What's New for Avid® Media Composer® v5.5 Avid Symphony™ v5.5 Avid NewsCutter® v9.5

New Features

The following lists what's new for the current editor release.

Feature	Description	For More Info
Transition manipulation in the Timeline	You can modify transition effects in the Timeline without using the Quick Transition dialog box	See "Modifying Transition Effects in the Timeline" on page 6.
EUCON™ integration	You can use Avid Artist Control, Avid Artist Transport, and Avid Artist Mix with your Avid editing application for audio navigation and transport functions, as well as some video and audio editing features such as recording automation gain. The only Windows OS supported with the editing application and EUCON is Windows 7 64-bit.	See "Using Avid Artist Series Controllers" on page 8.
Mbox family of audio devices (3rd Generation)	You can use the new version of the Avid Mbox family of audio devices — Mbox, Mbox Pro, and Mbox Mini — with supported configurations with your Avid editing application.	See "Using Mbox Family Audio Devices" on page 24 and "Co-installation Configurations and Audio Device Support" in the ReadMe.

Feature	Description	For More Info
Support for AJA® Io Express™	The AJA Io Express is supported as an input/output device. It supports baseband video I/O with deck control and monitoring capabilities for Media Composer and NewsCutter.	See "AJA Io Express Support" on page 27. For information on installing the Io Express, see your AJA documentation and visit the www.aja.com site.
Pro Tools|Native HD support	You can install and run your Avid editing application with Pro Tools v9.0 Native and HD audio cards. Pro Tools HD is supported only on Macintosh systems.	See "Avid Pro Tools|HD Native Hardware Configuration for Avid Editing Systems" on page 29.
Import Multichannel Audio	You can use the Import Settings dialog box to define the audio track formats for the audio channels in your imported media, up to a maximum of 16 audio channels for the clips in your bins. This allows you to specify which source channels are treated as mono or multichannel audio tracks in your project, rather than having to modify the clips in your bin after you import the source media.	See "Importing with Multichannel Audio" on page 33.
Exported locators import to Pro Tools as markers	When you export sequences with locators as AAF files, the locator information is included. An editor working on Pro Tools v9.0 or later can then choose to import the locators as Pro Tools as markers. The markers contain the same information as locators in your Avid editing system.	See "Suggested Uses for Locators" on page 36.
Multichannel mapping for Send to Playback	Using the Transfer Settings dialog box, you can now map any combination of audio tracks to any of the 16 available output channels when you send a sequence to playback using Interplay Transfer. The Send To Playback operation performs a mixdown on the selected tracks before the application sends the sequence to Interplay Transfer.	See "Mapping Audio Tracks to Output Channels" on page 37
AIR audio plug-ins	Your Avid editing application now comes with a collection of Advanced Instrument Research (AIR) RTAS plug-ins.	See "AIR Avid Audio Plug-Ins" on page 42.
ICS support	Avid editing applications now include Unicode support for file import/export operations.	See "International Character Support" on page 70.

Feature	Description	For More Info
AMA Linking with Multichannel Audio	You can use the AMA Settings dialog box to define the audio track formats for the audio channels in your linked media, up to a maximum of 16 audio channels for the clips in your bins. This allows you to specify which source channels are treated as mono or multichannel audio tracks in your project, rather than having to modify the clips in your bin after you link to the AMA media.	See "AMA Linking with Multichannel Audio" on page 70.
AMA Plug-Ins	The AMA Plug-Ins are unbundled from the Avid editor installers, with the exception of the AMA QuickTime plug-in. This allows AMA plug-in updates to be released when needed without relying on an Avid editing release.	After you install your Avid editing application, be sure to go to www.avid.com/ama to download the latest AMA plug-ins that are qualified with your Avid editing application. To see a list of AMA plug-ins installed on your system, select Tools > Console, and type: AMA_ListPlugins.
Sony XDCAM and HDCAM SR Lite AMA plug-ins	Avid AMA supports XDCAM optical and the new SxS memory-card based XDCAM cameras. Avid AMA supports Sony HDCAM SR Lite media.	See the www.avid.com/ama website for information and the Sony release notes.
Panasonic P2 AMA Plug-in	The Panasonic P2 AMA Plug-in supports P2 compliant media that was created on an Edius® editing system.	See the www.avid.com/ama website for information.
Enhancements to the Illusion FX FluidMorph Effect	The FluidMorph effect now includes additional Source parameter options that expand your artistic choices for morphed transitions. Also, in previous versions of your Avid editing application, FluidMorph effects sometimes showed inconsistencies in image quality between the preview and rendered states of the effect. FluidMorph effects no longer have this limitation.	See "FluidMorph Effect Source and Input Parameters" on page 74.

Feature	Description	For More Info
AVC-I Module for Nitris DX	This release supports a Nitris DX with AVC-I codec module. The codec module provides real-time encoding to the AVC-intra compression format, using the 10-bit high definition H.264 intra-frame codec.	For information on installing the AVC-I Module into a Nitris DX see the *Avid Nitris® DX AVC-I Module Upgrade* procedure supplied with your upgrade kit. To see a video on how to install the codec module, go to http://avid.custkb.com/avid/app/selfservice/search.jsp?DocId=380253. For information on AVC-I, see "Using the AVC-I Codec Module" on page 74.
PhraseFind	PhraseFind allows you to search for audio dialogue throughout your bins within a single project. The PhraseFind feature is purchased separately. If you are using PhraseFind in a shared storage environment, your ISIS client must be a minimum of v2.2.2 and MediaNet v3.3.0	See the *Getting Started with PhraseFind* guide supplied with the PhraseFind feature.
Text Find	The current Find feature has been updated in a new window called Text Find. Text Find allows you to enter text and search bins, Scripts and the Timeline.	See "Searching for a Clip or Sequence with Text Find" on page 75.
Avid License Control tool	A tool that allows you to activate and deactivate ScriptSync and PhraseFind. If you purchased and then install these options for your Avid editing application, the Avid License Control tool opens automatically and takes you through the activation of these options.	See the "Installing and Activating" chapter in the Getting Started with PhraseFind or Getting Started with ScriptSync booklet for more information.
H.264 support	H.264 proxy media generated by AirSpeed Multi Stream or Interplay Transcode is supported in the editing application in an Avid Interplay environment.	See the topic "H.264 End-to-End MultiRez Workflow" in the *Avid Interplay Best Practices*.

Feature	Description	For More Info
AMA QuickTime Source Setting	This option allows you to change the dynamic range of a linked AMA QuickTime movie from 601/709 video range (16-235) to RGB range (0-255) or from RGB range (0-255) to 601/709 video range (16-235). This setting is only supported with QuickTime movies that were created with a non-Avid codec, including ProRes, H.264, and Animation.	For more information, see "Adjusting QuickTime Source Settings" on page 78.
Updated Co-installation information	You can install your Avid editing application with the new versions of Pro Tools hardware and peripherals, including the Native and HD cards.	See "Co-installation Configurations and Audio Device Support" in the ReadMe.
Change to Audio Driver installation	If you use any Pro Tools® audio devices — for example, any of the Avid Mbox® family of devices or the Avid Pro Tools|HD Native hardware — **you must install the device drivers separately.** Avid audio device drivers are located in the following directory: (Windows) Program Files\Avid\Utilities\AudioDriverInstallers (Macintosh®) Applications\Utilities\Avid Utilities\Avid Audio Drivers	
Matrox MX02 Mini	With the new Matrox MX02 Mini drivers, the 720p23.976 and NTSC 23.976 Project Types are supported. See the www.matrox.com website for information on the latest drivers supported with the Avid editing applications. With the new Matrox drivers you can output PSF or true progressive from the editing application. The default is PSF. (Windows) Control the output through the Video Output Tool. (Macintosh) Control the output with the Console Command -togglepsf [true, false].	See "Setting up the Matrox MX02 Mini" in the Help.
Fast Scrub for Software only systems.	In previous releases, Fast Scrub was available on systems with Avid Nitris DX and Avid Mojo DX hardware. This option is now available when using Software only systems.	See "Timeline Settings" in the Help for information on Fast Scrub.

Modifying Transition Effects in the Timeline

If you use the Transition Manipulation button in the Smart tool, you can edit transition effects by dragging the transition handles or by moving the transition effect icon. When you position your mouse pointer over a transition effect, the pointer changes to either a resizing arrow or a hand icon, which allows you to lengthen or shorten the transition by dragging to the left or right, or to move the transition by dragging the effect icon to another position in the Timeline.

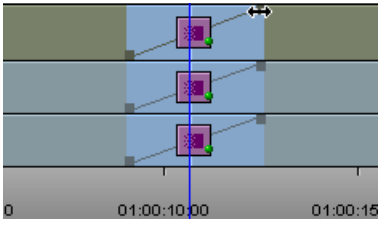
Modifying a transition effect by dragging in the Timeline allows you to do the following, depending on the position of the transition effect:

- Dragging a transition handle away from or towards the cut point increases or decreases the duration of the transition in that direction.
- If you want to modify the duration of the transition equally in both directions (on the incoming and outgoing sides of the transition), you can press the Alt key (Windows) or the Option key (Macintosh) before dragging a transition handle. Similarly, dragging toward the transition decreases the duration of the effect in both directions.
- You cannot move a transition effect or drag a transition handle beyond the cut point itself.
- If you enable link selection or if you select more than one transition, you can modify transitions on multiple clips at the same time. If the transitions on the clips differ in the length of the effect or the duration of the available handles, you cannot lengthen the transitions beyond the limit of the shortest handle or beyond a cut point on any of the selected tracks. (For more information on editing with linked clips, see “Linked Clips” in the Help.)

To lengthen or shorten the duration of a transition effect in the Timeline:

1. Click the Transition Manipulation button in the Smart tool.
2. Position the mouse pointer over the transition handle on either the outgoing or incoming side of the transition.

   The pointer changes to a resizing arrow.



3. Do one of the following:

- To lengthen the duration of a transition, drag the transition handle away from the effect icon in the center. You can press the Alt key (Windows) or the Option key (Macintosh) before you drag a transition handle to lengthen the duration of a transition equally in both directions.
- To shorten the duration of a transition, drag the transition handle toward the effect icon in the center. You can press the Alt key (Windows) or the Option key (Macintosh) before you drag a transition handle to shorten the duration of a transition equally in both directions.

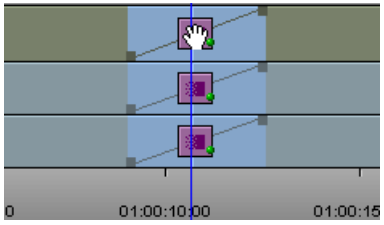
The duration of the transition changes as you drag the transition handle. If you enable link selection, the duration of the transition in the Timeline changes for all linked clips.

The monitor display changes to a Transition Corner display, showing you six frames that you can use as reference points when trimming a transition effect.

To adjust the position of the effect in the Timeline:

1. Click the Transition Manipulation button in the Smart tool.
2. Position the mouse pointer over the effect icon for the transition you want to move.

   The pointer changes to a hand.



3. Drag the effect to adjust its position with respect to the cut point.

   The Timeline updates to show the new effect position. If you enable link selection, the transition moves on all tracks in the Timeline with linked clips.

   The monitor display changes to a Transition Corner display, showing you six frames that you can use as reference points when trimming a transition effect.

You cannot drag an effect beyond the ends of the handles on the media because you cannot create a transition unless both incoming and outgoing media are available for every frame of the transition. You also cannot drag an effect beyond the cut point.

Using Avid Artist Series Controllers

This section includes topics that provide information on configuring and using the Avid Artist Series controllers with your Avid editing application: Avid Artist Control, Avid Artist Transport, and Avid Artist Mix. These controllers employ the EUCON™ (Extended User Control) protocol, which allows for integrated control of your Avid editing application and EUCON-compatible devices. You can use the controllers with your Avid editing application to perform audio navigation and transport functions, as well as some video and audio editing features such as recording automation gain.

Installing EuControl Software

The EuControl application controls your Artist Series controller and communicates with your Avid editing application. You must install EuControl before you use any Artist Series controller.

If you want to connect your Artist Series controller to an Avid editing system that is part of an Avid ISIS shared storage environment, the following requirements apply:

- (Macintosh only) Avid recommends that you connect your Artist Series controller to the built-in Ethernet 1 port on your Macintosh system. If you have limits to the number of Ethernet connections you use — for a corporate network or for shared storage — you might need to set the service order for your Artist Series controller to a lower priority than your other Ethernet connection. For more information on configuring your Ethernet connections, see “Configuring Ethernet Connections (Macintosh)” on page 10. You can change port assignments in the EuControl Settings application if necessary.
- Avid also recommends that you disable the network interface you use for your Artist Series controller in the ISIS Client Manager preferences. This prevents ISIS from trying to use the Ethernet port assigned to EUCON for your shared storage operations. For more information, see the *Avid ISIS Client Guide* that came with your ISIS product.

- Avid ISIS supports dual Ethernet connections to maximize bandwidth use and increase performance. Since your Artist Series controller must use one Ethernet port to connect to your Avid editing system, Avid does not support dual connection on Macintosh systems connected to an ISIS switch.
- Artist Series controllers do not support connection through a third-party Ethernet card.

To install EuControl:

1. Do one of the following:
   - If you downloaded the latest software from the Avid Web site, double-click the installer.
   - Insert the installation CD into your system, and double-click the installer.
2. Follow the on-screen instructions to install the software.

Download the most current version of EuControl if prompted to do so during installation.

   When installation completes, EuControl launches automatically.

3. You should check for updated firmware for your Artist Series controller by doing the following:
   a. Do one of the following:
      - (Windows) Double-click the EUCON icon in the notification area.
      - (Macintosh) Click the EUCON icon in the dock, and then select Window > EuControl Settings.

      The EuControl Settings dialog box opens.
   b. Click the Surfaces tab, and then click Update Firmware.

      If there is updated firmware for your Artist Series controller, EuControl automatically downloads it.
   c. Follow the on-screen instructions to install the new firmware.
4. Shut down your system.
5. Connect your Artist Series controller. For information on setting up your Artist Series controller, see the documentation that came with your equipment.

Configuring Avid Artist Series Controller Settings

You use the Controller Settings dialog box to configure your Avid editing application so that it can communicate with your Artist Series controllers.

To configure your Avid editing application for an Artist Series controller:

1. Double-click Controller Settings in the Settings list of the Project window.

   The Controller Settings dialog box opens.

2. Select Controller > EUCON Controller.
3. Click OK.

Configuring Ethernet Connections (Macintosh)

You can connect your Artist Series controller to either the Ethernet 1 or Ethernet 2 port on your Macintosh system. By default, the EuControl application is configured to use Ethernet 1. You might need to change this configuration if your system connects to a corporate network or if it is part of a shared storage environment — for example, if you connect your Macintosh system to an Avid ISIS system.

The following procedure describes how to configure your network connections if you need to reserve one Ethernet port for a network or shared storage connection. You can use either Ethernet port for your Artist Series controller, but you should set the network priority for your network or storage connection higher than the priority for your Artist Series controller.

To configure Ethernet ports on a Macintosh system:

1. Connect your Artist Series controller to either the Ethernet 1 or Ethernet 2 port on your Macintosh system.
2. Select the Apple menu > System Preferences.
3. In the Other area, click Euphonix.

   The Euphonix dialog box opens.

4. Click the Network Interfaces menu and select either Ethernet 1 or Ethernet 2, depending on which Ethernet port you want to use for your Artist Series controller.
5. Close the Euphonix dialog box.
6. Select the Apple menu > System Preferences.
7. In the Internet & Wireless area, click Network.

   The Network dialog box opens.
8. Click the Action menu and select Set Service Order.

   The Service Order dialog box opens.
9. If the Ethernet connection you want to use for your corporate network or shared storage connection is not at the top of the network connections list, select that Ethernet connection and drag it to the top of the list. For more information on setting the service order, see the Apple Help for your Macintosh system.
10. Click Apply, and then close the Network dialog box.

Configuring EuControl Settings

Before you can use an Artist Series controller with your Avid editing application, you must configure the EuControl settings. You can connect your Artist Series controller to the EuControl application on your system so you can use it as a controller, connect additional workstations so they can access the controllers, and assign functions to buttons and keys on the Artist Series controller.

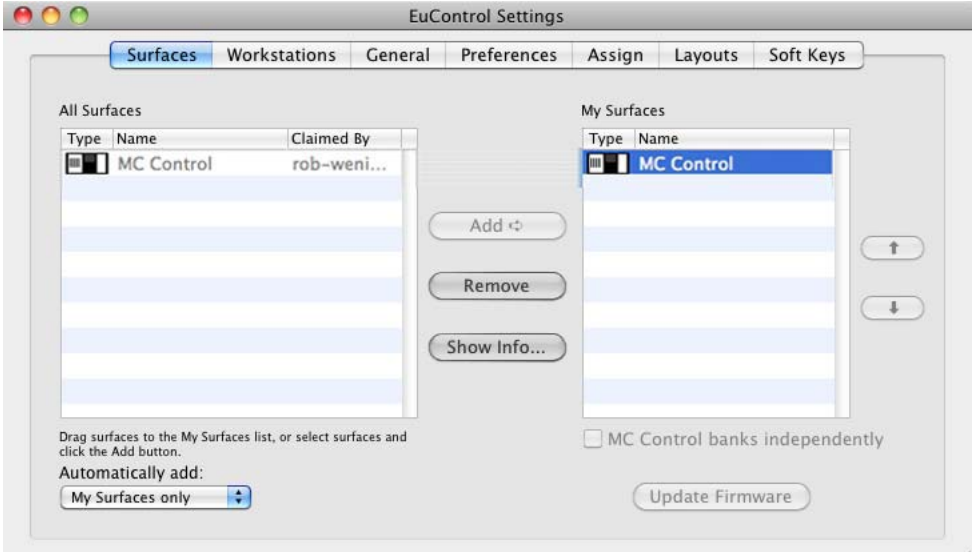
The EuControl application starts when you start your computer and runs in the background. Avid recommends that you make sure EuControl is running before you start your Avid editing application.

For a full description of configuration procedures and options, see the documentation that came with your Artist Series controller.

To connect an Artist Series controller to your system:

1. Start your Avid editing application.
2. Do one of the following:
   - (Windows) Double-click the EUCON icon in the notification area.
   - (Macintosh) Click the EUCON icon in the dock, and then select Window > EuControl Settings.

   EuControl Settings application opens. The All Surfaces list displays all available Artist Series controllers.



3. Click the Automatically add: menu, and select one of the following:
   - To add all controllers listed in the All Surfaces list — which lists all devices available on your subnet — select All Surfaces. This setting is useful when you are the only person running EuControl on your network.
   - To add only those controllers listed in the My Surfaces, select My Surfaces Only. Since only one user at a time can control a surface, this avoids claiming surfaces needed by other users on your network.

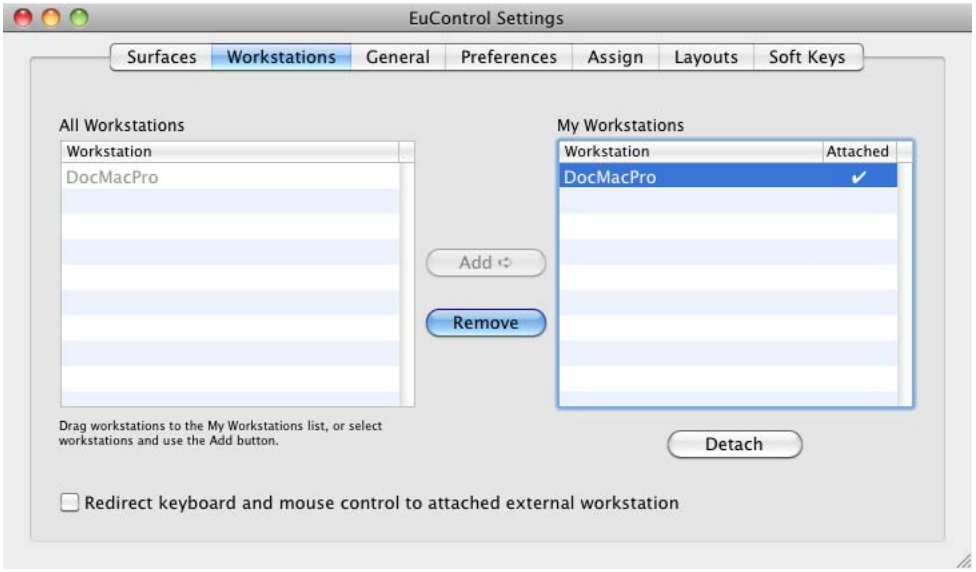
The selected devices are connected to EuControl.

4. (Option) If you select My Surfaces Only and you want to specify additional controllers to connect to your EuControl application, select a controller in the All Surfaces list, and then click Add.

   The controller appears in the My Surfaces list. You can rearrange the order of the controllers using the up and down arrows, and you can remove controllers from the list using the Remove button. You can also rename the controller, which allows you to easily identify multiple controllers in the My Surfaces list.

5. Click the Workstation tab.

   The Workstations tab opens. The All Workstations list displays all systems on your subnet that have been configured for access to the available Artist Series controllers.



6. (Option) If you want more than one workstation to access your Artist Series controllers, do the following:

   a. Select the workstation in the All Workstations list and click Add.

   b. Select the workstation in the My Workstations list and click Attach.

   A check mark appears in the Attached column in the My Workstations list. The workstation can now access the Artist Series controllers connected to EuControl.

7. Close the EuControl Settings application.

Artist Series Controller Button Mappings

When EuControl opens for the first time, it includes a set of default Avid editing functions mapped to the Artist Series controller buttons. To modify the button mappings, see "Customizing Avid Artist Series Controls" on page 15.

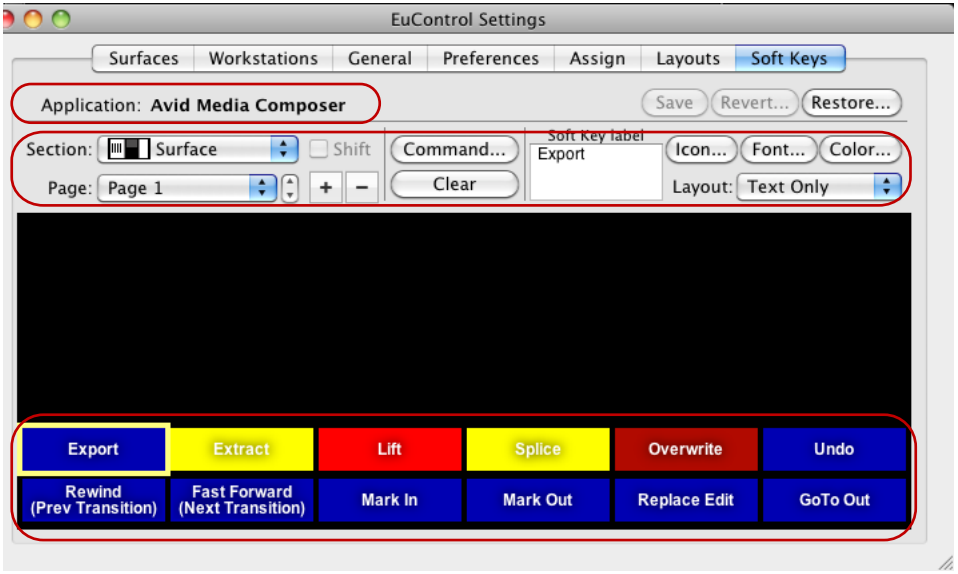
The Soft Keys tab controls Surface, Wheel, and Touchscreen soft key assignments. With Artist Series controllers that include a Touchscreen, you can access the Surface soft keys with the circular buttons below the Touchscreen, and you can access the Touchscreen soft keys with the Soft Keys Setup Touchscreen.

The mappings included in the Soft Keys tab apply only to Artist Control and Artist Transport.

Artist Control and Artist Transport can control multiple applications, each with its own soft key assignments. Since the EuControl application responds dynamically as you move between applications, soft key assignments might change in the Soft Keys tab as the active application changes. Changing the focus to the desired application and then to the EuControl application restores the current assignments. You can save your soft key assignments at any time while using EUCON.

Be sure to check that the proper application is active before you click Save, Restore, or Revert.

The Soft Keys tab displays the name of the active application above the option menus and the soft key assignments.



EuControl Settings: active application, option menus, soft key display buttons

The default EuControl button mappings include the following:

- Surface — The Surface keys control the functions assigned to the 12 buttons located below the Touchscreen on Artist Control. The Surface section organizes the buttons in 6 pages. You can click the Page menu to select a different set of commands.
- Touchscreen — The Touchscreen keys control the keys displayed on the Soft Keys Setup Touchscreen on Artist Control. The Touchscreen section organizes the buttons in 6 pages.
- Wheel — The Wheel keys control the keys displayed above the Jog and Shuttle wheels on the Artist Control and Artist Transport.

Customizing Avid Artist Series Controls

You can modify the default Soft Key functions of the controls on your Artist Series controller by mapping them to buttons and keyboard shortcuts in your Avid editing application. You can also add custom key sequences, EUCON commands, pages to the surface controls or the touchscreen, and jog and shuttle wheel functions for some devices.

The following procedure provides a generic description of how to customize your controller. For a full description of the customizations available, see the documentation that came with your Artist Series controller.

To change a function in the Artist Series controls:

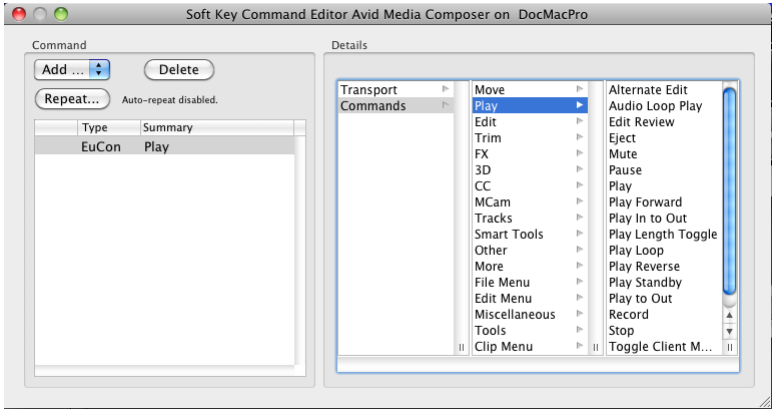
1. In the EuControl application, click the Soft Keys tab.
2. Click the Section menu, and select one of the following:
   - Surface
   - Touchscreen
   - Numpad
   - Softkeys
   - Wheel

   The Soft Keys tab displays the existing controls for the selected section.

The Artist Transport controls for the Touchscreen.

3. Do one of the following:
   - Select a button whose function you want to customize, and click Command.
   - Double-click a button whose function you want to customize.

   The Soft Key Command Editor opens.



4. Specify the action you want to associate with the control button.

   The Soft Key Command Editor organizes the default commands as they appear in the Command palette or in menus.

5. Close the Soft Key Command Editor.

   The Soft Key tab updates and displays the new function.

6. Click Save.

7. Close the EuControl Settings application.

To add a function to the Artist Series controls:

1. In the EuControl application, click the Soft Keys tab.

2. Click the Section menu, and select one of the following:

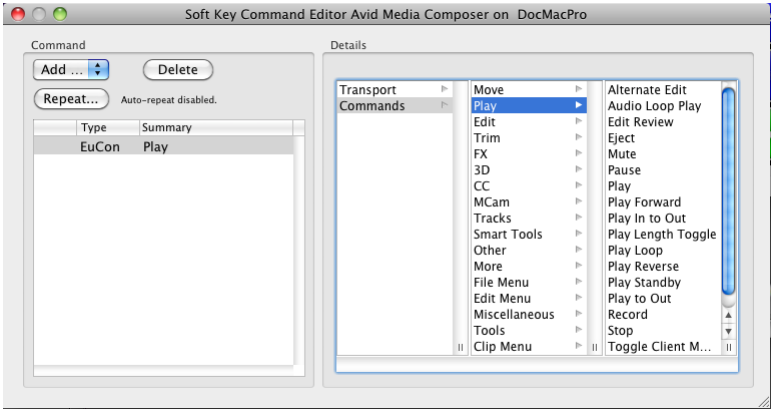
   - Surface
   - Touchscreen
   - Numpad
   - Softkeys
   - Wheel

   The Soft Keys tab displays the existing controls for the selected section.

The Artist Transport controls for the Touchscreen.

3. If the display does not include any blank keys, click the Page menu and select a new page. You can also click the Add button to add a new page.
4. Do one of the following:
   - Select a blank key and click Command.
   - Double-click a blank key.

   The Soft Key Command Editor dialog opens.



5. Click Add and select one of the following:
   - Key

- EuCon
- Page
- MC
- Wheel

6. In the Details column, select the function you want to associate with the new soft key.

   EUCON commands automatically label the button but do not select an icon.

7. Close the Soft Key Command Editor.

   The Soft Key tab updates and displays the new function.

Moving Through Footage with Artist Series Controllers

You can use your Artist Series controller to control how you move through footage. Depending on the functions available on your controller and the default and customizable controls, you can use the following methods:

- The Jog wheel allows for frame-by-frame positioning, depending on how fast you turn the wheel right (clockwise) or left (counterclockwise). Use the Jog wheel when you want to locate a specific frame by slowly viewing footage.
- The Shuttle ring alters the speed of playback by how far you turn the ring. The more you turn the ring to the right, the faster the footage moves forward. To move the footage in reverse, turn the ring to the left of the midpoint position. When held in position, footage continues to moves at a fixed rate. When you release the Shuttle ring, it automatically returns to its center position and footage stops changing. Use the Shuttle ring when you want to quickly scan footage.
- The Transport Controls allow you to play, pause, rewind, and fast forward in your sequence.
- You can use the Rewind, Pause, and Fast Forward keys on your Artist Series controller to move through your footage as you do with J-K-L play in your Avid editing application. For more information on using the J-K-L keys, see “Playing Footage with the J-K-L Keys (Three-Button Play)” in the Help“Playing Footage with the J-K-L Keys (Three-Button Play)” in the Help.
- The track selection buttons on your Artist Series controller allow you to select and deselect tracks in the Timeline. Selecting tracks in the Timeline or in the Audio Mixer tool updates the track selection display in your Artist Series controller.
- You can solo and mute tracks on your Artist Series controller to isolate tracks as you monitor the audio playback. Using the solo and mute buttons on your Artist Series controller automatically updates the display in the Track Control panel and the Audio Mixer tool in your Avid editing application. You can use these buttons during playback.

For more information on moving through footage, see the documentation that came with your Artist Series controller.

Automation Gain and Pan on Artist Series Controllers

Some Artist Series controllers provide fader strips, each with a touch-sensitive fader, that control audio tracks for recording gain. Faders control assigned tracks and reflect changes made in the audio track properties, such as automation gain. Some Artist Series controllers also provide pan soft knobs that control audio tracks for recording pan automation. Pan soft knobs control assigned tracks and reflect changes made in the audio track pan values.

You can use the features available in the Audio Mixer tool to gang faders on the Artist Series controller. When the faders for two or more tracks are ganged, the fader sends identical volume or pan messages for the tracks when you move one fader. This can be useful when you want to adjust audio on multiple tracks.

For information on ganging faders, see "Adjusting Clip Gain and Pan for Audio Tracks" in the Help.

Some Artist Series controllers include an On key, which indicates that a specified track is unmuted. Deselecting the On key mutes the track and changes the Mute button in your Avid editing application to orange for the specified track.

A second On button is located next to the faders on Artist Mix controllers. This button currently is not used.

You can also use the Bank and Nudge keys available on some Artist Series controllers to change the track assignments of the faders on the controller if the number of tracks you want to automate gain or pan on exceeds the number of faders on the controller. The Bank button changes track assignments by the number of available faders — for example, shifting assignments from tracks 1 – 8 to tracks 9 – 16. The Nudge button changes track assignments by one track — for example, shifting assignments from tracks 1 – 8 to tracks 2 – 9.

Artist Mix provides buttons and indicator lights mapped to standard audio editing functions:

Button	Function
SEL	Controls and indicates automation pan recording.
SOLO	Controls and indicates when a track is set to solo.
ON	Controls and indicates when a track is unmuted or muted. The indicator is on when the track is not muted.

Button	Function
REC N	Controls and indicates automation gain recording. The track display indicates the automation state by either an R (Read) or a W (Write).
Shift + REC N	Controls and indicates automation mode. The current mode is not indicated.
SEL Y	Controls and indicates if a track is selected or deselected.

Once you record your gain or pan automation, you can use the Artist Mix or the Artist Control to modify gain or pan values on any audio keyframe selected in the Timeline.

You can disable the faders on your controller by pressing the Shift button and then pressing the Solo button on the left of the control surface. You might find this useful when you do not need to use the faders and you switch between the Source and Record monitors or the Source and Record views in the Timeline. To enable the faders, press the Shift button and the Solo button again.

Recording Automation Gain and Pan with Artist Series Controllers

If you record your automation in unlatched mode, releasing the fader returns the gain or pan values to the original values of the audio in your sequence. For information on enabling latch mode, see "Using the Latch Mode Feature on Artist Series Controllers" on page 22.

To record automation gain and pan information using an Artist Series controller:

1. Select Tools > Audio Mixer.

   The Audio Mixer tool opens.

2. (Optional) Click the Audio Mixer mode button and cycle through the Audio Mixer mode settings to the mode you want to select.

3. Attach the Artist Series controller to your system. (See "Configuring Avid Artist Series Controller Settings" on page 9.)

   The position indicator lights in the Audio Mixer tool change to blue when the fader controller or mixer is on and correctly attached to the system.

Position indicator lights

4. Click the Timeline Fast Menu button and select Audio Data > Auto Gain or Audio Data > Audio Pan.

5. Move the blue position indicator to the section of audio that you want to adjust and mark In to Out points.
6. Set Preroll and Postroll values, if necessary.
7. Click the Record button to start recording your actions.
8. Listen to the audio and adjust the slider or the pan control on the Artist Series controller for the track.

   The system displays the slider values for the corresponding track in the Audio Mixer tool as you adjust the gain or pan.
9. Click the Record button again to stop recording.
10.  Click the Audio Loop Play button to play the clip and test your results.
11. To decrease the number of keyframes, click the Audio Mixer Tool Fast Menu button, and select Filter Automation Gain on Track — In/Out or Filter Automation Pan on Track — In/Out. (Click the Track Selection button for a track to enable Filter Automation.)
12. (Option) If you delete too many keyframes, use the Undo command to restore them.
13. Repeat step 11 until you have decreased the number of keyframes to an acceptable level.

    You should remove as many excess keyframes as possible while still maintaining the pan or gain changes.

To change the tracks assigned to faders on the Artist Series controller, do one of the following:

- To move the track assignments to the left or right by the number of available faders, click the Bank Left or Bank Right button.
- To move the track assignments to the left or right by one track, click the Nudge Left or Nudge Right button.

Using the Latch Mode Feature on Artist Series Controllers

Some Artist Series controllers have an Auto REC button for each track that lets you enable or disable latch mode for recording automation gain and pan information.

When a track is not in latch mode, it automatically stops recording as soon as you release it. When you release the fader, it begins moving again as it follows the volume information in the Timeline.

If you enable latch mode, gain and pan values remain at the last values set during your recording session.

To use latch mode:

1. Click the Auto REC button for the appropriate tracks on the controller.

   You can click the button before or during a recording session.

2. Set In and Out points, and click the Record button in the Audio Mixer tool.

   The system begins playing the section and the faders move accordingly.

3. When you want to make an adjustment, move the fader or pan soft knob to change the volume.

   The system immediately begins recording.

4. When you are finished adjusting the section, release the fader or pan soft knob.

   The system stops recording (but keeps playing) and the fader or soft knob snaps back to the level in the Timeline.

   When the track is in latch mode, the system continues to record audio volume information after you release the fader or soft knob.

5. (Option) Press the Auto REC button to stop recording and snap the button back to its current Timeline position.

Using the Artist Series Controller for Editing Media

You can use your Artist Series controller to perform some of the basic editing functions available in your Avid editing application, including the following:

- Mark In and Out points
- Splice in and Overwrite edits
- Lift and Extract edits
- Trim edits
- Multicamera edits

These functions allow you to edit and trim clips in your sequences using the controller rather than the buttons and tools in your Avid editing application. For example, you can use the Jog wheel to navigate to a transition in the Timeline, and then you can use the Soft Key functions to activate Trim mode, and then perform a single- or dual-roller trim.

Some editing functions are mapped to your Artist Series controller by default. If you want to access other editing functions, you can customize the controls by mapping other functions to the soft keys or Touchscreen on your controller. For more information, see “Customizing Avid Artist Series Controls” on page 15.

Using Mbox Family Audio Devices

You can use the Mbox® family of audio input/output hardware as external audio devices for your Avid editing application. This means you can use the Mbox devices to record source audio and to monitor output audio.

When you attach the Mbox device to your Avid editing system, all of its audio input and output connections are live. If you use a video input/output hardware device, you can use a an Mbox device with either a USB or an IEEE 1394 (FireWire) connection if you select the DNA/1394 button in the Timeline top toolbar. (For more information on using an input/output device with a 1394 connection, see "Selecting a DV Device" in the Help.) The Mbox device and the video I/O device remain as two separate audio sub-systems. They are not combined to increase the number of available audio channels. For audio input/output, the system creates a list of input options based on the audio devices that are present — for example, Mbox Mic/Line, Mbox S/PDIF, or Host 1394.

The following table lists some of the features of the Mbox 2 and the Mbox (3rd Generation) family of audio devices.

Device	Connection Type	Input/Output Types
Mbox 2	USB	Analog, S/PDIF, MIDI
Mbox 2 Pro	1394	Analog, S/PDIF, MIDI, Word Clock In
Mbox 2 Mini	USB	Analog
Mbox 2 Micro	USB	Analog (monitor audio only; no input/output available)
Mbox (3rd Generation)	USB	Analog, S/PDIF, MIDI
Mbox Pro (3rd Generation)	1394	Analog, S/PDIF, MIDI, Word Clock In
Mbox Mini (3rd Generation)	USB	Analog

Mbox (3rd Generation) devices support audio sample rates up to 96 KHz. For a full description of MBox specifications, see the documentation that came with your device.

For a list of currently supported Mbox devices, see the ReadMe for your Avid editing application.

Configuring the Mbox Device

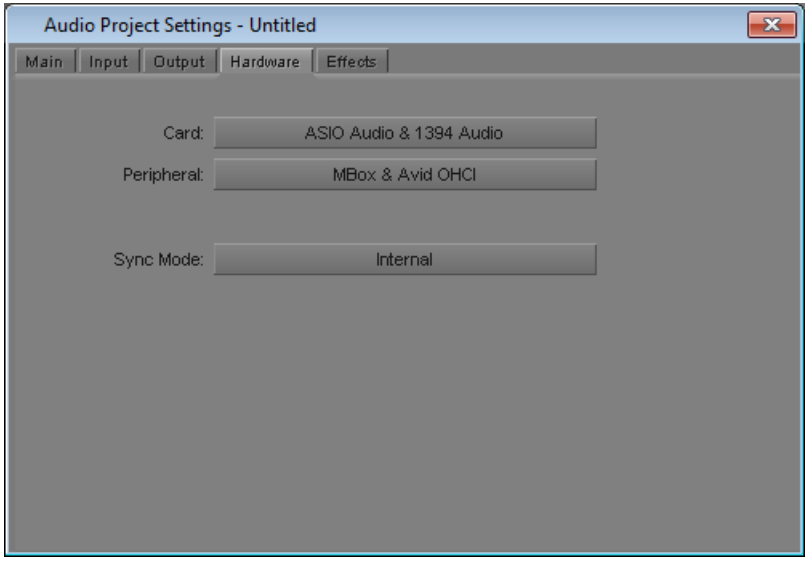
You must start the Mbox device before you start your Avid editing application. If you start your Avid editing application when the audio device is turned off, you must exit your Avid editing application, turn the device on, and then start your Avid editing application.

(Macintosh only) S/PDIF inputs appear in the Capture tool as Tracks 3-4.

To select the Mbox device in the Audio Project Settings dialog box.

1. Connect the Mbox device to your Avid editing system.
2. Start your Avid editing application.
3. Click the Settings tab in the Project window.
4. Double-click Audio Project Settings.

   The Audio Project Settings dialog box opens.
5. Click the Hardware tab.



6. Click the Peripheral menu, and then select your Mbox device.
7. Close the Audio Project Settings dialog box.

   Once you configure the Mbox device, you can select the audio input interface in the Capture tool and the Audio Punch-in tool. For more information, see “Preparing to Capture Audio” in the Help and “Recording Voice-Over Narration” in the Help.

You can also use your device to monitor output audio by connecting headphones or speakers to the Mbox device.

Setting Up the Mbox Pro for Passthrough Monitoring (Windows Only)

If you use the Mbox Pro to monitor source audio, you must set the source for your headphone output in the Mbox Pro Control Panel to Stereo Mix 1. This allows you to monitor audio with your Avid editing application using the Passthrough Mix tool.

To set your Mbox Pro to monitor passthrough audio:

1. Make sure your Avid editing application is not running.
2. Click the Start button, and select Control Panel.
3. Do one of the following:
   - (Windows 7) If the View by menu is set to Category, click Hardware and Sound, and then click Avid Mbox Pro.
   - (Windows 7) If the View by menu is set to Large icons or to Small icons, click Avid Mbox Pro.
   - (Windows XP) Click Avid Mbox Pro.

   The Mbox Pro Control Panel opens.

4. Select your headphone output, and then click the Audio Source menu and select Stereo Mix 1.
5. Close the Mbox Pro Control Panel.

AJA Io Express Support

The Avid Media Composer and Avid NewsCutter editing applications have been qualified for use with the AJA Io Express input/output device.

Note the following when working with the editing application and the AJA Io Express:

- Ancillary data capture is not supported.
- The AJA Io Express supports 8 channels of embedded audio for SDI.
- The editing application does not support LTC with the AJA Io Express.
- Audio Punch-In is not supported.
- DVCPRO HD output for Digital Cut is not supported.
- Surround sound is not supported.
- The only Sample Rate option is 48kHz in the Audio Project Settings when an AJA Io Express is connected to your system.
- Avid does not support the serial port on the Io Express. You must use the Avid-qualified host-based RS-422 adaptor for serial deck control.
- OHCI (Host 1394) capture is not supported when you have an AJA Io Express connected. If you want to capture OHCI see “Capturing OHCI (Host 1394)” on page 28.

The following are supported with the AJA Io Express:

AVC-Intra, AVCHD, Avid DNxHD, Canon XF, DV, DV25, DV50, DVCAM, DVCPRO, DVCPRO HD, GFCAM, HD-RGB, HDV, NTSC, P2, PAL, QuickTime, RED, Stereoscopic (via Metafuze), uncompressed SD, uncompressed HD, VC-1, XDCAM, XDCAM EX, XDCAM HD.

To ensure you are ready to work with the AJA Io Express, perform the following:

1. Check the Avid Media Composer or Avid NewsCutter editing application ReadMe to make sure your computer system or laptop has been qualified for use with the AJA Io Express. See the “Supported Hardware” topic.
2. Install the AJA Io Express software and hardware.The AJA Io Express attaches to the editing application computer via a PCIe adaptor (desktop) or an ExpressCard (laptop). These adaptors ship with AJA Io Express. See the AJA documentation and the www.aja.com website for installation information.

3. Start your Avid editing application and set your applicable input settings.

Option	Description
Input menu	Defines the video input. You can select Host-1394, SDI, or HDMI.
Settings menu	Lets you save the settings for an individual tape each time you calibrate bars.

4. Set your applicable output settings:

Option	Description
Sync Lock	Locks your output connection to the reference or an internal signal on the Avid input/output hardware. • Internal • Reference
HDMI Out	• HD
Downconvert	Defines how downconverted SD video is resized. The options are Anamorphic, Letterbox, Center Cut, or OFF.
Component Format	Lets you set your Component output to standard definition (SD Interlaced) or high definition.
Test Patterns	Lets you choose a test pattern for calibrating during output.
Settings menu	Lets you save the settings for an individual tape each time you calibrate bars.

The options that appear in the Video Input tool and Video Output tool are those available when an AJA Io Express is attached.

Capturing OHCI (Host 1394)

With the Avid editing application, you cannot capture OHCI when connected to the AJA device. Perform the following if you want to capture OHCI.

To capture OHCI

1. Exit your editing application.
2. Shutdown your computer.
3. Turn off you AJA device.

4. Restart your computer.
5. Launch the editing application.

   You can now capture OHCI.

Avid Pro Tools|HD Native Hardware Configuration for Avid Editing Systems

Avid Pro Tools v8.5 and later supports Native audio hardware, and Pro Tools v9.0 supports both Native and HD hardware. If you install your Avid editing application on a system with Pro Tools|HD Native, you can use the same audio hardware for both applications. The Avid editing application installs the necessary audio drivers.

Not all version of Avid editing applications are compatible with Pro Tools|HD Native hardware. For up-to-date information on co-installation and supported configurations, see the ReadMe for your Avid editing application.

If you use Avid Adrenaline, Avid Mojo SDI, or Matrox MX02 Mini hardware in DNA mode, or if you have Avid DX hardware installed with your system, you cannot access the Pro Tools|HD Native hardware. You can use the Pro Tools|HD Native hardware in a software-only Avid editing system or with supported Avid hardware in 1394 mode.

Pro Tools|HD Native audio hardware is supported only in some co-installation configurations, and for Pro Tools v9.0 the HD hardware is supported only on Macintosh systems and 32-bit Windows systems. For more information about co-installation, see the ReadMe documentation that came with your Avid editing application.

With Pro Tools|HD Native hardware installed on a supported Avid editing system, you can perform the following:

- Play back audio through up to 8 audio outputs. You can also play back audio with a SYNC HD or SYNC I/O device connected. The Avid editing application does not control the clock settings for these devices.
- If you have multiple audio interfaces connected (“daisy-chained”) to your HD or Native card, the playback defaults to outputs 1 and 2 of the first device.
- The Avid editing application can input and output audio up to 48 kHz with HD or Native hardware.

To set up your system to use the HD or Native hardware with your Avid editing application, see the following topics:

- “Configuring the ASIO Driver (Windows)” on page 30
- “Configuring the CoreAudio Driver (Macintosh)” on page 32

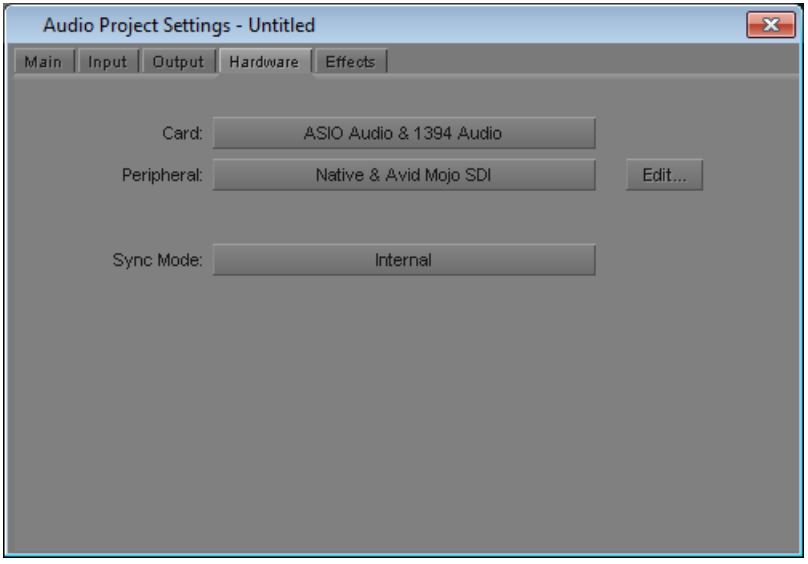
Configuring the ASIO Driver (Windows)

You can configure the ASIO driver settings by using the ASIO Control Panel, which you access from the Audio Project Settings dialog box.

To configure the ASIO driver:

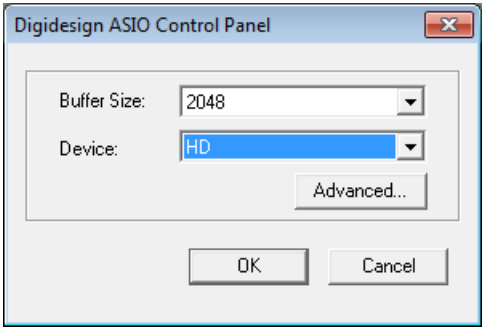
1. In the Avid editing application, click the Settings tab in the Project window.
2. Double-click Audio Project in the Settings list.

   The Audio Project Settings dialog box opens.
3. Click the Hardware tab.



4. Click Edit.

   The ASIO Control Panel opens.



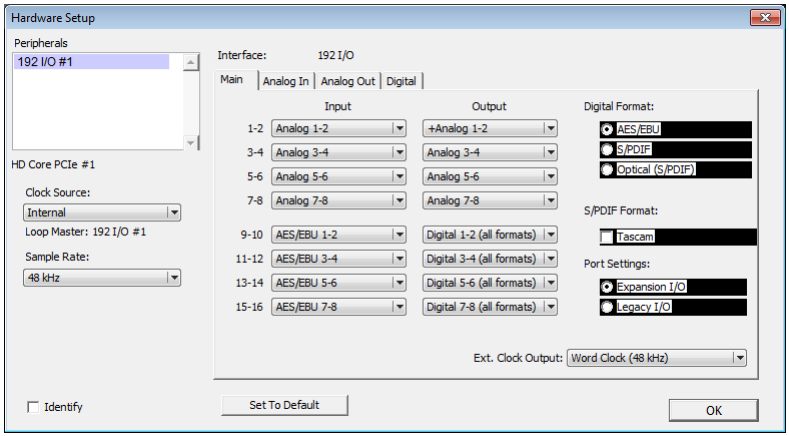
5. (Optional) Click the Buffer Size menu and select a buffer size.

   Generally, smaller buffer sizes are preferable. However, if you experience any problems with performance (such as clicks and pops during recording or playback), try increasing the Buffer Size setting.

6. Click the Device menu and select the audio device connected to your HD or Native hardware.

7. Click Advanced.

   The Hardware Setup dialog box opens.



8. Select the options you want for your audio input/output operations. For more information on the settings in the Hardware Setup dialog box, see "Configuring Your Pro Tools|HD Native System" in the *Pro Tools|HD Native User Guide* that came with your Pro Tools system.

   Your Avid editing application uses only 8 channels of audio output. Also, the application controls the audio sample rate, not your HD or Native hardware.

9. Click OK to close the Hardware Setup dialog box.

10. Click OK to close the ASIO Control Panel.

    Once you configure the audio device, you can use your device to monitor output audio by connecting headphones or speakers to the audio device.

11. Close the Audio Project Settings dialog box.

Configuring the CoreAudio Driver (Macintosh)

You can configure the CoreAudio driver using CoreAudio Manager. The CoreAudio Manager application launches automatically the first time your Avid editing application accesses the CoreAudio driver — for example, the first time you play audio on a system with an HD or Native card installed. If the CoreAudio Manager icon is hidden when first launched, click the icon in the dock.

Use CoreAudio Manager to change the CoreAudio Buffer Size setting and control volume and mute for the CoreAudio Driver. CoreAudio Manager also identifies your audio hardware, the supported number of input and output channels and the number of attached clients (applications).

To configure the CoreAudio driver:

1. Do one of the following:
   - If your Avid editing application is running and you have an audio sequence loaded in the Source/Record monitor, click Play and then click the CoreAudio Manager icon in the dock.
   - Double-click the CoreAudio Manager file (located in /Applications/Digidesign/).

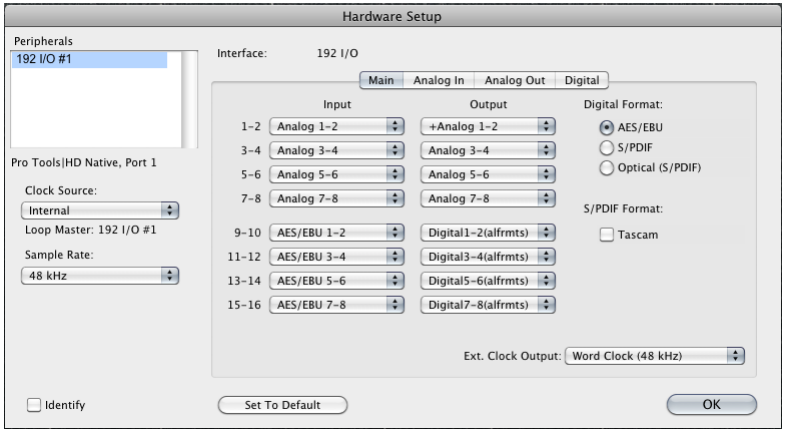
   The CoreAudio Manager opens.

2. (Optional) Click the Buffer Size menu and select a buffer size.

   Generally, smaller buffer sizes are preferable. However, if you experience any problems with performance (such as clicks and pops during recording or playback), try increasing the CoreAudio Buffer Size setting. You can also change the buffer size from within the Avid editing application if it is the only client attached to the CoreAudio Driver.

3. Click HW Setup.

   The Hardware Setup dialog box opens.



4. Select the options you want for your audio input/output operations. For more information on the settings in the Hardware Setup dialog box, see “Configuring Your Pro Tools|HD Native System” in the *Pro Tools|HD Native User Guide* that came with your Pro Tools system.

   Your Avid editing application uses only 8 channels of audio output. Also, the application controls the audio sample rate, not your HD or Native hardware.

5. Click OK to close the Hardware Setup dialog box.

   Once you configure the audio device, you can use your device to monitor output audio by connecting headphones or speakers to the audio device.

6. If your Avid editing application is not running, you can click Quit to close the CoreAudio Manager.

If the Avid editing application connected to the CoreAudio Manager is running when you quit the Manager, you might receive an error message and lose your connection to the Pro Tools hardware.

7. Close the Audio Project Settings dialog box.

Importing with Multichannel Audio

You can use the Import Settings dialog box to define the audio track formats for the audio channels in your imported media, up to a maximum of 16 audio channels for the clips in your bins. This allows you to specify which source channels are treated as mono or multichannel audio tracks in your project, rather than having to modify the clips in your bin after you import the source media.

The mappings affect all media clips created when you import your source media. If you want to use different mixes for different master clips or different projects, create a custom Import Settings template for each separate type of mix and then import your clips. For information on creating custom Import settings, see “Creating and Modifying Import Settings” in the Help.

Multichannel audio settings do not apply to the following formats when you import media or files:

- AAF
- OMFI
- Shot log files
- Tab-delimited files

Each stereo track requires two channels, but you can mix mono and stereo input channels for your linking operation as long as you do not exceed the maximum of 16 audio channels for each master clip.

To specify the multichannel audio mix for imported clips:

1. Do one of the following:

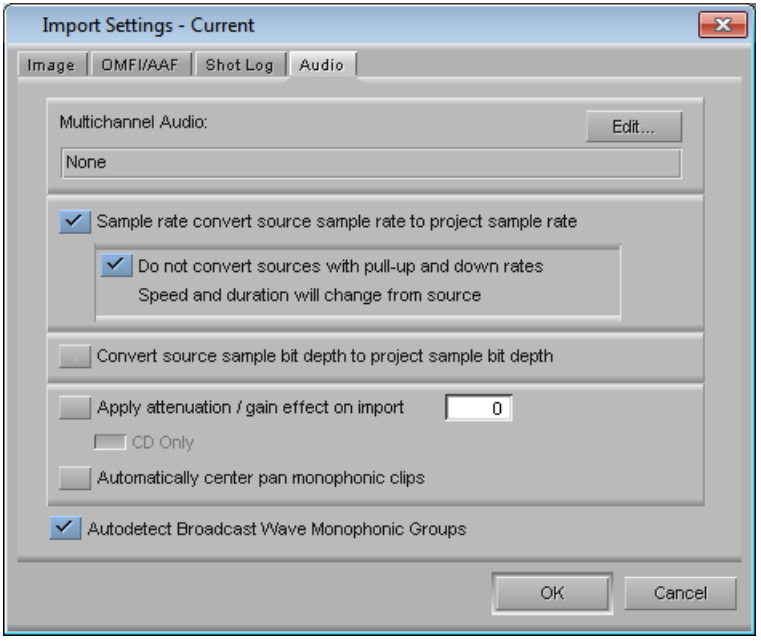
   - Open a bin, select File > Import, and then click the Options button in the Select Files to Import dialog box.
   - In the Project window, click the Settings tab and then double-click Import.

   The Import Settings dialog box appears.

   You can also open the Import Settings dialog box by clicking the Options button in the For information about the Import Settings, see “Import Settings” in the Help.

2. Click the Audio tab.

   The Multichannel Audio section of the Audio tab lists any multichannel audio mappings in the current Import Settings template.



3. Click Edit.

   The Set Multichannel Audio dialog box opens.

4. Click the format buttons to select one of the following audio track formats for each pair of source channels:

Button	Track Format
	Mono

Button	Track Format
	Stereo

You must map source audio channels in mono or stereo pairs. For example, you cannot map A1 to a mono track and A2 and A3 to a stereo track. Instead, map A1 and A2 to mono tracks, and A3 and A4 to a stereo track. If the source media does not have an audio channel on A2, the Avid editing application ignores the channel.

5. Click OK to close the Set Multichannel Audio dialog box, and then click OK to close the Import Settings dialog box.

   The Track Formats column in the bin Text view displays the format for all multichannel audio tracks in a master clip.

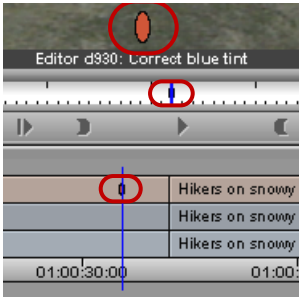
Suggested Uses for Locators

The following table describes some possible uses for locators and the Locators window:

Use	Description
Color correction notations	Use locators to mark clips or specify frames that require color correction, noting the specific correction to perform if someone else does the job.
Visual track alignments	Use locators at matching points in synchronized audio and video tracks so that if the tracks lose sync, you can visually realign the locators in the Timeline to restore sync. For more information on sync, see “Working with Multiple Tracks” in the Help.
Music cues	Use locators to mark the IN and OUT points for music.
Audio information sent to Avid Pro Tools	Use locators to mark places in the sequence for advanced audio editing in Pro Tools or to indicate video data useful to your Pro Tools editor.
Trim markers	Use locators in the Timeline to return directly to an edit you have designated for further trimming at a later time.
Cutaway markers	Use locators to identify cutaway shots with comments so that when you return to cover jump-frame edits with cutaway footage, you can quickly call up the shots using basic Find procedures.
Replace markers	Use locators to mark filler segments with comments to identify the items that should replace the filler.
Semi-permanent IN or OUT points	Use locators with the Mark Locators button to put multiple sets of locators on a long clip, and so on.

Use	Description
Add comments for EDLs	Use locators to add comments to sequence clips to appear in lists that you create, such as an EDL or cut list.
Viewing reviewer comments	Use the Locators window to view reviewer comments and the specific frame. See “Using the Locators Window” in the Help.
Print a list of reviewer comments	Use the Locators window to print a list of changes or comments that you can distribute to other people in the production. See “Using the Locators Window” in the Help.
Import and export locators	Import or export locators from one sequence or clip into another sequence or clip. See “Exporting and Importing Locators” in the Help.

When you insert a locator, it appears as an oval in the Timeline, in the position bar, and at the bottom of the frame in the monitor. The color of the oval corresponds to the color of the locator button you used.



Example of a locator in the monitor, the position bar, and the Timeline

You can add locators to your source material while you are in an editing session, as described in “Adding Locators While Editing” in the Help.

When you export sequences with locators as AAF files, the locator information is included. A Pro Tools editor can then choose to import the locators as Pro Tools as markers. The markers contain the same information as locators in your Avid editing system.

Mapping Audio Tracks to Output Channels

The Multiple Mix Editor dialog box allows you to map any combination of audio tracks to any of the 16 available output channels when you send a sequence to playback using Interplay Transfer. The Send To Playback operation performs a mixdown on the selected tracks before the application sends the sequence to Interplay Transfer.

The mappings you create in the Multiple Mix Editor affect any sequence you send to playback. If you want to use different mixes for different sequences, create a custom Transfer Settings template for each separate type of mixdown.

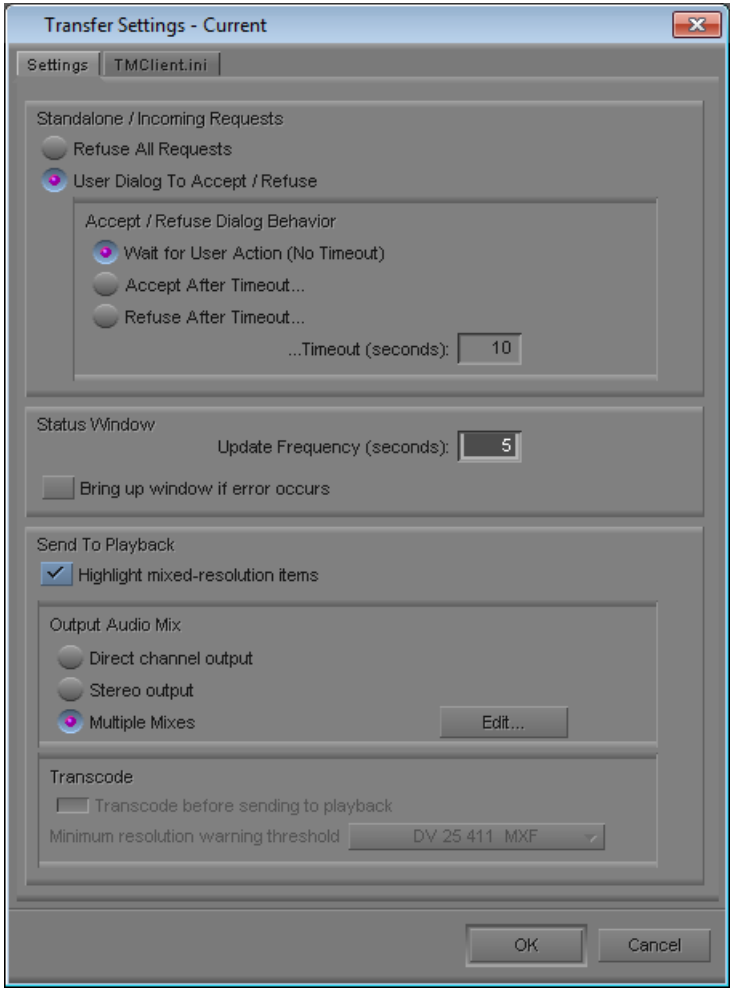
- You can map a single audio track in the Timeline to a single output track — for example, you can map audio tracks 2, 4, 6, and 8 to output channels 1, 2, 3, and 4, respectively. Stereo tracks require two output channels in the sequence that you send to playback unless you want to perform a stereo-to-mono mixdown.
- You can select multiple audio tracks and map them to a singe output channel — for example, you can map audio tracks 4, 5, 8, and 9 to output channel 1.
- You can map a single track to multiple channels — for example, you can map track 2 to output channels 1, 3, and 5.
- You can save your map as a custom Transfer settings template.

Each stereo output requires two channels, but you can mix mono and stereo channels for your Send to Playback operation as long as you do not exceed the maximum of 16 output channels.

To create a map of audio tracks to output channels:

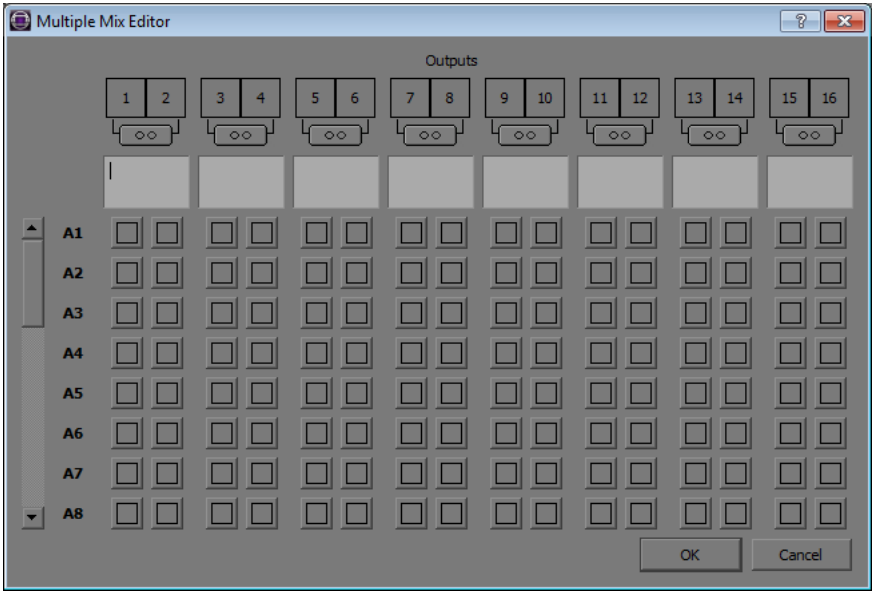
1. In the Avid editing application, click the Settings tab in the Project window.
2. Double-click Transfer in the Settings list.

   The Transfer Settings dialog box opens.
3. Click the Settings tab.



4. In the Output Audio Mix area, select Multiple Mixes, and then click Edit.

   The Multiple Mix Editor dialog box opens.



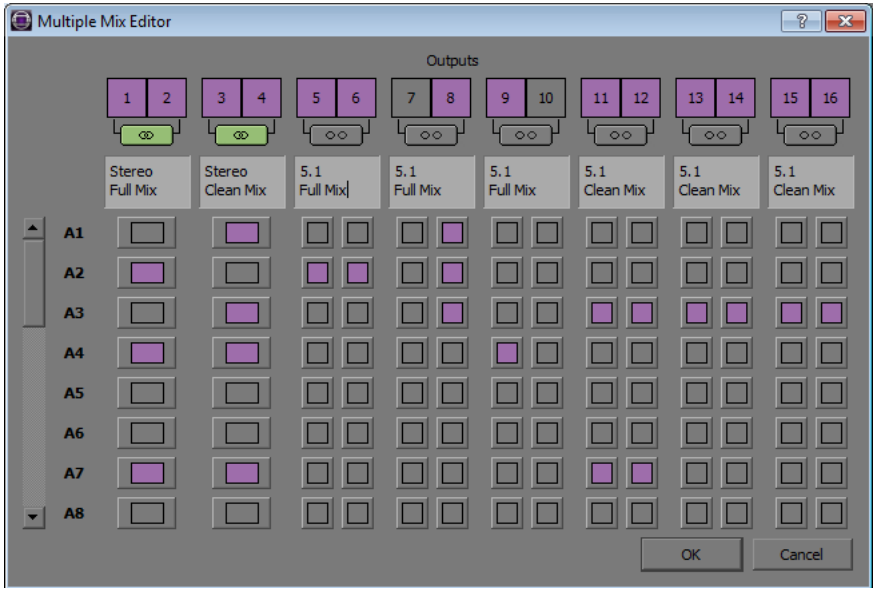
5. Click the Format buttons to cycle through the available options until you find the appropriate format:

Option		Description
	Mono tracks	Maps audio tracks to mono channels, with any assigned stereo tracks mixed down to a mono channel.
	Stereo track	Maps audio tracks to a single stereo channel, using the pan information on the input tracks to generate stereo output.

6. In the track selector row, click the channel or channels for each audio track you want to include in your output. If the track is not visible, use the scroll bar to locate the track you want to map to an output channel.

   The audio channel button and the corresponding Output button change to purple. You can click the channel button again to remove it from the output mixdown. You can also click the Output button to remove it from the from the output. Only active output channels are sent to playback.

7. (Option) In the Label text box, type a label to identify the type of output for your mixdown. You can use the labels to describe the kind of mixdown for your output, but the Avid editing application does not send this information to the playback device.



8. Repeat steps 5 through 8 to map additional audio tracks to output channels.
9. When you finish assigning tracks to output channels, click OK to save your mixdown sequence.

   The Multiple Mix Editor closes.
10. In the Transfer Settings dialog box, click OK.

To save a custom map of output audio channels as a settings template:

1. Click the Settings tab in the Project window.

   The Settings list appears.
2. Click Transfer.
3. Select Edit > Duplicate.

   A duplicate setting appears in the Settings list.
4. Name the setting by doing the following:
   a. Click the custom name column.
   b. Type a name.
   c. Press Enter (Windows) or Return (Macintosh).

The custom name column is the center column in the Project window. When you move the pointer over the custom name column, the pointer changes from a pointing finger to a text insertion bar.

You can select this new setting whenever you send a sequence to playback using Interplay Transfer.

AIR Avid Audio Plug-Ins

The following table provides a brief description of each of the AIR core plug-ins, with cross-references to more detailed information in the remaining topics in this section.

You can use RTAS track effect plug-ins on both mono and stereo tracks. You can use some AudioSuite plug-ins in either mono or stereo clips. For more information, see “Using AudioSuite Plug-Ins in Stereo” in the Help.

Audio Plug-ins

Plug-In	Description
AIR Chorus	Gives depth and space to the audio signal.by applying a short modulated delay. For more information, see “AIR Chorus (RTAS)” on page 43.
AIR Distortion	Modifies the audio signal with various types of distortion. For more information, see “AIR Distortion (RTAS)” on page 44.
AIR Dynamic Delay	Creates a delay line that can synchronize to the tempo of your audio sequence. For more information, see “AIR Dynamic Delay (RTAS)” on page 45.
AIR Enhancer	Enhances the low and high broadband frequencies of the audio signal. For more information, see “AIR Enhancer (RTAS)” on page 47.
AIR Ensemble	Creates fluid, shimmering modulation effects. For more information, see “AIR Ensemble (RTAS)” on page 48.
AIR Filter Gate	Breaks the audio signal into staccato rhythmic patterns with variable filtering, amplitude, and panning. For more information, see “AIR Filter Gate (RTAS)” on page 48.
AIR Flanger	Applies a short modulating delay. For more information, see “AIR Flanger (RTAS)” on page 49.
AIR Frequency Shifter	Shifts the audio signal’s individual frequencies inharmonically. For more information, see “AIR Frequency Shifter (RTAS)” on page 52.
AIR Fuzz-Wah	Modifies the audio signal with different types and varying amounts of transistor-like distortion. For more information, see “AIR Fuzz-Wah (RTAS)” on page 53.
AIR Kill EQ	Removes the Low, Mid, or High broadband frequency range from an audio signal. For more information, see “AIR Kill EQ (RTAS)” on page 54.

Audio Plug-ins

Plug-In	Description
AIR Lo Fi	Lets you bit-crush, down-sample, clip, rectify, and mangle the input signal. For more information, see “AIR Lo Fi (RTAS)” on page 54.
AIR Multi-Chorus	Applies a thick, complex chorus effect to the audio signal. For more information, see “AIR Multi-Chorus (RTAS)” on page 57.
AIR Multi-Delay	Applies up to six delay lines to the audio signal. For more information, see “AIR Multi-Delay (RTAS)” on page 58.
AIR Non-Linear Reverb	Creates special gated or reversed reverb effects. For more information, see “AIR Non-Linear Reverb (RTAS)” on page 59/
AIR Phaser	Creates a unique sweeping sound by applying a phaser effect. For more information, see “AIR Phaser (RTAS)” on page 60.
AIR Reverb	Creates a sense of room or space by applying a reverb to the audio signal. For more information, see “AIR Reverb (RTAS)” on page 62.
AIR Spring Reverb	Creates a classic analog, spring reverb sound. “AIR Spring Reverb (RTAS)” on page 64.
AIR Stereo Width	Lets you enhance the stereo presence for mono audio signals. For more information, see “AIR Stereo Width (RTAS)” on page 65.
AIR Talkbox	Adds voice-like resonances to audio signals. For more information, see “AIR Talkbox (RTAS)” on page 66.
AIR Vintage Filter	Applies a modulating, resonant filter to the audio signal. For more information, see “AIR Vintage Filter (RTAS)” on page 68.

AIR Chorus (RTAS)

You can use the AIR Chorus plug-in to apply a short modulated delay to give depth and space to the audio signal.

The following table lists the AIR Chorus plug-in parameters:

Parameter	Description
Rate	Lets you adjust the rate of the low frequency oscillator (LFO) applied to the delayed signal as modulation. The higher the setting, the more rapid the modulation. You can select either a sine wave or a triangle wave as a modulation source, using the LFO Waveform selector.

Parameter	Description
Depth	Lets you adjust the depth of the low frequency oscillator (LFO) applied to the delayed signal as modulation.
Chorus	• Feedback — Controls the amount of feedback applied from the output of the delayed signal back into its input. Negative settings provide a more intense effect. • Pre Delay — Sets the delay time between the source chorus signal and the processed signal in milliseconds. The higher the setting, the longer the delay and the wider the chorusing effect.
LFO	• Waveform — Selects a triangle or a sine wave for the LFO. This affects the character of the modulation. The sine wave has a gentler ramp and peak than the triangle wave. • L/R Phase — Sets the relative phase of the LFO's modulation in the left and right channels.
Mix	Lets you adjust the balance between the Dry (source) signal and the Wet (processed) signal, giving you control over the depth of the effect. 0% is all dry, and 100% is all wet, while 50% is an equal mix of both.

AIR Distortion (RTAS)

You can use the AIR Distortion plug-in to color the audio signal with various types and varying amounts of distortion.

The following table lists the AIR Distortion plug-in parameters:

Parameter	Description
Drive	Lets you increase the drive (input volume) of the signal from 0 dB (no distortion) to 60 dB (extreme distortion). An increase or decrease of 1– 2 decibels can make a big difference on the amount and quality of distortion.
Output	Lets you lower the Output level of the distorted signal from 0–100%. At 0%, no distorted signal passes through the output. At 100%, the distorted signal passes through the output at full volume.
Tone	Lets you shape the timbral quality of the distortion. • Pre Shape — Lets you increase or decrease a broad gain boost (or attenuation) of treble frequencies in the processed signal. Pre-Shape is essentially a pre-distortion tone control that makes the distortion bite at different frequencies. Set to 0%, the Pre-Shape control doesn't affect the tone at all. Higher settings provide a boost in the high end of the distorted signal (more treble distortion), while lower setting suppress the high end, with some mid-range boost, for a darker less distorted tone. • High Cut — Lets you adjust the frequency for the High Cut filter. To attenuate the high-end of the processed signal, lower the frequency.

Parameter	Description
Clipping	• DC Bias — Lets you change clipping from being symmetrical to being asymmetrical, which makes it sound richer and more extreme at high settings. The difference is most noticeable at lower Drive settings. • Threshold — Lets you adjust the headroom for the dynamic range of the distorted signal between –20.0 dBFS and 0.0 dBFS. Rather than using the Drive to adjust the signal level relative to a fixed clipping level, use the Threshold control to adjust the clipping level without changing the signal level.
Stereo	When you enable Stereo, the control processes the left and right channels of the incoming stereo signal separately. When you disable Stereo, the control sums and processes the incoming stereo signal as mono.
Mix	Lets you balance the amount of dry signal with the amount of wet (distorted) signal. At 50%, the output includes equal amounts of dry and wet signal. At 0%, the output is all dry and at 100% it is all wet. You can use the Mix control in conjunction with the Output control to find just the right balance of the distorted signal with the input (dry) signal. For example, with Mix set to 50%, equal amounts of the dry and wet signal pass to the output. You can then lower the Output control to decrease the amount of distorted signal passed to the output until you get exactly the right mix between the two signals and the right overall level.

AIR Dynamic Delay (RTAS)

You can use the Dynamic Delay Plug-In for a delay line that can synchronize to the tempo of your audio sequence, and you can modulate the delay using an envelope follower.

The following table lists the AIR Dynamic Delay plug-in parameters:

Parameter	Description
Sync	When you enable Sync, the delay time synchronizes to the tempo of your audio sequence. When you disable Sync, you can set the delay time in milliseconds independently of the tempo. The Sync button is lit when it is enabled.

Parameter	Description
Delay	When you enable Sync, the Delay control lets you select a rhythmic subdivision or multiple of the beat for the delay time (based on the tempo). Select from the following rhythmic values: • 16 (sixteenth note) • 8T (eighth-note triplet) • 16D (dotted sixteenth-note) • 8 (eighth note) • 4T (quarter-note triplet) • 8D (dotted eighth-note) • 4 (quarter note) • 2T (half-note triplet) • 4D (dotted quarter-note) • 2 (half note) • 1T (whole-note triplet) • 3/4 (dotted half note) • 4/4 (whole note) • 5/4 (five tied quarter notes) • 6/4 (dotted whole note) • 7/4 (seven tied quarter notes) • 8/4 (double whole note) When you disable Sync, the Delay control lets you set the delay time in milliseconds and seconds (1 ms to 4.00 seconds).
Feedback	Lets you adjust the amount of delay feedback. At 0% the delayed signal repeats only once. As you increase the feedback, the number of times the delay repeats increases. At 100%, the delay repeats for an extended period of time. Each Delay mode produces a different feedback pattern, especially when you do not center the L/R Ratio.
Delay Section	• L/R Ratio — Lets you set the ratio of left to right delay times. If you move the control all the way to the left (50:100), the left channel delay time equals half the right channel delay time. If you move the control all the way to the right (100:50), the right channel delay time equals half the left channel delay time. • Stereo Width — Lets you adjust the width of the delay effect in the stereo field.

Parameter	Description
EQ	• Low Cut — Lets you adjust the frequency for the Low Cut filter. For less bass, raise the frequency. • High Cut — Lets you adjust the frequency for the High Cut filter. For less treble, lower the frequency.
Env Mod	The Dynamic Delay plug-in provides Envelope Modulation (an envelope follower) to control various parameters in real time. • Rate — Determines how quickly the Feedback and Mix parameters respond to input from the envelope follower. • FBK — Determines how much the envelope follower affects the Feedback (FBK) amount. • Mix — Determines how much the envelope follower affects the wet/dry mix. At 0%, the envelope follower has no effect on the given parameter. At +/– 100%, the parameter's value increases or decreases in direct proportion to the incoming signal's amplitude envelope.
Feedback Mode	Select one of the following options for the Feedback Mode: • Mono — Sums the incoming stereo signal to mono, then offers separate left and right delay output taps from that signal. • Stereo — Processes the left and right channels of the incoming stereo signal independently and outputs the processed signal on the corresponding left and right channels. • Cross — Processes the left and right channels of the incoming stereo signal independently, and feeds the each side's delayed signal back to the opposite channel.
Mix	Lets you balance the amount of dry signal with the amount of wet (delayed) signal. At 50%, the output includes equal amounts of dry and wet signal. At 0%, the output is all dry and at 100% it is all wet.

AIR Enhancer (RTAS)

You can use the Enhancer plug-in to enhance the low and high broadband frequencies of the audio signal.

The following table lists the AIR Enhancer plug-in parameters:

Parameter	Description
High Gain	Adjusts the frequency to boost the high end.
Low Gain	Adjusts the frequency to boost the low end.

Parameter	Description
Tune	Lets you set the center frequency for low and high-end enhancement. • Low — Sets the center frequency for the bass boost. • High — Sets the center frequency for the treble boost.
Harmonic Generation	Lets you generate additional high-frequency harmonics, which can brighten up dull signals. • Depth — Generates additional high frequency harmonics in the signal (0.0–12.0 dB). • Phase — Toggles the polarity of the generated harmonics, changing their phase relationship with the dry signal.
Output	Lets you lower the Output level from 0.0 dB to –INF dB.

AIR Ensemble (RTAS)

You can use the Ensemble plug-in to apply fluid, shimmering modulation effects to the audio signal.

The following table lists the AIR Ensemble plug-in parameters:

Parameter	Description
Rate	Changes the frequency of the modulating LFO (0.01–10.0 Hz).
Depth	Adjusts the amount of modulation applied to the Delay time.
Modulation	Lets you adjust and randomize the delay time. • Delay — Adjusts the Delay time. • Shimmer — Lets you randomize the Delay time, adding texture to the effect.
Stereo Width	Lets you widen or narrow the effect's stereo field.
Mix	Lets you balance the amount of dry signal with the amount of wet (processed) signal. At 50%, the output includes equal amounts of dry and wet signal. At 0%, the output is all dry and at 100% it is all wet.

AIR Filter Gate (RTAS)

You can use the Filter Gate effect to chop up the audio signal into staccato rhythmic patterns with variable filtering, amplitude, and panning.

The following table lists the AIR Filter Gate plug-in parameters:

Parameter	Description
Pattern	Lets you select from a number of preset rhythmic patterns that the gate will follow.
Gate	• Attack — Lets you adjust the duration of the attack as a percentage of the step duration. • Hold — Lets you adjust the duration of the hold (or sustain) as a percentage of the step duration. • Release — Lets you adjust the duration of the release as a percentage of the step duration.
Filter	Provides controls for the selected filter type: • Mode — Lets you select the type of Filter: • Off (no filtering) • LP (Low Pass filter) • BP (Band Pass filter) • HP (High Pass filter) • Phaser (Phaser) • Cutoff — Lets you adjust the Filter Cutoff frequency. • Res — Lets you adjust the Resonance at the Cutoff frequency.
Modulation	• Env — Lets you adjust how much an envelope follower affects the Cutoff frequency. Note that the Cutoff is fixed for the duration of each step, so it will not respond to a peak in the envelope until the start of the next step. • LFO — Lets you adjust the amount of LFO modulation of the Cutoff frequency. • LFO Steps — Sets the duration of one cycle of the LFO to the selected number of steps. Changes to the Step Rate consequently affect the durations of cycles of the LFO. When set to Random mode, the level of the LFO changes randomly every step, for a “sample and hold” waveform.
Rate	Lets you select the duration, or frequency of the Low Frequency Oscillator (LFO). The duration of one cycle of the LFO is measured in Steps.
Mix	Lets you balance the amount of dry signal with the amount of wet (filtered) signal. At 50%, the output includes equal amounts of dry and wet signal. At 0%, the output is all dry and at 100% it is all wet.

AIR Flanger (RTAS)

You can use the Flanger plug-in to apply a short modulating delay to the audio signal.

The following table lists the AIR Flanger plug-in parameters:

Parameter	Description
Sync	Synchronizes the modulation rate to the audio sequence tempo. When you enable Sync, you can select a rhythmic subdivision or multiple of the beat for the Flanger modulation rate. When you disable Sync, you can set the delay time in milliseconds independently of the sequence tempo. • — Select from the following rhythmic values: • 16 (sixteenth note) • 8T (eighth-note triplet) • 16D (dotted sixteenth-note) • 8 (eighth note) • 4T (quarter-note triplet) • 8D (dotted eighth-note) • 4 (quarter note) • 2T (half-note triplet) • 4D (dotted quarter-note) • 2 (half note) • 1T (whole-note triplet) • 3/4 (dotted half note) • 4/4 (whole note) • 5/4 (five tied quarter notes) • 6/4 (dotted whole note) • 8/4 (double whole note) • Depth — Lets you adjust the amount of modulation applied to the Delay time.

Parameter	Description
Rate	Lets you select from the following rhythmic values: • 16 (sixteenth note) • 8T (eighth-note triplet) • 16D (dotted sixteenth-note) • 8 (eighth note) • 4T (quarter-note triplet) • 8D (dotted eighth-note) • 4 (quarter note) • 2T (half-note triplet) • 4D (dotted quarter-note) • 2 (half note) • 1T (whole-note triplet) • 3/4 (dotted half note) • 4/4 (whole note) • 5/4 (five tied quarter notes) • 6/4 (dotted whole note) • 8/4 (double whole note)
Depth	Lets you adjust the amount of modulation applied to the Delay time.
Pre-Delay	Sets the minimum delay time in milliseconds.
LFO	Provides controls for the Low Frequency Oscillator (LFO) used to modulate the Delay time. • Retrigger — Resets the LFO phase. This lets you manually start the filter sweep from that specific point in time (or using automation, at a specific point in your arrangement). Clicking the Retrigger button also forces the Mix control up if it is too low while the button is held. This ensures that the sweep is audible. • Wave — lets you interpolate between a triangle wave and a sine wave for the modulating LFO. • L/R Offset — Lets you adjust the phase offset for the LFO waveform applied to the left and right channels.

Parameter	Description
EQ	Provides controls for cutting lows from the Flanger signal, and inverting phase. • Phase Invert — When enabled, Phase Invert flips the wet signal's polarity, which changes the harmonic structure of the effect. • Low Cut — Lets you adjust the Low Cut frequency for the Flanger, to limit the Flanger effects to higher frequencies.
Feedback	Lets you adjust the amount of delay feedback for the Flanger. At 0%, the delay repeats only once. At +/–100%, the Flanger feeds back on itself.
Mix	Lets you balance the amount of dry signal with the amount of wet (flanged) signal. At 50%, the output includes equal amounts of dry and wet signal. At 0%, the output is all dry and at 100% it is all wet. You can use the Mix control to create an "infinite phaser" effect between the dry and shifted signals, which always rises or always falls (depending on the direction of shift).

AIR Frequency Shifter (RTAS)

You can use the Frequency Shifter plug-in to shift the audio signal's individual frequencies inharmonically, creating a unique effect.

The following table lists the AIR Frequency Shifter plug-in parameters:

Parameter	Description
Frequency	Sets the amount of frequency shifting.
Shifter	Provides control over the direction of frequency shift, and feedback of the signal through the algorithm. • Mode — Sets the direction of the frequency shifting effect: • Up — Shifts frequencies up. • Down — Shifts frequencies down. • Up & Down — Shifts frequencies equally up and down, and the two shifted signals are heard simultaneously. • Stereo — Shifts the right channel frequencies up, and the left channel down. • Feedback — Lets you run the signal through the pitch shifting algorithm multiple times, creating a cascading, layered effect.
Mix	Lets you balance the amount of dry signal with the amount of wet (delayed) signal. At 50%, the output includes equal amounts of dry and wet signal. At 0%, the output is all dry and at 100% it is all wet.

AIR Fuzz-Wah (RTAS)

You can use the Fuzz-Wah plug-in to color the audio signal with different types and varying amounts of transistor-like distortion.

The following table lists the AIR Fuzz-Wah plug-in parameters:

Parameter	Description
Fuzz	Turns the distortion effect on and off.
Drive	Sets the level of gain in the Fuzz algorithm.
Mix (Fuzz)	Lets you balance the amount of dry signal with the amount of wet (distorted) signal. At 50%, the output includes equal amounts of dry and wet signal. At 0%, the output is all dry and at 100% it is all wet.
Post Wah	Lets you reverse the Fuzz section and the Wah section, placing one before the other.
Fuzz section	Provides tonal and volume control over the plug-in. • Tone — Lets you change the brightness of the Fuzz algorithm. • Output — Sets the overall output volume of the Fuzz section.
Pedal Min	• Freq — Sets the low (Pedal Min) limit of the wah filter's frequency sweep. • Res — Sets the low (Pedal Min) limit of the wah filter's resonance.
Pedal Max	• Freq — Sets the high (Pedal Max) limit of the wah filter's frequency sweep. • Res — Sets the high (Pedal Max) limit of the wah filter's resonance.
Modulation	Provides controls for the Low Frequency Oscillator (LFO) and Envelope Follower (ENV) that can be used to modulate the wah filter's sweep. • Rate — Sets either the LFO frequency, or the response time of the envelope follower, depending on the setting of the Mode control. • Type — Lets you select either the LFO or the Envelope follower as the modulation source for the wah filter. • Depth — Sets the amount of modulation sent by the LFO or envelope follower.
Wah	Lets you turn the wah filter on and off.
Pedal	Sweeps the wah center frequency up and down.
Filter	Switches the wah filter between LP (lowpass), BP (bandpass), and HP (highpass) modes.
Mix (Wah)	Lets you balance the amount of dry signal with the amount of wet (wah-processed) signal. At 50%, the output includes equal amounts of dry and wet signal. At 0%, the output is all dry and at 100% it is all wet.

Parameter	Description
Mix (overall)	Lets you balance the amount of fuzz-processed signal with the amount of wah-processed signal. At 50%, there are equal amounts of fuzz and wah signal. At 0%, the output is all fuzz, and at 100% it is all wah.

AIR Kill EQ (RTAS)

You can use the Kill EQ plug-in to remove the Low, Mid, or High broadband frequency range from an audio signal. This is a popular effect with DJs and is commonly used in electronic music production (especially in dance music).

The following table lists the AIR Kill EQ plug-in parameters:

Parameter	Description
High	Switches the high frequency band on and off.
Mid	Switches the middle frequency band on and off.
Low	Switches the low frequency band on and off.
Gain	• Low — Controls the volume of the low frequency band. • Mid — Controls the volume of the middle frequency band. • High — Controls the volume of the high frequency band.
Freq	• Low — Sets the crossover frequency of the low pass filter. • Sweep — Changes both the low and high-band cutoff frequencies simultaneously. When you kill the high and low bands, manipulating this control creates a swept bandpass filter effect. • High — Sets the crossover frequency of the high pass filter.
Output	Sets the final output volume.

AIR Lo Fi (RTAS)

You can use the Lo Fi effect to bit-crush, down-sample, clip, rectify, and mangle the input signal.

The following table lists the AIR Lo Fi plug-in parameters:

Parameter	Description
Sample Rate	Lets you resample the audio signal at another sample rate.

Parameter	Description
Anti-Alias	Provides control over anti-aliasing filters that you can use before and after downsampling to reduce aliasing in the resampled audio signal. • On — Lets you enable or disable the Anti-Alias filter. Disabling the filter creates a much grittier sound. • Pre — Lets you adjust the anti-aliasing filter cutoff applied to the audio signal before resampling. The filter is applied as a multiplier of the sample frequency (Fs) between 0.12 Fs and 2.00 Fs. • Post — Lets you adjust the range of anti-aliasing filter cutoff applied to the audio signal after resampling. The filter is applied as a multiplier of the sample frequency (Fs) between 0.12 Fs and 2.00 Fs.

Parameter	Description
LFO	Lets you apply a Low Frequency Oscillator to modulate the Sample Rate. • Sync — Synchronizes the LFO Rate to the audio sequence tempo. When you enable Sync, you can select a rhythmic subdivision or multiple of the beat for the LFO Rate. When you disable Sync, you can change the modulation rate independently of the sequence tempo. • Rate — Select from the following rhythmic values: • 16 (sixteenth note) • 8T (eighth-note triplet) • 16D (dotted sixteenth-note) • 8 (eighth note) • 4T (quarter-note triplet) • 8D (dotted eighth-note) • 4 (quarter note) • 2T (half-note triplet) • 4D (dotted quarter-note) • 2 (half note) • 1T (whole-note triplet) • 3/4 (dotted half note) • 4/4 (whole note) • 5/4 (five tied quarter notes) • 6/4 (dotted whole note) • 8/4 (double whole note) • Wave — Select from the following waveforms for the LFO: • Sine (sine wave) • Tri (triangle wave) • Saw (saw-tooth wave) • Square (square wave) • Morse (Morse code-like rhythmic effect) • S&H (Sample and Hold modulation) • Random (random modulation) • Depth — Lets you adjust the amount of modulation applied to the Sample Rate.

Parameter	Description
Env Mod	Provides Envelope Modulator control over an envelope follower that can affect the sample rate. You can use this for accentuating and enhancing signal peaks (such as in drum loops) with artificially generated high-frequency aliasing. • Attack — Sets the time it takes to respond to increases in the audio signal level. • Release — Sets the time it takes to recover after the signal level falls. • Depth — Determines how much the envelope follower affects the sample rate. • At 0%, the envelope follower has no affect on the sample rate. • At +100%, the attack ramps up to the sample rate setting; and the release starts from the sample rate setting and ramps down. • At –100%, the attack starts from the sample rate setting and ramps down; and the release ramps up to the sample rate setting.
Distortion	Provides controls for adding dirt and grunge to the signal. • Clip — Adds transistor-like distortion to the signal • Noise — Adds a noisy, buzz-like edge to the signal. • Rectify — Acts as a waveshaper, adding aggressive, harsh distortion to the signal.
Bit Depth	Lets you truncate the bit depth of the incoming signal from 16 bits all the way down to 1 bit.
Mix	Lets you balance the amount of dry signal with the amount of wet (processed) signal. At 50%, the output includes equal amounts of dry and wet signal. At 0%, the output is all dry and at 100% it is all wet.

AIR Multi-Chorus (RTAS)

You can use the AIR Multi-Chorus plug-in to apply a thick, complex chorus effect to the audio signal.

The following table lists the AIR Multi-Chorus plug-in parameters:

Parameter	Description
Rate	Sets the rate for the oscillation of the LFO in Hertz.
Depth	Sets the depth of LFO modulation of the audio signal in milliseconds.
Chorus	Provides control over the low-frequency content and stereo width of the Multi-Chorus effect. • Low Cut — Lets you adjust the Low Cut frequency for the chorus, to limit the Multi-Chorus effects to higher frequencies. • Width — Lets you widen or narrow the effect's stereo field.

Parameter	Description
Mod	• Pre Delay — Sets the Pre-Delay in milliseconds. • Waveform — Selects a triangle or a sine wave for the LFO. This affects the character of the modulation. The sine wave has a gentler ramp and peak than the triangle wave.
Voices	Sets the number of layered chorus effects that are applied to the audio signal. The more voices you use, the thicker the effect.
Mix	Lets you adjust the balance between the dry signal and the wet (processed) signal, giving you control over the depth of the effect. 0% is all dry, and 100% is all wet, while 50% is an equal mix of both.

AIR Multi-Delay (RTAS)

You can use the Multi-Delay Plug-In to apply up to six delay lines to the audio signal.

The following table lists the AIR Multi-Delay plug-in parameters:

Parameter	Description
Sync	When you enable Sync, the delay time synchronizes to the tempo of your audio sequence. When you disable Sync, you can set the delay time in milliseconds independently of the tempo. The Sync button is lit when it is enabled.
Delay	When you enable Sync, the Delay control lets you set the main delay length in 16th-note lengths (based on the tempo). When you disable Sync, the Delay control lets you set the delay time in milliseconds and seconds.
Feedback	Lets you adjust the amount of delay feedback. At 0% the delayed signal repeats only once. As you increase the feedback, the number of times the delay repeats increases. At 100%, the delay repeats for an extended period of time. The From and To controls let you feed signal from one delay tap to another, or back to the main input, to create complex delay/feedback effects. If the delay time of the To tap is greater than the delay time of the From tap, then the result is “feed-forward” rather than feedback, so you can hear only one delay repeat. • From — Sets the tap from which signal is cross-routed. • To — Sets the tap (or the main input) to which the cross-routed signal is routed.

Parameter	Description
Delay Taps	Provides five Taps (delay lines). Each tap provides the same set of controls. You can edit the controls for each tap independently of the other taps. • On — Turns the selected tap's signal on or off. • Delay — Sets the length of delay for the tap, relative to the main Delay setting. • Level — Changes the output level of the tap. • Pan — Pans the audio signal from the tap left or right in the stereo field.
High Cut	Lets you adjust the frequency for the High Cut filter. For less treble, lower the frequency.
Low Cut	Lets you adjust the frequency for the Low Cut filter. For less bass, raise the frequency.
Mix	Lets you balance the amount of dry signal with the amount of wet (delayed) signal. At 50%, the output includes equal amounts of dry and wet signal. At 0%, the output is all dry and at 100% it is all wet.

AIR Non-Linear Reverb (RTAS)

You can use the Non-Linear Reverb effect to apply special gated or reversed reverb effects to the audio signal, creating a synthetic, processed ambience.

The following table lists the AIR Non-Linear Reverb plug-in parameters:

Parameter	Description
Reverse	Turns Reverse mode on and off. In Reverse mode, the tail of the reverb signal fades up to full volume, then disappears, rather than fading out. • Pre-Delay — Determines the amount of time that elapses between the original audio event and the onset of reverberation. • Dry Delay — Applies a specified amount of delay to the dry portion of the signal, which can create a "reverse reverb" effect, where the reverb tail is heard before the dry signal.
Reverb	Provides control over the reverb's diffusion and stereo width. • Diffusion — Changes the rate at which the sound density of the reverb tail increases over time. Higher Diffusion settings create a smoother reverberated sound. Lower settings result in more fluttery echo. • Width — Lets you widen or narrow the effect's stereo field.

Parameter	Description
EQ	Provides tonal control over the reverb signal. • Low Cut — Adjusts the frequency for the Low Cut filter. For less bass, raise the frequency. • High Cut — Adjusts the frequency for the High Cut filter. For less treble, lower the frequency.
Reverb Time	Changes the length of the reverberation's decay.
Mix	Lets you balance the amount of dry signal with the amount of wet (processed) signal. At 50%, the output includes equal amounts of dry and wet signal. At 0%, the output is all dry and at 100% it is all wet.

AIR Phaser (RTAS)

You can use the Phaser effect to apply a phaser to the audio signal for a unique sweeping sound.

The following table lists the AIR Phaser plug-in parameters:

Parameter	Description
Sync	When you enable Sync, the delay time synchronizes to the tempo of your audio sequence. When you disable Sync, you can set the delay time in milliseconds independently of the tempo. The Sync button is lit when it is enabled.

Parameter	Description
Rate	When you enable Sync, the Rate control lets you select a rhythmic subdivision or multiple of the beat for the Phaser Modulation Rate. When you disable Sync, you can change the phaser rate independently of the sequence tempo. Select from the following rhythmic values: • 16 (sixteenth note) • 8T (eighth-note triplet) • 16D (dotted sixteenth-note) • 8 (eighth note) • 4T (quarter-note triplet) • 8D (dotted eighth-note) • 4 (quarter note) • 2T (half-note triplet) • 4D (dotted quarter-note) • 2 (half note) • 1T (whole-note triplet) • 3/4 (dotted half note) • 4/4 (whole note) • 5/4 (five tied quarter notes) • 6/4 (dotted whole note) • 8/4 (double whole note) • Wave — Select from the following waveforms for the LFO: • Sine (sine wave) • Tri (triangle wave) • Saw (saw-tooth wave) • Square (square wave) • Morse (Morse code-like rhythmic effect) • S&H (Sample and Hold modulation) • Random (random modulation)
Depth	Lets you adjust the depth of modulation, which in turn affects the amount of phasing applied to the audio signal.

Parameter	Description
Phaser	Provides control over the effect's center frequency and number of phaser stages (or poles). • Center — Lets you change the frequency center (100 Hz to 10.0 kHz) for the phaser poles. • Poles — Lets you select the number of phaser poles (stages): 2, 4, 6, or 8. The number of poles changes the character of the sound. The greater the number of poles, the thicker and more sweeping the sound.
LFO	Provides control over the waveform and stereo offset of the LFO. • Wave — Lets you interpolate between a triangle wave and a sine wave for modulating the phaser. • L/R Phase — Lets you adjust the relative phase of the LFO modulation applied to the left and right channels.
EQ	Provides tonal control over the phase signal. The Low Cut control lets you adjust the frequency of the Low Cut Filter in the phaser's feedback loop. This can be useful for taming low frequency "thumping" at high feedback settings.
Feedback	Feeds the output signal of phaser back into the input, creating a resonant or singing tone in the phaser when set to its maximum.
Mix	Lets you balance the amount of dry signal with the amount of wet (effected) signal. At 50%, the output includes equal amounts of dry and wet signal. At 0%, the output is all dry and at 100% it is all wet.

AIR Reverb (RTAS)

Different physical environments have different early reflection signatures that our ears and brain use to localize sound. These reflections affect our perception of the size of a space as well as where an audio source sits within it. You can use the Reverb effect to apply Reverb to the audio signal, creating a sense of room or space.

The following table lists the AIR Reverb plug-in parameters:

Parameter	Description
Pre-Delay	Determines the amount of time that elapses between the original audio event and the onset of reverberation. Under natural conditions, the amount of pre-delay depends on the size and construction of the acoustic space, and the relative position of the sound source and the listener. Pre-Delay attempts to duplicate this phenomenon, and you can use it to create a sense of distance and volume within an acoustic space. Long Pre-Delay settings place the reverberant field behind rather than on top of the original audio signal.
Room Size	Changes the apparent size of the space.

Parameter	Description
Early Reflections	Changes the perceived location of the reflecting surfaces surrounding the audio source. Reverb simulates early reflections by using multiple delay taps at different levels that occur in different positions in the stereo spectrum (through panning). Long reverberation generally occurs after early reflections dissipate. • Type — Provides the following Types of Early Reflection models: • Booth (a vocal recording booth) • Club (a small, clear, natural-sounding club ambience) • Room (the center of a small room without many reflections) • Small Chamber (a bright, small-sized room) • Medium Chamber (a bright, medium-sized room) • Large Chamber (a bright, large-sized room) • Small Studio (a small, live, empty room) • Large Studio (a large, live, empty room) • Scoring Stage (a scoring stage in a medium-sized hall) • Philharmonic (the space and ambience of a large, symphonic, concert hall) • Concert Hall (the space and ambience of a large concert hall) • Church (a medium-sized space with natural, clear-sounding reflections) • Opera House (the space and ambience of an opera house) • Vintage 1 (a vintage digital reverb effect) • Vintage 2 (a vintage digital reverb effect) • Spread — Controls the length of the early reflections.
Reverb	Provides control over the stereo width of the reverb algorithm. • In Width — Widens or narrows the stereo width of the incoming audio signal before it enters the reverb algorithm. • Out Width — Widens or narrows the stereo width of the signal once reverb has been applied. • Delay — Sets the size of the delay lines used to build the reverb effect. Higher values create longer reverberation.
EQ	Provides tonal control over the reverb signal. • Low Cut — Adjusts the frequency for the Low Cut filter. For less bass, raise the frequency. • High Cut — Adjusts the frequency for the High Cut filter. For less treble, lower the frequency.

Parameter	Description
Room	Controls the overall spatial feel of the simulated room. • Ambience — Affects the attack of the reverb signal. At low settings, the reverb arrives quickly, simulating a small room. At higher settings, the reverb ramps up more slowly, emulating a larger room. • Density — Changes the rate at which the sound density of the reverb tail increases over time. Higher Density settings create a smoother reverberated sound. Lower settings result in more fluttery echo.
High Frequencies	Provides controls that let you shape the tonal spectrum of the reverb by adjusting the decay times of higher frequencies. • Time — Decreases or increases the decay time for mid- to high-range frequency bands. Higher settings provide longer decay times and lower settings provide shorter decay time. With lower settings, high frequencies decay more quickly than low frequencies, simulating the effect of air absorption in a hall. • Freq — Sets the frequency boundary between the mid- and high-range frequency bands. • Cut — Adjusts the frequency for the High Cut filter (1.00–20.0 kHz). Adjusting the High Cut control changes the decay characteristics of the high frequency components of the Reverb. To cut the high-end of the processed signal, lower the frequency.
Low Frequencies	Controls the low-frequency-heavy tail of the reverb signal. • Time — Decreases or increases the decay time for the low-range frequency band. Higher settings provide longer decay times and lower settings provide shorter decay time. • Freq — Sets the frequency boundary between the low and high-range frequency bands.
Reverb Time	Changes the rate at which the reverberation decays after the original direct signal stops. At its maximum value, infinite reverberation is produced.
Balance	Changes the output level of the early reflections. Setting the level control to 0% produces a reverb effect that is only the reverb tail.
Mix	Lets you balance the amount of dry signal with the amount of wet (processed) signal. At 50%, the output includes equal amounts of dry and wet signal. At 0%, the output is all dry and at 100% it is all wet.

AIR Spring Reverb (RTAS)

You can use the Spring Reverb effect to apply a classic spring reverb sound. The analog spring reverb feeds a signal to a transducer at the end of a suspended metal coil spring. The transducer causes the spring to vibrate so that the signal reflects from one end of the spring to the other. At the other end of the spring another transducer converts the motion of the spring back into an electrical signal, which creates a delayed and reverberated version of the input signal. The Spring Reverb effect models this analog effect.

The following table lists the AIR Spring Reverb plug-in parameters:

Parameter	Description
Pre-Delay	Determines the amount of time (0–250 ms) that elapses between the original audio event and the onset of reverberation.
Reverb	Provides control over the diffusion and stereo width of the reverb signal. • Diffusion — Changes the rate at which the sound density of the reverb tail increases over time. Higher Diffusion settings create a smoother reverberated sound. Lower settings result in more fluttery echo. • Width — Changes the spread of the reverberated signal in the stereo field. A setting of 0% produces a mono reverb, but leaves the panning of the original source signal unprocessed. A setting of 100% produces a open, panned stereo image.
Low Cut	Lets you adjust the frequency of the Low Cut Filter (20.0 Hz–1.00 kHz). Use the Low Cut filter to reduce some of the potential low frequency resonance (or booming) you can get with longer reverb times.
Reverb Time	Changes the reverberation decay time (1.0–10.0 seconds) after the original direct signal stops. Shorter times result in a tighter, more ringing and metallic reverb, such as when walking down a narrow hall with hard floors and walls. Longer times result in a larger reverberant space, such as an empty, large, concrete cistern.
Mix	Lets you balance the amount of dry (non-reverb) signal with the amount of wet (reverb) signal. At 50%, the output includes equal amounts of dry and wet signal. At 0%, the output is all dry and at 100% it is all wet.

AIR Stereo Width (RTAS)

You can use the Stereo Width effect to create a wider stereo presence for mono audio signals.

The following table lists the AIR Stereo Width plug-in parameters:

Parameter	Description
Mode	Lets you specify the method by which the Stereo Width plug-in will create the artificial stereo field. • Adjust — Adjusts the existing stereo width of the signal by M-S encoding, equalizing the S component with the Low/Mid/High controls and boosting/attenuating it with the Width control, then M-S decoding back to stereo. The Delay control delays the right signal relative to the left for an additional widening effect (known as “Haas panning”). • Comb — Adds artificial width to the signal by M-S encoding then adding a delayed version of the M component to the S component. This creates a comb filtering effect that shifts some frequencies to the left and others to the right. • Phase — Affects how the Low/Mid/High controls set the centre frequencies of 3 phase shifters. This shifts the relative phase of the left and right channels, giving a much more subtle effect than Comb mode.
Process	Boosts or cuts the Low, Mid and High-frequency bands of the generated stereo signal.
Trim	Adjusts the perceived center/source of the generated stereo signal. • Level — Sets the volume of the perceived center of the stereo signal. • Pan — Sets the position left-to-right of the perceived center of the stereo signal.
Delay	Lets you specify the duration of delay used in Phase mode (0–8 ms).
Width	Sets the final width of the generated stereo field.

AIR Talkbox (RTAS)

You can use the Talkbox effect to add voice-like resonances to audio signals.

The following table lists the AIR Talkbox plug-in parameters:

Parameter	Description
Vowel	Lets you choose the shape of the formant filter, by the vowel sound that is simulated (OO/OU/AU/AH/AA/AE/EA/EH /EE/ER/UH/OH).
Env Depth	Creates a positive or negative offset in the setting of the Vowel control, effected by the envelope follower. At its center, the knob has no effect. Turned to the right or left of center, the Env Depth knob shifts the value of the Vowel control up or down. When you trigger the envelope follower, the Vowel parameter moves to its normal setting (in time with the envelope’s attack), then back to the offset value (in time with the envelope’s release).

Parameter	Description
LFO	Provides controls that let you apply a Low Frequency Oscillator to modulate the Formant setting. • Sync — Synchronize the LFO Rate to the audio sequence tempo. When you enable Sync, you can select a rhythmic subdivision or multiple of the beat for the LFO Rate. When you disable Sync, you can change the modulation rate independently of the sequence tempo. • Rate — Select from the following rhythmic values: • 16 (sixteenth note) • 8T (eighth-note triplet) • 16D (dotted sixteenth-note) • 8 (eighth note) • 4T (quarter-note triplet) • 8D (dotted eighth-note) • 4 (quarter note) • 2T (half-note triplet) • 4D (dotted quarter-note) • 2 (half note) • 1T (whole-note triplet) • 3/4 (dotted half note) • 4/4 (whole note) • 5/4 (five tied quarter notes) • 6/4 (dotted whole note) • 8/4 (double whole note) • Wave — Select from the following waveforms for the LFO: • Sine (sine wave) • Tri (triangle wave) • Saw (saw-tooth wave) • Square (square wave) • S&H (Sample and Hold modulation) • Random (random modulation) • Depth — Lets you adjust the amount of modulation applied to the Formant setting.

Parameter	Description
Envelope	Modulates the Formant setting by using an envelope follower. This allows you to accentuate and enhance signal peaks in rhythmic material. • Thresh — Sets the amplitude threshold at which the Formant setting begins to be modulated by the envelope follower. • Attack — Sets the time (10.0 ms to 10 seconds) it takes to respond to increases in the audio signal level. • Release — Sets the time (10.0 ms to 10 seconds) it takes to recover after the signal level falls.
Mix	Lets you balance the amount of dry signal with the amount of wet (processed) signal. At 50%, the output includes equal amounts of dry and wet signal. At 0%, the output is all dry and at 100% it is all wet.

AIR Vintage Filter (RTAS)

You can use the Vintage Filter effect to apply a modulating, resonant filter to the audio signal. You can experiment with filter sweeps or give your sounds a large, resonant sound.

The following table lists the AIR Vintage Filter plug-in parameters:

Parameter	Description
Cutoff	Lets you adjust the Cutoff frequency (20.0 Hz to 20.0 kHz) of the filter.
Resonance	Lets you adjust the amount filter Resonance (0–100%). The filter can go into self-oscillation at high values creating a sine wave-like overtone at the Cutoff frequency.
Fat	Lets you adjust the amount of overdrive in the resonant peak. At lower settings the signal gets quieter at high resonance settings for clean distortion. At higher settings the signal is over-driven at high resonance settings.

Parameter	Description
Envelope	Provides an envelope follower for controlling the Cutoff frequency, which allows you to control the envelope's shape and depth of modulation. • Attack — Sets the time (10.0 ms to 10 seconds) it takes to respond to increases in the audio signal level. • Release — Sets the time (10.0 ms to 10 seconds) it takes to recover after the signal level falls. • Depth — Determines how much the envelope follower affects the Cutoff frequency. • At 0%, the envelope follower has no effect on the Cutoff frequency. • At +100%, the Attack ramps up to the Cutoff frequency setting, and the Release starts from the Cutoff frequency setting and ramps down. • At –100%, the Attack starts from the Cutoff frequency setting and ramps down, and the Release ramps up to the Cutoff frequency setting.
LFO	Provides a sinusoidal Low Frequency Oscillator (LFO) for modulating the filter cutoff frequency, which allows you to control the rate, depth and synchronization of the modulation. • Sync — Turns on and off the synchronization between the LFO and the sequence tempo. • Rate — Increases or decreases the frequency (0.01–100.0 Hz) of the LFO. Lower settings are slower and higher settings are faster. When you enable Sync, the Rate knob changes from counting in milliseconds to rhythmic values. • Depth — Increases or decreases the amount of modulation (0–100%) of the Cutoff frequency by the LFO. Lower settings create a slight vibrato (with the rate set high) and higher settings create a wide sweep of the Cutoff frequency range.
Mode	Select one of the following options for the type of filter: • LP24 — Provides a low pass filter with a 24 dB cutoff. • LP18 — Provides a low pass filter with a 18 dB cutoff. • LP12 — Provides a low pass filter with a 12 dB cutoff. • BP — Provides a band pass filter. • HP — Provides a high pass filter.
Output	Lets you lower the Output level from 0.0 dB to –INF dB.

International Character Support

Avid Media Composer v5.5 and later, Avid Symphony v5.5 and later, and Avid NewsCutter v9.5 and later support Unicode characters for file import and output operations. This allows you to import and export files and bins in any language or character set.

If you work in an Interplay environment, you must set all systems — including your Interplay servers — to the same locale. This limitation applies to all earlier versions of Avid editing applications as well.

If you import a media file or bin containing characters from a locale different from the one on your system, you might see nonstandard characters in the file or bin name. For example, if you import a bin or master clip with Japanese characters to a system using the English locale, the file name might contain question marks (?) in place of the Japanese characters. You can continue to work with the bin or clip, but Avid recommends that you first rename it. Alternatively, you can close your Avid editing application, change your locale, and then restart your system. This restriction also applies when opening Marquee with a user name that includes characters from a locale that is different from the locale for your operating system.

If your Avid editing application uses a localized user interface (UI), the UI matches the locale for your operating system. You can override the localized UI and use an English UI by doing the following:

1. Close your Avid editing application.
2. In your installation directory, navigate to the following location: Avid*[Avid editing application]*\SupportingFiles\International\xml\.
3. Rename English_override.xml to override.xml.
4. Restart your Avid editing application.

AMA Linking with Multichannel Audio

You can use the AMA Settings dialog box to define the audio track formats for the audio channels in your linked media, up to a maximum of 16 audio channels for the clips in your bins. This allows you to specify which source channels are treated as mono or multichannel audio tracks in your project, rather than having to modify the clips in your bin after you link to the AMA media.

The mappings affect all media clips created when you link to your source media. If you want to use different mixes for different master clips or different projects, create a custom AMA Settings template for each separate type of mix and then create your linked master clips.

Each stereo track requires two channels, but you can mix mono and stereo input channels for your linking operation as long as you do not exceed the maximum of 16 audio channels for each master clip.

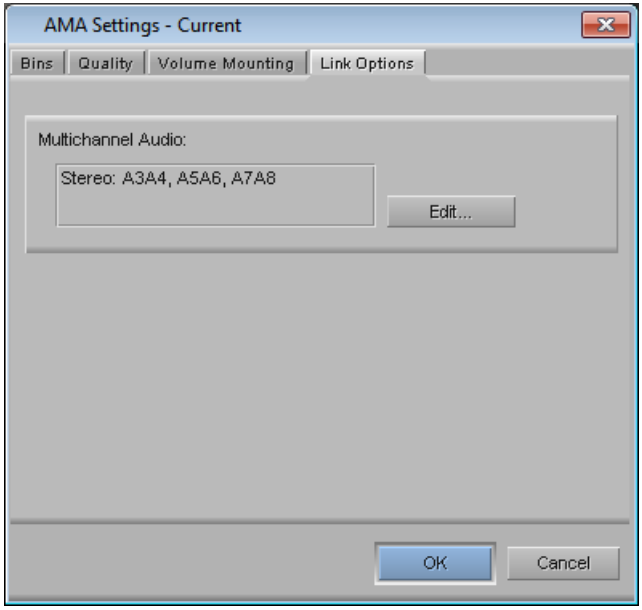
To specify the multichannel audio mix for linked AMA clips:

1. In the Project window, click the Settings tab.
2. Double-click AMA.

   The AMA Settings dialog box appears.

   For information about the AMA Settings, see “AMA Settings” in the Help.
3. Click the Link Options tab.

   The Link Options tab lists any multichannel audio mappings in the current AMA Settings template.



4. Click Edit.

   The Set Multichannel Audio dialog box opens.

5. Click the format buttons to select one of the following audio track formats for each pair of source channels:

Button	Track Format
	Mono
	Stereo

   You must map source audio channels in mono or stereo pairs. For example, you cannot map A1 to a mono track and A2 and A3 to a stereo track. Instead, map A1 and A2 to mono tracks, and A3 and A4 to a stereo track. If the source media does not have an audio channel on A2, the Avid editing application ignores the channel.

6. Click OK to close the Set Multichannel Audio dialog box, and then click OK to close the AMA Settings dialog box.

   The Track Formats column in the bin Text view displays the format for all multichannel audio tracks in a master clip.

To save a custom map of linked audio channels as a settings template:

1. Click the Settings tab in the Project window.

   The Settings list appears.

2. Click AMA.
3. Select Edit > Duplicate.

   A duplicate setting appears in the Settings list.

4. Name the setting by doing the following:
   a. Click the custom name column.
   b. Type a name.

c. Press Enter (Windows) or Return (Macintosh).

The custom name column is the center column in the Project window. When you move the pointer over the custom name column, the pointer changes from a pointing finger to a text insertion bar.

You can select this new setting whenever you link clips with AMA.

Sony XDCAM/XDCAM EX Plug-in

For Beta, when you install the Avid editing application Beta software, all previous versions of AMA plug-ins will be removed, since the AMA plug-ins have been unbundled.

A folder has been provided to reinstall the new plug-ins.

The Sony XDCAM and XDCAM EX installer, PDZK_MA2 will automatically perform the following:

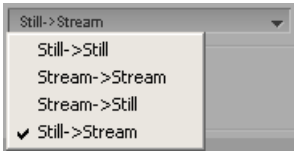
- Delete (if present) the old XDCAM and XDCAM EX plug-in, “MVP_MSP_SonyXDCAM.avx”.
- Install SonyXDCAM.avx, MVP_SONYXDCAMEX.avx, and MSP_SonyXDCAMEXMP4.avx plug-ins

If for some reason, you need to go back to a pre-Beta version of the Avid editing application (v5.0.x), be aware that the old Sony plug-in will reinstall MVP_MSP_SonyXDCAM.avx on your system. Two versions of the XDCAM plug-ins will reside on your system. When this occurs, the original “MVP_MSP_SonyXDCAM.avx” plug-in will install alongside the newer “SonyXDCAM.avx” plug-in. As a result, you might experience problems if you previously imported files which are not supported by the original “MVP_MSP_SonyXDCAM.avx” plug-in into your project through Link to AMA using the newer “SonyXDCAM.avx” plug-in.

Workaround: If you need to reinstall an earlier version of the Avid editing application (v5.0.x), you should always uninstall the Sony PDZK-MA2 plug-ins prior to uninstalling, upgrading or performing a repair install of the Avid editing application, and you should always reinstall the Sony PDZK-MA2 plug-ins after reinstalling, upgrading, or performing a repair install of Avid. The uninstall of the Sony PDZK-MA2 plug-in can be performed on a Windows system by rerunning the installer and choosing the remove option. This can also be done on a Windows system using the “Add/Remove Programs” or “Programs and Features” option from the Control Panel window. On the Mac OS you will need to manually remove the plug-in from the AVX2_Plug-ins folder. You can refer to the “PDZK-MA2 v1.0 Install Guide For Mac.docx” or the “PDZK-MA2 v1.0 Install Guide For Windows.docx” for detailed instructions.

FluidMorph Effect Source and Input Parameters

Source Menu



Option	Description
Still->Still	Your Avid editing application takes snapshots of the first frame of outgoing video and the last frame of incoming video and creates an output that is a morph of the two images.
Stream->Stream	Your application creates the output by morphing the two clips, frame by frame.
Stream->Still	Your application creates the output by morphing each frame of the outgoing video with the last frame of incoming video.
Still->Stream	Your application creates the output by morphing the first frame of the outgoing video with each frame of the incoming video.

Using the AVC-I Codec Module

The following information applies if you have the Nitris DX with the AVC-I codec module installed. The codec module provides real-time encoding to the AVC-intra compression format, using the 10-bit high definition H.264 intra-frame codec.

This module allows for real-time baseband capture with the Nitris DX and allows real-time performance for most rendering and mixdown operations.

When you start your Avid editing application, it detects the presence of the AVC-I codec module. It will use the module for capture, render and mixdown. If the module is not present, the editing application uses the software codec to perform these operations. Although, baseband capture of AVC-I is supported only with the hardware codec.

Resolution Specifications: AVC-Intra with AVC-I Codec Module

The following table provides AVC-Intra (with AVC-I Codec Module) specifications by project type.

Project	Edit Rate	Resolution Name	MB/Sec	Raster Size
1080i	59.94	AVC-Intra 50	50MBit	1440x1080
		AVC-Intra 100	100MBit	1920x1080
1080i	50	AVC-Intra 50	50MBit	1440x1080
		AVC-Intra 100	100MBit	1920x1080
1080p	29.97	AVC-Intra 50	50MBit	1440x1080
		AVC-Intra 100	100MBit	1920x1080
1080p	23.976	AVC-Intra 50	50MBit	1440x1080
		AVC-Intra 100	100MBit	1920x1080
1080p	25	AVC-Intra 50	50MBit	1440x1080
		AVC-Intra 100	100MBit	1920x1080
720p	59.94	AVC-Intra 50	50MBit	960x720
		AVC-Intra 100	100MBit	1280x720
720p	50	AVC-Intra 50	50MBit	960x720
		AVC-Intra 100	100MBit	1280x720

Searching for a Clip or Sequence with Text Find

Text Find allows you to enter text and search bins, Scripts and the Timeline for the information you enter. You can customize your search by selecting to only search the active bin or search all bins across a single project. Bins do not have to be open for the system to search in them. The Text find feature is included with your Avid editing application.

PhraseFind (the phonetic find feature) is purchased as a separate option. Both Text find and PhraseFind can be used together or independently of each other.

For information about the phonetic search option, see “PhraseFind” in the Help. If you have not purchased PhraseFind and would like more information, click the PhraseFind button in the Find window, then click Info.

For a table of all the options available in the Find Window, see “Find Window Attributes” in the Help.

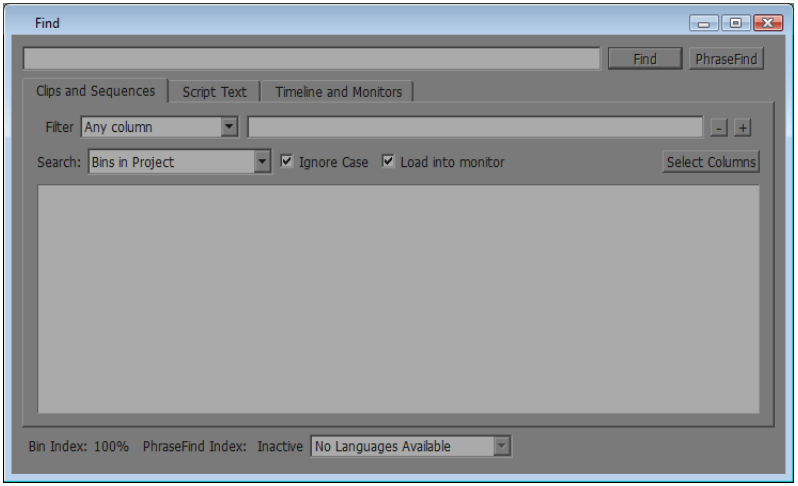
Things You Should Know About Text Find

- You can continue to work, while the system indexes your project.
- The system creates a SearchData folder located in your Projects folder when you index text or phonetic searches. If you are working in an ISIS environment, the SearchData folder is located inside the Project client (computer name) folder.
- All tabs: Clips and Sequences, Script Text, and Timeline and Monitors tab apply to Text Find.
- The system does not search and find referenced clips in a sequence.
- If you make a change to a bin (or add a new clip to the bin), you must save the bin first in order for the system to find the changes.
- The system searches through all available columns in your bins including metadata columns, even if they are not visible in your current bin.
- The use of quotes in search queries has no affect on your results.
- The following characters: @#$%^&*()=+[]\ are recognized by Text Find.
- If you want to refresh your results, save a bin.
- Before you filter to refine your results, you need to first perform a find, then the Filter columns are selectable.

To open a search window:

1. Press Ctrl+F (Windows) or Cmd+F (Macintosh), or select Edit > Find.

   The Find window opens.



The Bin Index status at the bottom of the window indicates if the data files in your bins have been indexed. A full green display indicates that your files have been indexed and are ready to search. A partial green display indicates that the index is in process and if you perform a search, your results might not be complete.

2. Type a word or phrase that you are looking for in the text box.
3. Select to search in Clips and Sequences, Script Text, or Timeline and Monitors.
4. If you select Clips and Sequences, then select from the menu:

Bins in Project Bins and Scripts in Project	The system searches for the text criteria in all the bins/scripts within the project regardless if the bin/script is currently opened.
Current Bin	The system searches for the text criteria in the last active bin. The system then selects the first occurrence in the bin. Press Ctrl+G (Windows) or Cmd+G (Macintosh) to take you to the next occurrence

5. If you select Script Text, then select from the following:

Scripts in Project	The system searches for the text criteria in all the scripts within the project regardless if the script is currently opened.
Current Script	The system searches for the text criteria in the last active script.

6. A script text search displays all matches in the script, to find the next occurrence of your text criteria, press Ctrl+G (Windows) or Cmd+G (Macintosh) in your script.
7. If you select Current Script, you can select “Whole words only” to search for only that word.
8. Select Ignore Case if you want the system to search for the text regardless if it is upper or lower case characters.
9. If you select Timeline and Monitors, then select from the following:

Locators	The system searches for clips in the Timeline that contain the locator text. The blue position bar jumps to the locator position on the clip and displays the locator information in the Source/Record monitor.

Clip Names	The system searches for clips in the Timeline that contain the clip name. The blue position bar jumps to the head frame of the clip.
Timeline Text	The system searches for clips in the Timeline that contain Timeline text based on what is displayed in the Clip Text pulldown menu. The blue position bar jumps to the head frame of the clip.

10. If you would like to open the clip(s) in a Source monitor when you double-click a clip in the Results window, then select Load into monitor.

Loading the clip in the Source monitor is dependant on the option you have chosen for "Double-click loads object in" in your Bin Settings.

11. With your text criteria entered, click Find or press Enter.

    A Cancel button appears and the system informs you that it is finding your text criteria.

    The results appear in the Results window. If you select Current Bin, the clips are selected in the bin and do not display in the Results window. The system displays the total number of items found after your search.

To select the next occurrence in your bin, press Ctrl+G (Windows) or Cmd+G (Macintosh).

12. (Option) To refine the number of results, you can enter additional criteria in the filters. Select a specific column from the Filter menu that you would like to search in, then enter additional text relating to that column.

Click the "+" button to add additional filters. Click the "-" button to remove filters. If the last filter appears, the "-" button removes the text, not the filter.

    The filter menu populates after the initial search.

    For information about filtering your results, see "The Results Window" in the Help.

Adjusting QuickTime Source Settings

You can change the dynamic range of a linked AMA QuickTime movie from 601/709 video range (16-235) to RGB range (0-255) or from RGB range (0-255) to 601/709 video range (16-235). This setting is only supported with QuickTime movies that were created with a non-Avid codec, including ProRes, H.264 and Animation.

When a QuickTime clip displays in the bin, the system displays the metadata columns of the clip's color values.

To change the QuickTime source settings:

1. Link the QuickTime clip through the File > Link to AMA File option or to link to multiple QuickTime files, use the File > Link to AMA Volume(s) option.

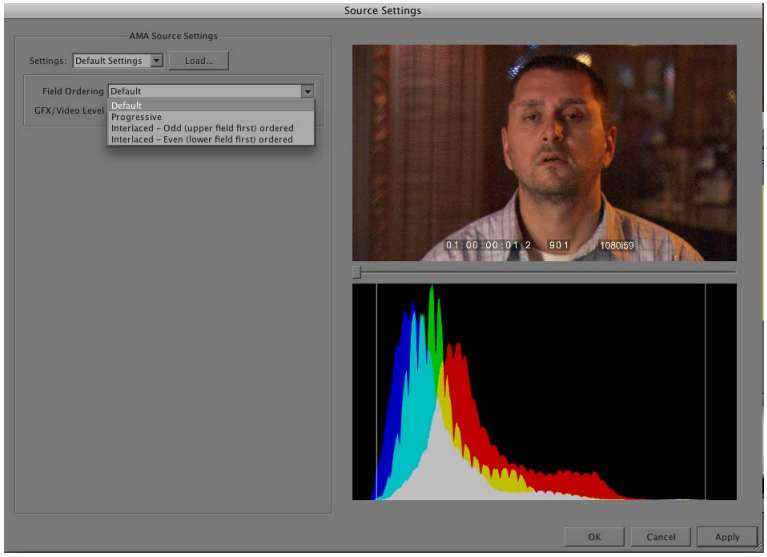
   See “The Avid Media Access (AMA) Workflow” and “Linking Media with AMA” in the Help for information on linking.

2. Right-click the QuickTime clip in the bin and select Set Source Settings.

If your QuickTime movie was created with an Avid codec, the Set Source Settings option will not be available.

   The Source Settings dialog box opens. The clip displays in the video area.

   For information on settings in the Settings menu and how to apply a setting, see “Applying a QuickTime Source Setting” in the Help.



3. Drag the video slider to the frame you want to view.

   The new frame displays and the histogram updates.

   The histogram is a tool that helps you more precisely adjust Source Settings. For more information about the histogram, see

4. Set the appropriate options:

Option	Description
Settings	Default Custom: User created in Avid.
Field Ordering	Default Progressive: The image is interpreted as a progressive image. Interlaced - Odd (upper field first) ordered: Adjusts the clip so that the top field is played before the lower field. Interlaced - Even (lower field first): Adjusts the clip so that the lower field is played before the top field.
GFX/Video Level	Do not modify levels: Leave as is Expand video levels to graphic levels: Changes the dynamic range from an 601/709 video range (16-235) to RGB range (0-255). Compress graphic levels to video levels: Changes the dynamic range from RGB (0-255) range to an 601/709 video range (16-235). This option is useful if you created a QuickTime movie with graphic levels in AfterEffects and then brought the clip into an Avid editing application.

5. Click Apply.

   The changes apply to your clip. You can continue to make additional changes.

   If the clip is in the Source viewer, the changes are reflected in the Source viewer and in the Client monitor (if you have one attached).

   If you click Cancel after you click Apply, the Set Source Settings window closes with the changes you made.

6. Click OK to save your change and close the window.

   The system updates the bin column metadata with the new parameters.

If you make changes in the Source Settings window and then relink the clip through AMA again, you still keep all the parameters that you set.

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