

Avid Xpress® DV

Getting Started Guide

make manage move | media™ **Avid®**

Copyright and Disclaimer

Product specifications are subject to change without notice and do not represent a commitment on the part of Avid Technology, Inc. The software described in this document is furnished under a license agreement. You can obtain a copy of that license by visiting Avid's Web site at www.avid.com. The terms of that license are also available in the product in the same directory as the software. The software may not be reverse assembled and may be used or copied only in accordance with the terms of the license agreement. It is against the law to copy the software on any medium except as specifically allowed in the license agreement. Avid products or portions thereof are protected by one or more of the following United States patents: 4,746,994; 4,970,663; 5,045,940; 5,063,448; 5,077,604; 5,245,432; 5,267,351; 5,309,528; 5,325,200; 5,355,450; 5,396,594; 5,440,348; 5,452,378; 5,467,288; 5,513,375; 5,528,310; 5,557,423; 5,568,275; 5,577,190; 5,583,496; 5,584,006; 5,627,765; 5,634,020; 5,640,601; 5,644,364; 5,654,737; 5,701,404; 5,715,018; 5,719,570; 5,724,605; 5,726,717; 5,729,673; 5,731,819; 5,745,637; 5,752,029; 5,754,180; 5,754,851; 5,781,188; 5,799,150; 5,812,216; 5,828,678; 5,842,014; 5,852,435; 5,883,670; 5,889,532; 5,892,507; 5,905,841; 5,912,675; 5,929,836; 5,929,942; 5,930,445; 5,930,797; 5,946,445; 5,966,134; 5,977,982; 5,986,584; 5,987,501; 5,995,079; 5,995,115; 5,999,190; 5,999,406; 6,009,507; 6,011,562; 6,014,150; 6,016,152; 6,016,380; 6,018,337; 6,023,531; 6,023,703; 6,031,529; 6,035,367; 6,038,573; 6,052,508; 6,058,236; 6,061,758; 6,072,796; 6,084,569; 6,091,422; 6,091,778; 6,105,083; 6,118,444; 6,128,001; 6,128,681; 6,130,676; 6,134,379; 6,134,607; 6,137,919; 6,141,007; 6,141,691; 6,154,221; 6,157,929; 6,160,548; 6,161,115; 6,167,404; 6,174,206; 6,192,388; 6,198,477; 6,201,531; 6,208,357; 6,211,869; 6,212,197; 6,215,485; 6,223,211; 6,226,005; 6,226,038; 6,229,576; 6,239,815; 6,249,280; 6,269,195; 6,271,829; 6,301,105; 6,310,621; 6,314,403; 6,317,142; 6,317,153; 6,317,158; 6,317,515; 6,327,253; 6,330,369; 6,336,093; 6,337,880; 6,339,531; 6,351,557; 6,353,437; 6,353,862; 6,357,047; 6,374,336; D352,278; D372,478; D373,778; D392,267; D392,268; D392,269; D395,291; D396,853; D398,912. Additional U.S. and foreign patents pending. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, for any purpose without the express written permission of Avid Technology, Inc.

Copyright © 2002 Avid Technology, Inc. and its licensors. All rights reserved. Printed in USA.

The following disclaimer is required by Apple Computer, Inc.

APPLE COMPUTER, INC. MAKES NO WARRANTIES WHATSOEVER, EITHER EXPRESS OR IMPLIED, REGARDING THIS PRODUCT, INCLUDING WARRANTIES WITH RESPECT TO ITS MERCHANTABILITY OR ITS FITNESS FOR ANY PARTICULAR PURPOSE. THE EXCLUSION OF IMPLIED WARRANTIES IS NOT PERMITTED BY SOME STATES. THE ABOVE EXCLUSION MAY NOT APPLY TO YOU. THIS WARRANTY PROVIDES YOU WITH SPECIFIC LEGAL RIGHTS. THERE MAY BE OTHER RIGHTS THAT YOU MAY HAVE WHICH VARY FROM STATE TO STATE.

The following disclaimer is required by Sam Leffler and Silicon Graphics, Inc. for the use of their TIFF library:

Copyright © 1988–1997 Sam Leffler
Copyright © 1991–1997 Silicon Graphics, Inc.

Permission to use, copy, modify, distribute, and sell this software [i.e., the TIFF library] and its documentation for any purpose is hereby granted without fee, provided that (i) the above copyright notices and this permission notice appear in all copies of the software and related documentation, and (ii) the names of Sam Leffler and Silicon Graphics may not be used in any advertising or publicity relating to the software without the specific, prior written permission of Sam Leffler and Silicon Graphics.

THE SOFTWARE IS PROVIDED "AS-IS" AND WITHOUT WARRANTY OF ANY KIND, EXPRESS, IMPLIED OR OTHERWISE, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

IN NO EVENT SHALL SAM LEFFLER OR SILICON GRAPHICS BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY KIND, OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER OR NOT ADVISED OF THE POSSIBILITY OF DAMAGE, AND ON ANY THEORY OF LIABILITY, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

The following disclaimer is required by the Independent JPEG Group:

Portions of this software are based on work of the Independent JPEG Group.

The following disclaimer is required by Paradigm Matrix:

Portions of this software licensed from Paradigm Matrix.

The following disclaimer is required by Ray Sauers Associates, Inc.:

"Install-It" is licensed from Ray Sauers Associates, Inc. End-User is prohibited from taking any action to derive a source code equivalent of "Install-It," including by reverse assembly or reverse compilation. Ray Sauers Associates, Inc. shall in no event be liable for any damages resulting from reseller's failure to perform reseller's obligation; or any damages arising from use or operation of reseller's products or the software; or any other damages, including but not limited to, incidental, direct, indirect, special or consequential Damages including lost profits, or damages resulting from loss of use or inability to use reseller's products or the software for any reason including copyright or patent infringement, or lost data, even if Ray Sauers Associates has been advised, knew or should have known of the possibility of such damages.

The following disclaimer is required by Videomedia, Inc.:

"Videomedia, Inc. makes no warranties whatsoever, either express or implied, regarding this product, including warranties with respect to its merchantability or its fitness for any particular purpose."

"This software contains V-LAN ver. 3.0 Command Protocols which communicate with V-LAN ver. 3.0 products developed by Videomedia, Inc. and V-LAN ver. 3.0 compatible products developed by third parties under license from Videomedia, Inc. Use of this software will allow "frame accurate" editing control of applicable videotape recorder decks, videodisc recorders/players and the like."

The following disclaimer is required by Altura Software, Inc. for the use of its Mac2Win software and Sample Source Code:

©1993–1998 Altura Software, Inc.

The following disclaimer is required by Ultimatte Corporation:

Certain real-time compositing capabilities are provided under a license of such technology from Ultimatte Corporation and are subject to copyright protection.

The following disclaimer is required by 3Prong.com Inc.:

Certain waveform and vector monitoring capabilities are provided under a license from 3Prong.com Inc.

Attn. Government User(s). Restricted Rights Legend

U.S. GOVERNMENT RESTRICTED RIGHTS. This Software and its documentation are "commercial computer software" or "commercial computer software documentation." In the event that such Software or documentation is acquired by or on behalf of a unit or agency of the U.S. Government, all rights with respect to this Software and documentation are subject to the terms of the License Agreement, pursuant to FAR §12.212(a) and/or DFARS §227.7202-1(a), as applicable.

Trademarks

888 I/O, AirPlay, AirSPACE, AirSPACE HD, AniMatte, AudioSuite, AudioVision, AutoSync, Avid, AVIDdrive, AVIDdrive Towers, AvidNet, AVIDstripe, Avid Unity, Avid Xpress, AVX, CamCutter, DAE, D-Fi, D-fx, Digidesign, Digidesign Audio Engine, Digidesign Intelligent Noise Reduction, DINR, D-Verb, Equinox, ExpertRender, FieldPak, Film Composer, FilmScribe, HIIP, HyperSPACE, HyperSPACE HDCAM, IllusionFX, Image Independence, Intraframe, iS9, iS18, iS23, iS36, Lo-Fi, Magic Mask, make manage move | media, Marquee, Matador, Maxim, MCXpress, Media Composer, MediaDock, MediaDock Shuttle, Media Fusion, Media Illusion, MediaLog, Media Reader, Media Recorder, MEDIAArray, MediaShare, Meridien, MetaSync, NaturalMatch, NetReview, NewsCutter, OMF, OMF Interchange, OMM, Open Media Framework, Open Media Management, ProEncode, Pro Tools, QuietDrive, Recti-Fi, rS9, rS18, Sci-Fi, Softimage, Sound Designer II, SPACE, SPACESHift, Symphony, Trilligent, UnityRAID, Vari-Fi, Video Slave Driver, and VideoSPACE are either registered trademarks or trademarks of Avid Technology, Inc. in the United States and/or other countries.

iNEWS and Media Browse are trademarks of iNews, LLC.

Adaptec is a trademark of Adaptec, Inc., which may be registered in some jurisdictions. Adobe, Acrobat, and Reader are registered trademarks of Adobe Systems Incorporated in the United States and/or other countries. Apple, AppleScript, DVD Studio Pro, FireWire, iMac, Mac, Macintosh, PowerBook, and Power Macintosh are trademarks of Apple Computer, Inc., registered in the U.S. and other countries. Betacam and i.LINK are registered trademarks of Sony Corporation. Cinepak is a trademark of Digital Origin, Inc. DVDIt! is a trademark of Sonic Solutions. IEEE is a registered trademark of the Institute of Electrical and Electronics Engineers, Inc. Matrox is a registered trademark of Matrox Graphics Inc. and/or Matrox Electronic Systems Ltd. in the United States, Canada, and/or other countries. Microsoft, MS-DOS, NetShow, and Windows are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. QuickTime and the QuickTime logo are trademarks used under license from Apple Computer, Inc. The QuickTime logo is registered in the U.S. and other countries. TI is a trademark of Texas Instruments. All other trademarks contained herein are the property of their respective owners.

Footage

Arri — Courtesy of Arri™/Fauer — John Fauer, Inc.
Bell South "Anticipation" — Courtesy of Two Headed Monster — Tucker/Wayne Atlanta/GMS.
Canyonlands — Courtesy of the National Park Service/Department of the Interior.
Eco Challenge British Columbia — Courtesy of Eco Challenge Lifestyles, Inc., All Rights Reserved.
Eco Challenge Morocco — Courtesy of Discovery Communications, Inc.
It's Shuttletime — Courtesy of BCP & Canadian Airlines.
Nestlé Coffee Crisp — Courtesy of MacLaren McCann Canada.
Saturn "Calvin Egg" — Courtesy of Cossette Communications.
"Tigers: Tracking a Legend" — Courtesy of www.wildlifeworlds.com.
Windhorse — Courtesy of Paul Wagner Productions.

Avid Xpress DV Getting Started Guide • Part 0130-05340-01 • June 2002

Contents

	Using This Guide	15
	Who Should Use This Guide	15
	About This Guide	15
	Symbols and Conventions	16
	If You Need Help	18
	Related Information	18
	If You Have Documentation Comments	20
	How to Order Documentation	20
	Avid Educational Services	20
Chapter 1	Setting Up Your Avid Xpress DV System	21
	Overview	22
	Determining Supported Equipment	22
	Purchasing the Equipment	22
	Check List for Setting Up Your System	23
	Turning On Your Equipment	24
	Installing Boards Purchased Separately	25
	Installing the 1394 Capture Board	25
	Installing the PCI SCSI Board	26
	Connecting the Application Key	26
	Preparing Your Drives (Windows)	27
	Overview of Partitioning Basic Drives (Windows Only)	28
	Supported File Systems (Windows Only)	29
	Checking Your Internal Drives (Windows Only)	30
	Creating Primary Partitions and Formatting (Windows Only)	32

Testing Drives (Windows Only)	35
Preparing Your Drives (Macintosh)	36
Setting Your Screen Resolution (Windows Only)	37
Chapter 2 Installing Avid Software and Editing Equipment	39
Installing Avid Xpress DV Software (Windows)	40
Installing Avid Xpress DV Software and All Components (Windows)	40
Performing a Custom Installation (Windows)	42
Modifying, Repairing, or Removing Avid Applications (Windows)	43
Installing EDL Manager (Windows)	44
Installing the PowerPack Applications (Windows)	46
Installing Avid Log Exchange (Windows)	46
Installing Avid FilmScribe (Windows)	47
Installing Avid IllusionFX (Windows)	49
Installing the Avid Xpress DV Tutorial Files (Windows)	50
Installing Avid Xpress DV Software (Macintosh)	52
Installing Avid Xpress DV Software and All Components (Macintosh)	52
Performing a Custom Installation (Macintosh)	53
Removing Avid Applications (Macintosh)	54
Installing EDL Manager (for Mac OS X)	55
Installing EDL Manager (for Macintosh Version 9.2)	56
Installing the PowerPack Applications (Macintosh)	57
Installing Avid Log Exchange (Macintosh)	57
Installing Avid FilmScribe (Macintosh)	58
Installing Avid IllusionFX (Macintosh)	59
Installing the Avid Xpress DV Tutorial Files (Macintosh)	60
Creating an Emergency Repair Floppy Disk (Windows Only)	61
Connecting the Editing Equipment	62
1394 Cable Connectors	63
Connecting a 1394 Cable	64
Connecting a Computer Without a Client Monitor	66
Connecting a Client Monitor Overview	67

	Connecting a Client Monitor over a 1394 Port	69
	Audio and Video Sync Issues	70
	Connecting a Client Monitor to an Analog Port	72
	Controlling an Analog Video Deck (Windows)	73
	Controlling an Analog Video Deck (Macintosh)	74
	Connecting a VTR Emulator (Windows Only)	75
	Assigning a Driver to Your Digital Device (Windows Only)	77
	Turning Off Your Equipment (Windows)	81
	Turning Off Your Equipment (Macintosh)	82
Chapter 3	About Avid Xpress DV	83
	About DV	83
	Nonlinear Editing with Avid Xpress DV	84
	Avid Xpress DV Terms and Concepts	84
	Media Files	84
	Clips	85
	Subclips	86
	Sequences	86
	Bins	88
	Projects	88
	The Attic Folder	88
	The Avid Xpress DV File System	88
	Project Workflow	89
	Starting a Project	90
	Preparing to Edit	91
	Editing a Sequence	92
	Generating Output	93
Chapter 4	Learning How to Use Avid Xpress DV	95
	Using the Tutorial	95
	Using Help	96
	Setting Up Your Browser	96
	Getting Help for Windows and Dialog Boxes	97
	Getting Help for Screen Objects	97
	Keeping Help Available (Windows Only)	98

	Restoring Help from the Taskbar (Windows Only)	98
	Resizing the Application (Windows Only)	99
	Using Alt+Tab to Restore Help (Windows Only)	99
	Finding Information Within Help	100
	Using the Contents List	100
	Using the Index	100
	Using the Search Feature	101
	Using the Glossary	101
	Printing Help Topics	102
	Using Online Documentation	102
	Tips and Other Resources	103
Chapter 5	Starting a Project	105
	Starting Avid Xpress DV (Windows)	106
	Starting Avid Xpress DV (Macintosh)	108
	Changing Users	110
	Using User Profiles	110
	Creating a User Profile	111
	Changing User Profiles	111
	Selecting a Project	112
	Viewing Clips	113
	Using Brief View	114
	Using Text View	114
	Using Frame View	115
	Using Script View	116
	Closing the Project and Quitting the Application	118
Chapter 6	Playing and Marking Clips	119
	Exploring the Project Window	120
	The Bins Display	120
	The Settings Display	120
	The Info Display	123
	Opening a Clip in the Source Pop-Up Monitor	123
	Using Toolsets	124
	Opening Toolsets	125

	Source/Record Editing Toolset	125
	Displaying Tracking Information	125
	Controlling Playback	126
	Using the Position Bar and Position Indicator	127
	Controlling Playback with Playback Control Buttons	127
	Controlling Playback with Playback Control Keys	128
	Opening and Using the Tool Palette	129
	Opening and Tearing Off the Tool Palette	130
	Displaying Button Names	131
	Using the Command Palette	131
	Marking Edit Points	133
	Using the Mark IN and Mark OUT Buttons to Mark a Clip	133
	Using the Mark IN and Mark OUT Keys to Mark a Clip	135
	Using Timecode as Reference	136
	Using Timecode to Find a Frame	137
	Playing IN to OUT	138
	Moving an OUT Point	138
	Using Frame Offset	138
	Creating Subclips	139
Chapter 7	Creating a Sequence	141
	Building a Sequence	141
	Naming the Sequence	142
	Using the Splice-in Key	143
	Navigating in the Timeline	143
	Splicing a Clip into the Middle of a Sequence	144
	Undoing an Edit	145
	Using the I/O (IN Point / OUT Point) Tracking Display	145
	Adding Audio	146
	Using Digital Audio Scrub to Locate an Audio Frame	146
	Splicing an Audio Clip	147
	Reviewing the Sequence	148

Chapter 8	Refining the Edit	149
	Overwriting Clips into a Sequence	149
	Using Storyboard Editing	151
	Rearranging Clips	153
	Overwriting with the Three-Point Edit	153
	Changing the Order of Clips in a Sequence	154
	Removing Footage from a Sequence	155
	Removing Footage and Closing the Resulting Gap	155
	Removing Footage and Retaining the Resulting Gap	155
Chapter 9	Trimming	157
	Dual-Roller Trimming	157
	Using Dual Rollers to Trim the Outgoing Clip	159
	Trimming the Windshield Clip	160
	Single-Roller Trimming	160
Chapter 10	Adding Effects	163
	Adding a Dissolve Effect (Fade In)	163
	Dissolving Between Clips	165
	Creating a Picture-in-Picture Effect	165
	Repositioning the Image	167
	Adjusting Softness	168
	Cropping the Image	168
	Adding Keyframes	169
	Rendering the Effect	170
	Creating a Freeze Frame	171
	Screening the Sequence	171
Chapter 11	Creating Titles	173
	Creating a New Title	173
	Using Text Formatting Tools	174
	Repositioning Text	175
	Changing the Color of Title Text	176
	Adding a Shadow	176
	Changing the Color of a Shadow	176

	Softening a Shadow	177
	Saving a Title	178
	Editing the Title into the Sequence	179
Chapter 12	Generating Output	181
	Creating Files for a DVD	181
	Creating Files for a DVD (Windows)	182
	Creating Files for DVD Studio Pro (Macintosh)	184
	Using an AppleScript to Create a DVD (Macintosh)	186
	Preparing the Sequence	187
	Exporting a QuickTime Movie	187
	Using the QuickTime DV Codec	188
	Exporting the Sequence	188
	Outputting a Digital Cut to Tape	192
	About Remote and Local Deck Control	192
	Changing the Timecode of the Sequence	193
	Configuring Your Camera or Video Deck	194
	Recording a Digital Cut	197
	Next Steps	199
Chapter 13	Backing Up and Deleting a Project	201
	Backing Up Project Information	201
	Backing Up Media Files	202
	Deleting a Project Folder and Media Files	203
	Deleting a Project Folder	203
	Deleting Media Files	204
	Next Steps	206
	Index	207

Figures

Figure 1	Application Key	26
Figure 2	Computer Management Window	31
Figure 3	Partitioning in the Computer Management Window	33
Figure 4	Formatting the Partition	34
Figure 5	Disk Utility Dialog Box	36
Figure 6	1394 Connectors	63
Figure 7	Connecting a 1394 Cable	64
Figure 8	4-Pin to 6-Pin Connection	65
Figure 9	Connecting a Computer Without a Client Monitor	66
Figure 10	Displaying Timeline Information	67
Figure 11	Client Monitor Overview	68
Figure 12	Connecting a Computer with a Client Monitor	69
Figure 13	Avid Xpress DV System with Client Monitor	70
Figure 14	Analog Video Deck Control Cabling (Windows)	73
Figure 15	Analog Video Deck Control Cabling (Macintosh)	75
Figure 16	Connecting a VTR Emulator	76
Figure 17	Found New Hardware Wizard	78
Figure 18	Found New Hardware Wizard Dialog Box	78
Figure 19	Files Needed Dialog Box	80
Figure 20	Command Palette Tabs	132

Tables

Table 1	Check List for Setting Up Your System	23
Table 2	Monitor Resolutions	37
Table 3	Custom Installation Components (Windows)	42
Table 4	Custom Installation Components (Macintosh)	53
Table 5	Send to DVD Dialog Box Options	185

Using This Guide

Welcome to Avid Xpress® DV! This guide provides you with information about how to start using your Avid Xpress DV system. It presents instructions for setting up your system and a step-by-step tutorial for creating a short video sequence.



The documentation describes the features and hardware of all models. Therefore, your system might not contain certain features and hardware that are covered in the documentation.

Who Should Use This Guide

This guide is written for anyone who is familiar with a Windows® or Macintosh® computer system. You do not need video editing experience to use this guide. If you are an experienced digital, nonlinear editor, you can use this guide to learn about basic Avid Xpress DV features and to complete the tutorial.

About This Guide

This guide describes the basic features of the Avid Xpress DV system. For more information on using Avid Xpress DV, see the *Avid Xpress DV User's Guide*, Help, and other guides listed in [“Related Information” on page 18](#).

Using This Guide

This guide has the following overall structure:

- [Chapter 1](#) describes how to set up your Avid Xpress DV system and prepare drives on a Windows XP and a Mac[®] OS X operating system.
- [Chapter 2](#) describes how to install the product software and the tutorial media.
- [Chapter 3](#) presents the basic editing concepts and walks you through a typical workflow scenario.
- [Chapter 4](#) details how to use the Avid Xpress DV tutorial, Help system, and documentation.
- The remaining chapters present step-by-step instructions for the most important tasks involved in editing and outputting a digital video sequence.
- Finally, a detailed Index helps you quickly locate specific topics.

Symbols and Conventions

Unless noted otherwise, the material in this document applies to the Windows XP and Mac OS X operating systems. When the text applies to a specific operating system, it is marked as follows:

- (Windows) or (Windows only) means the information applies to the Windows XP operating system.
- (Macintosh) or (Macintosh only) means the information applies to the Mac OS X operating system.

The majority of screen shots in this document were captured on a Windows XP system, but the information applies to both Windows XP and Mac OS X systems. Where differences exist, both Windows XP and Mac OS X screen shots are shown.

The Avid Xpress DV documentation uses the following special symbols and conventions:

1. Numbered lists, when the order of the items is important.
 - a. Alphabetical lists, when the order of secondary items is important.
- Bulleted lists, when the order of the items is unimportant.
 - Indented dashed lists, when the order of secondary items is unimportant.
- ▶ One arrow indicates a single-step procedure. Multiple arrows in a list indicate that you perform one of the actions listed.

The ⌘ symbol refers to the Apple or Command key. Press and hold the Command key and another key to perform a keyboard shortcut.

Courier Bold font identifies text that you type.

Look here in the margin for tips.

In the margin, you will find tips that help you perform tasks more easily and efficiently.



A note provides important related information, reminders, recommendations, and strong suggestions.



A caution means that a specific action you take could cause harm to your computer or cause you to lose data.



A warning describes an action that could cause you physical harm. Follow the guidelines in this guide or on the unit itself when handling electrical equipment.

If You Need Help

If you are having trouble using Avid Xpress DV:

1. Retry the action, carefully following the instructions given for that task in this guide. It is especially important to check each step of your workflow.
2. Check the release notes supplied with your Avid application for the latest information that might have become available *after* the hardcopy documentation was printed.
3. Check the documentation that came with your Avid application or your hardware for maintenance or hardware-related issues.
4. Visit the online Knowledge Center at www.avid.com/support. Online services are available 24 hours per day, 7 days per week. Search this online Knowledge Center to find answers, to view error messages, to access troubleshooting tips, to download updates, and to read/join online message-board discussions.
5. For Technical Support, please call 800-800-AVID (800-800-2843).
For Broadcast On-Air Sites and Call Letter Stations, call 800-NEWSDNG (800-639-7364).

Related Information

After learning the basics about Avid Xpress DV in this guide, consult the following for information about all product features:

- *Avid Xpress DV Release 3.5 Release Notes for the Mac OS X Operating System*

The release notes include important information you should read before installing and using Avid Xpress DV on a Mac OS X system.

- *Avid Xpress DV Release 3.5 Release Notes for the Windows XP Operating System*

The release notes include important information you should read before installing and using Avid Xpress DV on a Windows XP system.

- *Avid Xpress DV User's Guide*

This guide provides complete information on all editing tasks, such as recording footage, viewing and marking footage, editing, trimming, importing, exporting, and generating final output.

- *Avid Xpress DV Effects Guide*

This guide describes techniques for using digital video effects, titles, third-party effect filters, mattes, keys, paint effects, and layering options.

- *Avid Color Correction User's Guide*

This guide provides information about the Avid Color Correction tool that allows you to:

- Adjust color attributes such as hue, saturation, gain, and gamma
- Control the relationship between input and output color
- Set limits on color levels
- Display waveform and vectorscope information

The *Avid Xpress DV Online Publications* CD-ROM includes a color version of this guide.

- *Avid Xpress DV Help*

The Help system includes online, hypertext information for using all product features. It provides all the information included in the *Avid Xpress DV User's Guide*, the *Avid Xpress DV Effects Guide*, and the *Avid Color Correction User's Guide* supplied with your system.

- *Avid Xpress DV Quick Reference for the Mac OS X Operating System*

This folded card lists convenient Macintosh keyboard shortcuts.

- *Avid Xpress DV Quick Reference for the Windows XP Operating System*

This folded card lists convenient Windows keyboard shortcuts.

- *Avid Xpress DV User's Guide Supplement (.pdf only)*

This document contains information about AudioSuite plug-ins, File Format specifications, and Avid Log Exchange specifications.

Using This Guide

- *Avid Xpress DV Online Publications* CD-ROM

This online collection provides electronic versions of this guide, the Glossary, and other guides listed in this section. You can view these documents with Adobe® Acrobat® Reader®, which you can install from the CD-ROM. The collection also includes the *Avid Xpress DV Tour*, the *Avid Xpress DV Help*, the *Avid EDL Manager User's Guide*, the *Avid FilmScribe User's Guide* (available as an option), the *Avid IllusionFX Guide* (available as an option), and the *Avid Xpress DV User's Guide Supplement*.

If You Have Documentation Comments

Avid Technology continuously seeks to improve its documentation. We value your comments about this guide, the Help, the Online Publications CD-ROM, and other Avid-supplied documentation.

Simply e-mail your documentation comments to Avid Technology at
TechPubs@avid.com

Please include the title of the document, its part number, revision, and the specific section you are commenting on in all correspondence.

How to Order Documentation

To order additional copies of this documentation from within the United States, call Avid Sales at 800-949-AVID (800-949-2843). If you are placing an order from outside the United States, contact your local Avid representative.

Avid Educational Services

For information on courses/schedules, training centers, certifications, courseware, and books, please visit www.avid.com/training or call Avid Sales at 800-949-AVID (800-949-2843).

Chapter 1

Setting Up Your Avid Xpress DV System

This chapter describes how to set up your Avid Xpress DV system and contains the following sections:

- [Overview](#)
- [Check List for Setting Up Your System](#)
- [Turning On Your Equipment](#)
- [Installing Boards Purchased Separately](#)
- [Connecting the Application Key](#)
- [Preparing Your Drives \(Windows\)](#)
- [Preparing Your Drives \(Macintosh\)](#)
- [Setting Your Screen Resolution \(Windows Only\)](#)



FireWire[®] is a peripheral standard for transmitting data invented by Apple Computer, Inc. The standard has become a cross-platform industry standard called IEEE[®] 1394. Sony Corporation also uses the IEEE 1394 standard and calls it i.LINK[®]. The transmission standard is referred to as IEEE 1394 (1394) in this document.

Overview

Congratulations! You are about to set up your Avid Xpress DV system. Your Avid Xpress DV hardware might consist of:

- A supported desktop or laptop system, running the Windows XP operating system that contains a supported 1394 capture board (1394 board) with OHCI compliance using the Texas Instruments (TI™) chip
- A supported Macintosh system running the Mac OS X operating system

Determining Supported Equipment

The supported desktop systems, laptop systems, Macintosh systems, 1394 boards, and SCSI boards are listed on the Avid® Web site.

1. Go to www.avid.com, and then click Products.
2. Choose Avid Xpress DV from the product lists that appear, and then click Specifications.



You need to go to this Web site because the supported equipment changes more frequently than this document is published, and you have probably already purchased the equipment.

Purchasing the Equipment

The system can be purchased in one of two ways as follows:

- ▶ Purchase a system through an Avid Reseller with the hardware and software already installed.
- ▶ Purchase the system yourself from a system vendor other than Avid, and purchase a “software only” kit from Avid that contains the software, documentation, and application key (dongle). In this case, you are responsible for installing the hardware and software using the documentation provided by the system vendor and Avid respectively.

Check List for Setting Up Your System

The check list in [Table 1](#) lists the tasks you need to complete before you can use your Avid Xpress DV system.

Table 1 Check List for Setting Up Your System

To	See
Set up your computer hardware: computer, monitor, mouse, keyboard, and speakers	Instructions shipped with the computer
Turn on your equipment	“Turning On Your Equipment” on page 24
Install boards purchased separately (1394 and PCI SCSI)	“Installing Boards Purchased Separately” on page 25
Connect the application key	“Connecting the Application Key” on page 26
Prepare your drives	“Preparing Your Drives (Windows)” on page 27 and “Preparing Your Drives (Macintosh)” on page 36
Install Avid Xpress DV software	“Installing Avid Xpress DV Software (Windows)” on page 40
Create an emergency repair floppy disk	“Creating an Emergency Repair Floppy Disk (Windows Only)” on page 61
Install the Avid Xpress DV tutorial files (optional)	“Installing the Avid Xpress DV Tutorial Files (Windows)” on page 50 and “Installing the Avid Xpress DV Tutorial Files (Macintosh)” on page 60
Connect your camera, digital video deck, or transcoder (you can connect these after you install the software if you prefer)	“Connecting a Computer Without a Client Monitor” on page 66

Turning On Your Equipment

After you have connected the monitor, mouse, keyboard, and speakers (if ordered) using the documentation provided by the vendor, turn on the various components. You need to do this to make sure your system works properly *before* you install any new hardware or Avid software. If your system works before you install the hardware, but not *after* you install the hardware, you know where to start troubleshooting.

If any part of your system fails to turn on, make sure its electrical cord is plugged snugly into an appropriate electrical outlet or power strip. For more information, see the instructions for setting up your computer hardware.

To check the system before you install the hardware:

1. Turn on all peripheral units, such as the monitor and speakers.



If for any reason you have external drives attached to the system, you should also turn them on.

2. Turn on your computer.



If this is the first time the computer has been turned on, you might have to answer questions related to the licensing and setup of the operating system.

For information on your operating system features, such as the desktop and icons, see your computer system documentation.

3. When you see the logon screen, do not type a password, just press Enter (Windows) or Return (Macintosh) and the desktop appears.
4. Do any type of basic computer operations like checking the disks or running any program to see if the system seems to be working properly.
5. Shut the system down.

Installing Boards Purchased Separately

The following sections explain where to find installation instructions if you have purchased supported versions of a separate 1394 board and a separate PCI SCSI board.



The operating system will use its plug-and-play capability to install the software for the boards the first time you turn on the system after the boards are installed. If the software is not available on the system disk and installed automatically, a software installation wizard appears. You should follow the instructions provided by the wizard to install the software for the boards from the CD-ROM or floppy disk provided with the board.

Installing the 1394 Capture Board

If you purchased the 1394 board separately and you have tested your system, as explained in [“Turning On Your Equipment” on page 24](#), you should turn off your system and install the supported 1394 capture board (1394 board). The 1394 board can be either a PCI version or a PCMCIA version that is OHCI compliant and uses the Texas Instruments (TI) chip.



If you have purchased a supported Macintosh system, you do not have to install a separate 1394 board into the system. Your Macintosh system has built-in 1394 ports at the front or rear of the system.



You might not need to install a 1394 board into your system if Avid supports a desktop or laptop system that has a built-in 1394 connection.

You should follow the instructions in the documentation that ships with your computer to install the 1394 board into the computer. At this time, there is no specific PCI slot assignment for the 1394 board in desktop computers.



If you have purchased one of the 1394 boards supported by Avid, a new driver for the board will be installed with the Avid Xpress DV software.

Installing the PCI SCSI Board

If you have purchased a supported PCI version of a SCSI board and you have tested your system, as explained in “Turning On Your Equipment” on page 24, you should turn off your system and install the supported PCI SCSI board. At this time, the only PCI SCSI board Avid supports is the Adaptec™ 29160 board. Different boards might be supported at a later date.

You should follow the instructions in the documentation that ships with your computer to install the PCI SCSI board into the computer. At this time, there is no specific PCI slot assignment for the PCI SCSI board in desktop computers. See “Preparing Your Drives (Windows)” on page 27 for more disk information.

Connecting the Application Key

The application key, commonly referred to as a *dongle*, allows Avid Xpress DV software to run on your computer. You *must* connect the application key to a USB port on the computer. The computer sees the application key when it is booting. If you connect the application key *after* you boot the computer, you must reboot the computer. Figure 1 shows the application key.



Application keys cannot be moved between Windows and Macintosh systems.

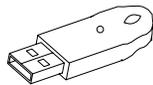


Figure 1 Application Key



Be careful you do not lose the application key. Your Avid Xpress DV software does not function without it. If you lose your application key, you must purchase another key from Avid at the full market cost of your Avid Xpress DV software.

Preparing Your Drives (Windows)

There are two types of disk drives defined by the Windows operating system:

- **Basic** — Disk drives allow disks to be divided into partitions. This type of drive is supported by Avid.
- **Dynamic** — Disk drives allow disks to be divided into volumes. Disk drives must be Dynamic if you want to stripe, mirror, or use disks in the RAID style. Avid *does not* support the use of Dynamic disks.

To use Avid Xpress DV software on your system, your drives need to be partitioned and formatted properly. *Partitioning* allows you to divide a drive into more than one section if needed, and *formatting* places a file system on each partition.

Your computer always contains a disk drive that is already at least partially partitioned and formatted (see “[Checking Your Internal Drives \(Windows Only\)](#)” on page 30). This partition contains the operating system. That’s why the operating system appears automatically when you turn on the computer.

The remaining portion of the first drive and the second drive might already be partitioned or they might be left unallocated.

This section includes the following information:

- [Overview of Partitioning Basic Drives \(Windows Only\)](#)
- [Supported File Systems \(Windows Only\)](#)
- [Checking Your Internal Drives \(Windows Only\)](#)
- [Creating Primary Partitions and Formatting \(Windows Only\)](#)
- [Testing Drives \(Windows Only\)](#)

Overview of Partitioning Basic Drives (Windows Only)

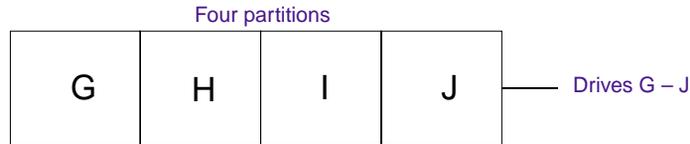
Your operating system allows you to create multiple partitions on a single physical drive as a way to manage projects and files. The following are two ways Avid supports drive partitioning.

The letters G through J used are examples only.

- You can partition your drive as one primary partition, having the partition represented by a drive letter.



- You can have up to four primary partitions per drive. Each partition is assigned a drive letter and cannot be further subdivided.



For specific recommendations for partitioning your drives, see “[Creating Primary Partitions and Formatting \(Windows Only\)](#)” on page 32.



The Computer Management window has a text frame that describes each partition as a “Volume laid out as a partition” (see “[Checking Your Internal Drives \(Windows Only\)](#)” on page 30). See the Help icon in the toolbar of the Computer Management window for any information regarding disk usage in the Windows operating system.

Supported File Systems (Windows Only)

Your operating system supports three types of file systems:

- Two types of the File Allocation Table (FAT); FAT 16 and FAT 32. FAT is primarily used when backward compatibility is needed on operating systems such as MS-DOS[®] or other versions of Windows. The new FAT 32 file system is no longer limited to a 2-GB partition size. Avid supports the FAT 32 file system.
- The New Technology File System (NTFS). NTFS affords the user security, compression, and other file recovery features. Drives employing NTFS support partitions of any size. Avid supports the NTFS file system.

When you partition your drives Avid recommends:

- ▶ Choosing NTFS from the pop-up menu when you partition your disk drives for use on desktop computers.
- ▶ Choosing FAT 32 from the pop-up menu when you partition your disk drives for use on laptop computers.



One of your internal disk drives (normally designated drive C) has a partition that contains the operating system. This drive might be labeled System or Boot. You should not reformat this partition unless you need to rebuild your system disk drive.

Checking Your Internal Drives (Windows Only)

You might have one or two internal drives in your desktop or laptop computer. Depending on how you purchased your desktop computer, the internal drives might be set up using different formats (laptops normally only use a FAT 32 file system). A desktop computer is used as an example in this section.

- The first drive might have a 2-GB partition that is formatted with a FAT 32 file system or an NTFS partition. This partition is your *system* or *boot* drive, which is normally designated drive C in the factory default configuration. The remaining portion of this drive might need to be partitioned and formatted before you install Avid Xpress DV software.
- The first drive might have one large NTFS partition, but this partition would still be your *system* or *boot* drive and is normally designated drive C in the factory default configuration.
- The second drive is intended to be used as a media drive. This drive might already be partitioned and formatted, or you might need to partition and format this drive as well.

To check your internal drives:

1. Start your system and log in to an account with administrative privileges.
2. Click the Start button, point to Settings, and select Control Panel. The Control Panel window opens.
3. Double-click Administrative Tools.
4. Double-click Computer Management. The Computer Management window opens.
5. Double-click the Disk Management folder (see [Figure 2](#)). Depending on the size of the window that opens, you might want to click the Maximize button in the upper right corner of the window.

[Figure 2](#) shows an example of the Computer Management window with the Disk Management folder selected.

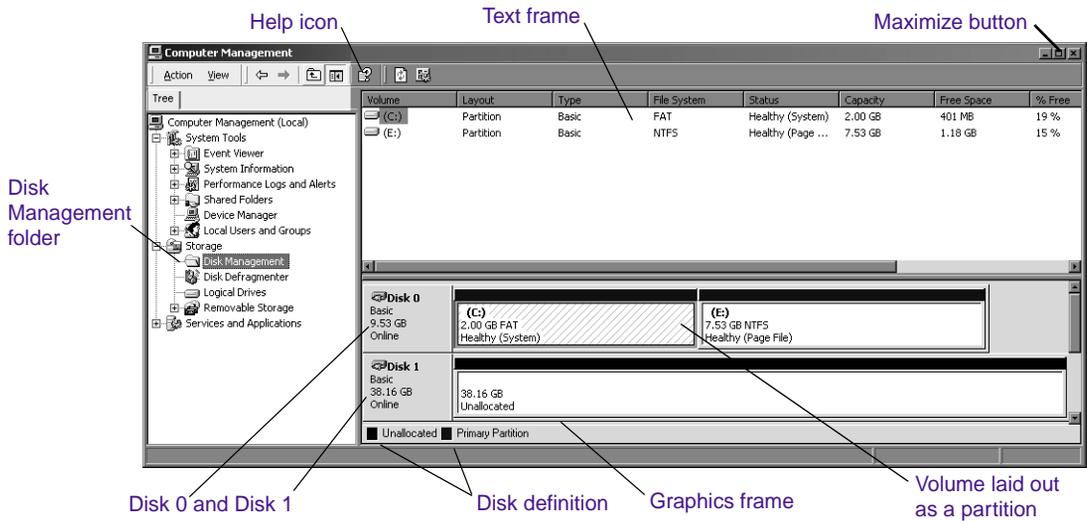


Figure 2 Computer Management Window

6. Look at Disk 0 and Disk 1 in the Graphics frame.

The same information shown in the Graphics frame can be seen in text format in the Text frame.

- Your Disk 0 might look similar to Disk 0 in Figure 2. The Text frame defines each section of Disk 0 as Volumes with an assigned letter and commonly referred to as partitions. The Graphics frame shows that Partition C on Disk 0 has a blue stripe across the top defining it as a Primary Partition and as a 2-GB FAT file system. The partition also shows the status of the partition as Healthy and that it is the System (or Boot) disk.



You should not partition and format the partition that contains the operating system (labeled System or Boot). In the factory default configuration this partition might be designated as drive C, as shown in Figure 2.

The remaining section of your Disk 0 might not be partitioned. You should partition all unallocated disks or unallocated portions of disks.

The remaining portion of Disk 0 (as shown in [Figure 2](#)) contains:

- A Primary partition labeled E.
 - An NTFS file system.
 - A Healthy partition with a Page File on the partition.
- Your Disk 1 might look similar to Disk 1 in [Figure 2](#). The figure shows Disk 1 with a black stripe across the top defining it as an Unallocated Partition with no file system. Since the disk is unallocated (not partitioned) there is no status.

Any unallocated space should be partitioned and formatted for use.

Creating Primary Partitions and Formatting (Windows Only)

If you need to partition, format, or perform any action on the disks, you should click the disk (partition or unallocated disk). When you click the disk, the white section of the disk changes to stripes (as shown on Partition C of [Figure 2](#)) showing that the section has been selected.



This section explains how to partition and format Disk 1. The same actions can be used to partition and format any unallocated section of disks in your system.

To create a primary partition and format Disk 1:

1. Start your system and log in to an account with administrative privileges.
2. Click the Start button, point to Settings, and select Control Panel. The Control Panel window opens.
3. Double-click Administrative Tools.
4. Double-click Computer Management. The Computer Management window opens (see [Figure 3](#)).
5. Double-click the Disk Management folder.

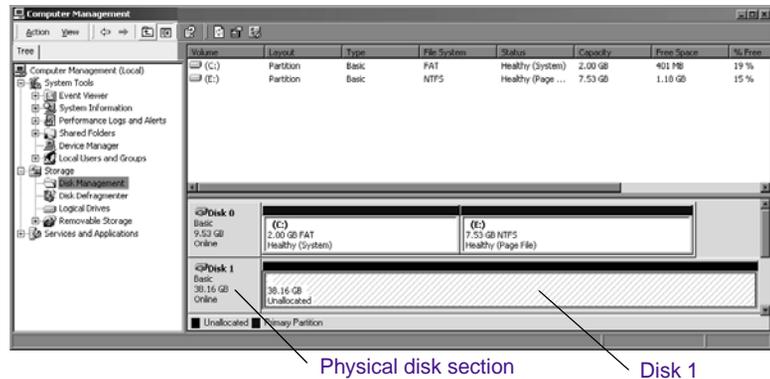


Figure 3 Partitioning in the Computer Management Window

6. Make sure the disk is designated as a Basic disk before you partition it. To designate a disk as Basic:
 - a. Place the pointer over the physical disk section.
 - b. Right-click and make sure Basic disk is selected.
7. Place the pointer over Disk 1 (see [Figure 3](#)), right-click the mouse, and select “Create a partition.”

The Create Partition Wizard window opens and explains the function of the wizard.

8. Click Next.

The wizard leads you through partitioning and formatting of the selected unallocated section of your disk. Select the following from the specified windows:

- Select Partition Type window — Select Primary and click Next.
- Partition Size window — Select Maximum to make the complete unallocated space a partition and click Next. To make a smaller partition, divide the maximum number by the number of partitions you want to make, for a maximum of four partitions per disk. You need to run the wizard for each partition.

- Assign Drive letter — Assign the partition an unused drive letter or use the letter automatically selected by the wizard.
- Formatting the partition — You need to make five choices in this window (see Figure 4).

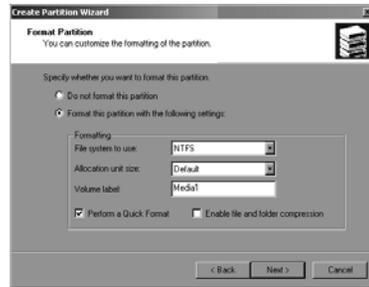


Figure 4 Formatting the Partition

Select “Format this partition with the following settings,” and then make the following choices:

File system to use — Choose NTFS.

Allocation unit size — Choose Default.

Volume label — Type a label you want for the volume that easily identifies the volume.

Select Perform a Quick Format.

9. Click Next. The Completing the Create Partition Wizard window opens.
10. The Completing the Create Partition Wizard window provides a list of your selections. Check them to make sure you have made the proper selections and click Finish (this might take a minute to complete).
11. Repeat this procedure to partition and format any unallocated disk sections.

Testing Drives (Windows Only)

The operating system contains a disk error-checking program available for each disk.

To run the error-checking program:

1. Start your system and log in to an account with administrative privileges.
2. Click the Start button, point to Settings, and select Control Panel. The Control Panel window opens.
3. Double-click Administrative Tools.
4. Double-click Computer Management. The Computer Management window opens.
5. Double-click the Disk Management folder.

For an example of the Computer Management window with the Disk Management folder open, see [Figure 2](#).

6. Place the pointer over the disk where you want to perform the error check, and right-click the mouse.
7. Select Properties.

The Properties window for that device opens.

8. Click the Tool tab.
9. Click “Check now” in the error-checking frame.

The Check Disk dialog box appears.

10. Click Start. The error-checking program runs and returns the status of the disk program.

Preparing Your Drives (Macintosh)

Avid Xpress DV on a Macintosh system requires Mac OS X. Because of this, all drives must be formatted as Mac OS Extended (HFS+). Drives formatted HFS can be read, but HFS+ formats *are required* as media drives.

When you attach a new drive to your system it might already be formatted as an HFS+ drive. You can find out using the following procedure that explains how to format your drive.

To format your drive HFS+:

1. Select your system drive.
2. Choose Utilities from the Applications menu.
3. Double-click Disk Utilities.

The Disk Utility dialog box appears (see [Figure 5](#)).

4. Click the Partition tab.

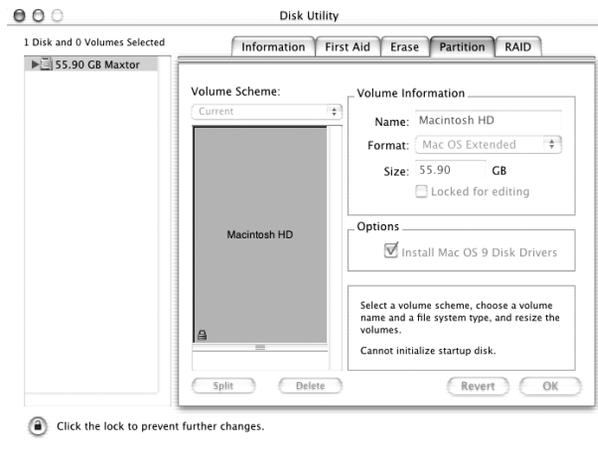


Figure 5 Disk Utility Dialog Box

5. In the Volume Information section give the drive a name, choose Mac OS Extended from the Format menu, size the drive, and then click OK.

Setting Your Screen Resolution (Windows Only)

The video playback on your monitor might seem to display improperly depending on the type of graphic board you purchase and the selected resolution in the monitor display properties. If you change the resolution in your monitor display properties, the video playback should display properly. Use [Table 2](#) as a starting point for setting your screen resolutions:

Table 2 Monitor Resolutions

One Monitor	Two Monitors
1024 x 768 pixels	2048 x 768 pixels
1152 x 864 pixels	2304 x 864 pixels
1280 x 1024 pixels	2560 x 1024 pixels



When using a single board to drive two monitors, the maximum resolution at which video will play correctly might be limited. If video does not play correctly, try reducing the resolution to 2048 x 768.

To change the resolution in your monitor display properties:

1. Right-click the desktop and select Properties.
The Display Properties dialog box appears.
2. Click the Settings tab.
3. Under the Desktop Area, click the slider and drag it to the resolution you want, and click OK.
4. Under Colors, select True Colors and click OK.

Repeat this procedure until you have found the correct resolutions needed by the Avid software and your graphics board.

Chapter 2

Installing Avid Software and Editing Equipment

This chapter explains how to install the Avid Xpress DV software and connect the editing equipment to the system. This chapter contains the following sections:

- [Installing Avid Xpress DV Software \(Windows\)](#)
- [Installing the PowerPack Applications \(Windows\)](#)
- [Installing the Avid Xpress DV Tutorial Files \(Windows\)](#)
- [Installing Avid Xpress DV Software \(Macintosh\)](#)
- [Installing the PowerPack Applications \(Macintosh\)](#)
- [Installing the Avid Xpress DV Tutorial Files \(Macintosh\)](#)
- [Creating an Emergency Repair Floppy Disk \(Windows Only\)](#)
- [Connecting the Editing Equipment](#)
- [Assigning a Driver to Your Digital Device \(Windows Only\)](#)
- [Turning Off Your Equipment \(Windows\)](#)
- [Turning Off Your Equipment \(Macintosh\)](#)

Installing Avid Xpress DV Software (Windows)

This section describes how to install the Avid Xpress DV application and its related components from the installation CD-ROM.



In order to install or remove the application software, you need to use an account with administrative privileges.

Installing Avid Xpress DV Software and All Components (Windows)

To install the Avid Xpress DV software, you must be logged in with administrative privileges. To install the Avid Xpress DV software and all related components:

1. Quit all active applications.
2. Insert the Avid Xpress DV application CD-ROM into the CD-ROM drive.

If the installation program doesn't start automatically:

- a. Double-click the My Computer icon on your desktop.
- b. Double-click the CD-ROM drive icon.
- c. Double-click the Launch icon to start the installer.

The opening window of the installer opens.

3. Click Install Avid Xpress DV.

If you have previously installed Avid Xpress DV, the Setup Maintenance program window opens. Follow the steps in [“Modifying, Repairing, or Removing Avid Applications \(Windows\)”](#) on page 43.

4. In the Welcome window, click Next.

The Country Selection for License Agreement window opens.

5. Select the country in which you purchased this product. Click Next.
6. In the License Agreement window, read the agreement, and then click Yes to accept the terms of the agreement.

7. In the Choose Destination Location window, accept the default path for the application folder (on drive C) by clicking Next. The default path is:
C:\Program Files\Avid\Avid Xpress DV
8. In the AVX Plug-in Location window, accept the default path for the AVX Plug_in folder (on drive D) by clicking Next. The default path is:
D:\Avid\AVX_Plug-ins
9. In the Application Data Location window, indicate a location for the application files (project folders and user folders). The default path is:
C:\Program Files\Avid\Avid Xpress DV
10. Click Next.
11. In the Setup Type window, select an option:
 - ▶ Select Typical to install all components. This is the recommended installation.
 - ▶ Select Custom to select the components you want to install. See [“Performing a Custom Installation \(Windows\)”](#) on page 42.
12. After you have selected an option, click Next.
The installation begins.
When the Avid Xpress DV installation is complete, the Setup Complete window opens and asks if you want to restart the system.
13. Do one of the following:
 - ▶ Yes, I want to restart my computer now.
 - ▶ No, I will restart my computer later.
14. Click Finish.

Performing a Custom Installation (Windows)

You can perform a custom installation to install particular files from the installation CD-ROM. [Table 3](#) lists the components available when you use the Custom option of the Avid Application Installer.

Table 3 Custom Installation Components (Windows)

Component	Description
Avid Xpress DV	Installs the application and all the necessary supporting files, except Help files
Utilities	Installs utility files and programs used to support the application
Help files	Installs the appropriate Help files

To perform a custom installation:

1. Follow steps [1](#) to [9](#) in the procedure “[Installing Avid Xpress DV Software and All Components \(Windows\)](#)” on page [40](#).
2. In the Setup Type window, click Custom and then click Next.
3. In the Select Components window, click the check boxes next to the components you want to install. A check mark indicates the component is selected.
4. After you have selected the components to install, click Next.



If you have a system (boot) drive that is 2 GB in size, Avid recommends you install these files on a drive or partition other than the system drive (normally drive C).

5. Click Next.

The installation begins. When the installation is complete, a message asks if you want to restart the system.

6. Do one of the following:
 - ▶ Yes, I want to restart my computer now.
 - ▶ No, I will restart my computer later.
7. Click Finish.

Modifying, Repairing, or Removing Avid Applications (Windows)

If you have installed Avid Xpress DV (or any other Avid application) and need to modify, repair, or remove it, you use the Setup Maintenance program.

To modify, repair, or remove Avid Xpress DV:

1. Quit all active applications.
2. Insert the Avid Xpress DV application CD-ROM into the CD-ROM drive.

If the installation program doesn't start automatically:

- a. Double-click the My Computer icon on your desktop.
- b. Double-click the CD-ROM drive icon.
- c. Double-click the Launch icon to start the installer.

The opening window of the installer opens.

3. Click Install Avid Xpress DV.

The Welcome window for the Setup Maintenance program opens. It presents three options:

- ▶ **Modify:** Select this option to add new program components or remove currently installed components.



If you select to remove currently installed components, this option does not remove registry entries or icons in the Start menu. To fully uninstall Avid Xpress DV, select the Remove option.



If you want to remove Avid Codec for AVI, RealProducer G2, LSX-MPEG (Ligos), ASF NetShow[®], or QuickTime[®], use the Add/Remove Programs dialog box. To access Add/Remove programs, click the Start menu, point to Settings, click Control Panel, and double-click the Add/Remove Programs icon.

- ▶ Repair: Select this option to reinstall the components you previously installed.
 - ▶ Remove: Select this option to completely uninstall all components of Avid Xpress DV.
4. Select one of the three options and click Next.
- ▶ If you selected Modify, the Select Components window opens. Components that are already installed are selected. Select the new components you want to install. The installation proceeds, as described in steps 12 to 14 in “Installing Avid Xpress DV Software and All Components (Windows)” on page 40.



If you deselect an installed component, the installation program will remove the component from the Avid Xpress DV system.

- ▶ If you selected Repair, the installation proceeds, as described in steps 12 to 14 in “Installing Avid Xpress DV Software and All Components (Windows)” on page 40.
- ▶ If you selected Remove, a message box asks you to confirm that you want to delete the files. Click OK. When the Maintenance Complete window opens, click Finish. Click Exit to quit the installation program.

If you receive a message about removing shared files, click No.

Installing EDL Manager (Windows)

EDL Manager is an application that allows you to generate EDLs (edit decision lists) from sequences exported from any Avid video-based editing product. For information on using EDL Manager, see the *Avid EDL Manager User's Guide*, available on the *Avid Xpress DV Online Publications* CD-ROM.

You can install EDL Manager on another computer. For example, you might want to install EDL Manager on a portable computer that you can take with you to an online suite, or on a computer located at the online suite.

To install EDL Manager:

1. Quit all active applications.
2. Insert the Avid Xpress DV application CD-ROM into the CD-ROM drive.
3. If the installation program doesn't start automatically:
 - a. Double-click the My Computer icon on your desktop.
 - b. Double-click the CD-ROM drive icon.
 - c. Double-click the Launch icon to start the installer.

The opening window of the installer opens.

4. Click Install EDL Manager.

If you have previously installed EDL Manager, the Setup Maintenance Program window opens. Follow the steps in [“Modifying, Repairing, or Removing Avid Applications \(Windows\)”](#) on page 43.

5. In the Welcome window, click Next.

The Country Selection for License Agreement window opens.

6. Select the country in which you purchased this product. Click Next.

7. In the License Agreement window, read the agreement, and then click Yes to accept the terms of the agreement.

8. In the Choose Destination Location window, accept the default path for the application folder (on drive C) by clicking Next. The default path is:

C:\Program Files\Avid\EDL Manager

The installation proceeds and the Install Wizard Complete window opens.

9. Do one of the following:
 - ▶ Yes, I want to restart my computer now.
 - ▶ No, I will restart my computer later.
10. Click Finish.

Installing the PowerPack Applications (Windows)

This section describes how to install the Avid Xpress DV PowerPack CD-ROM. If you purchased this option, you can install:

- Avid Log Exchange
- Avid FilmScribe™
- Avid IllusionFX™

Installing Avid Log Exchange (Windows)

Avid Log Exchange is an application that allows you to quickly convert shot logs created by other sources. You can then import the files directly into a bin. For information on using Avid Log Exchange, see the *Avid Xpress DV User's Guide*.

To install Avid Log Exchange:

1. Quit all active applications.
2. Insert the Avid Xpress DV PowerPack CD-ROM into the CD-ROM drive.
3. If the installation program doesn't start automatically:
 - a. Double-click the My Computer icon on your desktop.
 - b. Double-click the CD-ROM drive icon.
 - c. Double-click the Launch icon to start the installer.

The opening window of the installer opens.

4. Click Install Avid Log Exchange.

If you have previously installed Avid Log Exchange, the Setup Maintenance Program window opens. Follow the steps in “[Modifying, Repairing, or Removing Avid Applications \(Windows\)](#)” on page 43.

5. In the Welcome window, click Next.

The Country Selection for License Agreement window opens.

6. Select the country in which you purchased this product. Click Next.

7. In the License Agreement window, read the agreement, and then click Yes to accept the terms of the agreement.

8. In the Choose Destination Location window, accept the default path for the application folder (on drive C) by clicking Next. The default path is:

C:\Program Files\Avid\Avid Log Exchange

9. In the Application Data Location window, indicate a location for the application files (project folders and user folders). The default path is:

C:\Program Files\Avid\Avid Log Exchange

10. In the Setup Type window, select Typical and click Next.

The installation proceeds and the Install Wizard Complete window opens.

11. Do one of the following:

- ▶ Yes, I want to restart my computer now.
- ▶ No, I will restart my computer later.

12. Click Finish.

Installing Avid FilmScribe (Windows)

Avid FilmScribe is an application that allows you to create, modify, and manage cut lists and change lists. FilmScribe lists can be used to prepare the various postproduction elements of a film project, including work prints and final cuts. The FilmScribe application opens bins created on Avid editing systems and generates lists from sequences in those bins that

contain the appropriate film information. For information on using Avid FilmScribe, see the *Avid FilmScribe User's Guide*, available on the *Avid Xpress DV Online Publications* CD-ROM.

To install Avid FilmScribe:

1. Quit all active applications.
2. Insert the Avid Xpress DV PowerPack CD-ROM into the CD-ROM drive.
3. If the installation program doesn't start automatically:
 - a. Double-click the My Computer icon on your desktop.
 - b. Double-click the CD-ROM drive icon.
 - c. Double-click the Launch icon to start the installer.

The opening window of the installer opens.

4. Click Install FilmScribe.

If you have previously installed Avid FilmScribe, the Setup Maintenance Program window opens. Follow the steps in [“Modifying, Repairing, or Removing Avid Applications \(Windows\)”](#) on page 43.

5. In the Welcome window, click Next.

The Country Selection for License Agreement window opens.

6. Select the country in which you purchased this product. Click Next.
7. In the License Agreement window, read the agreement, and then click Yes to accept the terms of the agreement.
8. In the Choose Destination Location window, accept the default path for the application folder (on drive C) by clicking Next. The default path is:

C:\Program Files\Avid\FilmScribe

9. In the Application Data Location window, indicate a location for the application files (project folders and user folders). The default path is:

C:\Program Files\Avid\FilmScribe

10. In the Setup Type window, select Typical and click Next.

The installation proceeds and the Install Wizard Complete window opens.

11. Do one of the following:
 - ▶ Yes, I want to restart my computer now.
 - ▶ No, I will restart my computer later.
12. Click Finish.

Installing Avid IllusionFX (Windows)

Avid IllusionFX contains 30 high-quality AVX™ plug-in effects developed by Avid. The majority of the effects appear in the IllusionFX category of the Effect Palette. For information on using the Avid IllusionFX plug-ins, see the *Avid IllusionFX Guide* on the *Avid Xpress DV Online Publications* CD-ROM.

To install the Avid IllusionFX Pack:

1. Quit all active applications.
2. Insert the Avid Xpress DV PowerPack CD-ROM into the CD-ROM drive.
3. If the installation program doesn't start automatically:
 - a. Double-click the My Computer icon on your desktop.
 - b. Double-click the CD-ROM drive icon.
 - c. Double-click the Launch icon to start the installer.

The opening window of the installer opens.

4. Click Install IllusionFX Pack.
5. In the Welcome window, click Next.

The installation proceeds and the Install Wizard Complete window opens.

Setup has finished installing the Avid IllusionFX Pack.

6. Click Finish.

Installing the Avid Xpress DV Tutorial Files (Windows)

The Avid Xpress DV Tutorial CD-ROMs contain all the files you need for the tutorial chapters of this guide, including DV media that is ready for you to use. The tutorial files are shipped on three CD-ROMs, in either NTSC or PAL format.

You will need approximately 1 GB of free space available on a media drive. It takes approximately 10 minutes to complete the installation program.

To install the tutorial files:

1. Quit all active applications.
2. Insert Avid Xpress DV Tutorial CD 1 into the CD-ROM drive.

If the installer doesn't start automatically after you insert the application CD-ROM, do the following:

- a. Double-click the My Computer icon on your desktop.
- b. Double-click the CD-ROM drive icon.
- c. Double-click the Launch icon to start the installer.

The opening window of the installer opens.

3. Click Install Avid Video Editing Tutorial (NTSC) or Avid Video Editing Tutorial (PAL).
4. In the Welcome window, click Next.
5. In the Choose Destination Location window, accept the default path and click Next.

This path should add the Avid Projects folder to the path you selected for application data when you installed Avid Xpress DV. See [“Installing Avid Xpress DV Software and All Components \(Windows\)”](#) on page 40.

6. In the Select a Drive window, select a drive for the tutorial media and click Next.

The installation begins. When the installation is finished with CD 1, a message asks you to insert Avid Xpress DV Tutorial CD 2 into the CD-ROM drive.

7. Insert Tutorial CD 2 into the CD-ROM drive and click OK.



Windows XP has enabled AutoPlay. A Windows type window or an AutoPlay window might appear after you insert Tutorial CD 2 or Tutorial CD 3. Close this window or Take No Action and continue with the tutorial installation.

When the installation is finished with CD 2, a message asks you to insert Avid Xpress DV Tutorial CD 3 into the CD-ROM drive.

8. Insert Tutorial CD 3 into the CD-ROM drive and click OK.
9. When the installation is complete, the Setup Complete window opens. Click Finish.

The installation program copies the following folders to your system:

- **Saturn project folder:** This folder contains the project and bins you need for the tutorial and is copied into the Avid Projects folder on your hard drive.
- **OMFI MediaFiles folder:** This folder contains the media files you need for the tutorial and is copied to a media drive.

Installing Avid Xpress DV Software (Macintosh)

This section describes how to install the Avid Xpress DV application and its related components from the installation CD-ROM.



In order to install or remove the application software, you need to use an account with administrative privileges.

Installing Avid Xpress DV Software and All Components (Macintosh)

To install the Avid Xpress DV software, you must be logged in with administrative privileges. To install the Avid Xpress DV software and all related components:

1. Quit all active applications.
2. Insert the Avid Xpress DV application CD-ROM into the CD-ROM drive.

If the installation program doesn't start automatically:

- a. Double-click the CD-ROM drive icon on your desktop.
- b. Double-click the Launch icon to start the installer.

The Authenticate window opens.

3. Enter your Administrator name and password, and then click OK.

The opening window of the installer opens.

4. In the opening window, click Continue.
5. With Full Install selected, click Install.

The Country License List window opens.

6. Select the country in which you purchased this product. Click OK.

7. In the License Agreement window, read the agreement, and then click Yes to accept the terms of the agreement.

The installation begins. If you would like to quit the installation at any time, click Stop.

8. Click Quit when the Avid Xpress DV installation is complete.

Performing a Custom Installation (Macintosh)

You can perform a custom installation to install particular files from the installation CD-ROM. [Table 4](#) lists the components available when you use the Custom option of the Avid Application Installer.

Table 4 Custom Installation Components (Macintosh)

Component	Description
Avid Xpress DV	Installs the application and all the necessary supporting files, except Help files
Utilities	Installs utility files and programs used to support the application
Help files	Installs the appropriate Help files

To perform a custom installation:

1. Follow steps [1](#) to [3](#) in the procedure [“Installing Avid Xpress DV Software and All Components \(Macintosh\)”](#) on page [52](#).
2. Choose Custom Install from the menu.
3. Click the check boxes next to the components you want to install. A check mark indicates the component is selected.
4. After you have selected the components to install, click Install.
The Country License List window opens.
5. Select the country in which you purchased this product. Click OK.
6. In the License Agreement window, read the agreement, and then click Yes to accept the terms of the agreement.
The installation begins. If you would like to quit the installation at any time, click Stop.
7. Click Quit when the installation is complete, or click Continue if you would like to install other components.

Removing Avid Applications (Macintosh)

If you have installed Avid Xpress DV (or any other Avid application) and need to remove it, you use the Setup Maintenance program.

To remove Avid Xpress DV:

1. Quit all active applications.
2. Insert the Avid Xpress DV application CD-ROM into the CD-ROM drive.

If the installation program doesn't start automatically:

- a. Double-click the CD-ROM drive icon on your desktop.
- b. Double-click the Launch icon to start the installer.

The Authenticate window opens.

3. Enter your Administrator name and password, and then click OK.

The opening window of the installer opens.

4. In the opening window, click Continue.
5. Click Uninstall Avid Xpress DV.

A dialog box appears stating that no other application can be running during the operation.

6. Click Continue.

The system removes the Avid Xpress DV application.

7. When the uninstall is successful, click OK.
8. Click Quit to close the installer window.

Installing EDL Manager (for Mac OS X)

EDL Manager is an application that allows you to generate EDLs (edit decision lists) from sequences exported from any Avid video-based editing product. For information on using EDL Manager, see the *Avid EDL Manager User's Guide*, available on the *Avid Xpress DV Online Publications* CD-ROM.

You can install EDL Manager on another computer. For example, you might want to install EDL Manager on a portable computer you can take with you to an online suite, or on a computer located at the online suite.

To install EDL Manager on Mac OS X:

1. Quit all active applications.
2. Insert the Avid Xpress DV application CD-ROM into the CD-ROM drive.
3. If the installation program doesn't start automatically:
 - a. Double-click the CD-ROM drive icon on your desktop.
 - b. Double-click the Launch icon to start the installer.

The Authenticate window opens.

4. Enter your Administrator name and password, and then click OK.
The opening window of the installer opens.
5. In the opening window, click Continue.
6. With Easy Install selected, click Install.

If you have previously installed EDL Manager and want to remove it, choose Uninstall. Follow the steps in [“Removing Avid Applications \(Macintosh\)”](#) on page 54.

The Country License List window opens.

7. Select the country in which you purchased this product. Click OK.
8. In the License Agreement window, read the agreement, and then click Yes to accept the terms of the agreement.

The installation begins. If you would like to quit the installation at any time, click Stop.

9. When the installation is successful a dialog box appears. Click Quit.

Installing EDL Manager (for Macintosh Version 9.2)

To format an RT-11 floppy disk, you need to format the floppy disk using Avid EDL Manager running on Macintosh Version 9.2. You can then use Avid EDL Manager running on Mac OS X to read and write EDLs to the formatted RT-11 floppy disk.

To install EDL Manager on Macintosh Version 9.2:

1. Quit all active applications.
2. Insert the Avid Xpress DV application CD-ROM into the CD-ROM drive.
3. If the installation program doesn't start automatically:
 - a. Double-click the CD-ROM drive icon on your desktop.
 - b. Double-click the Launch icon to start the installer.

The opening window of the installer opens.

4. In the opening window, click Continue.
5. With Easy Install selected, click Install.

If you have previously installed EDL Manager and want to remove it, choose Uninstall. Follow the steps in [“Removing Avid Applications \(Macintosh\)”](#) on page 54.

The Country License List window opens.

6. Select the country in which you purchased this product. Click OK.
7. In the License Agreement window, read the agreement, and then click Yes to accept the terms of the agreement.

The installation begins. If you would like to quit the installation at any time, click Stop.

8. When the installation is successful a dialog box appears. Click Quit

Installing the PowerPack Applications (Macintosh)

This section describes how to install the Avid Xpress DV PowerPack CD-ROM. If you purchased this option, you can install:

- Avid Log Exchange
- Avid FilmScribe
- Avid IllusionFX

Installing Avid Log Exchange (Macintosh)

Avid Log Exchange is an application that allows you to quickly convert shot logs created by other sources. You can then import the files directly into a bin. For information on using Avid Log Exchange, see the *Avid Xpress DV User's Guide*.

To install Avid Log Exchange:

1. Quit all active applications.
2. Insert the Avid Xpress DV PowerPack CD-ROM into the CD-ROM drive.
3. If the installation program doesn't start automatically:
 - a. Double-click the CD-ROM drive icon on your desktop.
 - b. Double-click the Launch icon to start the installer.

The Authenticate window opens.

4. Enter your Administrator name and password, and then click OK.
The opening window of the installer opens.
5. In the opening window, click Continue.
6. With Easy Install selected, click Install.

If you have previously installed Avid Log Exchange and want to remove it, choose Uninstall. Follow the steps in [“Removing Avid Applications \(Macintosh\)” on page 54](#).

The Country License List window opens.

7. Select the country in which you purchased this product. Click OK.
8. In the License Agreement window, read the agreement, and then click Yes to accept the terms of the agreement.

The installation begins. If you would like to quit the installation at any time, click Stop.

9. When the installation is successful a dialog box appears. Click Quit.

Installing Avid FilmScribe (Macintosh)

Avid FilmScribe is an application that allows you to create, modify, and manage cut lists and change lists. FilmScribe lists can be used to prepare the various postproduction elements of a film project, including work prints and final cuts. The FilmScribe application opens bins created on Avid editing systems and generates lists from sequences in those bins that contain the appropriate film information. For information on using Avid FilmScribe, see the *Avid FilmScribe User's Guide*, available on the *Avid Xpress DV Online Publications* CD-ROM.

To install Avid FilmScribe:

1. Quit all active applications.
2. Insert the Avid Xpress DV PowerPack CD-ROM into the CD-ROM drive.
3. If the installation program doesn't start automatically:
 - a. Double-click the CD-ROM drive icon on your desktop.
 - b. Double-click the Launch icon to start the installer.

The Authenticate window opens.

4. Enter your Administrator name and password, and then click OK.

The opening window of the installer opens.

5. In the opening window, click Continue.
6. With Easy Install selected, click Install.

If you have previously installed Avid FilmScribe and want to remove it, choose Uninstall. Follow the steps in [“Removing Avid Applications \(Macintosh\)”](#) on page 54.

The Country License List window opens.

7. Select the country in which you purchased this product. Click OK.
8. In the License Agreement window, read the agreement, and then click Yes to accept the terms of the agreement.

The installation begins. If you would like to quit the installation at any time, click Stop.

9. When the installation is successful a dialog box appears. Click Quit.

Installing Avid IllusionFX (Macintosh)

Avid IllusionFX contains 30 high-quality AVX plug-in effects developed by Avid. The majority of the effects appear in the IllusionFX category of the Effect Palette. For information on using the Avid IllusionFX plug-ins, see the *Avid IllusionFX Guide* on the *Avid Xpress DV Online Publications* CD-ROM.

To install the Avid IllusionFX Pack:

1. Quit all active applications.
2. Insert the Avid Xpress DV PowerPack CD-ROM into the CD-ROM drive.
3. If the installation program doesn't start automatically:
 - a. Double-click the CD-ROM drive icon on your desktop.
 - b. Double-click the Launch icon to start the installer.

The Authenticate window opens.

4. Enter your Administrator name and password, and then click OK.

The opening window of the installer opens.

5. In the opening window, click Install.
6. If the Select Folder dialog box appears. Select the Avid application folder and click OK.

The installation begins. If you would like to quit the installation at any time, click Stop.

7. When setup has finished installing the Avid IllusionFX Pack, click Quit.

Installing the Avid Xpress DV Tutorial Files (Macintosh)

The Avid Xpress DV Tutorial CD-ROMs contain all the files you need for the tutorial chapters of this guide, including DV media that is ready for you to use. The tutorial files are shipped on two CD-ROMs, in either NTSC or PAL format.

You will need approximately 1 GB of free space available on a media drive. It takes approximately 10 minutes to complete the installation program.



You must have an OMFI MediaFiles folder created on your Macintosh HD before installing this tutorial.

To install the tutorial files:

1. Quit all active applications.
2. Insert Avid Xpress DV Tutorial CD 1 into the CD-ROM drive.
3. Double-click the DV Tutorial (NTSC or PAL) CD-ROM icon on your desktop.
4. Double-click the DV Tutorial (NTSC or PAL) Installer icon to start the installer.

The opening window of the installer opens.

5. With Easy Install selected, click the Install button.

If you have more than one Avid Projects folder created on your system, a Select Folder dialog box appears asking you to select the Avid Projects folder where you want to install the tutorial project. Click OK.

The installation begins. If you don't have an OMFI MediaFiles folder created on your Macintosh HD, a message appears. When the installation is finished with CD 1, a message asks you to insert Avid Xpress DV Tutorial CD 2 into the CD-ROM drive.

6. Insert Tutorial CD 2 into the CD-ROM drive and click OK.
7. When the installation is complete, click Quit.

The installation program copies the following folders to your system:

- **Saturn project folder:** This folder contains the project and bins you need for the tutorial and is copied into the Avid Projects folder on your hard drive.
- **OMFI MediaFiles folder:** This folder contains the media files you need for the tutorial and is copied to a media drive.

Creating an Emergency Repair Floppy Disk (Windows Only)

Whenever you add new software or change your disk configuration, you should create a new emergency repair floppy disk.

To create an emergency repair floppy disk:

1. Start your system and log in to an account with administrative privileges.
2. Click the Start button, point to Programs, point to Accessories, point to System Tools, and select Backup.

The Backup window opens.

3. Click the Emergency Repair Disk icon.
A dialog box appears.
4. Select the “Also backup the registry to the repair directory” option.
5. Insert a blank, formatted floppy disk into drive A.
6. Click OK.
7. Label the emergency repair floppy disk, date it, and store it in a safe, dry, static-free location.

Connecting the Editing Equipment

Make sure you have completed the setup information provided with your computer. This information provides instructions for setting up your computer and attaching the monitor, keyboard, and mouse. The documentation that comes with your equipment explains the locations of cable connections and how to connect the cables.



The term FireWire, IEEE 1394, and i.LINK are considered to be the same thing. In this document the term 1394 is used.

This section explains the connections between the editing equipment and the computer in general terms because you might be connecting your editing equipment to:

- A supported desktop or laptop system running the Windows XP Professional operating system
- A supported Macintosh system running the Mac OS X operating system

Your editing equipment might be a digital camera, a digital video deck, or an analog video deck connected to a transcoder.



The cameras, video decks, and transcoders in the illustrations represent the type of equipment explained in the text. The actual equipment you have might be different.

This section contains the following topics:

- [1394 Cable Connectors](#)
- [Connecting a 1394 Cable](#)
- [Connecting a Computer Without a Client Monitor](#)
- [Connecting a Client Monitor Overview](#)
- [Connecting a Client Monitor over a 1394 Port](#)
- [Audio and Video Sync Issues](#)
- [Connecting a Client Monitor to an Analog Port](#)
- [Controlling an Analog Video Deck \(Windows\)](#)
- [Controlling an Analog Video Deck \(Macintosh\)](#)
- [Connecting a VTR Emulator \(Windows Only\)](#)

1394 Cable Connectors

The connections on your computer system and your editing equipment (such as a digital camera, digital video deck, or transcoder used with an analog video deck) have either four pins or six pins. Therefore, the 1394 cables used to connect this equipment need either 4-pin or 6-pin connectors (see [Figure 6](#)).



Figure 6 1394 Connectors

Connecting a 1394 Cable

You use a 1394 cable to connect a digital video deck, a digital camera, or a transcoder (connected to an analog video deck) to a PCI or PCMCIA capture board in your computer, or directly to a 1394 port at the rear of a Macintosh system (see [Figure 7](#)).

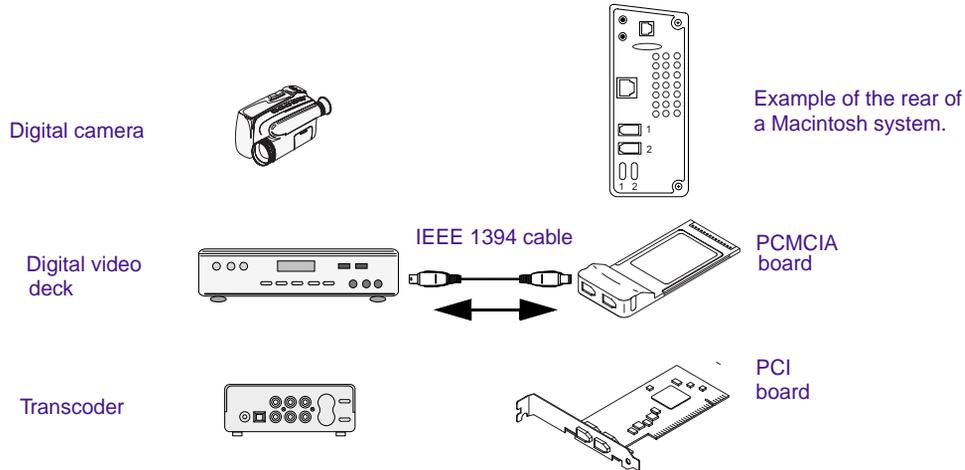


Figure 7 Connecting a 1394 Cable

A 1394 cable is normally referred to by the number of pins in the connector at each end of the cable (see [“1394 Cable Connectors”](#) on [page 63](#)). There are normally three types of 1394 cables:

- 4-pin to 4-pin
- 4-pin to 6-pin
- 6-pin to 6-pin

Before connecting a 1394 cable, you must determine the type of 1394 cable you need. For example, you might need to connect a digital camera that has a 4-pin connection to a Macintosh system that has a 6-pin connection. In this case you would need the 4-pin to 6-pin cable (see [Figure 8](#)).

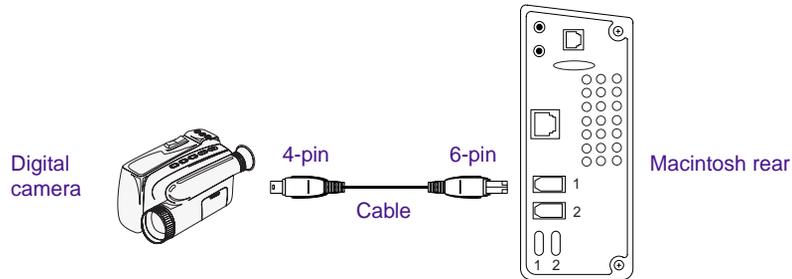


Figure 8 4-Pin to 6-Pin Connection

When you purchase a PCI board or PCMCIA board, you usually receive at least one type of 1394 cable. You might have to purchase an additional 1394 cable to match your needs, depending on the equipment you purchased. The documentation that comes with your equipment explains the locations of cable connections and how to actually connect the cables.

Connecting a Computer Without a Client Monitor

To connect equipment without a Client monitor to your computer:

1. Connect the monitor, speakers, keyboard, and mouse to the rear of your computer using the documents that came with your desktop computer. If you have a laptop, connect only needed components.
2. Connect the 1394 cable from a digital video deck, a digital camera, or a transcoder (connected to an analog video deck) to a PCI or PCMCIA capture board in your computer, or to the rear of a supported Macintosh system (as explained in the documentation that comes with your equipment). **Figure 9** shows an example of a digital video deck connected to a PCI capture board.

The computer uses the same 1394 cable to input and output data to and from a digital video deck, a digital camera, or a transcoder (connected to an analog video deck). The output data can be recorded or used to control a digital video deck or digital camera.



The output data can be sent through a transcoder to be recorded on an analog video deck, but control of the analog video deck must be done remotely using the serial port (see “Controlling an Analog Video Deck (Windows)” on page 73).

3. Turn on power to all peripheral equipment and then the system.

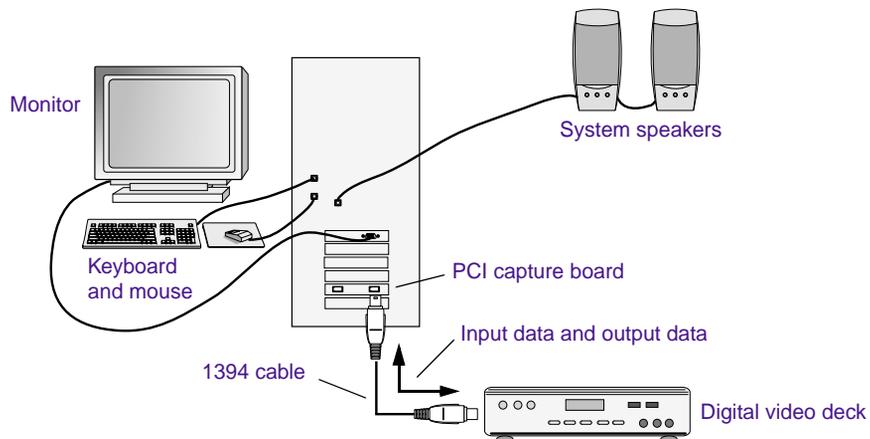


Figure 9 Connecting a Computer Without a Client Monitor

Connecting a Client Monitor Overview

To fully understand how a Client monitor receives data from an Avid Xpress DV system, it is helpful to understand how Timeline information is processed and sent to the Composer monitor from the computer system (see [Figure 10](#)).

- You turn real-time effects on or off by clicking the Real-Time Effects button in the Timeline. The real-time effects are off when the button is green, and on when the button is blue.
- When real-time effects are *off*, the desktop display shows a sequence displayed with a full-resolution signal without the digital effects.
- When real-time effects are *on*, the desktop display shows a sequence displayed with a slightly lower-resolution signal generated because it includes the digital effects.



Having real-time effects on or off should not cause a difference in the display as long as you have High Quality selected in the Display Settings of your project. You might see a difference in the display if you have High Performance selected in the Display Settings of your project.

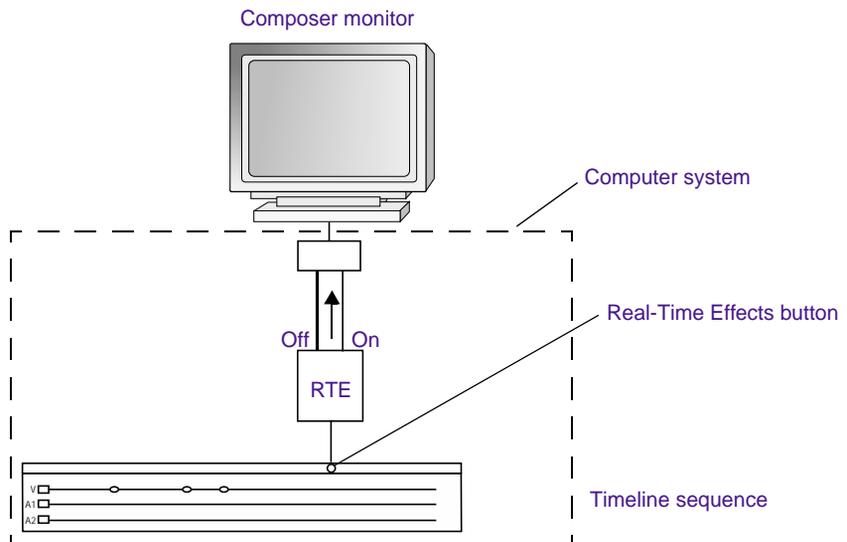


Figure 10 Displaying Timeline Information

When you turn real-time effects on or off you also determine the path of the signal to Client monitors from the computer system (see Figure 11).

- If you have real-time effects *off*, the desktop display shows a sequence displayed with a full-resolution signal without the digital effects. The signal is sent out the 1394 port connection to the Client monitor attached to a digital video deck or to the digital camera acting as a Client monitor.
- If you have real-time effects *on*, the desktop display shows a sequence displayed with a slightly lower-resolution signal generated because it includes the digital effects. The signal is sent out an analog connection (S-Video or VGA) to a Client monitor with a resolution of 800 x 600.

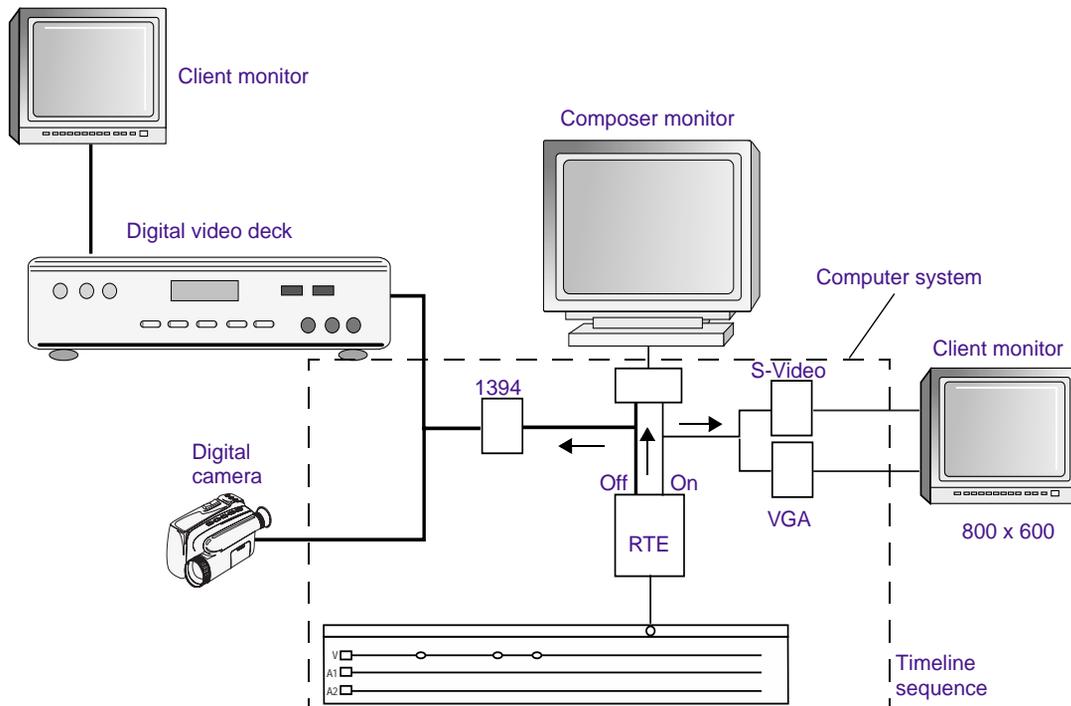


Figure 11 Client Monitor Overview

Connecting a Client Monitor over a 1394 Port

To connect a Client monitor to a Windows or Macintosh system (a Windows system is shown as an example):

1. Connect the system as you did in “[Connecting a Computer Without a Client Monitor](#)” on page 66, but don’t turn on the power.
2. Connect a Client monitor to a digital video deck, a digital camera, or a transcoder using the necessary analog cable. [Figure 12](#) shows an example of a digital video deck connected to a Client monitor.
3. Connect powered external speakers (or built-in speakers) to a digital video deck, a digital camera, or a transcoder using the necessary cables.
4. Turn on the power to all peripheral equipment and then the system.
5. When you run Avid Xpress DV, you must turn real-time effects off to enable the output data to be sent to the 1394 port.



The output video and audio are synchronized as client audio and video, and do not match the video displayed on the computer monitor and the audio sent to the system speakers (see “[Audio and Video Sync Issues](#)” on page 70).

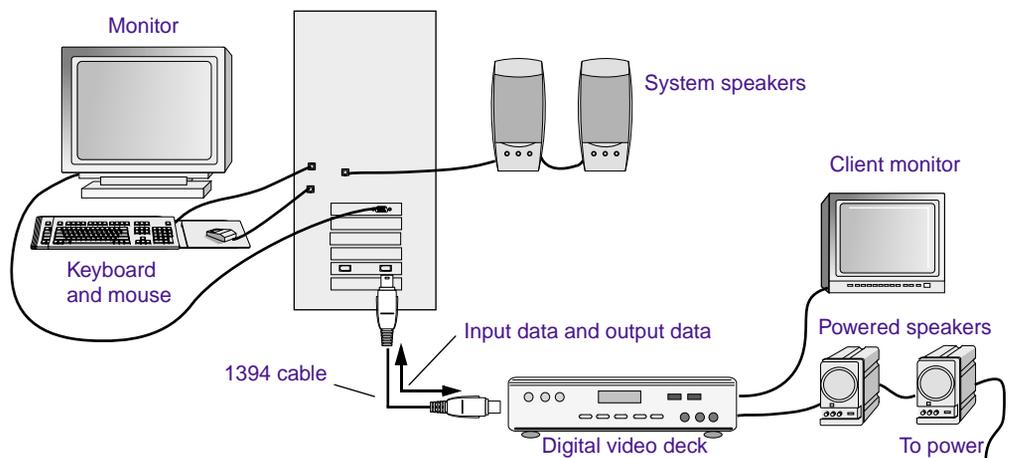


Figure 12 Connecting a Computer with a Client Monitor

Audio and Video Sync Issues

With the Avid Xpress DV system set up as shown in [Figure 13](#), the video and audio might appear to be out of sync in the following situations:

- You are recording from a digital device
- A Client monitor is attached

The system, however, is functioning normally, as explained in the following sections:

- **Sync Issue:** When recording from a digital device (a digital camera, digital video deck, or transcoder), what you see on the Composer monitor and hear from the system speakers is not in sync with the incoming video and audio coming from the digital device.

Explanation: The incoming video and audio from the digital device must be buffered, and then fed to the Composer monitor and system speakers. Although it might look and sound out of sync from the digital device output, the video and audio is being recorded properly. For example, if you are marking IN and OUT points while previewing video, the points will be placed in the correct location for editing.

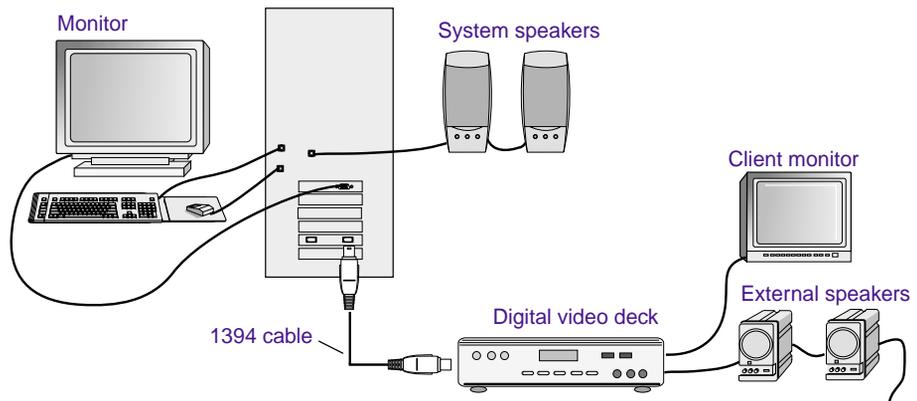


Figure 13 Avid Xpress DV System with Client Monitor

- **Sync Issue:** With a Client monitor attached, the audio you hear from the system speakers is not in sync with the video on the Client monitor.

Explanation: Avid Xpress DV processes the video and audio and sends it to the Composer monitor and system speakers. The Composer video and audio will always be in sync.

However, Avid Xpress DV also provides the same video and audio in 1394 format to a digital device (digital camera, digital video deck, or transcoder) connected by a 1394 cable (see [Figure 13](#)).

Because the Client monitor is attached to the digital device, the delay between the time the video and audio is processed internally and sent to the digital device causes the video on the Client monitor to be out of sync with the audio from the system speakers.

If you need to use a Client monitor for video and hear synchronized audio:

- Attach a separate pair of speakers to the same digital device the Client monitor is attached to.
- Turn off or disconnect the system speakers.

Client monitor video and audio from external speakers are always in sync when they are sent to the digital device.

Connecting a Client Monitor to an Analog Port

When you run Avid Xpress DV you must turn real-time effects on to enable the output data to be sent to the Client monitor attached to the analog port (see [“Connecting a Client Monitor Overview” on page 67](#)).

Analog Connection on a Windows System

You can connect a Client monitor directly to the second VGA port of the Matrox[®] 550 graphics card on a Windows system.

Analog Connection on a Macintosh System

You can connect a Client monitor directly to the analog ports of the following two supported Macintosh products (for supported Macintosh products see the Avid Knowledge Center):

- PowerBook[®] G4 (Titanium) with rear S-Video output
- Power Macintosh[®] G4 using a digital-to-VGA adapter on the digital output of the Apple[®] graphics board



You cannot connect a Client monitor to the rear of an iMac[®] system. The VGA connectors at the rear only mirror the iMac system's built-in display.

Analog Connection Requirements

The following conditions must be met before the connected monitors can receive data as a Client monitor:

- Real-time effects must be enabled
- The console must have a resolution of 800 x 600



You can also connect a Client monitor to a digital video deck or a digital camera as explained in [“Connecting a Client Monitor over a 1394 Port” on page 69](#).

Controlling an Analog Video Deck (Windows)

Your Avid Xpress DV software provides analog video deck control using the serial port on your Windows system. The serial port connects to a remote serial control connector, which is available on most analog video decks.

To control the analog video deck, you need an optional RS-232 to RS-422 serial cable or an adapter kit. Although an adapter kit must be purchased separately, the following procedure explains how to connect a sample adapter kit between your Windows system and an analog video deck using the following:

- An RS-232 to RS-422 serial adapter
- Two serial cables with 9-pin male connectors at both ends

To connect a single deck to your computer:

1. Purchase an adapter kit.
2. Attach one end of the first 9-pin cable to the end of the serial adapter labeled RS-232 (see [Figure 14](#)).
3. Attach the other end of the first 9-pin cable to the serial port of the computer.

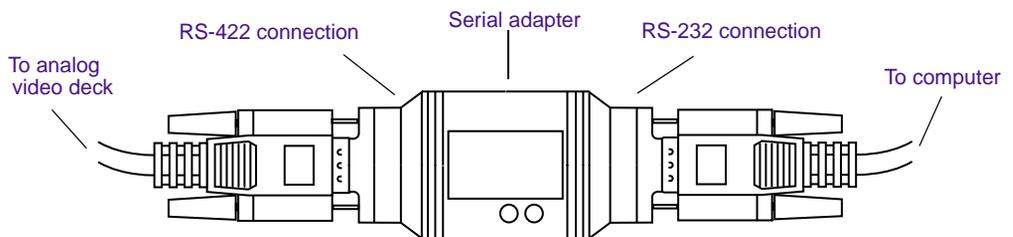


Figure 14 Analog Video Deck Control Cabling (Windows)

4. Attach one end of the second 9-pin cable to the end of the serial adapter labeled RS-422.
5. Attach the other end of the second 9-pin cable to the remote serial port of the analog video deck.

Controlling an Analog Video Deck (Macintosh)

If your supported Macintosh system has a USB port, you can control an analog video deck. Your Avid Xpress DV software provides analog video deck control using the USB-to-serial adapter (connected to the USB port on your Macintosh system) and an RS-232 to RS-422 serial adapter kit. The RS-422 serial port of the adapter kit connects to a remote serial control connector, which is available on most analog video decks.

Although the USB-to-serial adapter and RS-232 to RS-422 serial adapter kit must be purchased separately, the following procedure explains how to connect a sample adapter kit between your system and an analog video deck using the following:

- The USB-to-serial adapter (Avid supports only the Keyspan Twin Serial Adapter, Keyspan part number USA-28x)
- An RS-232 to RS-422 serial adapter
- Two serial cables with 9-pin male connectors at both ends

To connect a single deck to your computer:

1. Purchase the Keyspan Twin Serial Adapter (USA-28x), an RS-232 to RS-422 serial adapter, and two serial cables.
2. Plug the USB connector of the Keyspan Twin Serial Adapter into a USB port on the Macintosh system (see your system documentation for the USB port location).
3. Install the Keyspan Twin Serial Adapter software using the instructions located on the Keyspan Twin Serial Adapter CD-ROM. You might have to go to the Keyspan Web site and download the software if you don't have the CD-ROM.
4. Attach one end of the first 9-pin cable to the end of the serial adapter labeled RS-232 (see [Figure 15](#)).
5. Attach the other end of the first 9-pin cable to serial port 1 of the Keyspan Twin Serial Adapter.

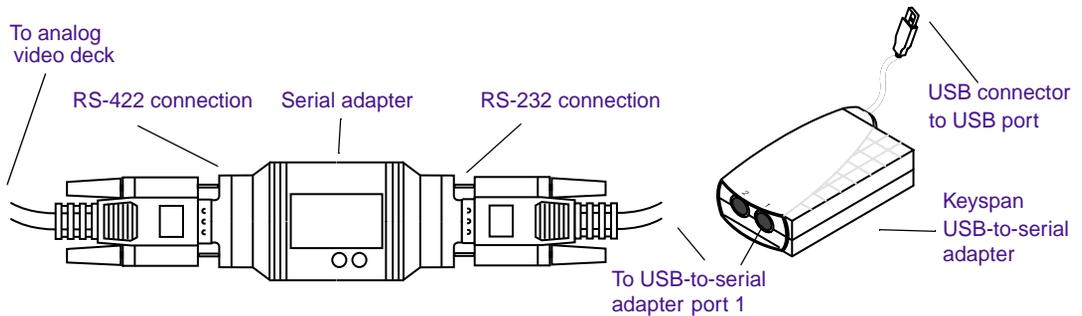


Figure 15 Analog Video Deck Control Cabling (Macintosh)

6. Attach one end of the second 9-pin cable to the end of the serial adapter labeled RS-422.
7. Attach the other end of the second 9-pin cable to the remote serial port of the analog video deck.



You will need to configure the analog video deck in the Avid Xpress DV Deck Configuration settings of your project. See the user's guide for more information.

Connecting a VTR Emulator (Windows Only)

Avid supports the connection of a VTR emulator to the system. You need the following equipment to connect the emulator to the system:

- A serial adapter kit that contains:
 - A serial adapter
 - Two serial cables; one male-to-male 9-pin connector and one male-to-female 9-pin connector
- A VTR emulator cable; male-to-female 9-pin connector

To connect the VTR emulator to the system:

1. Locate the three cables.
2. Attach the male end of the male-to-female 9-pin serial cable to the serial adapter labeled RS-232.

3. Attach the female end of the male-to-female 9-pin serial cable to the serial port of the PC (see Figure 16).

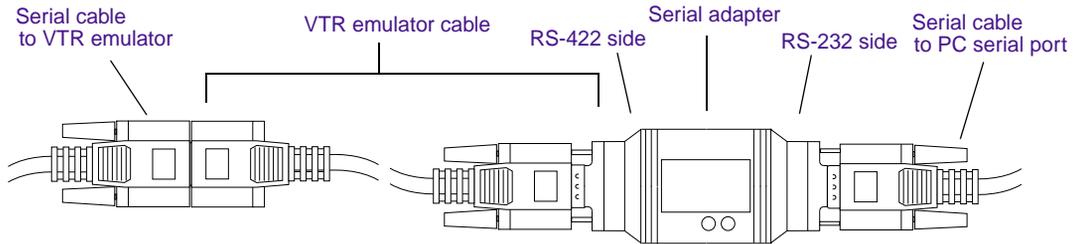


Figure 16 Connecting a VTR Emulator

4. Attach the male end of the VTR emulator cable to the serial adapter labeled RS-422.
5. Attach the female end of the VTR emulator cable to the male end of the male-to-male 9-pin serial cable.
6. Attach the other end of the male-to-male 9-pin serial cable to the VTR emulator.

Assigning a Driver to Your Digital Device (Windows Only)

To record (input) digital data from your supported digital device, you must connect the digital device to the 1394 board (see “[Connecting a 1394 Cable](#)” on page 64). You then need to assign a driver to the digital device.

Avid provides a driver (CustomDV.sys) that you must assign to each digital device you connect to the 1394 board. This driver allows the Avid software to control the digital device connected to the 1394 board. If you connect different digital devices to the 1394 board, you need to assign the same CustomDV.sys driver to each digital device.



You should not connect a digital device to the 1394 board until you have installed the Avid software. The Avid software installs the OHCI-compliant driver (CustomDV.sys) you assign to each digital device you connect to the 1394 board.

The following is a general explanation of what occurs when you physically connect a digital device to the 1394 board and apply power to the digital device:

- The digital device generates a signal to the Windows operating system notifying the operating system that a digital device is now attached to the system.
- The operating system polls the digital device connected to the 1394 board to determine what type of digital device is connected.
- The operating system checks to see if that digital device has an assigned driver.
 - If the digital device has been previously connected to the 1394 board, you should already have assigned a driver to the digital device and nothing is done.
 - If the digital device has not been previously connected to the 1394 board and does not have a driver assigned, the Windows operating system opens the Found New Hardware Wizard to assign a driver to the digital device.

To assign the CustomDV.sys driver to the 1394 DV Camcorder (Non DirectShow) digital device using the Found New Hardware Wizard:

1. Connect the digital device to the 1394 board and apply power to the digital device. The Found New Hardware Wizard appears (see [Figure 17](#)).



Figure 17 Found New Hardware Wizard

2. Click Next. The Found New Hardware Wizard continues to prompt for the needed information.
3. Select “Search for a suitable driver for the 1394 DV Camcorder (Non DirectShow)” and click Next. The Found New Hardware Wizard continues to prompt for the needed information.
4. Select “Specify location” and click Next.

The Found New Hardware Wizard dialog box appears (see [Figure 18](#)).



Figure 18 Found New Hardware Wizard Dialog Box

The system is normally drive C.

5. Type *System drive* : \WINNT\INF as the location to get the manufacturer's file. Click Browse.

A Locate File dialog box appears.

6. Select CustomDV.inf and click Open.



CustomDV.inf is an installation information file used by the Found New Hardware Wizard to install the CustomDV.sys driver. If you do not see the.inf file, you might need to enable the View options to show hidden files.

To enable show hidden files:

- a. Double-click the My Computer icon on your desktop.
- b. Choose Folder Options from the Tool menu.
- c. Click the View tab.
- d. Select the Show hidden files and folders option.
- e. Click OK.

You should now be able to select CustomDV.inf and click Open.

7. Click OK in the Found New Hardware Wizard.

The Found New Hardware Wizard continues and shows the results of the driver search:

- The 1394 DV Camcorder (Non DirectShow) digital device
- The system drive:\WINNT\INF\CustomDV.inf

8. Click Next.

A Digital Signature Not Found dialog box appears.

9. Click Yes. An Insert Disk dialog box appears.

10. Click OK. A Files Needed dialog box appears (see Figure 19).

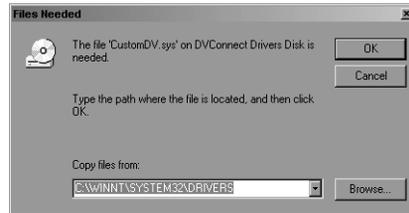


Figure 19 Files Needed Dialog Box

The system is normally drive C.

11. Type *System Drive* : \WINNT\SYSTEM32\DRIVERS in the “Copy files from” text box and click OK.
12. Click Finish. Your digital device, 1394 DV Camcorder (Non DirectShow), has now been assigned the CustomDV.sys driver.

To see if the CustomDV.sys driver has been properly installed:

1. Leave the digital device connected to the 1394 board, but turn off the power to the digital device.
2. Click the Start button, point to Settings, and then select Control Panel.
3. Double-click the System icon.
4. Click the Hardware tab.
5. Click Device Manager.
6. Click the + sign of Sound, Video, and Game Controller.
7. Turn on the power to the digital device.

In a few seconds you should see “1394 DV Camcorder (Non DirectShow)” appear in the Sound, Video, and Game Controller section.

Turning Off Your Equipment (Windows)

When you are finished using your system and want to turn it off completely, follow these steps to avoid damaging your computer or media storage drives. Make sure to quit Avid Xpress DV before turning off your equipment.

To turn off your equipment:

1. Choose Shut Down from the Start menu. The Shut Down Windows dialog box appears.
2. Select the “Shut down” option from the list box and click OK.
3. When the system displays a message telling you it is safe to turn off your computer, press the Power button on the computer.
4. Turn off your speakers and monitors.
5. Turn off each external media drive.
6. Turn off all other hardware.



Never remove external media drives from your Avid Xpress DV system when it is turned on. Shut down the computer and drives before you move drives.

Turning Off Your Equipment (Macintosh)

When you are finished using your system and want to turn it off completely, follow these steps to avoid damaging your computer or media storage drives. Make sure to quit Avid Xpress DV before turning off your equipment.

To turn off your equipment:

1. Choose Shut Down from the Apple menu.
2. Turn off your speakers and monitors.
3. Turn off each external media drive.
4. Turn off all other hardware.



Never remove external media drives from your Avid Xpress DV system when it is turned on. Shut down the computer and drives before you move drives.

Chapter 3

About Avid Xpress DV

This chapter explains the basic concepts and terminology that you need to be familiar with to edit video with Avid Xpress DV. This chapter contains the following sections:

- [About DV](#)
- [Nonlinear Editing with Avid Xpress DV](#)
- [Avid Xpress DV Terms and Concepts](#)
- [The Avid Xpress DV File System](#)
- [Project Workflow](#)

About DV

The initials DV in the product name Avid Xpress DV stand for *digital video*. More specifically, they refer to digital video that is transferred through equipment conforming to IEEE Standard 1394. This equipment (cameras, video and audio decks, cables, connectors, and processing boards) is sometimes referred to as FireWire or i.LINK. DV connections let you transfer digital data (both video and audio) directly from a DV camera to a digital, nonlinear editing system with no conversion losses. DV technology simplifies the process of bringing footage from your camera into your Avid Xpress DV system, and gives you high-quality video at low cost.

Nonlinear Editing with Avid Xpress DV

In traditional video editing, you electronically copy (dub) video and audio footage from a source tape to a master tape. This process is tedious, however, and it is difficult to make changes to your work.

By contrast, when you edit with Avid Xpress DV, you don't have to dub footage onto a master tape. Instead, you manipulate Avid Xpress DV *clips*, which are segments of the media that contain pointers to your digital audio and video files. Avid Xpress DV allows you to experiment with every edit you make. You can trim, move, delete, duplicate, or modify individual frames or entire segments, and immediately see the results. This type of editing is called *nonlinear* because you are not limited by the traditional video editing need to dub one clip after another.

Avid Xpress DV Terms and Concepts

This section explains the following terms and concepts to help you understand the Avid Xpress DV editing process:

- [Media Files](#)
- [Clips](#)
- [Subclips](#)
- [Sequences](#)
- [Bins](#)
- [Projects](#)
- [The Attic Folder](#)

Media Files

Media files store source material.

When you record source material from a camera or deck, or when you import computer graphic files into your Avid Xpress DV project, the material is saved in *media files* on your system's media drive or drives. One media file is created for each track of video or audio. For a video with a

stereo sound track, three media files are created: one track of video and two tracks of audio. Media files are stored in the OMFI MediaFiles folder and each media drive has its own OMFI MediaFiles folder.

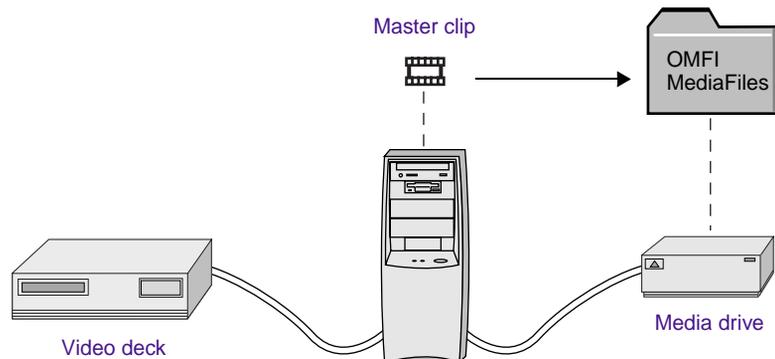


Even though your media files contain the actual source material for the program, you never manipulate the media files directly. Instead, you move, copy, and edit clips, subclips, and sequences, which are pointers to the media files.

Clips

Clips point to media files.

When you record media, Avid Xpress DV creates a *master clip* on your system's internal hard drive (Windows) or Macintosh HD (Macintosh). The master clip is simply a pointer to its corresponding media file, which is located in the OMFI MediaFiles folder on a media drive. A media drive can be inside the computer (an *internal media drive*) or outside the computer (an *external media drive*).



While editing your video, you create other clips, such as graphic clips and effects clips. You make your edits by modifying clips, and the corresponding media files remain unchanged. This feature allows you to easily create and undo edits without destroying your original material.

Because you work with clips instead of media files, you can create virtually unlimited versions of a program without creating multiple copies of the source material, which is stored in extremely large files.

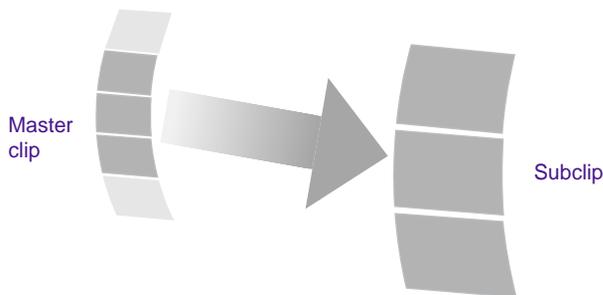
Subclips

Subclips are sections that you mark within clips.

Subclips are sections of clips that you want to use in your sequence. You create a subclip by marking IN (start) and OUT (end) points in a clip, pressing and holding the ALT key (Windows) or Option key (Macintosh), and dragging the clip to the bin. The subclip is composed of the material between the IN and OUT points.



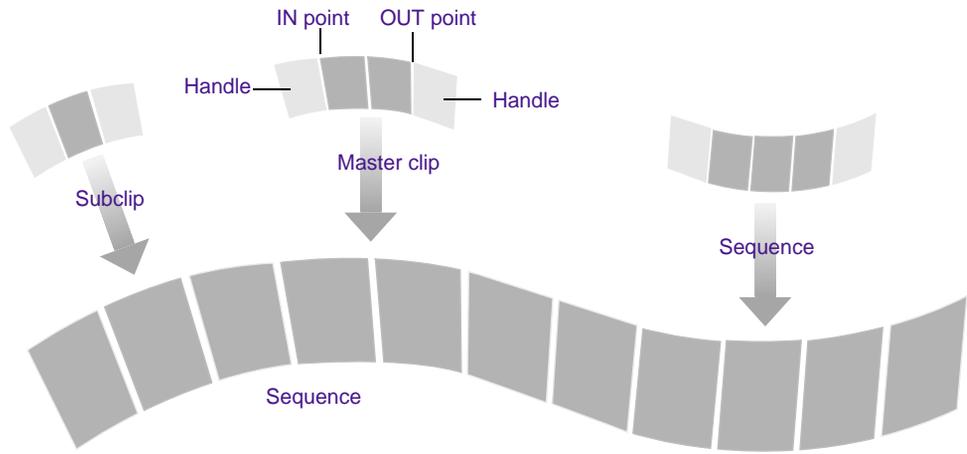
A subclip points to a media file's master clip. You must not delete the master clip from which a subclip was created. If you delete the master clip, you will lose the information in the subclip.



Sequences

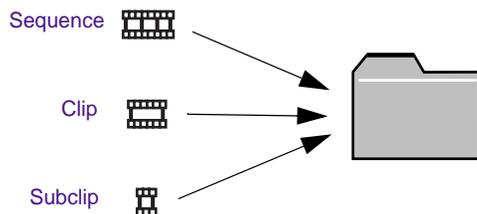
A sequence is a program created from one or more clips and subclips.

You can join different clips and subclips to create a *sequence*. A sequence can include edited material from master clips and subclips, new clips created when you add effects during the editing process, and material from other sequences.



A sequence is composed of marked material from clips, subclips, and other sequences. The material outside the IN and OUT points remains in the media file's master clip. These segments of material are called *handles*. Handles are important; you need them to trim cuts and create transition effects between segments. For more information about trimming cuts, see [“Dual-Roller Trimming” on page 157](#). For more information about transition effects, see [“Adding a Dissolve Effect \(Fade In\)” on page 163](#).

Like clips and subclips, a sequence contains pointers to media files, which are stored in the OMFI MediaFiles folder. If you delete a clip used to create a sequence, the sequence still displays the media, because the sequence contains its own pointers to the media files.



Bins

You organize your footage in bins.

Clips, subclips, and sequences are organized and stored in *bins*. Traditionally, a bin is a place where film editors store reels of film. In Avid Xpress DV, bins represent a database for organizing the material for a project.

Projects

A project consists of one or more bins. You edit sequences within a project.

You gather the material you need to create a program in a *project*. Each project contains information about bins, clips, subclips, sequences, and the program in the Timeline. You might have several projects on your system, but you can work on only one project at a time.

The Attic Folder

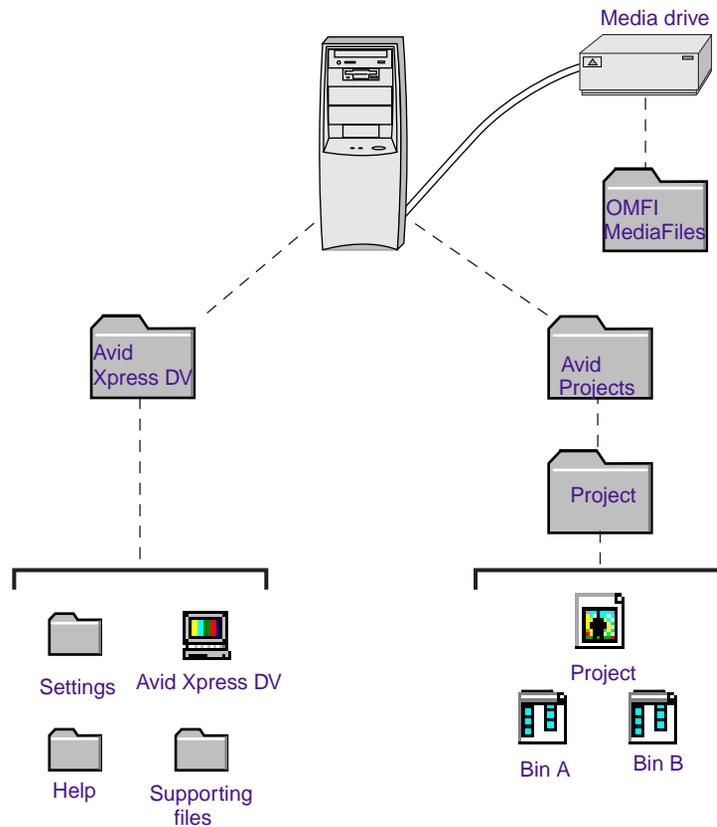
For a complete description of retrieving bins from the Attic folder, see the *Avid Xpress DV User's Guide* or Help.

Avid Xpress DV saves copies of your current project and its bins at regular intervals and whenever you save or close a project or bin. These auto-save files are stored in the *Attic folder* at the top level of the internal hard drive (Windows) or Macintosh HD (Macintosh). If you lose work due to a power outage or system error, open the Attic folder and look for a project or bin of the same name with the file name extension.bakxx, where xx is the version number. For example, the first backup file for the Saturn Bin would be named Saturn Bin.bak01. Later versions would be named Saturn Bin.bak02, Saturn Bin.bak03, and so on.

The Avid Xpress DV File System

The following illustration shows the different kinds of Avid Xpress DV files and where they are stored. The Avid Xpress DV application folder is stored on your computer's internal hard drive (Windows) or Macintosh HD (Macintosh). The Avid Projects folder is also stored on an internal drive; the location varies, depending on your installation. An OMFI MediaFiles folder is stored on each media drive. Media files must be stored on a separate, Avid-approved media drive that is guaranteed to be fast enough to support video playback.

For complete information about folders and files, see the *Avid Xpress DV User's Guide* or Help.



Project Workflow

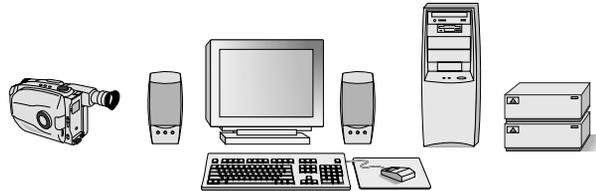
The following sections illustrate the four stages of a typical Avid Xpress DV project: starting a project, preparing to edit, editing a sequence, and generating output.

Complete procedures for each stage are included in the printed manuals, online books, and Help.

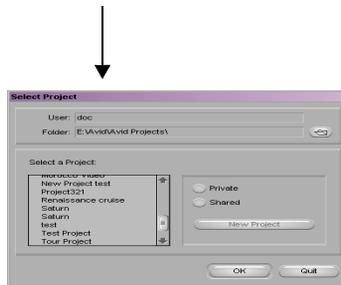
Starting a Project

Starting a project involves the following steps:

1. Turn on your equipment in the correct order and start the software. (Speakers and external media drives are optional.)

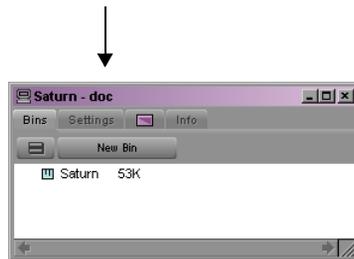


1. Turn on and start your Avid system.



2. Select or create a new *project*: the job that will result in one or more finished *sequences*.

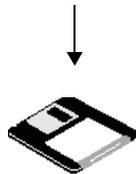
2. Select or create a project.



3. Create and organize *bins*.

3. Create and organize bins.

4. *Back up* your project on a regular basis.



4. Back up the project.

Preparing to Edit

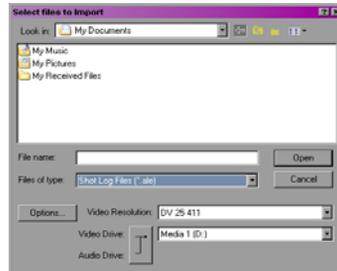
Preparing to edit involves the following steps:

1. (Optional) Import your log files into the bins, or log the material manually.

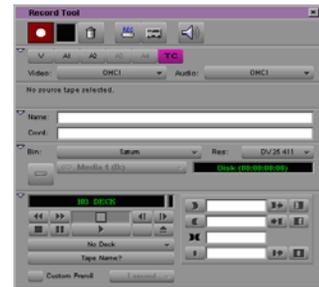
2. Record your DV footage, creating *media files* and *master clips*.

3. Work with bins and clips to organize your source material for easy access during editing.

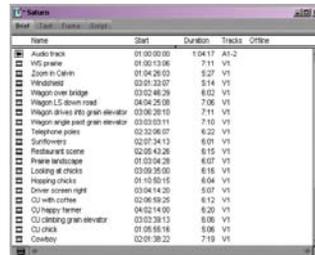
4. (Optional) Build a *storyboard* to begin previsualizing your final cut before editing.



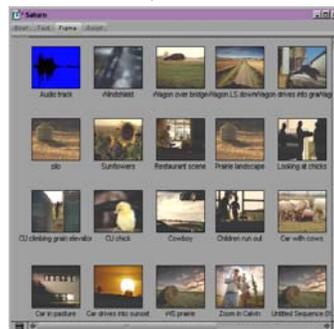
1. (Option) Import shot logs into the bin.



2. Record footage, creating master clips and media files.



3. Sort and organize clips in the bins.



4. Previsualize with storyboards.

Editing a Sequence

Editing a sequence involves the following steps:

1. View your clips in advance and mark *IN* points and *OUT* points, or create *subclips* based on selected portions of your master clips.

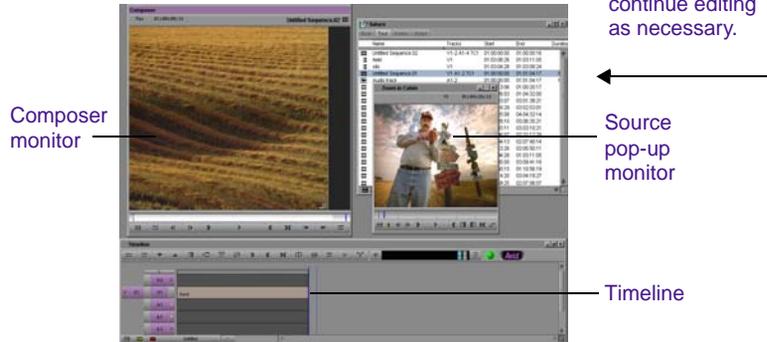
2. Build your sequence using editing controls with the Timeline, Source pop-up monitors, and the Composer monitor.

3. Fine-tune your edits and effects using functions of the various edit modes, such as Segment mode, Trim mode, and Effect mode.

4. Adjust and mix multiple audio tracks and prepare for final playback or output, using the *Audio tool* and *Audio Mix tool*.

5. Return to editing if further adjustments are required.

1. Screen, mark, and subcatalog footage.



2. Edit with Timeline and monitors.



3. Fine-tune edits and effects.

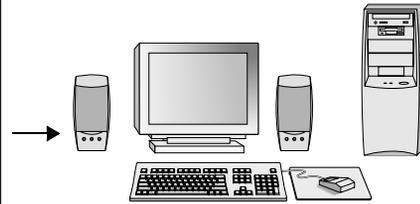
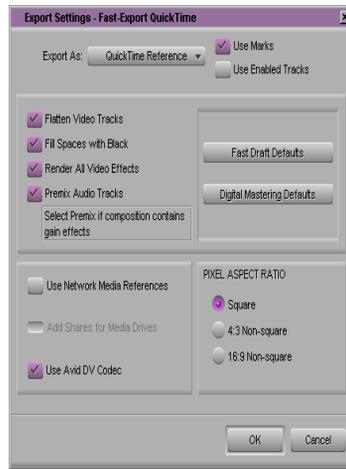


4. Fine-tune audio pan, volume, and EQ.

Generating Output

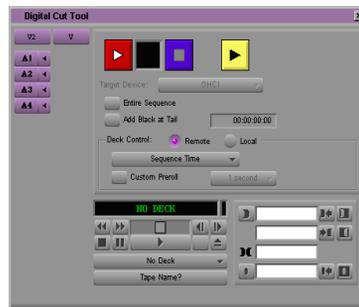
Generating various forms of output based on your sequence involves selecting among several options:

Export material for audio sweetening or graphics enhancement in a third-party application, for incorporating into a multimedia project, or for publishing on the Internet.



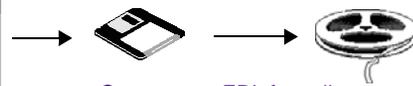
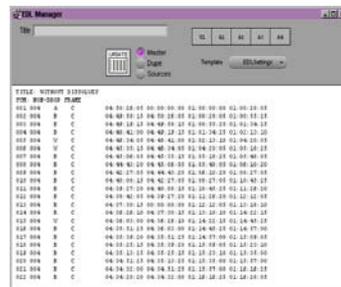
Export material for additional processing, for incorporating into a multimedia project, or for publishing on the Internet.

Record the final sequence to tape as a digital cut.



Record a digital cut directly to tape.

Generate an EDL for online videotape editing.



Generate an EDL for online videotape editing.

Chapter 4

Learning How to Use Avid Xpress DV

This chapter explains the different resources that can help you learn how to use your Avid Xpress DV system. This chapter contains the following sections:

- [Using the Tutorial](#)
- [Using Help](#)
- [Using Online Documentation](#)
- [Tips and Other Resources](#)

Using the Tutorial

The self-paced tutorial chapters in this guide are designed as guided Avid editing sessions, using the basic features of the Avid system. In this tutorial, you're going to edit a 1-minute sequence. You can publish the sequence on tape, DVD, CD-ROM, or stream it across the Internet.

The footage for the sequence is supplied on the Avid Xpress DV Tutorial CD-ROMs that came with your system. This footage is DV media that has already been recorded and is ready for you to use. Footage is supplied in either NTSC or PAL format, which is indicated on the CD-ROMs.

This tutorial does not cover the process of recording video and audio from a camera or video deck. You can find instructions for recording in the *Avid Xpress DV User's Guide* and Help.

Before you begin, make sure you have installed the tutorial media and project files (see [“Installing the Avid Xpress DV Tutorial Files \(Windows\)” on page 50](#) and [“Installing the Avid Xpress DV Tutorial Files \(Macintosh\)” on page 60](#)).

Depending on your level of expertise in editing on Avid systems, you can select to work through the tutorial in either of two ways.

- ▶ If you have no experience with Avid Xpress DV or other Avid systems, you should go through the entire tutorial.
- ▶ If you have used other Avid systems, you might want to read certain chapters to understand the specific features of Avid Xpress DV and complete the tutorial tasks in that chapter. For most chapters, you can load a sequence that includes the work done up to that point.

Completing the entire tutorial can take from 3 to 4 hours.

Using Help

You can get help and background information for tasks, windows, dialog boxes, and screen objects through your Avid Help system. Your Help system is HTML-based and operates in a Web browser. You need Version 4.5 or later of Microsoft® Internet Explorer.

Setting Up Your Browser

You must have cookies enabled in your browser to use several capabilities of your Avid Help system. Avid does not retain personal information about you or your system other than your frequently visited Help topics.

To enable cookies:

1. Choose Internet Options from the Internet Explorer Tools menu.
2. Click the Privacy tab.
3. Click the slider and drag it toward the bottom to Accept All Cookies.
4. Click Apply, and then click OK.

Getting Help for Windows and Dialog Boxes

The Help system provides you with context-sensitive Help for windows and dialog boxes, such as tools and settings.

To get Help for windows and dialog boxes:

1. Make sure the Avid application is active.
2. Position the mouse pointer anywhere in the window or dialog box for which you want help.
3. Press the F1 key (Windows) or Help key (Macintosh) on the keyboard.

If there is no information about a window or dialog box, a Navigation Canceled message appears in the browser. Open Help and use the Search or Index functions to look for information on that window or dialog box.

Getting Help for Screen Objects

You can use What's This? Help to find out about buttons and other screen objects.

To get Help for screen objects:

1. Do one of the following:
 - ▶ (Windows) Using the right mouse button, click the screen object (for example, a button).
 - ▶ (Macintosh) Ctrl+Shift+click the screen object (for example, a button).

A pop-up menu appears.

2. Choose What's This? from the pop-up menu.

A browser window opens that explains how you use the item. Many windows include a link (marked by underlined text) to more information.



(Windows only) For some dialog boxes, such as Import and Print, use the Question Mark button to access What's This? Help.

Keeping Help Available (Windows Only)

When you access a Help topic and then return to the Avid application, the Help browser disappears behind the Avid system.

To keep Help available, you can use one of the methods in the following topics:

- [Restoring Help from the Taskbar \(Windows Only\)](#)
- [Resizing the Application \(Windows Only\)](#)
- [Using Alt+Tab to Restore Help \(Windows Only\)](#)

Restoring Help from the Taskbar (Windows Only)

You can restore Help from the taskbar at the bottom of the screen. All your active applications are represented by buttons on the taskbar.

To restore Help, click the browser button on the taskbar, and Help reappears.



If you can't see the taskbar, you might have set a property that hides it.

To keep the taskbar on top:

1. Right-click in an area of the taskbar where there are no buttons.
2. Choose Properties from the pop-up menu.
The Taskbar Properties dialog box appears.
3. Select Always on top.

4. Deselect Auto hide.
5. Click OK.

The taskbar remains visible at all times.



If you want the taskbar to appear only when you pass the pointer over the bottom of the screen, select Auto hide along with Always on top.

Resizing the Application (Windows Only)

To resize the application and leave Help available:

1. With Help active, click the purple Help title bar and drag it to the top of the screen.
2. Click in the Avid application.

The Help browser disappears behind the Avid system.



3. Click the Restore button in the top right corner of the application.

The application shrinks slightly and reveals the Help browser behind it.

This allows you to click back and forth between the application and the Help browser without significantly reducing the size of the Avid application.

Using Alt+Tab to Restore Help (Windows Only)

To use Alt+Tab to restore Help:

1. Press and hold the Alt key.
2. Press and release the Tab key, but keep holding the Alt key.

A window opens containing icons and names for all the applications currently started on your system. A box surrounds the active application.

3. Continue to hold the Alt key and press and release the Tab key until the box surrounds the Help browser icon, and then release both keys.

Finding Information Within Help

You see the Help browser when you open Help from the Help menu. The left frame of the Help browser includes a Contents list and buttons for several other methods of finding information.

Using the Contents List

The Contents button provides a list of topics covering the entire Help system.

To view the Contents list using the Contents button, do one of the following:

- ▶ From the Help menu, choose Avid Xpress DV Help, and then click the Contents button.
- ▶ From a Help topic, click the Contents button.

To display a topic, double-click the topic title in the Contents list.



(Macintosh only) The Contents displays only the top-level topics. Many entries link to subtopics with related information or procedures.

You can print a topic by clicking the right mouse button and choosing Print from the pop-up menu.

Using the Index

The Index button provides an alphabetized list of entries, like the index of a printed book.

To find topics using the Index button:

1. From the Help menu, choose Avid Xpress DV Help, and then click the Index button (or click the Index button from a Help topic).
2. From the alphabet at the top, select the letter that begins the topic you want to find (for example, click **A** to jump to index entries listed under audio).
3. Scroll through the topics beginning with that letter until you find the topic you want.

4. Click the number to the right of the index entry. The number indicates how many topics that index entry has associated with it.

The topic opens in the right frame of the browser.

Using the Search Feature

The Search button lets you search the entire Help system for words or phrases, and then lists topics that include those words or phrases.

To search for topics using the Search button:

1. From the Help menu, choose Avid Xpress DV Help, and then click the Search button (or click the Search button from a Help topic).
2. In the text box, type the word or phrase you want to find. You can type up to three words, not including invalid words like “the” or misspellings.
3. Press Enter (Windows) or Return (Macintosh) or click the Search button.

A list shows topics that contain the word or words for which you searched.



Do not type quotation marks or asterisks in the text box.

4. Click a topic in the list.

The topic opens in the right frame of the browser.

Using the Glossary

The Glossary defines and explains many terms common to the industry. Some entries might not apply to your particular system.

To use the Glossary:

1. Click the Glossary button.
2. Click the letter that begins the term or concept for which you are searching.
3. Scroll through the section to find your term.
4. Click links to see related information.

Printing Help Topics

You can print a Help topic if you need to refer to it during a complicated procedure or for reference later.

To print a Help topic:

1. Open or click the topic to make it active.
2. Choose Print from the browser File menu, or click the Print button in the browser toolbar.
3. Select the print options.
4. Click OK (Windows) or Print (Macintosh).

(Windows only) You can print a topic by clicking the right mouse button and choosing Print from the pop-up menu.

Using Online Documentation

The *Avid Xpress DV Online Publications* CD-ROM includes:

- *Avid Xpress DV User's Guide*
- *Avid Xpress DV Effects Guide*
- *Avid Xpress DV Getting Started Guide* (this book)
- *Avid Color Correction User's Guide*
- *Avid EDL Manager User's Guide*
- *Avid FilmScribe User's Guide* (optional software)
- *Avid IllusionFX Guide* (optional software)
- *Avid Xpress DV User's Guide Supplement*
- *Avid Xpress DV Tour*
- Avid Xpress DV Help

The books are PDF files. You can view them with the Adobe Acrobat Reader, which you can install from the CD-ROM.

The online version of the books enables you to:

- Navigate through books using bookmarks and hyperlinks.
- Speed up information retrieval by performing keyword searches.
- Annotate the books with your own notes.
- Zoom in on a page, enabling closer review of text and images.
- Print any or all pages.
- View the books with full-color graphics.
- View movies that illustrate Avid Xpress DV effects.



Avid gives you permission to print up to three complete copies of each book.

Tips and Other Resources

The following are a few tips for taking full advantage of the Avid Xpress DV documentation and other resources:

- Complete the tutorial chapters in this guide before starting a project.
- Begin learning about basic procedures using the default settings. As your confidence increases, explore additional procedures and settings.
- Instead of using the standard menus to find the command you need in a window, try using shortcut menus. Using the right mouse button (Windows only), click in a window to open a shortcut menu that shows the most frequently used commands for that window.
- Keep the *Avid Xpress DV Quick Reference* for your specific platform available during editing sessions.
- Read Avid's newsletters, mailings, and other trade publications.
- Make use of additional training resources provided by Avid whenever possible, such as classes and instructional videotapes. For more information, contact Avid at 800-867-2843.
- Check the following Avid Web site for listings of courses, schedules, and locations:

www.avid.com/training/courses

Chapter 5

Starting a Project

In this chapter, you start the application and then select a project.



Before starting the tutorial, make sure you have installed the tutorial files (see “Installing the Avid Xpress DV Tutorial Files (Windows)” on page 50 and “Installing the Avid Xpress DV Tutorial Files (Macintosh)” on page 60).

This chapter contains the following sections:

- Starting Avid Xpress DV (Windows)
- Starting Avid Xpress DV (Macintosh)
- Changing Users
- Using User Profiles
- Selecting a Project
- Viewing Clips
- Closing the Project and Quitting the Application

Starting Avid Xpress DV (Windows)

You can create a shortcut on the desktop and start the application by double-clicking the icon. See your Windows documentation.

You start the Avid Xpress DV application the same way you start most Windows applications.

1. Click the Start button.
2. Point to Programs, point to Avid, and select Avid Xpress DV.

The first few times you start Avid Xpress DV, a window opens that contains the License Agreement.

3. To accept your Avid Xpress DV product license electronically:
 - a. Read the License Agreement, and then click the Yes button or the No button at the bottom of the screen.

The agreement appears the first several times you start Avid Xpress DV. After several starts, a new button appears at the bottom of the screen labeled Yes, and Don't Show Again.

- b. If you don't want to see the License Agreement again, click the Yes, and Don't Show Again button.

A dialog box appears.

- c. Enter the name of your organization in the dialog box, and click OK.

After you accept the License Agreement, the Product Registration dialog box appears. This allows you to register your Avid Xpress DV product.



4. To register your Avid Xpress DV product:
 - a. **Register Online** - Opens a Web browser with the Avid Xpress DV Product Registration form. Fill out the form and click Submit.

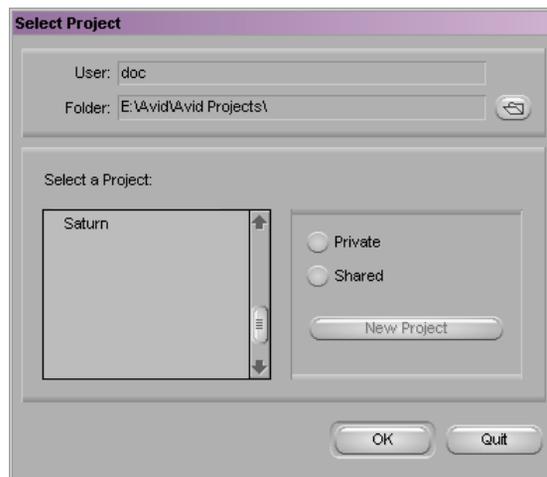
- b. **Display Registration Form to Print** - Opens the Avid Xpress DV Product Registration form and allows you to print the form, fill it out, and then mail it back to Avid.
- c. **Don't Register Now** - Click this button if you do not want to register your product at this time.



You can also obtain the online and printable version of the Avid Xpress DV Product Registration form from within the Avid Xpress DV application. Choose Product Registration from the Help menu and then select either the “Register Online” or the “Display Registration Form to Print” option.

After you register, the Select Project dialog box appears.

The Saturn project you installed in the Avid Projects folder in [Chapter 2](#) appears in the Projects scroll list.



The name you used to log on to your Windows system is selected as the user.

You can change users. You can select projects from the Select Project dialog box, or choose to have your last project open automatically. You can also establish user profiles.

Starting Avid Xpress DV (Macintosh)

To start the application:

1. Double-click the Avid icon alias on the desktop.

The first few times you start Avid Xpress DV, a window opens that contains the License Agreement.

2. To accept your Avid Xpress DV product license electronically:
 - a. Read the License Agreement, and then click the Yes button or the No button at the bottom of the screen.

The agreement appears the first several times you start Avid Xpress DV. After several starts, a new button appears at the bottom of the screen labeled Yes, and Don't Show Again.

- b. If you don't want to see the License Agreement again, click the Yes, and Don't Show Again button.

A dialog box appears.

- c. Enter the name of your organization in the dialog box, and click OK.

After you accept the License Agreement, the Product Registration dialog box appears. This allows you to register your Avid Xpress DV product.



3. To register your Avid Xpress DV product:
 - a. **Register Online** - Opens a Web browser with the Avid Xpress DV Product Registration form. Fill out the form and click Submit.
 - b. **Display Registration Form to Print** - Opens the Avid Xpress DV Product Registration form and allows you to print the form, fill it out, and then mail it back to Avid.

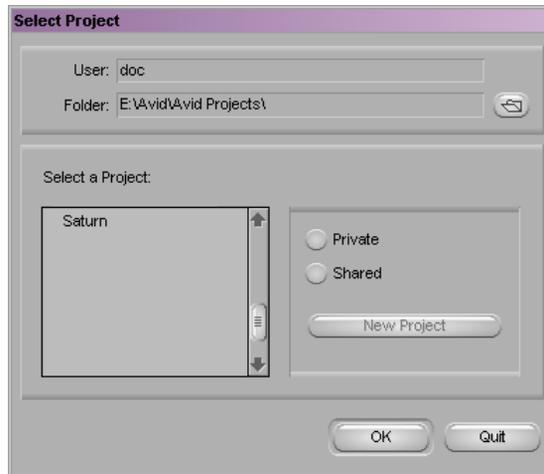
- c. **Don't Register Now** - Click this button if you do not want to register your product at this time.



You can also obtain the online and printable version of the Avid Xpress DV Product Registration form from within the Avid Xpress DV application. Choose Product Registration from the Help menu and then select either the "Register Online" or the "Display Registration Form to Print" option.

After you register, the Select Project dialog box appears.

The Saturn project you installed in the Avid Projects folder in [Chapter 2](#) appears in the Projects scroll list.



The name you used to log on to your Macintosh system is selected as the user.

You can change users. You can select projects from the Select Project dialog box, or choose to have your last project open automatically. You can also establish user profiles.

Changing Users

To change Avid Xpress DV users:

1. Quit Avid Xpress DV.
2. Do one of the following:
 - ▶ (Windows) Press Ctrl+Alt+Delete, click the Log Off button, and then log on as a different user.
 - ▶ (Macintosh) Choose Log Out from the Apple menu, click Log Out, and then click a new user.



(Macintosh only) You have to create a new user before you can change to that user. See your Macintosh documentation or the Macintosh Help.

3. Start Avid Xpress DV.

Your current login name appears as the user in the Select Project dialog box.

You can select projects from the Select Project dialog box, or choose to have your last project open automatically.

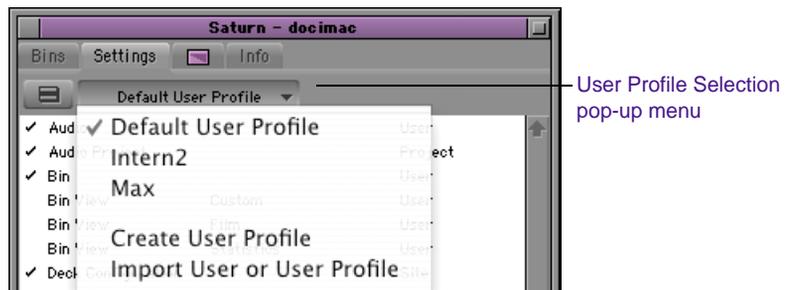
Using User Profiles

You can establish different profiles for a single user without having to log out of your system and then having to log back in under a different name (see [“Changing Users” on page 110](#)). You might want separate editing functions to have separate settings. User “Kim,” for example, can have separate profiles for “Audio editor,” “Film editor,” or for “Assistant 1,” “Assistant 2,” and so on. These profiles have separate folders and settings that are kept in the Users/*UserName* folder.

Creating a User Profile

To create a user profile:

1. Click the Settings tab in the Project window.
2. Choose Create User Profile from the User Profile Selection pop-up menu.



The Create User Profile dialog box appears.



3. Type a name in the Profile Name text box, and then click OK.

The new user profile appears selected in the pop-up menu, and the user profile name appears in the Project window title bar.

Changing User Profiles

To change a user profile:

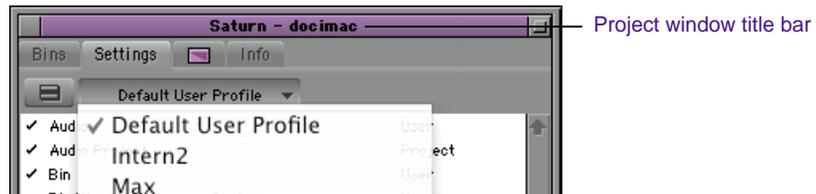
1. Click the Settings tab in the Project window.
2. Choose a different profile from the User Profile Selection pop-up menu.

To return to the default user profile:

1. Click the Settings tab in the Project window.
2. Choose Default User Profile from the User Profile Selection pop-up menu.



When you choose Default User Profile, your login name appears in the Project window title bar. When you choose another user profile, the user profile name appears in the Project window title bar.



Selecting a Project

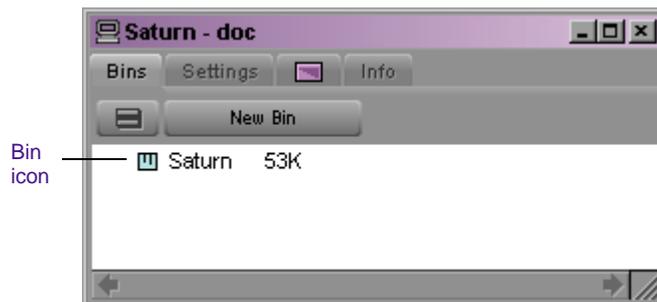
To select a project:

1. Select Saturn from the Projects scroll list, and click OK.

If the Saturn project does not display in the Projects scroll list, you might have installed it to a different location. Click the Browse button and locate the Saturn project.

The Project window opens. It displays the **Saturn** bin.

To get Help for the Project window, click in the Project window and press the F1 key (Windows) or Help key (Macintosh).



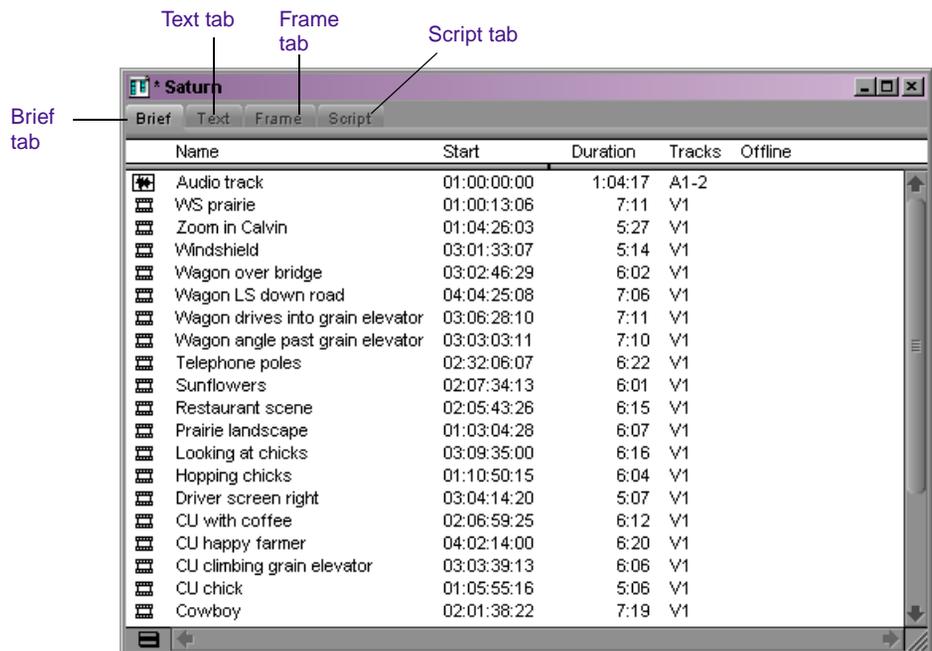
2. Double-click the bin icon to open the **Saturn** bin.

This bin contains the clips you need to build the tutorial sequence.

Viewing Clips

You can use four views for working with clips in a bin: Brief view, Text view, Frame view, and Script view:

- *Brief view* displays only five standard columns of information about your clips and sequences.
- *Text view* displays many columns of information about your clips and sequences.
- *Frame view* displays each clip as a single representative image.
- *Script view* displays each clip with an image and an area in which to enter text as part of a storyboard.

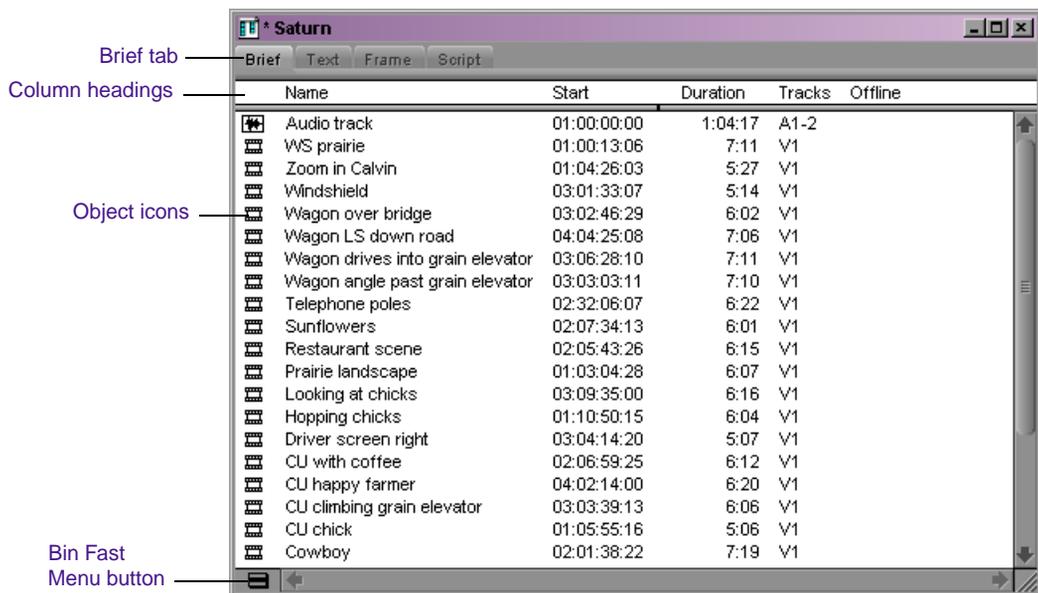


Using Brief View

Let's look at Brief view:

- ▶ Click the Brief tab in the upper left corner of the bin window to view brief information about clips in the **Saturn** bin.

Clips are displayed in a database text format that uses columns and rows, with icons representing the various objects. Brief view displays only five standard columns of information about your clips and sequences.



Using Text View

Let's look at Text view:

Text view is the default bin setting.

1. Click the Text tab in the upper left corner of the bin window to view information about clips in the **Saturn** bin.

If the tab is highlighted, you are already in Text view.

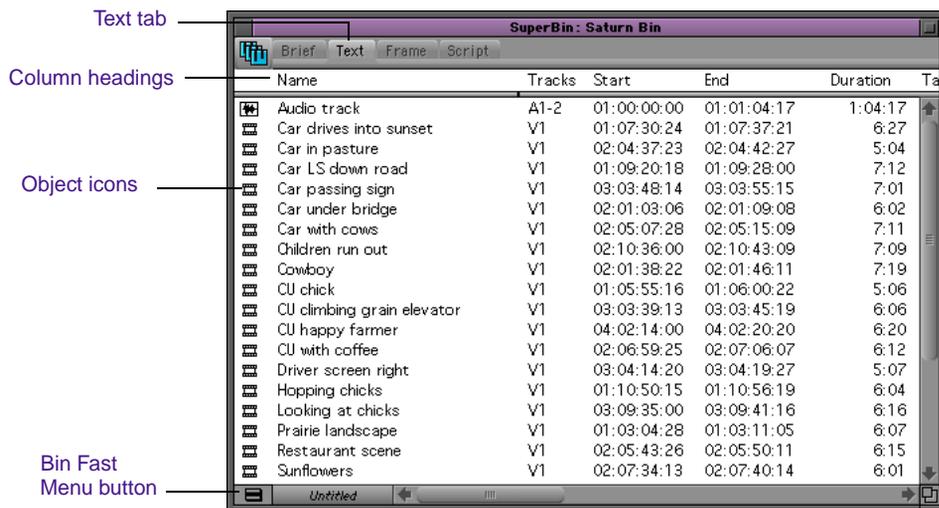
In Text view, you can rearrange the clips in the bin by sorting on a particular column. Let's first sort by Start time, and then sort by Name so the clips return to alphabetical order.

2. Click the Start heading in the bin.
3. Choose Sort from the Bin menu.

The clips are rearranged according to Start time.

4. Click the Name heading in the bin.
5. Choose Sort from the Bin menu.

The clips are returned to alphabetical order.



Using Frame View

Frame view presents each clip as a single picture frame, with the name of the clip. You can play back the footage in each frame, change the size of frames, and rearrange frames in any order within the bin.

Let's look at Frame view:

1. Click the Frame tab in the upper left corner of the bin window to see a picture-frame representation of each clip in the bin.

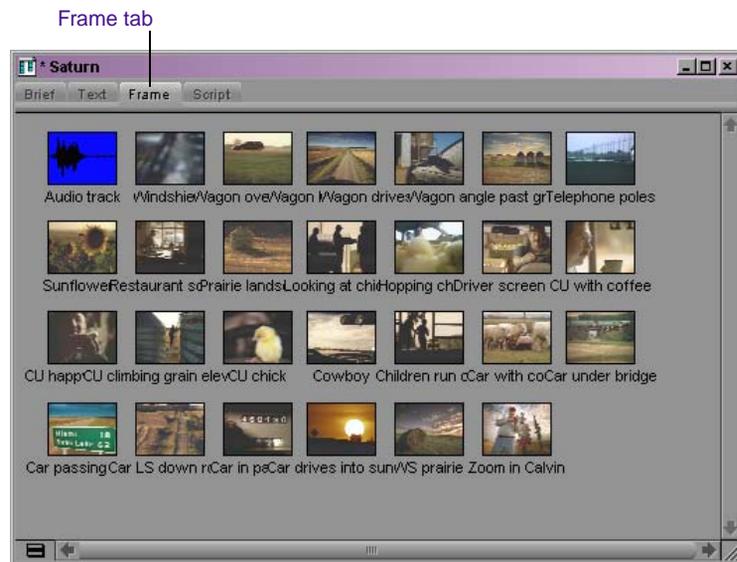


The sorted order of clips does not carry over to Frame view.

2. Choose Enlarge Frame from the Edit menu.
3. If some clips are now off screen, choose Fill Window from the Bin menu.

The clips are arranged in neat rows and columns in the bin.

4. Click one of the clips, and press the L key (Play) on the keyboard.
The clip plays in the bin.
5. Press the space bar (Stop) to stop playing the clip.

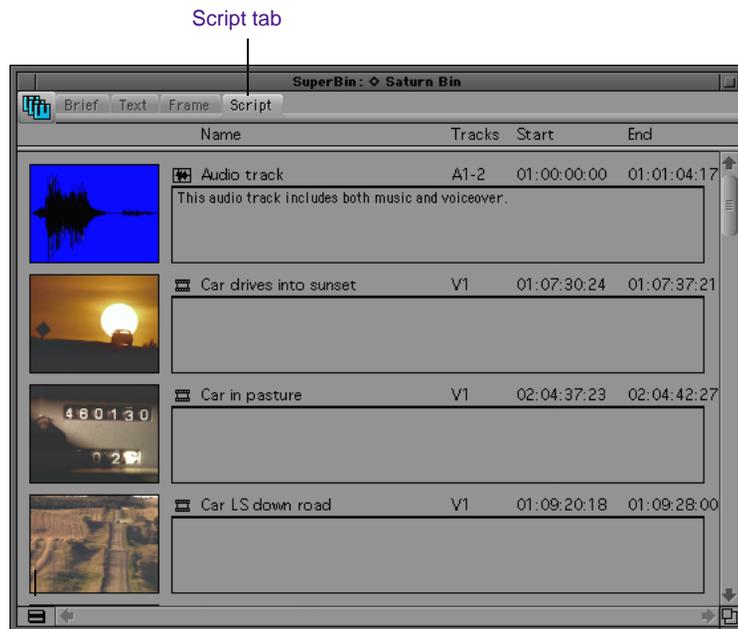


Using Script View

Script view combines the features of Frame view with Text view and includes space for typing notes or script. The frames are displayed vertically on the left side of your screen with a text box to the right of each clip. Clip data is displayed above the text box.

Let's look at Script view:

1. Click the Script tab in the upper left corner of the bin window to see a picture-frame representation of each clip in the bin along with space for typing notes or script.
2. Click in the text box next to the Audio Track clip.
3. Type **This audio track includes both music and voiceover.**



4. Click the Text tab to return to Text view.

Closing the Project and Quitting the Application

To close the project and quit the application immediately, choose Exit from the File menu (Windows) or choose Quit from the AvidXpressDV menu (Macintosh), or click the Close button (Windows) or close box (Macintosh) in the Avid Xpress DV title bar.

If you want to close the project and quit the application:

1. Click the Project window to activate it, and then click the Close button (Windows) or close box (Macintosh).

The system saves and closes the project. The Select Project dialog box appears.

2. Click Quit.

A dialog box appears and asks if you want to quit the application.

3. Click Leave.

The application quits.

The next time you open the project, select your project name, and resume the tutorial with the next section.

You've completed this tutorial section. In [Chapter 6](#), you'll learn how to open, play, and mark a clip.

Chapter 6

Playing and Marking Clips

In the this chapter, you display and play several clips, you learn to mark footage, locate IN and OUT points, and create subclips in the Source pop-up monitor. This chapter contains the following sections:

- [Exploring the Project Window](#)
- [Opening a Clip in the Source Pop-Up Monitor](#)
- [Using Toolsets](#)
- [Displaying Tracking Information](#)
- [Controlling Playback](#)
- [Opening and Using the Tool Palette](#)
- [Using the Command Palette](#)
- [Marking Edit Points](#)
- [Creating Subclips](#)

Exploring the Project Window

Click in the Project window and press the F1 key (Windows) or Help key (Macintosh) to open Help for the Project window.

The Project window must remain open whenever you are working in Avid Xpress DV. Depending on the tab you click, the Project window displays a list of bins, a list of settings, or information about your system.



If the Project window becomes hidden by other windows, bring it forward by choosing Project from the Tools menu.

The Bins Display

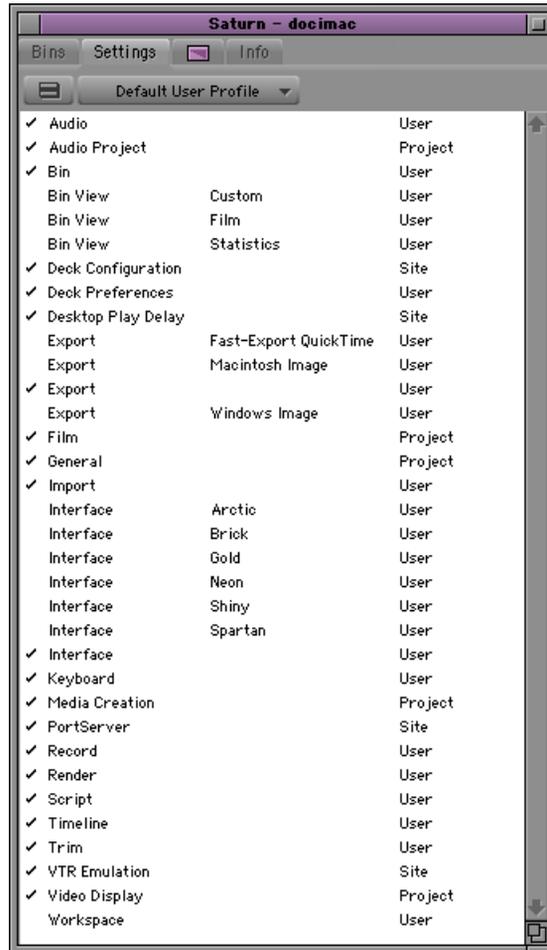
The Bins display lists the bins, or storage areas, created to hold your clips and sequences (you'll learn more about bins later in this chapter). For the Saturn project, there is only one bin.

The Settings Display

For more information, see the *Avid Xpress DV User's Guide* or press the F1 key (Windows) or Help key (Macintosh) for Help.

Click the Settings tab at the top of the Project window. A list of settings appears. This list is called the Settings scroll list. Settings are groups of options you can select, depending on your needs and preferences.

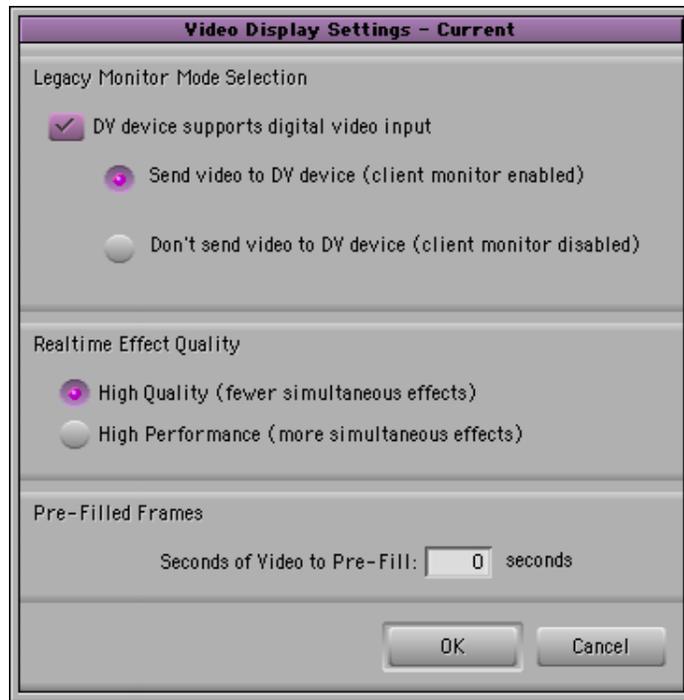
The right column displays the type of setting. User settings are associated with the current user, and Project settings are associated with the project.



Especially important for Avid Xpress DV are the Video Display settings. Check the settings now.

1. Scroll down the list of settings and double-click Video Display.

The Video Display Settings dialog box appears.



The top part of the dialog box gives you a choice for how to display video on your desktop.

2. If you have a Client monitor (a separate monitor that displays NTSC or PAL video) and camera attached to your system, and you want to view the video on the Client monitor, select the “DV device supports digital video input” option.
3. Then select the “Send video to DV device (client monitor enabled)” option.

This option might already be selected.

4. Click OK to close the Video Display Settings dialog box.

The Info Display

Click the Info tab at the top of the Project window. You see the format of the project (NTSC or PAL). You can get information about your system by clicking the Hardware or Memory button.



Click the Bins tab to return to the Bins display.

Opening a Clip in the Source Pop-Up Monitor

When you double-click a clip in a bin, it is loaded by default into the Source pop-up monitor. You can also load a clip by clicking the clip icon and dragging it from the bin to the Source pop-up monitor.

To open the **CU chick** clip:

- ▶ Double-click the **CU chick** clip icon in the **Saturn** bin.

The **CU chick** clip is highlighted in the bin and appears in the Source pop-up monitor.



Using Toolsets

You can use predesigned work environments that are suited to your most common Avid Xpress tasks:

- Basic
- Source/Record Editing
- Effects Editing
- Audio Editing
- Recording

The Toolset menu provides you with five environments, or special-purpose workspaces, that include the following:

- Tools appropriate for the task
- A screen optimized for the task, screen resolution, and number of monitors
- A neatly organized workspace with nonoverlapping windows

You can change the toolset workspace, restore it to the default arrangement, or link it to other settings. For example, you might want each toolset to appear with a different color scheme.

Opening Toolsets

To open a toolset:

- ▶ Choose a toolset from the Toolset menu.

Any open tools close and the screen changes to display windows appropriate to the toolset task.

Source/Record Editing Toolset

The Source/Record Editing toolset displays the Composer monitor as dual monitors. You edit source clips in the left monitor and sequences in the right monitor. You will be using the Source/Record Editing toolset throughout this tutorial



For more information about all the toolsets, see Chapter 3 in the Avid Xpress DV User's Guide.

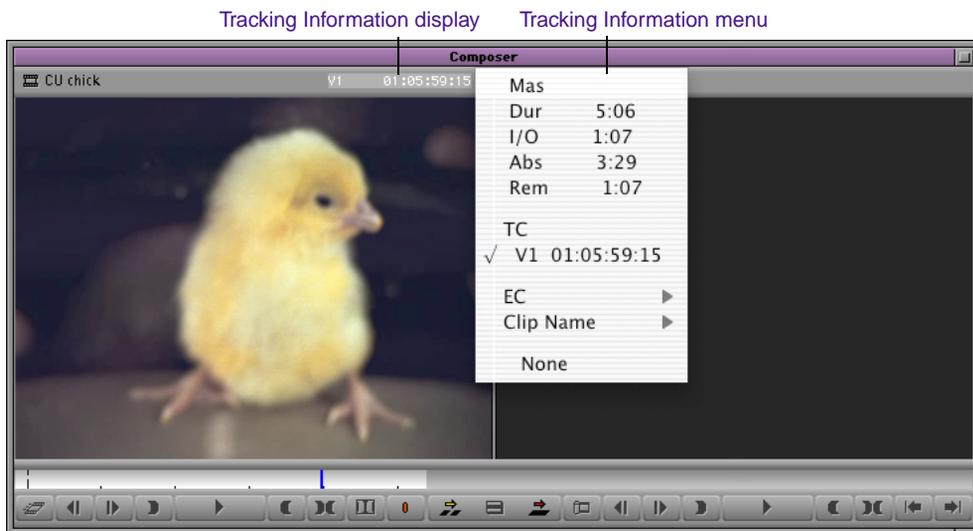
Displaying Tracking Information

For detailed information on Tracking Format options, see the *Avid Xpress DV User's Guide* or Help.

Tracking information consists of any type of format used to identify clips, audio and video tracks, individual frames, or footage durations while you work. This information is updated continuously to reflect your current position in the footage. You can choose various alternative tracking formats from the Tracking Information menu.

To access the Tracking Information menu:

1. With a clip loaded in the Source monitor, click the Tracking Information display above the Source monitor.



2. Choose TC, V1 from the Tracking Information menu.
A check mark means it is selected.

Controlling Playback

There are several ways to move through footage in the Source pop-up monitor:

- Use the mouse to move the position indicator in the position bar to go to a specific position or drag it to scroll through a clip.
- Use the playback control buttons under the Source pop-up monitor.
- Use the playback control keys on the keyboard.

Using the Position Bar and Position Indicator

You can quickly access frames within a clip that has been loaded into the Source pop-up monitor or move through the footage using the position indicator that appears in the position bar under the Source pop-up monitor. You can move the position indicator within the position bar under the Source pop-up monitor by clicking anywhere in the position bar or by dragging the position indicator to the left or right.



The speed with which you drag the position indicator determines the speed at which you move through the footage.

To move through the clip using the position indicator:

1. Locate the vertical position indicator in the position bar under the Source pop-up monitor.



2. Click the position indicator and drag it back and forth in the position bar to move through the clip.
3. Click the position indicator and drag it to the left to go to the beginning of the clip.
4. Click the position indicator and drag it to the right to go to the end of the clip.



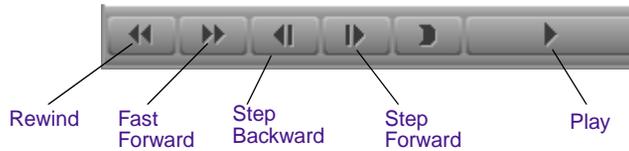
As you move through footage, the Tracking Information display updates frame-by-frame.

Controlling Playback with Playback Control Buttons

Let's use the playback control buttons to look at another clip:

1. Double-click the **Hopping chicks** clip in the **Saturn** bin.
The clip opens in the Source pop-up monitor.

2. Click the Play button under the Source pop-up monitor.

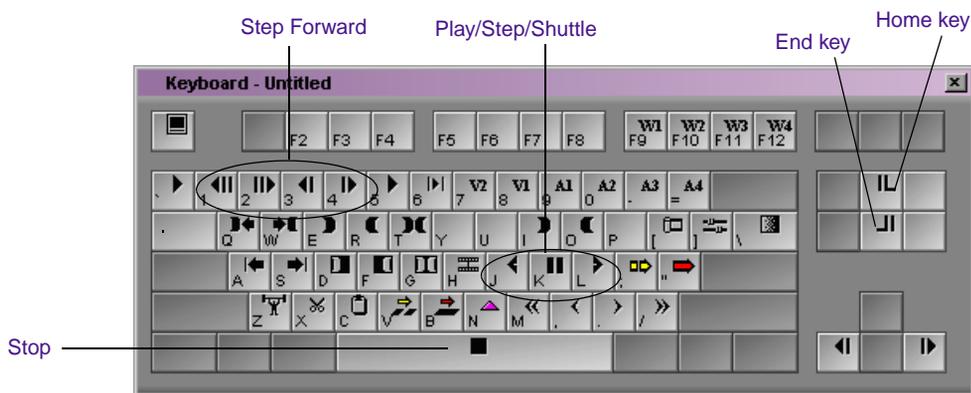


The buttons displayed under the Source pop-up monitor might be different. You can reassign buttons using the Command palette. See “Using the Command Palette” on page 131.

3. Click the Rewind button to go to the head frame of the clip.
4. Click the Step Forward button several times to move through the footage frame-by-frame.
5. Press and hold the Alt key (Windows) or Option key (Macintosh) while clicking the Step Forward button to step forward 10 frames.
6. Click the Fast Forward button to go to the tail frame of the clip.
7. Click the Step Backward button repeatedly to step backward frame-by-frame.

Controlling Playback with Playback Control Keys

The playback control keys on the keyboard allow you to play, step, and shuttle through footage at varying speeds.



Now let's play through the **Sunflowers** clip using the playback control keys:

1. Double-click the **Sunflowers** clip to open it in the Source pop-up monitor.
2. Press the L key (Play) on the keyboard to play the clip forward at normal speed (25 or 30 fps).
3. Press the J key (Play Reverse) on the keyboard to play the clip backward at normal speed.
4. Press the L key (Play) repeatedly to play the clip forward at 60, 90, 150, and 240 fps (NTSC) or 50, 75, 125, and 200 fps (PAL).
5. Press the J key (Play Reverse) repeatedly to play the clip backward at 60, 90, 150, and 240 fps (NTSC) or 50, 75, 125, and 200 fps (PAL).
6. Press the space bar (Stop) to stop playback at any point.
7. Press and hold the K key while you press and hold the L or J key to move forward or backward at slow speed.
8. Press the 3 key (Step Backward 1) and 4 key (Step Forward 1) to step through the footage backward and forward in 1-frame increments.
9. Press the 1 key (Step Backward 10) and 2 key (Step Forward 10) to step through the footage backward and forward in 10-frame increments.
10. Press the Home key to go to the beginning of the clip.
11. Press the End key to go to the end of the clip.

Opening and Using the Tool Palette

Before you continue with your editing, familiarize yourself with the Tool palette. So far you have been using buttons that appear below the Source pop-up monitor or keyboard equivalents. The Tool palette provides you with additional buttons for navigating and editing.

Opening and Tearing Off the Tool Palette

You can also open the Tool palette from the Fast Menu button on a Source pop-up monitor.

Open the Tool palette by clicking the Fast Menu button under the Composer monitor.



To use a button on the Tool palette, just click it. You can also “tear off” the palette and drag it to a different location.

1. If the Tool palette is not open, click the Fast Menu button.
2. Click the pointer and drag it over the buttons and then outside the border of the Tool palette. You should see a dotted line outline. Click the outline and drag it to another location. You see the complete Tool palette, with a title bar and Close button (Windows) or close box (Macintosh).



You can click the Tool palette and drag it to a different location; just click and hold anywhere on the Tool palette and drag it wherever you want. You can also resize it to a square or a single row, to suit the way you want to work.

All buttons in Avid Xpress DV have ToolTips.

To view the name of each button, click the pointer and slowly drag it across each button. You should see a small yellow window pop up with the name of each tool. You’ve probably seen these pop-ups in other applications; they’re called *ToolTips*.

Displaying Button Names

You can display a shortened name on the button itself by selecting an option in the Interface Settings dialog box.

1. In the Project window, click the Settings tab.
2. From the Settings scroll list, double-click Interface.

The Interface dialog box appears.

3. Select the Show Labels in Tool Palette option from the General tab.
4. Click OK.

You see names on the first row of buttons.

5. Click the border of the Tool palette and drag it until you see the second row of buttons.



You can keep these names or remove them by deselecting the Show Labels in Tool Palette option from the General tab in the Interface dialog box. For this tutorial, you might want to keep the labels visible.

6. Close the Tool palette by clicking the Close button (Windows) or close box (Macintosh).

Using the Command Palette

The Command palette provides a central location for all *user-selectable buttons (USBs)* you can map to various locations for ease of use. User-selectable buttons allow you to perform a wide range of commands with a single click.

Select	To
'Button to Button' Reassignment	Map buttons to the Tool palette or any Command palette in a pop-up, Source, or Record monitor, and to reconfigure the keyboard.
'Menu to Button' Reassignment	Map menu commands to various buttons and keys.
Active Palette	Use buttons directly from the Command palette without mapping them.

The Command palette groups buttons by editing function. Tabs are displayed for each function and the buttons that perform those functions are displayed within each tab (see [Figure 20](#)). The functions are: Move, Play, Edit, Trim, FX, 3D, Other, and More.

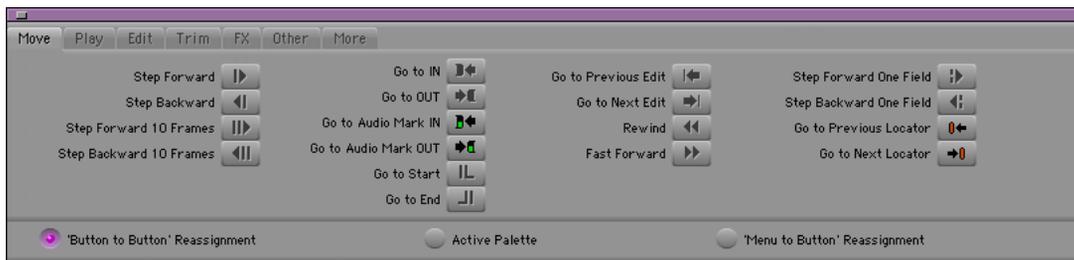


Figure 20 Command Palette Tabs

All buttons are displayed in the Command palette. If you cannot find a particular button, open the Command palette from the Tools menu and search for it there. For procedures on mapping user-selectable buttons and menu commands, see “User-selectable buttons:mapping” in the Help index.

Marking Edit Points

Before making your first edit, you can mark the segments of the clips you want to use in your sequence in the Source pop-up monitor.

Marking footage with IN and OUT points allows you to select which sections of a clip to include in a sequence.

There are two methods for marking IN and OUT points:

- Use the Mark IN and Mark OUT buttons under the Source pop-up monitor.
- Use the I key (Mark IN) and O key (Mark OUT) on the keyboard.

Using the Mark IN and Mark OUT Buttons to Mark a Clip

Let's first display clips in the Source pop-up monitor, and then mark several clips we'll use when we edit the sequence:

1. Double-click the **Cowboy** clip to open it.

The clip name is highlighted in the bin, and the clip appears in the Source pop-up monitor.

2. Play the whole clip through once first to get a sense of the material.
3. Press the Home key to go to the beginning of the clip.
4. Play the clip by pressing the L key (Play), and press the space bar (Stop) at the approximate place where the cowboy enters the frame.
5. Use the Step Forward and Step Backward buttons under the Source pop-up monitor to locate the frame in which he is positioned directly below Calvin's reflection in the rearview mirror.



6. Mark an IN point by clicking the Mark IN button under the Source pop-up monitor.

A white sawtooth pattern appears on the left edge of the mark IN frame.



7. Step forward to the point just before the horse begins to leave the frame.
8. Mark an OUT point by clicking the Mark OUT button under the Source pop-up monitor.



A white sawtooth pattern appears on the right edge of the mark OUT frame.



The system saves your IN and OUT points until you change them.

Using the Mark IN and Mark OUT Keys to Mark a Clip

Next, let's mark the IN and OUT points for the **Restaurant scene** clip using the Mark IN and Mark OUT keys on the keyboard.

1. Choose Source/Record Editing from the Toolset menu.
2. Two monitors (the Source on the left and the Record on the right) appear.
3. Double-click the **Restaurant scene** clip.

The clip opens in the Source (left) monitor. You want to show only the moment in which the waitress serves Calvin his coffee.

4. Use the J-K-L keys to locate the frame in which the waitress begins to tip the coffeepot.
5. Mark an IN point by pressing the I key (Mark IN) on the keyboard.

A white sawtooth pattern appears on the left edge of the mark IN frame.



6. Press the End key to go to the end of the clip.
7. Mark an OUT point by pressing the O key (Mark OUT) on the keyboard.
A white sawtooth pattern appears on the right edge of the mark OUT frame.

Using Timecode as Reference

You can also use timecode as your reference point when marking IN and OUT points.

1. Double-click the **CU with coffee** clip to open it in the Source pop-up monitor.
2. Mark an IN point at 02:07:02:20 (NTSC) or 2:07:01:12 (PAL).
3. Mark an OUT point at 02:07:04:14 (NTSC) or 2:07:03:11 (PAL).

Using Timecode to Find a Frame

Whenever you use the numeric keypad, you must press Enter on the numeric keypad after you type the number.

If you know the timecode for the frame you want to mark, you can go to that frame instantly by typing it on the numeric keypad.

1. Double-click the **Hopping chicks** clip to open it.
2. Using the numeric keypad, type **5422** (NTSC) or **708** (PAL).

As you start typing, a window opens in the middle of the Source pop-up monitor, showing the numbers.



3. Press Enter on the numeric keypad.
When you press Enter, the position indicator locates the specified frame.
4. Mark an IN point.
5. Using the numeric keypad, type **5518** (NTSC) or **807** (PAL) and press Enter.
6. Mark an OUT point.

Playing IN to OUT

Next, we'll mark a clip and then take a look at the marked portion of the clip to make sure it is what we want:

1. From the bin, double-click the **Zoom in Calvin** clip to open it.
2. Mark an IN point at 1:04:28:03 (NTSC) or 1:02:14:03 (PAL).
3. Mark an OUT point at 1:04:30:00 (NTSC) or 1:02:16:02 (PAL).
4. Press the 6 key (Play IN to OUT) on the keyboard.

The clip plays from the IN point to the OUT point.

Moving an OUT Point

It would be nice to provide a little more footage of Calvin petting the chicks before the next clip.



1. Press the W key (Go to OUT) on the keyboard.

The position indicator moves to the OUT point.

2. Alt+drag (Windows) or Option+drag (Macintosh) the OUT point until Calvin looks up into the camera at approximately 1:04:30:23 (NTSC) or 1:02:16:12 (PAL).
3. Press the 6 key (Play IN to OUT) on the keyboard to review your edit.

The clip plays from the IN point to the OUT point.

Using Frame Offset

You can also use the numeric keypad to move the position indicator forward or backward a specified number of frames, with the frame offset feature. Let's mark an IN point for the **Car under bridge** clip and then use frame offset to locate the OUT point:

1. Double-click the **Car under bridge** clip to open it.
2. Use the Play and Step buttons to locate the frame where the car appears to be directly under the bridge.
3. Mark an IN point.

When using frame offset, type one frame fewer than the number of frames you want to advance.

4. To advance, type **+61** and press Enter on the numeric keypad.
5. Mark that frame as the OUT point.
6. Press the 6 key (Play IN to OUT) to view your edit.

Creating Subclips

When you mark footage with IN and OUT points, either you can save the entire clip along with the new marks, or you can create subclips based on the marks you set to break up longer master clips into smaller segments of selected footage. Creating subclips is a great way to organize your footage into manageable units.

Let's create two subclips from a single clip:

1. Double-click the **Prairie landscape** clip to open it.
2. Scroll through the clip by clicking the Play button or by clicking the position indicator and dragging it.

There are two separate scenes that can be copied into separate subclips.

3. Mark an IN point at the beginning of the silo scene.
4. Mark an OUT point approximately halfway through the clip, about three-fourths into the silo scene.
5. Click the Fast Menu button under the Source pop-up monitor.



6. Click the Make Subclip button to create a subclip.

A new item called **Prairie Landscape.Sub.01** appears in the bin. The name is highlighted.

7. Type **silo** and press Enter (Windows) or Return (Macintosh) to name the subclip.



8. With the **Prairie landscape** clip in the Source pop-up monitor, click the Clear Both Marks button under the Source pop-up monitor to remove the IN and OUT points.

9. Mark an IN point in the clip near the beginning of the field scene.

10. Mark an OUT point at the end of the clip.
11. Alt+click (Windows) or Option+click (Macintosh) the clip, and drag it from the Source pop-up monitor to the bin.

The clip name is highlighted in the bin.

12. Type **Field** and press Enter (Windows) or Return (Macintosh).

You've completed this tutorial section. In [Chapter 7](#), you'll learn how to edit marked clips into a sequence.

Chapter 7

Creating a Sequence

In this chapter, you create and build a sequence by splicing clips in the Source pop-up monitor into the Record monitor. This chapter contains the following sections:

- [Building a Sequence](#)
- [Navigating in the Timeline](#)
- [Adding Audio](#)
- [Reviewing the Sequence](#)

Building a Sequence

You create a sequence by splicing a clip from the Source pop-up monitor into the Record monitor. Let's use the **WS prairie** clip for the opening clip in the sequence:

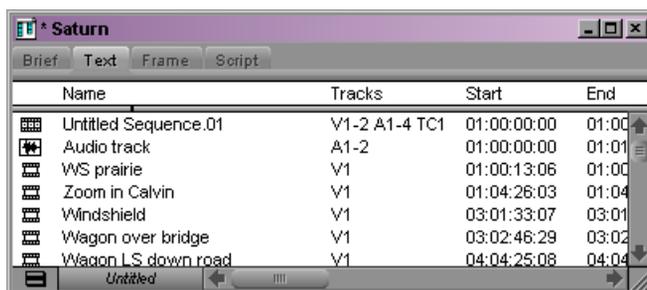
1. Double-click the **WS prairie** clip to open it in the Source pop-up monitor.
2. Mark an IN point about 2 seconds into the clip.
3. Mark an OUT point 1:10 seconds later.
4. Click the yellow Splice-in button from the Edit tab in the Command palette.



The footage you marked in the Source pop-up monitor is displayed in the Record monitor and track V1 in the Timeline. You've just created a sequence consisting of a single clip.

Naming the Sequence

Your newly created sequence appears in the **Saturn** bin.



By default, the system names it **Untitled Sequence.01**. Let's change this name:

1. Click the name **Untitled Sequence.01** to select it; do not click the Sequence icon.

The name is highlighted.

2. Type **Saturn Spot** and press Enter (Windows) or Return (Macintosh).

Using the Splice-in Key

Next, we'll splice the **Zoom in Calvin** clip into the sequence:

1. Double-click the **Zoom in Calvin** clip in the bin to open it in the Source pop-up monitor.



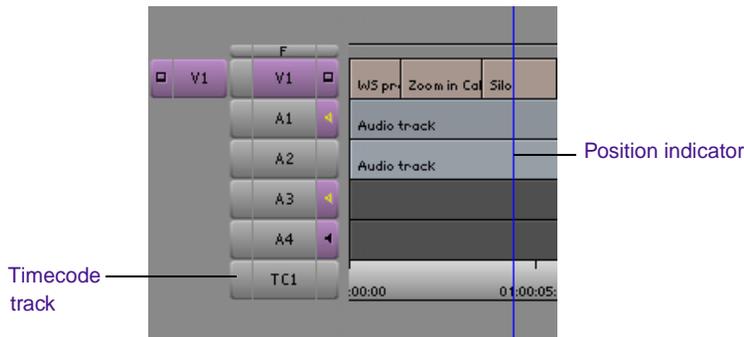
2. Press the V key (Splice-in) on the keyboard.
The second clip is now edited into the sequence.

Navigating in the Timeline

When you create a new sequence or load a sequence in the Record monitor, the sequence appears in the Timeline.

The Timeline provides various controls for quickly moving through a sequence and adjusting your view of details displayed in the tracks while editing.

The position indicator in the Timeline marks your place in the sequence. The Timeline's position indicator is always in the same position as the Record monitor's position indicator and works in the same way.



Let's use the position indicator to move through the Timeline:

1. Move the position indicator to the beginning of the sequence by clicking in the left side of the Timeline.
2. Play through the first two clips.
3. Click the position indicator and drag it through the footage at varying speeds.



When you move the position indicator in the Timeline, the smaller position indicator within the Record monitor's position bar also moves.

Splicing a Clip into the Middle of a Sequence

You can splice a clip anywhere in your sequence. Let's see what the **Car passing sign** clip looks like between the first and second clips:

1. Double-click the **Car passing sign** clip to open it in the Source pop-up monitor.
2. Mark IN and OUT points to mark 3 seconds of the car driving past the sign.

3. Ctrl+click (Windows) or ⌘+click (Macintosh) within the **Zoom in Calvin** clip in the Timeline to move the position indicator to the first frame of the **Zoom in Calvin** clip.
4. Press the V key (Splice-in) on the keyboard.



Wherever you splice a clip into the middle of a sequence, the rest of the sequence moves down. Splicing lengthens the material on the track.

5. Go to the head of the sequence and play through it to review your changes.

Undoing an Edit

The **Car passing sign** clip doesn't seem to fit here. Let's undo the last edit:

- ▶ Choose Undo Splice-in from the Edit menu.

Use the Undo feature whenever you feel you have made a mistake or want to go back a step. You can undo or redo up to 32 previous actions listed in the Edit menu.



You can also perform an Undo by pressing Ctrl+Z (Windows) or ⌘+Z (Macintosh).

Using the I/O (IN Point / OUT Point) Tracking Display

Let's add two more clips to the sequence:

1. Double-click the **Silo** clip to open it.
2. Mark an IN point about one-fourth of the way through the clip.
3. Mark an OUT point 2 seconds later by following this procedure:
 - a. Choose I/O from the Tracking Information menu (under the top row of timecode) in the gray area above the Source pop-up monitor.

The I/O option displays the duration from the IN to OUT points. If you mark only the IN point, the I/O option displays the duration from the IN point to the position indicator.

- b. Step forward until the I/O display reaches 2:00, and mark an OUT point.
4. Move the position indicator to the first frame of black after the **Zoom in Calvin** clip.
5. Press the V key (Splice-in) on the keyboard to splice the clip into the Timeline as the third clip.
6. Double-click the **Field** clip to open it.
7. Mark an IN point a little less than halfway through the clip.
8. Mark an OUT point 1 second later.
The I/O display reads 1:00.
9. Splice the **Field** clip into the Timeline as the fourth clip.
10. Choose Dur from the Tracking Information menu.
11. Go to the head of the sequence, and play through it to see your work.

Adding Audio

Next we'll lay down the audio clip, which contains the sequence's music and narration. You mark approximately 1 minute of the clip, which will be the duration of your finished sequence.

Using Digital Audio Scrub to Locate an Audio Frame

Digital audio scrub enables you to locate a specific frame of audio. In this procedure, we use digital audio scrub to locate the first frame of music in the audio clip.

1. Double-click the **Audio track** clip to open it.
The clip appears in the Source pop-up monitor.



Because it is audio only, the clip appears as black.

2. Play the clip through once.
3. Press the Home key to go to the beginning of the clip.

4. Press the Caps Lock key to activate digital audio scrub.
5. Press the 3 and 4 keys (Step Backward and Step Forward) on the keyboard to locate the first frame of the music, and click the Mark IN button.



When you use the Step keys, a frame of music or speech sounds scratchy or buzzlike. You might want to increase the volume of your speakers to hear the first frame of music.

6. Go forward exactly 1 minute by typing **+10000** and pressing Enter on the numeric keypad.
7. Mark that frame as the OUT point.
8. Press the Caps Lock key again to deactivate digital audio scrub.



Always turn Caps Lock off after using digital audio scrub. Leaving Caps Lock on while editing can slow down your system.

Splicing an Audio Clip

To splice the audio clip into the sequence:

1. Move the Timeline position indicator to the head of the sequence.
2. In the Timeline, deselect track V1; select tracks A1 and A2.
3. Click the yellow Splice-in button from the Edit tab in the Command palette.



The audio track appears in tracks A1 and A2 of the Timeline. The sequence also appears in the Record monitor (the audio track appears black).

Reviewing the Sequence

Let's review the sequence:

1. Press the Home key to go to the head of the sequence.
2. Click the Play button under the Record monitor to play the audio.

This audio track should run the length of the sequence, and its duration should be approximately 1 minute.

You've completed this tutorial section. In [Chapter 8](#), you'll add additional clips to the sequence and will refine your edits.

Chapter 8

Refining the Edit

Refining edits tightens and improves the relationship between pictures and sound. In this chapter, you add clips to the sequence using storyboard editing. You then refine the sequence rearranging several clips. This chapter contains the following sections:

- [Overwriting Clips into a Sequence](#)
- [Using Storyboard Editing](#)
- [Rearranging Clips](#)
- [Removing Footage from a Sequence](#)

Overwriting Clips into a Sequence

In addition to splicing, you can overwrite clips into a sequence. An overwrite edit replaces a section of a sequence with other source footage. An overwrite edit does not affect the length of the sequence.

The **Field** clip is a bit too long. In this section, we'll edit the next clip into the sequence before the end of the **Field** clip:

1. In the Timeline, select track V1; deselect tracks A1 and A2.
2. Click the Record monitor's top row of tracking information.
3. Choose TC, V1 from the Tracking Information menu.

4. Move the position indicator in the Timeline to the first frame of the **Field** clip by Ctrl+clicking (Windows) or ⌘+clicking (Macintosh) between the **Silo** and **Field** clips.
5. Advance by typing **+20** (NTSC) or **+13** (PAL) and pressing Enter on the numeric keypad.
6. Mark an IN point.



7. Double-click the **CU chick** clip to open it.
8. Mark an IN point in the first half of the clip, at the point where the chick appears to be in the center of the frame and looking straight into the camera, approximately 1:05:58:00 (NTSC) or 1:00:43:11 (PAL).
9. Mark an OUT point 1 second and 15 frames later when the chick looks sharply to the right.
10. Click the red Overwrite button from the Edit tab in the Command palette.



Don't confuse the Overwrite button with the Lift/Overwrite button. The Overwrite button is located between the Source and Record monitors; the Lift/Overwrite button is located under the Timeline.

The clip overwrites the end of the **Field** clip and extends beyond it, thus lengthening the video portion of the sequence.

You now have five video clips in your sequence.

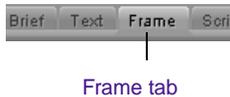
Using Storyboard Editing

Storyboard editing allows you to set up a group of clips in a sequence of events and then load them into the Record monitor all at once.

To add multiple clips to your sequence:

1. Load the **Car LS down road** clip into the Source pop-up monitor, and mark an IN point at 1:09:24:13 (NTSC) or 1:02:31:22 (PAL).
2. Mark an OUT point at 1:09:27:17 (NTSC) or 1:02:34:24 (PAL).

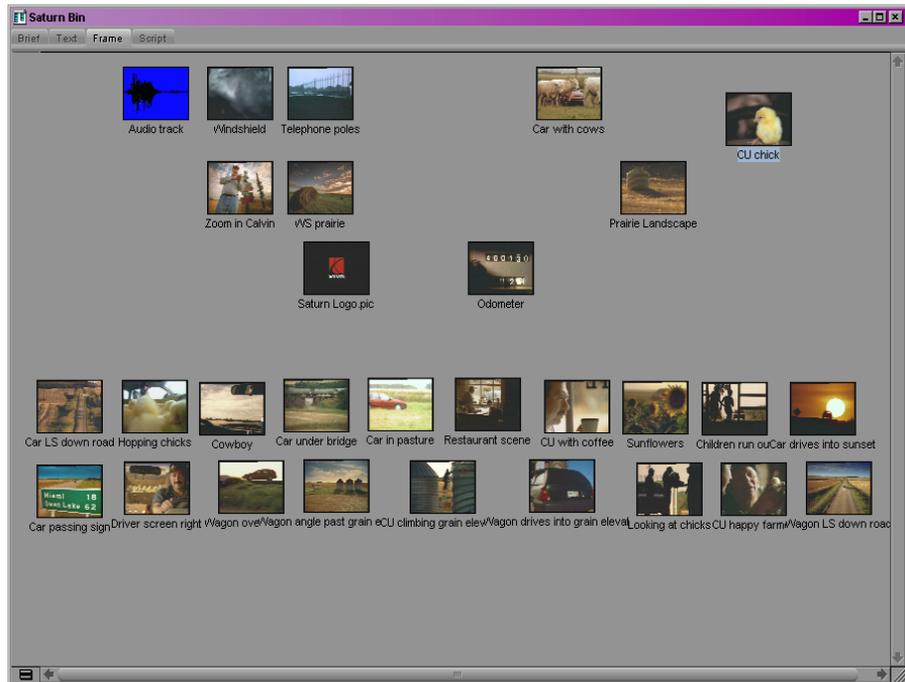
You've set the IN and OUT points for nine clips. We've set the rest for you.



3. Display the bin in Frame view.
4. Choose Fill Window from the Bin menu to arrange the clips in the bin.
5. Click the **Car LS down road** clip, and drag it to a clear space in the lower left area of the bin.
6. Arrange the following clips (after **Car LS down road**) in two or three rows, from left to right, and top to bottom, to form the storyboard. Make sure you maintain the order of clips:

- **Hopping chicks**
- **Cowboy**
- **Car under bridge**
- **Car in pasture**
- **Restaurant scene**
- **CU with coffee**
- **Sunflowers**
- **Children run out**
- **Car drives into sunset**
- **Car passing sign**
- **Driver screen right**
- **Wagon over bridge**

- **Wagon angle past grain elevator**
- **CU climbing grain elevator**
- **Wagon drives into grain elevator**
- **Looking at chicks**
- **CU happy farmer**
- **Wagon LS down the road**



Now you're ready to load the marked clips into the sequence.

7. Ctrl+click (Windows) or ⌘+click (Macintosh) in the Timeline near the end of the **CU chick** clip.
8. Select the storyboarded clips all at once:
 - a. Move the mouse pointer in the bin to the blank area just to the left of the **Car LS down road** clip.
 - b. Lasso the clips by dragging the pointer to the right and down, making sure to select all the storyboarded clips.

A box forms as you move the mouse, starting next to the **Car LS down road** clip and ending at the last pointer position. All the names are highlighted in blue.

9. Alt+click (Windows) or Option+click (Macintosh) one of the clips (the image, not the name), and drag the group into the Record monitor.
10. Release the mouse when a yellow arrow appears in the Record monitor.

The clips are spliced into the sequence in the order you specified.

11. Move the position indicator to the head of the sequence, and play the entire sequence.

Rearranging Clips

You can rearrange clips by overwriting material, lifting material, or removing material. Overwriting material doesn't change the length of the sequence. Lifting material leaves filler and doesn't affect the length of the sequence. Removing material shortens the length of the sequence.

Overwriting with the Three-Point Edit

The three-point edit is an excellent way to replace a clip in a sequence. Use the Mark Clip key to select the clip in the sequence, and mark either an IN point or an OUT point in the source clip. The system calculates the exact duration of the source clip to insert.

Let's replace the **Car in pasture** clip with the **Car with cows** clip to create a more interesting visual image:

1. To enlarge this area, in the Timeline:
 - a. Press the Home key.
 - b. Click the scale bar and drag it to enlarge the Timeline.
 - c. Click the scroll bar, and drag it to the right until you see the entire **Car in pasture** clip.
2. Move the position indicator to the **Car in pasture** clip.



3. Press the T key (Mark Clip) on the keyboard.

The IN and OUT points appear at the head and tail of the clip in track TC1 in the Timeline; the marked segment is highlighted. The IN and OUT points also appear in the Record monitor's position bar.

4. Double-click the **Car with cows** clip to open it in the Source pop-up monitor, and mark an IN point about 2 seconds into the clip.



5. Click the red Overwrite button to make the three-point edit.

The **Car with cows** clip replaces the **Car in pasture** clip.

6. Return to the previous Timeline view by doing the following:

- a. Click the scale bar and drag it to the left.
- b. Move the position indicator in the Record monitor to the head of the sequence.

7. Play the sequence to see the change.

Changing the Order of Clips in a Sequence

Let's see what it looks like if we reverse the position of two clips in the sequence, **Cowboy** and **Car under bridge**:

1. Move the Timeline position indicator to the **Car under bridge** clip.
2. Press and hold the Alt key (Windows) or Option key (Macintosh), drag the **Car under bridge** clip to the left so it is directly in front of the **Cowboy** clip, and release the mouse button.

The **Cowboy** clip now follows the **Car under bridge** clip.

Removing Footage from a Sequence

You can remove footage from your sequence, and either close or retain the gap that results. Extract/Splice-in closes the gap, and Lift retains the gap.

Removing Footage and Closing the Resulting Gap

The **Field** clip is too static. Let's remove it from the sequence and close the gap that results:



1. Click the yellow Segment Mode (Extract/Splice-in) button under the Timeline.

2. Click anywhere in the **Field** clip on track V1.

The clip is highlighted in purple.

3. Press the Delete key on the keyboard.

The selected clip is eliminated, and the surrounding clips close the gap.

4. Click the Extract/Splice-in button again to deselect the button and leave Segment mode.

Removing Footage and Retaining the Resulting Gap

Lift retains the gap after lifting footage from the sequence. Use Lift if you want to maintain the rhythm of a sequence or the synchronization of the video and audio tracks.

The **Children run out** clip plays for too long. Let's use Lift to shorten the **Children run out** clip but maintain the *same* entrance point for the next clip:

1. Scroll through the **Children run out** clip and mark an IN point as the third child appears at the left of the screen.

2. Ctrl+Alt+click (Windows) or Ctrl+⌘+click (Macintosh) near the end of the **Children run out** clip to go to the last frame of the clip.

3. Mark an OUT point.

4. Choose the Command palette from the Tools menu.

5. Click the Edit tab.
6. Click Active Palette.
7. Click the Lift button to remove the segment.



Later, we'll determine what to put in its place.

You've completed this tutorial section. In [Chapter 9](#), you'll learn how to trim your sequence.

Chapter 9

Trimming

For more information on Trimming, see the *Avid Xpress DV User's Guide*.

Trimming allows you to adjust incoming and outgoing frames of your clip. There are two types of trims: dual-roller and single-roller. This chapter contains the following sections:

- [Dual-Roller Trimming](#)
- [Using Dual Rollers to Trim the Outgoing Clip](#)
- [Trimming the Windshield Clip](#)
- [Single-Roller Trimming](#)

Dual-Roller Trimming

Dual-roller trims adjust both sides of a transition simultaneously, adding frames to one clip while subtracting frames from the adjacent clip. The total duration of the sequence does not change.

Let's adjust the **CU with coffee** and **Sunflowers** clips so they match the pause in the narration:

1. If you are not already displaying dual monitors, choose Source/Record Editing from the Toolset menu.
2. Move the position indicator near the **CU with coffee/Sunflowers** transition, and click the Trim Mode button in the Timeline.

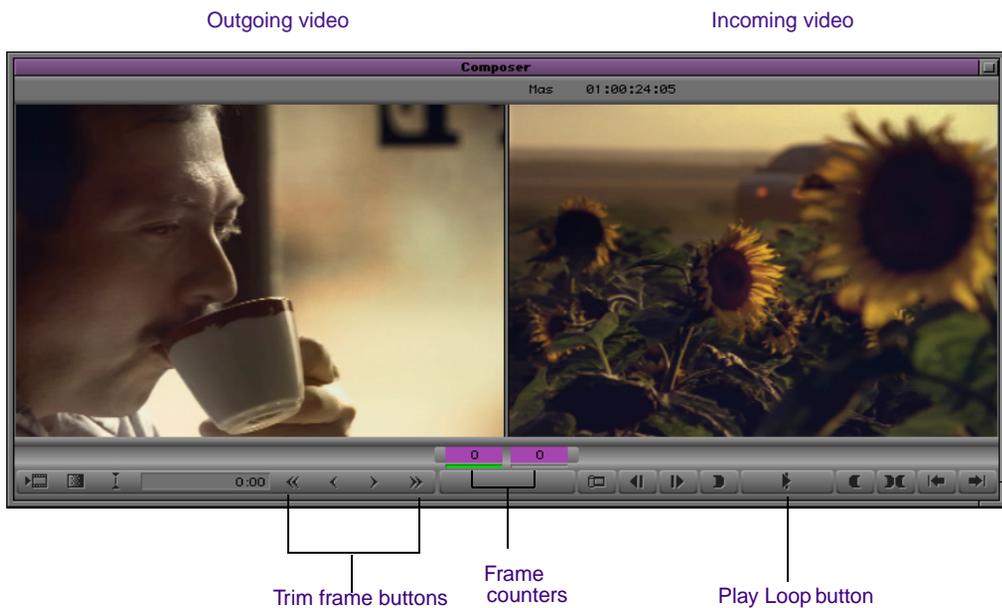


The position indicator snaps to the transition.



The Record monitor shows the last (tail) frame of the **CU with coffee** clip on the left, and the Source monitor shows the first (head) frame of the **Sunflowers** clip on the right.

New buttons appear below the trim windows.



3. Play the transition by clicking the Play Loop button.

The transition plays repeatedly.

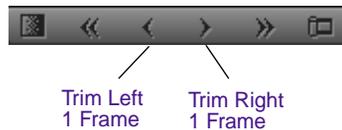
4. To stop the playback loop, click the Play Loop button again.

5. Press the Caps Lock key on the keyboard so you can hear the audio as you trim.

To use digital audio scrub, make sure the Speaker icon on the Audio Track Monitor button is highlighted. Increase the speaker volume, if necessary.



6. If the Speaker icon is not highlighted, Alt+click (Windows) or Option+click (Macintosh) the A1 Audio Track Monitor button.
7. Click the Trim Left 1 Frame button under the Source monitor until you hear a pause in the narration immediately after Calvin says, “. . . some pretty rugged country” (NTSC) or “. . . the Saskatchewan river . . .” (PAL).



This adds frames to the tail of the outgoing clip and removes them from the head of the incoming one. The duration of the video track remains unchanged.

8. Play the transition again by clicking the Play Loop button.
9. Press the Escape key to exit Trim mode.
10. Press the Caps Lock key on the keyboard to turn off digital audio scrub.

Using Dual Rollers to Trim the Outgoing Clip

Let's insert a clip to take the place of the filler we left in the sequence. You replace the filler with the **Windshield** clip. After we overwrite the clip into the sequence, we'll trim it.

1. Move the position indicator at the end of the **Children run out** clip and at the beginning of the **Car drives into sunset** clip.
2. Double-click the **Windshield** clip to open it, and mark an IN point about halfway into the clip. Do not mark an OUT point.
3. Click the red Overwrite button from the Edit tab in the Command palette.



4. Click the Trim Mode button under the Timeline.
5. Use the Trim Left 1 Frame button to move the transition 5 frames earlier.

Trimming the Windshield Clip

In the next steps, you will trim the **Windshield** clip so it enters a little earlier.

1. Enter Trim mode by lassoing the Timeline tracks:
 - a. Click the pointer above all the Timeline tracks just to the left of the **Children run out/Windshield** transition.
 - b. Click the mouse and drag it down and to the right to surround the transition.

The trim rollers appear.



2. Move the transition 16 frames (NTSC) or 20 frames (PAL) earlier by clicking the Trim Left 8 Frames (NTSC) or Trim Left 10 Frames (PAL) button twice.

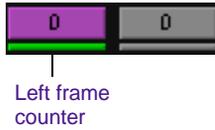
The numbers change in the purple frame counters.

3. Click the Play Loop button.

Single-Roller Trimming

In the trims you have made so far, you trimmed both the head and the tail clips an equal number of frames, adding to one side and subtracting from the other. Now let's trim the tail of the **Zoom in Calvin** clip without affecting the head of the **Silo** clip. This is called single-roller trimming.

Let's use single-roller trimming to edit your sequence:



1. While still in Trim mode, advance to the **Zoom in Calvin/Silo** transition by repeatedly pressing the A key on the keyboard.

2. Click the left frame counter (A-Side Trim counter).

Your trim will affect only the outgoing clip, which is in the left Trim monitor. The left frame counter remains purple, while the right one is deselected.

3. Type **-15** and press Enter on the numeric keypad to subtract 15 frames from the outgoing clip.

This moves the transition 15 frames to the left.

4. Advance to the **CU chick/Car LS down road** transition by pressing the S key on the keyboard twice.

5. Click the left frame counter (A-Side Trim counter), type **+30**, and press Enter on the numeric keypad.

Thirty frames are added to the outgoing clip.



6. Leave Trim mode by clicking the Trim Mode button again.

You've completed this tutorial section. In [Chapter 10](#), you'll learn how to add effects to your sequence.

Chapter 10

Adding Effects

Avid Xpress DV offers many effects you can apply to your sequences. This chapter explains how to apply effects to transitions or segments (clips) in your sequence. After you have selected the effect and have applied it to a transition or segment, you can adjust the effect parameters to meet your requirements. This chapter contains the following sections:

- [Adding a Dissolve Effect \(Fade In\)](#)
- [Dissolving Between Clips](#)
- [Creating a Picture-in-Picture Effect](#)
- [Creating a Freeze Frame](#)
- [Screening the Sequence](#)

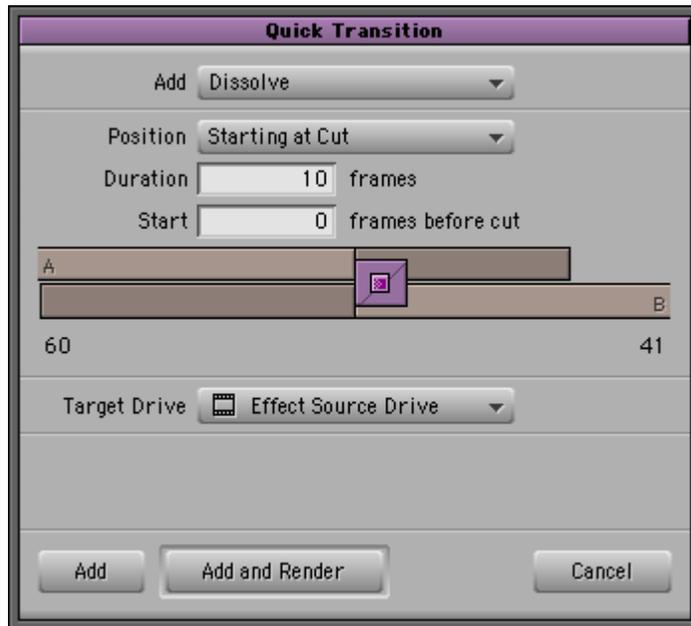
Adding a Dissolve Effect (Fade In)

First we'll add a Dissolve effect (fade in) to a transition. An effect that is applied between two clips is called a transition effect.

1. Click the head of the sequence.
2. Click the Quick Transition button in the Timeline.



The Quick Transition dialog box appears.



3. Create a 10-frame dissolve (fade-in), starting at the cut, by doing the following:
 - a. Choose Dissolve from the Add pop-up menu.
 - b. Choose Starting at Cut from the Position pop-up menu.
 - c. Type **10** in the Duration text box.
4. Choose the drive on which the effect media file should be stored from the Target Drive pop-up menu.

The default drive is the Effect Source Drive.

5. Click Add and Render to render the effect.

The system creates the media file of the video effect during the rendering process. It also places a Rendered effect icon in the Timeline where you added the effect.

6. Play the effect.

The sequence now begins with a fade-in to the **WS Prairie** clip.

Dissolving Between Clips

You can create a transition effect by adding a dissolve between the **Car under bridge** clip and the **Cowboy** clip.

1. Click the first frame of the **Cowboy** clip.
2. Click the Quick Transition button in the Timeline.



The Quick Transition dialog box appears.

3. Create a 10-frame dissolve, centered on the cut, by doing the following:
 - a. Choose Dissolve from the Add pop-up menu.
 - b. Choose Centered on Cut from the Position pop-up menu.
 - c. Type **10** in the Duration text box.
4. Choose the drive on which the effect media file should be stored from the Target Drive pop-up menu.

The default drive is the Effect Source Drive.
5. Click Add and Render to render the effect.
6. Play the effect. Press the space bar to stop playback.

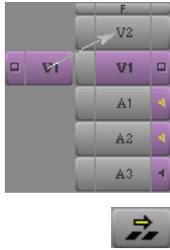
Creating a Picture-in-Picture Effect

Now we'll add a Picture-in-Picture effect, so the odometer appears on-screen when Calvin mentions how many kilometers he has traveled in his Saturn.

A Picture-in-Picture effect is a multilayer segment effect. This means the effect is applied to the top layer of segments that contain two or more video tracks that will be played simultaneously.

This effect takes up two video tracks: V1 for the clip of the car and V2 for the odometer clip. First, you have to move the **Odometer** clip to track V2.

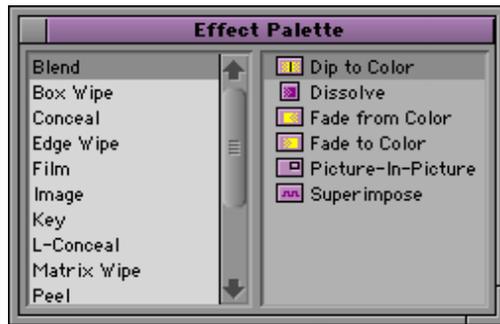
1. Double-click the **Odometer** clip to open it in the Source pop-up monitor.
2. Click in the Timeline and add a new video track by choosing New Video Track from the Clip menu.
3. Deselect the V1 Track Monitor button.
4. Click the V1 Source Track button, and drag it to the V2 Record Track button.
5. Use the Step buttons under the Record monitor to move the position indicator about 10 frames into the **Car under bridge** clip.
6. Click the yellow Splice-in button from the Edit tab in the Command palette.



The clip appears on track V2.

7. Choose Effect Palette from the Tools menu.
8. Click the Blend category.

The Blend effects, including Picture-in-Picture, are displayed in the right pane.



9. Move the position indicator to the **Car under bridge** clip on track V2.
10. Click the Picture-in-Picture Effect icon in the Effect Palette and drag it to the **Odometer** clip on track V2.



The Effect icon appears in the Timeline, and the odometer appears in a box midscreen.



Foreground image (V2)

Background filler (V1)

Repositioning the Image

Let's move the image:



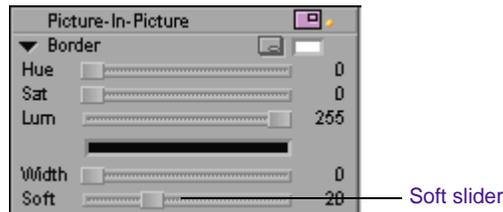
1. Click the Effect Mode button in the Timeline to enter Effect mode.
Parameters for the Picture-in-Picture effect appear in the Effect Editor.
2. Click the image of the odometer.
Drag handles (the dots at the edges and in the middle of the box) appear, and a white hand appears when the pointer is over a handle.
3. Click the drag handle in the middle of the picture, and drag the image to the lower half of the screen.

Adjusting Softness

Now let's use one of the Picture-in-Picture parameters to soften the edge of the image.

You can also type **20** on the numeric keypad.

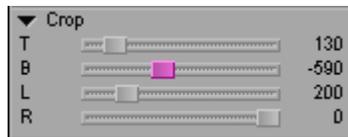
1. Click the Soft slider in the Effect Editor.
2. Click the Soft slider and drag it to the right to a value of 20.



Cropping the Image

Now let's use another of the Picture-in-Picture parameters to crop the image:

1. Click the Crop triangular opener in the Effect Editor.
2. Set the following parameters for the Crop sliders:
 - Top: 130
 - Bottom: -590
 - Left: 200
 - Right: 0

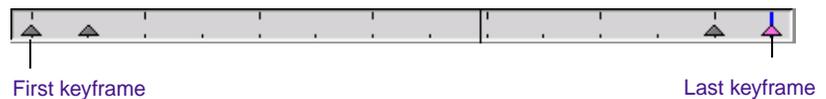


Adding Keyframes

To add dissolves within the Picture-in-Picture effect, you need to add keyframes. These let the system know this is the location in the Picture-in-Picture effect where you want to start the dissolve.

To add keyframes:

1. Click the V1 Record Track button.
2. Click the first keyframe in the Record monitor.
3. Click the Foreground Level slider and drag it all the way to the left to display 0.
4. Click in the Record monitor and type **+5** on the numeric keypad. Press Enter on the numeric keypad to move the position indicator 5 frames *after* the first keyframe.
5. Click the Add Keyframe button under the Record monitor.
6. Click the Foreground Level slider and drag it all the way to the right to display 100.
7. Right-click (Windows) or Ctrl+Shift+click (Macintosh) the last keyframe.
8. Click the Foreground Level slider and drag it all the way to the left to display 0.
9. Click in the Record monitor and type **-5** on the numeric keypad. Press Enter on the numeric keypad to move the position indicator 5 frames *before* the last keyframe.
10. Click the Add Keyframe button under the Record monitor.
11. Click the Foreground Level slider and drag it all the way to the right to display 100.



Rendering the Effect

You must render the Picture-in-Picture effect to play it at full speed.



You must render a non-real-time effect before it can be played. When an effect is rendered, the system stores the effect and its media file as a precomputed master clip (often referred to as a precompute). The system uses the precompute to play the effect at its normal speed.

To render the effect:

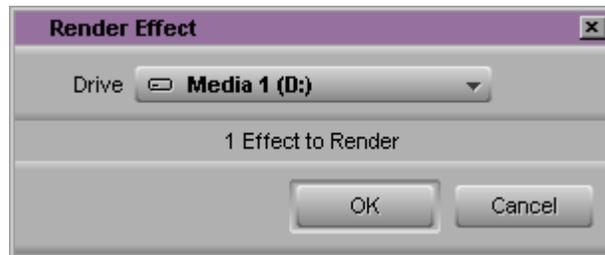
1. Click and hold the Fast Menu button from the Source monitor.

The Tool palette appears.



2. Click the Render Effect button.

The Render Effect dialog box appears.



3. Choose a target drive for the rendered media from the Drive pop-up menu.

4. Click OK.

5. After the effect is rendered, close the Effect Palette.



6. Return to Source/Record mode by clicking the Effect Mode button.

7. Click the V2 Track Monitor button.

8. Play the rendered effect.

Creating a Freeze Frame

We'd like to end the sequence with the Saturn logo. To do this, we need to create a freeze frame from a static graphic of the logo.

To create a freeze frame:

1. Load **Saturn Logo.pic** into the Source pop-up monitor.
2. Choose Freeze Frame and 5 Seconds from the Clip menu.
The Select Media Drive dialog box appears.
3. Select a drive.
4. Move the position indicator to the end of the first frame of black after the **Car LS down road** clip.
5. Splice the freeze frame into the sequence as the final clip.

Screening the Sequence

You've made quite a few changes. Now let's take a look at the sequence:

1. Move the position indicator to the beginning of the sequence.
2. Click the Play button.

You've completed this tutorial section. In [Chapter 11](#), you'll learn how to add a title to your sequence.

Chapter 11

Creating Titles

In this chapter, you create a title, edit it, and splice it into the sequence. This chapter contains the following sections:

- [Creating a New Title](#)
- [Using Text Formatting Tools](#)
- [Saving a Title](#)
- [Editing the Title into the Sequence](#)

Creating a New Title

To create a new title:

1. In the Timeline, move the position indicator to the second-to-last clip in the sequence, **Wagon LS down road**.



Your Avid system saves into a bin each title you create. You can load a title into the Source pop-up monitor at any time or click the Title Effect icon and drag it from the bin to a segment in the Timeline. You can also click a title and drag it from the bin onto an existing title in the Timeline; this causes the existing title to be replaced.



You can create a new title with or without a sequence in the Timeline. However, if you want to create a title with a video background, you can load a video clip into the Record monitor to use as a reference frame while you create the title. The video reference frame you select appears in the background of the Title tool while you create the title. The reference frame makes it easier to position text and objects exactly where you want them and to select colors from the frame to use in the text and objects.

2. Choose Title Tool from the Tools menu.

The Title tool opens.

3. Click below the car.

An insertion point appears.

4. Type **A different kind of company**, and press Enter (Windows) or Return (Macintosh).

5. Click underneath the newly entered text, type **A different kind of car**, and press Enter (Windows) or Return (Macintosh).

Using Text Formatting Tools

The text formatting tools control the appearance of text. If a text object is selected when you change an attribute, your Avid system automatically applies the attribute to the object. The text formatting tools allow you to change the font, style, point size, justification, kerning, and leading of your title.

Let's change the formatting of our title text:



1. Alt+click (Windows) or Option+click (Macintosh) the Selection tool in the toolbar.

Object selection handles surround the title.



2. Click the Font Selection button, and choose Times New Roman from the Font pop-up menu.



3. Click the Font Size button, and choose 36 from the Font Size menu.

- Click the left side of the text object and drag it so the words **A different kind of company** appear on a single line. To drag the right side, click the middle handle on the right side of the text object and drag it to the right.



Repositioning Text

To reposition the title text:

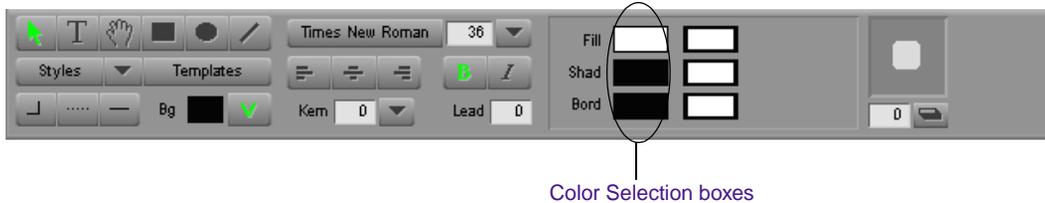
- With the Selection tool selected, click the title and drag it so it appears centered in the lower half of the screen.
- Use the arrow keys to move the title one pixel at a time.
- Center the Title by clicking the Center Text button.



Changing the Color of Title Text

The Color Selection boxes control fill (Fill), shadow (Shad), and border (Bord) color respectively.

The following illustration shows the Color Selection boxes.



To change the color of the title text:



1. Click and hold the Color Selection box for Fill.

The Title Tool Color Picker opens.

2. Click a red color.

The color is applied to the title.

Adding a Shadow



To add a shadow to the title text:

- ▶ Type **3** in the Shadow Depth text box.

The title shadow appears.

Changing the Color of a Shadow

To change the color of the shadow:



1. Click and hold the Color Selection box for Shadow.

The Title Tool Color Picker opens.

2. Click a shade of white.

The color is applied to the shadow.

Softening a Shadow

To soften the shadow:

1. Choose Soften Shadow from the Object menu.

The Soft Shadow dialog box appears.



2. Type 10 in the Shadow Softness text box.
3. Click OK.

The shadow is softened.



Saving a Title

To save your title:

1. Choose Save Title from the File menu.

The Save Title dialog box appears.

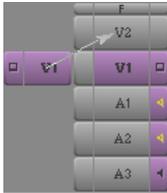


2. Type **Saturn** in the Title Name text box.
3. Click Save.
4. Close the Title tool by clicking the Close button (Windows) or close box (Macintosh).

The title appears in the Source pop-up monitor.

Editing the Title into the Sequence

To add your title to your sequence:



1. In the Track Selector panel, make sure the V1, A1, and A2 Track Monitor buttons are deselected.
2. Click the V1 Source Track button, and drag it to the V2 Record Track button.
3. With the title clip loaded in the Source pop-up monitor, mark an IN point at the beginning of the clip and an OUT point at 1:00:05:00.
4. In the Record monitor, move the position indicator to the middle of the **Wagon LS down road** clip.
5. Click the red Overwrite button from the Edit tab in the Command palette.

This adds the title to track V2.

6. If necessary, trim the title so it ends at the last frame of the **Wagon LS down road** clip.
7. Play the finished sequence.

You've completed this tutorial section. In [Chapter 12](#), you'll learn about outputting video with your Avid system.

Chapter 12

Generating Output

You've finished your sequence. Now you're ready to create an output format and distribute it. Avid Xpress DV lets you output your sequence in many different formats. This chapter contains the following sections:

- [Creating Files for a DVD](#)
- [Exporting a QuickTime Movie](#)
- [Outputting a Digital Cut to Tape](#)

Creating Files for a DVD

You can put your sequence onto a digital video disc (DVD). Depending on your hardware and software, you can:

- (Windows) Burn the sequence directly to a DVD from Avid Xpress DV.
- (Windows) Create a DVD volume you can move to another system.
- (Windows) Use the Create DVD command to create the appropriate MPEG-2 and .wav files.

- (Macintosh) Use the Send To DVD command to create:
 - A QuickTime reference movie and an AIFF file for use in iDVD
 - An MPEG-2 file and an AIFF file for use in DVD Studio Pro™
 - Files for other DVD applications



For information about exporting MPEG-2 and .wav files, see the Avid Xpress DV User's Guide.

Creating Files for a DVD (Windows)

To create files for a DVD:

1. Before you begin creating the DVD files, create and select an MPEG-2 export setting.
2. Select a sequence in a bin.
3. Choose Create DVD from the File menu.
4. The Create DVD dialog box appears. Select one of the following options:
 - ▶ **Export MPEG-2 and WAV Files:** Select this option if you want to export your sequence in a format that can be used by a DVD authoring package such as DVDit!™ by Sonic Solutions.
 - ▶ **Create DVD Volume on Disk:** If you *don't have* DVD writing hardware attached to your Avid system, you can select this option to create a DVD volume. Then you can move the DVD volume to a system that has DVD writing hardware and software.
 - ▶ **Create DVD Volume and Write to DVD:** If you *do have* DVD writing hardware attached to your Avid system, you can select this option to create the necessary files and send them directly to the DVD writing hardware. Make sure the DVD writing hardware is connected and ready before you execute the command.
5. Select a folder in which to store the generated files.
6. Choose an MPEG-2 export setting from the Export Settings pop-up menu.

7. (Option) Click the Modify button to make any changes to the export setting in the Export Settings dialog box.
8. Click OK to start the export.

A progress indicator shows your progress.



The length of export depends on the length of the media you are exporting. For example, it might take more than an hour to export a 3-minute sequence.

During the creation process, the system renders all effects and creates MPEG-2 files from the video media. The system also creates .wav files from the audio media.

When you select the Create DVD Volume on Disk option, the system creates a folder named DVDVolume. This folder contains the following two folders:

- AUDIO_TS
- VIDEO_TS

Use the AUDIO_TS and VIDEO_TS folders with your DVD writing application to create the DVD.



The system creates an additional folder for storing the DVDVolume folder. The name of this additional folder is based on the sequence name. You can check for the name of this folder in the Create DVD dialog box.



The Create DVD Volume on Disk option also allows you to save the resulting MPEG-2 and .wav files. The system prompts you with a dialog box after the volume is created.

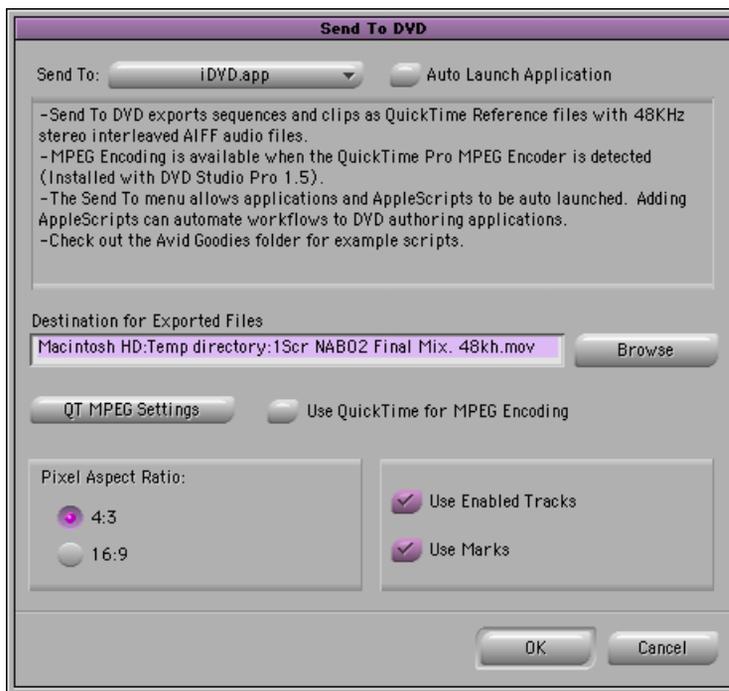
Creating Files for DVD Studio Pro (Macintosh)

You can send your edited sequence or a master clip to the DVD Studio Pro authoring application.

To create files for DVD Studio Pro:

1. Install DVD Studio Pro.
2. Select a sequence, a master clip, or both in a bin. You can select multiple sequences or clips.
3. Choose Send To DVD from the File menu.

The Send To DVD dialog box appears.



4. Choose DVD Studio Pro.app from the Send To pop-up menu.



You can use Add Item to add other applications or an AppleScript® script to the Send To pop-up menu. For information about using the AppleScript provided in the Avid Goodies folder, see “Using an AppleScript to Create a DVD (Macintosh)” on page 186.

5. Select Auto Launch Application to start the DVD authoring application when the export is complete.
6. Click the Browse button to navigate to a destination for the exported files.
7. Select other options as described in [Table 5](#).

Table 5 Send to DVD Dialog Box Options

Option	Description
QT MPEG Settings	When this option is selected, the QuickTime MPEG Encoder window opens and you can set the parameters for creating your MPEG file. For more information about the QuickTime MPEG Encoder window options, see the QuickTime documentation.
Use QuickTime for MPEG Encoding	Select this option to use the QuickTime MPEG Encoder.
Pixel Aspect Ratio	The pixel aspect ratio allows you to apply a scaling to the video: 4:3 or 16:9. The pixel aspect ratio allows you to control the display format without modifying the source file. The default is 4:3.
	 <i>If you select the Use QuickTime for MPEG Encoding option, you set the pixel aspect ratio in the QuickTime MPEG Encoder window.</i>
Use Enabled Tracks	When this option is selected (default), the system uses tracks that are enabled in the Timeline. To export the entire clip or sequence, deselect this option.
Use Marks	When this option is selected (default), the system uses current IN and OUT points in the selected clip or sequence to determine starting and ending frames for the export. To export the entire clip or sequence, deselect this option.

8. Click OK.



You can continue to edit with Avid Xpress DV while the QuickTime MPEG Encoder processes your material. A long sequence can take several hours.

An MPEG-2 (.m2v) file and a stereo-interleaved, 48-kHz AIFF file are produced in the destination you specified. If you selected Auto Launch Application, the destination folder opens and the application starts.

9. Shift+click the .m2v file and the audio file, and drag them onto the DVD Studio Pro Assets window.
10. Change any parameters in DVD Studio Pro, and then burn the DVD. For more information about using DVD Studio Pro, see the DVD Studio Pro documentation.

Using an AppleScript to Create a DVD (Macintosh)

The Avid Goodies folder contains an AppleScript that facilitates your export to an MPEG-2 file.

To export to DVD Studio Pro using the AppleScript:

1. Install DVD Studio Pro.
2. Select a sequence, a master clip, or both in a bin. You can select multiple sequences or clips.
3. Choose Send To DVD from the File menu.
The Send To DVD dialog box appears.
4. Choose SendToDVDStudioPro_script from the Send To pop-up menu.
5. Click OK.

Send To DVD starts the QuickTime MPEG Encoder with your last saved settings, exports your sequence, converts it to an MPEG-2 file, and opens it and the related audio file in a new project in DVD Studio Pro.

Preparing the Sequence

Before you export your sequence, check the sequence to make sure you have selected and monitored the tracks you want to use.



1. Start Avid Xpress DV and open your final sequence.
2. Make sure the Track Selector panel has the following record tracks selected and monitored:
 - V3
 - V2
 - V1
 - A1
 - A2

Track Selector buttons for these tracks should be purple. Track Monitor buttons should show a Monitor icon for track V3 and Speaker icons on tracks A1 and A2.

3. Clear any IN or OUT points in the sequence.
4. If you want, play some or all of the sequence to make sure it is the version you want to output.

Exporting a QuickTime Movie

Avid Xpress DV provides you with many options for outputting (publishing) your sequence in formats suitable for digital distribution. In this section, you'll create a QuickTime movie, which is a format you can use for distribution on CD-ROM or over the World Wide Web. For information about using other formats, see the *Avid Xpress DV User's Guide* or Help.

Using the QuickTime DV Codec

To create the QuickTime movie, you'll be using the DV codec that is built into the QuickTime software. A *codec* is software or hardware that compresses and decompresses digital media (the word *codec* is a combination of the words *compressor* and *decompressor*). The QuickTime DV codec creates media files that are readable within QuickTime applications. In the following procedure, the codec uses the size, resolution, and other parameters of the Avid Xpress DV sequence, which makes the export very fast.

When you select the Same as Source option, the QuickTime DV codec maintains the dimensions of the media (720 x 480 pixels for NTSC, 720 x 576 pixels for PAL), which might not be appropriate for some uses. For example, if the destination of your exported media is a multimedia title, you can change the screen dimensions or use another codec, such as Cinepak™. Alternatively, you can use the QuickTime DV codec to create a QuickTime file for further processing in another application.



QuickTime software is installed when you install Avid Xpress DV software. You can also install it separately. See “Installing Avid Xpress DV Software (Windows)” on page 40 or “Installing Avid Xpress DV Software (Macintosh)” on page 52.

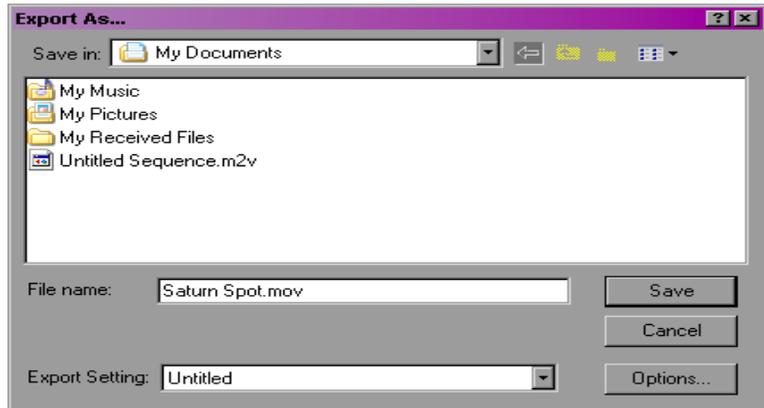
Exporting the Sequence

For complete information about exporting, see the *Avid Xpress DV User's Guide* or Help.

To create a QuickTime or other digital movie, you need to export the sequence.

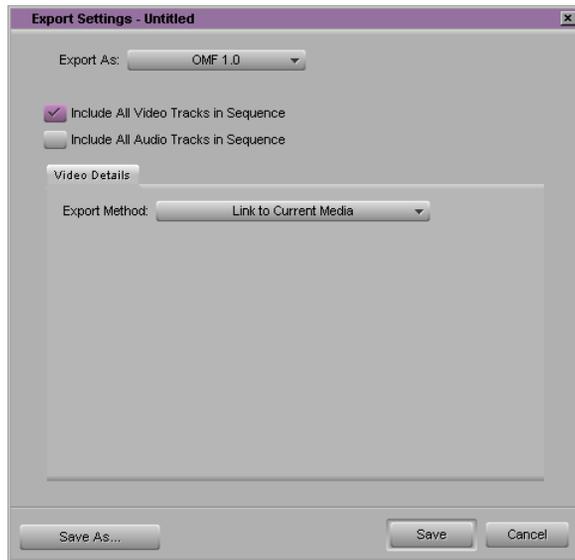
1. Prepare your final sequence as described in [“Preparing the Sequence” on page 187](#).
2. In the bin, select your final sequence.
3. Choose Export from the File menu.

The Export As dialog box appears with a default file name in the File name text box based on the file type. The Macintosh dialog box will look slightly different.



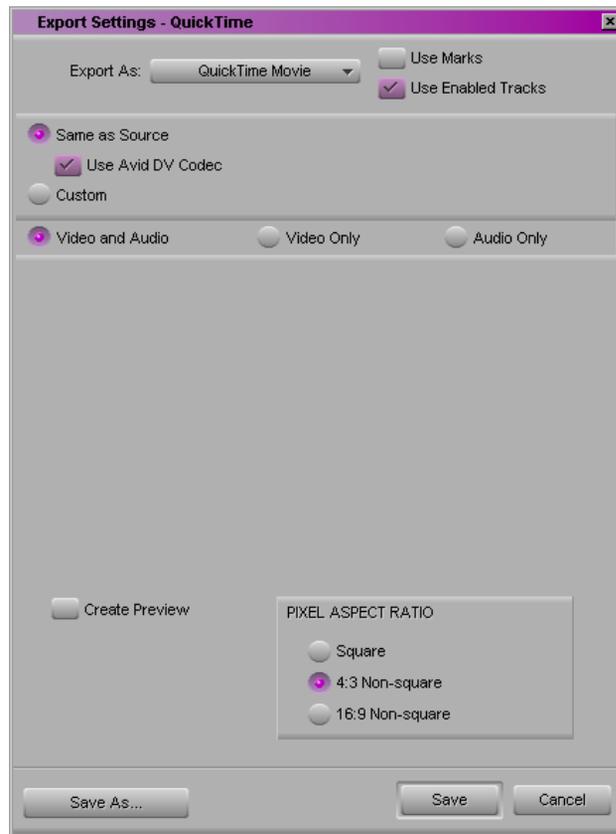
4. Click the Options button.

The Export Settings dialog box appears.



5. Choose QuickTime Movie from the Export As pop-up menu.

The dialog box changes to show options for exporting QuickTime.



For more information about these options, press the F1 key (Windows) or Help key (Macintosh).

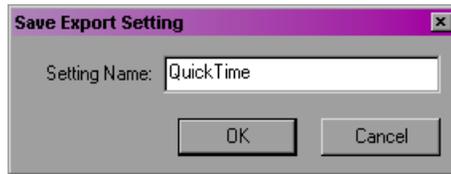
6. Select the following options:

- Use Enabled Tracks
- Same as Source
- Video and Audio

The Same as Source option maintains the size and resolution of the sequence. This option also informs the system to use the QuickTime DV codec to create the QuickTime movie (see [“Using the QuickTime DV Codec”](#) on page 188).

7. Click Save As.

The Save Export Setting dialog box appears.

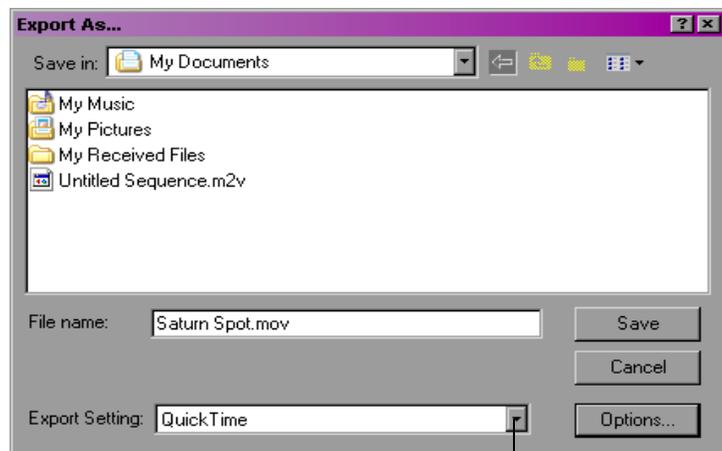


8. In the Setting Name text box change the name to QuickTime.

This setting will be saved in the Settings scroll list, and you can reuse it later.

9. Click OK.
10. Click Save in the Export Settings dialog box.

The Export As dialog box appears again, and the Export Setting pop-up menu shows QuickTime.



Pop-up menu

11. Select a folder to store your QuickTime movie. For this tutorial, the QuickTime movie requires approximately 220 MB of disk space, so pick a drive that has sufficient space.
12. Click Save.

The Avid Xpress DV system creates the QuickTime movie. For this tutorial sequence, the processing takes about 1 minute.

13. Play your movie using the QuickTime player. If QuickTime is properly installed, you can play the movie by double-clicking its icon.

Using the default screen dimensions and DV codec creates a large QuickTime movie that is best suited for further processing in another multimedia development application. To change the screen size and other options, select the Custom option in the Export Settings dialog box. For more information, see the *Avid Xpress DV User's Guide* or Help.

Outputting a Digital Cut to Tape

For information about connecting a camera or video deck, see [Chapter 2](#).

Avid Xpress DV provides you with options for outputting your sequence to tape. This output is referred to as a *digital cut*. You can output to your DV camera or video deck, or, if you have a transcoder connected to the system, to a Betacam[®], VHS, or other analog video deck. You can also output to an audio deck.

About Remote and Local Deck Control

The Digital Cut tool provides you with two options for controlling your deck:

- **Remote:** Allows you to control the deck using the deck controller in the Digital Cut tool. This option provides frame-accurate control when you record a sequence to tape. To use Remote deck control, you need a tape that includes timecode information (a prerecorded or blacked tape). For information on creating a prerecorded or blacked tape, see the instructions for your camera or deck.
- **Local:** Allows you to manually control the deck using the controls on the deck. This option is useful when you need to use non-Avid-controlled decks, such as consumer-grade VHS or Hi-8, or if you do not have a tape with timecode.

Changing the Timecode of the Sequence

Your sequence uses timecode that starts with 00;00;00;00 (NTSC drop-frame timecode) or 00:00:00:00 (PAL timecode).

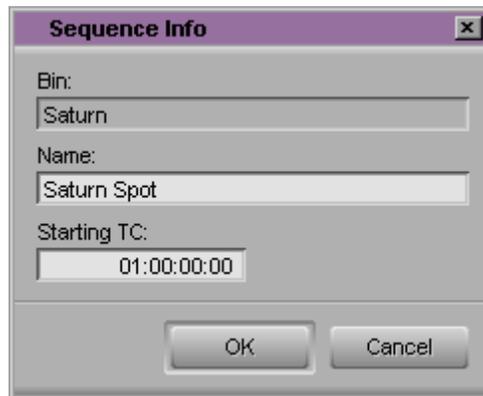


To record a digital cut to an NTSC DV camera or video deck, you need to use drop-frame timecode in your sequence.

You can change the timecode for the start of the sequence. This change prevents problems if you try to record a digital cut starting at or near the very beginning of a tape (00;00;00;00). For this tutorial, you'll change the timecode so the sequence begins to record 30 seconds after the start of the tape.

1. Make sure a sequence is loaded in the Composer monitor.
2. Click the Composer monitor.
3. Choose Get Sequence Info from the File menu.

The Sequence Info dialog box appears.



You can change the default starting timecode in the General Settings dialog box.

4. In the Starting TC text box, edit the timecode so it reads 00;00;30;00 (NTSC) or 00:00:30:00 (PAL).
5. Click OK.

The timecode displayed in the Timeline changes to match the new starting timecode.

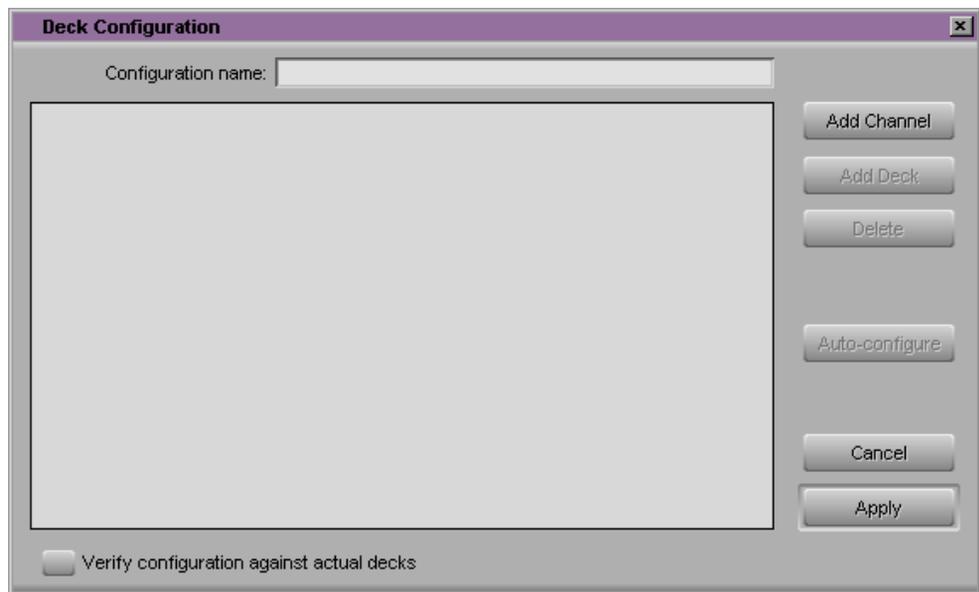
Configuring Your Camera or Video Deck

Before you record your digital cut, you need to select the camera or video deck you are using so you can control the camera or video deck through the Digital Cut tool.

1. In the Project window, choose Deck Configuration from the Settings scroll list.

The Deck Configuration dialog box appears.

2. Click the Add Channel button.



The Channel dialog box appears.



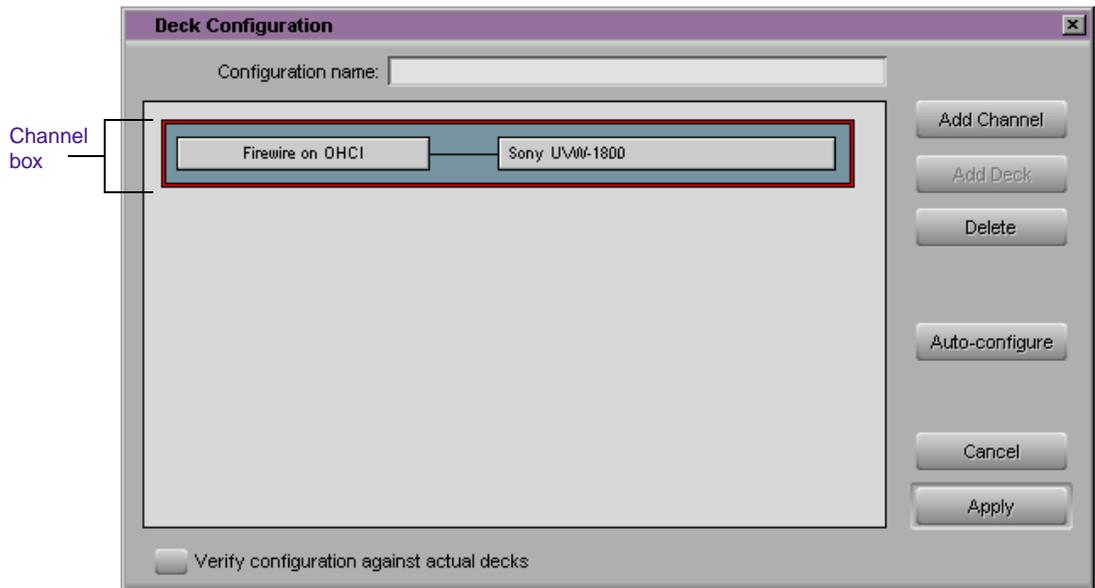
Channel refers to the signal path for deck control. If you have connected a DV camera or video deck that supports IEEE 1394, choose FireWire as the Channel Type and 1394 as the Port from the pop-up menus.

3. Click OK.

A message box asks if you want to automatically configure the channel.

4. Click No.

The Deck Configuration dialog box now includes a channel.



5. Click the channel box to select the channel.

A red outline indicates the channel box is selected.

6. Click the Add Deck button.

The Deck Settings dialog box appears.



For information about all Deck Settings options, see the *Avid Xpress DV User's Guide* or press the F1 key (Windows) or Help key (Macintosh) for Help.

7. Choose the manufacturer and model of your camera or video deck from the Device pop-up menus. If you do not see the manufacturer or model, choose Generic from the first pop-up menu.

8. Click OK.

The Deck Configuration dialog box now shows the channel and the connected camera or video deck.

9. In the Deck Configuration dialog box, make sure the channel box is selected (outlined in red) and click the Apply button.

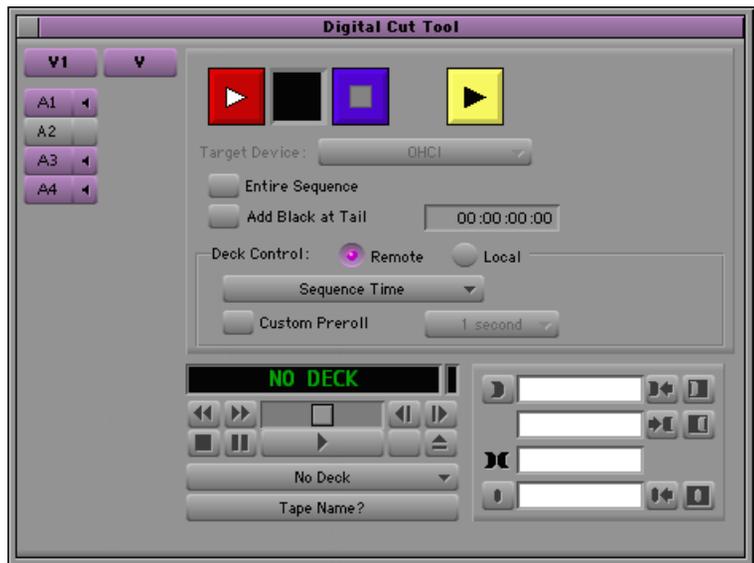
Your camera or video deck is now ready for recording.

Recording a Digital Cut

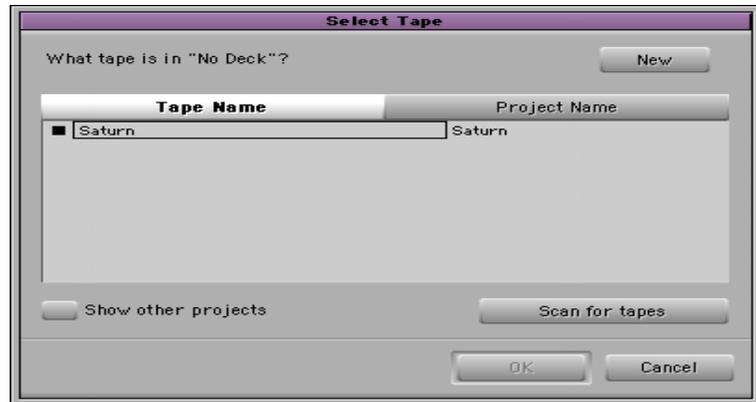
Now you're ready to record your sequence on tape.

1. Make sure your camera or video deck is properly connected (see [Chapter 2](#)) and turned on to the VTR setting.
2. Insert a tape that contains timecode (see [“About Remote and Local Deck Control”](#) on page 192).
3. Prepare your sequence by making sure you have selected and monitored the tracks you want to use (see [“Preparing the Sequence”](#) on page 187).
4. Choose Digital Cut from the Clip menu.

The Digital Cut tool opens.



5. Select the tape as follows:
 - a. If the Select Tape dialog box does not appear automatically, click the Tape Name button in the Digital Cut tool.



- b. Click the New button.
The name New Tape appears in the dialog box.
- c. Type a name for your tape and press Enter (Windows) or Return (Macintosh) on the main keyboard.
- d. Select the new tape name and click OK.

To get Help for the Digital Cut tool, press the F1 key (Windows) or Help key (Macintosh), or position the pointer on an object, click the right mouse button, and choose What This? (Windows) or Help key (Macintosh) from the pop-up menu.

- 6. Use the following settings in the Digital Cut tool:
 - a. Select the Entire Sequence option.
 - b. Select the Remote option to control the camera or video deck.
 - c. Choose Sequence Time from the pop-up menu to start the recording at a timecode existing on tape that matches the start timecode of the sequence.
- 7. Select the video and audio tracks you want represented in the digital cut by using the Sequence Track buttons. The selected buttons should match the tracks you selected in your sequence. The Video Sequence Track button shows V2, which is the top video track selected.
- 8. Select the video and audio tracks to record on the tape using the Enable Track buttons. They should match the selected Sequence Track buttons.
- 9. Click the Play Digital Cut button.



A message box asks you to mount the destination tape in the video deck. If you have already inserted a tape, click OK.

The system cues the video deck to the starting timecode of the sequence, and then plays and records the digital cut. The playback appears in the Client monitor (if one is connected).

To stop the recording at any time, press the space bar. When the sequence finishes playing, a message box informs you the digital cut is complete.

10. Click OK.
11. Close the Digital Cut tool.

Next Steps

You've generated your final output. In [Chapter 13](#), you'll learn how to back up your project.

Chapter 13

Backing Up and Deleting a Project

Now that you've completed your sequence and created output, you might want to save your work. You can then delete the project to save space on your media drive or drives. This chapter contains the following sections:

- [Backing Up Project Information](#)
- [Backing Up Media Files](#)
- [Deleting a Project Folder and Media Files](#)

Backing Up Project Information

Project information and User settings are contained in folders. You can save these folders on a floppy disk or any kind of drive, including a network drive.



The project folder does not include the media. It does include information about the sequences, bins, master clips, subclips, effects, and other components of the project.

The Saturn project is a small one, so you can copy the information onto a floppy disk.

1. Insert a formatted floppy disk into your floppy drive (Windows) or a CD-ROM into your CD-ROM drive (Macintosh).
2. Minimize the Avid Xpress DV window to view the desktop.
3. Double-click the My Computer icon (Windows) or the Macintosh HD icon (Macintosh) and locate the Avid Projects folder.

The exact location of this folder depends on your installation. In most cases it is located in the Avid\Avid Xpress DV folder on an internal hard drive other than drive C (Windows) or in the Macintosh HD\Avid Projects folder (Macintosh).

4. Double-click the Avid Projects folder.
5. Select the folder for your project. The folder has the same name you see in the Select Project dialog box, in this case Saturn.
6. Copy the folder to the floppy disk (Windows) or CD-ROM (Macintosh) using any copying or burning technique.
7. After the folder is copied, label the floppy disk (Windows) or CD-ROM (Macintosh) and store it in a safe place.

Backing Up Media Files

The OMFI MediaFiles folders on your media drives contain the individual media files created when you recorded source material.

The media files for the tutorial are stored on the tutorial CD-ROM that came with your system, so you don't need to back them up. For other projects, the following are options for backing up media files:

- You can use the Consolidate feature to make copies of selected media files on a target hard drive connected to the system. For information on consolidating, see the *Avid Xpress DV User's Guide* or Help.
- You can back up smaller projects to a removable storage device, such as a hard drive.
- You can archive larger media files and folders to a network storage device.

Deleting a Project Folder and Media Files

If you are finished with the tutorial and you want to create free space on your drives, you can delete the project folder and media files. The project folder consists of information about the clips and sequences, but does not include the media. Media files consist of the recorded video and audio data, and are stored on your media drive or drives.

Deleting a Project Folder

You can't delete project information from within the Avid Xpress DV application. You need to quit the application and delete the project.

If you are finished with your project, delete the project information by following these steps:

1. Quit the Avid Xpress DV application.
2. Double-click the My Computer icon (Windows) or the Macintosh HD icon (Macintosh) and locate the Avid Projects folder.

The exact location of this folder depends on your installation. In most cases it is located in the Avid\Avid Xpress DV folder on an internal hard drive other than drive C (Windows) or in the Macintosh HD\Avid Projects folder (Macintosh).

3. Double-click the Avid Projects folder.
4. Select the folder for your project, in this case Saturn.
5. Press the Delete key or click the folder and drag it to the Recycle Bin (Windows) or Trash (Macintosh).

The Confirm Folder Delete dialog box appears and asks if you are sure you want to delete the folder (Windows only).

6. Click Yes (Windows only).
7. Empty the Recycle Bin (Windows) or Trash (Macintosh) to remove the files from the system.

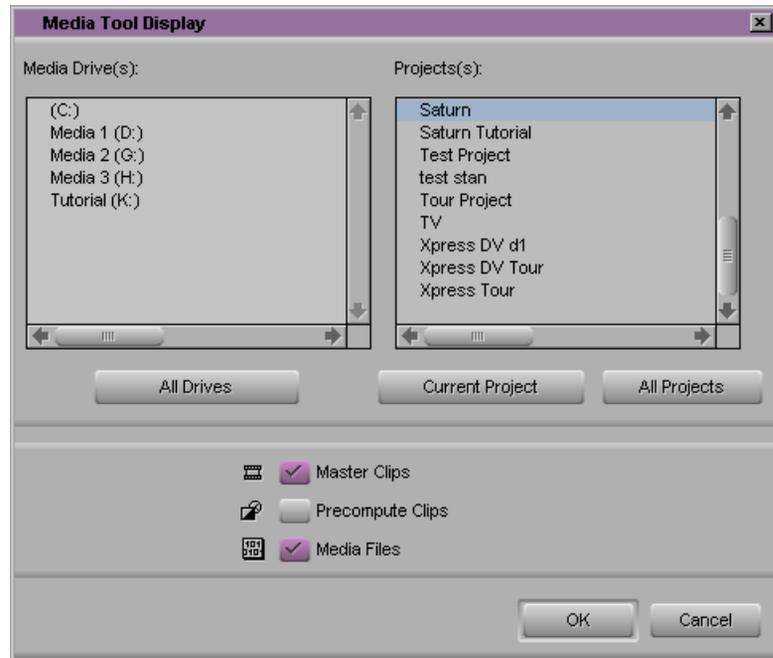
Deleting Media Files

The most efficient way to delete all media files for a project is using the Media tool. The Media tool is your window to the recorded video and audio data files stored on your media drives.

If you are finished with the tutorial, delete the project's media files by following these steps:

1. Start the Avid Xpress DV application and open the project.
2. Choose Media Tool from the Tools menu.

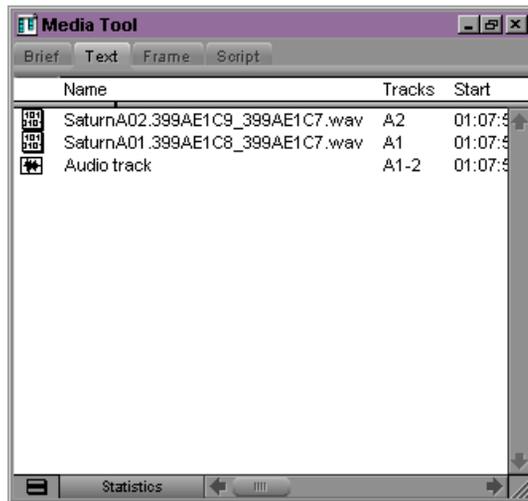
The Media Tool Display dialog box appears.



3. Select the media drive for your media. To make sure the Media tool displays all your media, click the All Drives button.
4. Select the Saturn project.

5. Select all three types of files:
 - Master Clips
 - Precompute Clips (which are rendered effects)
 - Media Files
6. Click OK.

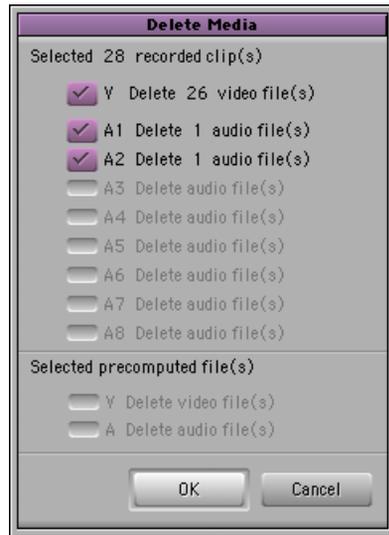
The Media tool opens. Specific icons indicate the types of media files.



7. Choose Select All from the Edit menu.

All files are highlighted.
8. Press the Delete key.

The Delete Media dialog box appears. The selected check boxes in the dialog box indicate you have selected all files for deletion.



9. Click OK.

A dialog box appears and asks if you want to delete the media files.

10. Click Delete.

The selected media files are deleted.

11. Quit the application.

Next Steps

Congratulations on completing the Avid Xpress DV Tutorial! We hope you've enjoyed this introduction to the Avid editing process. After mastering these skills, you can proceed to learn more advanced techniques, as described in the *Avid Xpress DV User's Guide*, *Avid Xpress DV Effects Guide*, and Help.

Index

A B C D E F G H I J K L M N O P Q R S T U V W

Numerics

1394 *See* IEEE Standard

A

Adding

- a dissolve effect [163](#)
- a fade-in effect [163](#)
- a new video track [166](#)
- a Picture-in-Picture effect [165](#)
- a shadow to title text [176](#)
- a title to a sequence [179](#)
- audio to a sequence [146](#)
- frames to a clip [157](#)
- keyframes [169](#)
- multiple clips to a sequence [151](#)
- user profiles [111](#)

Adjusting softness in Picture-in-Picture effect [168](#)

Agreeing to electronic license [106](#), [108](#)

Analog video deck

- controlling (Macintosh) [74](#)
- controlling (Windows) [73](#)

Application key

- connecting [26](#)

Attic folder [88](#)

Audio

- locating a specific frame of [146](#)

Audio clips

- splicing [147](#)

Avid Projects folder

- location [88](#)

Avid Visual Extensions (AVX)

- using third-party plug-in effects compatible with [163](#)

Avid Xpress DV

- closing [118](#)
- file system [88](#)
- installing [40](#), [52](#)
- uninstalling [43](#), [54](#)

B

Backing up

- media files [202](#)
- project information [201](#)

Bin views [113](#)

Bins

- autosaving [173](#)
- defined [88](#)
- opening [112](#)
- organizing footage in [88](#)
- using Brief view in [114](#)
- using Frame view in [115](#)
- using Script view in [117](#)
- using Text view in [114](#)

Index

- Bins display 120
- Blue bar *See* Position indicator
- Brief tab (Bin window) 113
- Brief view (Bin window) 113
- Button names
 - displaying on Tool palette 131
- Buttons
 - Center Text 175
 - Clear Both Marks 139
 - Extract/Splice-in 155
 - Font Size 174
 - Lift 156
 - Lift/Overwrite 150
 - Mark IN 133
 - Mark OUT 134
 - on Command palette 131
 - Overwrite 150, 159
 - Play 128
 - Play IN to OUT 138
 - Play Loop 158
 - Quick Transition (Tool palette) 163, 165
 - Render Effect 170
 - Shadow Depth and Direction 176
 - Splice-in 141, 147
 - Step Backward 128
 - Step Forward 128
 - Trim Mode 157, 160
 - Trim Right 1 Frame 159
- Buttons (Help)
 - Contents 100
 - Index 100
 - Search 101
- C**
- Cables
 - for editing equipment 63
 - IEEE 1394 65
- Camera
 - configuring for output 194–196
- Center Text button 175
- Changing
 - color of title text 176
 - order of clips in a sequence 154
 - the color of title text 176
 - the font of title text 174
 - the size of frames 116
 - user profiles 111
- Check list
 - for setting up system 23
- Cinepak codec 188
- Clear Both Marks button 139
- Clips
 - defined 85
 - marking 133
 - opening in the Source pop-up monitor 123
 - playing 126
 - rearranging 153
 - sorting by clip name 114
 - splicing 147
 - using J-K-L keys to mark 135
 - using step keys to mark 133, 135
- Closing
 - application 118
 - project 118
- Codec
 - defined 188
- Color Selection boxes in Title tool 176
- Command palette
 - using 131
- Configuration disk
 - creating 61
- Configuring
 - camera 194–196
 - video deck 194–196
- Connecting
 - application key 26
 - editing equipment 62–75
 - VTR emulator 75

- Contents button (Help system)
 - using 100
- Context-sensitive Help
 - for screen objects 97
 - for windows and dialog boxes 97
- Controlling
 - analog video deck 73, 74
- Controlling playback
 - with buttons 127
 - with the position indicator 127
- Creating
 - disk configuration disk 61
 - DVD files 181
 - freeze frames 171
 - primary partitions 32
 - sequences 141–148
 - subclips 139
 - titles 174–179
- Cropping
 - Picture-in-Picture effect 168
- Custom installation
 - performing 42, 53

D

- Deck configuration
 - setting 194–196
- Decks (Macintosh)
 - controlling analog video 74
- Decks (Windows)
 - controlling analog video 73
- Deleting
 - media files 204
 - project folder 203
- Digital audio and video data
 - how used 64
- Digital audio scrub
 - locating an audio frame with 146
- Digital cut
 - creating 192–199

- defined 192
- Digital video
 - described 83
- Disk configuration disk
 - creating 61
- Dissolve (fade-in) effects
 - adding 163
- Dongle *See* Application key
- Drives
 - checking internal 30
 - formatting 32
 - preparing 27–35
 - testing 35
- Dual-roller trimming 157–159
- DVD
 - creating a 181

E

- Edgecode display (Timeline) 143
- Edit decision list
 - See* EDL
- Edit points
 - marking 133
- Editing
 - overview 92
 - preparing for 91
- Editing equipment
 - cables for 63
 - connecting 62–75
 - overview 64
- Edits
 - undoing 145
- EDL 93
- EDL Manager
 - installing 44, 46, 55, 57
- Effect mode
 - entering 166
 - in workflow 92

Index

Effects

- dissolve 163, 165
- freeze frame 171
- Picture-in-Picture 165
- rendering 170

Electronic license 106, 108

Enabling cookies 96

Enlarging frames in Frame view 116

Entering

- Segment mode 155
- Trim mode 157, 160

Entire Sequence option (Digital Cut tool) 198

Environment

- using toolsets to control 125

Equipment

- turning off 81, 82
- turning on 24

Exiting

- Segment mode 155
- Trim mode 159

Exporting

- DVD files 181
- QuickTime movie 187–192

External drives

- turning on 24

Extract/Splice-in button 155

F

Fade-in effect

- adding 163

FAT file system 29

File system

- Avid Xpress DV 88

Finding frames

- using timecode 137

Finding information with Help 100

FireWire

- described 83

Font Size button 174

Footage

- removing 155

Formatting drives 32

Frame offset 138

Frame view

- enlarging frames in 116
- entering 115

Frames

- finding with timecode 136
- locating with digital audio scrub 146
- title background in 174
- using frame offset 138

Freeze frames

- creating 171

G

Generating output 181–199

Go to OUT key 138

H

Handles

- defined 87

Hardware information 123

Help

- overview 96

Help system

- finding topics in 100, 101
- printing a topic 102
- using Help 100
- using the Contents button 100
- using the Index button 100
- using the Search button 101
- What's This? Help 97

Help Topics

- using 100

I

- i.LINK
 - described 83
- IEEE 1394 cables 65
- IEEE Standard 83
- IN and OUT points
 - clearing 139
 - marking 133–136
- Index button (Help system)
 - using 100
- Info display 123
- Installing
 - Avid Xpress DV 40, 52
 - EDL Manager 44, 46, 55, 57
 - tutorial files 50, 60

J

- J-K-L keys (three-button play)
 - marking a clip using 135

K

- Keyframes
 - adding 169
- Keys
 - Go to OUT 138
 - Mark Clip 154
 - Mark IN 135
 - Mark OUT 136
 - Play 116
 - Play IN to OUT 138
 - Play Reverse 129
 - Splice-in 143
 - Step Backward 129
 - Step Forward 129

L

- License agreement
 - accepting 106, 108
- Lift button 156
- Lift/Overwrite button 150
- Local deck control 192
- Locating audio frames
 - using digital audio scrub 146

M

- Mark Clip key 154
- Mark IN button 133
- Mark IN key 135
- Mark OUT button 134
- Mark OUT key 136
- Marking clips
 - for storyboarding 151
 - using IN and OUT points 133
 - using timecode 136
- Marking edit points 133
- Media files
 - backing up 202
 - defined 84
 - deleting 204
 - storing 84
- Media tool
 - described 204
- Memory information 123
- Modes
 - Segment 155
 - Source/Record 127
 - Trim 157, 160
- Moving through clips 127

Index

N

- Navigating in the Timeline [144](#)
- New Title command (Clip menu) [173](#)
- Nonlinear editing [84](#)
- Non-real-time effects [170](#)
- NTFS file system [29](#)
- Numeric keypad [136](#), [138](#)

O

- OMFI MediaFiles folders
 - described [202](#)
 - location [88](#)
- Online documentation
 - using [102](#)
- Online Help *See* Help
- Opening
 - a bin [112](#)
 - a clip in the Source pop-up monitor [123](#)
 - Help [96](#)
 - Tool palette [130](#)
 - toolsets [125](#)
- Outgoing clips
 - using dual rollers to trim [159](#)
- Output [181–199](#)
 - overview [93](#)
- Overwrite button [150](#), [159](#)
- Overwriting clips
 - into a sequence [149](#)
 - with three-point edit [153](#)

P

- Partitioning
 - creating primary partitions [32](#)
- Picture-in-Picture effect
 - applying [165](#)
 - cropping [168](#)

- defined [165](#)
 - repositioning [167](#)
- Play button [128](#)
- Play IN to OUT button [138](#)
- Play IN to OUT key [138](#)
- Play key [116](#)
- Play Loop button [158](#)
- Play Reverse key [129](#)
- Playback
 - control buttons [127](#)
 - using buttons to control [127](#)
 - using position bars and indicator to control [127](#)
- Position indicator
 - controlling playback with [127](#)
 - in the Timeline [144](#)
 - moving with frame offset [138](#)
 - positioning for title creation [173](#)
 - using [127](#)
- Precompute [170](#)
- Preparing to edit
 - overview [91](#)
- Printing
 - Help topics [102](#)
- Profile information [123](#)
- Profiles (user)
 - adding [111](#)
 - changing [111](#)
 - described [110](#)
- Project information
 - backing up [201](#)
 - deleting [203](#)
- Project window
 - described [120](#)
- Projects
 - closing [118](#)
 - defined [88](#)
 - selecting [112](#)
 - workflow [89](#)

Publishing
for digital distribution [187](#)

Q

Quick Transition button (Tool palette) [163](#), [165](#)
QuickTime DV codec [188](#)
QuickTime movie
exporting [187–192](#)
Quitting
application [118](#)

R

Real-time effects [170](#)
Rearranging clips [153](#)
Refining edits [149–156](#)
Remote
deck control [192](#)
option (Digital Cut tool) [198](#)
Removing footage from a sequence
and closing the resulting gap [155](#)
and retaining the resulting gap [155](#)
Render Effect button [170](#)
Rendering effects [170](#)
Repositioning
a Picture-in-Picture effect [167](#)
title text [175](#)
RS-232 to RS-422 serial adapter [73](#), [74](#)

S

Saving a title [178](#)
Script view
entering [116](#)
Search button (Help system)
using [101](#)

Search feature
in Help [101](#)
Segment mode
entering [155](#)
exiting [155](#)
in workflow [92](#)
Selecting
a project [112](#)
title colors [176](#)
Sequence Time option (Digital Cut tool) [198](#)
Sequences
changing name of [142](#)
changing the order of clips in [153](#)
defined [86](#)
editing (overview) [92](#)
overwriting clips in [153](#)
playing [142](#)
rearranging footage in [153](#)
removing footage from [155](#)
Serial adapter [73](#), [74](#)
Setting up the browser [96](#)
Settings
defined [120](#)
Video Display [122](#)
Settings display [120](#)
Settings scroll list [120](#)
Shadow
adding to title text [176](#)
Shadow Depth and Direction button [176](#)
Shuttling through footage
with J-K-L keys [128](#)
Single-roller trimming [160](#)
Softness
adjusting in Picture-in-Picture effect [168](#)
Source pop-up monitor
marking edit points in [136](#)
opening clips in [123](#)
playing clips in [127](#)
viewing clips in [123](#)
Source/Record Editing toolset [125](#)

Index

Splice-in button 141, 147
Splice-in key 143
Splicing
 a clip 143
 an audio clip 147
 video into a sequence 141
Starting
 a project (overview) 90
 the application 107
Step Backward button 128
Step Backward key 129
Step Forward button 128
Step Forward key 129
Step keys
 marking a clip using 133, 135
Stepping through footage
 with the keyboard 128
Storyboard
 editing 151
 marking clips for 151
Subclips
 creating 139
 defined 86
 in workflow 92

T

Tabs
 Brief 113
 Frame 115
 Script 117
 Text 114
Testing drives 35
Text for titles
 repositioning of 175
Text formatting tools 174
Text view
 entering 114
Three-button play 123, 128

Timecode
 changing for sequence 193
 finding a frame using 137
 using as reference for marking 136
Timecode display (Timeline) 143
Timeline
 edgecode display 143
 navigating in 144
 position indicator 144
 timecode display 143
 viewing in 143
Title text
 adding a shadow to 176
 changing color of 176
 repositioning 175
Title tool
 creating a new title with 174–179
 creating multiple titles 174
Titles
 See also Title tool, Title text
 adding to a sequence 179
 saving 178
Tool palette 170
 displaying button names on 131
 opening 130
 tearing off 130
 using 129
Tools for text formatting 174
Toolset
 choosing 125
ToolTips 130
Tracking information
 displaying 125
Trim mode
 entering 157, 160
 exiting 159
 in workflow 92
Trim Mode button 157, 160
Trim Right 1 Frame button 159
Trimming 157–161

- Trimming the outgoing clip
 - with dual rollers [159](#)
- Turning off
 - equipment [81](#), [82](#)
- Turning on
 - equipment [24](#)
- Tutorial
 - installing [50](#), [60](#)
 - instructions for using [95](#)

U

- Undo command (Edit menu) [145](#)
- Uninstalling
 - Avid Xpress DV [43](#), [54](#)
- User
 - selecting another [110](#)
- User profiles
 - adding [111](#)
 - changing [111](#)
 - described [110](#)
- User-selectable buttons [131](#)

V

- Variable-speed play *See* Playback
- Video decks
 - configuring for output [194–196](#)
 - controlling analog [73](#), [74](#)
- Video Display settings [122](#)
- Video tracks
 - titles over [173](#)
- Viewing clips
 - in the Source pop-up monitor [123](#)
- VTR emulator [75](#)

W

- What's This? Help [97](#)
- Windows file systems
 - described [29](#)
- Work environment
 - using toolsets to control [125](#)
- Workflow
 - stages of a project [89](#)
- Writing DVD files [181](#)

