

VPview[®] **V11**

HYBRID VIEWING TECHNOLOGY



Reference Manual



Joseph-Seifried-Strasse 8 • D-80995 Muenchen - Germany
Phone: +49-89-158-1430 • Fax: +49-89-158-143-33
email: info@softelec.com • website: www.softelec.com

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SECTION 1

INTRODUCTION

Welcome

Congratulations on your **VPview** software purchase from **softelec**, a specialist and market leader in raster-to-vector conversion and hybrid editing software. Since its first introduction in 1990, **VPview**, **VPindex**, **VPHybridCAD**, and **VPmap Series** software products have constantly been improved for quality and productivity. **softelec**'s technology assures that you are obtaining the finest in professional products for your scanning, archiving, **viewing**, raster and vector editing, or conversion applications.

VPview is a powerful "hybrid" viewing application for CAD files, raster images of drawings or maps in black/white, color, or gray scale. For these documents fast display, zoom, pan, and print functions allow for detailed document inspection, easy distribution and reproduction.

What are VP products and who needs them?

The importance of raster data processing has seen notable growth especially in the fields of CAD and GIS where legacy information such as "old" drawings, manually created maps, and other technical documents often found as b/w paper (copies, blueprints, transparencies) or gray scale and color images (photographs, films, color prints). Redrawing them manually with CAD (using CAD functions or a digitizer) is time consuming, inaccurate, and involves high costs. To overcome these drawbacks, b/w and color scanners for small and large formats are used to generate raster data (digital photographs) which can be easily edited or, when necessary, converted to vector entities for further use in CAD and GIS applications.

VPview, **VPindex**, **VPHybridCAD** and **VPmap Series** products are designed for:

- Architects and civil engineers, facility planning departments, and maintenance support
- Mechanical design, process engineering, and production equipment design
- GIS applications and cartography
- Land Survey engineers and Cadastral documents
- EDM applications such as archiving, indexing, revising of documents, etc.

Everyone using a CAD system will inevitably face this question: "How do I capture paper information for use in my CAD system in a manner that saves time and money?" At **softelec**, we firmly believe that **VPview**, **VPHybridCAD** and **VPmap Series** products clearly respond to this question in many ways offering the optimal solution for any application on hand.

Concept of this Manual

This manual has been organized to help you to quickly find operation terms, commands, and description of functions and to supply you with brief, but sufficient explanations. This manual applies to the following VP products:

VPview.

At the top of each page the listed product name(s) indicate(s) the product(s) the information and/or commands apply to. If specific commands on a page are limited to other products or product groups this is marked with a corresponding icon at the corresponding command description. Great efforts have been made to define each function and each setting of a parameter only once in detail. Therefore, an alphabetic index provides quick access to finding these descriptions.

Keys and key combinations are represented by [] enclosing the keys' designation. For example, the "Enter" or "Return" key is shown as **[Enter]** whereas a key combination (short-cut) opens as **[Ctrl + C]**.

Functions that can be mouse-clicked for activation/deactivation in a check box are represented as **{on/off}**.

All titles/headlines which are program functions are marked with an underline: **Draw Line**.

Command line commands – if available for a particular function – are indicated with "**CMD:**" followed by the command term.

The given **value ranges** do not necessarily define an internal limitation, but specify a meaningful range – be aware that using values outside of the "normal" range can cause unexpected results. **Default values** represent values either set up during installation or values to be used, e.g. when parameter values are reset.

Conclusion

This manual is intended to familiarize you with all the functions of **VPview**. It is meant to be a source of reference and a guideline.

As a reminder, please register **VPview** with softelec (by mail, fax, or online) within 30 days after installation to receive an unlimited license.

Visit our website at <http://www.softelec.com> for the latest product information, for technical support, for available updates, upgrades, and service packs.

SECTION 2

INSTALLATION

Introduction

VPview software requires for operation Microsoft **Windows XP/Vista/7**. Depending on the configuration of your computer network you may install the software using local licensing or network licensing.

The purchased **VPview** software product is delivered with a 30 days time limited operation license. The user is required to register the software within that time frame with softelec using either the online registration accessible from within the software, or sending the completed registration form to softelec by mail or fax. Softelec will then return a code to the user which extends the license for unlimited use.

Software License Control (Hardlock)

Any **VPview Full Version** product requires a hardlock (dongle) controlling the product license. Without a proper installed hardlock any product will only operate in the **Demo Mode** (no hardlock for the license control required).

The hardlock may contain one or more product licenses. Regardless of the installation mode and the number of licenses controlled by the hardlock there are two methods of operation:

1. **Local Licensing**: you need to attach the parallel port hardlock (dongle) to one of the parallel ports or the USB hardlock to one of the USB ports of the computer where the **VPview** software is installed. Typically, this method of operation is used if the hardlock contains a single license only. Then, for every additional **VPview** installation an additional single license hardlock is required.
2. **Network Licensing**: this method of operation is preferable if two or more **VPview** licenses are to be controlled by one hardlock, but may also be used for a single license ("floating" license), where you can access the **VPview** license on any network computer, but only operate one license at a time. You need to attach the hardlock to a workstation serving as "**VP network server**" or "dongle server" (usually your network server) executing the **VPLicenseManager** so that the license(s) is/are accessible by other workstations.



The **VPLicenseManager** has to be installed on the workgroup server and can only operate under **Windows NT 4.0/2000/XP/2003/Vista/7**.

Local Licensing does not require the installation of the **VPLicenseManager**.

Hardlock Driver

The workstation or server controlling the hardlock needs a system driver for proper operation. This driver is provided with your package and is installed together with the **VPview** software. You may also install it manually by following the instructions found in the file **README.TXT** on the CD.



In order to install the hardlock driver during the standard installation or manually, you need **administrative rights**.



The installation routine will **not** install the hardlock driver(s) if the selected software is installed as a **Demo Version!** If, at a later state, you want to use the software as a full version (together with the purchased hardlock), you need to manually install the hardlock driver.

Attaching the Hardlock (Dongle)

The driver software will be installed automatically with the VP software program (full version). If required, it can also be installed separately later. Installation files can be found on the VP software CD or are available at www.softelec.com – downloads – utilities/drivers.

USB: Attach the hardlock only **after** a successful software installation to one of your computer's/server's USB-Ports.

Parallel: Attach the **male** side (the side with the pins) of the hardlock to one of your computer's/server's parallel ports (LPT1, 2, or 3). Typically, up to five hardlocks can be stacked together including a printer to the parallel port device(s). If a printer is connected, it should be turned on to provide proper termination, otherwise the hardlock may see false signals (due to reflections) that will cause the program to request a hardlock installation.



It is not recommended to install the hardlock on a parallel port together with a scanner or any parallel port device other than a printer!

Package Contents

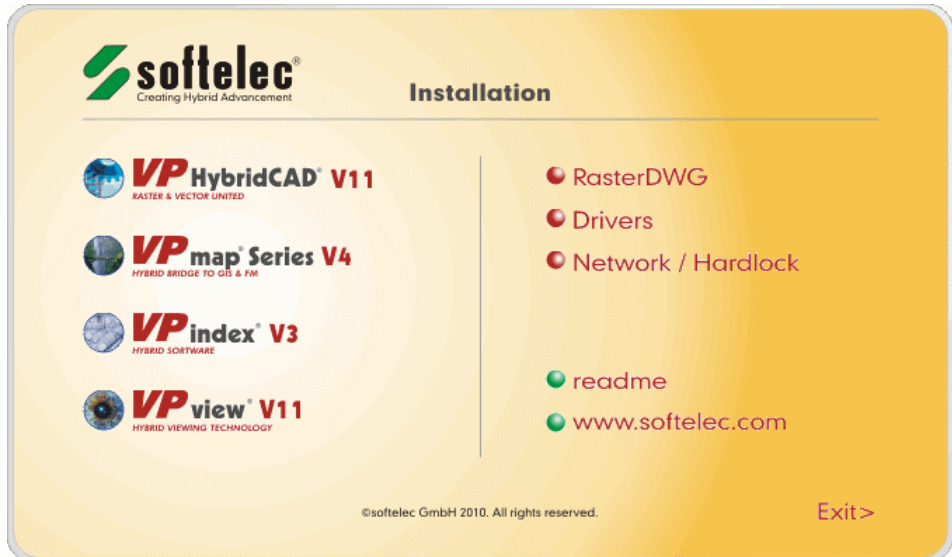
Your **VPview** package contains the following:

- 1 **VP Software** CD
- 1 Hardlock (dongle)
- 1 Registration form

Installing VPview Software

General

The install program **SETUP_VP.EXE** guides you through each step to successfully install and configure the software of your choice and the required hardlock driver on your computer. If your CD function **autorun** is enabled, the initial screen will pop up automatically upon insertion of the **VP Series** CD offering you several choices. Select **VPview** and follow the advice:



All required hardlock drivers (Sentinel and/or HASP) will be installed or updated automatically if a **VPview Full Version** product is installed.

The installation setup allows you to specify several options. These include the target location and the required components of the **VPview** software.

Prior to starting the setup routine please terminate any running application and read the file **README.TXT** if available on the **VP Series** CD.



Administrator rights are necessary to install the hardlock driver.

After a successful installation of the software or the hardlock driver it is often necessary to reboot the computer in order to allow the operating system to update the DLLs. A dialog box will appear, asking the user to restart the computer now or at a later stage.

Performing the Installation

The setup starts automatically after inserting the CD into the CD-ROM drive (**autorun**). Only if your Operating System (OS) does not support this feature or **autorun** is disabled you have to start the setup program **SETUP_VP.EXE** manually from the root directory of the CD as follows:

double-click **SETUP_VP.EXE** directly from the **Explorer**.

In the initial setup window click the item "**VPview**", select "**Full Version**" or "**Demo Version**" (as desired) and select the desired program language from the appearing dialog. In the sequel you are guided through the setup dialogs allowing user defined settings. We recommend to choose "**typical**" as the setup type.

Local Licensing

During setup you will be asked whether your hardlock resides locally or on the VP network server. Choose "**Local**".

Network Licensing

If you want to operate the software on a network (you have either multiple licenses purchased or you want to use a single license floating) you need to install your hardlock on the server. Therefore, choose "**Network Server**". The next dialog prompts you for the name of the server bearing the hardlock ("dongle server").



Enter the name, not the IP-address of the server!

There are different ways to specify the server:

COMPUTERNAME

Name of the computer as entered during the installation of the Windows OS. Leading backslashes ("\") are not required!

COMPUTERNAME:192.168.0.1

The IP-Address can be enter after the computer name separated by ':'. This is useful in larger networks and can speed up the rooting to the server and thus the license.

COMPUTERNAME:COMPUTERNAME.DOMAINNAME

In some 'heterogeneous' networks with different Windows versions it might be necessary to use this combination to clearly resolve the server name (e.g. DHCP)

When working with multiple dongles on different servers please use the following syntax:

COMPUTERNAME1; COMPUTERNAME2

The computer names of the servers must be separated by semicolon.

If you don't know the name of the "dongle server" (= "VP network server") you may leave the entry empty and proceed with the installation. You may change the dongle server name in the **VPview** software (Options->Settings->License) later.

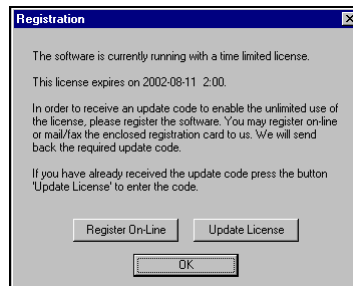


In order to use Network Licensing, the **VPLicenseManager** (see below), the hardlock driver, and the hardlock (dongle) must be installed on the same computer (server).

First Start after Installation and Registration

Unless you have purchased special **VPview** licenses such as Multi Licenses or Educational Licenses, which require a pre-registration, your software operates on a 30 days time limit allowing for execution of the required registration with softelec. At any start of the **VPview** software a dialog opens remembering you to register and displaying the expiration date of the license. After the expiration date the software will only run in demo mode, unless the code for unlimited use has been entered. This code will be send to you as soon as you have registered with softelec.

You can register online from within the **VPview** software (press button "Register On-line" in the dialog box or select menu **Help** → **Register VPview on the Internet**) or fill out the attached registration form **completely** and **legibly** and send or fax it back to **softelec**. After checking the registration contents softelec returns a code to be entered with the next software start.



You will receive technical support and update/upgrade notices from softelec only if you have properly registered your **VPview** software. Registration of **VPview** products with your dealer does not constitute a proper registration.



All user data received will only be used for internal expenditure within the softelec sales and support cycle and will not passed over to third parties!

Uninstalling

To remove a **VPview** software from your computer click on the icon **Uninstall** and follow the instructions.

The hardlock driver(s) will **NOT** be removed. If the driver is not required by any other program, you can uninstall those using "**Add/Remove Programs**" from the **Control Panel**.

Updating / Service Pack

Software **updates** (to a new release of **VPview**) may require a password that is issued to you upon purchase. After installing the update and starting it for the first time you will be asked to enter the password. With a successful entry the password can be discarded.



For updating a **VP network license hardlock** (the lock is attached to the VP network server) use the program **UPDATELOCK.EXE** residing in the CD directory **VPHardlock** for entering the update code. For more information please read the text file **ReadMe.TXT** in the route directory of the CD.

Service packs are released from time to time for bug fixes and smaller software improvements. They can be downloaded from our website and are usually self-installing.

You may install and use the new **VPview** release together with a previous release although this is not recommended. However, do not install the new version into the same directory!

System Requirements

Proper operation requires a specific configuration of hardware and software to guarantee overall functionality. The fastest CPU in your PC is the most desirable! The software requires at least 128 MB of RAM, but this is not recommended and today's PCs often have higher memory installations. Drawing formats of DIN A0 (E size) and larger, gray scale or color images of any size require a minimum of 256 MB RAM; 512 MB or more is recommended for large size color images. File size and entity contents of a drawing define the actual amount of RAM required. **In general: the larger and denser the drawing and the more recognition options are selected, the larger will be the amount of RAM required. Otherwise, disk swapping will become necessary and will noticeably slow down program operations.**

Installing the VPLicenseManager

The **VPLicenseManager** needs to be installed only if you have a computer network and the hardlock is attached to a remote computer ("dongle server"). This software controls and manages the **VPview** licenses in the network.

Requirements

The **VPLicenseManager** may be installed as a **service** only on computers (server or workstation) operating under Windows 2000/XP/2003/Vista/7.



The VPLicenseManager will not operate under Windows 98 or ME!



As a maximum number, ten concurrent users are allowed to connect to a license server running with either Windows 2000 prof. or Windows XP prof.! This is a restriction of the operating system, not of the VPLicenseManager. More users can connect using a server operating system like Windows Server 2003.

The software clients may run under Windows XP/Vista or 7. It is necessary that the clients have access to the "dongle server" (an account must exist for each user). We strongly recommend installing the **VPLicenseManager** on the Domain Controller Server!

An alternative solution is to create a share with a default user name and a respective password. Every user that needs to access the "dongle server" has to connect this share with this specific name and the specific password. This can be done by either using the Windows Explorer, by a special logon script, or by using the **VPNetManager**.

Installation



For the following steps you have to be logged on to the dongle server as "Administrator"!



Attach the hardlock (dongle) only **after** a successful software installation.

1. Install the **VPLicenseManager** software either
 - by choosing **Network / Hardlock - VPLicenseManager** in the installation's main window, or
 - by running **VPLicenseManagerSetup.exe** from the **VPLicenseManager** folder on the VP software CD.
2. Apply the dongle to a USB or parallel server port.

In general, a reboot of the server is not required! In some cases it might happen that the **VPLicenseManager** service is not started automatically after installation. In this case you can start the service manually through the computer administrative console. To check whether the **VPLicenseManager** has been installed and is running, please use the **VPNetManager** (described below) for checking.

The **VPLicenseManager** service is installed with the startup option 'automatic'. That means the service will be automatically restarted after any reboot of the computer.

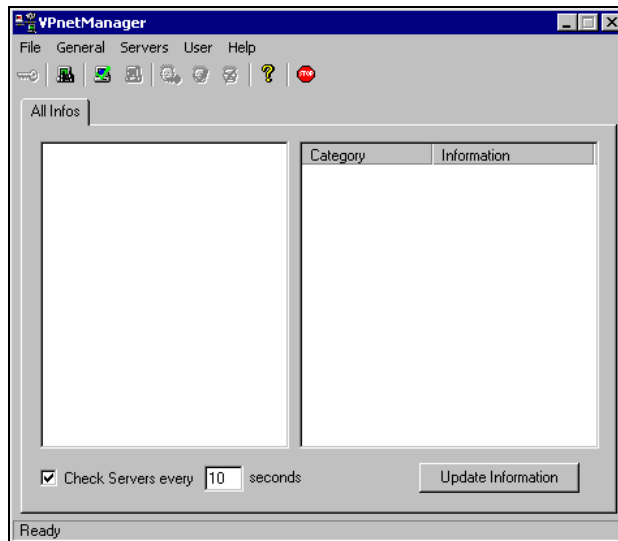
Monitoring the VPLicenseManager

VPNetManager - Introduction

The **VPNetManager** allows monitoring the **VPLicenseManager** servers in your network. The number of the available licenses, the licenses in use, and the users accessing the **VPLicenseManager** servers can easily be overlooked.

The **VPNetManager.EXE** application is located in the CD directory **VPNetManager**. It can be started from the installation menu (**Network / Hardlock → Run VPNetManager**) or it can be installed (by copying) on any computer (Windows 98/ME or Windows NT 4.0/2000/XP or higher) in the network.

After the first start of the application the following dialog appears:



Manage License Servers

If started for the first time or if no server is listed to be monitored the application will automatically search the entire network for **VPLicenseManager** servers (see **Search Servers**).

Search Servers



Menu: **Servers**, Function: **Search Servers**

The application will search the network for any **VPLicenseManager** servers. The search may be stopped by clicking the icon again.



Depending on the size of your computer network the search may take a long time. You can speed up this process by adding the server name manually (see below).



If you don't have an account on a computer that is currently being checked a dialog opens asking you to logon with a different user name and password. See also **VPLicenseManager - Requirements**.

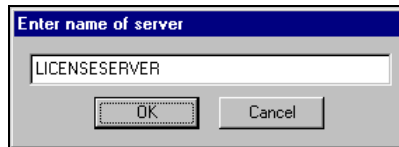
When the search has been completed the left window frame displays the symbols for the found **VPLicenseManager** server(s) (**green** screen) and those for the connected hardlock(s).

Add Server



Menu: **Servers**, Function: **Add Server**

Enter the name of a **VPLicenseManager** server:



If you don't have an account on the computer a dialog opens asking you to logon with a different user name and password. See also **VPLicenseManager - Requirements**.

When successfully completed, the server and the attached hardlock(s) will be displayed in the left window frame:



The **green** screen indicates that the **VPLicenseManager** server is working in normal mode.



A **red** screen indicates that the computer could not be found in the network, i.e. the net path may be wrong or the computer is not operating.



The **blue** screen indicates that the computer is not a **VPLicenseManager** server, i.e. the **VPLicenseManager** has not been installed or the program was stopped.



A **yellow** screen indicates that the computer is operating, but another error has occurred. An additional error message is displayed in the status bar of the **VPNetManager**.



If the hardlock is not attached to the **VPLicenseManager** server the symbol for the hardlock will not be displayed.

Remove Server



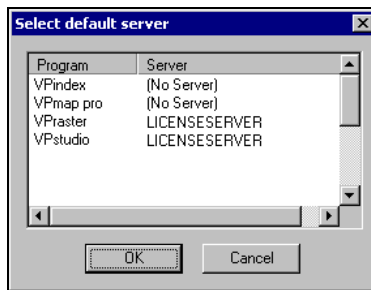
Menu: **Servers**, Function: **Remove Server**

The currently selected server will be removed from the list and will not be monitored any more.

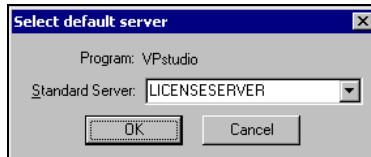
Default Server

Menu: **Servers**, Function: **Default Server**

A dialog opens displaying a list of all **VP** applications installed on the local computer and the respective license server settings:



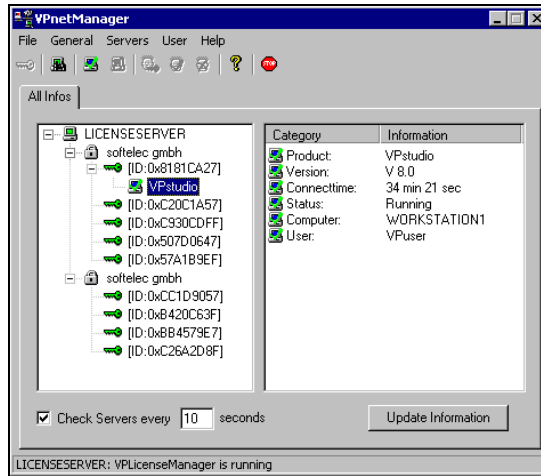
Instead of checking and changing the server settings in each program you can easily do this with this function. Double-click on the program you want to modify and choose a new server:



You can also assign the setting **(No Server)** meaning that a locally attached hardlock will be used by the selected program.

Sample

The following sample dialog shows an active **VPLicenseManager** on the computer LICENSESERVER with two hardlocks containing 9 product categories, each marked by a key symbol. Each category may contain several licenses of that product.



In this sample one license of **VPstudio** is currently in use by the user **VPuser**.

Manage Users

A user has to be a member of a user group (user type). There are two types of user groups: group **Administrator** or group **Monitor**. Monitor users have the right to monitor the license servers, the available licenses, and the licenses in use. Administrator users have additional rights to create or delete users.

After the installation of the **VPLicenseManager** only two users are defined:

Name	Password	User group
Administrator	Administrator	Administrator
MonitorUser	no password required	Monitor



With the first logon the Administrator's password should be changed immediately!

When starting the **VPNetManager** you are automatically logged on as the default user **MonitorUser**. If this default user is deleted on a license server, only the server name and the status of the **VPLicenseManager** is displayed, however there will be no information on licenses. This way administrators can control the access to any license information: delete the standard user **MonitorUser** and create new individual user accounts.

Logon



Menu: **General**, Function: **Logon**



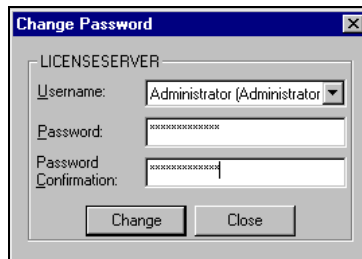
The user will be logged on to the selected server. Note that the user name and the password entry are case sensitive! Additionally, the **VPNetManager** will try to log on the user to any listed **VPLicenseManager** server. If this fails for a server the user will be prompted again to enter a username and a password for this server. With **Cancel** the process is aborted.

Change Password



Menu: **User**, Function: **Change Password**

This function is available for all users except for the default user **MonitorUser**. Users of the group **Monitor** may only change their own passwords while users of the group **Administrator** may change the passwords of all users.



Create



Menu: **User**, Function: **Create**

This function is available only for users who are members of the user group **Administrator**. A new user can be created either on the selected server or on all listed servers:



The 'New User' dialog box contains the following fields and options:

- License Server: LICENSESERVER
- Username: Huber
- Password: [masked]
- Password Confirmation: [masked]
- On All Servers
- Administrator
- Buttons: OK, Cancel

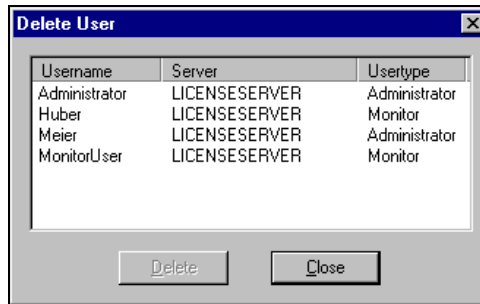
Depending on the selected option a new user of the selected group, either of type **Administrator** or **MonitorUser** will be created. With the activated option **On All Servers** the system will try to register the user on all listed servers. The password default is the user name

Delete



Menu: **User**, Function: **Delete**

This function is available only for users who are members of the user group **Administrator**. A dialog appears to delete users from the user list. All registered users of the selected server are displayed. The user will be deleted without a warning message.



The 'Delete User' dialog box displays a table of users:

Username	Server	Usertype
Administrator	LICENSESERVER	Administrator
Huber	LICENSESERVER	Monitor
Meier	LICENSESERVER	Administrator
MonitorUser	LICENSESERVER	Monitor

Buttons: Delete, Close

SECTION 3

SYSTEM SETTINGS, GENERAL FUNCTIONS

General Information

VPview products are in full compliance with the graphic user interface conventions of Windows.

VPview has a **Multi Document Interface (MDI)** allowing for opening an unlimited number of documents at the same time and edit/process the contents of the documents simultaneously. You can open raster files, vector drawings, or hybrid files containing raster and vector entities.

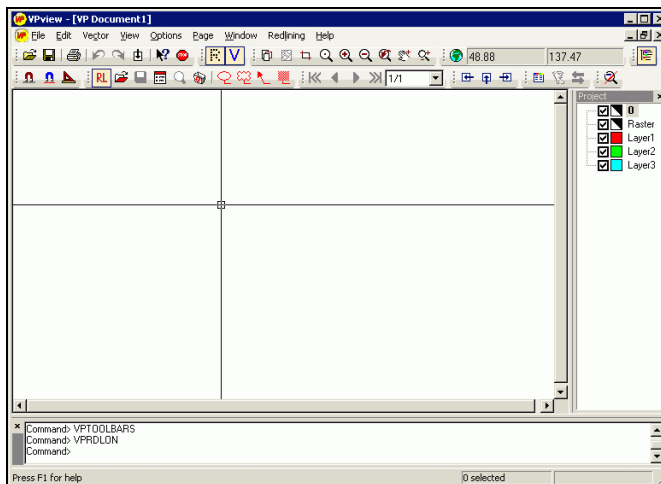
Anyone document can contain one or more raster images and/or vector data. The data maybe organized all in one page or in different pages of the same document (**Multi Page Document**), whereby the **Page Control** function controls the pages. In a multi page document only one page can be displayed at anyone time. For **Multi Page TIFF Files** the page control function also allows to select a particular raster image for editing/processing the contained data.

Most functions and routines can be activated through graphic symbols (icons), by selecting the appropriate command from the menus and submenus, or by invoking the adequate commands at the command line. Using **[F1]** offers access to an extensive online help at any time.

Program Start



Start your **VPview** software with this icon.



Main Menu Sample: VPview showing all Toolbars

General Operation

Manual, Online Help

VPview is delivered with an extensive product documentation. An Online Help system is also included and provides retrieval of specific function descriptions.

Menu: **Help**, Function: **Help Topics**

CMD: **VPHELP**

The Online Help is provided in various manners:

Help Menu

You will find Online Help in the menu item **Help - Help Topics**.

Command Line

Enter **vphelp** at the command line.

F1 Key

Using the the **[F1]** key. When a dialog has been opened specific information regarding this dialog will be displayed.

Help Button



Click on this button first, then on any other button in the program for obtaining related information.

Toolbars

Upon the first start of VPview a selection set of the available toolbars is displayed. All toolbars can be switched on/off according to individual user preferences. They can also be positioned by following the Windows conventions.

Icon and pull-down menu commands that cannot be activated in the program's current status (e.g. no raster loaded) appear "grayed".

Each toolbar can be customized individually by removing or adding icons as they are needed. A mix of icons between different toolbars is not possible.

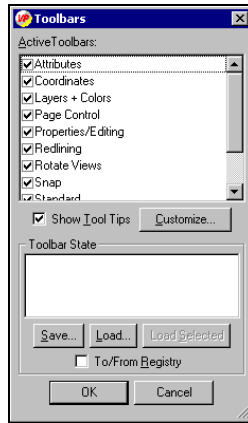
A specific positioning of toolbars can be saved as permanent and will be available at any time when it is needed.

Toolbar Contextmenu

A right mouse click on a docked toolbar will open a toolbar context menu providing that toolbars can be customized.

Status Dialog

Menu: **Options**, Function: **Toolbars**
 CMD: VPTOOLBARS <Tor-file>

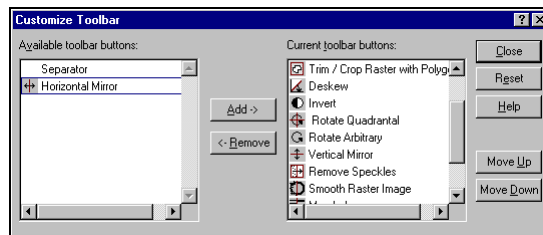


To activate or disable a particular toolbar, just click the corresponding check mark.

Customize

You can customize most of the toolbars by removing unwanted icons. If a particular toolbar cannot be customized then the button **Customize** is "grayed". Select a toolbar and click the button **Customize**.

The following dialog opens:



Select the icon you want to **Add** (on the left) or to **Remove** (on the right) and press the corresponding button. **Reset** activates the default settings.

Buttons **Move Up** and **Move Down** allow for changing an icon's position in the toolbar.

When **Show Tool Tips** is activated and the cursor (arrow) is placed on an icon without clicking it, a short description of the function is displayed as a tool tip. The description also appears in the status line at the bottom of the window. Corresponding tool tip information also appears in dialogs and in the work space.

Toolbar State

This list displays all setting files (*.tor) available in the VP **Support** subfolder.

Save

Saves the current toolbar arrangement to a file.

Load

Loads a previously saved file containing Toolbar settings (*.tor) from any folder location.

Load Selection

A selected Toolbar settings file will be loaded from the **Support** folder.

To/From Registry {on/off}

Saves/Loads a toolbar arrangement to/from the registry instead to/from a separate file.

Dialog Boxes

VPview uses fixed size and re-sizeable dialog boxes. Once you have set up the size of a variable dialog box this size will be saved and re-used the next time you call this dialog.

If a dialog box uses columns for displaying matching information, the width of each column will be adjusted. You may use keyboard commands according to Windows conventions to modify the arrangement of columns. However, these individual arrangements will not be saved:

Status Display

There is a **comment box** at the lower left screen margin showing:

- **Activated function**, or
- **Required activities to proceed**, or
- **Messages**, or
- **Progress during execution**.

On the right there are 2 boxes for:

- **Count for selected elements**
- The **local RGB color value** if the cursor is positioned on a colored or gray scale image.

When no function has been activated the comment box remains empty, while a '**For Help, press F1**' indication appears on the left.

Display Control Functions

Raster [F4] {on/off}



Menu: **View**, Function: **Show Raster**

CMD: **VPRDISPLAY** ► {on/off}

This function toggles the display of raster data on and off. When you load a raster file, the display of raster data is enabled automatically. The item in the menu will be indicated accordingly.

Vector [F5] {on/off}



Menu: **View**, Function: **Show Vector**

CMD: **VPVDISPLAY** ► {on/off}

This function toggles the display of vector data on and off. When you load a vector file the display of vector data is enabled automatically. The item in the menu will be indicated accordingly.

Bird's Eye {on/off}

Menu: **View**, Function: **Bird's Eye**

CMD: **VPBIRDEYE** ► {on/off}

This function toggles the display of a separate window showing the whole drawing. Your actual zoom position is indicated by a green frame. Clicking and dragging inside this bird's eye window performs a dynamic pan of your current view. Clicking the right mouse button and drawing a rectangle will zoom to the rectangle area. Using the mouse wheel zooms into or out of the view's center.

Zoom Functions

Zoom Extents [NUM x]



Menu: **View ► Zoom**, Function: **Zoom Extents**

CMD: **VPZOOMX**

The drawing is displayed to its full extents. The drawing's center is mapped to the center of the display.

Zoom Selection



Menu: **View ► Zoom**, Function: **Zoom Selection**

CMD: **VPZOOMSEL**

This function is only available when objects are selected. After selecting objects the function sets a new zoom window, so that all selected objects are displayed in the drawing area.

Zoom Window



Menu: **View ► Zoom**, Function: **Zoom Window**

CMD: **VPZOOMW**

Define a window in your document to enlarge a section.

You can also use the **Fast Zoom Window** function by holding down **[Ctrl+Space]** and then defining a zoom window.

Zoom Pixel [NUM ÷]



Menu: **View ► Zoom**, Function: **Zoom Pixel**

CMD: **VPZOOMPIXEL**

Enlarges the display to show each pixel, i.e. each raster pixel is represented by one dot on the screen.

Zoom In [NUM +, +]



Menu: **View ► Zoom**, Function: **Zoom In**

CMD: **VPZOOMIN**

This function zooms in incrementally to the maximum pixel viewing level while maintaining the viewing center point.

Zoom Out [NUM -, -]



Menu: **View ► Zoom**, Function: **Zoom Out**

CMD: **VPZOOMOUT**

This function zooms out incrementally maintaining the screen center point in view, if possible.

Zoom Previous



Menu: **View ► Zoom**, Function: **Zoom Previous**

CMD: **VPZOOMPREV**

This function lets you work your way back through previous zoomed views. The program remembers a maximum of 32 views. It does not recall pan operations.

Zoom Dynamic



Menu: **View ► Zoom**, Function: **Zoom Dynamic**

CMD: **VPDYNZOOM**

This function lets you zoom dynamically by clicking with the left mouse button onto the screen and move the mouse up (zoom in) or down (zoom out).

Pan Functions

Pan [Cursor Keys]

Menu: **View ► Pan**, Function: **Pan Right, Pan Left, Pan Up, Pan Down**

CMD: **VPPANRIGHT, VPPANLEFT, VPPANUP, VPPANDOWN**

You can pan using the **scroll bars** at the bottom and right of the active window, or using the **pan keys** on the keyboard.

Pan Page [Shift]+ [Cursor Keys]

Menu: **View ► Pan**, Function: **[Shift]+Pan Right, Pan Left, Pan Up, Pan Down**

CMD: **VPPAGERIGHT, VPPAGELEFT, VPPAGEUP, VPPAGEDOWN**

You can pan using the **scroll bars** at the bottom and right of the active window, or using the **pan keys + [Shift]** on the keyboard.

Dynamic Pan



Menu: **View ► Pan**, Function: **Pan Dynamic**

CMD: **VPDYNPAN**

Click with the left mouse button onto your document and move (pan) as required. Release the mouse button to stop panning. You can also initiate the **Dynamic Pan** function by holding down **[Space]** or the center mouse button. The function is active as long as you are holding the key or button.

Using the Mouse

Display Modes of Mouse Position

Within the work area the mouse position is displayed as a **Cross** cursor by default. When moving to toolbars, menus or to the status area it will be displayed as a standard Windows **Arrow** cursor. At the command line it will be displayed as a standard **Text** cursor.



A triple **white frame box** (instead of the standard crosshair) indicates that with the **next** mouse click this area will be zoomed in to allow for a precise positioning with the then following click. To configure the zoom size use the **General** tab in the **System Settings** dialog.

Using the Mouse to Select Elements

Use the **left mouse button** to pick for **Selection**.



Elements to select can be in raster or vector format. When vector elements are overlaying raster elements only vector elements will be selected initially, while raster elements need to be selected again.

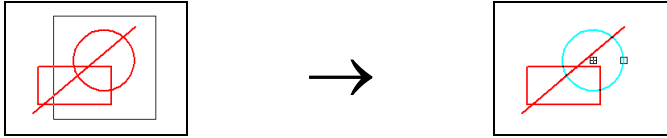
Selecting entities in an image can be done in three different ways:

Clicking

Click on the respective element within the cursor's snapping range. Only **one** element will be selected per click.

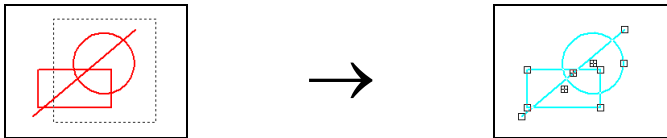
Window

You specify a rectangle by holding down the left mouse button and dragging the mouse **from left to right**. All elements **completely** enclosed by the rectangle will be selected. The rectangle will be displayed with a **full** frame.



Crossing

You specify a rectangle by holding down the left mouse button and dragging the mouse **from right to left**. All elements **touched or enclosed** by the rectangle will be selected. The rectangle will be displayed with a **dashed** frame.



Deselection of selected Elements

To deselect elements from a previous selection hold the **[SHIFT]** key and repeat your selection (see above for selection modes).

To **cancel** a selection or to **deselect all** selected elements, press the right mouse button for the context menu, or press **[ESC]**.

Context Menus

Use the **right mouse button** to open context menus. There is a general context menu defined in the software registry. Other menus depend on active functions or commands.

Zoom

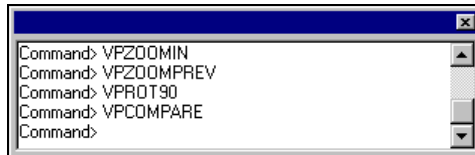
You can use the mouse center wheel to

- zoom in/ zoom out .
- move up/move down (scroll) when holding the **[Ctrl]** key.
- move left/move right when holding the **[SHIFT]** key.
- move the display arbitrary when holding down (pan).

Command Line

VPview offers a command line input and execution via keyboard.

Under Windows **VPview** has a sizeable and dockable/undockable command line area which can be switched off when not needed. It automatically reappears on keyboard input. To activate and display the switched-off command line just press **[Shift]+[Return]**. Command line inputs may look like this:



All **VPview** functions can be initiated by command line input. Commands are only available (executable) if a document has been opened, except for specific commands like **Open**, **Help**, etc.

The available commands are listed with the corresponding functions in this manual.

A command string consists of the **command header** and can be extended by **options/parameters**. Any command starts with the two letters "**VP**" followed by the command name. The command header is the main command for any particular function or operation. For entering you may use upper and/or lower case letters. Enter **[Return]** for execution.

The command syntax is as follows:

VPXXXX <X₁>, <X₂> <X₃> [/P|Parameter <X₁>, <X₂>]

The preceding characters **VP** may be omitted.

Options <X₁> <X₂>, <X₃>

Options are command supplements which may be required to execute the command. Some commands do not allow options at all, some may have options, and some always require options. The values X₁, X₂ etc. can be separated by either **comma(s)** or **space(s)**. This delimiter strategy allows for entering an extended command string prior to executing the complete command with **[Return]**.

Parameter [/P|Parameter <X₁>]

Parameters are always optional. Therefore, they are listed in this manual in brackets. A parameter starts with a "/" (slash) followed by the parameter name. Possible abbreviations are also listed, they are separated by a "|", i.e. you may use the word **Parameter** or only **P**. A parameter can require options, which are demanding if the parameter is used at all. These parameters are shown within the brackets enclosing the parameter and the required options.

Delimiter

Options and parameters have to be separated with a delimiter. As delimiters either a **comma** or a **space** character are available. Multiple spaces and/or commas between two option values are interpreted as one delimiter.

If a parameter uses either a space or a comma as part of the parameter – e.g. if you use a file name as the parameter to the command **VPOPEN /P** which carries space(s) – you need to enter this parameter in quotations marks: **VPOPEN /"C:\VP SAMPLE.TIF"**.

Command Query

If you enter any command followed by a slash and a question mark, e.g. **VPOPEN /?**, the system will display all options/parameters for this command.

Repeating Commands

Entered commands can be repeated by using [**↑**] and [**↓**] cursor keys.

Completing Commands

You may use the [**TAB**] key to complete a command. A repeated pressing on [**TAB**] will prompt the next command option in alphabetical order. Using [**SHIFT**] + [**TAB**] reverses this order.

Example: "VPRO " and [**TAB**] will prompt "VPROT90".
"VPRO " and [**SHIFT**]+ [**TAB**] will prompt "VPROT270".

Alias Names

The command header of a command string may be replaced by an **alias name**, usually a short abbreviation being especially useful with commands which are often used. The file **ALIASES.PGB** located in the **SUPPORT** subdirectory contains alias names which may be modified or extended at users discretion. The default alias names are listed in the APPENDIX.

Command Line {on/off}

Menu: **View**, Function: **Command Line**

CMD: **VPCMDLINE**

Switches the command line on and off.

Activate Command Line

Menu: **View**, Function: **Command Line**

CMD: **VPACTCMDLINE**

Activates the command line at any program state.

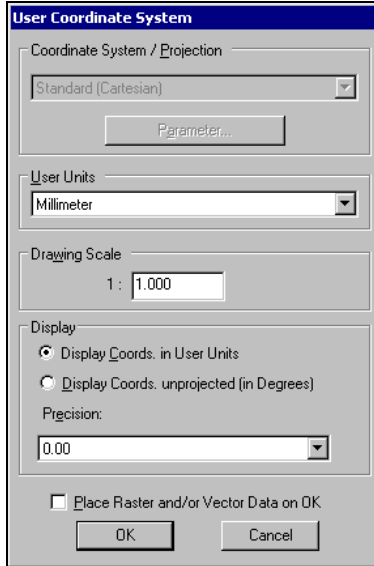
User Coordinate System



Menu: **Options**, Function: **User Coordinate System**

CMD: **VPUSERCOORDS**

This icon opens a dialog box for setting up the user coordinate system:



The dialog box, titled "User Coordinate System", contains the following sections:

- Coordinate System / Projection:** A dropdown menu set to "Standard (Cartesian)" with a "Parameter..." button below it.
- User Units:** A dropdown menu set to "Millimeter".
- Drawing Scale:** A text field showing "1 : 1.000".
- Display:** Two radio buttons: "Display Coords. in User Units" (selected) and "Display Coords. unprojected (in Degrees)". Below them is a "Precision:" label and a dropdown menu set to "0.00".
- Place Raster and/or Vector Data on OK:** An unchecked checkbox.
- Buttons for "OK" and "Cancel" at the bottom.

By entering values for

- **User Units**
- **Drawing Scale**

the coordinate system can be adjusted to specific requirements of the active document.

Coordinate System / Projection

This field always appears greyed and contains **Standard (Cartesian)**. However, when a file is opened containing Coordinate System information (e.g. GeoTIFF) a Coordinate System with a specific projection can be displayed. In this case **Parameter** becomes available to check on projection parameters. However, these cannot be changed.



To set up and edit a specific Coordinate System with projections you will need to apply softelec's **VPmap Series** products.

User Units / Drawing Scale

The **User Units** and the **Drawing Scale** should be set to a value which corresponds to the document data. This information may either be part of the legend/drawing header in a raster image or it needs to be known due to other information. This allows for measurements (using function **[F2]**) in the document or for a direct use of real coordinate values for e.g. construction (see **section 8**) or rubber sheeting (see **section 6**).

Display

Choose between **Display Coords. in User Units** and **Display Coords. Unprojected (in Degrees)**. The second option is only available when a coordinate system with projection has been selected. When selected all coordinate input requiring coordinate values in **User Units** must be entered as degree-minutes-seconds (DMS). Possible formats are:

Input Format	Sample Input	Value
<d>°<m>'<s.nn>"	-48°15'30"	-48°15'30"
<d>°<m.nnnn>'	-48°15.5'	-48°15'30"
<d.nnnnn>	-48.2583333	-48°15'30"
<d>°<m>'<s.nn>" [EWNS]	48°15'30" S	-48°15'30"

Instead of using signed values the post-fix **East/West** and **North/South** can be used to specify the direction.



Instead of using the degrees (°), minutes ('), or seconds (") signs you can also separate the values by a double point (:) (<d>:<m>:<s.nn>). This may especially be necessary for complex command line input to differ the coordinate values from e.g. long file names with (").

Precision defines the number of decimal places.

Default: **Display Coords. in User Units**

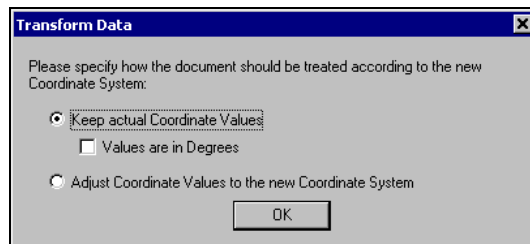
Precision: **0.00**

Place Raster and/or Vector Data on OK {on/off}

If set to **on** after confirming the **User Coordinate System** settings with **OK** a dialog pops up to specify a new origin for the existing raster and/or vector data. See the following command.

OK

If the coordinate system has been modified another dialog pops up on **OK** to specify whether existing document data should be transformed to the new coordinate system or not:



Keep actual Coordinate Values

Use this option when the coordinate values in the document are already displayed correctly. Typically, this is the case when a vector drawing with no or wrong coordinate system information, but real coordinate values has been imported. AutoCAD drawings may be examples (*.DWG) when they have been created in an **English (inch)** environment, but were drawn with **Metric** (millimeter or meter) coordinates. Also, ESRI shape files (*.SHP) may be another example when no corresponding projection file (*.PRJ) is available. Especially, typical GIS formats like MapInfo MIF files and ESRI SHP files may contain vector data with coordinate values in degrees. In these cases the **Values are in Degrees** option needs to be applied.

Adjust Coordinate Values to the new Coordinate System

Use this option when the coordinate values displayed for the document are “paper” units. Typically, this is the case when a raster image without any placing and coordinate system information has been imported.

System Settings

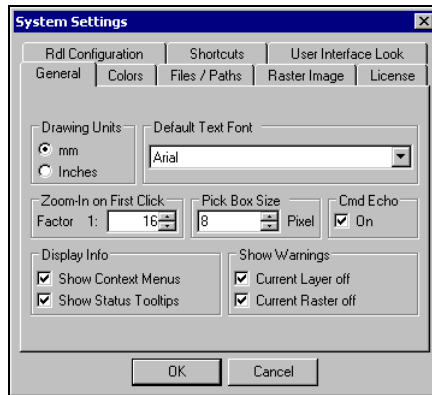
The system settings define the general operation environment of your program.

Menu: **Options**, Function: **System Settings**

CMD: **VPSYSTEMSETTINGS** ► Dialog

A dialog box opens to define the system's general setting values:

General Tab



Drawing Units

Choose either **mm** or **inches**. The drawing units you select determine how the raster image will be interpreted in terms of units of measure. The units have an effect on the X/Y coordinate system and on all depending values and parameter settings.

Default: **mm**

Pick Box Size

This setting controls the size of the cursor square box (in pixels of the monitor screen) used when elements are selected (pick area). It also defines the grip size of the selected entities.

Default: **8 [pixels]**

Default Text Font

Selection of the **default text fonts** for text style creation. All existing and scaleable **True Type Fonts** in your Windows system are available.

Default Font: **Arial**

Cmd Echo {on/off}

Set to **on** the command name is displayed in the command line window whenever the command is started via menu or toolbar button.

Default: **on**

Zoom-In on First Click

This option controls the automatic zoom for commands that use the “triple frame” cursor, e.g. the **VPDESKEW** command.

Default: 1:16

Display Info

Show Context Menus

When set to **on**, the default context menu appears when clicking with the right mouse key. The default context menu will be replaced by other special menus, depending on the active function.

Default: on

Show Status Tooltips

When set **on** status messages will be displayed as tooltips next to the mouse cursor.

Default: on

Show Warnings

Current Layer off

When set **on** a warning will come up upon switching off a current layer setting.

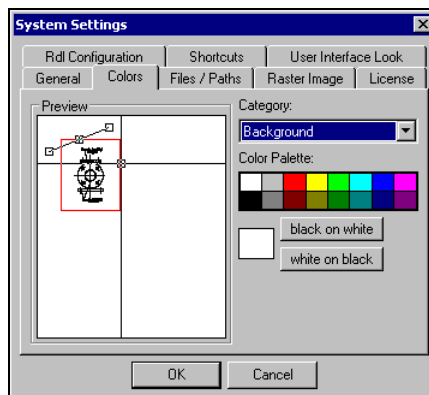
Default: on

Current Raster off

When set **on** a warning will come up upon switching off a current raster setting.

Default: on

Colors Tab

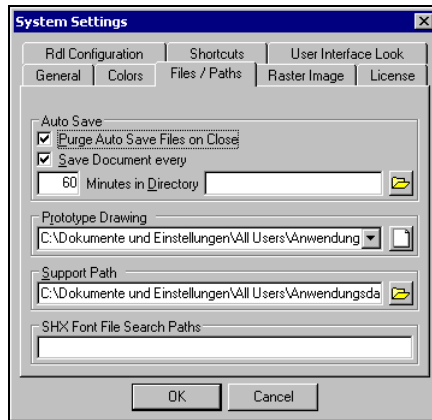


Some of the screen colors can be defined individually:

Category:	Screen color: white on black	Screen color: black on white
• Window Background	(black)	(white)
• Cursor	(green)	(black)
• Active Image Border	(red)	(red)
• Raster Selection	(red)	(red)
• Speckles	(green)	(green)
• Raster Holes	(red)	(red)
• Move Grip	(black)	(white)
• Other Grips	(black)	(white)

The **System Default** values (in brackets) can be reactivated when clicking on the **white on black** or **black on white** buttons.

Files/Paths Tab



Auto Save {on/off}

While working with the program an automatic save of open documents will occur at selectable intervals. You can specify the **Interval** and the **Drive** and the **Path** for the **Auto Save** individually.

Default: on
Default Directory: no entry = document's current directory

For the auto save operation the system uses the filename of each document extended by "_" (underscore) + numbering. The extension is **RVD**. Sample: **ARCH.TIF** will be auto saved as **ARCH_0157.RVD**

Default interval: 60 [minutes]

Purge Auto Save Files on Close

If you set purge auto save files on close to **on** the system will delete all auto save files on closing a VPview session.

Default: **off**



We strongly recommend not to switch off **Auto Save**.

Show Resolution Dialog

For files without a valid resolution a dialog will prompt to enter a resolution value when the option is switched **on**.

Default: **on**

Prototype Drawing

The prototype file will be read on program start and with **File Open** or **File New**. It contains document settings that override the defaults. Creating a specific prototype drawing file allows to customize your VPview setup to your individual needs.

Create your individual environment or load a file containing all settings the way you want to have the document set on start. You then save the empty file (erase all possible data) under a name of your choice. Enter this name (including drive and path) into the field **Prototype Drawing** or browse and select the desired file (including drive and path). Now, with any subsequent start of your **VPview software** the prototype drawing will adjust the document settings accordingly.

Default Drawing: \softelec\VPview V10\SUPPORT\PROTO.RVD



Please note: if you *Open* a document the settings of your prototype drawing may be changed by the settings of this document.

Support Path

The directory of files containing parameters, prototypes, and other auxiliary information.

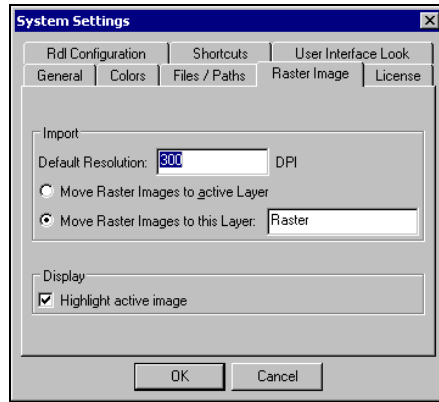
Default directory: \softelec\VPview V10\SUPPORT

SHX-Font File Search Paths

These directories are used by the software to search for SHX font files. The AutoCAD system paths (if existent) are registered here upon installation of the software.

Standard: If existent: **AutoCAD system paths**; else: **Empty**

Raster Image Tab



Default Resolution

If a loaded/imported raster image does not contain a valid resolution (DPI) a standard value will be set.

Default: 300 DPI

Move Raster Images to active Layer {on|off}

The currently active layer will be assigned automatically to a new loaded/imported raster image.

Default: off

Move Raster Images to this Layer {on|off}

The named layer will be assigned automatically to a new loaded/imported raster image. The layer will be created automatically when it has not been created before.

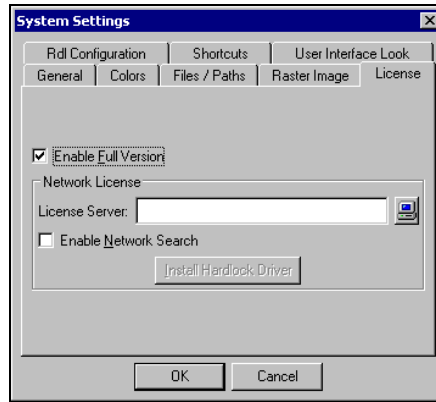
Default: on, Raster

Highlight active image {on|off}

The active raster image will be highlighted with a colored frame. The frame color can be defined in the **Colors** tab.

Default: on

License Tab



Enable Full Version {on/off}

Activates a **VPview** full version product permanently. Otherwise, the software operates in demo mode and will not search for a license (hardlock).

If you have your **VPview** software installed as **Network License(s)**, enter the **Server** name to search for an available license or browse for the server computer.

Enable Network Search {on/off}

If set to **on**, the whole network will be scanned for a valid **VPview Network License**, if no license can be found at the predefined location. This operation may take some time.

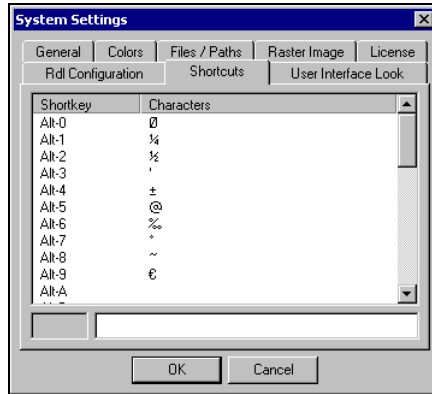
Install Hardlock Driver

If the proper driver for the hardlock (Sentinel or Hasp) is not yet installed, the button **Install hardware lock driver** is active. Click on the button for driver installation.



To install the hardlock driver administrator rights are required.

Shortcuts Tab

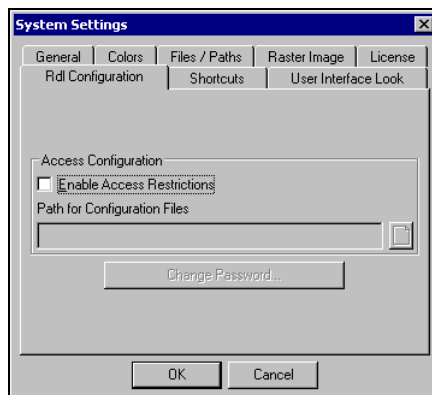


For frequent insertions you can define up to 35 ASCII character strings as character shortcuts, especially those which are not available from a direct keyboard entry. Use the Windows character map (CHARMAP.EXE) for selection. While entering or correcting text strings use **[Alt + 1] – [Alt + 9]** and **[Alt+A] – [Alt+Z]** to insert them.

Also, shortcuts are helpful for supporting quick insertion of repeatedly used text strings, prefixes, suffixes, etc.

Default shortcuts: see Dialog Box above

Redlining Configuration Tab



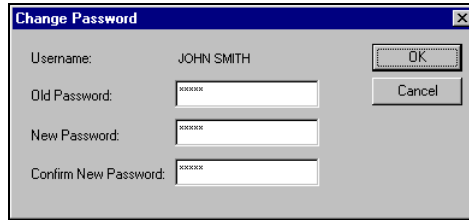
Enable or disable access restrictions.

Enable Access Restrictions

If **Enable Access Restrictions** is activated the path to the redlining configuration file is required. Then, a logon to the redlining session using **user name** and **password** is required.

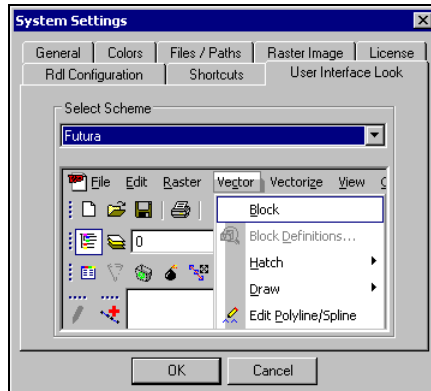
Change Password

Clicking **Change Password** opens a dialog box to modify the password for redlining.



User Interface Look Tab

Here you can change the look of the User Interface. Several designs are offered for selection. Depending on your Windows version the User Interface may look slightly different from the displayed preview.



Page Control



Next Page [Page Up]



Menu: **View ▶ Page**, Function: **Next**

CMD: **VPNEXTPAGE**

Displays the next page.

Previous Page [Page Down]



Menu: **View ▶ Page**, Function: **Previous**

CMD: **VPPREVPAGE**

Displays the previous page.

Last Page [End]



Menu: **View ▶ Page**, Function: **Last**

CMD: **VPLASTPAGE**

Displays the last page.

First Page [Pos1]



Menu: **View ▶ Page**, Function: **First**

CMD: **VPFIRSTPAGE**

Displays the first page.

Select Page



The selection box displays the actual page no. out of the total number of pages in this document. You can select any other page.

Entity Selection and Handling

Vector Entity Selection

The selection mode is CAD-like. Pick any vector entity. The selected entities are displayed in a highlight mode (dashed) and contain grips (handles). The base point grip is marked with a cross.

Quick Selection [Ctrl + F]



Menu: *Edit*, Function: *Quick Selection...*

CMD: **VPQSELECT** ► Dialog

CMD: **VPQSELECT** <Command> [/p|Pick p|a|l|f] [/t|Type <value>] [/prop|Property <value>] [/o|Operator <value>] [/v|Value <value>] [/m|Modify 0|1] [/nor|NoRaster] [/nov|NoVector] [/rdl|Redlining]

ACAD: **_qselect**

This function allows for selecting entities through user defined rules. The result is a specific entity selection that can be used for further operations. Also, an existing selection of entities can be reduced or expanded.

A **Command** can be specified for immediate execution after the selection is finished. This option is especially useful for script processing.

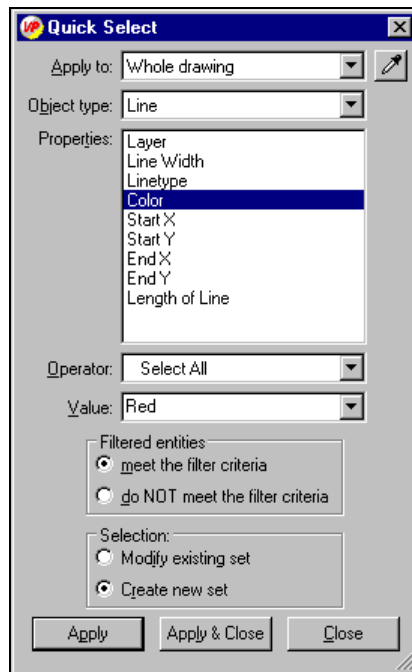
When the dialog is suppressed using the **p (Pick)** option you have the choice between three different selection modes:

- /p a**: Pick all elements in the drawing.
- /p p**: Pick elements using the mouse.
- /p l**: Pick last element that has been modified/created. A special registry key (..\Selection\SelCount) controls how many elements from the history are selected when using this option.
- /p f**: Depending on the following filter parameters **/T (Type)** and/or **/prop (properties)** with **/O (operator)** and **/V (value)** one or more elements will be selected. When a selection list has already been set up this will serve as a base.
- /p w**: Window selection. The window is specified with these subsequent coordinates: <x1> <y1> <x2> <y2>
- /p c**: Cross selection. The window is specified with these subsequent coordinates: <x1> <y1> <x2> <y2>
- /t**: Selection according to type of element, such as **Line**, **Arc**, **Circle**, etc.
- /prop**: Selection according to a specific property of one or more elements. All element properties that are available in the properties dialog are acceptable; e.g. **Layer** and **Linetype**, but also geometric properties such as **Xm** (= x-value of circle centerpoint), **Ym** (= y-value of circle centerpoint), **R** (= radius).
- /o**: Relational operator. Available are: "=" (equals), "<>" (not equal), "<" (less than) and ">" (more than) und "*" (name or text comparison with wildcards). Operators are available depending on the individual filter property.

- /v** Comparative value. Depending on the parameters above this can e.g. be a layer name or a number value. When filtering text content you can also use these wildcards: * (arbitrary number of arbitrary characters) and ? (arbitrary character).
- /m** **0**: a new selection list will be generated. **1**: the existing selection list will be changed.. Default value is **0**.

The three additional options **/nor (NoRaster)**, **/nov (NoVector)** and **/rdl (Redlining)** control which basic entity types (raster, vector, redlining) are selected when using the **p** option.

Example: Selection of all circle elements with a radius of less than 5 drawing units:
VPQSELECT /p f /t Circle /prop R /o > /v 5



- Apply to** The filter criteria can be applied to the **Whole drawing** or the **Current selection**. **Current selection** is only available if entities were selected before starting the command.
- Pick Object** Temporarily closes the dialog for selecting entities from the document by using the mouse.
- Object type** Shows the types of the entities in the selection or in the drawing and (if there are different types) **All**.
- Properties** Determines the criteria for filtering. The property list changes according to the selected **Object Type**. Selecting a property changes the available options for **Operator** and **Value**. In order to select a property the **Operator** must not be set to **Select All!**

- Operator** Controls the value range for the filter. Depending on the selected property the following operators are offered: **Select All**, **= Equals**, **<> Not Equal**, **> Greater Than**, **< Less Than**, and *** Wildcard Match**. Not all operators are available for each property.
- Value** The property value for the criterion. If known values exist for the selected property they are provided in a selection list. Otherwise type in a **Value**.
- Filtered entities meet the filter criteria**
Those entities that meet the filter criteria are selected.
- Filtered entities do NOT meet the filter criteria**
Those entities that do **NOT** meet the criteria are selected.
- Selection (Modify existing set)**
An existing selection set is reduced or expanded according to the filter criteria.
- Selection (Create new set)**
A new selection set is generated from the result of the filtering.

Undo [Ctrl+Z] [Alt+Backspace]



Menu: *Edit*, Function: *Undo*

CMD: **VPUNDO**

This function will **Undo** a previous command or function. The command can be repeated for a maximum of 32 steps per page or 50 steps per document. The icon (and menu command) is grayed if to be undone.

Redo [Ctrl+A] [Ctrl+Y]



Menu: *Edit*, Function: *Redo*

CMD: **VPREDO**

Repeats the last command or function which has been undone. The icon (and menu command) is grayed if there are no commands in memory.

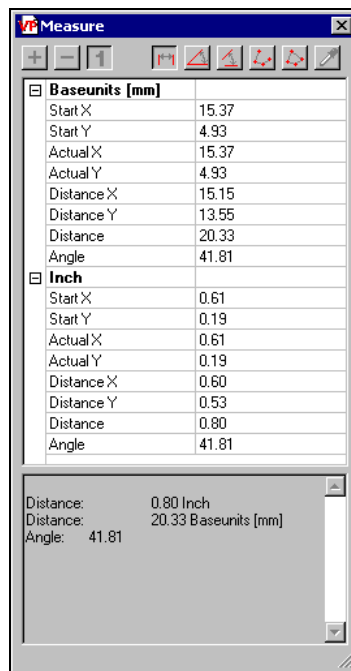
Measure Distance [F2]

Menu: **View**, Function: **Distance**

CMD: **VPMEASURE**

Pressing the **[F2]** key opens the **Measure Distance Dialog**. The white area shows the current cursor position and the values are permanently updated when moving the cursor in the work space. The upper section shows the values in base units, either [mm] or [inch] depending on the system settings (**Options - Settings**). The lower section displays the same values according to the settings in the user coordinate system.

Measurement results will be displayed in the lower gray area (pane).



Three basic operation types are available which can be set with the left three buttons in the dialog's far upper section:



Accumulate the measurement results indicated by (+) in the result pane.



Subtract the measurement results, indicated by (-) in the result pane.



Take one measurement at a time.

Different values can be measured using the buttons on the dialog's right hand side:



Measure the length and angle of a line by clicking two points in the drawing.



Measure an angle by clicking three points in the drawing. The center point is the intersection of the two lines forming the angle you want to measure.



Measure an angle by clicking four points in the drawing.



Measure the length of a polyline by clicking its vertices. Complete the measurement with a doubleclick or press **ENTER**.



Measure the circumference and area of a closed polyline through clicking its vertices. Finish the measurement using a doubleclick, or using **ENTER**.



Click an element. Different properties are displayed depending on the element type.

This function is very helpful for measuring parameter values that rely on information from a drawing. You can click the parameter field and select **[F2]**. The result will be inserted directly into the parameter field.

Redraw [Ctrl + R]



CMD: **VPREDRAW**

This option redraws the current display.

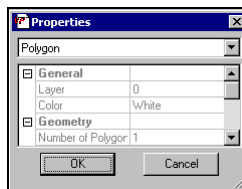
Properties [F3]



Menu: **Edit**, Function: **Properties**

CMD: **VPPROPSHOW** ► Dialog

The properties dialog opens and displays the properties of the selected entity or the common properties of entities:



SECTION 4

DOCUMENT SETTINGS, DOCUMENT FUNCTIONS

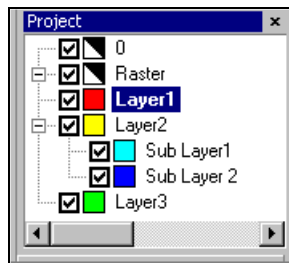
Project Bar



Menu: *Options*, Function: *Project Bar*

CMD: **VPPROJECTBAR**

This command opens the dialog window **Project Bar**:



It displays the tree structure of all currently available layers and - as sub-entries to each layer - all loaded raster images.

The **Check Box** in front of each layer or entry indicates the display status: **visible** or **non-visible**. Clicking on a check box toggles the display status of this entry.



The **Color** of each layer/entry is indicated by an according colored square.



This icon indicates the **Color 7**, which is **black** on a white background and **white** on a black background.

The **Draw Order** can be changed by dragging (left click+move) a layer to a new position in the tree. On drop (release left mouse button) the layer will be inserted below the actual (highlighted) layer and the draw order will be re-arranged accordingly. The entities of the layer on top position of the tree will be drawn first, the entities of the layer on bottom position of the tree will be drawn last (its entities will be drawn **above** all other entities).

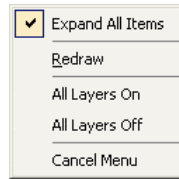


Raster Images will always be drawn first (**below** the vector entities). All new created entities will always be drawn on top, regardless of their layer position in the tree.

Pressing the **[Ctrl]** key on drop will assign the dragged layer as sub-layer to the actual (highlighted) entry. This way families of layers can be arranged and then easily switched on and off together by clicking the checkbox of the main layer.

Dragging the name of a raster image changes the layer of this image. The **[Ctrl]** key has no function.

On right mouse click inside the project bar dialog the following menu appears:



Expand All Items

Expands the view to display all sub-entries of each layer.

Redraw

The draw order of all entities will be re-arranged according to the actual tree structure and the document will be redrawn.

All Layers On/Off

All layers become visible/ invisible.

Rotate View

Rotate 90°



Menu: **View ► Rotate View**, Function: **90°**

CMD: **VPROT90**

Rotates the overall view (raster, vector, and redlining entities) counter-clockwise by 90°.

Rotate 180°



Menu: **View ► Rotate View**, Function: **180°**

CMD: **VPROT180**

Rotates the overall view (raster, vector, and redlining entities) counter-clockwise by 180°.

Rotate 270°



Menu: **View ► Rotate View**, Function: **270°**

CMD: **VPROT270**

Rotates the overall view (raster, vector, and redlining entities) counter-clockwise by 270°.

Compare Revisions



Menu: **Edit**, Function: **Compare Revisions**

CMD: **VPOMPARE** ► Dialog

This function is only available when a file has already been loaded. The import dialog opens and prompts for the selection of a second file for a content comparison. When a second file is loaded the content will be compared to the content of the original file. Content differences are displayed in green (for information contained in the original file) and magenta (for information contained in the second file).

A repeated call of the function ends the comparison mode. The program returns to the single view of the original file.

Attributes - General Information

Attributes contain additional information directly linked to geometrical entities (raster and/or vector). This data can be used for certain information about the entity. For example, the attributes of a polygon representing a house placed on a piece of land may contain information about the address, the owner, the size, etc. The list of **Attribute Fields** assigned to the **Layer** of the entity defines the quantity and kinds of attributes. Attributes are compatible to other Geographical Information System (GIS) software packages; they can also be used for other purposes like Facility Management (FM).

Attribute Bar



Menu: **Vector** ► **Attributes**, Function: **Show Attributes**

CMD: **VPSHOWATTRIBS** ► (Toolbar)

The **Attribute Bar** allows to view the attribute data of an entity. If no entity is selected then the **Attribute Bar** displays the list of the attribute fields of the **Active Layer**.

When several elements are selected their attribute values can be viewed simultaneously. When selected elements contain different values in one or more attribute fields this will be indicated with the term ****VARIES****

Attribute Inspector



Menu: **Vector** ► **Attributes**, Function: **Inspector**

CMD: **VPINSPECTOR** ► (Select Entity)



After starting the **Inspector** command, the **Arrow and Question Mark Cursor** appears. Move the cursor over an entity and remain there (for about half a second) until a tool tip with the attribute data of this entity appears.

Query Attributes (only Windows)



Menu: **Vector ► Attributes**, Function: **Query Attributes**

CMD: **VPQUERYATTRIBUTES ► Dialog**

CMD: **VPQUERYATTRIBUTES <QUERY>**

Query

A complete SQL query to send to the database. If the query contains quotes like " or ' the query has to be quoted using ` or ` characters!

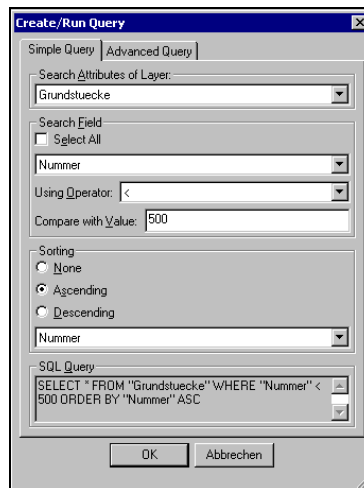
Example:

```
VPQUERYATTRIBUTES `SELECT * FROM "A Table" WHERE "Attr." LIKE '%Test'`
```

The dialog **Create/Run Query** opens; depending on the last used tab – **Simple Query** or **Advanced Query** – this tab opens again:

Simple Query

This tab presents an easy way to find elements using standard queries. No knowledge of SQL is necessary to build a valid query which will be executed when pressing **OK**.



Search Attributes of Layer

Specifies the layer where to search for attributes.

Default: **Active Layer**

Search Field

A field can be specified using a combo box. All attributes of the selected layer are available as search fields. To show all values without filtering use the option **Select All**. A filter operator can be specified with **Using Operator**. Depending on the type of field there may be different operators in the combo box. Available operators are:

LIKE (Text only)	Equal text using % as a wildcard character.
NOT LIKE (Text only)	Unequal text using % as a wildcard character.
<	Less than
<=	Less than or equal
>	Greater than
>=	Greater than or equal
=	Equal
!=	Unequal

Compare with Value is the operator's parameter.

Sorting

Specifies how results will be sorted. You can choose no sorting with **None**, and **Ascending** or **Descending** for a specific attribute.

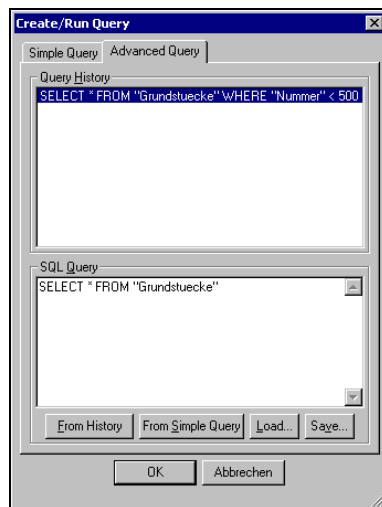
Default: **Ascending, First attribute of the layer**

SQL Query

The generated SQL query is displayed as a reference here.

Advanced Query

This tab presents a way for the experienced user to make arbitrary SQL queries which are supported by the underlying SQLite database. For a complete description of the available SQL commands and the referring syntax please refer to <http://www.sqlite.org/lang.html>



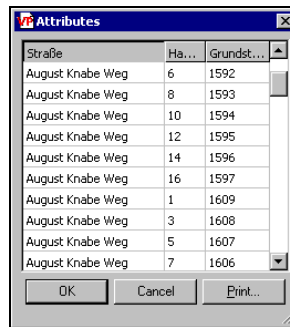
Query History

The last 20 queries used. Double-click a query or select it and use the **From History** button to transfer it to the edit field **SQL Query**. With the latter it can be modified or reused.

SQL Query

The SQL query that shall be executed when clicking on **OK**. You can transfer a query from the **Simple Query** tab by pressing **From Simple Query**. Queries can be loaded and saved to text files using **Load** and **Save**.

To show the results, the dialog **Attributes** shows up:



When clicking into a field - or selecting elements (rows or columns) - the zoom window is adjusted to display the corresponding elements. **OK** and **Cancel** close the dialog and keep elements with selected fields as the active selection. **Print** opens a print dialog to print attributes.

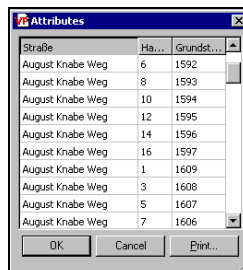
Review Attributes



Menu: **Vector ► Attributes**, Function: **Review Attributes**

CMD: **VPREVIEWATTRIBUTES** ► Dialog

All attributes of the active layer are displayed in a dialog. When clicking into a field or selecting elements (rows or columns) the zoom window is adjusted to show the corresponding elements. **OK** closes the dialog and keeps elements with selected fields as the active selection. **Print** opens a print dialog to print attributes.



Snap Functions

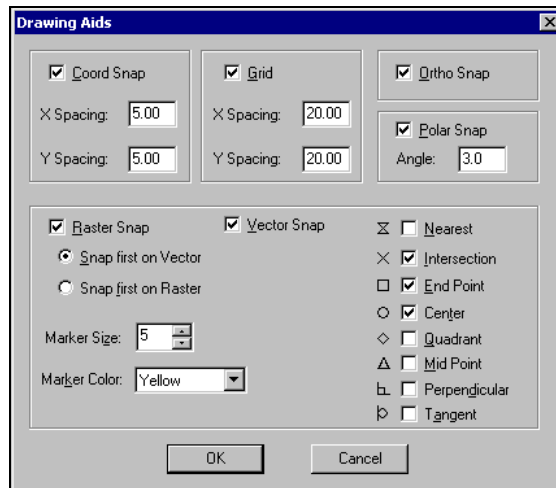
Drawing Aids [Shift]+[F8]



Menu: **Options** ► **Snap**, Function: **Drawing Aids**

CMD: **VPSNAPSETT** ► Dialog

A dialog box opens to specify settings for **Grid**, **Snap to Coordinates**, **Ortho and Polar Snap**, **Vector Snap**, **Raster Snap** and the **Snap Modes**.



Raster Snap [F11] {on/off}



Menu: **Options** ► **Snap**, Function: **Raster Snap**

CMD: **VPSNAPR** ► {on/off}

Clicking this icon or using **[F11]** allows for switching the snap **on** or **off**. The raster snap operates on b/w, gray scale, and color images, where snapping occurs to the **active color** defined in **Image Settings**. The **Snap Mode** toolbar allows for activating snap modes.

Default: **off**

Vector Snap [F12] {on/off}



Menu: **Options** ► **Snap**, Function: **Vector Snap**

CMD: **VPSNAPV** ► {on/off}

Clicking this icon or using **[F8]** switches the snap **on** or **off**. The **Snap Mode** toolbar allows for activating snap modes.

Default: **off**

Snap Modes

Whenever the **Snap** function (**Raster Snap** and **Vector Snap**) is activated, a toolbar opens for snap mode selection:



Any of the eight available snap modes can be activated, even simultaneously:

<u>Nearest</u>	snaps to the nearest point of an element
<u>Intersection</u>	snaps to the nearest intersection of elements
<u>End Point</u>	snaps to the nearest end point of an element
<u>Center</u>	snaps to the center of the nearest circle or arc
<u>Quadrant</u>	snaps to a quadrant (0°, 90°, 180°, 270°) of the nearest circle or arc
<u>Midpoint</u>	snaps to the nearest midpoint of an element
<u>Perpendicular</u>	snaps to an element perpendicularly
<u>Tangent</u>	snaps to an element tangentially

The active mode can be changed clockwise to a different snap mode with **[TAB]**. The different snap modes are displayed with their symbols as listed in the dialog box.

Use the selection boxes **Marker Size** and **Marker Color** to modify the symbols' display.

Default: **Marker Size :** **6 pixels**
Marker Color: **Yellow**

SECTION 5

FILE MENU

File Menu

This menu manages the loading of raster and vector files. You can also print/plot hybrid (raster and/or vector) data and exit the program.

All functions are in compliance with standard Windows conventions. Hence, descriptions will only be given in detail regarding differing functions or on those which are of high importance.

Open [Ctrl + O]

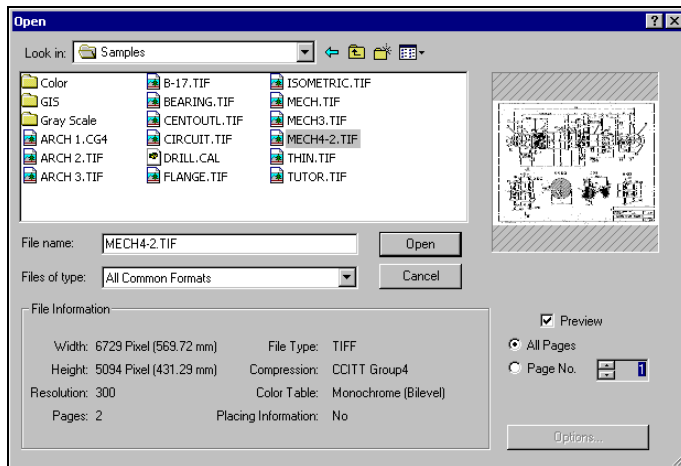


Menu: **File**, Function: **Open**

CMD: **VPOPEN** ► Dialog

CMD: **VPOPEN** <File Name> [P|Page <value>]

When clicking this command a dialog box opens to select a file (raster, vector, or hybrid) for loading into a new document.

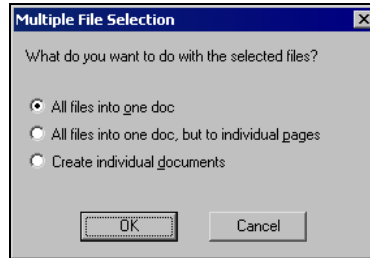


All common files are displayed. When selecting a file a **preview** is shown if the function **Preview** is switched **on** and the file format is supported.

The list of the supported formats can be found in the **Appendix**.

The name of the loaded file appears in the title bar. In case of a raster file, it will be loaded into the default layer **Raster** and the **Prototype Drawing** file – if assigned (see **General Settings**) – will be read and the environment of the document is set accordingly.

When more than one file has been selected the following dialog appears to control how the individual files are going to be opened:



- **All files into one doc**
All selected files are loaded as separate raster objects in one document
- **All files into one doc, but to individual pages**
Creates a multi page document
- **Create individual documents**
Opens each selected file as separate document

Multi Page Documents [P|Page <value>]

For multi page files you can select to either open **all pages** or only a particular page (**page no.**).

Default **All pages**

Options

Some file formats offer additional settings through the **Options** button. For more information see **File Format Options** below in this section.

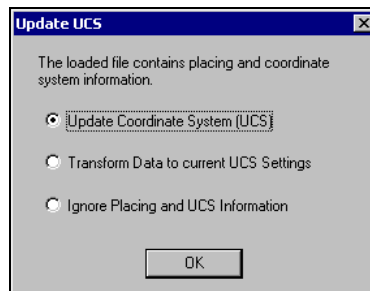


The native **VP** format **RVD** replaces the formats **VCF** and **VCI** used in earlier **VP** products. However, input filters still allow for loading or importing those formats into V8.



CGM: the import of raster is limited to uncompressed 1bit (b/w), 8bit (indexed color), 24bit (true color), and RLE compressed 1bit data.

When opening a raster file containing coordinate settings and placing information (e.g. TFW or GeoTIFF) a dialog will ask how to handle this information.



Update Coordinate System (UCS): The data of a TIFF file is used to update the coordinate system; the image is placed accordingly.

Transform Data to current UCS Settings: The existing coordinate system remains unchanged; the insertion point's coordinates of the image are transformed accordingly.

Ignore Placing and UCS Information: The existing coordinate system remains unchanged - no transformation is performed; the image is inserted at the position (0,0).

Default: Update Coordinate System (UCS)

Close

Menu: **File**, Function: **Close**

CMD: **VPCLOSE**

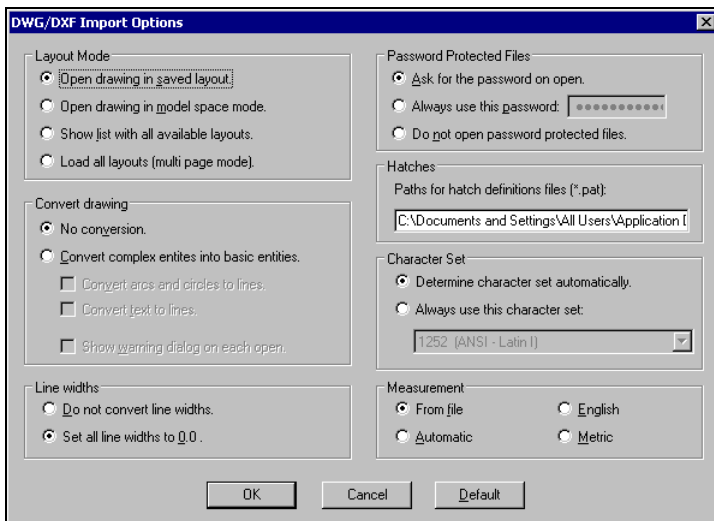
Closes the active document. If the document has been modified a message will ask, if the modified file should be saved or not.

File Format Options

Some file formats allow for setting additional parameters. The dialogs can be opened with the **Options** button in the Open dialog.

The available options for file formats are described below.

DWG/DXF Import Options



Layout Mode

Determines which layout of the DWG / DXF file is to be loaded. You can either select the saved **active layout** or the standard **model space**. Alternatively, and prior to opening, a dialog can be displayed for individual layout selection (**Show list with all available layouts**), or to load all available layouts (**Load all layouts (multipage mode)**).

Default: **Open drawing in saved layout**

Password Protected Files

- **Ask for the password on open**
On opening a password protected file the password has to be entered in a dialog.
- **Always use this password**
If many files use the same password it can be entered here for usage with all protected files. For safety it is saved in encrypted form. On opening a file no dialog is displayed.
- **Do not open password protected files**
Password protected files are not loaded. No dialogs or messages are displayed.

Default: **Ask for the password on open.**

Convert drawing

The display of DXF / DWG drawings may differ from the display in AutoCAD. This may occur e.g. with line types, text styles, or polylines with assigned widths and bulges. For a display more true to the original all entities may be converted into basic entities like lines, polylines, and splines on import.



The conversion is only advised if the drawing shall be rasterized. Since the conversion produces a large number of entities the import may take a very long time.

Default: **No conversion**

Line widths

VPview uses absolute line widths, i.e. the display is independent of the zoom scale factor. With some drawings this may result in disproportionately thick entities. In this case use the option **Set all line widths to 0.0**. Alternatively, line widths may be adapted in the Layer Manager after loading.

Default: **Do not convert line widths**

Hatches

Specify a directory where you want to search for hatch pattern styles.

Default: **\\softelec\VPview V10\SUPPORT**

Character Set

You can determine which character set should be applied on import of non-unicode text. Chose between **Determine character set automatically** (character set saved in the imported file) and **Always use this character set** (pre-defined character set).

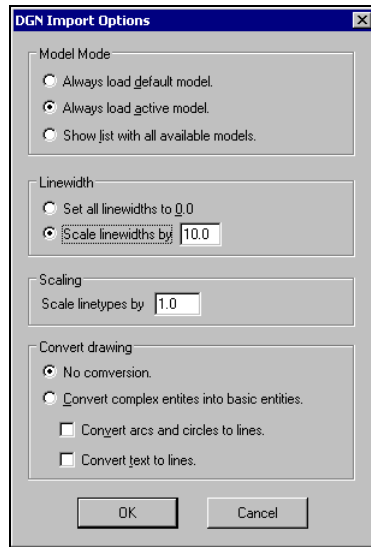
Default: **Determine character set automatically**

Measurement

You can determine which measuring unit will be used in the imported file. **Automatic** will assign the unit according to a previously imported file.

Default: **From file**

DGN Import Options



Model Mode

Determines which DGN file model will be loaded. You can chose between the saved **active model** and a permanent **default model**. You can also chose to display all available models for an individual model selection prior to opening (**Show list with all available models**).

Default: **Always load active model**

Linewidth

VP Software uses absolute linewidth values, i.e. their display depends on the zoom stage. In some drawings this may lead to displaying disproportionate thick elements. In these cases you can use the option **Set all linewidths to 0.0**. All linewidth values can also be adjusted individually in the Layer Manager.

Default: **Scale linewidths by 10.0**

Scaling

VP Software uses absolute length values for linetypes, i.e. their display depends on the zoom stage. In some drawings this may cause details to disappear from the display. In these cases you can change the scaling value accordingly.

Default: **Scale linetypes by 1.0**

Convert Drawing

The display of DGN files in VP software may differ from their display in MicroStation®. This may occur e.g. for linetypes, textstyles, or polylines with specific widths or curves. To ensure a proper display these elements can be converted to basic element structures, such as lines, polygons and arcs.



The conversion is only recommended if you want to rasterize the loaded DGN file. The conversion may also cause to generate very many basic elements. Thus, loading the file may take considerable more time.

Default: No Conversion

Save [Ctrl + S]



Menu: **File**, Function: **Save**

CMD: **VPSAVE** ► Dialog

CMD: **VPSAVE** <File Name(s)>

Saves the current drawing in **VP's** native format **RVD**. If you use this command the first time after loading a document, the **Export** dialog pops-up to ask for a file name. As Default the name of the opened file will be offered. Any future save of this file will automatically overwrite the previous save without any message.

Multi Page Document

If your document is a multi page document you can save all pages into a multi page document or all pages into single files (i.e. each page into a separate file).

If you select **Page No. "n"**, only this page will be saved into a separate file.



If you select/specify an already existing file (name), on **Save** you will be asked whether you want to override the existing file or append your current document as new page to the existing file.

Preview

You can switch the preview on or off. The preview displays the data which will be saved.

Save As

Menu: **File**, Function: **Save as**

CMD: **VPSAVEAS** ► Dialog

Similar function as **Save**, except that the dialog always opens for assigning a file name.

Print [Ctrl + P]



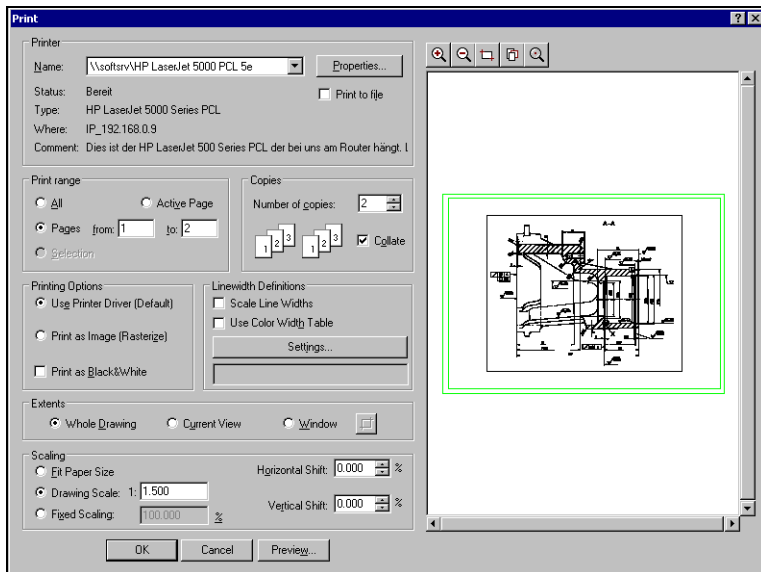
Menu: **File**, Function: **Print**

CMD: **VPPRINT** ► Dialog

CMD: **VPPRINT** [/P <VALUE>] [/FT|FROMTO <FROM PAGE> <TO PAGE>] [/BW] [/MP] [/MR] [/SLW] [/CW <VALUE>] [/S|SCALING <SCALING><X-OFFSET><Y-OFFSET>] [/V|VIEW] [/W] [/WIN|WINDOW <STARTX><STARTY><ENDX><ENDY>] [/C|COPIES <VALUE>]

Any printer or plotter device installed under the operating system may be used for printing raster and/or vector data. However, the capability of processing raster data not only depends on the printer/plotter model, but also on the installed Windows drivers. A dialog box opens to determine **scale**, **offset**, **paper format**, and **printing area**. Raster and/or vector data can be selected for printing according to the monitor screen display.

The printer dialog opens for selection and specification. When the command line is used the last used printer is selected:



Select the **Print Range** and the number of **Copies**. Other options are:

Extents

Choose between **Whole Drawing**, **Current View**, or **Window**. For the latter check the button right to the **Window** option and set a window with two click points in the preview area. The selected window area will be displayed with a red frame.

Printing Options

Choose between **Use Printer Driver** (default setting) or **Print as Image**. If you encounter problems when printing hybrid data (i.e.. a mix of raster and vector data) or with large formats due to limitations of the standard printer driver use the option **Print as Image**. Then, **VPview** rasterizes all entities into a temporary plot file and sends this file to the printer/plotter. Use the option **Print as Black&White** to print color vector data on black&white printer with a better quality.

Linewidth Definitions

With the option **Scale Linewidths** vector linewidths will be printed with a scaling factor set in **Scaling**. Without this option linewidths will always be printed according to their settings. If the **Use Color Width Table** option is **on**, the **Settings** button will pop-up a dialog, which allows to the specify the width for each color. You can also save and load these settings.

Otherwise the **Layer Manager** will pop-up to specify the width for each Layer.

Scaling

Allows for arranging the image size according to user demands in terms of scaling and offset. With **Fit Paper Size** the selected **Extents** will be scaled to fill the entire paper space. **Drawing Scale** and **Fixed Scaling** will scale elements in the selected extents with the given factor or percentage.

Preview Area

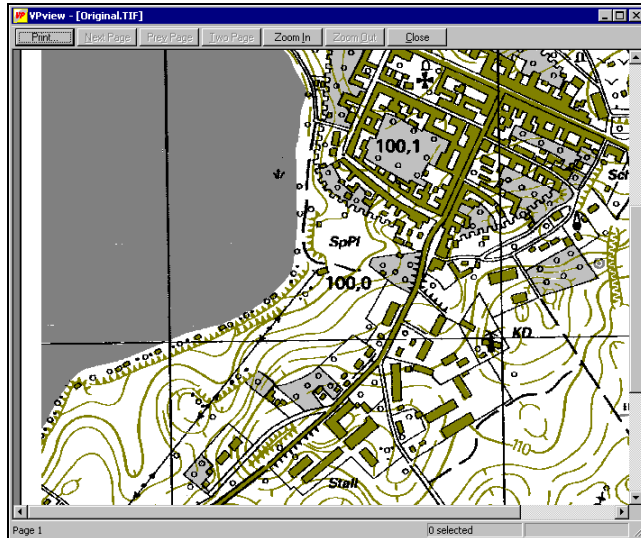
The preview area's display can be adjusted with the buttons on top of the dialog. A green frame display the printer's current paper settings. The outer frame refers to the paper extents while the inner frame refers to the print space. When **Fit Paper Size** is switched off the paper extents position can be moved with the mouse. When releasing the mouse button the move values will be updated. The zoom factor can be changed with the mouse wheel.

Print Preview



Menu: **File**, Function: **Print Preview**

The **Preview** option allows for previewing print results to support an accurate positioning.



Print Setup

CMD: **VPPRINTSETUP** ► Dialog

A printer/plotter can be selected and activated.

Exit

Menu: **File**, Function: **Exit**

CMD: **VPEXIT**

Exits the program.

SECTION 6

REDLINING

General Information

Redlining is a powerful feature to insert mark-ups into an existing drawing. These mark-ups can be used to highlight inaccuracies of the drawing, required modifications, or just any kind of information for other viewers, e.g. production process handling information, design remarks, etc. The redlining entities may be visible to all viewers or hidden at any time.

In addition to the general redlining functions, **VPview** offers the possibility to restrict the access (view, modify, etc.) to these entities on a user/password basis.

Redlining Functions

The Redlining toolbar offers the following functions:

- **Activate/Deactivate Redlining Mode**
- **Import Redlining Data**
- **Export Redlining Data**
- **Redlining Settings**
- **Review Redlining Data**
- **Insert Ellipse**
- **Insert Cloud**
- **Insert Arrow**
- **Insert Transparent Rectangle**

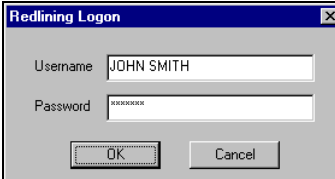
Activate Redlining



Menu: **Redlining**, Function: **View Redlining**

CMD: **VPRDLON**

Use this command to activate or close the **Redlining** functionality. Depending on the access rights, a user will see all the redlining entities of that document, or some, or none. When access restrictions are set-up, the user will be prompted to enter a user name and a password for logon.



The dialog box is titled "Redlining Logon" and has a close button (X) in the top right corner. It contains two input fields: "Username" with the text "JOHN SMITH" and "Password" with masked characters "*****". Below the fields are two buttons: "OK" and "Cancel".

Redlining will be activated automatically by loading a drawing which contains redlining information.

Import



Menu: **Redlining**, Function: **Import**

CMD: **VPRDLIMPORT** ► Dialog

CMD: **VPRDLIMPORT** <File Name>

Allows for importing redlining data from an **RLF** file.

Export



Menu: **Redlining**, Function: **Export**

CMD: **VPRDLEXPOR**T ► Dialog

CMD: **VPRDLEXPOR**T <File Name>

Redlining data may be exported to **RLF**, **RVD**, **DWG**, **DXF**, **DGN**, or **CGM** file formats. Except for the native **RVD** format, only the redlining data will be exported! **RLF** is **VPview**'s internal format for redlining data with access restriction information.

Use the native **RVD** format if access restrictions have been set-up and the whole drawing, including redlining information, should be saved to an unrestricted file (e.g. to send the data to another party for reviewing). All other export formats will only contain the currently visible (see below) redlining entities. These are treated as blocks with attributes, separated on different layers depending on the way they have been created.

Settings

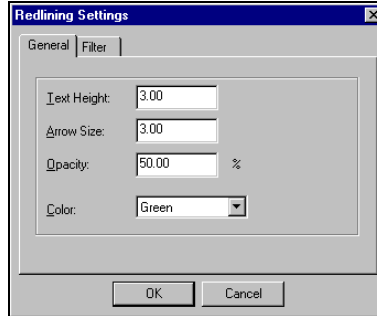


Menu: **Redlining**, Function: **Settings**

CMD: **VPRDLSETTINGS** ► Dialog

Specifies the standard settings for the creation of redlining entities. A dialog opens containing two tabs.

General Tab



Define **Text Height**, **Arrow Size**, and **Opacity** of the color for the redlining entities. Select the **Color**. These settings apply to the creation of new entities.

Text Height and **Color** can be modified individually for each entity.

Filter Tab



Defines which redlining entities are displayed in the document.

Filter

By Owner allows for displaying either the redlining mark-ups of:

- **All** or
- **From:** Selected creators.

By Type allows the selection of the entities according to their status:

- all entities,
- revised entities,
- not revised entities,
- approved entities,
- not approved entities.

Redlining Review



Menu: **Redlining**, Function: **Review Redlining**

CMD: **VPRDLREVIEW** ► Moves to 1st redlining entity and opens redlining properties.

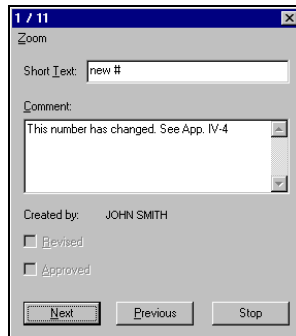
Starts or continues the review of the redlining mark-ups. The program zooms in automatically on each redlining entity and displays the properties in a dialog box. Depending on the access rights the user may edit the text of each entity or revise/ approve the mark-up.

Next, Previous

Use **Next** to review the next redlining item and **Previous** to go back to the last entity reviewed.

Stop

Stop closes the dialog box. If the review function is called again it will start at the last item reviewed. The next entity of the list will be displayed.



Insert Ellipse



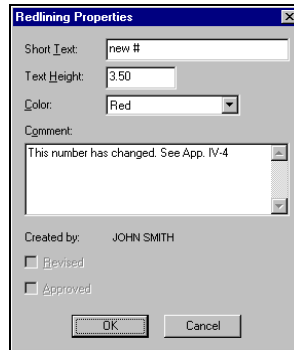
Menu: **Redlining**, Function: **Insert Ellipse**

CMD: **VPRDLELLIPSE** ► Requires 2 mouse clicks to define the position and size of the ellipse.

Inserts a redlining entity with the shape of an ellipse. The size of the ellipse is adjustable in both directions by moving the mouse.

Short Text, Comment

On the second mouse click a dialog box opens to enter a **Short Text** (headline, which is permanently displayed with the entity) and a **Comment** for the entity. **Text Height** and **Color** for this entity may be modified from their default values (defined by the **Redlining Settings**).



After pressing **OK** the **Short Text** can be placed on the drawing.

Insert Cloud



Menu: **Redlining**, Function: **Insert Cloud**

CMD: **VPRDLCLOUD** ► Requires 2 mouse clicks to define the position and size of the cloud.

Inserts a redlining entity with the shape of a cloud. Same handling as **Insert Ellipse**.

Insert Arrow



Menu: **Redlining**, Function: **Insert Arrow**

CMD: **VPRDLARROW** ► Requires one mouse clicks to define the position of the top of the arrow.

Inserts a redlining entity with the shape of a pointing arrow. Same handling as **Insert Ellipse**.

Insert Transparent Rectangle



Menu: **Redlining**, Function: **Insert Transp. Rectangle**

CMD: **VPRDLTRECT** ► Requires 2 mouse clicks to define position and size of the rectangle.

Inserts a redlining entity with the shape of a transparent colored rectangle area. Same handling as **Insert Ellipse**. If required, use the **Properties** to modify the transparency of a selected rectangle.

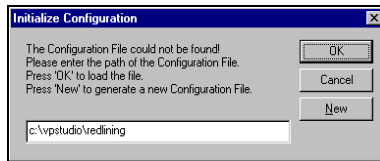
Redlining Configuration

In some applications it may be of interest to limit the access of users with redlining.

Imagine the following situation: A company has a support center which creates redlining mark-ups (e.g. modification demands or improvement requests from customers) into an existing drawing. The support staff should only insert new entities, but not remove or modify items inserted by other employees. At a higher level a manager reviews these entities, and marks those as **Revised** which should actually go into re-design etc. Then, the "revised entities" are disabled from any modification. The draftsman in charge may modify the drawing according to the redlining mark-ups and their comments, but he may not modify the redlining or even remove the entities. At a final supervision level another manager checks the document modifications and compares them with the redlining mark-ups. He then approves the modifications checking **Approved** or he may erase these entities from the drawing if no further check or approval is necessary.

To achieve this structure, restrictions can be set up for each user depending on his function inside the company hierarchy. Use the program **RLCFG.EXE** located on the CD in the directory **\Redlining**. Copy the program to any location on your hard disk.

If the program is called the first time it will show the following dialog:



Specify a path for the configuration file and press **New** to create a new configuration setting. If a configuration file has already been set up, just enter the path where it is located and press **OK**.



For proper operation of the **Redlining Configuration** file it is demanding that the administrator and all added users have read/write access rights to the location of the configuration file!

After generation of a new configuration file only one user is available by default: the **ADMINISTRATOR** (no password). You can start to add and/or modify users and/or groups. On **Exit** the configuration file will be updated and saved.



When calling the program again a **Logon** and **Administrator Rights** are required to open the program.

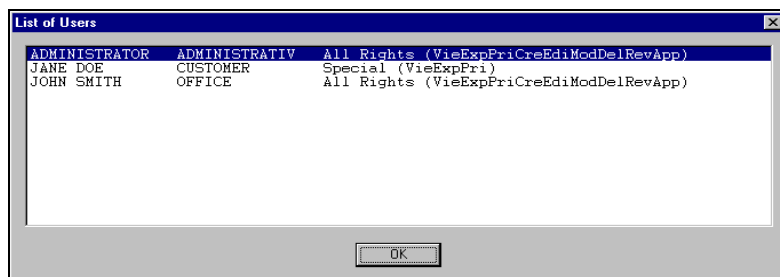
Configure Redlining Users/User Groups

The user management is similar to the one used with Windows NT/2000/XP. **User Groups** having specified rights may be created and **Users** may be assigned to the groups. A user can only be a member of **one** group and has the rights specified for that group!

The following rights can be specified:

- **Admin** All rights are assigned to an Administrator.
This user can also create, modify, and delete users and groups.
- **View** The user can only view (look at) the redlining entities and their properties.
- **Print** The user can print the redlining entities. If this right is switched off, the redlining entities will not be printed even though the entities are displayed.
- **Export** The user can export the redlining data to an **unrestricted** vector or hybrid file.
- **Create** The user can create/add new entities. He is allow-ed to modify, edit, or erase these entities created by himself (he is the owner) until they are revised.
- **Modify** The user can modify (move, change) any redlining entity which is not revised.
- **Edit** The user can edit the text/comment of any redlining entity which is not revised.
- **Erase** The user can erase any redlining entity.
- **Revise** The user can set the '**revised**' flag to an entity.
- **Approve** The user can set the '**approved**' flag to an entity.
- **No Rights** User has no redlining rights at all.
He will not even see redlining entities on a document.

List Users



Displays a list of all users, their groups, and access rights.

New User



The 'New User' dialog box contains the following fields and controls:

- Username: JOHN SMITH
- Password: [masked]
- Confirm Password: [masked]
- Belongs to Group: OFFICE (dropdown menu)
- Buttons: OK, Cancel

Creates a new user. Enter the user name and the password. Assign the user to any available group as a new member.

Edit User

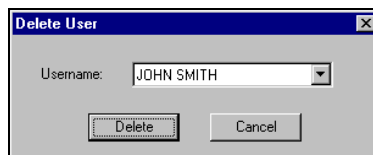


The 'Edit User' dialog box contains the following fields and controls:

- Username: JOHN SMITH (dropdown menu)
- Old Password: [masked]
- Password: [masked]
- Confirm Password: [masked]
- Belongs to Group: OFFICE (dropdown menu)
- Buttons: OK, Cancel

Edits an existing user. You can modify his password or the group assignment.

Delete User



The 'Delete User' dialog box contains the following fields and controls:

- Username: JOHN SMITH (dropdown menu)
- Buttons: Delete, Cancel

Deletes an existing user.



An error message appears if the last user or the **ADMINISTRATOR** should be deleted! This is not possible.

New Group



The 'New Group' dialog box features a title bar with a close button. It contains a 'Groupname:' label followed by a text input field containing 'OFFICE'. Below this are three radio button options: 'Admin (A)', 'View (V)', and 'No Rights'. The 'View (V)' option is selected. To the right of these options are six checkboxes: 'Print (P)', 'Export (X)', 'Create (C)', 'Modify (M)', 'Edit (D)', 'Erase (E)', 'Revise (R)', and 'Approve (A)'. All these checkboxes are checked. At the bottom are 'OK' and 'Cancel' buttons.

Creates a new group. Specify a group name and the access rights for this group.

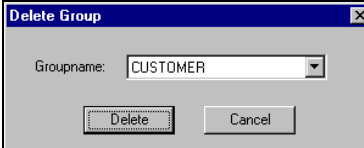
Edit Group



The 'Edit Group' dialog box has a title bar with a close button. The 'Groupname:' label is followed by a dropdown menu showing 'CUSTOMER'. It includes the same three radio button options as the 'New Group' dialog, with 'View (V)' selected. The checkboxes for 'Print (P)', 'Export (X)', 'Create (C)', 'Modify (M)', 'Edit (D)', 'Erase (E)', 'Revise (R)', and 'Approve (A)' are present, but only 'Print (P)' and 'Export (X)' are checked. 'OK' and 'Cancel' buttons are at the bottom.

Edits an existing group. Modify the rights of that group. Any changes apply to all users of the group.

Delete Group



The 'Delete Group' dialog box has a title bar with a close button. The 'Groupname:' label is followed by a dropdown menu showing 'CUSTOMER'. At the bottom are 'Delete' and 'Cancel' buttons.

Deletes a group. A group can only be deleted if there are no users assigned to it!

SPECIFICATIONS

Import Formats	Raster	See Appendix
	Vector	See Appendix
	Hybrid (Raster + Vector)	See Appendix
Raster Image Formats		No real limitation: 16 million x 16 million pixels max
General Functions		<ul style="list-style-type: none"> Multi document interface Multi page documents Command line interface User coordinate system (user units, scale, origin) Measure: distance, angle Undo, redo, Redraw Properties Rotate view (90°, 180°, 270°) Compare Revisions View Attributes Redlining
Graphical User Interface		<ul style="list-style-type: none"> Command input via mouse, keyboard (command line) DDE/OLE interface Toolbars moveable and customizable Online help
Graphical Display		<ul style="list-style-type: none"> Graphical resolution according to OS and hardware ZOOM and PAN function Overlay of raster data and vectors Modification of presentation colors (foreground, cursor, background, grips, etc.)
Plot, Print		<ul style="list-style-type: none"> Whole drawing, current view, paper format Scaling: fit paper/custom scaling factor Raster data and/or vector data, selectable through layer settings. Preview
Operating Systems		Windows XP/Vista/7 (32bit + 64bit)
Recommended Hardware		<ul style="list-style-type: none"> Pentium III/4, 1+ GHz 256/512 MB RAM for b/w or small color images 512/1024MB RAM for standard or larger color images 400+ MB free hard disk space (for color drawings) 1024x768 SVGA adapter with windows accelerator

APPENDIX

Supported Raster Formats

Extension	Format Name	Black & White	Color	Multipage
BIL	GeoSPOT		•	
BMP	Windows Bitmap	•	•	
B4	Boeing EDMICS	•		
C4	EDMICS	•		
CAL, CG4, RST	Cals Raster	•		
CIT, RLE, TG4	Intergraph	•		
CRL, COT	Intergraph		•	
DCX	DCX Raster	•	•	•
ECW, ERS	ER Mapper	•	•	
FST, FF7, HD	Landsat		•	
G3, G4, RNL	GTX Raster	•		
GIF	Internet GIF	•	•	
GIS, LAN	Erdas Raster		•	
GOE	NOAA GOES		•	
GP4	Cals Raster	•		
GR4	ABB Group 4	•		
HRF	Hitachi Raster	•		
IDC	Core IDC		•	
IFF, ILBN	Amiga IFF	•	•	
IG4, IGS	Image Systems	•	•	
IM1	Sun Raster	•		
IM8	Sun Raster		•	
JP2, J2K, J2C	JPEG 2000		•	
JPG, JPEG	JPEG		•	
MIL	Cals	•		
NIF	Navy TIFF	•	•	
OPT	Optigraphics	•		
PDF	Adobe PDF	•	•	•
PNG	PNG Raster	•	•	
PCX	PCX Raster	•	•	
RAS	Sun Raster	•	•	
RLC	Image Systems	•		
RLC	Xerox RLC	•		
RLN	M.O.S.S. RLN	•		
SID	LizardTech MrSID	•	•	
SUN	Sun Raster	•	•	
TGA	Targa Graphics	•	•	
TIF, TIFF	TIFF Raster	•	•	•
VIF	ABB Raster	•		

Supported Vector Formats

Extension	Format Name	Vector	Hybrid (Raster + Vector)
CGM	Computer Graphics Metafile	•	•
DGN	Microstation Design File	•	•
DWG	AutoCAD	•	
DWG	Raster-DWG	•	•
DWT	AutoCAD	•	
DXF	AutoCAD	•	
E00	ESRI	•	
HP2, PLT, PRN	HPGL/2 Plot File	•	
IGES	2-D IGES	•	
MIF	MapInfo	•	
RVD	Softelec Native Format	•	•
SHP, GEN	ESRI	•	
VCF	Old Softelec Native Format	•	•
VCI	Old Softelec Native Format	•	•

Individual Extensions for File Formats (Alias Extensions)

VPview allows you to load and process files which were saved in one of the above file formats, however, with other extensions (e.g. files in the **TIFF Raster** format with the extension ***.TR**). In order to load and process these files you have to create a text file named **VP.INI** in your Windows directory (e.g. **c:\windows**) with the following content:

```
[Import]
<Alias Extension> = <File Description> (*.<Alias Extension>),
                  *.<VP Extension>
```

"Alias Extension" specifies the individual extension of a saved file. "VP Extension" specifies one of the standard **VP** file formats.

Example:

```
TR = My TIFF File (*.TR),*.TIF
```

Use **{VPCOMMONFILES}** to add your individual file format to the **All Common Formats** group so the files will be displayed in the file open/import dialog.

Keyboard Shortcuts

All keyboard shortcuts are listed in the menu next to their commands, too

Function keys

[F1]	Help
[Shift] + [F1]	Context Help
[F2]	Measure
[F3]	Properties
[F4]	Show / hide Raster
[F5]	Show / hide Vectors
[Shift] + [F8]	Drawing Aids
[F11]	Vector Snap on/off
[F12]	Raster Snap on/off

Cursor control keys

[↑]	Scroll up
[↓]	Scroll down
[←]	Scroll left
[→]	Scroll right
[Shift] + [↑]	Page up
[Shift] + [↓]	Page down
[Shift] + [←]	Page left
[Shift] + [→]	Page right

Zoom functions

[Mult] (Numeric keypad)	Zoom all
[Div] (Numeric keypad)	Zoom pixel
[5] (Numeric keypad)	Zoom window
[Space] + left mouse button pressed	Pan dynamic

Multipage functions

[Pg Up]	Previous page
[Pg Dn]	Next page
[Home]	First page
[End]	Last page

Various functions

[Ctrl] + [F]	Quick select
[Ctrl] + [N]	New
[Ctrl] + [O]	Open
[Ctrl] + [P]	Print
[Ctrl] + [R]	Redraw
[Ctrl] + [S]	Save
[Ctrl] + [Y]	Redo
[Ctrl] + [Z]	Undo
[Shift] + [Enter]	Show / activate command line
[Esc]	Cancel
[Alt] + [Backspace]	Undo

DDE and OLE

VPview features a Windows compliant DDE and OLE interface that allows other applications to communicate with it. This may be useful in conjunction with, for example, a database application, which manages files that can be viewed with **VPview**. Specifically, you can:

1. Create a **VPview** object via OLE automation and execute commands on it.
2. Establish a DDE link to **VPview** software to execute commands via DDE.



Note: You can not link or embed a **VPview** object in an OLE container application (OLE compound file)!

To 1: OLE Automation capable programs (like Microsoft Excel) may create and operate on a '**VP.Document**' object (OLE short name). The available automation functions are (written in C):

```

long    GetProcessID ();
short   Execute (BSTR pszCommand);
long    GetDocumentCount ();
BSTR    GetDocumentName (long lDocumentNumber);
boolean CloseDocument (BSTR lpszDocument);
long    ShowWindow (BSTR lpszDocument, long iShow);
long    GetLastError (BSTR* pszErrorString, long lErrorLength);

```

There's a type library called **VP.TLB** installed in the **VPview** directory, which can be read by software development tools (like Microsoft Visual C++). In this case, the function prototypes listed above will be automatically generated in your target language.

To 2: The **VPview** software is a DDE server that accepts the start of a conversation with the following data:

Application:	VPview
Topic:	System

The DDE interface can handle **WM_DDE_EXECUTE** commands with the following syntax:

[command1][command2][command3]...

Do not omit the brackets ('[...]')! This way, you can execute an unlimited number of commands at once.

The commands that are available for DDE execution are all commands you can use from the command line of **VPview**.

Example, OLE via Visual Basic:

```

Sub LoadWithVPOLE(strFile)

    Dim strImp As String
    Dim strExp As String
    Dim VP As Object
    Set VP = CreateObject("VP.Document")

    strImp = "open " & Chr(34) & strFile & Chr(34)

    VP.Execute (strImp)
    VP.Execute ("exit")

    MsgBox "File has been loaded with OLE!"

End Sub

```

The above Visual Basic program uses OLE to load a drawing. Only the most important command you can use with **VPview** and OLE has been used in this example: Execute. With Execute you can start all commands that are available via the command line.

OLE generally works on invisible documents. There are two possible scenarios: 1) The application is already started: OLE opens an new, but invisible document. 2) The application is not yet started: The application is started completely invisible. Thus OLE is restricted to batch processing. For interactive task you can use DDE.

Example, DDE via Visual Basic:

```

Private Sub LoadWithVPDDE(strFile)
    Dim intChan
    Dim strImp As String
    Dim strExp As String

    'Use System Topic to connect to VP
    'VP must be running in order to connect

    intChan = DDEInitiate("VPview", "System")

    strImp = "[open " & Chr(34) & strFile & Chr(34) & "]"

    DDEExecute intChan, strImp

    MsgBox "File has been loaded with DDE!"

    'Terminate DDE conversation
    DDETerminate intChan

End Sub

```

The above Visual Basic program uses DDE to load a drawing. Note the square brackets, that must be used to encapsulate all commands. All commands you can start from the command line can be used.

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