level	km/m	mi/ft	NM/ft	NM/m			
1	1000km	500mi	500NM	500NM			
2	500km	250mi	250NM	250NM			
3	250km	125mi	125NM	125NM			
4	125km	64mi	64NM	64NM			
5	64km	32mi	32NM	32NM			
6	32km	16mi	16NM	16NM			
7	16km	8mi	8NM	8NM			
8	8km	4mi	4NM	4NM			
9	4km	2mi	2NM	2NM			
10	2km	1mi	1NM	1NM			
11	1km	0.5mi	0.5NM	0.5NM			
12	400m	0.25mi	0.25NM	0.25NM			
13	200m	640ft	640ft	200m			
14	100m	320ft	320ft	100m			
15	50m	160ft	160ft	50m			
16	25m	80ft	80ft	25m			
17	12m	40ft	40ft	12m			
18	6m	20ft	20ft	6m			
19	3m	10ft	10ft	3m			

# **Exchanging Information with an Earthmate PN-Series GPS**

**Activating an Earthmate PN-Series GPS** 

You must activate your Earthmate® PN-Series GPS before you transfer maps, waypoints, tracks, or routes.

**Important** If you have previously used another Earthmate PN-Series GPS with XMap® and created maps using the Handheld Export tab, you will be prompted to update your maps to work with the new device. If you do not update the maps when you activate the device, you will be prompted to update each map when you send it to the device.

#### To Activate Your Earthmate PN-Series GPS

Use the following steps to activate your device before you exchange maps.

- 1. With XMap open, connect your device to your computer and power it on.
- PN-40 only: The Connect to Computer screen appears on the device and Data Exchange is highlighted. Press ENTER on the device.
- 3. In XMap, click the **Exchange** button on the toolbar to open the Earthmate PN-Series Exchange Dialog box.

  The device is activated when it appears in the drop-down list in the top right corner of the dialog box.



## Exchanging Maps, Tracks, Routes, and Waypoints with Earthmate PN-Series GPS

You can use XMap® to exchange waypoints, tracks, routes, and maps with an

Earthmate® PN-Series GPS device. Click the **Exchange** button on the toolbar to open the Earthmate PN-Series GPS Exchange dialog. You can also open the

Exchange dialog by clicking the **Exchange** button on the Handheld Export tab or the GPS tab. Before you begin, you must activate your device in XMap.

See the following topics for information about exchanging information with an Earthmate PN-Series GPS.

#### **Earthmate PN-40**

Sending/Receiving Maps

Sending/Receiving Routes

Sending/Receiving Tracks

Sending/Receiving Waypoints

Firmware Updates

#### **Earthmate PN-20**

Sending/Receiving Maps

Sending/Receiving Routes

Sending/Receiving Tracks

Sending/Receiving Waypoints

Firmware Updates

## Adding Draw Layers to a Map Package

If you have draw layers (excluding waypoints and tracks) that you want to send to an Earthmate® PN-40, you can use the Handheld tab in the Options dialog to create a map that includes the data. You can then use the Exchange dialog to send the map to the device.

#### To Create a Map with Draw Layers

Use the following steps to create a map with draw layers to send to the device:

- 1. Click the **Draw** tab.
- 2. Select each draw layer you want to send to the device. Selected layers appear on the map.
- 3. Click the **Handheld Export** tab and zoom to the area of interest on the map.
- 4. Click the **Options** button to open the Handheld tab in the Options dialog box.
- 5. Under **Export Map Format and Location**, select **DeLorme Earthmate**. **Note** Map packages are saved in the location displayed. To change where you save map packages, click **Browse** and navigate to the new location.
- Under Export Map Source, select the map with the draw layer (Left or Right).
- 7. Under Export Data Zooms, select Draw Layers.
- 8. Choose the zoom ranges at which you want to view the data at on the handheld device.
- 9. Select **Less Detail** or **Full Detail**. Full Detail saves the data as it appears on the map, but the file size is larger. Less Detail reduces the detail on the map so the file size is smaller.
- 10. Click **Select/Edit** to select the grids that cover the draw layers you want to send to the device.
  - You can use the **Grid Size** control to modify the grid size. When selecting grids, you will receive an error in the Info box if the map output is too large. You can select fewer grids or adjust the Draw Layers zoom ranges to reduce the map output size.

#### **To Send Draw Layers**

To send a map package with draw layers to your device, see the Help topic for your device:

- Sending/Receiving Maps to/from an Earthmate PN-40
- Sending/Receiving Maps to/From an Earthmate PN-20

#### Adding GIS Layers to a Map Package

If you have GIS data that you want to send to an Earthmate® PN-Series GPS device, you can use the Handheld tab in the Options dialog to create a map that includes the data. You can then use the Exchange dialog to send the map to the device.

#### To Create a Map with GIS Data

Use the following steps to create a map with GIS data to send to the device:

- 1. Click the **GIS** tab to open the GIS Workspace.
- 2. Double-click each GIS layer you want to send to the device. Selected layers appear on the map.
- 3. Click the **Handheld Export** tab and zoom to the area of interest on the map.
- 4. Click the **Options** button to open the Handheld tab in the Options dialog box.
- 5. Under Export Map Format, select DeLorme Earthmate.
- Under Export Map Source, select the map with the GIS data (Left or Right).
- 7. Under Export Data Zooms, select GIS Layers.
- 8. Choose the zoom ranges at which you want to view the data at on the handheld device.
- 9. Select **Less Detail** or **Full Detail**. Full Detail saves the data as it appears on the map, but the file size is larger. Less Detail reduces the detail on the map so the file size is smaller.
- 10. Click **Select/Edit** to select the grids that cover the GIS data you want to send to the device.

  You can use the **Grid Size** control to modify the grid size. When selecting grids, you will receive an error in the Info box if the map output is too large. You can select fewer grids or adjust the GIS Layers zoom ranges to reduce the map output size.

#### To Send GIS Data

To send a map package with GIS layers to your device, see the Help topic for your device:

- Sending/Receiving Maps to/from an Earthmate PN-40
- Sending/Receiving Maps to/From an Earthmate PN-20

#### Notes

- DeLorme Topographic Data (All vector data (points, lines, and polygons) in DeLorme Topographic datasets and all user vectors on the map (GIS layers, XData datasets, MapTags, Phone book points, and so on). The Topographic Data must be installed separately from the XMap application. If you do not have this data installed, you do not see this option.) includes GIS data and any other vector data on the map. This data is saved at a low resolution, so lines and polygons may not be clear at higher zoom levels on the device; however, the data is smaller in size.
- Vector data (points, lines, polygons) may look slightly different in the software than on the device.

#### • <u>Lines</u>

- Blazed Trail
- Sewer Line
- Water Line
- Drain Line
- Gas Line
- Electric Line
- Telephone Line
- Ticked Fence
- Post and Rail Fence
- Barbed Wire Fence
- Guard Rail
- Stone Wall
- Vegetation Line
- Completed Dozer Line
- Line Break Completed
- Highlighted Geographic Feature
- Man Made Feature
- Uncontrolled Fire Edge
- Fire Break Incomplete
- Directional Arrow

#### Polygons

- Wetlands
- Bare Ground
- · Rock, Lake or Pond
- Island
- Land
- Mixed Forest
- Evergreen Forest

#### Points

 Only Earthmate PN-Series point symbols are supported on the PN-Series GPS devices. If you use other symbols in your application, they will be changed to PN symbols for display on the device.

#### Adding User Raster Data to a Map Package

If you have user raster data (MrSID or GeoTIFF data files) that you want to send to an Earthmate® PN-Series GPS device, you can use the Handheld tab in the Options dialog to create a map that includes the data. You can then use the Exchange dialog to send the map to the device.

#### To Create a Map with User Raster Data

Use the following steps to create a map with user raster data to send to the device:

1. Click the **Map Data** tab.

- 2. Double-click the user raster data you want to send to the device. Selected data appears on the map.
- 3. Click the **Handheld Export** tab and zoom to the area of interest on the map.
- 4. Click the **Options** button to open the Handheld tab in the Options dialog box.
- 5. Under Export Map Format, select DeLorme Earthmate.
- 6. Under **Export Map Source**, select the map with the draw layer (**Left** or **Right**).
- 7. Under Export Data Zooms, select Draw Layers.
- 8. Choose the zoom ranges at which you want to view the data at on the handheld device.
- 9. Click **Select/Edit** to select the grids that cover the draw layers you want to send to the device.
  You can use the **Grid Size** control to modify the grid size. When selecting grids, you will receive an error in the Info box if the map output is too large. You can select fewer grids or adjust the Draw Layers zoom ranges to reduce the map output size.

#### To Send User Raster Data

To send a map package with user raster data to your device, see the Help topic for your device:

- Sending/Receiving Maps to/from an Earthmate PN-40
- Sending/Receiving Maps to/From an Earthmate PN-20

#### Notes

- XMap USA Topographic Data (All vector data (points, lines, and polygons) in DeLorme Topographic datasets and all user vectors on the map (GIS layers, XData datasets, MapTags, Phone book points, and so on). The Topographic data must be installed separately from the XMap application. If you do not have this data installed, you do not see this option.) includes GIS data and any other vector data on the map. This data is saved at a low resolution, so lines and polygons may not be clear at higher zoom levels on the device; however, the data is smaller in size.
- Vector data (points, lines, polygons) may look slightly different in the software than on the device.
  - Lines
    - Blazed Trail
    - Sewer Line
    - Water Line
    - Drain Line
    - Gas Line
    - Electric Line
    - Telephone Line
    - Ticked Fence
    - Post and Rail Fence
    - Barbed Wire Fence
    - Guard Rail
    - Stone Wall

- Vegetation Line
- Completed Dozer Line
- Line Break Completed
- Highlighted Geographic Feature
- Man Made Feature
- Uncontrolled Fire Edge
- Fire Break Incomplete
- Directional Arrow

#### Polygons

- Wetlands
- Bare Ground
- · Rock, Lake or Pond
- Island
- Land
- Mixed Forest
- Evergreen Forest

#### Points

 Only Earthmate PN Series point symbols are supported on the PN series GPS devices. If you use other symbols in your application, they will be changed to PN symbols for display on the device.

## Deleting Maps, Waypoints, Routes, and Tracks

You can use the Earthmate PN-Series Exchange dialog box to delete maps, waypoints, routes, and tracks from XMap® and from your Earthmate® PN-Series GPS.

#### To Delete a Map, Waypoint, Route, or Track from XMap

To delete a route, waypoint, track, and map that is in your current project, click to highlight the item (in the left pane of the Earthmate PN-Series GPS Exchange dialog box) and then click the **Delete** button OR right-click the item and click **Delete**.

## To Delete a Map, Waypoint, Route, or Track from an Earthmate PN-Series GPS

To delete a route, waypoint, track, and map that is stored on your Earthmate PN-Series GPS, click to highlight the item (in the right pane of the Earthmate PN-Series GPS Exchange dialog box) and then click the **Delete** button OR right-click the item and click **Delete**.

#### PN-40: Sending/Receiving Information

#### Sending/Receiving Maps to/from an Earthmate PN-40

You can use XMap® to send custom map packages to your Earthmate® PN-40. Use the Handheld Export tab to create custom map packages of any size that cover any location in the U.S. The data included in a custom map package is dependent on the data that is available for the export area as well as the preferences made in the Handheld Options settings.

#### **Notes**

- You can transfer maps using the Data Transfer option on the device's Connect to Computer screen and then selecting the device in the Earthmate PN-Series Exchange dialog box; however, transfer will be slow as the device is not being used as an external drive.
- If you bypassed the Connect to Computer screen on the device, go to the **Device Setup>Connect to Computer** menu and select the option you want from the **USB Setting** drop-down list.
- You can also use an SD card and an SD card reader instead of an SD card in the device. You do not have to connect your device to your computer. Just insert the SD card/reader into your computer and in the Exchange dialog choose that drive to transfer your map to.
- To rename, delete, or send/receive a map, right-click the item in the Exchange dialog and select the appropriate option. You can also delete a map by clicking the item and then clicking the **Delete** button.

#### To Send Maps

Use the following steps to send maps to your Earthmate PN-40's internal memory or an SD card in the device.

- 1. Use the Handheld Export tab and the handheld export settings to create a map package.
  - To learn how to create maps, see Creating a Map Package and the Creating Maps for an Earthmate PN-Series GPS tutorial in the application's Help.
- 2. Connect your Earthmate PN-40 to your computer with the USB cable and power it on.
  - The Connect to Computer screen appears.
- 3. On the device, highlight Map Transfer and press ENTER. Then, highlight Transfer to SD Card to send the map to an SD card, or Transfer Internal to send the map to internal memory and press ENTER. When the Transfer Maps message appears, your PN-40 is ready for transfer. Set it aside.
- 4. In XMap, click the **Exchange** button on the Handheld Export tab or click the **Exchange** button on the toolbar. The Earthmate PN-Series Exchange dialog box opens.
- If you are transferring to an SD card in the device, select the removable drive (for example, Removable Disk E: Removable Disk) from the drop-down list in the upper-right corner of the dialog box.
   OR
  - If you are transferring to internal memory, select the internal memory drive (for example, EM\_USERMAPS E: Removable Disk) from the drop-down list. The internal memory is treated as if it is an external drive.
- In the left pane of the dialog box, click the plus sign next to Saved Map Packages, and then click the map package you want to send to your device.

  OR
  - To select all map packages, just click Saved Map Packages.
- 7. In the right pane of the dialog box, under Map Packages, click **Internal Memory** or **SD Card**.

- 8. Click Send.
  - A progress bar indicates the copy status.
- 9. Click Done.
- 10. On your Earthmate PN-40, press ENTER to return to GPS use.

#### To Receive Maps

Use the following steps to receive maps from your Earthmate PN-40 GPS or SD card into your mapping application.

- 1. Connect your Earthmate PN-40 to your computer with the USB cable and power it on.
  - The Connect to Computer screen appears.
- On the device, highlight Map Transfer and press ENTER. Then, highlight
  Transfer to SD Card if the map is on an SD card or Internal Memory if the
  map is stored in internal memory, and then press ENTER.
  When the Transfer Maps message appears, your Earthmate PN-40 is ready for
  transfer. Set it aside.
- 3. In XMap, click the **Exchange** button on the toolbar. The Earthmate PN-Series Exchange dialog box opens.
- 4. If you are receiving maps from an SD card, select the removable drive (for example, Removable Disk E: Removable Disk) from the drop-down list in the upper-right corner of the dialog box. OR
  - If you are receiving maps from internal memory, select the internal memory drive (for example, EM\_USERMAPS E: Removable Disk) from the drop-down list.
- In the right pane of the dialog box, click the plus sign next to Saved Map Packages, and click the map you want to receive into XMap. OR
  - To select all map packages, just click Saved Map Packages.
- Click Receive.
  - A progress bar indicates the copy status.
- 7. Click Done.
- 8. On your Earthmate PN-40, press ENTER to return to GPS use.

**Tip** You can also open the Exchange dialog by clicking the **Exchange** button on the Handheld Export tab or the GPS tab.

## Sending/Receiving Routes to/from an Earthmate PN-40

You can use XMap® to exchange routes with the DeLorme Earthmate® PN-40 GPS.

#### Notes

- To rename, delete, or send/receive a route, right-click the item in the Exchange dialog and select the appropriate option. You can also delete a map by clicking the item and then clicking the **Delete** button.
- If you bypassed the Connect to Computer screen on the device, go to the **Device Setup>Connect to Computer** menu and select the option you want from the **USB Setting** drop-down list.
- You cannot create trail routes on an Earthmate PN-Series GPS. To follow a

trail route, create a trail route in XMap and then send it to your device using the instructions below.

- If you stray off of a trail route's course while navigating with the device, you will be asked if you would like to recalculate the route. Because the Earthmate PN-Series GPS cannot create trail routes, the route will be converted to a direct route if you choose to recalculate. If you do not want to change the shape of your trail route, be sure to answer **No** when asked if you would like to recalculate the route.
- See also, the Exchanging PN-Series Data, Creating a Route, and Converting Tracks into Trails tutorials.

#### **To Send Routes**

XMap® supports multiple calculation types, including Road-Quickest, Road-Shortest, Direct, and Trail. Earthmate PN-Series GPS supports Road-Quickest and Direct routes. If you create a Road-Shortest or Trail route in XMap, you can send it to the Earthmate PN-40 and it will display on the device's map the same as it did in XMap; however, the calculation method will display as Road (for Road-Shortest routes) or Direct (for trail routes) in the route details on the device.

Use the following steps to send routes to your Earthmate PN-40 GPS.

- Connect the Earthmate PN-40 to your computer with the USB cable and power it on.
   The Connect to Computer screen appears.
- 2. On the device, highlight **Data Exchange** and press ENTER.
- 3. In your mapping application, click the **Exchange** button on the toolbar. The Earthmate PN-Series Exchange dialog box opens.
- In the left pane of the dialog box, click the plus sign next to Routes, and then click the route you want to send to the Earthmate PN-40.

  OR

To send all routes, just click **Routes**.

- Click **Send**.A progress bar indicates the copy status.
- 6. Click Done.

#### **To Receive Routes**

Use the following steps to receive routes from your Earthmate PN-40 GPS.

- 1. Connect the Earthmate PN-40 to your computer and power it on. The Connect to Computer screen appears.
- 2. On the device, highlight **Data Exchange** and press ENTER.
- 3. In your mapping application, click the **Exchange** button on the toolbar. The Earthmate PN-Series Exchange dialog box opens.
- In the right pane of the dialog box, click the plus sign next to Routes, and then click the route you want to receive into your mapping application. OR

To receive all routes, just click Routes.

- 5. Click Receive.
  - A progress bar indicates the copy status.
- 6. Click Done.

**Tip** You can also open the Exchange dialog by clicking the **Exchange** button on the Handheld Export tab or the GPS tab.

## Sending/Receiving Tracks to/from Earthmate PN-40

You can use XMap® to exchange tracks with the DeLorme Earthmate® PN-40 GPS.

#### Notes

- To rename, delete, or send/receive a track, right-click the item in the Exchange dialog and select the appropriate option. You can also delete a track by clicking the item and then clicking the **Delete** button.
- If you bypassed the Connect to Computer screen on the device, go to the **Device Setup>Connect to Computer** menu and select the option you want from the **USB Setting** drop-down list.
- See also, the Exchanging PN-Series Data and Converting Tracks into Trails tutorials.

#### To Send Tracks

Use the following steps to send tracks to your Earthmate PN-40 GPS.

- 1. Connect the Earthmate PN-40 to your computer with the USB cable and power it on.
  - The Connect to Computer screen appears.
- 2. On the device, highlight **Data Exchange** and press ENTER.
- 3. In your mapping application, click the **Exchange** button on the toolbar. The Earthmate PN-Series Exchange dialog box opens.
- 4. In the left pane of the dialog box, click the plus sign next to **Track Layers**, and then click the track layer or contents you want to send to the Earthmate PN-40.

OR

To send all tracks, just click **Track Layers**.

**Note** You cannot replace an existing track on the Earthmate PN-40 GPS if the track details page for that track is displaying on the device.

- 5. Click Send.
  - A progress bar indicates the copy status.
- 6. Click Done.

#### To Receive Tracks

Use the following steps to receive tracks from your Earthmate PN-40 GPS.

- 1. Connect the Earthmate PN-40 to your computer with the USB cable and power it on.
  - The Connect to Computer screen appears.
- 2. On the device, highlight **Data Exchange** and press ENTER.

- 3. In your mapping application, click the **Exchange** button on the toolbar. The Earthmate PN-Series Exchange dialog box opens.
- 4. In the right pane of the dialog box, click the plus sign next to **Tracks**, and then click the track you want to receive into your mapping application.

  OR
  - If you want to receive all tracks, just click **Tracks**.
- In the left pane of the dialog box, click the track layer where you want to receive the track or tracks. If you want to copy the track information into a new track layer, click **New** and then click **Track Layer**.
   **Notes**
  - If you do not perform this step and an existing track layer is highlighted in the left pane of the dialog box, the track is received in that layer. If a non-track option is highlighted (for example, a waypoint layer), a new track layer is automatically created.
  - If you use the Exchange dialog box to send the active track to XMap, the file name displays as a time/date stamp based on the time/date information in the active track.
- Click **Receive**.A progress bar indicates the copy status.
- 7. Click **Done**.

**Tip** You can also open the Exchange dialog by clicking the **Exchange** button on the GPS tab or the Handheld Export tab.

## Sending/Receiving Waypoints to/from Earthmate PN-40

You can use XMap® to exchange waypoints with the DeLorme Earthmate® PN-40 GPS.

#### Notes

- Waypoints that are exchanged between XMap and the Earthmate PN-40 retain their exact waypoint symbol only if they are part of the Earthmate PN-Series symbol set. Otherwise, the closest-matching waypoint symbol is shown.
- To rename, delete, or send/receive a waypoint, right-click the item in the Exchange dialog and select the appropriate option. You can also delete a waypoint by clicking it and then clicking the **Delete** button.
- If you bypassed the Connect to Computer screen on the device, go to the **Device Setup>Connect to Computer** menu and select the option you want from the **USB Setting** drop-down list.
- For more information, see the Exchanging PN-Series Data tutorial.

#### To Send Waypoints

Use the following steps to send waypoints to your Earthmate PN-40 GPS.

- 1. Connect the Earthmate PN-40 to your computer with the USB cable and power it on.
  - The Connect to Computer screen appears.
- 2. On the device, highlight **Data Exchange** and press ENTER.

- 3. In your mapping application, click the **Exchange** button on the toolbar The Earthmate PN-Series Exchange dialog box opens.
- In the left pane of the dialog box, click the plus sign next to Waypoint
   Layers, and then click the waypoint layer or contents you want to send to the
   Earthmate PN-40.
   OR

To send all waypoints, just click Waypoints.

- Click **Send**.
   A progress bar indicates the copy status.
- 6. Click **Done**.

#### **To Receive Waypoints**

Use the following steps to receive waypoints from your Earthmate GPS PN-40 GPS.

- 1. Connect the Earthmate PN-40 to your computer with the USB cable and power it on.
  - The Connect to Computer screen appears.
- 2. On the device, highlight Data Exchange and press ENTER.
- 3. In your mapping application, click the **Exchange** button on the toolbar. The Earthmate PN-Series Exchange dialog box opens.
- 4. In the right pane of the dialog box: If you want to receive one waypoint at a time into XMap, click the plus sign next to **Waypoints**, and then click the waypoint you want to receive. OR
  - If you want to receive all waypoints, just click Waypoints.
- 5. In the left pane of the dialog box, click the plus sign next to Waypoint Layers, and then click the layer where you want to send the waypoint. If you want to copy the waypoint to a new waypoint layer, click New and then click Waypoint Layer.

**Note** If you do not select a layer and an existing waypoint layer is highlighted in the left pane of the dialog box, the waypoint is received in that layer. If a non-waypoint option is highlighted (for example, a track layer), a new waypoint layer is automatically created.

- Click **Receive**.A progress bar indicates the copy status.
- 7. Click Done.

**Tip** You can also open the Exchange dialog by clicking the **Exchange** button on the GPS tab or the Handheld Export tab.

#### Firmware Updates for the Earthmate PN-40

Occasionally, DeLorme releases updates to the firmware for the Earthmate \$ PN-40 GPS. If you have activated a device in XMap\$, you can check for firmware updates on the NetLink tab at any time.

The easiest way to transfer an update is to an SD card in your device.

To Transfer an Update to an SD Card in the Earthmate PN-40

Follow these steps to transfer a firmware update to an SD card in your device.

- 1. Connect your Earthmate PN-40 to your computer and power it on.
- 2. On the Connect to Computer screen, highlight **Data Exchange** and press ENTER.
- 3. Press the MENU button and go to the Device Setup/Connect to Computer menu.
- 4. In the **USB Setting** drop-down list, select Firmware Transfer and press ENTER.
  - The Firmware Transfer screen displays. Set the device aside.
- 5. On your computer, run the installation program and follow the on-screen instructions.
- 6. On your device, highlight **Restart** and press ENTER. The device shuts down and powers back on; the update transfer status displays.

You can also transfer updates to an SD card in an SD card reader. Once the update is on the SD card, insert the card into your device and power it on to start the transfer.

#### PN-20: Sending/Receiving Information

## Sending/Receiving Maps to/From an Earthmate PN-20

You can use XMap® to send custom or regional map packages to your Earthmate® GPS PN-20. Regional map packages contain general road and point data for multistate regions in the U.S.

Regional maps required for the Earthmate GPS PN-20; they are not required for the Earthmate PN-40.

Use the Handheld Export tab to create custom map packages of any size that cover any location in the U.S. The data included in a custom map package is dependent on the data that is available for the export area as well as the preferences made in the Handheld Options settings.

#### **Notes**

- Because the base maps on the Earthmate GPS PN-20 include only major roads, it is important that you send regional map package data and/or saved map package data to your device. Regional map packages do not contain local roads. To create the most efficient routes on the Earthmate GPS PN-20, it is strongly recommended that you have regional maps AND saved map package data on your device. To calculate a route on the device, you must have regional map package coverage for the route area.
- To rename, delete, or send/receive a waypoint layer, track layer, route, or map, right-click the option in the list and select the appropriate option. You can also delete a map by clicking the item and then clicking the **Delete** button.
- Saving many regional map packages on the device (or on an SD card) will affect device performance. Save only the regional map packages that you need.

#### To Send Maps

Use the following steps to send maps to your Earthmate GPS PN-20 or an SD card.

- 1. Use the Handheld Export tab and the handheld export settings to create a map package.
  - To learn how to create maps, see Creating a Map Package and the Creating Maps for an Earthmate PN-Series GPS tutorial in the application's Help.
- To save the map package in internal memory or on an SD card that is in the device: Connect your device to your computer with the USB cable, power it on, and then select **Earthmate GPS PN-20** from the drop-down list in the upper-right corner of the dialog box. OR

To save the map package on an SD card with an SD card reader: Insert your SD card into your SD card reader and then connect it to a USB port on your computer. Using the drop-down list in the upper-right corner of the Exchange dialog box, select the removable for your SD card.

**Note** Saving maps on an SD card with an SD card reader is the fastest method for saving maps to use on an Earthmate GPS PN-20.

- 3. Click on the Handheld Export tab or click the **Exchange** button on the toolbar.
- 4. To send a saved map package, click the plus sign next to **Saved Map Packages** in the left pane of the dialog box.

Click the map package you want to send to your device. To send all saved map packages, just click **Saved Map Packages**.
OR

<u>To send a regional map package</u>, click the plus sign next to **Regional Map Packages** in the left pane of the dialog box.

- Click the region you want to send to your device. To send all regional map packages, just click **Regional Map Packages**.
- 5. In the right pane of the dialog box, under **Map Packages**, select **Internal** or **External** memory.
- 6. Click Send.

The map is sent to the device/SD card and a progress bar indicates the copy status.

7. Click Done.

#### To Receive Maps

Use the following steps to receive maps from your Earthmate GPS PN-20 or an SD card.

 To receive a map package from internal memory or on an SD card that is in the device: Connect your Earthmate GPS PN-20 to your computer with the USB cable, power it on, and then select Earthmate GPS PN-20 from the drop-down list in the upper-right corner of the dialog box. OR

To receive a map package on an SD card with an SD card reader: Insert your SD card into your SD card reader and then connect it to a USB port on your computer. Using the drop-down list in the upper-right corner of the Exchange dialog box, select the removable disk option that represents your SD card reader.

2. Click the **Exchange** button on the tools

- 3. Select **Earthmate GPS PN-20** or **Removable Disk** (for an SD card) from the drop-down list in the upper-right corner of the dialog box.
- 4. In the right pane of the dialog box, click the plus sign next to Saved Map Packages (to receive a saved map package) or Regional Map Packages (to receive a regional map package) and then click the map you want to receive. To receive all saved or regional map packages, just click Saved Map Packages or Regional Map Packages.
- Click Receive.
   The map is received into XMap and a progress bar indicates the copy status.
- 6. Click Done.

**Tip** You can also open the Exchange dialog by clicking the **Exchange** button on the Handheld Export tab or the GPS tab.

#### Sending/Receiving Routes to/from an Earthmate PN-20

You can use XMap® to exchange routes with the DeLorme Earthmate® GPS PN-20.

#### Notes

- To rename, delete, or send/receive a route, right-click the item in the Exchange dialog and select the appropriate option. You can also delete a map by clicking the item and then clicking the **Delete** button.
- You cannot create trail routes on an Earthmate PN-Series GPS. To follow a trail route, create a trail route in XMap and then send it to your device using the instructions below.
- If you stray off of a trail route's course while navigating with the device, you will be asked if you would like to recalculate the route. Because the Earthmate PN-Series GPS cannot create trail routes, the route will be converted to a direct route if you choose to recalculate. If you do not want to change the shape of your trail route, be sure to answer **No** when asked if you would like to recalculate the route.
- See also, the Exchanging PN-Series Data, Creating a Route, and Converting Tracks into Trails tutorials.

#### To Send Routes

XMap supports multiple calculation types, including Road-Quickest, Road-Shortest, Direct, and Trail. Earthmate PN-Series GPS supports Road-Quickest and Direct routes. If you create a Road-Shortest or Trail route in XMap, you can send it to the Earthmate GPS PN-20 and it will display on the device's map the same as it did in XMap; however, the calculation method will display as Road (for Road-Shortest routes) or Direct (for trail routes) in the route details on the device.

Use the following steps to send routes to your Earthmate GPS PN-20.

- 1. Connect your device to your computer with the USB cable and power it on.
- 2. Click the **Exchange** button on the toolbar.
- 3. Select **Earthmate GPS PN-20** from the drop-down list in the upper-right corner of the dialog box.
- 4. In the left pane of the dialog box, click the plus sign next to **Routes**, and then click the route you want to send to the Earthmate GPS PN-20.

OR

To send all routes, just click Routes.

Click Send.

The route is sent to the device and a progress bar indicates the copy status.

6. Click Done.

#### To Receive Routes

Use the following steps to receive routes from your Earthmate GPS PN-20.

- 1. Connect your device to your computer with the USB cable and power it on.
- 2. Click the **Exchange** button on the toolbar.
- 3. Select **Earthmate GPS PN-20** from the drop-down list in the upper-right corner of the dialog box.
- In the right pane of the dialog box, click the plus sign next to Routes, and then click the route you want to receive into XMap.
   OR

To receive all routes, just click Routes.

5. Click Receive.

The route is sent to XMap and a progress bar indicates the copy status.

6. Click Done.

**Tip** You can also open the Exchange dialog by clicking the **Exchange** button on the GPS tab or the Handheld Export tab.

## Sending/Receiving Tracks to/from Earthmate PN-20

You can use XMap® to exchange waypoints, tracks, routes, and maps with the DeLorme Earthmate® GPS PN-20.

#### Notes

- To rename, delete, or send/receive a track, right-click the item in the Exchange dialog and select the appropriate option. You can also delete a track by clicking the item and then clicking the **Delete** button.
- See also, the Exchanging PN-Series Data and Converting Tracks into Trails tutorials.

#### To Send Tracks

Use the following steps to send tracks to your Earthmate PN-Series GPS.

- 1. Connect your device to your computer with the USB cable and power it on.
- 2. Click the **Exchange** button on the toolbar.
- 3. Select **Earthmate GPS PN-20** from the drop-down list in the upper-right corner of the dialog box.
- 4. In the left pane of the dialog box, click the plus sign next to **Track Layers**, and then click the track layer or contents you want to send to the Earthmate GPS PN-20.

OR

To send all tracks, just click **Track Layers**.

**Note** You cannot replace an existing track on the Earthmate GPS PN-20 if the track details page for that track is displaying on the device.

- Click Send.
  - A progress bar indicates the copy status.
- 6. Click **Done**.

#### To Receive Tracks

Use the following steps to receive tracks from your Earthmate PN-Series GPS.

- 1. Connect your device to your computer with the USB cable and power it on.
- Click the Exchange button on the toolbar.
   The Earthmate PN-Series Exchange dialog box opens.
- In the right pane of the dialog box, click the plus sign next to Tracks, and then click the track you want to receive into XMap.
   OR
  - If you want to receive all tracks, just click **Tracks**.
- In the left pane of the dialog box, click the track layer where you want to receive the track or tracks. If you want to copy the track information into a new track layer, click **New** and then click **Track Layer**.
   Notes
  - If you do not perform this step and an existing track layer is highlighted in the left pane of the dialog box, the track is received in that layer. If a non-track option is highlighted (for example, a waypoint layer), a new track layer is automatically created.
  - If you use the Exchange dialog box to send the active track to XMap, the file name displays as a time/date stamp based on the time/date information in the active track.
- 5. Click Receive.
  - A progress bar indicates the copy status.
- 6. Click Done.
- 7. **Tip** You can also open the Exchange dialog by clicking the **Exchange** button on the GPS tab or the Handheld Export tab.

## Sending/Receiving Waypoints to/from Earthmate PN-20

You can use XMap® to exchange waypoints with the DeLorme Earthmate® GPS PN-20.

#### Notes

- Waypoints that are exchanged between XMap and the Earthmate GPS PN-20 retain their exact waypoint symbol only if they are part of the Earthmate PN-Series symbol set. Otherwise, the closest-matching waypoint symbol is shown.
- To rename, delete, or send/receive a waypoint, right-click the item in the Exchange dialog and select the appropriate option. You can also delete a waypoint by clicking it and then clicking the **Delete** button.
- For more information, see the Exchanging PN-Series Data tutorial in the application's Help.

#### To Send Waypoints

Use the following steps to send waypoints to your Earthmate GPS PN-20.

- 1. Connect your device to your computer with the USB cable and power it on.
- Click the Exchange button on the toolbar.
   The Earthmate PN-Series Exchange dialog box opens.
- In the left pane of the dialog box, click the plus sign next to Waypoint
   Layers, and then click the waypoint layer or contents you want to send to the
   Earthmate GPS PN-20.
   OR

To send all waypoints, just click **Waypoints**.

- Click **Send**.
   A progress bar indicates the copy status.
- Click Done.

#### To Receive Waypoints

Use the following steps to receive waypoints from your Earthmate GPS PN-20.

- 1. Connect your device to your computer with the USB cable and power it on.
- Click the Exchange button on the toolbar.
   The Earthmate PN-Series Exchange dialog box opens.
- In the right pane of the dialog box:
   If you want to receive one waypoint at a time into XMap, click the plus sign next to Waypoints, and then click the waypoint you want to receive.
   OR
  - If you want to receive all waypoints, just click Waypoints.
- 4. In the left pane of the dialog box, click the plus sign next to Waypoint Layers, and then click the layer where you want to send the waypoint. If you want to copy the waypoint to a new waypoint layer, click New and then click Waypoint Layer.

**Note** If you do not select a layer and an existing waypoint layer is highlighted in the left pane of the dialog box, the waypoint is received in that layer. If a non-waypoint option is highlighted (for example, a track layer), a new waypoint layer is automatically created.

- Click Receive.
   A progress bar indicates the copy status.
- 6. Click **Done**.

**Tip** You can also open the Exchange dialog by clicking the **Exchange** button on the GPS tab or the Handheld Export tab.

#### States Included in Regional Map Packages

Regional map packages are DeLorme-created, multi-state data regions that provide much greater detail (.25-mile scale and up, more roads, better routing connectivity, etc.) than the base map on the device. Not all devices require regional map packages. Regional map packages contain only XMap USA Topographic Data.

Each regional map package consists of one or more states in the United States. See the descriptions below to determine which states are included in each regional map package.

East 1A East 3A West 1A Connecticut Florida North Dakota Massachusetts Georgia Nebraska Maine North Carolina South Dakota West 1B New Hampshire South Carolina New York East 3B Idaho Rhode Island Alabama Montana Vermont Louisiana Wyoming East 1B West 2A Mississippi Indiana East 4A Kansas Ohio Iowa Oklahoma Pennsylvania Michigan West 2B East 2A Minnesota Colorado Delaware Wisconsin Nevada District of Fast 4B Utah Columbia Arkansas West 3A Maryland Illinois Arizona New Jersey Missouri **New Mexico** East 2B West 3B District of Texas Columbia West 4A Kentucky Alaska Tennessee Oregon Virginia Washington West Virginia West 4B California Hawaii

## Firmware Updates for the Earthmate PN-20

Occasionally, DeLorme releases updates to the firmware for the Earthmate® GPS PN-20. If you have activated a device in XMap®, you can check for firmware updates on the NetLink tab at any time. Follow the on-screen installation instructions to transfer the update to your device.

## **Exchanging Information with a Third-party GPS Device**

## Sending Route Information to a Third-party GPS Device

If you have a compatible GPSor athletic device, you can use the Exchange Wizard to send route points or route directions to your device.

#### **To Send Route Points**

Use the following steps to send route points to your device.

- 1. Connect your device to your computer.
- If you are using a third-party GPS receiver, you may have to use specific settings. For example, if you are using a GARMIN GPS receiver, set your GARMIN receiver interface to GRMN/GRMN. For more information, see your owner manual.
- 3. Click the **Exchange** button on the toolbar.
- 4. Click Use Other Device to open the Exchange Wizard.
- 5. Under **Select Device**, select **GPS** or point to **Athletic Device** and then select your device.
- 6. Select **Send to Device**.
- 7. Select **Route Points** from the **Object** drop-down list.
- 8. Click Next.
- 9. From the **Route** drop-down list, select the route file that contains the route points you want to send to your device.
- 10. To avoid overwriting existing waypoints on your device, type a starting point for the new points and select the **Prefix a Number to the Waypoint Name** check box. Not all devices support starting points. For more information, see your device manual.
- 11. Click Send to Device.
- 12. Repeat the steps for every route file you want to send to your device.
- 13. Click Finish.

#### **To Send Route Directions**

Use the following steps to send route directions to your GPS device.

- 1. Connect your device to your computer.
- If you are using a third-party GPS receiverthird-party GPS receiver, you may have to use specific settings. For example, if you are using a GARMIN GPS receiver, set your GARMIN receiver interface to GRMN/GRMN. For more information, see your device manual.
- 3. Click the **Exchange** button on the toolbar.
- 4. Under **Select Device**, select **GPS** or point to **Athletic Device** and then select your device.
- 5. Select **Send to Device**.
- 6. Select Route Directions from the Object drop-down list.
- 7. Click Next.
- 8. From the **Route** drop-down list, select the route file that contains the route directions you want to send to your device.
- 9. Designate a route name and/or a route number for the file on the device (device dependent).
- 10. To avoid overwriting existing waypoints on your device, type a starting point for the new points and select the **Prefix a Number to the Waypoint Name** check box. Not all devices support starting points. For more information, see your device manual.
- 11. Click Send to Device.

- 12. Repeat the steps for each route file you wan to send to your device.
- 13. Click **Finish**.
- **Tip** You can also open the Exchange dialog by clicking the **Exchange** button on the GPS tab or the Handheld Export tab.

## Sending Tracks to Your Third-party GPS Device

If you have a compatible GPSor athletic device, you can use the Exchange Wizard to send tracks to your device.

#### To Send Tracks

Use the following steps to send tracks to your device.

- 1. Connect your device to your computer.
- 2. If you are using a third-party GPS receiver, you may have to use specific settings. For example, if you are using a GARMIN GPS receiver, set your GARMIN receiver interface to GRMN/GRMN. For more information, see your device manual.
- 3. Click the **Exchange** button on the toolbar.
- 4. Click **Use Other Device** to open the Exchange Wizard.
- 5. Under **Select Device**, select **GPS** or point to **Athletic Device** and then select your device.
- Select Send to Device.
- 7. Select User Map Data Track from the Object drop-down list.
- 8. Click Next.
- 9. Select the track file you want to send to your device from the **Track File** drop-down list.
- 10. Optional. Designate a track name or a track number for the file on the device.
- 11. Click Send to Device.
- 12. Repeat the steps for every route file you want to send to your device.
- 13. Click Finish.

Tip You can also open the Exchange dialog by clicking the Exchange button on the GPS tab or the Handheld Export tab.

#### Sending Waypoints to Your Third-party GPS Device

If you have a compatible GPSor athletic device, you can use the Exchange Wizard to send waypoints to your device.

## **To Send Waypoints**

Use the following steps to send waypoints to your device.

- 1. Connect your device to your computer.
- 2. If you are using a third-party GPS receiver, you may have to use specific settings. For example, if you are using a GARMIN GPS receiver, set your GARMIN receiver interface to GRMN/GRMN. For more information, see your device manual..
- 3. Click the **Exchange** button on the toolbar.
- 4. Click **Use Other Device** to open the Exchange Wizard.
- 5. Under **Select Device**, select **GPS** or point to **Athletic Device** and then select your device.
- 6. Select **Send to Device**.
- 7. Select User Map Data Waypoints from the Object drop-down list.
- 8. Click Next.

- 9. Select the waypoint file you want to send to your device from the **Waypoint File** drop-down list.
- 10. To avoid overwriting existing waypoints on your device, type a starting point for the new points and select the **Prefix a Number to the Waypoint Name** check box. Not all devices support starting points. For more information, see your device manual.
- 11. Click Send to Device.
- 12. Repeat the steps for every route file you want to send to your device.
- 13. Click Finish.

**Tip** You can also open the Exchange dialog by clicking the **Exchange** button on the GPS tab or the Handheld Export tab.

#### Receiving a Route From Your Third-party GPS Device

If you have a compatible GPSor athletic device, you can use the Exchange Wizard to receive routes created on your device. Once imported, you can use the file in your mapping program.

#### To Receive a Route

Use the following steps to receive a route from your device.

- 1. Connect your device to your computer.
- 2. If you are using a third-party GPS receiver, you may have to use specific settings. For example, if you are using a GARMIN GPS receiver, set your GARMIN receiver interface to GRMN/GRMN. For more information, see your device manual.
- 3. Click the **Exchange** button on the toolbar.
- 4. Click **Use Other Device** to open the Exchange Wizard.
- 5. Under **Select Device**, select **GPS** or point to **Athletic Device** and then select your device.
- 6. Select Receive from Device.
- 7. Select Route from the Object drop-down list.
- 8. Select Route from the Save As drop-down list.
- 9. Click Next.
- 10. Select the route name or route number on the device that you want to receive
- 11. Select the route file you want to add the route information to. If you want to create a new route file, select **New** from the **Route** drop-down list and type the new route name in the available text box.
- 12. Click Receive from Device.
- 13. Repeat the steps for every route file you want to receive from your device.
- 14. Click Finish.

**Tip** You can also open the Exchange dialog by clicking the **Exchange** button on the GPS tab or the Handheld Export tab.

#### Receiving a Track From Your Third-party GPS Device

If you have a compatible GPSor athletic device, you can use the Exchange Wizard to receive tracks created on your device. Once imported, you can use the file in your mapping program.

**Note** When you open a track you've imported from your GPS device, you may notice that the track does not join existing roads. Use the select tool in the Draw tab to snap the end node of the track to a road. For more information, see Snapping Draw Objects.

#### To Receive a Track

Use the following steps to receive a track from your device and save it as a track.

- 1. Connect your device to your computer.
- If you are using a third-party GPS receiver, you may have to use specific settings. For example, if you are using a GARMIN GPS receiver, set your GARMIN receiver interface to GRMN/GRMN. For more information, see your device manual.
- 3. Click the **Exchange** button on the toolbar.
- 4. Click **Use Other Device** to open the Exchange Wizard.
- 5. Under **Select Device**, select **GPS** or point to **Athletic Device** and then select your device.
- 6. Select Receive from Device.
- 7. Select **Track** from the **Object** drop-down list.
- 8. Select **User Map Data Track** from the **Save As** drop-down list.
- 9. Click Next.
- 10. Select the track name or track number on the device that you want to receive. Not all devices support downloading individual track logs. See your device manual for more information.
- 11. Select the track file you want to add the track information to. To create a new track file, select **New** from the **Track File** drop-down list and type the new track file name in the **New Track File** text box.
- 12. Optional. Type a label for your track in the **Track Label** text box.
- 13. Click Receive from Device.
- 14. Repeat the steps for every track file you want to receive from your device.
- 15. Click Finish.

Tip You can also open the Exchange dialog by clicking the **Exchange** button on the GPS tab or the Handheld Export tab.

## Receiving Waypoints From Your Third-party GPS Device

If you have a compatible GPSdevice, you can use the Exchange Wizard to receive waypoints created on your device and save them as a draw file or as a waypoint file. Once imported, you can use the file in your mapping program.

#### To Receive Waypoints as a Waypoint File

Use the following steps to receive waypoints from your device.

- 1. Connect your device to your computer.
- 2. If you are using a third-party GPS receiver, you may have to use specific settings. For example, if you are using a GARMIN GPS receiver, set your

GARMIN receiver interface to GRMN/GRMN. For more information, see your device manual.

- 3. Click the **Exchange** button on the toolbar.
- 4. Click Use Other Device to open the Exchange Wizard.
- 5. Under **Select Device**, select **GPS** or point to **Athletic Device** and then select your device.
- Select Receive from Device.
- 7. Select Waypoints from the Object drop-down list.
- 8. Select User Map Data Waypoints from the Save As drop-down list.
- 9. Click Next.
- 10. Select the waypoint file you want to add the waypoint information to from the Waypoint File drop-down list. To create a new Waypoint file, select New from the Waypoint File drop-down list and type the new waypoint file name in the New Waypoint File text box.
- 11. If you want all of the waypoints to display with the current symbol (such as the default red flag), select the **Use Current Waypoint (active waypoint)** option. If you want the waypoint symbols to match those on your third-party device, select the **Use Custom Waypoint Symbol Set** option and then select the appropriate set from the drop-down list. For more information on creating a custom symbol set, see Assigning a Waypoint ID to a Custom Symbol.
- 12. Click Receive From Device.
- 13. Repeats the steps for each waypoint file you want to receive.
- 14. Click Finish.

Tip You can also open the Exchange dialog by clicking the Exchange button on the GPS tab or the Handheld Export tab.

## **Exchanging Information with a Palm OS Device**

#### Sending a Handheld Map to a Palm OS Device

Use the Exchange Wizard to send maps you cut using the Handheld Export tab to your Palm® OS device. See Creating a Map Package to Send to a DeLorme Earthmate or PDA for more information.

**Note** You must have Street Atlas USA Handheld installed to view exported maps on a PDA.

#### To Send a Handheld Map

Use the following steps to send a handheld map to a Palm OS device.

- 1. Click the **Exchange** button on the toolbar OR click Lectarder on the Handheld Export tab to open the Exchange dialog box.
- 2. Click **Use Other Device** to open the Exchange Wizard.
- 3. Under Select Device, select Palm OS.
- 4. Select Send to Device.
- 5. Select **Handheld Map** from the **Object Type** drop-down list.
- 6. Click Next.

- 7. Under **Source**, select the map you want to send to your handheld device from the **Handheld Map** drop-down list.
  - The maps saved in the specified location display in the list. To view maps saved in an alternate location, click the browse button and browse to the location. Then, select the map from the **Handheld Map** drop-down list.
- 8. Select the user you want to send the map to from the User drop-down list.
- 9. Select the media destination from the **Destination** drop-down list.
- 10. Click **Prepare for Sync**.
- 11. Click **OK** to return to the Exchange Wizard.
- 12. Repeat the steps for each map you want to send.
- 13. Click Finish.

The exported map is available on your handheld device after your next synchronization operation.

**Tip** You can also open the Exchange dialog by clicking the **Exchange** button on the GPS tab or the Handheld Export tab.

#### Sending User Raster Data to a Palm OS Device

If you have user raster data (MrSID or GeoTIFF data files) that you want to send to a Palm® OS device, you can use the Handheld tab in the Options dialog to create a map that includes the data. You can then use the Exchange dialog to send the map to the device.

#### To Create a Map with User Raster Data

Use the following steps to create a map with user raster data to send to the device:

- 1. Click the Map Data tab.
- 2. Double-click the user raster data you want to send to the device. Selected data appears on the map.
- 3. Click the **Handheld Export** tab and zoom to the area of interest on the map.
- 4. Click the **Options** button to open the Handheld tab in the Options dialog box.
- 5. Under Export Map Format, select Palm OS/Pocket PC.
- 6. Under **Export Map Source**, select the map with the draw layer (**Left** or **Right**).
- 7. Under Export Data Zooms, select User Raster Data.
- 8. Choose the zoom ranges at which you want to view the data at on the handheld device.
- 9. Click **Select/Edit** to select the grids that cover the draw layers you want to send to the device.

  You can use the **Grid Size** control to modify the grid size. When selecting grids, you will receive an error in the Info box if the map output is too large. You can select fewer grids or adjust the Draw Layers zoom ranges to reduce the map output size.

#### To Send User Raster Data

See Sending a Handheld Map to a Palm OS Device for more information about sending the map package with the user raster data to the device.

## Sending Route Information to Your Palm OS Device

Use the Exchange Wizard to send route points or route directions to your Palm® OS device.

#### **To Send Route Points**

Use the following steps to send route points to your Palm OS device.

- 1. Click the **Exchange** button on the toolbar.
- 2. Click Use Other Device to open the Exchange Wizard.
- 3. Under Select Device, select Palm OS.
- 4. Select Send to Device.
- 5. Select Route Points from the Object Type drop-down list.
- 6. Click Next.
- 7. From the **Route** drop-down list, select the route file that contains the route points you want to send to your device.
- 8. Click Prepare for Sync.
- 9. Repeats the steps for each route file you want to send to your device.
- 10. Click Finish.

The route points are available on your handheld device after your next synchronization operation.

#### To Send Route Directions

Use the following steps to send route directions to your Palm OS device.

- 1. Click the **Exchange** button on the toolbar.
- 2. Click Use Other Device to open the Exchange Wizard.
- 3. Under Select Device, select Palm OS.
- 4. Select Send to Device.
- 5. Select **Route Directions** from the **Object Type** drop-down list.
- 6. Click Next.
- 7. From the **Route** drop-down list, select the route file that contains the route directions you want to send to your device.
- 8. Select the **User Profile** the route file will sync to from the **User** drop-down list.
- 9. Click Prepare for Sync.
- 10. Repeat the steps for each route file you want to send to your device.
- 11. Click Finish.

The route directions are available on your handheld device after your next synchronization operation.

**Tip** You can also open the Exchange dialog by clicking the **Exchange** button on the GPS tab or the Handheld Export tab.

#### Sending Waypoints to Your Palm OS Device

Use the Exchange Wizard to send waypoints to your Palm® OS device.

#### To Send Waypoints

Use the following steps to send waypoints to your Palm OS device.

- 1. Click the **Exchange** button on the toolbar.
- 2. Click Use Other Device to open the Exchange Wizard.
- 3. Under Select Device, select Palm OS.
- Select Send to Device.
- 5. Select User Map Data Waypoints from the Object Type drop-down list.
- 6. Click Next.
- 7. Select the waypoint file you want to send to your device from the **Waypoint File** drop-down list.
- 8. Click Prepare for Sync.
- 9. Repeat the steps for every waypoint file you want to send to your device.
- 10. Click Finish.

The waypoints are available on your handheld device after your next synchronization operation.

**Tip** You can also open the Exchange dialog by clicking the **Exchange** button on the GPS tab or the Handheld Export tab.

#### Receiving a Route From Your Palm OS Device

Use the Exchange Wizard to receive a route created on your Palm® OS device. Once imported, you can use the file in your mapping program.

#### To Receive a Route From Your Palm OS Device

Use the following steps to receive a route from your Palm OS device.

- 1. Click the **Exchange** button on the toolbar.
- 2. Click **Use Other Device** to open the Exchange Wizard.
- 3. Under Select Device, select Palm OS.
- 4. Select Receive from Device.
- 5. Select **Route** from the **Object Type** drop-down list.
- 6. Select **Route** from the **Save As** drop-down list to save your route as a route file.
- 7. Click Next.
- 8. Select the route file on the device that you want to receive.
- Select the route file you want to add the route information to. To create a
  new route file, select **New** from the **Route** drop-down list and type the new
  route name in the text box.
- 10. Click Receive From Device.
- 11. Repeats the steps for each route file you want to receive.
- 12. Click Finish. The route information displays.

**Tip** You can also open the Exchange dialog by clicking the **Exchange** button on the GPS tab or the Handheld Export tab.

#### Receiving Waypoints From Your Palm OS Device

Use the Exchange Wizard to receive waypoints created on your Palm® OS device. Once imported, you can use the file in your mapping program.

#### To Receive Waypoints From Your Palm OS Device

Use the following steps to receive waypoints from your Palm OS device.

- 1. Click the **Exchange** button on the toolbar.
- 2. Click **Use Other Device** to open the Exchange Wizard.
- 3. Under Select Device, select Palm OS.
- 4. Select Receive from Device.
- 5. Select Waypoints from the Object Type drop-down list.
- 6. From the **Save As** drop-down list, select to save the waypoints as **User Map Data Waypoints**.
- 7. Click Next.
- 8. Select the waypoint file you want to add the waypoint information to from the **Waypoint File** drop-down list. To create a new waypoint file, select **New** from the **Waypoint File** drop-down list and type the new waypoint file name in the text box.
- 9. If you want all of the waypoints to display with the current symbol (such as the default red flag), select the Use Current Waypoint (active waypoint) option. If you want the waypoint symbols to match those on your third-party GPS device, select the Use Custom Waypoint Symbol Set option and then select the appropriate set from the drop-down list. For more information on creating a custom symbol set, see Assigning a Waypoint ID to a Custom Symbol.
- 10. Click Receive From Device.
- 11. Repeats the steps for each waypoint file you want to receive.
- 12. Click Finish.

The waypoint information displays.

**Tip** You can also open the Exchange dialog by clicking the **Exchange** button on the GPS tab or the Handheld Export tab.

#### Receiving a GPS Log From Your Palm OS Device

Use the Exchange Wizard to receive GPS logs created on your Palm® OS device. Once imported, you can use the file in your mapping program.

#### To Receive GPS Logs From Your Palm OS Device

Use the following steps to receive GPS logs from your Palm OS device.

- 1. Click the **Exchange** button on the toolbar.
- 2. Click **Use Other Device** to open the Exchange Wizard.
- 3. Under Select Device, select Palm OS.
- 4. Select **Receive from Device**.
- 5. Select **GPS Logs** from the **Object Type** drop-down list.
- 6. Click Next.
- 7. Select the GPS log you want to receive from the **GPS Log** drop-down list.
- 8. Click Receive From Device.
- 9. Repeats the steps for each GPS log file you want to receive.
- 10. Click Finish.

**Tip** You can also open the Exchange dialog by clicking the **Exchange** button on the GPS tab or the Handheld Export tab.

## **Exchanging Information with a Pocket PC Device**

#### Sending a Handheld Map to a Pocket PC Device

Use the Exchange Wizard to send maps you cut using the Handheld Export tab to your Pocket PC device. See Creating a Map Package to Send to a DeLorme Earthmate or PDA for more information.

**Note** You must have Street Atlas USA® Handheld installed to view exported maps on a PDA.

#### To Send a Handheld Map

Use the following steps to send a handheld map to a Pocket PC device.

- 1. Click the **Exchange** button on the toolbar OR click **Exchange** on the Handheld Export tab to open the Exchange dialog box.
- Click Use Other Device to open the Exchange Wizard.
- 3. Under **Device Type**, select **Pocket PC**.
- 4. Select Send to Device.
- 5. Select Handheld Map from the Object Type drop-down list.
- Click Next.
- 7. Under **Source**, select the map you want to send to your handheld device from the **Handheld Map** drop-down list.

  The maps saved in the specified location display in the list. To view maps saved in an alternate location, click the browse button and browse to the location. Then, select the map from the **Handheld Map** drop-down list.
- 8. Click Prepare for Sync.
- 9. Click **OK** to return to the Exchange Wizard.
- 10. Repeat the steps for each map you want to send.
- 11. Click Finish.

The exported map is available on your handheld device after your next synchronization operation.

**Tip** You can also open the Exchange dialog by clicking the **Exchange** button on the GPS tab or the Handheld Export tab.

#### Sending User Raster Data to a Pocket PC

If you have user raster data (MrSID or GeoTIFF data files) that you want to send to a Pocket PC device, you can use the Handheld tab in the Options dialog to create a map that includes the data. You can then use the Exchange dialog to send the map to the device.

#### To Create a Map with User Raster Data

Use the following steps to create a map with user raster data to send to the device:

- 1. Click the Map Data tab.
- 2. Double-click the user raster data you want to send to the device. Selected data appears on the map.
- 3. Click the **Handheld Export** tab and zoom to the area of interest on the map.
- 4. Click the **Options** button to open the Handheld tab in the Options dialog box.
- 5. Under Export Map Format, select Palm OS/Pocket PC.

- Under Export Map Source, select the map with the draw layer (Left or Right).
- 7. Under Export Data Zooms, select User Raster Data.
- 8. Choose the zoom ranges at which you want to view the data at on the handheld device.
- 9. Click **Select/Edit** to select the grids that cover the draw layers you want to send to the device.
  You can use the **Grid Size** control to modify the grid size. When selecting grids, you will receive an error in the Info box if the map output is too large. You can select fewer grids or adjust the Draw Layers zoom ranges to reduce the map output size.

#### To Send User Raster Data

See Sending a Handheld Map to a Pocket PC Device for more information about sending the map package with the user raster data to the device.

### Sending Route Information to Your Pocket PC Device

Use the Exchange Wizard to send route points or route directions to your Pocket PC device.

#### **To Send Route Points**

Use the following steps to send route points to your Pocket PC device.

- 1. Click the **Exchange** button on the toolbar.
- 2. Click **Use Other Device** to open the Exchange Wizard.
- Under Device Type, select Pocket PC.
- 4. Select Send to Device.
- 5. Select **Route Points** from the **Object Type** drop-down list.
- 6. Click Next.
- 7. From the **Route** drop-down list, select the route file that contains the route points you want to send to your device.
- 8. Click Prepare for Sync.
- 9. Click **OK** to return to the Exchange Wizard.
- 10. Repeat the steps for each route you want to send to your device.
- 11. Click Finish.

The route points are available on your handheld device after your next synchronization operation.

#### **To Send Route Directions**

Use the following steps to send route directions to your Pocket PC device.

- 1. Click the **Exchange** button on the toolbar.
- 2. Click Use Other Device to open the Exchange Wizard.
- 3. Under **Device Type**, select **Pocket PC**.
- 4. Select Send to Device.
- 5. Select **Route Directions** from the **Object Type** drop-down list.
- 6. Click Next.

- 7. From the **Route** drop-down list, select the route file that contains the route directions you want to send to your device.
- 8. Click Prepare for Sync.
- 9. Click **OK** to return to the Exchange Wizard.
- 10. Repeat the steps for each route you want to send to your device.
- 11. Click Finish.

The route directions are available on your handheld device after your next synchronization operation.

**Tip** You can also open the Exchange dialog by clicking the **Exchange** button on the GPS tab or the Handheld Export tab.

## Sending Waypoints to Your Pocket PC Device

Use the Exchange Wizard to send waypoints to your Pocket PC device.

### **To Send Waypoints**

Use the following steps to send waypoints to your Pocket PC device.

- 1. Click the **Exchange** button on the toolbar.
- 2. Click Use Other Device to open the Exchange Wizard.
- 3. Under **Device Type**, select **Pocket PC**.
- Select Send to Device.
- 5. Select User Map Data Waypoints from the Object Type drop-down list.
- 6. Click Next.
- 7. From the **Waypoint File** drop-down list, select the waypoint file you want to send to your device.
- 8. Click Prepare for Sync.
- 9. Click **OK** to return to the Exchange Wizard.
- 10. Repeat the steps for each waypoint file you want to send to your device.
- 11. Click Finish.

The waypoints are available on your handheld device after your next synchronization operation.

**Tip** You can also open the Exchange dialog by clicking the **Exchange** button on the GPS tab or the Handheld Export tab.

#### Sending a GPS Log to Your Pocket PC Device

Use the Exchange Wizard to send GPS logs you created in your mapping program to your Pocket PC device.

### To Send a GPS Log

Use the following steps to send a GPS log to a Pocket PC device.

- 1. Click the **Exchange** button on the toolbar.
- 2. Click **Use Other Device** to open the Exchange Wizard.
- 3. Under Device Type, select Pocket PC.
- 4. Select **Send to Device**.

- 5. Select **GPS Log** from the **Object Type** drop-down list.
- 6. Click Next.
- 7. Under **Source**, select the GPS log you want to send to your handheld device from the **GPS Log** drop-down list. The logs are saved in the specified location display in the list. To view logs saved in an alternate location, click the browse button and browse to the location. Then, select the log from the **GPS Log** drop-down list.
- 8. Click Prepare for Sync.
- 9. Click **OK** to return to the Exchange Wizard.
- 10. Repeat the steps for each GPS log you want to send to your device.
- 11. Click Finish.

The GPS log is available on your handheld device after your next synchronization operation.

**Tip** You can also open the Exchange dialog by clicking the **Exchange** button on the GPS tab or the Handheld Export tab.

## Receiving a Route From Your Pocket PC Device

Use the Exchange Wizard to receive a route created on your Pocket PC device. Once imported, you can use the file in your mapping program.

#### To Receive a Route From Your Pocket PC Device

Use the following steps to receive a route from your Pocket PC device.

- 1. Click the **Exchange** button on the toolbar.
- 2. Click **Use Other Device** to open the Exchange Wizard.
- 3. Under Device Type, select Pocket PC.
- Select Receive from Device.
- 5. Select **Route** from the **Object Type** drop-down list.
- 6. Select **Route** from the Save As drop-down list to save your route as a route file.
- 7. Click Next.
- 8. Select the route file on the device that you want to receive.
- 9. Select **New** from the **Route** drop-down list and type the new route name in the text box.
- 10. Click Receive From Device.
- 11. Repeats the steps for each route file you want to receive.
- 12. Click Finish.

The route information displays.

Tip You can also open the Exchange dialog by clicking the Exchange button on the GPS tab or the Handheld Export tab.

### Receiving Waypoints From Your Pocket PC Device

Use the Exchange Wizard to receive waypoints created on your Pocket PC. Once imported, you can use the file in your mapping program.

### To Receive Waypoints From Your Pocket PC Device

Use the following steps to receive waypoints from your Pocket PC device.

- 1. Click the **Exchange** button on the toolbar.
- 2. Click **Use Other Device** to open the Exchange Wizard.
- Under Device Type, select Pocket PC.
- 4. Select Receive from Device.
- 5. Select **Waypoints** from the **Object Type** drop-down list.
- 6. From the **Save As** drop-down list, select to save the waypoints as **User Map Data Waypoints**.
- 7. Click Next.
- 8. Select the waypoint file you want to add the waypoint information to from the **Waypoint File** drop-down list. If you want to create a new waypoint file, select **New** from the **Waypoint File** drop-down list and type the new waypoint file name in the text box.
- 9. If you want all of the waypoints to display with the current symbol (such as the default red flag), select the Use Current Waypoint (active waypoint) option. If you want the waypoint symbols to match those on your third-party GPS device, select the Use Custom Waypoint Symbol Set option and then select the appropriate set from the drop-down list. For more information on creating a custom symbol set, see Assigning a Waypoint ID to a Custom Symbol.
- 10. Click Receive From Device.
- 11. Repeats the steps for each waypoint file you want to receive.
- 12. Click Finish.

The waypoint information displays.

**Tip** You can also open the Exchange dialog by clicking the **Exchange** button on the GPS tab or the Handheld Export tab.

### Receiving a GPS Log From Your Pocket PC Device

Use the Exchange Wizard to receive GPS logs created on your Pocket PC. Once imported, you can use the file in your mapping program.

### To Receive GPS Logs From Your Pocket PC Device

Use the following steps to receive GPS logs from your Pocket PC device.

- 1. Click the **Exchange** button on the toolbar.
- 2. Click **Use Other Device** to open the Exchange Wizard.
- 3. Under **Device Type**, select **Pocket PC**.
- 4. Select Receive from Device.
- 5. Select **GPS Logs** from the **Object Type** drop-down list.
- Click Next.

- 7. Select the GPS log you want to receive from the **GPS Log** drop-down list.
- 8. Click Receive From Device.
- 9. Repeats the steps for each GPS log file you want to receive.
- 10. Click **Finish**.

**Tip** You can also open the Exchange dialog by clicking the **Exchange** button on the GPS tab or the Handheld Export tab.

## **Using UMPC and Small-screen Devices**

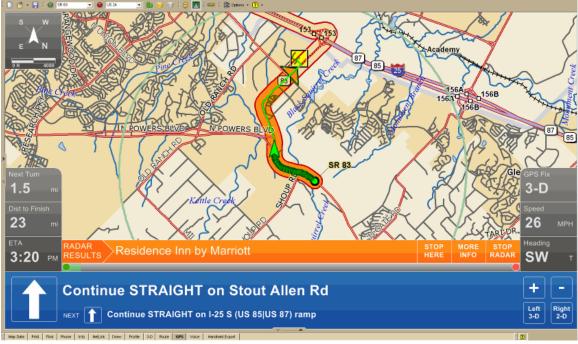
## **Using UMPC and Small-screen Devices**

You can use your mapping application with small-screen devices, such as UMPCs, or Ultra Mobile PCs. The UMPC control is available in the Options menu. To turn UMPC

mode on, click the **Options** menu arrow and click **UMPC Mode** to select the check box next to it. To turn UMPC mode off, click **UMPC Mode** to clear the check box.

The default interface minimizes the tab area, hides the Control Panel, and shows only the toolbar buttons you need for navigating and tracking on a small screen; however, you can add or remove tabs, show or hide toolbar buttons, and customize the interface to meet your needs. You can also view an overview map at the same time using the split-screen.

This screen is optimized for UMPC and is displaying GPS with NavMode.



Your XMap license allows you to install a copy of the software on a portable device in addition to your computer. Please see the license agreement for your software for further information.

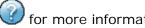
## Using NetLink

## **NetLink Overview**

NetLink is an online portal within XMap®. You must have an Internet connection to use NetLink.

The NetLink tab has four subtabs. Within each subtab, follow the on-screen

instructions or click the **NetLink Help** button for more information.



#### Home

Purchase or activate a Map Library subscription, activate a Data Download Dollars certificate, learn more about our data and imagery, and much more.

### Map Library

#### Purchase Methods

Map Library subscription

The most cost-effective method for purchasing datasets is an annual DeLorme Map Library subscription. For just \$29.95 a year, you can download an unlimited number of our available datasets.

DeLorme Data Download Dollars certificate

Included with your purchase is a certificate for \$40 worth of data downloads. This gives you the opportunity to see how imagery and data can enhance your maps.

Purchase

You can always purchase downloads. If you prefer to receive your datasets on DVD, you must use this method.

#### **Datasets**

The following datasets are available.

USGS 1:24K (Scanned Maps)

7.5-minute, 1:24,000-scale quadrangle series.

SAT10 (Satellite Imagery)

True-color 10-meter resolution imagery from the French based SPOT satellite (Satellites d'observation de la Terre).

Color DOQQ (Aerial Imagery)

True-color 1-meter resolution digital aerial photography.

USGS DOQQ (Aerial Imagery)

Black and white 1-meter resolution digital aerial photography.

NOAA Nautical Charts (Scanned Maps)

Color bathymetric nautical charts produced by the National Oceanic and Atmospheric Administration (NOAA).

USGS Hi-resolution 133 City (Aerial Imagery)

Color aerial imagery over the country's largest metropolitan areas with a resolution of approximately 1/3 meter (or about 1 foot).

### **Downloads**

View and receive downloads and software updates. If you have an Earthmate® PN-Series GPS, you can also access firmware updates.

## Support

Your connection to DeLorme — links to technical support, the forums, the DeLorme blogs, and more. You can also submit a map correction to us.

## Using GeoTagger

## Getting Started with GeoTagger

Use the GeoTagger Wizard to:

- Sync digital photos with GPS log files (.gpl) and track files (.an1) and tag them to the location you took them. You can place images as an actual image on the map, a MapNote with a hyperlink, or a symbol with a hyperlink.
- Match GPS logs and tracks to time-related information downloaded from supported devices. For example, you can download a track that includes your heart rate from an athletic device and view the data in the Profile tab. The program uses the following file formats: Suunto (\*.sdf), Timex Trainer CSV (\*.csv), or Generic CSV File (\*.csv).

To open the GeoTagger Wizard, click the **GeoTagger** button on the toolbar.

**Important!** Make sure the time and date on your camera or athletic device and on your GPS device match before you begin. This ensures that your images and data are correctly matched to the GPS log file or track file. If you do not have the correct time on your device, you can update the information with the Timestamp Offset option in the wizard. See Calculating the Timestamp Offset.

## Tagging an Image

Once you successfully tag your digital images to a GPS log file or track file, you can view the points at which the photos were taken on the map in your DeLorme program.

Before you begin, you must download the GPS log file or track file and digital photographs to your computer. See Receiving a Track From Your Third-party GPS Device for information on using the Exchange Wizard to transfer files.

#### To Tag an Image

- 1. Click the **GeoTagger** button on the toolbar to open the GeoTagger Wizard.
- 2. Select **Images** and click Next.
- In the **Photo Directory** box, type the path and file name for the *folder* (not specific images) on your computer where the images are stored. OR
  - Click **Browse** to search for the folder on your computer.
- 4. Under **Time Zone**, select the time zone where you were when you took the pictures. See GMT Time Zone Information for a table of time zones by state. If Daylight Saving Time was in effect (second Sunday in March through first Sunday in November), select the **Adjust for Daylight Saving Time** check box.
- 5. Under GPS Data, select Track or GPL File.
- 6. <u>If you selected Track</u>, the list of track layers in the Draw tab displays in a tree menu. Click the plus sign to expand the tree menu, and click the track. You can select only one track at a time.

<u>If you selected GPL File</u>, in the **GPS Data** box, type the path and file name for the file or click **Browse** to search for the file on your computer.

#### 7. Click Next.

The Image list displays the images that will be tagged. Click an image to preview it in Image Preview window.

- 8. Under **Time Offset**, if the time on your camera differed from actual time when you recorded the data, calculate the offset, type the actual time in the **Matching GPS Time** text box.
- 9. Click Next.
- 10. Select how you want to place the image on the map.
  - **Hyperlink**—A MapNote with a hyperlink to the image displays on the map.
  - **Embedded**–A MapNote with a thumbnail image hyperlinked to the image displays on the map.
  - **Symbol**–A camera symbol with a hyperlink to the image displays on the map.

#### 11. Click Next.

A message displays telling you that you successfully tagged your images. Click **Finish**. When you view the GPS log file or track on the map, you can see where the images are tagged. OR

An error message displays; usually this is because the timestamps for the camera and the file or track do not match.

## **Tagging Data**

Once you successfully tag your data to a GPS log file or track file, you can view the points where the data was recorded on the map and in the Profile tab in your DeLorme program.

Before you begin, you must download the GPS log file or track file and the <u>data file</u> [Suunto (\*.sdf), Timex Trainer CSV (\*.csv), or Generic CSV File (\*.csv)] to your computer. See Receiving a Track From Your Third-party GPS Device for information on using the Exchange Wizard to transfer files.

### To Tag Data

- 1. Click the **GeoTagger** button on the toolbar to open the GeoTagger Wizard.
- 2. Select Data File and click Next.
- 3. In the **Data File Location** box, type the path and file name for the file. OR
  - Click **Browse** to search for the file on your computer.
- 4. Under **Time Zone**, select the time zone for your device.
  If Daylight Saving Time was in effect (second Sunday in March through first Sunday in November) when you recorded the data, select the **Adjust for Daylight Saving Time** check box.
- 5. Under GPS Data, select Track or GPL File.
- 6. <u>If you selected Track</u>, the list of track layers in the Draw tab displays in a tree menu. Click the plus sign to expand the tree menu, and click the track. You

can select only one track at a time.

<u>If you selected GPL File</u>, in the **GPS Data** box, type the path and file name for the file or click **Browse** to search for the file on your computer.

- 7. Click Next.
- 8. <u>For Generic CSV Files only</u>, under **Data File**, select the appropriate data type for each category from the drop-down lists.
  - The top row categories are the types of data and units that the program recognizes. For example, if your device recorded the speed in kilometers per hour, make sure you select Speed (kmh). If you do not have data for a particular category, leave it blank.
  - You can use the second row to assign columns of data in your .csv file
    to a specific type of data. For example, if you have a temperature field
    named "T" —; select T from the drop-down list that is below the
    Temperature category in the first row.
- 9. <u>For Generic CSV Files only</u>, select your device's time format from the **Time Format** drop-down list.
- 10. Under **Offset**, if the time on your device differed from actual time when you recorded the data, calculate the offset, type the actual time in the **Matching GPS Time** text box.
- 11. Click Next.

A message displays telling you that you successfully tagged your data. Click **Finish**. You can view the data on the Profile tab. OR

An error message displays; usually this is because the timestamps for the device and the file or track do not match.

## **Calculate the Timestamp Offset**

The time on your camera or data device must match the time in the track or GPS log so the images or data display in the correct place. If they do not, you must calculate a timestamp offset. If possible, do this before you use the GeoTagger Wizard.

### To Calculate the Timestamp Offset Before Using the Wizard

Use these steps to calculate the timestamp offset **before** you use the GeoTagger Wizard.

- 1. Click the **Draw** tab and view your track or GPS log.
- 2. Find a point on the track or GPS log where you know you took a picture or recorded data.
- 3. Make a note of the time.
- 4. Start the GeoTagger Wizard and follow the on-screen steps.
- 5. When you get to the screen with the offset option, highlight the image or data point in the file list.
  - The image or data timestamp displays in the Data Timestamp box.
- 6. Type the time you made a note of in the **Matching GPS Time** text box.

#### To Calculate the Timestamp Offset When Using the Wizard

Use the following steps to calculate the timestamp offset if you are **already** using the GeoTagger Wizard.

1. Click **Cancel** to exit the GeoTagger Wizard.

- 2. Click the **Draw** tab and view your track or GPS log.
- 3. Find a point on the track or GPS log where you know you took a picture or recorded data.
- 4. Make a note of the time.
- 5. Start the GeoTagger Wizard and follow the on-screen steps until you get to the screen with the offset option.
- 6. Highlight the image or data point in the file list.
  The image or data timestamp displays in the Data Timestamp box.
- 7. Type the time you made a note of in the **Matching GPS Time** text box.

## **Sharing Online**

## **Using Eartha Community Atlas**

Eartha Community Atlas is an interactive atlas where communities exchange their common experiences and location-based information using shared, customized, searchable maps. You can geoplace photos on a map, upload waypoints, upload and download tracks, and participate in forum discussions.

You do not have to be registered or signed in to browse the website. If you want to post to a forum or manage map information, you must register and sign in.

To launch the Eartha Community Atlas (ECA) wizard, click the **ECA** button on the toolbar. You can access the website from the first page of the wizard or click here to open it in a new window. If you need help with the Eartha Community Atlas website, click **Help** on the toolbar.

## **Using MapShare**

MapShare lets you create static maps with or without route directions or profiles to send to your friends, family, and associates.

See the Using MapShare tutorial in the application's Help for more information. For help with e-mailing maps, routes, and profiles using the MapShare Wizard, click the **Help** button on any screen in the wizard.

To open the MapShare Wizard, click the **MapShare** button on the toolbar.

## Using the XMap API Command Window

## **XMap API Command Window**

XMap includes a command prompt utility (XMapi) that allows you to control the application via the command line. The interface provides access to simple commands for performing a variety of basic operations such as panning and zooming the map, performing quick searches and creating routes. All operations are triggered from the command line but control the running application.

You can create scripts and use the XMapi executable to run them within your organization. Any commands that require further input prompt the user through the standard XMap user interface.

### To Open the Command Window

To open the command window:

From the **Start** menu, point to **Programs>DeLorme>XMap 6>Tools**, and then click **XMap API Command Window**.

The command window opens.

### To See a List of Commands and Parameters

To see a list of available commands and their parameters, follow these steps:

- 1. Open the command window.
- 2. On the command line, type **xmapi**A list of commands and parameters displays. For more information, see API
  Commands and Parameters.

### To Execute a Command Using the Command Line

To execute a command, follow these steps:

- 1. Open the command window.
- On the command line, type a command and parameter. Note All commands begin with xmapi and all parameters are separated by a single space. For more information, see API Commands and Parameters.

#### Example:

Type the following in the command line: **xmapi quicksearch "yarmouth, me"** and press ENTER on the keyboard.

XMap launches (if not already running) and switches to the Find tab. A quick search is run and the application centers the map on Yarmouth, ME.

**Note** To send the results of a command to a logfile, type '>path\filename.log 2>1' at the end of the command. Results and errors will be sent to the logfile and will not appear in the command line. If no path is specified, the logfile will be created in the default target directory.

#### To Get Help Within the Command Window

To view help within the command window, including examples, follow these steps:

- 1. Open the command window.
- 2. On the command line, type the help command (xmapi help) and the command you need help for.

Example: Type **xmapi help createroute**. The following displays:

Help for the "findshortcut" command. Searches the keyboard shortcuts for all commands with a specified search term.

Example: Type "GIS" as the search term. The list of shortcuts appears in this format: GIS .Show Check-out/in; GIS.Layer Properties, etc. A description is provided.

## **API Commands and Parameters**

These commands are available in the XMap API Command Window. Notes:

- All commands begin with xmapi.
- Parameters are separated by a space.
- An optional parameter is indicated with brackets. Example: [data-zoom-step]
- If your parameter includes spaces, use quotation marks. Example: "2 delorme dr, yarmouth, me"
- You may have to complete further actions within the application. For example, if you run the quicksearch command with the parameter of **Boston**, the Find tab will open with a list of matches. Select one to center the map on that location.
- To send the results of a command to a logfile, type '>path\filename.log 2>1' at the end of the command. Results and errors will be sent to the logfile and will not appear in the command line. If no path is specified, the logfile will be created in the default target directory.

Command	Description	Parameters	Example(s)
refreshmap	Refreshes the current map view.	n/a	n/a
zoompoint	Positions the map on the specified location.	latitude longitude data-zoom-level [data-zoom-step]  Use formats in the Latitude/Longitude section of the Chart of Supported Coordinate Formats.	4348 -7009 12 0 OR "N 43 48 30" "W70 9 52" 12 4
zoommbr	Positions the map on the specified bounding box.	nwlatitude nwlongitude selatitude selongitude  Use formats in the Latitude/Longitude section of the Chart of Supported	"N39 45.717" "W104 57.010" "N39 43.95" "W104 51.510"

		Coordinate Formats.	
quicksearch	Performs the QuickSearch action on the Find tab.	search-term  See Performing a Basic Search for options.	Boston "yarmouth, me" "2 delorme dr, yarmouth, me"
findshortcut	Searches the keyboard shortcuts for all commands with a specified search term.  See the topics under Using Keyboard Shortcuts in the online Help for additional information.	search-term	Type "route" as the search term. The list of shortcuts appears in this format: route.back on track; route.calculate, etc. A description is provided.
runshortcut	Executes the specified keyboard shortcut. Use the group.command and include all punctuation.  See the topics under Using Keyboard Shortcuts in the online Help for additional information.	group.command- name	"find.find street address in zip" opens the Find within ZIP/Postal Code option in the Advanced subtab on the Find tab. "route.center on next stop" centers the map on the next stop.
createroute	Creates a route using a start point, optional stop(s), and a finish point. All locations must be in the QuickSearch format. If a GPS is enabled, any	start-location [stop-location(s)] finish-location  See Performing a Basic Search for options.	"2 delorme dr, yarmouth, me" "portsmouth, nh" "4 yawkey way, boston, ma" "Bob Smith" "Mary Jones" "John Doe" (address book entries) "GPS" "yarmouth, me" (route from

	string starting with "GPS" (all caps) triggers the current GPS location to be used as the location.		current location to yarmouth, me)
optimizeroute	Creates a route between the specified start and finish points, inserting any stops to the route in the order they are passed in the command line. This re-orders the points to find a near-optimal pathway that connects the stops.  All locations must be in the QuickSearch format.  If a GPS is enabled, any string starting with "GPS" (all caps) triggers the current GPS location to be used as the location.	start-location [stop-location(s)] finish-location  See Performing a Basic Search for options.	"2 delorme Dr, yarmouth, me" "portsmouth, nh" "4 yawkey way, Boston, MA" "Bob Smith" "Mary Jones" "John Doe" (address book entries) "GPS" "yarmouth, me" (route from current location to yarmouth, me)
help	Provides help and examples for each command within the command window.	command-name	help findshortcut

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