



Canon XF AMA Plug-in Guide

Avid supports Canon XF media through Avid's Media Access (AMA) method from an Avid editing application.

Things You Should Know About the Canon XF AMA Plug-in

- To link to Canon XF (MPEG-2 Full HD) media, you must have both Avid MXF AMA Plug-in and the Canon XF AMA Plug-in installed on your system.
- The Canon XF AMA plug-in supports both Avid Media Composer v4.0.5 and higher, Avid Symphony v4.0.5 and higher, and Avid NewsCutter v8.0.5 and higher.
- When released, support of Canon's XF 300 and 305 cameras.
- Avid does not support MultiCamera editing with MXF AMA clips.
- For additional AMA information, see www.avid.com/ama.

Canon XF Media

The Canon XF305 and Canon XF300 camera records MPEG-2 media onto compact flash cards. Through the Canon XF AMA plug-in and the MXF AMA plug-in, you can link to Canon MPEG-2 media through the AMA method.

You can edit directly from a flash card, without having to capture. You can link to a Canon XF flash card and reader attached to your system or copy a Canon XF flash card to the root of a drive.

The Canon XF AMA plug-in and the Avid MXF AMA plug-in should be installed on your system. To link media through the AMA method, use Link to AMA Volumes. For more information, see “[The Avid Media Access \(AMA\) Workflow](#)” on page 4 and “[Linking Media with AMA](#)” on page 7.

For specific Canon XF workflow steps, see “[Workflow for Editing Canon XF Clips with AMA](#)” on page 18.

Canon XF Formats and Resolutions

The following table lists the formats and resolutions available when you work with GFCAM media:

Resolution/Bit Rate	Raster/Frame Rate	Number of Audio Channels (maximum)
MPEG-2 HD 50 and 35Mbits 25Mbits	1920 x 1080, 1280 x 720 1440 x 1080	4

Canon XF Files and Folders

Canon XF video and audio media files record in MXF format.

Each card stores the video and audio files in:

- (Windows) drive:\CONTENTS\CLIPS
- (Macintosh) Macintosh HD/CONTENTS/CLIPS



AMA does not recognize clips if the folder names in the selected path contain double-byte characters (DBCS). AMA recognizes folders with the directory path that includes ASCII alphanumeric characters.

Connecting the Canon XF Camera or CF Card Reader

You can connect the Canon XF camera or a CF card reader directly through an industry-standard USB 2.0 port on your computer. See the Canon XF documentation for information on connecting the camera or a card.

The flash card mounts as individual media drives on your desktop and then link to your Avid editing system through AMA.

Spanned Clips and Canon XF

Spanned clips are clips that extend from one card to another. Avid supports working with spanned Canon XF clips in your Avid editing application.

Copying Canon XF Files to a FireWire or Network Drive

After you mount the flash card, you can copy the Canon XF media to a FireWire drive or a network drive and then eject the flash card. You might find it convenient to copy several flash cards to other drives so you can reuse the cards.

You can connect a FireWire drive, for example, and store the contents of several flash cards on the drive so you can keep using the flash cards in the camera.

To copy the Canon XF flash cards to another drive:

1. On the drive, set up a folder for each flash card you want to copy.
Avid recommends that you do not place the media folder at the top level of the drive.
2. Give each folder a unique name that identifies the flash card.
The name does not have to be the same as the actual flash card name.
3. Navigate to the actual flash card and select the CONTENTS folder.
4. Do one of the following:
 - ▶ Copy and paste the CONTENTS folder to the folder on the other drive.
 - ▶ Click the CONTENTS folder and drag it to the folder on the other drive.
5. Eject the flash card.

The Avid Media Access (AMA) Workflow

Avid Media Access (AMA) is a plug-in architecture that lets you link directly to clips from a third-party volume (for example, a P2, XDCAM or GFCAM device) or to a file based media clip (for example, QuickTime or MXF) into a bin without storing the media directly on your system. AMA lets you be more productive by browsing and editing directly from the device or volume.

The bin lets you log, browse, and view these clips in the usual way. Once the third-party device is disconnected, the bin still exists with the clips, although the media displays as offline. When you reconnect the device, the media appears online. The system automatically displays the media; you do not need to mount the drives.

The AMA method also allows for more metadata to be brought into the bin which gives you more information about the media. For example, essence marks (or locators) associated with the clip are automatically brought into your bin.

To display metadata information in your bin, see “Adding a Metadata Bin Column Heading,” in the Avid editing Help.

The following considerations and limitations apply:

- When the AMA setting is activated, the non-AMA method does not appear in the File menu. Deactivate the AMA setting to display the File > Import P2 (and Import XDCAM Proxy) option. The AMA setting is on by default.
- The Link to AMA File(s) menu choice is available for third-party AMA file based media plug-ins. To see the available AMA plug-ins available for your Avid editing application, go to www.avid.com/ama. You must have a third-party plug-in installed on your system for the option to display.
- Windows UNC (Universal Naming Convention) paths are not supported with AMA media. To link AMA media, map it to the drive.
- When you render an audio effect on an AMA media clip, all audio media files are written as PCM (MXF), regardless of what you set for the audio file format.
- The Dynamic Relink option is not supported with AMA clips.
- Avid does not support MultiCamera editing with AMA clips.
- You should not mix workflows. Either use the AMA method or use the traditional import/batch import method.

Selecting the AMA Settings

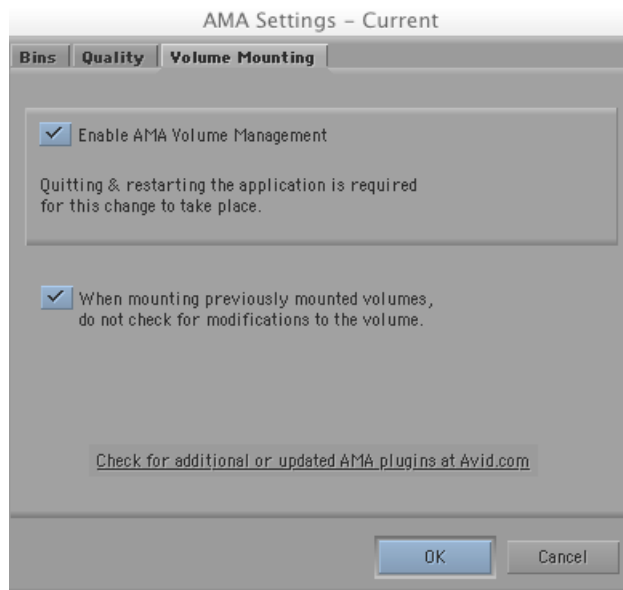
You can set options in the AMA Settings dialog box to turn AMA on or off (on by default), to automatically mount your volumes, and to customize your bin.

To check for and download additional or updated AMA plug-ins, click the link to www.avid.com/ama.

To set up AMA:

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

The AMA Settings dialog box appears.



3. Click the Volume Mounting tab.
4. Select “Enable AMA Volume Management.”
By default, this option is selected. If you deselect the option and then reselect it, you must quit and restart your Avid editing application. When this option is selected, the File > Import menu item is no longer available.
5. If you want the system to automatically scan drives (volumes) every time, select the option “When mounting previously mounted volumes, do not check for modifications to the volume.” This option is off by default.

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6. If you remount a volume, deselect the option “When mounting previously mounted volumes, do not check for modifications to the volume,” and the system checks the modification date of the device or drive against the last time the clips were linked. If the date is the same, the clips come back online. If the date is different, the system links the clips again, and links any new clips added to the volume. This option is off by default.



If you restart your Avid editing application, the system automatically rescans the drives regardless of the options you've selected.

7. To customize your bin, click the Bins tab.

By default, the system links your clips into a new bin using the same name as your project name. If you want to change the bin name or want to use an already existing bin, you can make these changes in the Bins tab.

For more information on Bins options, see “[AMA Settings: Bins Tab](#)” on page 17.



Depending on your AMA Settings, every time you insert a card into a reader or connect a device, the system creates a new bin whether the same card or device has been previously inserted or not.

8. Click OK.

Viewing Installed AMA Plug-ins

Once you download and install a third-party plug-in from www.avid.com/ama, you can enter a console command to view a list and the version number of the plug-ins installed on your system.

To display the list of installed AMA plugins:

1. Select Tools > Console.
2. In the command entry text box, type: **AMA_ListPlugins**
3. Press Enter (Windows) or Return (Macintosh).

AMA_ListPlugins displays a list of the plugins installed on your system.

Understanding Linking with AMA

Linking lets you point to media on a device or point to the media directly on your system. The media physically resides on your system or it can reside on an external device. The device can be a camera, a card reader, an optical disk, a virtual volume on your desktop or on a server. The media points to the most recent source. For example, if you link the clips to a virtual volume on your desktop, the drive column displays the desktop as the location where the clips are linked to. If you then insert a card into a reader with the same media, the clips point to the media on the card. If you remove the card, the clips point to the media on the card and the clips appear offline. The card being the most recent source. Once the card is reinserted, the clips in the bin appear online.

Linking Media with AMA

If you link to media which originates on a volume (P2, XDCAM EX, XDCAM, or GFCAM), use the File > Link to AMA Volume(s) option. If you link directly to the media file clip (QuickTime or MXF), use the File > Link to AMA File(s) option.



For optimum viewing and playing, Avid recommends a single clip length should not exceed more than 12 hours.



The decompose option from the Clip menu is not available with AMA. You do not need to decompose clips when you use the AMA method.

To link clips on a volume automatically with AMA:

1. Insert a P2 card, an XDCAM EX card, an XDCAM disk, RED card, or a GFPK into the device.

The system scans the device and links the clips into a bin (based on the AMA settings).

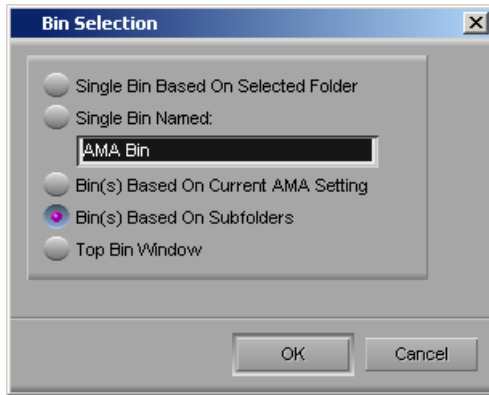
To manually link clips from another volume with AMA:

1. Select File > Link to AMA Volumes.
The Browse For Folder dialog box opens.
2. Navigate to the P2, XDCAM, RED or GFCAM clips, and then click OK.

For P2, navigate one level above the Contents folder. For XDCAM disks, navigate to one level above the Clip folder. For XDCAM EX, navigate to one level above the BPAV folder. For RED, navigate to the root directory of the RED card. For GFCAM, navigate to the root directory of the GFPK.

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Depending if you are using an existing bin or creating a new bin, the Bin Selection dialog box opens.



3. Select Bin Selection options.

Option	Description
Single Bin Based On Selected Folder	Places all linked clips into one default bin.
Single Bin Named	Lets you create a new bin and type in a new bin name. Places all linked clips into that bin.
Bin(s) Based on Current AMA Setting	Places the clips in the bin(s) you set up in the AMA Settings Bins tab.
Bin(s) Based on Subfolders	Places the clips in bin(s) based on their subfolders.
Top Bin Window	Places the clips in the active bin.



If you relink a sequence and the bin that stores the AMA referenced clips is closed, the media does not relink. Before you relink, open the bin of the referenced clips.

4. Click OK.

The clips appear in the bin or bins depending on the options you selected, they highlight in yellow.

To manually link clips from a file with AMA:

1. Select File > Link to AMA File(s).

You can also right-click a bin and select Link to AMA File(s).



The system ignores the settings you have selected in the AMA Volume Mounting settings.

2. If there is no active bin, a dialog box appears asking you to select a bin.

The Select file(s) for AMA linking dialog box opens.

3. From the AMA Plugin Filter menu, select the type of file.

Option	Description
All AMA Plugins Files	Searches and displays all files.
QuickTime	Searches and displays only QuickTime files.
MXF	Searches and displays only MXF files.
RED R3D	Searches and displays only RED files.

4. Select the file(s) you want to link. Ctrl+click or Shift+click to select multiple files.

5. Click Open.

The clips appear in the active bin, they highlight in yellow.

If the system cannot link a file, an error message displays informing you to open the Console window for more information about the file(s) in error.

If you move the clip from the original drive to another drive on your system, the clip displays as offline in your bin.



If you move a source file from one location to another and then back to the original location, you might need to refresh the bin to redisplay the clip. Close and reopen the bin to refresh the bin.

Working with AMA Multiple Resolution Media

If you choose to link to low-resolution media, you can link to any combination of proxy or high-resolution audio or video media. For instance, you can link to the most compressed (proxy) video and the highest quality audio.

Disks can take some time spinning up to link the high-resolution media, so linking to the low-resolution media saves you time. You can edit with the low-resolution media and once you are finished, you can relink to the high-resolution media.

At this time, Avid AMA supports linking to multiple resolution XDCAM media only.

For specific XDCAM multiple resolution workflow steps, see [“Working with AMA Multiple Resolution Media” on page 10](#).

Linking to AMA Multiple Resolution Media

Before you link to low-resolution or high-resolution media, you need to select the video and audio quality in the AMA Settings Quality tab.

The steps below highlight linking to low-resolution media. You can also link to high-resolution media.



For information about linking with AMA, see [“The Avid Media Access \(AMA\) Workflow” on page 4](#).

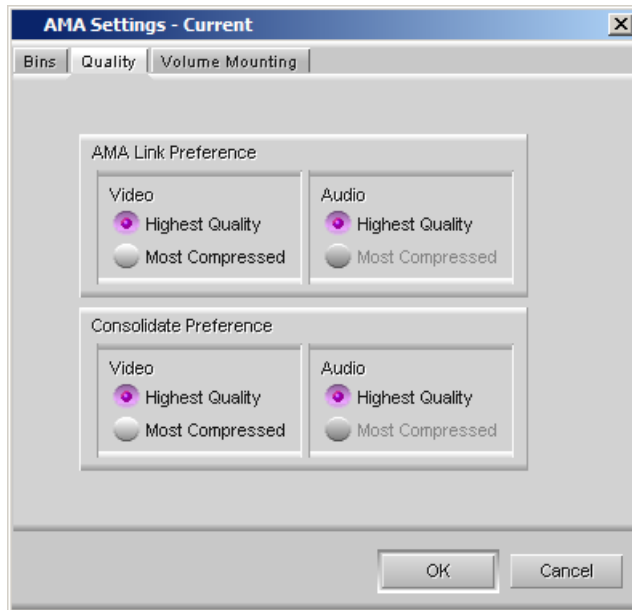
To link to low-resolution media:

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” on page 17](#).

3. Click the Quality tab.



4. Click the appropriate resolution for your video in the AMA Link Preference section, and click OK.

If a particular resolution is not available, it will be grayed out.

5. Insert the disk into the device.
6. Select Bin Selection options from the Bins tab.

For information on bin selection options, see [“Linking Media with AMA” on page 7](#).

7. Select File > Link to AMA Volume.

The Browse for Folder dialog box opens.

8. Navigate to the clips, and then click OK.

The clips appear in the bin or bins depending on the bin options you select. Clips highlight in yellow.

The Video column in the bin displays the project type of the clip.

Switching Between Multiple Resolution Media

Once you link to the low-resolution or high-resolution media and complete your edits, you can easily switch from low to high and high to low-resolution media. When you switch to a different resolution, the system replaces the clip in the bin with the new clip and resolution.

The steps below highlight switching from low-resolution to high-resolution media. You can also switch from high-resolution to low-resolution.



For XDCAM, if you use the Sony PDZ-1 software to assign a User Disc ID, the Avid editing system displays this information in a bin column and knows what disk name is associated with each clip.

To switch from low-resolution to high-resolution media:

1. Insert the disk in the device.
2. Select the low-resolution clips in the bin.
3. Right-click the bin and select Modify AMA Resolutions.

The AMA Resolutions Quality dialog box appears.



4. Click the Highest Quality for your video (audio is always set to Highest Quality) and click OK.

The highest quality clips replace the most compressed (low-resolution) clips in the bin, they highlight in yellow.

If the bin contains clips from multiple volumes, you will be prompted to insert another disk.

Consolidating Multiple Resolution Media

When you are ready to move your media to shared storage, you can link to your resolution and consolidate at the same time.

The steps below highlight consolidating high-resolution media. You can also consolidate low-resolution media.

For information on why you should consolidate, see “Consolidating Media” in the Avid editing Help.

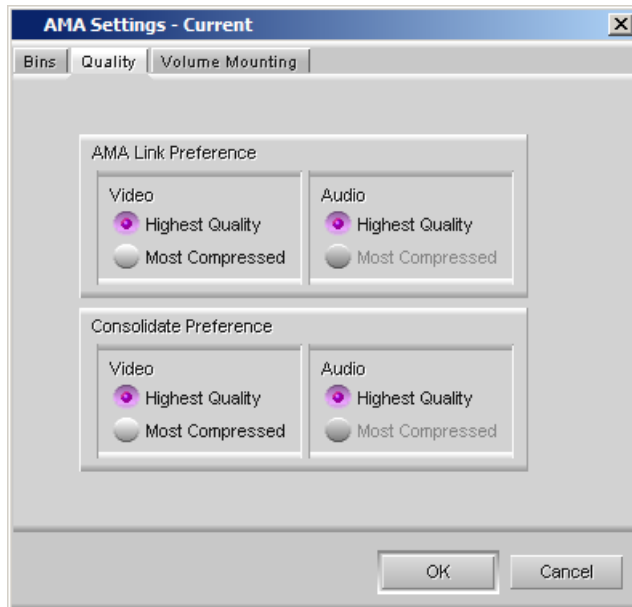
To consolidate high-resolution media:

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” on page 17](#).

3. Click the Quality tab.



4. Click the appropriate resolution for your video in the Consolidate Preference section, and click OK.

If a particular resolution is not available, it will be grayed out.

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5. To consolidate the clip, follow the steps in “Using the Consolidate Command” in the Avid editing Help.

The resolutions you select in the Consolidate Preference area of the AMA Settings Quality tab displays in the Transcode/Consolidate dialog box when you consolidate or transcode.

Relinking to AMA Files

After you link AMA QuickTime files into your sequence, you have the option to make changes (in a third party applications, such as Adobe After Effects) to that file. If you change the filename or change the location of the file, the best way to link that clip back into your sequence is through the relink option. Relinking to an AMA file allows you to link to a different file. This process only works if the targeted file is compatible with the old file, for example the file has the same duration, edit rate or number of tracks.

This feature is helpful when you have a group of linked clips that were moved to a different folder or drive. You can relink the clips to the new location. You can also use this feature to toggle between different versions of a QuickTime movie, for example a low-resolution version of the movie is myMovie_DV.mov and the high-resolution version of the movie is myMovie_1to1.mov. You can relink to both of these versions, to see which clip works better in your sequence.

At this time, Relink to AMA File(s) is only available with AMA QuickTime files.

To relink to an AMA QuickTime file:

1. Link to an AMA QuickTime file.

The clips highlight yellow in the bin.

For information on linking, see [“Linking Media with AMA” on page 7](#).

2. If you then decide to change the original clip in the bin in your third-party application, create the new movie file.
3. In your bin, select the clip or clips you want to relink.
4. Select File > Relink to AMA File(s).

The Select file to relink AMA clip dialog box opens asking you to locate the new file.

5. Locate the new file.

If you have multiple clips selected in the bin, the system prompts you for the location of each file, one at a time.

6. Click Open.

The new clip highlights in the bin.



If the new file is not compatible with the clip in the bin (it does not have the same duration, edit rate or number of tracks), the clip in the bin retains its original link.

The AMA Plug-in Log File

The Avid system creates an AMA plug-in log file when you link clips. The log file records errors and information about the clips. If you experience any problems while you link clips or if you receive an error message, check the AMA log file to get more information about the error (for example: a corrupt file or a bad filename). You can view the log file from the following location on your system:

- (Windows) drive:\Program Files\Avid\Media Composer\Avid FatalError Reports. The name of the log file is AMALoggerMM_DD_YY.log.
- (Macintosh) Volume/Users/Shared/AvidMediaComposer/Avid FatalError Reports. The name of the log file is AMALoggerMM_DD_YY.log.

Using Virtual Volumes

You can use a virtual volume to copy media from a card or disk. This lets you use the card or disk again. A virtual volume can be a folder on your desktop or a folder located on a server. However, the virtual volume folder should reside one level down from the root level in order for the system to display it as a virtual volume. The following are examples of virtual volumes:

- C:\Desktop\BPAV
- Z:\P2\Card 1
- Z:\GFPAK\

With the AMA method, all drives and virtual volumes associated with your bin mount automatically. You cannot remove a volume while in AMA, however you can remove a virtual volume.

To unmount a virtual volume:

1. Choose File > Unmount.
The Unmount dialog box opens.
2. Select the virtual volume you want to remove.
3. Click OK.

The system removes the virtual volume from your system and clips linked to this virtual volume appear offline. When you restart your Avid editing application, the system scans the system for virtual volumes and the clips appear online.

Virtual Volumes and AMA Bins

If you select Volume Name in the AMA Bin Settings tab, the system names the bin the same name as the virtual volume drive name. If you continue to use the same virtual volume to link other media through AMA, the system continues to place the linked media in the same bin. If you want to create a new bin for different types of media you link through AMA, you can either create a new virtual volume drive for each type of media (XDCAM, XDCAM EX, P2, GFCAM, etc.) or you can create a new bin every time you link to new media on a virtual volume.

To create a new bin on the same virtual volume:

1. Before you link your media through AMA, click the Settings tab in the Project window.
2. Double-click AMA.
3. Click the Bins tab.
4. Select “Create a new bin” and specify a new bin name.
5. Click OK.
6. Select File > Link to AMA Volumes.

The media appears in the newly created bin. Repeat these steps for each type of media.

Deleting Clips

You can delete master clips, but you cannot delete media files that reside on drives. Your Avid editing application treats files as read-only devices.

You can delete master clips and media files the same way you delete other master clips and media files. However, you might not be able to delete files that you moved rather than copied. If you cannot delete master clips and media files, first unlock the clips as described in the second procedure, and then delete them.

To delete files from cards/volumes:

1. Quit your Avid editing application.
2. On the desktop, navigate to the drive.
3. Select the files you want to delete and press the Delete key.

To delete files on a local drive in your Avid editing application:

1. In a bin, select the clips you want to delete.
2. (Option) Right-click and select Unlock Bin Selection.
3. Press the Delete key.
The Delete dialog box opens.
4. Select Delete master clips and Delete associated media files.
5. Click OK.

AMA Settings

AMA Settings: Bins Tab

[IDH_AMA_Settings in main heading above]

Option	Description
Use active bin	When this option is selected, your Avid editing application uses the currently active bin to store clips imported using AMA.
Create a new bin	<p>When this option is selected, your Avid editing application creates a new bin to store clips imported using AMA and controls the bin name. This is the default option.</p> <ul style="list-style-type: none"> • Default bin naming convention: uses the project name for the bin (bin name followed by a consecutive number). • Volume name: the name or label of the volume (for example D:). • Specify bin name: lets you enter a new bin name.
Display imported headframe	When this option is selected, your Avid editing application displays the device-defined headframe.
Display editor headframe	When this option is selected, your Avid editing application displays your Avid editing application's headframe or frame icon in Frame view.

AMA Settings: Volume Mounting Tab

Option	Description
Enable AMA Volume Management	Enables AMA linking of file-based media from supported third-party devices and drives. You must quit and restart your Avid editing application for the changes to take effect.
When mounting previously mounted volumes, do not check for modifications to the volume.	If you select this option, your Avid editing application automatically scans and links all clips from the third-party device and drive every time a device or drive is attached to your system. If you do not select this option, the system checks the modification date of the device or drive against the last time the clips were linked. If the date is the same, the clips come back online. If the date is different, the system links the clips again, and links any new clips added to the volume. The option is off by default.

Workflow for Editing Canon XF Clips with AMA

A typical workflow is as follows:

1. The Canon XF AMA plug-in and the MXF AMA plug-in should be installed on your system.
2. Mount the flash cards.

The system links the Canon XF clips automatically into a bin.



If you use multiple flash cards and you remove one of the cards, your media displays offline.

3. Use the master clips to edit and output a sequence.
4. (Option) Rename the clips to organize your material.
5. Consolidate or transcode your sequence or clips.

The media consolidates to the destination you set in the Media Creation dialog box.

Consolidating your media helps when you work with multiple P2 cards. If a card is removed from the reader, consolidating lets you view your sequence with all the media online.



When you consolidate, if you want to keep your AMA clips linked to the original source, select the option “Keep Master clips linked to media on the original drive,” in the Copying Media Files dialog box.



For information on consolidating your sequence, see “Consolidating Media” in the Avid editing Help. For information on transcoding your sequence, see “Using the Transcode Command” in the Avid editing Help.

6. Remove the flash card.

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1 Canon XF AMA Plug-in

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