After Vegas software is installed and you start it for the first time, the registration wizard appears. This wizard offers easy steps that allow you to register the software online with Sony Media Software. Alternatively, you may register online at http://www.sony.com/mediasoftware at any time.

Registering your product will provide you with access to a variety of technical support options, notification of product updates, and special promotions exclusive to registered Vegas users.

Registration assistance

If you do not have access to the Internet, registration assistance is available during normal weekday business hours. Please contact our Customer Service department by dialing one of the following numbers:

Telephone/Fax	Country
1-800-577-6642 (toll-free)	US, Canada, and Virgin Islands
+608-204-7703	for all other countries
1-608-250-1745 (Fax)	All countries

Customer service/sales

For a detailed list of customer service options, we encourage you to visit http://mediasoftware.sonypictures.com/support/custserv.asp. Use the following numbers for telephone support during normal weekday business hours:

Telephone/Fax	Country
1-800-577-6642 (toll-free)	US, Canada, and Virgin Islands
+608-204-7703	for all other countries
1-608-250-1745 (Fax)	All countries

Technical support

For a detailed list of technical support options, we encourage you to visit http://mediasoftware.sonypictures.com/support/default.asp. To listen to your support options by telephone, please call 608-256-5555.

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Table of Contents

Chapter 1 Introduction

Welcome

Vegas® software from Sony Media Software is an innovative and advanced multitrack media-editing system. Vegas software was designed to create an efficient audio/video production environment without sacrificing the quality and processing power that you expect from Sony Media Software. Whether it's the standard and familiar Microsoft® Windows® navigation commands or the clean and uncluttered interface, you'll find Vegas software to be a tool that will be mastered in minutes. Beneath the unique and customizable interface, you'll find a product that is both powerful and flexible.

System requirements

In order to use Vegas software, your computer must satisfy the following minimum specifications:

- Microsoft® Windows® 2000, XP Professional, or XP Home (Windows SP2 required for HDV)
- 800 MHz processor (2.8 GHz recommended for HDV)
- 200 MB hard-disk space for program installation
- 256 MB RAM (512 MB RAM recommended for HDV)
- OHCI compatible i.LINK® connector*/IEEE-1394DV card (for DV capture and print-to-tape)
- Microsoft Windows-compatible sound card
- CD-ROM drive (for installation from a CD only)
- Supported CD-Recordable drive (for CD burning only)
- Microsoft DirectX® 9.0c or later (included on CD-ROM)
- Microsoft .NET Framework 1.1 SP1 (required only for Vegas Movie Studio Platinum; included on CD-ROM)
- Microsoft Internet Explorer 5.1 or later (included on CD-ROM)

Please note: Some features may require product registration.

*i.LINK is a registered trademark of Sony Electronics, used only to designate that a product contains an IEEE 1394 connector. All products with an IEEE 1394 connector may not communicate with each other.

Technical support

The Web site at http://mediasoftware.sonypictures.com/support/default.asp has technical support, reference information, program updates, tips and tricks, user forums, and a knowledge base.

Installing Vegas software

1. Insert the CD-ROM. The setup screen appears (if CD-ROM AutoPlay is enabled).

   If CD-ROM AutoPlay is not enabled, click the ![start] button and choose **Run.** In the Run window that appears, type the CD-ROM drive's letter and add **:\setup.exe**. Click **OK** to start the installation.

2. Click **Install Vegas 6.0**. The installation process begins.

3. Follow the screen prompts and enter the necessary information when required.

4. At the last screen prompt, click ![Finish] to conclude the installation.

> **Note:** *Windows Installer is used for all versions of Windows. Windows Installer is installed and then you are asked to restart your system.*

Using this manual

This manual is provided to assist users of Vegas Movie Studio™ and Vegas Movie Studio Platinum software applications. For this reason, product features are identified throughout the manual using the following icons:

 Features exclusive to Vegas Movie Studio Platinum

Using online help

You can access two varieties of help:

- Online help
- What'sThis? help (also referred to as context-sensitive help)

Online help

To access online help, choose **Contents and Index** from the **Help** menu or press F1.

> **Note:** *To view online help, Internet Explorer 5.1 or later must be installed on your system. Internet Explorer 5.1 is included on the Vegas software CD-ROM for your convenience.*

The online help window has four tabs that you can use to find the information that you need.

Toolbar
Tabs
Information pane
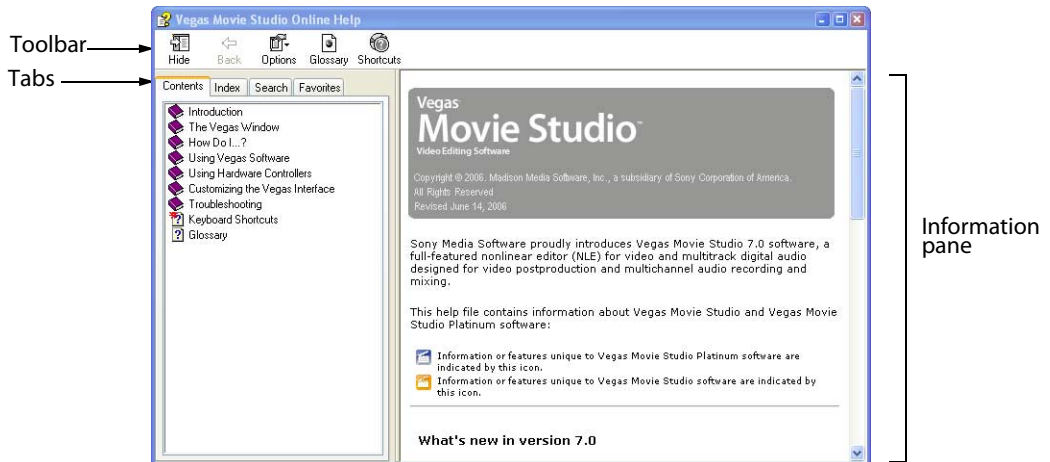
The **Contents** tab provides a list of available help topics. Double-click a closed book (📘) to open the pages and then click a topic page (❓).

The **Index** tab provides a complete listing of the help topics available. Scroll through the list of available topics or type a word in the **Type in the keyword to find** box to quickly locate topics related to that word. Select the topic and click Display .

The **Search** tab allows you to enter a keyword and display all of the topics in the online help that contain the keyword you have entered. Type a keyword in the **Type in the word(s) to search for** box and click List Topics . Select the topic from the list and click Display .

The **Favorites** tab allows you to keep topics that you revisit often in a separate folder. To add a topic to your favorites, click Add on the **Favorites** tab.

What'sThis? help

What'sThis? help allows you to view pop-up descriptions of menus, buttons, and dialog boxes.

1. Click the **What's This Help** button ( ) in the toolbar or the question mark ( ) in the upper-right corner of a dialog box. Alternately, you can choose **What's This?** from the **Help** menu or press Shift + F1. The cursor changes to a question mark icon (?).

2. Click an item in the program's interface. A pop-up description of the item appears.

Help on the Web

Additional help and information is available on the Sony Pictures Digital Media Software and Services Web site. From the **Help** menu, choose **Sony on the Web** to view a listing of Web pages pertaining to Vegas software and Sony Pictures Digital.

Show Me How tutorials

You can learn more about many of the features in Vegas Movie Studio and Vegas Movie Studio Platinum by using the interactive Show Me How tutorials installed with the software.

By default, Show Me How tutorials display upon startup of the application. However, you can access them at any time from the **Help** menu by choosing **Show Me How.**

Tip: *To disable automatic display of the Show Me How tutorials, clear the* **Show at Startup** *check box at the bottom of the tutorial window.*
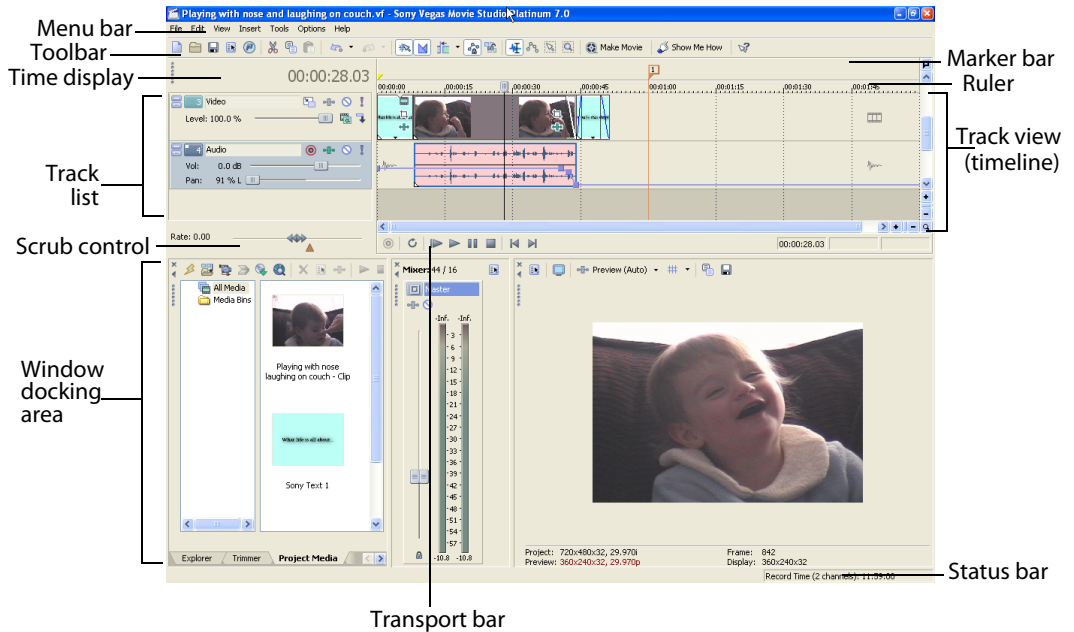
Overview

Vegas software is designed to be an easy-to-use program with many tools that provide power and flexibility when creating and working with multimedia files. Many operations, menu items, and shortcut keys are consistent with other popular Microsoft Windows software applications.

The following sections provide a graphical tour of the Vegas workspace.

Main window

This is the window that appears when the software is opened. The work area is subdivided into three primary areas: the track list, the track view (or timeline), and the window docking area. You can resize the track list, track view, and window docking area by dragging the dividers between them.

Menu bar
Toolbar
Time display
Track list
Scrub control
Window docking area
Transport bar

Marker bar
Ruler
Track view (timeline)
Status bar

Toolbar

The toolbar allows you to quickly access the most commonly used functions and features. From the **Options** menu, choose **Customize Toolbar** to specify which buttons are displayed.

	Create new project			Enable automatic crossfades
	Open existing project			Enable automatic ripple editing
	Save project			Lock envelopes to events
	Open project properties			Ignore event grouping
	Publish project to the Web			Normal edit tool
	Cut selected events or time range			Envelope edit tool
	Copy selected events or time range			Selection edit tool
	Paste items from clipboard into project			Zoom edit tool
	Undo			Make Movie Wizard
	Redo			Show Me How tutorials
	Enable snapping to grid lines			What's This? help

Time display

The Time Display window reflects the cursor's position on the timeline and the end point of a time selection. You can customize time display settings, including what time the window displays and colors are used in the display.

You can move the Time Display window from its docked position above the track list to float on the workspace or dock in the window docking area.

Docked position
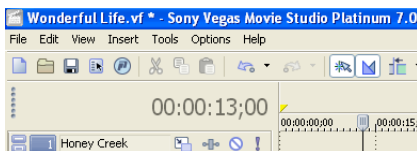
Floating window
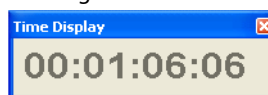
Docked in window docking area
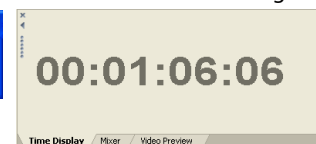
Ruler

The ruler is the timeline for your project. You may specify how the ruler measures time: seconds, measures and beats, frames, etc.

Marker bar

The marker bar is the area where you can place, name, and position markers and regions along the project's timeline. These informational tags can serve as cues or reminders highlighting important events in your project.
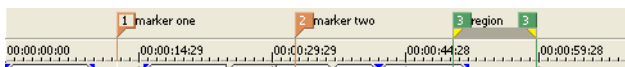
Command bar

The command bar displays when you add a command to your project. Commands add metadata to media files to create effects such as closed captioning. *For more information, see Adding project markers and regions on page 58*.
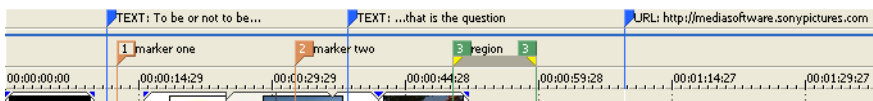
CD layout bar

The CD layout bar displays tracks and indices in an audio CD layout project for disc-at-once (DAO) CD burning. *For more information, see Burn it to Video CD (VCD) or CD-ROM on page 66*.
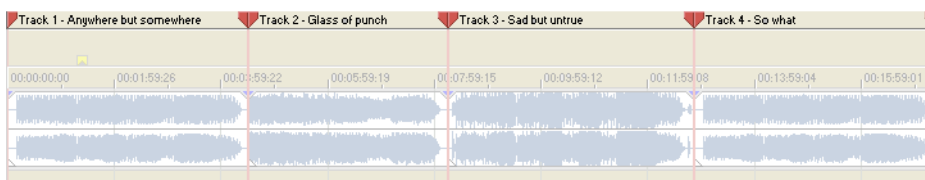
Track list

This area identifies the track order in your project and contains controls used to determine track compositing and mixing. *For more information, see Using the track list on page 32*.
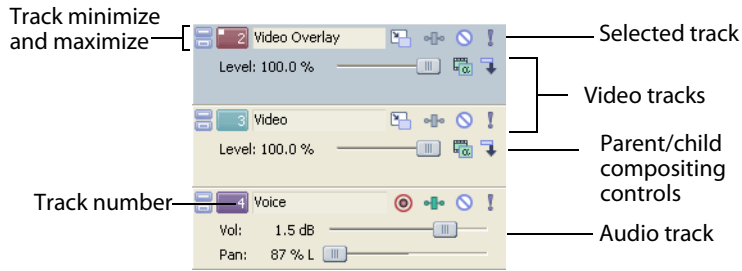
Timeline

All arranging and editing is done in the timeline or track view. This area contains all of a project's events. *For more information, see Using the track view on page 31*.
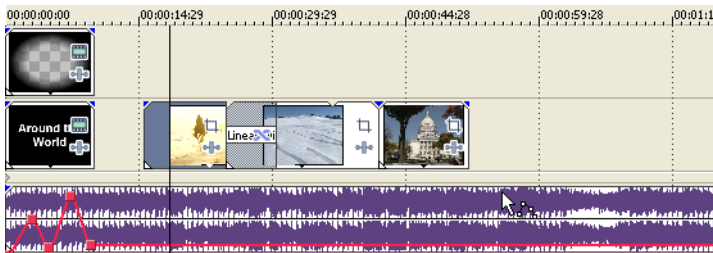
Transport bar controls

The transport bar contains the playback and cursor positioning buttons frequently used while working on and previewing your project.

⏺	Record into track		⏸	Pause project playback
↻	Loop playback		■	Stop playback
▶	Play from beginning of project		⏮	Move cursor to start of project
▶	Play project from cursor position		⏭	Move cursor to end of project

Status bar

The status bar is located at the bottom of the main program window and displays information about roughly how much space is left on your computer to record audio (Record Time). During the rendering processes, the left side of the status bar also contains information about the progress of the render.

Record Time: 23:03:15

The Video Preview window also has its own status bar that displays project specific information. *For more information, see Playing your project on page 34*.

Scrub control

The scrub control is used to play your project forward or backward for editing purposes. You may adjust playback speed by setting the speed control marker located beneath the scrub control. *For more information, see Scrubbing on page 36*.

Drag either forward or backward for playback

Rate: 0.00

Set play-back speed
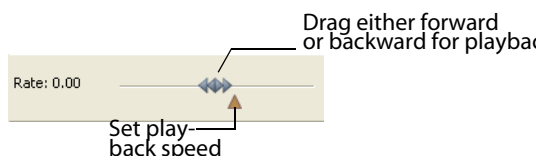
Window docking area and floating window docks

This area allows you to keep frequently used windows available but out of the way while you are working with a project. Windows can be docked next to each other, subdividing the docking area, or they can be docked in a stack in the window docking area or in a separate floating docking window. When stacked, each window has a tab at the bottom with its name on it. Click the window's tab to bring it to the top.

Close window
Expand window

Drag the handle away from the docking area to float the window.
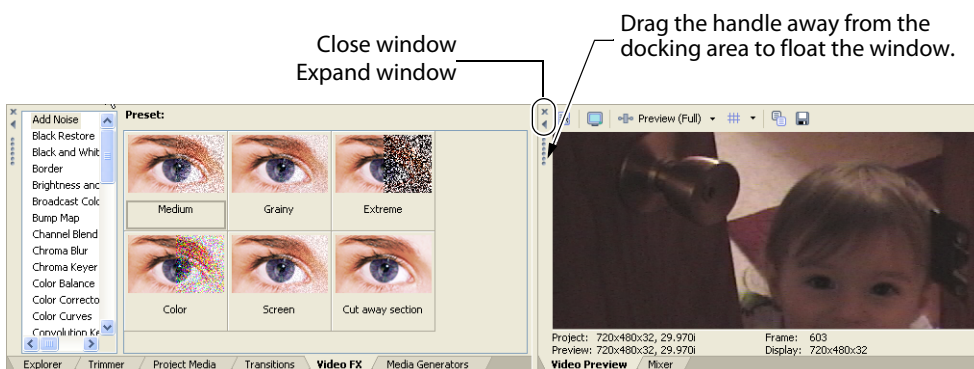
- To dock a window, drag it to the docking area.
- Drag the handle on the left side of a docked window to remove a window from the docking area and float it.
- To prevent a window from docking when you drag it, hold the Ctrl key.
- To expand a docked window so it fills the docking area, click the **Maximize** button ( ). Click again to restore the window to its previous size.

- To remove a window from the docking area or a floating dock, click the **Close** button ( ).

Explorer window - **Alt+1**

The Explorer window is similar to the Microsoft Windows Explorer. Use the Explorer window to select media files to drag to the project timeline or add to the Project Media list. You can also use the Explorer to perform common file management tasks such as creating folders, renaming files and folders, deleting files and folders. Use the **Start Preview** ( ) and **Auto Preview** ( ) buttons to preview files before adding them to the project.

Select drive or folder

Preview selected media files before placing them in the project.

Select media to place in the project by dragging and dropping or double-clicking.
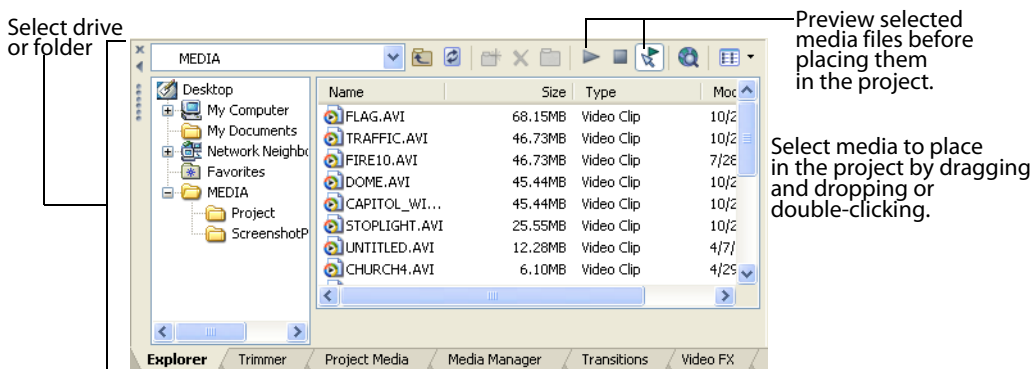
Trimmer window - **Alt+2**

The Trimmer window is a good place to edit any media file. When a media file is placed in the Trimmer window, you can place portions of the file on separate tracks by dragging and dropping.
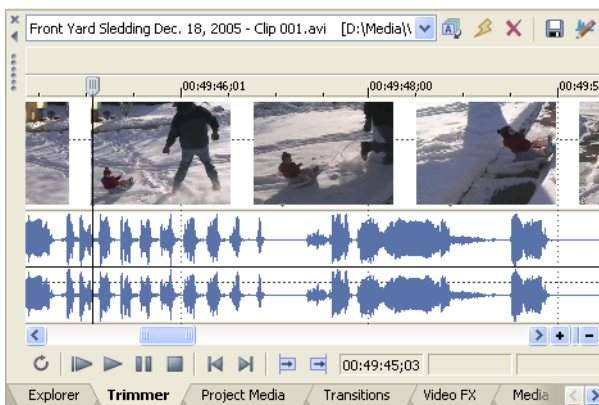
Mixer window - Alt+3

The Mixer window gives you access to your project's audio properties, bus assignments, output levels, and plug-in chains.
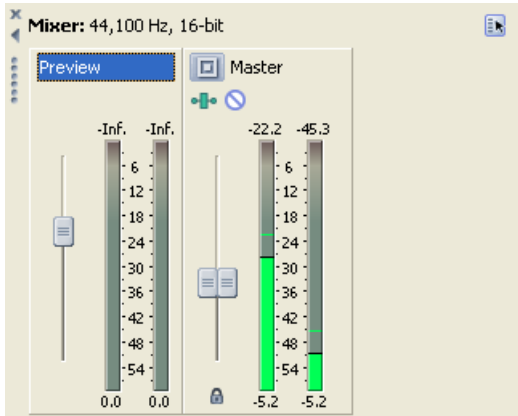
Video Preview window - Alt+4

This window displays a project's video during project editing and playback. *For more information, see Playing your project on page 34.*

Video appears during project playback or as the cursor is moved during editing.
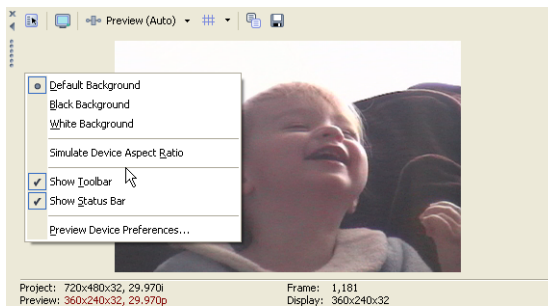
Right-click to change Video Preview settings

Project Media window - Alt+5

The Project Media window helps you organize the media files you're using in a project. The information about these files is displayed in a highly flexible database that can be instantly sorted. You can also use the Project Media window to apply effects and plug-ins to media files and set the specific properties of these files. *For more information, see Using the Project Media window on page 22.*
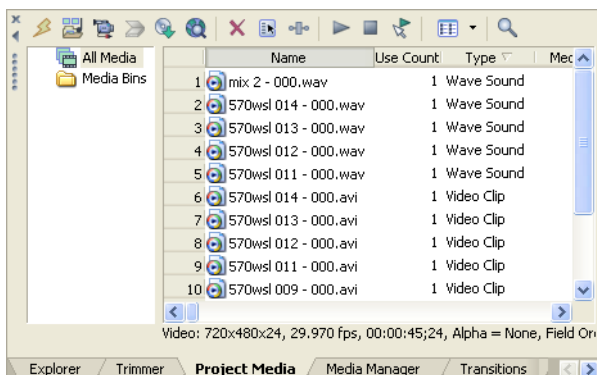
Transitions window - Alt+7

The Transitions window contains all of the transitions available. The thumbnails display animated examples of each transition. You can drag transitions from this window to replace the crossfade between two video events or to replace the fade-in or fade-out region of a video event.
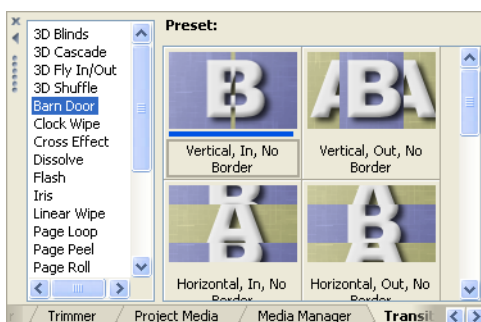
Video FX window - Alt+8

The Video FX window contains the video effects available. The thumbnails display animated examples of each plug-in preset. You can drag plug-ins from this window to an event, track, or to the Video Preview window (video output effects).
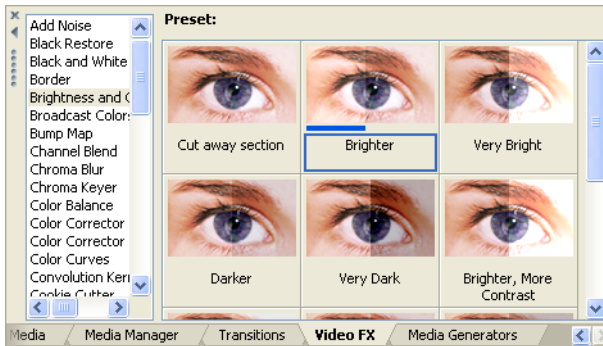
Media Generators window - Alt+9

The Media Generators window contains the different media generators provided. Media generators make it easy to create events containing text, credit rolls, test patterns, color gradients, and solid color backgrounds. You can drag a media generator to the timeline to create a new generated media event.
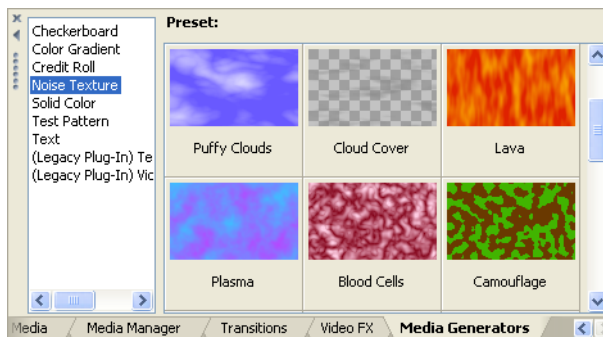
Chapter 2 : Getting Started

Vegas® software is a new way of creating multimedia productions. Whether you are an experienced multimedia author or a budding novice, the powerful features and capabilities of Vegas software are organized to increase your creativity and productivity. The following chapter summarizes the software's basic functions and operations.

Creating projects

The process of creating a multimedia production can be a complicated undertaking, involving hundreds of shots, takes, voiceovers, music beds, audio tracks, and special effects. Organization is a critical issue in this process. In the software, organization is handled by a small project file (VEG) that saves information about source file locations, edits, cuts, insertion points, transitions, and special effects. This project file is not a multimedia file, but is instead used to create (render) the final file when editing is finished.

Because Vegas software edits a *project* file and not the original source files, you can edit without worrying about corrupting your source files. This not only gives you a strong sense of security, but it also gives you the freedom to experiment.

1. From the **File** menu, choose **New**. The New Project dialog appears.

> **Note:** *The first time you run the software, a new project will automatically be started for you.*

2. Enter your project settings on the various tabs.

   - The **Video** tab allows you to select the video format and other video parameters.
   - The **Audio** tab allows you to set up the basic audio settings.
   - The **Ruler** tab allows you to choose the way the ruler is delineated (beats, seconds, etc.).
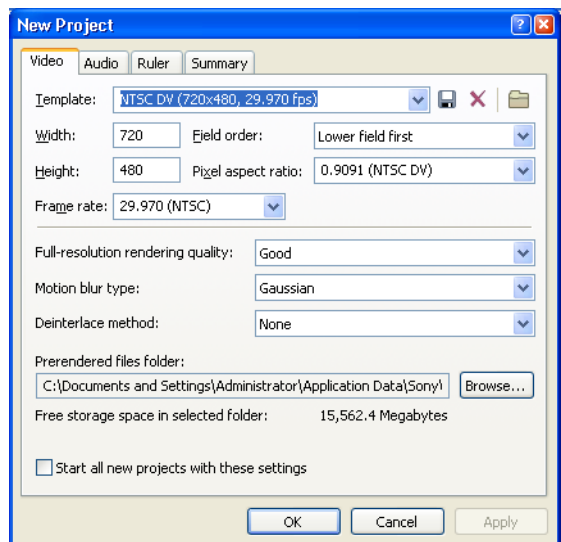
- The **Summary** tab allows you to enter any relevant information and reminders about your project.

> **Tip:** *The easiest way to set the often-complex properties on the **Video** tab is to select a template that matches your media (e.g., NTSC DV (720x480, 29.970 fps)).*

3. Click **OK**.

4. From the **File** menu, choose **Save**. Enter a **name**, browse for a location, and click **Save** to save your project (VEG file).

You can change project settings at any time while working on a project. From the **File** menu, choose **Properties** to change any of these settings.

Saving a project

When you save your work, it is saved in a project file. Project files are not rendered media files.

1. From the **File** menu, choose **Save**.
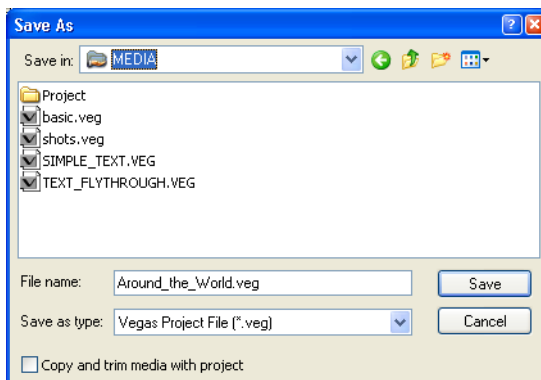
The first time you save a project, the Save As dialog appears. In subsequent saves, the dialog is bypassed, your existing file name is retained, and your project is updated to include any implemented changes.

2. Select the drive and folder where you want to store the project.

3. Type the project name in the **File Name** box.

4. Click **Save**.

> **Tip:** *Select the **Copy and trim media with project** check box to save the project file and copies of the media files to a common location.*

Renaming a project (using Save As)

After you have been working with your project, you can use the **Save As** command in the **File** menu to save a copy of a project with a new name. This is useful for backing up different versions of a project.

Getting media files

You can add media from a variety of sources to your project. You can add audio and video files, record audio into a track, capture video from a video camera, or extract music from your own CD. You can also create media such as text overlays, backgrounds, and credit rolls from within the software.

Note: *When you add an ACID loop to the timeline, it is automatically stretched to match the project tempo as specified on the Ruler tab of the Project Properties dialog. If you want to ignore tempo information, clear the Import at project tempo check box on the Audio tab of the Preferences dialog.*

Previewing a media file

You may preview files before placing them in your project. The Explorer window has a mini-transport bar with **Play**, **Stop**, and **Auto Preview** buttons (▶ ■ 🐾). When you preview a file, its stream is sent to the Mixer window's preview bus (for audio files) or to the Video Preview window (for video files).

Tip: *You can use the same mini-transport bar buttons in the Project Media window to preview files in the Project Media list.*

1. Select a file in the Explorer window.
2. Click the **Play** button (▶) to listen to the file.
3. Click the **Stop** button (■) or select a different file to stop previewing the file.

Tip: *To automatically preview selected files, click the **Auto Preview** button (🐾) on the Explorer window's transport bar.*

Using the Project Media window

Media files, both video and audio, tend to be the largest files on your hard drive. It is therefore not always easy to move them around and impractical to store multiple copies of these files. You can add media files to the Project Media list to organize them before any editing begins. Once you begin working on a project, all files you add to the

timeline are automatically included in the Project Media list. From the **View** menu, choose **Project Media** to open this window if it is not already visible.
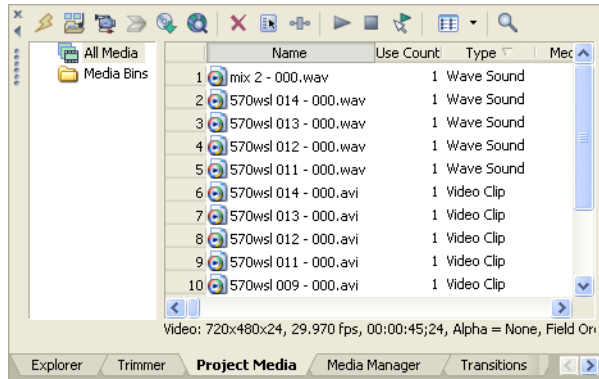
Using Project Media views

You can control the information that is displayed in the Project Media window by clicking the **Views** button (▦ ▾) and selecting a view. The purpose of each view is explained below.

View	Description
List	Displays a simple listing of the file name of each file in the Project Media window.
Detailed	Displays all the properties for each file. The information is presented in a table format. You can customize the information displayed:
	Reorder columns (fields) by dragging the column label to a new position.
	Hide a column by dragging the column label off of the Project Media window. To display a hidden column, right-click the Project Media window, choose **View** from the shortcut menu, and choose the column name from the submenu.
	Sort the files in the Project Media list according to a category by clicking the column label for that category.
	Use the Comments field to add your own annotations to a file's entry in the Project Media list. Double-click the field to enter text. This information is saved with the project and is not saved with the media file itself.
Thumbnail	Displays the first frame of a video file.

Adding media to the Project Media list

You can add media to the Project Media list without adding it to the timeline by importing the file.

Adding media to the Project Media list from the Explorer window

1. Navigate to and select a file to add to the Project Media list. You can use Ctrl or Shift to select multiple media files.

2. Right-click the file and choose **Add to Project Media list** from the shortcut menu. The selected file is added to the Project Media list.

Replacing media in the Project Media list

You may replace a file in the Project Media list with a different file. When changing the media file that an event contains, every occurrence of the event on the timeline is updated with the new media file contents.

1. Right-click a file in the Project Media window.

2. Choose **Replace** from the shortcut menu.

3. In the Replace Media File dialog, browse for and select the file that you want to replace the current file.

4. Click **Open**. The selected file replaces the old file in the Project Media list, and any events in the timeline containing the old file are updated to contain the new media file.

Capturing video

You can use the Sony Video Capture application installed with Vegas software to capture video clips from your DV or HDV video camera or via your Blackmagic Design DeckLink™ card and add them to the Project Media window. You can also specify a different third-party capture application for video capture.

HDV video capture is available only in Vegas Movie Studio Platinum software.

> **Tip:** *To specify the video capture application you want to use with the full version of Vegas software or in Vegas Movie Studio Platinum software, check the* **Use external video capture application** *check box on the Video tab of the Preferences window and browse for the program's executable (.EXE) file.*
> *To specify the video capture application you want to use with Vegas Movie Studio Platinum software, browse for the program's executable using the* **Browse** *button next to the* **Preferred video capture application** *box on the Video tab of the Preferences window.*

1. If you have not already done so, connect your video camera to your video capture card using the cable provided with the card.

2. In the Project Media window, click the **Open Video Capture** button ( ). The video capture application you specified in the Video tab of the Preference window starts.

3. Capture your video. For information on capturing video with the Sony Pictures Digital Video Capture application, please see the Vegas online help. To access help, choose **Contents and Index** from the **Help** menu.

Once you have captured your video, Video Capture adds the file(s) to the Project Media window. If any captured clips go offline, you can recapture the clips using your video capture application. Right-click an offline file in the Project Media window and choose **Recapture** from the shortcut menu.

Getting images

You can bring images directly into the software from your scanner, digital camera, or other TWAIN device. The images are added to the Project Media window as JPEG image files.

1. Make sure your device (scanner or digital camera) is on and connected to your computer.

2. In the Project Media window, click the **Get Photo** button (➡). The software is started for the device.

3. Use the device software to get an image and send it to Vegas software. Once the image has been sent, the Scanned Files dialog appears.

- Click **Rename** to give the new image a more meaningful name.
- Click **Delete** to cancel the process of adding the image.

4. Click **Done**. The new JPEG file is added to the Project Media list.
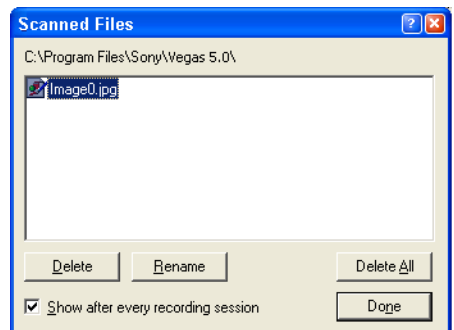
> **Tip:** *If any of the subjects in your captured images have red eyes, you can use the red-eye removal feature in Vegas Movie Studio or Vegas Movie Studio Platinum to correct the problem. For more information on this feature, please see the online help.*

Extracting audio from a CD

You can extract tracks from a CD and add them to the Project Media window as WAV files.

> **Important:** *Vegas software is not intended for, and should not be used for, illegal or infringing purposes, such as the illegal copying or sharing of copyrighted materials. Using Vegas software for such purposes is, among other things, against United States and international copyright laws and contrary to the terms and conditions of the End User License Agreement. Such activity may be punishable by law and may also subject you to the breach remedies set forth in the End User License Agreement.*

1. Insert the audio CD.

2. In the Project Media window, click the **Extract Audio from CD** button (🌐). The Extract Audio from CD dialog appears.

3. From the **Action** drop-down list, choose the method you want to use for extracting the CD audio:

   • Read by track - Use this option to choose the tracks you want to extract from the CD.

   • Read entire disc - Use this option to automatically extract all tracks on the disc. The entire CD is extracted into one new file in the Project Media list.

   • Read by range - Use this option to extract audio from a specified range of time.

4. If you chose either the **Read by track** or **Read by range** option, specify the track(s) or range to extract:

   • For **Read by track**, click the track(s) you want to extract in the Tracks to read list. Use the Ctrl or Shift keys to select more than one track. Each track is extracted into a separate file in the Project Media list.

   • For **Read by range**, enter a time in the **Range** start field and either the **Range end** or **Range length** fields. The range of audio is extracted into one new file in the Project Media list.
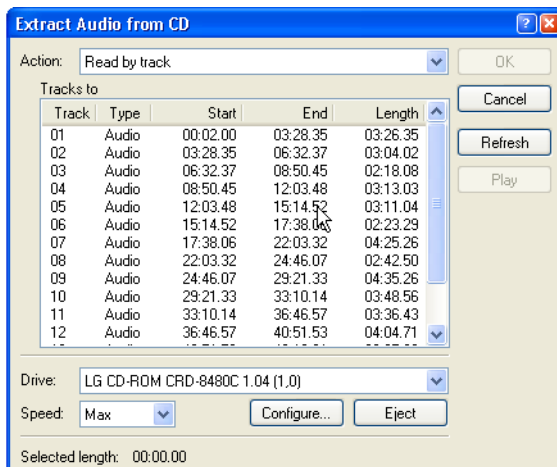
   > **Note:** *If you want to extract multiple tracks to a single file, choose* **Read by track** *from the* **Action** *drop-down list to select your tracks, and then choose* **Read by range** *from the* **Action** *drop-down list. The appropriate time range for the tracks you selected will automatically be inserted and the time range will be extracted to a single file.*

5. From the **Drive** drop-down list, choose the drive containing the audio CD from which you want to extract.

6. From the **Speed** drop-down list, choose the speed at which you want to extract the audio. If you experience any problems extracting audio, you can try decreasing the selected speed, or you can click **Configure** to adjust the **Audio extract optimization** setting.

   > **Note:** *To eject the CD at any time prior to beginning the extraction process, click the* **Eject** *button.*

7. Click OK. The Save As dialog appears.

8. Select a name and location for the new WAV file.

9. Click Save to begin extracting the audio.

The track is extracted and a progress meter is displayed to indicate the percent complete. Once extraction is complete, the new WAV file appears in the Project Media window.

The option of automatically naming extracted tracks is provided for you. To enable this option, choose **Preferences** from the **Options** menu, and on the **CD Settings** tab, select the **Autoname extracted tracks** check box.

Sorting media with bins

The detailed view of the Project Media window helps you sort your media files using their attributes, but for more control, you can create bins. Bins are folders within projects that you can use to organize your media files.

Media bins are virtual folders that are saved with your project. They do not affect the way media is saved on your computer.

Creating bins

Right-click the parent bin where you want to create a new bin and choose **Create New Bin** from the shortcut menu.

Adding media to a bin

1. Browse your existing bins to find the media file you want to move. The All Media Folder contains all media files in your project.

2. Drag a file from the right-hand pane to a bin.

Searching media bins

1. Right-click in the Project Media window and choose **Search Media Bins** from the shortcut menu. The Search Media Bins dialog is displayed.

2. Use the drop-down lists in the Search Media Bins dialog to set your search conditions and click the **Search** button. The selected bin and all sub-bins will be searched.

3. Click the **Search Results** icon to view the matching files.

> **Hint:** *Right-click the* **Search Results** *icon and choose* **Save as Bin** *from the shortcut menu to save the results of your search as a new media bin.*

Automatically adding recorded files to a media bin

Select a media bin if you want to automatically add your recorded audio to a media bin.

Deleting media from a bin

1. Select a media file.

2. Press Delete on your keyboard.

3. If the **All Media Folder** is selected, the file will be removed from your project.

4. If a media bin is selected, the file is removed from the bin, but remains part of your project. The file is still available in the **All Media Folder**.

Adding media to the timeline

Media files may be added to your project from the Explorer or Project Media windows by double-clicking them or by dragging them. Either method places the media file in an event in its entirety in the timeline.

Dragging a media file to the timeline

You can create a new track by dragging a media file to a blank area on the timeline and dropping it in place. Tracks can contain multiple events, so you can place different events next to each other on a track.

> **Note:** *Video and audio events cannot be placed on the same track.*

1. Locate a media file in the Explorer or Project Media windows.

2. Drag the media file to the timeline.

An event for the media file appears where you released the mouse.

Dragging multiple media files to the timeline

1. Select multiple media files in the Explorer or Project Media windows. Select a range of adjacent media files by pressing Shift and clicking the first and last files in the range or select files that are not adjacent by pressing Ctrl and clicking individual files.

2. Right-click and drag the files to the track view (timeline).

3. When you release the mouse, a shortcut menu appears. Select a placement option from the menu.

- **Add Across Time**

- **Add Across Tracks**
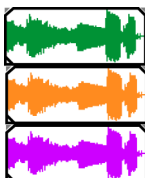
- **Add As Takes**
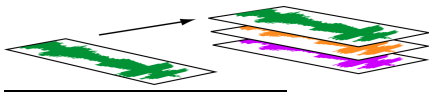
You will see one event on the track.
The other events are listed at takes "beneath" the
the topmost event.

- **Video Only** and **Audio Only** allow you to isolate either the video or audio, and add that stream from a multimedia file either across tracks, across time, or as takes.

Tip: *A left-click drag-and-drop automatically inserts files across time. However, you can cycle through placement modes by right-clicking (without releasing the left mouse button) while performing the drag-and-drop operation.*

Double-clicking a media file

This method places the event at the cursor's position in the selected track. If the selected track is a video track, and you double-click an audio event (or vice versa), a new track is created for the event. Once an event is placed, you can move it from one track to another or change its position on the timeline.

Inserting a video file with associated audio

Media files with video frequently include associated audio. When you insert a media file into the timeline, the associated audio is automatically inserted into a separate audio track below the video track. The two associated events are grouped together and behave as a single unit when moved or otherwise edited. You can ungroup the events to move them independently.
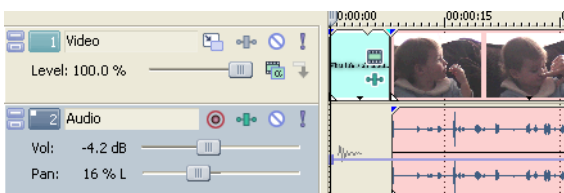
Two events that contain the video (top) and audio (bottom) streams from a single multimedia video file; each event is inserted on a separate track.

Automatically crossfading inserted events

When inserting multiple events across time, the events (both video and audio) may be set to automatically crossfade. Two options must be enabled in order to create crossfades automatically when adding multiple events. First, verify that a check mark appears next to **Automatic Crossfades** in the **Options** menu. Second, from the **Options** menu, choose **Preferences,** and on the **Editing** tab, select **Automatically overlap multiple selected media when added**. *For more information, see Crossfading events on page 55*.

Working with events

Events are the most basic objects in a project. An event is something that happens in time, has a specific duration, and can be video or audio.

Understanding files and events

The objects you work with are referred to as media files and events.

- **Files** are objects that are stored on your hard disk. In Vegas software, you will work with media files, such as music and video files. These files are neither operated on nor changed. You can access files from the Vegas Explorer window.

- **Events** are periods of time on the timeline that act as windows into media files, either whole or in part. When you drag a media file onto the timeline, you automatically create an event that contains that file's contents. An event can contain video, audio, still images, or generated media. The event window may contain only a small portion of a much larger media file. A single media file can be used repeatedly to create any number of different events, since each event can be trimmed independently.

The original media file.

An event trimmed from the original media file.
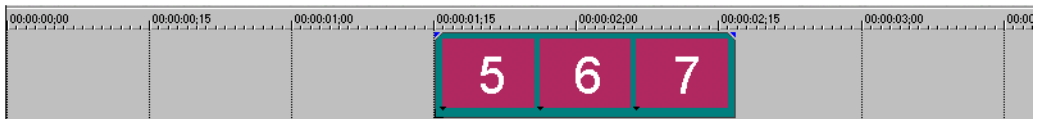
The event as it appears in Vegas software.

Audio events are created from audio files on your computer (e.g., WAV, MP3) or can be a part of a video file (e.g., AVI). You can change many characteristics of an audio event, such as speed, volume, and equalization. Audio events can be mixed with other audio events.

Video events are created from video files captured to your computer (typically AVI, MOV, QT) or images (BMP, JPEG, PNG, or TGA). You can change many characteristics of a video event, such as speed, color, and size. Video events can overlay other video events and are visual elements that appear on top of a background video, image, or color.

Moving events along the timeline

You can move events along the timeline individually or as a group. Events may overlap each other or be placed on top of each other. You can crossfade overlapping events automatically or with envelopes.

Moving an event

You can move an event along the timeline within a track or move it to a different track.
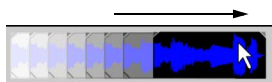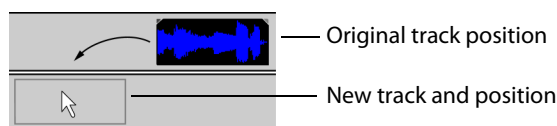
1. Drag the event along the timeline.

If you move the event along the original track's timeline, the event's appearance (color) remains the same.

However, you may move the event to a different track. When you do, the event appears as a simple outline and you will see its original track and position on the timeline. Once you release the mouse, the event assumes the new timeline position and track color.

Original track position

New track and position

2. Release the mouse to place the event.

Moving multiple events

You can move multiple events along the timeline within a track or move them to a different track. Selected events do not need to be within the same track. Use the Ctrl key, the Shift key, or the **Selection Edit Tool** (⬚) to select multiple events and drag them. To select all events on the track after a given event, right-click the event and choose **Select Events to End**. *For more information, see Selecting multiple events on page 40*.

Moving events by small increments

To move an event more precisely, click the event and press 4 or 6 on the numeric keypad to nudge it by small increments. The amount of movement caused by each nudge is determined by how far the timeline is zoomed in or out. You can also click the event and press 1 or 3 on the numeric keypad to nudge the event by frames.

Moving grouped events

Groups allow you to move multiple events within their tracks as a single unit. While you can create your own groups as needed, groups are automatically created for you when video files with associated audio (e.g., AVI) are added to a project. When you add these video files, the audio portion of the video file is inserted into the timeline as a separate audio event. The video and audio events are grouped and can be moved as a single unit within their respective tracks.

To move grouped events, drag any event in the group to a new position.

Working with tracks

A project consists of multiple audio and video tracks. The **track view** is the timeline in which all events appear. The **track list** provides information about the track and contains controls that affect all events in the track.
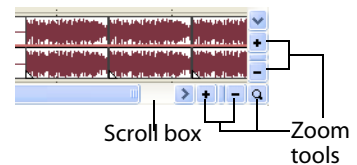
Using the track view

Numerous options are provided for viewing and navigating in track view.

Scrolling and zooming

There are several ways to scroll and zoom in the track view.

- Click the scroll bar arrows or drag the scroll bars to move up and down the tracks or to move forward and back along the timeline.
- Click the **Zoom** buttons (▣∣▣) to reveal more or less of the timeline.
- Drag the edge of the scroll box, found on the scroll bar, to zoom.
- Press ⬆ and ⬇ to zoom in and out along the timeline.
- Click the **Zoom Edit Tool** (🔍) button or, from the **Edit** menu, choose **Editing Tool** and then choose **Zoom**. In this mode, drag on the timeline to draw a rectangle that defines the zoom region.

Scroll box   Zoom tools

> **Tip:** *You can also access the Zoom Edit Tool from the lower-right corner of the track view (🔍).*

Mouse wheel control is also supported. The default behavior of the wheel is to zoom horizontally.

- Shift + wheel **s**crolls horizontally (through time).
- Ctrl + wheel scrolls vertically.
- Ctrl + Shift + wheel moves the cursor in small increments.
- Ctrl + Shift + Alt + wheel moves the cursor in one-frame increments.
- Clicking the mouse wheel turns auto-panning on and off.

Zooming directly controls the accuracy of your editing. Each video event has thumbnail representations of the frames within the event. Depending on how far you have zoomed in on a video event, a thumbnail can represent the entire event or a single frame in the event.

> **Tip:** *You can choose to display frame numbers, time, or timecode on video event thumbnails.*

Changing track height

You can change the height of individual tracks by dragging their borders in the track list. In the example below, the main video track is fairly large to show the details of the scene while the two tracks above it, which are overlays, have been resized to a shorter height.
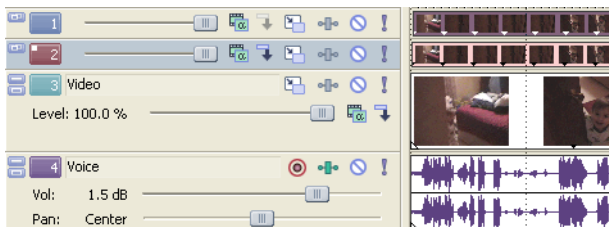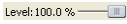
Using the track list

This section describes the different controls in the track header of each track. Some controls are specific to either video or audio tracks.

Video track header
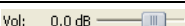
Button or Control	Name	Description
	Minimize track height	Minimizes track height.
	Maximize track height	Maximizes track height.
	Track number and color	Track numbers and colors help organize a multitrack project.
Video	Track name (scribble strip)	Allows you name a track. To name a track, double-click the scribble strip and type the track's name.
	Track motion	Track motion is used to move a video track across a background. Picture-in-picture effects and scrolling title sequences are two simple cases where this tool is important.
	Track FX	Adds track effects plug-ins.

Button or Control	Name	Description
⊘	Mute	Temporarily mutes playback of the track so that you can focus on other tracks.
!	Solo	Isolates a track for playback.
Level: 100.0 % ▭	Composite level slider	Determines the opacity/transparency of the video track. Drag the slider to control the transparency or blending of the track. Left is 100% transparent and right is 100% opaque. You can also double-click the label to enter a specific numeric percentage.
▦	Compositing mode	Determines how the transparency in a video track is generated.
⬎	Make compositing child	Creates a parent/child compositing relationship with the track above.

Audio track header

Button or Control	Name	Description
▬	Minimize track height	Minimizes track height.
▭	Maximize track height	Maximizes track height.
1	Track number and color	Track numbers and colors help organize a multitrack project.
Audio	Track name (scribble strip)	Allows you name a track. To name a track, double-click the scribble strip and type the track's name.
◉	Arm for record	Prepares a track for recording. You may record directly into audio tracks. A track is ready when you see the recording meter appear on it.
⊶	Track FX	Adds track effects plug-ins.
⊘	Mute	Temporarily mutes playback of the track so that you can focus on other tracks.
!	Solo	Isolates a track for playback by muting the other tracks.
Vol: 0.0 dB ▬▭	Volume fader	Controls the audio track volume relative to the other tracks. Drag the fader left or right to adjust the volume.
Pan: Center ▼ ▭	Multipurpose slider	Functions as a trim control that adjusts the overall panning of the track, or it can adjust track panning automation settings. Drag the slider left or right to control the position of the track in the stereo field. Each item's slider position is independent from the others.

Playing back and previewing

You can play back your project in two ways: directly from the timeline from within the software or by mixing the entire project to a preview file.

Playing your project

The transport bar allows you to play back your entire project or portions of your project based on a time selection or the current cursor position.

Loop playback   Play from cursor position   Stop   Cursor to end

Record   Play from start   Pause   Cursor to start
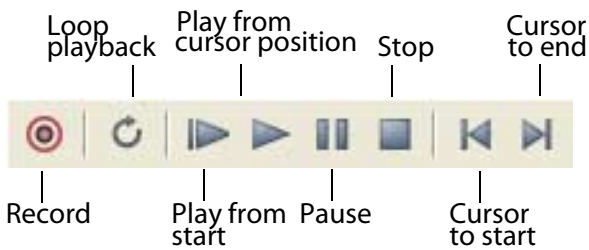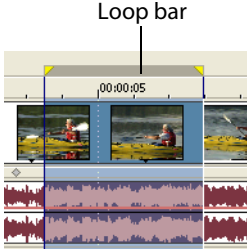
If your project includes video, make sure the Video Preview window is displayed for playback: from the **View** menu, choose **Video Preview** or press Alt + 6.

Playing an entire project

1. Click the **Play From Start** button (▶) to begin playback at the beginning of the project.

2. Click the **Stop** button (■) to stop playback.

Most of the time, you will only want to preview a small portion of the project to perfect a section. You can do this by creating a time selection.

Playing a time selection

1. Place the mouse pointer above the ruler on the marker bar. The mouse pointer changes to include a left/right arrow cursor (↔).

2. Drag to select the time region. To increase or decrease the time selection, drag its start and end points. The time selection is highlighted and the loop bar appears above the ruler on the timeline.

Loop bar

3. Click the **Play** button (▶) to begin playback. Only the non-muted tracks and events within the time selection play back.

4. Click the **Loop Playback** button (↻) to continually play back the events within the time selection. Click the button again to toggle this feature off.

5. Click the **Stop** button (■) to stop playback.

By looping the playback, you can repeatedly watch the same section of the project over and over as you make changes to filters and effects in real time. You can define selection areas automatically, depending on what you would like to preview. *For more information, see .*

Playback reference

The following table describes all the transport bar buttons and their keyboard equivalents. You may use these playback functions at any time while working in your project.

Note: *The use of many multimedia keyboards is also supported for controlling playback.*

Button	Keyboard	Function
⦿	Ctrl+R	Begin recording into record-enabled tracks
↻	Ctrl+Shift+L or Q	Turn on/off loop playback during time selection playback
▶	Shift+Space or Shift+F12	Begin playback from the start of the project
▶	Space or Ctrl+Space or F12	Begin playback from cursor position
⏸	Enter or Ctrl+F12	Pause playback, cursor stops and holds at pause position
⏹	Space or Esc	Stop playback, cursor stops and returns to prior cursor position
⏮	Ctrl+Home	Place cursor at the beginning of project
⏭	Ctrl+End	Place cursor at the end of the project

Tip: *You can use the spacebar to stop or pause playback, depending on your preference. From the* **Options** *menu, choose* **Preferences***, and on the* **General** *tab, select* **Make spacebar and F12 Play/Pause instead of Play/Stop** *to change the setting.*

Scrubbing

Scrubbing is a type of timeline playback that gives you precise control over the speed and direction of playback. Both linear and logarithmic scale scrubbing are allowed.

The use of multimedia controllers is supported for scrubbing. For more information on using the software with multimedia controllers, please see the online help. To access help, choose **Contents and Index** from the **Help** menu.

Tip: *Choose a setting from the* **JKL / shuttle speed** *drop-down list on the* **Editing** *tab of the Preferences dialog to control the scrub speed and range when using the keyboard or multimedia controllers.*

Four methods of scrubbing are provided.

Scrubbing with the playhead

The playhead (▯) above the timeline can be dragged back and forth to shuttle forward or backward from the cursor position to locate an edit point.

Drag playhead to scrub

> **Tip:** *Set in and out points while dragging the playhead by pressing the* I *and* O *keys.*
>
> **Note:** *The playhead is also available in the Trimmer window.*
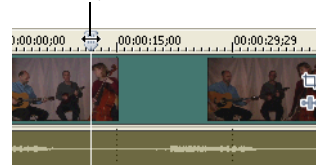
Scrubbing with the scrub control slider

The scrub control slider can be dragged back and forth. The farther from the center that the slider is dragged, the faster the playback, both forward and in reverse. Below the slider is a small yellow marker that can be used to set the normal rate playback speed.

Scrub control slider

This is the speed at which the project plays when you click the **Play** button on the transport bar.

Scrubbing on the timeline

The second way that a project can be scrubbed is by positioning the mouse pointer over the timeline cursor at a location that is not over any events and pressing Ctrl. The cursor changes to a speaker icon. Now, when you left-click, the cursor icon changes again to a pan/scrub icon. Drag the mouse left or right to scrub the timeline.
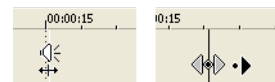
Press Ctrl over timeline cursor

Left-click and drag to scrub

> **Tip:** *You can also choose to enable timeline scrubbing when the mouse is positioned over events. From the* **Options** *menu, choose* **Preferences***, and select* **Allow Ctrl+drag cursor style scrub over events** *on the* **General** *tab.*

Scrubbing with the keyboard

Three letters (JKL) are used as a keyboard scrub control.

> **Note:** *Choose a setting from the* **JKL / shuttle speed** *drop-down list on the* **Editing** *tab of the Preferences dialog to control the scrub speed and range.*

Keyboard scrub letters
J K L
Reverse Pause Forward
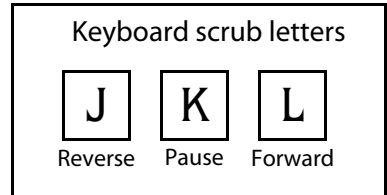
Press J for reverse and L for forward playback. Press K to pause playback.

There are several ways to adjust playback speed:

• Adjust the **JKL / shuttle speed** selection on the **Editing** tab of the Preferences dialog.
• Hold K while pressing J or L to emulate a shuttle knob mode. Press K + J to turn the knob to the left or K + L to turn the knob to the right. Press K again or Space to return to normal mode.

Previewing to media player

A project can be previewed in a media player by mixing and rendering the project according to the project's properties and playing back using the media player associated with the file type you select.

1. From the **Tools** menu, choose **Preview in Player**. The Preview dialog appears.

2. Select the file type from the drop-down list.

3. Click **OK** to begin the mixing and rendering process. A progress dialog appears indicating the percent complete of the new file.

> **Note:** *You may cancel the preview by clicking the* **Cancel** *button on the status bar.*

When mixing is completed, the associated media player opens and begins playback.

Prerendering video previews

Playing a project using the transport controls can instantly show how a project is progressing, but it does not actually render your project in its final form. The preview you see in the Video Preview window may be different from your final project in a number of ways: frame size, frame rate, and quality. In most cases, the Video Preview is all you need for checking the timing of events in your project. Eventually, however, you may need to output a full-quality preview of a section of your project. To do this, from the **Tools** menu, choose **Selectively Prerender Video**.

For more information, see Rendering projects on page 69.

Chapter 3 : Basic Editing Techniques

Vegas® projects are multitrack compilations of events that occur over time. The events in your project are references (pointers) to source media files. Vegas software is a nondestructive editor, so editing events in your project does not alter the source media files in any way.

Getting around

When editing and playing back the project, the cursor identifies where you are along the project's timeline.

Moving the cursor

Use the following keyboard commands to move the cursor in the timeline.

Description	Keys	Description	Keys
Go to beginning of project	Ctrl+Home or W	Move left/right to marker(s)	Ctrl+Left/Right Arrow
Go to end of project	Ctrl+End or E	Move to marker #	0-9 keys (not numeric keypad)
Go to beginning of selection or view (if no selection)	Home	Move left/right to event edit points including fade edges (see figure below)	Ctrl+Alt+Left/ Right Arrow
Go to end of selection or view (if no selection)	End	Nudge cursor on timeline	Left or Right Arrow
Move right by grid marks	Page Down	Move left/right one frame	Alt+Left/Right Arrow
Move left by grid marks	Page Up	Move left/right one frame	Ctrl+Alt+Shift+M ouse wheel
Go to	Ctrl+G	Center in view	\

Event edit point cursor jumps
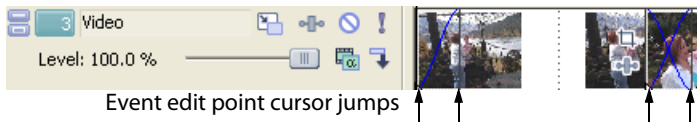
Changing focus

Focus is used to describe which objects have the attention of a program. For example, when you click a file in the Project Media list, the Project Media window has focus. To instantly switch the program's focus to the track view (timeline), press Alt + 0 or, from the **View** menu, choose **Focus to Track View**.

In Vegas software, it matters which track has focus when you perform a task. For example, when you double-click a media file in the Explorer, it is inserted into the track that has focus. You can click a track on its track number to make it the focus track. A blinking white line under the track number and shading in the track list indicates a track has focus.

Making selections

You have the flexibility to select one or more events, a time range, or events *and* a time range. All selection options can apply to a single track or to multiple tracks.

To select an event, click it.

Selecting multiple events

You can select multiple events in your project using several methods.

> **Tip:** *Once you have selected multiple events, you can group them together.*
>
> **Note:** *You can select multiple video events, multiple audio events, or a combination of both video and audio events. However, you can only use commands and operations that apply to both types of events for selections composed of both audio and video events.*

Selecting nonadjacent events

1. Hold the Ctrl key.
2. Select the events by clicking them.

To deselect an event, simply click it again to toggle the event selection on or off.

Selected events
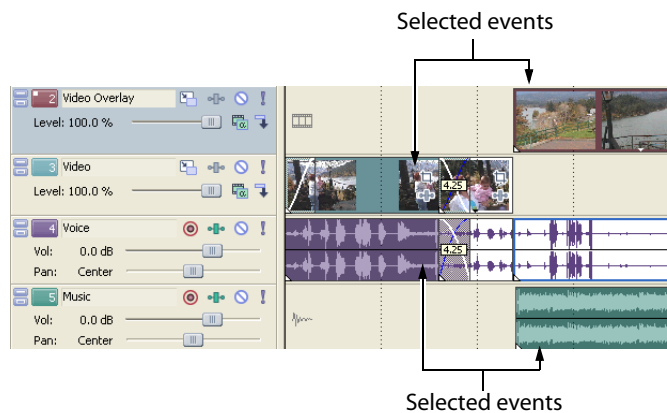
Selected events

Selecting a range of events

1. Hold the Shift key.
2. Click the first event that you want to select.
3. Click the last event that you want to select.

   All events between the first and last selected events are highlighted and selected.

Selecting a block of events

1. Click the **Selection Edit Tool** button (⬚).

2. Position the cursor in a corner of the area that you want to select.

3. Click and hold the left mouse button.

4. Drag the cursor to the opposite corner of the area you want to select. A rectangle is drawn on the workspace. All events within this rectangle are selected.
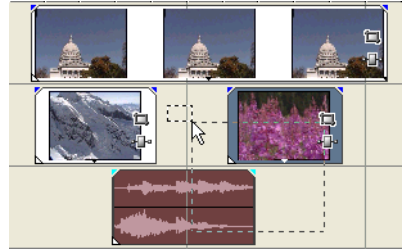
   Hold the left mouse button and right-click to toggle through the three types of selection boxes: free, vertical, or horizontal.

   Tip: *You may include or exclude events from a selection area by pressing* Ctrl *and clicking an event. To deselect all events, click anywhere in the workspace outside of the selected events.*

Selecting all events to the end of the track

1. Right-click an event. A shortcut menu appears.

2. From the shortcut menu, choose **Select Events to End**. All events on the track after the selected event are selected.

   Tip: *To move large blocks of events, you can use* **Select Events to End** *with events selected on different tracks. Press* Ctrl *and click to select events on different tracks, and then right-click to access the shortcut menu.*

Selecting all events that refer to a specific media file

Right-click a file in the Project Media list and choose **Select Timeline Events** from the shortcut menu. All events that use the selected media file in the active take are selected.

Hold Ctrl or Shift while choosing **Select Timeline Events** from the shortcut menu to add the events to the current selection.

Selecting a time range

Time selections are indicated by a shaded box and a bar that appears on the top of the timeline. You can use the time selection bar for playing back a smaller portion of your project or to apply cross-track edits.

Note: *Unless an event is locked, a selected time range affects all events, or portions of events, that occur within the range.*

Time selection

Only the events within the time selection are affected by edits or played back.
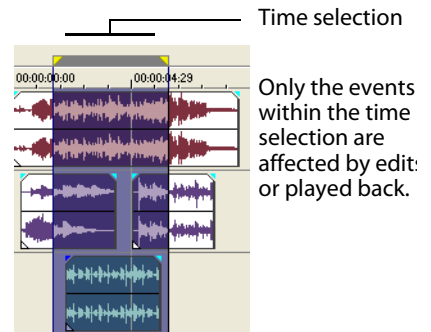
Dragging to select a time range

1. Position the mouse pointer above the ruler (on the marker bar). The mouse pointer changes to a left/right arrow cursor (⇦⇨).

2. Drag to select a region. All events, or portions of events within the region are highlighted.

3. Drag the yellow handles on either end of the time selection to increase or decrease your time range selection.
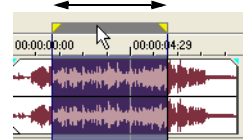
Tip: *You can move the entire selection range by dragging the time selection bar.*

Selecting a time range during playback

1. Click the **Play** (►) or the **Play From Start** (►) button to begin playback.

2. Press I where you want the time selection to begin.

3. Press O where you want the time selection to end.

4. Click the **Stop** button (■) to stop playback.

Using shortcuts for time selections

These shortcuts can speed up the process of making precise time selections.

Description	Shortcut
Set time selection duration equal to an event's duration	Double-click the event
Extend selection to the end of the currently selected event edge	Ctrl+Shift+Alt+Right Arrow
Extend selection to the beginning of the currently selected event edge	Ctrl+Shift+Alt+Left Arrow
Drag a time selection on an event without selecting/deselecting the event	Ctrl+Shift+drag on the event

Looping playback

If you want to play back the time range, click **Play** (▶) to play only the events within the time range. Click the **Loop Playback** button (🔁) or press Q to toggle loop playback on and off. Vegas software continually plays back the portion of the timeline within the time selection when loop playback is toggled on.

Selecting events and a time range

Selecting a time range does not automatically select events. Excluding locked events, all items within the time range play back and are affected by **Edit** menu commands. However, you may select specific events to edit, and then select a time range.

Time selection

Selected event

Unselected event

Unselected event

Selected event

Selected event

Unselected event
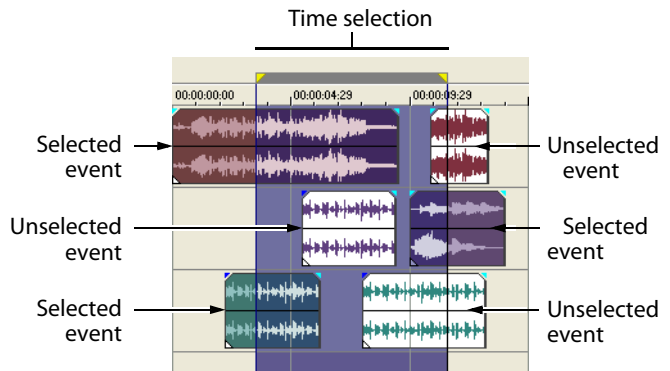
1. Select the events you wish to edit. *For more information, see* Selecting multiple events *on page* 40.

2. Place the mouse pointer above the ruler (on the marker bar). The mouse pointer changes to a left/right arrow cursor (↔).

3. Drag to select the region. Notice that events that were not initially selected in step 1 remain unselected (not highlighted).

Selecting tracks

Click a track header to select it. Hold Ctrl or Shift to select multiple tracks.

Selecting groups of composited tracks

Click the vertical bar below a parent track to select a group of composited tracks. For example, clicking the area marked A in the following track list to select tracks 2 through 4.

Click here to select a group of composited tracks ——
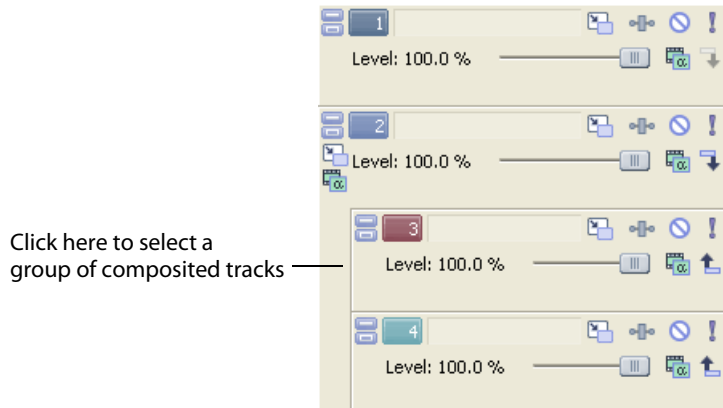
Editing events

Copying events

You can copy events, or portions of events, to the clipboard and paste them into your project. You may copy a single event or multiple events. Copying preserves the original event information, edits, and other modifications.

1. Select the events to be copied. *For more information, see Selecting multiple events on page 40*.

2. Select a time range, if applicable.

3. Click the **Copy** button ( ).

Copying selected events

When copied, selected events are reproduced and placed on the clipboard. Time information is also placed on the clipboard.

Events before copy	Clipboard contents	Events after copy
		The original events are not affected and do not change.

Copying a time selection

Events within the time selection and across all tracks are reproduced and placed on the clipboard. Time information is also placed on the clipboard.

Events before copy	Clipboard contents	Events after copy
		The original events are not affected and do not change.

Copying a time selection and events

Events and portions of selected events within the time selection are reproduced and placed on the clipboard. Time information is also placed on the clipboard.

Events before copy	Clipboard contents	Events after copy
		The original events are not affected and do not change.

Cutting events

Cutting events removes them from their respective tracks, but places the cut information (events and time) on the clipboard. Once on the clipboard, you may paste the information into your project.

> **Tip:** *You can apply a ripple edit after cutting. For more information, see* *Crossfading events* *on page 55*.

1. Select events or a time range. *For more information, see* *Making selections* *on page 40*.
2. Click the **Cut** button (✄).

Cutting selected events

When cut, selected events are removed from the timeline and placed on the clipboard. Time information is also placed on the clipboard.

Events before cut	Clipboard contents	Events after cut	Events after cut in post-edit ripple mode

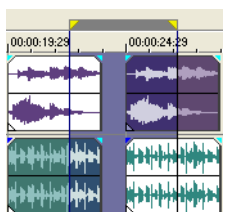### Cutting a time selection

Events within the time selection are reproduced and placed on the clipboard. Time information is also placed on the clipboard. When cutting a time selection, ripple edit mode affects the position of material on all tracks or affected tracks after the cut.

Events before cut	Clipboard contents	Events after cut	Events after cut in post-edit ripple mode
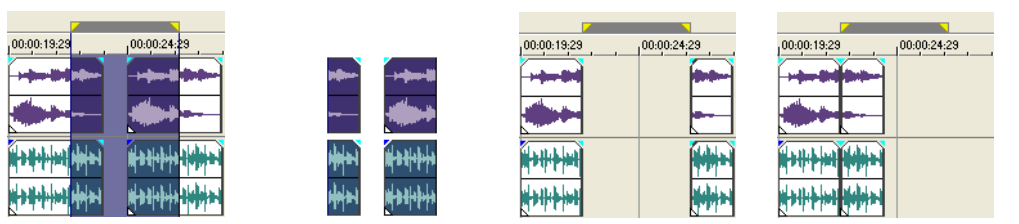
Cutting a time selection and events

Events and portions of selected events within the time selection are reproduced and placed on the clipboard. Time information is also placed on the clipboard. When cutting a combination of time selection and event selection, post-edit ripple mode affects the position of material on all tracks or the tracks of selected events after the cut.

Events before cut	Clipboard contents	Events after cut	Events after cut in post-edit ripple mode

Pasting events

Once information is copied to the clipboard, you may choose a variety of ways to paste the clipboard items. Items are always pasted from the cursor's position along the timeline.

When post-edit ripple mode is enabled, material is pushed down the track to make room for pasted material. The exact behavior of the ripple depends on what is being pasted, and the type of ripple edit you chose to perform. If one or more events are pasted, only those tracks where pasted material appears are ripple edited.

Tip: *You can apply a ripple edit after pasting. For more information, see Crossfading events on page 55.*

1. Move the cursor to the desired location on the timeline.

2. Click either the track number or within the track where you want to paste the event. This track is the focus track; there can be only one focus track at a time.

   Note: *If you are pasting multiple events from different tracks, new tracks are automatically created as needed.*

3. Click the **Paste** button ( ).

   Clipboard events are pasted at the cursor position on the track. Existing track events can be overlapped with newly pasted information.

Using paste repeat

Use paste repeat to specify how many times clipboard events are pasted at the cursor position on the selected track and to specify the space between pasted events.

1. Copy a selection to the clipboard.

2. From the **Edit** menu, choose **Paste Repeat**. The Paste Repeat dialog appears.

3. Specify the number of times to paste the clipboard contents and the space between successive copies.

4. Click **OK**.
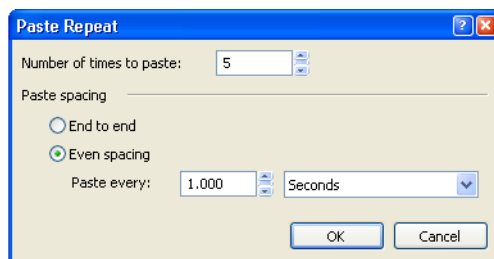
Using paste insert

When using paste insert, clipboard events are placed at the cursor position on the selected track and existing events on all tracks are moved further down the timeline by the total length of pasted information. This action differs from post-edit ripple mode because pasting in post-edit ripple mode affects only the tracks in which material is pasted, while paste insert affects all tracks in the project.

1. Copy a selection to the clipboard.

2. From the **Edit** menu, choose **Paste Insert**.

Clipboard contents	Events before paste insert	Events after paste insert

Events on all tracks (not just tracks with pasted material) are pushed down the timelir
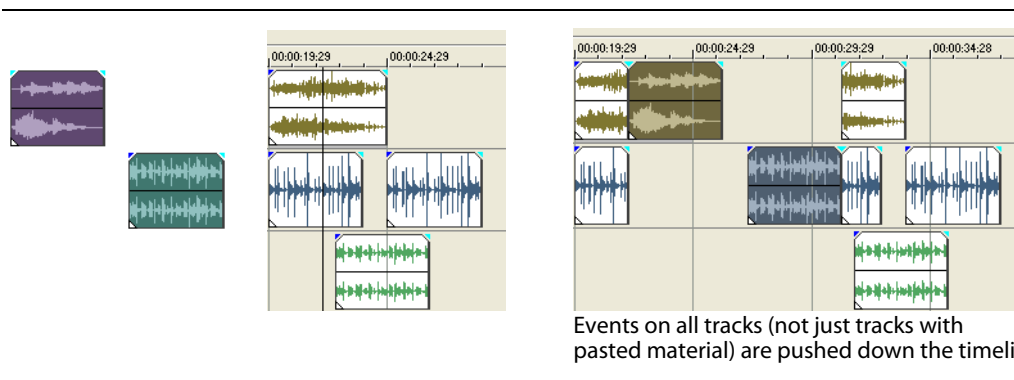
Punching-in and crossfading events

You can insert events into the middle of (on top of) existing events without altering the timing of the project. When the inserted event ends, the original event continues playing as if it had never stopped.

You can choose the duration of crossfades for punched-in audio events.

1. From the **Options** menu, choose **Preferences**. The Preferences dialog appears.

2. Click the **Editing** tab.

3. Select **Quick fade length of audio events**. Specify a duration for each transition.

Events that have previously been inserted or punched-in are not affected by this change. The concept of punching in and out only applies when you are inserting an event that is shorter than the event that it is being inserted into. In the following illustration, every frame is numbered so that you can see how the original event continues after the inserted event ends, as if it continued to play underneath the original.

Punched-in event
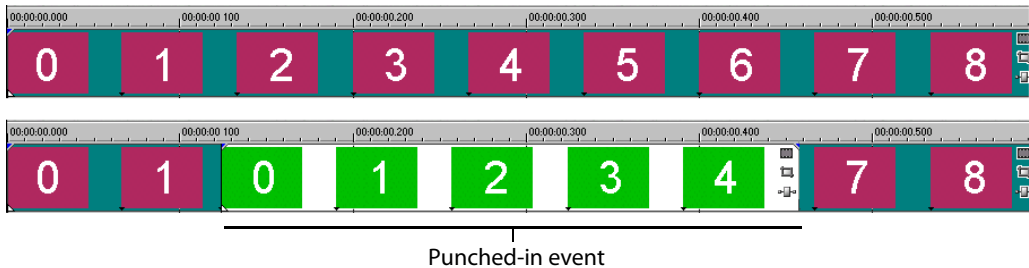
Duplicating events

Duplicating is a combination of copying and pasting in one action. The process is like moving the event to a new position while leaving a copy behind.

1. Press Ctrl.

2. Drag the event you want to duplicate to the place where you want the new event to be positioned.

Inserting empty events and time

You can insert events into the timeline that do not have any contents and are not references to any media files. Empty events are useful as placeholders in the timeline that can be filled with media or recorded into at a later time. In either case, the new media is added to the empty event as a take. To add an empty event to a track, from the **Insert** menu, choose **Empty Event**.

You can also make space in a project by inserting a length of time across all tracks. To insert a period of time into the timeline, from the **Insert** menu, choose **Time**.

Trimming events

This section describes simple ways to trim events.

> **Tip:** *You can apply a ripple edit after trimming an event. For more information, see* Crossfading events *on page* 55*.*

Trimming an event

During the trimming process for a video event, both the last thumbnail image on the event and the Video Preview window show the last frame in the event, allowing you to edit events very accurately.

1. Move the cursor over the edge of the event. The cursor changes when properly positioned (⟵⊡).

2. Drag the edge of the event to trim it.

Since a multimedia file often has both a video and an audio component, both events are trimmed (or extended) as a group unless you ungroup them or temporarily suspend grouping by clicking the **Ignore Event Grouping** button (🎞).

Trimming grouped events at the same time
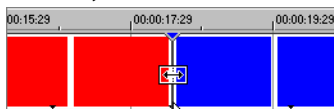
Trimming an event beyond its end

You can trim an event beyond its end, extending it as a result. Once extended, the event loops as a default. A notch indicates where the looped event repeats.

Alternately, you can turn looping off and make the last frame of an event's media repeat for the duration of the event (a freeze frame). A notch appears at the point in the event where the video ends and the freeze frame begins.

Trimming adjacent events

You can trim adjacent events simultaneously. Press Ctrl + Alt while dragging the common edge between two adjacent events. The trim adjacent cursor appears (⟷).
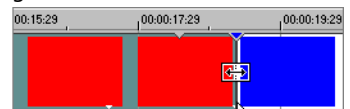
Press Ctrl+Alt over the boundary between two events...   ...and drag left...   ...or right to trim both events at once.
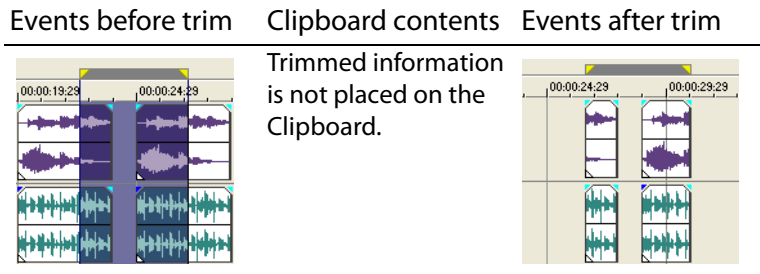
Trimming a time selection

Trimming events removes all media *outside* the time selection. The removed information is not placed on the clipboard. Trimming is different from cutting in that the events *within* the time selection are preserved.

1. Select a time range. *For more information, see Selecting a time range on page 42*.

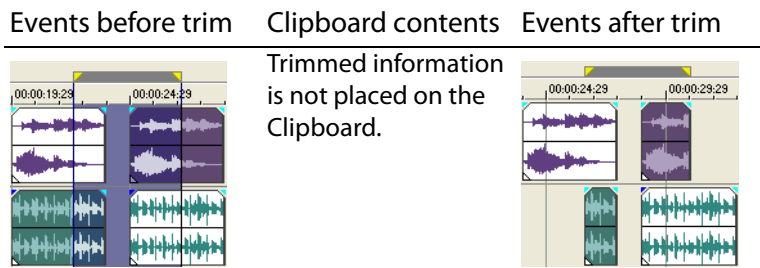2. Press Ctrl + T or, from the **Edit** menu, choose **Trim.**

The material *outside* the time selection (across all tracks) is removed from the project. However, the time information (space) between events is not removed.

Events before trim	Clipboard contents	Events after trim
	Trimmed information is not placed on the Clipboard.	

Trimming a time and event selection

1. Select the events to be trimmed.

2. Select a time range. *For more information, see Selecting events and a time range on page 43*.

3. Press Ctrl + T or, from the **Edit** menu, choose **Trim.**

Only the portion of selected events *outside* the time selection is trimmed. Unselected events remain. The time information (space) between events is not removed.

Events before trim	Clipboard contents	Events after trim
	Trimmed information is not placed on the Clipboard.	

Edge trimming events using the keyboard

With this method, you can quickly jump through your project and adjust cuts until they're perfectly synchronized. If you have an external multimedia controller, it's even easier.

1. If you want downstream events to ripple as you trim, click the **Auto Ripple** button ( ) to turn on Auto Ripple mode.

2. Select the event you want to trim.

3. Press 7 or 9 on the numeric keypad to move the cursor to the event edge you want to trim. 7 selects the beginning of an event or moves to the previous event edge. 9 selects the end of the event or moves to the next event edge. A red bracket is displayed to indicate which event edge will be trimmed.

> **Note:** *You can also perform this step using the [or] keys.*

4. Use the 1, 3 and 4, 6 keys on the numeric keypad to trim the current event edge:

- Press 1 to trim one video frame left, or press 3 to trim one video frame right (or hold Ctrl + Shift + Alt while rolling the mouse wheel).
- Press 4 to trim one pixel left, or press 6 to trim one pixel right (or hold Ctrl + Shift while rolling the mouse wheel). Depending on the current zoom level, the trim duration will vary.

> **Note:** *Pressing 5 on the numeric keypad exits edge-trimming mode. If you are not in edge-trimming mode, 1, 3, 4, and 6 on the numeric keypad to nudge events on the timeline by frame (1 and 3) or by pixel (4 and 6).*

5. Repeat steps 3 and 4 as necessary.

Splitting events

You are allowed to create multiple, independently functioning events from a single event by splitting it. Splitting creates a new ending point for the original event and creates a starting point for the newly created event.

Splitting an event does not alter the original media. The original media file's information is there, but is omitted for playback based on where the event's starting or ending point occurs on the timeline.

When split, the two new events are flush against one another. The two events can be moved independently.

One event

Split position

Two events after split

The two new events can be moved independently.
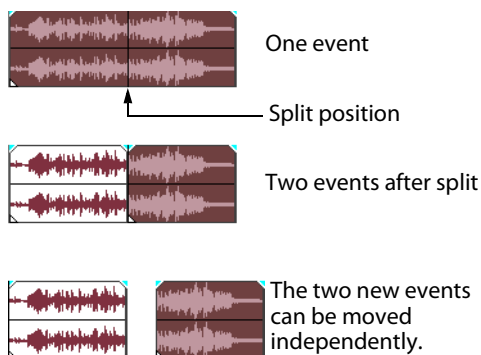
Splitting an event

1. Select the event(s) to be split. *For more information, see Making selections on page 40*.

2. Place the cursor at the timeline position where the split will occur.

**3.** From the **Edit** menu, choose **Split**, or press S.

Splitting all events at the cursor

All events are split at the cursor's position (unless an event is locked). The split occurs across all tracks (if no events are selected).

Events before splitting	Events after splitting
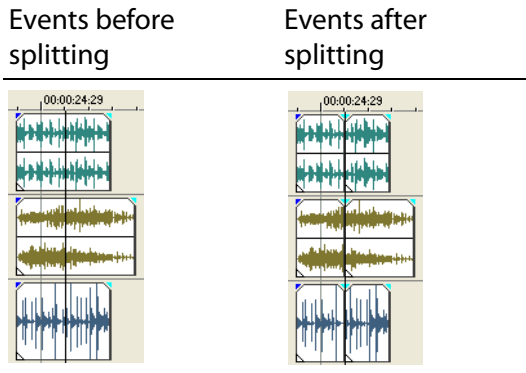
Splitting selected events

Only the selected events are split at the cursor's position.

| Events before splitting	Events after splitting
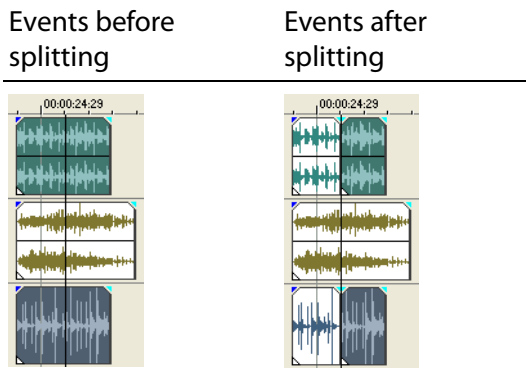
Splitting a time selection

Unless locked, all events within the time selection are split at the starting and ending points of the time range, meaning that two splits are made. The split occurs across all tracks.

Events before splitting	Events after splitting
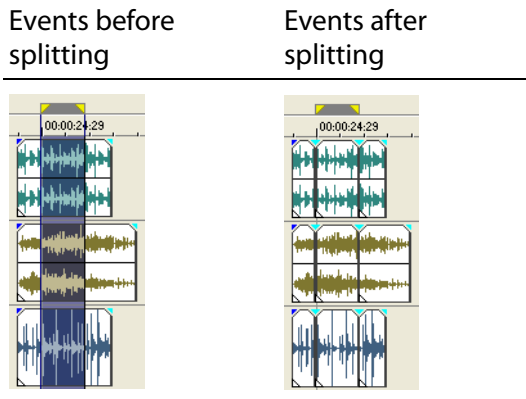
Splitting a time selection across selected events

Only selected events within the time selection are split at the starting and ending points of the time range.

| Events before splitting	Events after splitting
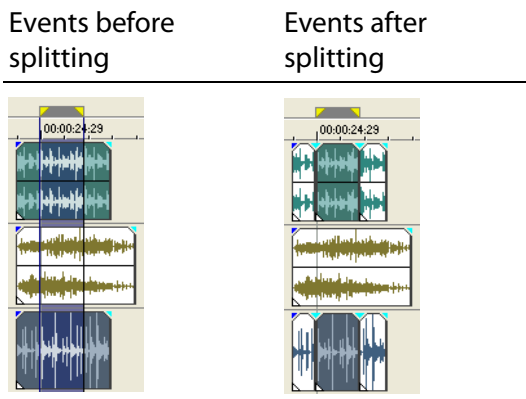
Deleting events

Deleting an event removes it from its track. Multiple events can be deleted and time selections can be used to modify the process. Ripple editing also applies to delete actions. Deleting operates exactly like a cutting operation, but the removed information is *not* placed on the clipboard. *For more information, see Cutting events on page 46.*

1. Select the events to be deleted.
2. Press Delete.

Crossfading events

You are allowed to crossfade between two events on the same track. For audio events, crossfading fades out one audio event's volume while another event's volume fades in. For video events, crossfading creates a transition between two events, one fading out while the other fades in. Lines appear indicating how and when the event's volume or transparency is being affected.

Fade in volume line

Fade out volume line
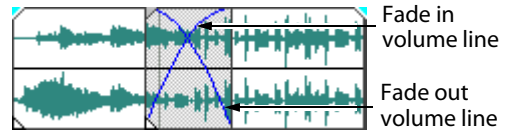
## Using automatic crossfades

The automatic crossfade feature turns the overlapping portions of two events into a smooth crossfade. This feature is turned on as a default. Click the **Automatic Crossfades** button ( ) or press Ctrl + Shift + X to turn automatic crossfades on and off.

Events before crossfade

Events after crossfade

Drag one event to overlap the other
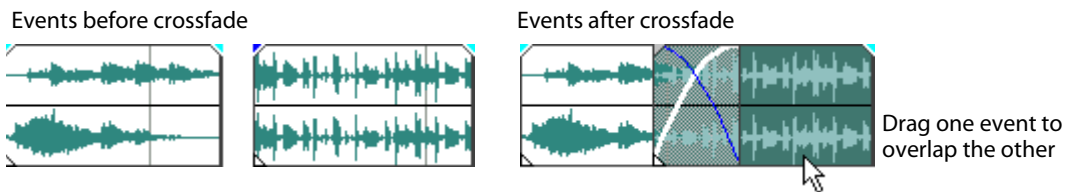
An option is provided for creating automatic crossfades when you add multiple media files to a track. *For more information, see Using automatic crossfades on page 55.*

Manually setting a crossfade

An automatic crossfade is not inserted if a shorter event is placed on top of and within the same time frame of a longer event. In this case, the longer event begins playing, then the shorter event plays, and then the longer event resumes playing at the timeline position. You can manually create a crossfade to fade in and out of the shorter event.

1. Place the mouse pointer on one of the shorter event's handles. The envelope cursor appears ( ).

2. Drag the handle to the desired position.

Events without crossfade

Events with manual crossfade
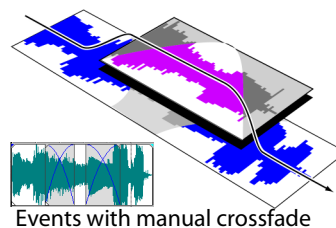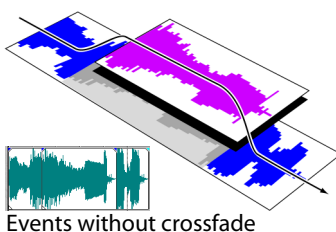
This is a fast and effective method of inserting a voiceover on top of a background music track (although the music fades out completely) or to replace a bad section of audio. *For more information, see* Punching-in and crossfading events *on page 48.*

Changing crossfade curves

You can change the crossfade curves that are used to fade in and out between two events.
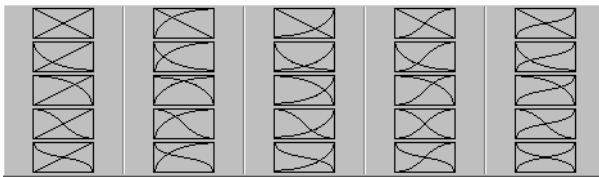
Right-click a crossfade to choose a different crossfade curve.

1. Right-click anywhere in the crossfade region to display a shortcut menu.
2. From the shortcut menu, choose **Fade Type**, and choose the desired fade type from the submenu.

> **Tip:** *If you use the same crossfade curve frequently, you can set it as a default for all new audio or video crossfades on the Editing tab of the Preferences dialog using*

undo and redo

You are given unlimited undo and redo functionality while working on your project, even to the extent of being able to undo changes made before the last time a project was saved (but not closed). While you are working with a project, an undo history of the changes that you have performed is created. Each time you undo something, that change is placed in the redo history.

When you close the project or exit the software, both the undo and redo histories are cleared.
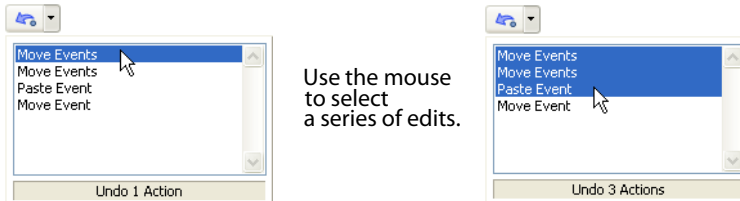
Using undo

Pressing Ctrl + Z or clicking the **Undo** button ( ) reverses the last edit performed. Repeatedly using the keyboard command or toolbar button continues undoing edits in reverse order, from most recent to oldest. In addition, you may undo the last edit by choosing it from the **Edit** menu.

Undoing a series of edits

You can undo a series of edits by using the drop-down list on the **Undo** button.

1. Click the arrow to the right of the **Undo** button ( ).

2. From the drop-down list, choose the edit that you want to undo. Items above it (subsequent edits) are selected automatically. Your project is restored to the state prior to those edits.

Use the mouse to select a series of edits.

When you undo an edit or a series of edits, they are added to the redo history. This feature allows you to restore your project to a previous state.

> **Tip:** *From the* **Edit** *menu, choose* **Undo All** *to undo all edits in the history. All edits are undone and added to the redo history.*

Using redo

Pressing Ctrl + Shift + Z or clicking the **Redo** button ( ) redoes the last undo performed. Repeatedly using the keyboard command or toolbar button continues redoing undos in reverse order, from most recent to oldest. In addition, you may redo the last edit by choosing it from the **Edit** menu.

Redoing a series of edits

You can view the redo history by clicking the arrow on the right side of the **Redo** button ( ). The top item in the list that appears is the most recent undo edit. If you redo a specific edit that appears farther down the list, all subsequent edits above it are redone as well.

When you redo an edit or a series of edits, they are added to the undo history again. The redo history is cleared when a new edit is performed.

Clearing the edit history

You can clear both undo and redo histories without closing your project or exiting the software. Once the histories have been cleared, a new edit history is created as you continue working on the project. While clearing the edit history is not usually necessary, it can free up disk space. To clear the edit history, choose **Clear Edit History** from the **Edit** menu.

Adding project markers and regions

Several types of project markers are provided that identify parts of your project, serve as cues, and provide additional functionality:

- **Markers** are points that you mark along the project's timeline. They are typically used to mark locations in the project for later reference or to mark timing cues.
- **Regions** are ranges of time that you mark along the timeline. Regions identify ranges of time for your reference and can function as permanent time selections.
- **CD layout markers** are markers that indicate tracks and indices for an audio CD layout. These marks are used to create tracks and index points when burning an audio CD.

> **Tip:** *You can use ripple editing to automatically move markers and regions as you edit in the timeline. For more information, see* Crossfading events *on page* 55.

Working with markers

Markers are useful for identifying and navigating to specific locations in longer projects. As you place markers in your project, they are automatically numbered (up to 99) in the order that they are placed. Markers appear as orange tags above the ruler. You may name them and reposition them along the project's timeline.
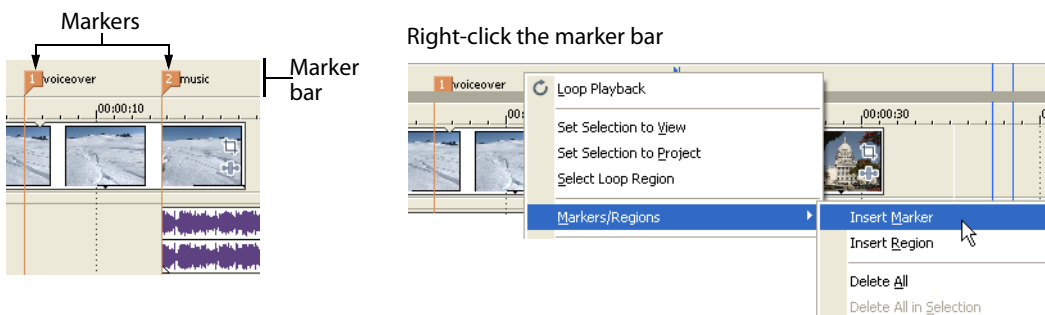
Inserting a marker at the cursor

1. Position the cursor where you want to place the marker.
2. From the **Insert** menu, choose **Marker**, **or** press M.
3. Type a name for the marker and press Enter. If you do not want to name the marker, simply press Enter.

Inserting a marker during playback

During playback, press M. The marker appears on the marker bar. You may name the marker after it has been set.

Naming (or renaming) a marker

1. Place the mouse pointer on the marker you want to name or rename. The pointer changes to a hand icon (👆).

2. Right-click to display a shortcut menu.

3. From the shortcut menu, choose **Rename**. A text box opens next to the marker.

4. Type the marker name.

5. Press Enter to set the marker's name.

You can also double-click an existing name or double-click the space just to the right of a marker to rename it.

Moving markers

You can reposition a marker by dragging it on the marker bar.

Navigating to markers

You can jump the cursor to any marker on the timeline by clicking the marker. You can also jump to a marker by pressing the number keys along the top of the keyboard (*not* the numeric keypad).

> **Tip:** *Jump the cursor to the next or previous marker by pressing* Ctrl + ➔ *or* Ctrl + ◀ .

Deleting markers

1. Place the mouse pointer on the marker that you want to delete. The pointer changes to a hand (👆).

2. Right-click to display a shortcut menu.

3. From the shortcut menu, choose **Delete**. The marker is removed from your project.

The tags are not renumbered as you remove them. For example, if you have five markers in your project and delete markers 3 and 4, the remaining markers will be listed as 1, 2 and 5. However, as you add markers again, Vegas software begins numbering the missing sequence first, in this case 3 and 4, then 6, 7, 8, etc.

Deleting all markers and regions

1. Right-click the marker bar.

2. From the shortcut menu, choose **Markers/Regions**, and choose **Delete All** from the submenu.

Working with regions

Regions identify ranges of time and provide a way to subdivide your project. A region is defined as the area between two region markers that share the same number. Regions can function as semi-permanent time selections. You can view region information in the Explorer by clicking the arrow next to the **View** button (⊞ ▾) and selecting **Region View**.

Inserting regions

1. Make a time selection. *For more information, see Selecting a time range on page 42*.

2. From the **Insert** menu, choose **Region**, or press R.

3. Type a name for the region and press Enter. If you do not want to name the region, simply press Enter.

Region markers display at the beginning and end points of a time selection.
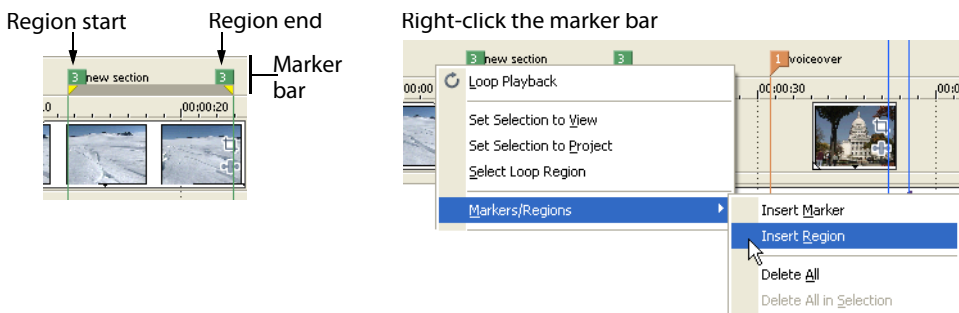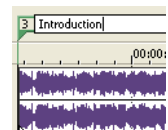

Moving regions

Drag a region marker to reposition it. To move both region markers (start and end markers) at once, hold Alt while dragging a region marker.
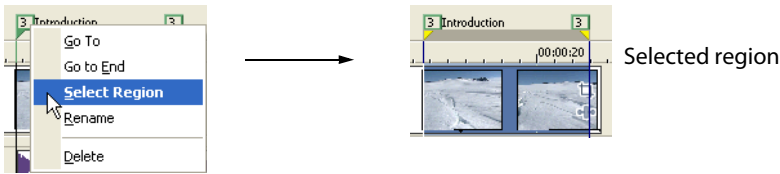
Naming regions

1. Place the mouse pointer on the left region marker you want to name or rename. The pointer changes to a hand icon (🖑).

2. Right-click to display a shortcut menu.

3. From the shortcut menu, choose **Rename**. A text box appears next to the region marker.

4. Type the region's name.

5. Press Enter or click anywhere in the track view to set the name.

Selecting regions

You may select the events, across all tracks, within the region for editing or playing back.

1. Right-click one of the region markers to display a shortcut menu.

Selected region

2. From the shortcut menu, choose **Select Region**.

> **Tip:** *You can also select a region by pressing a number on your keyboard (not the numeric keypad) or by double-clicking a region marker.*

Navigating to regions

You can move the cursor to the start or end of a region by clicking either region marker.

You may press Ctrl + → or Ctrl + ← to move the cursor to the next or previous region markers.

Right-click a region marker to display a shortcut menu that allows you to navigate to the beginning (**Go to Start)** or the end (**Go to End)** of a region.

Deleting regions

1. Place the mouse pointer on the region marker's starting or ending point. The pointer changes to a hand icon (🖑).
2. Right-click to display a shortcut menu.
3. From the shortcut menu, choose **Delete**. The region is removed from your project.

The tags are not renumbered as you remove them. For example, if you have five regions in your project and delete region 3 and 4, the remaining regions are listed at 1, 2 and 5. However, as you add regions again, Vegas software begins numbering the missing sequence first, in this case 3 and 4, and then 6, 7, 8, etc.

Deleting all regions and markers

1. Right-click the marker bar.
2. From the shortcut menu, choose **Markers/Regions**, and choose **Delete All** from the submenu.

Using an external audio editing program

Vegas software is a nondestructive editing environment, which means that the original source files remain unchanged by any editing done in the software. Destructive (constructive) edits that modify the actual source media file may be done in a separate application such as Sound Forge® software from Sony Media Software. By setting up a separate audio editor, you can quickly access the program from Vegas software via the **Tools** menu or by pressing Ctrl + E.

Setting up an audio editing program

If you already have Sound Forge software loaded on your computer when you installed Vegas software, the installation should have detected it and made it your default audio editing program. However, if you do not have Sound Forge software or want to specify a different audio editor, you may do so in the Preferences dialog.

1. From the **Options** menu, choose **Preferences**. The Preferences dialog appears.
2. In the Preferences dialog, click the **Audio** tab.
3. Click the **Browse** button to the right of the **Preferred audio editor** box. The Preferred Audio Editor dialog appears.
4. From this dialog, navigate to the application to use for editing audio files.
5. Select the application's executable icon (.exe) and click **Open** to set the application as your default audio editor.

   The application's path displays in the **Preferred audio editor** box.

Opening an audio editor from Vegas software

All events in your project are references to media files on a storage device. When you edit an audio event in an audio editor, you can choose to open the original media file or a copy of the file.

Opening a file in an audio editor

You can directly edit the media file to which an audio event is referenced. Any changes you make and save in the audio editor are permanent and are reflected in the event in your project.

1. Select the event to be edited.
2. From the **Tools** menu, choose **Audio**, and choose **Open in Audio Editor** from the submenu.

Your selected audio editing application opens the event's referenced media file. Make the necessary changes and save the file in the audio editor. If you keep the media file's name and location the same, its event is updated immediately in your project. However, if you change the media file's name or location (by using Save As), you must import the edited (new) file into Vegas software.

Opening a copy of a file in an audio editor

You can also create a copy of an audio file and open it in an audio editor. Opening a copy of a file has the advantage of preserving the original file unchanged. The modified copy is inserted into the event as a take and is automatically added to the Project Media list.

1. Select the event to be edited.

2. From the **Tools** menu, choose **Audio**, and choose **Open Copy in Audio Editor** from the submenu.

When you are finished editing, save the file. "Take *X*" is added to the end of the filename to distinguish it from the original and adds it to the project as a take. If you save it to a new file (by using Save As), you must manually add it as a take into the project.

Chapter 4 | Saving and Rendering Projects

What do you do after you've added the final touches to your movie and it's ready to be shown to the world? Vegas Movie Studio Platinum allows you to easily save and render your projects so you can amaze your family and friends.

Make Movie Wizard

After you've completed your masterpiece, you can use the Make Movie Wizard to save your project in a variety of formats.

> **Note:** *Opening the Make Movie Wizard is the same for all formats listed below. From the File menu, choose* **Make Movie***, or click the* **Make Movie** ⚙ *button on the toolbar.*

Save it to your hard drive

3. Select the **Save it to your hard drive** radio button, and then click the **Next** button.

4. In the Make Movie - Render Settings window, choose **File path**, **Format**, **Template**, and other settings that will be used to save your file, and then click the **Next** button.

> **Note:** *For more rendering options, click* **Advanced Render** *in the Make Movie - Render Settings window.*

5. The project will begin to render to your hard drive. When it's complete, click **Finish** to close the Make Movie Wizard.

Burn it to DVD

1. Select the **Burn it to DVD** radio button, and then click the **Next** button.

2. In the Make Movie - Render Settings window, choose **Video file path**, **Audio file path**, and other settings to indicate where the file will be created, and then click the **Next** button.

3. The project will begin to render to your hard drive.

4. When it's complete, click **Send it to DVD Architect Studio** to start DVD Architect Studio and create a project with your movie.
    - or -
    Click **Finish** to close the Make Movie Wizard.

> **Note:** *For more information about using DVD Architect Studio software, please refer to its documentation.*

Burn it to Video CD (VCD) or CD-ROM

1. Select the **Burn it to Video CD (VCD) or CD-ROM** radio button, and click the **Next** button.

2. Choose the **Create a Video CD** or **Create a CD-ROM with a movie file** radio button and click **Next**.

3. Choose one of the following movie files:
    - Select the **Render your project to this format** radio button if you want to render the current project.
    - Select the **Use an existing file** radio button (enter the path to the file in the **File path** box or click the **Browse** button to locate the file) if you want to use an already-rendered file.

4. Click **Next** to render the movie, if necessary.

5. Select recording options for your CD-recordable drive.

6. When creating a VCD, Vegas Movie Studio software records your movie to the CD. When recording is finished, you can select the **Save movie file** check box to keep the MPEG file that was rendered, or you can clear the check box to delete the file.
    - or -
    When creating a CD-ROM:
    - Select the **Include movie player installer** if you want to include a movie player with your CD.
    - Click **Test Movie Playback** to preview your rendered movie file in the associated player.
    - Click **Next**. Your movie is recorded to the CD.

7. Click **Finish**.

Publish it to the Web

1. Select the **Publish it to the Web** radio button, and then click the **Next** button. The Publish dialog is displayed.

> **Note:** *If you haven't set up a publishing account, the Publish Setup dialog is displayed.*

2. Choose the file you want to publish:

   - Click the **Publish your current (or file)** project radio button and choose a media format from the drop-down list to save the current project in a streaming format and publish it to the Web.
   - Click the **Publish a different media file** radio button and click the **Browse** button to publish a file that you have already rendered to a streaming format.

3. Click the **Next** button. The Publish Wizard will render your media in the appropriate format if necessary.

4. After your file has been rendered, a page from your publishing provider is displayed. Follow any instructions on the page and enter information about your media file.

5. Click the **Next** button to upload your media to the Web.

Save it to Sony PSP® media

1. Select the **Save it to Sony PSP® media** radio button, and then click the **Next** button.

2. In the Make Movie - Render Settings window, choose **File path**, **Format**, **Template**, and other settings to further customize the rendering process, and then click the **Next** button to render the movie.

3. The project will begin to render and transfer to your Sony PSP® (PlayStation®Portable). When it's complete, click **Finish** to close the Make Movie Wizard.

Save it to your DV camera

1. Select the **Save it to your DV camera** radio button and click the **Next** button.

2. In the Conform Timeline to Device Format dialog, choose a format in the **Template** field and click **Next**.

3. In the Leader and Trailer dialog, complete the **Leader test pattern style**, **Test pattern duration**, **Leader black duration**, and **Trailer black duration** fields and click **Next**.

4. In the Device Setup dialog, select the appropriate radio button to indicate whether the software will have control of your DV recorder.

5. Click **Finish**.

Save it to your HDV camera

1. Select the **Save it to your HDV camera** radio button and click the **Next** button.

2. In the Device dialog, choose your camera from the **Device** drop-down list.

3. In the Select Format/File dialog, select either the **Render format** or **Use an existing file** radio button (enter the path to the file in the **File path** box or click the **Browse** button to locate the file) to indicate which file you want to print.

> **Note:** *Selecting the* **Render format** *radio button allows you to choose settings for rendering the current project before printing to tape. The* **Use an existing file** *radio button lets you save an already-rendered file.*

4. In the Device Control dialog, select one of these radio buttons:

   - **Manual** (no device control) - The device must be manually cued and set to record.
   - **Crash Recording** (device must support basic deck control) - Automatically starts and stops recording at the current timecode.

5. Click **Finish** to start rendering (if necessary) and printing your movie to tape.

E-mail it

1. Select the **E-mail it** radio button and click the **Next** button.

2. Select the **Render your project to this format** or the **Use an existing file** radio button (enter the path to the file in the **File path** box or click the **Browse** button to locate the file).

3. Then do the following:

   - For current projects, click **Next** to create the movie file. When rendering is complete, your e-mail program starts and creates a new message with your movie attached.
   - For existing files, click **Next**. Your e-mail program starts and creates a new message with your movie attached.

Rendering projects

Rendering refers to the process of creating a new media file from a Vegas project. The project file is not affected (overwritten, deleted, or altered) during the rendering process. You may return to the original project to make edits or adjustments and render it again. The following table describes the formats available for rendering your project:

Format Name	Extension	Definition
ATRAC Audio	.aa3, .oma	A Sony proprietary audio compression technology.
Dolby Digital AC-3 Studio	.ac3	Format used to render stereo and 5.1 surround audio for DVD Architect Studio projects.
Main Concept AVC/AAC	.mp4	Used to render video to Apple iPod® video format.
Macintosh AIFF File	.aif	Standard audio format used on Macintosh® computers.
Main Concept MPEG-1 and MPEG-2	.mpg	MPEGs files compressed using a lossy audio/video compression method, can be used with DVD Architect software.
MP3 Audio	.mp3	Highly compressed audio file.
Ogg Vorbis	.ogg	A patent-free audio encoding and streaming technology.
QuickTime	.mov, .qt	QuickTime™ standard audio/video format used on Macintosh® computers.
RealMedia	.rm	RealMedia is a digital sound and video file format that is typically used to stream media through the Internet. It is a registered trademark of RealNetworks.
Sony AVC/AAC	.mp4	Used for rendering to the PSP® (PlayStation®Portable).
Sony Perfect Clarity Audio	.pca	Sony proprietary lossless audio compression format.
Sony Wave 64	.w64	Sony proprietary Wave64™ audio file that does not have a limited file size (unlike Windows WAV files that are limited to ~2GB).
Video for Windows	.avi	Standard audio/video format used on Microsoft® Windows-based computers.
Wave (Microsoft)	.wav	Standard audio format used on Microsoft Windows-based computers.
Windows Media Audio	.wma	The Microsoft audio-only format used to create files for streaming or downloading via the Web.
Windows Media Video	.wmv	The Microsoft standard used for streaming audio and video media via the Web.

Rendering a file

To create a media file (files containing only audio or video, or both audio and video), you render the project into an appropriate media file output. The final output format depends on the destination of the new media file.

1. From the **File** menu, choose **Render As**.

2. In the Render As dialog, choose the appropriate file format from the **Save as type** drop-down list.

3. Choose a template from the **Template** drop-down list to select the settings that will be used for rendering your file, or click the Custom button to create a new template.

4. In **File name**, type a name or browse for a destination for your file.

5. Click **Save**.

> **Tip:** *For an easy way to render and deliver your final movie, try the Make Movie Wizard found in Vegas Movie Studio and Vegas Movie Studio Platinum software. From the **File** menu, choose **Make Movie**. For more information, see Make Movie Wizard on page 65.*

Chapter 5 | 5.1 Surround

To give your projects a more professional feel, you can create your movies in with 5.1 surround sound.

> **Tip:** *Vegas Movie Studio Platinum can be used to create 5.1 surround audio for DVD Architect Studio Projects.*

New Project Wizard

You can set the parameters of a new project, including whether the project is in stereo or 5.1 Surround, by completing each page of the New Project Wizard.

1. From the File menu, choose **New**.

2. Use the New Project Wizard to set up your project settings. On the Master Bus Mode page of the wizard, choose **5.1 Surround** from the **Master Bus Mode** drop-down list.

3. Click **Finish** to close the wizard and create your new project.

> **Tips:** *You can also set your projects to 5.1 surround mode by using Project Properties and by inserting multichannel media (for example, media from a DVD camcorder) into your projects.*
>
> *Using the Project Properties dialog:*
>
> - *From the File menu, choose* **Properties***.*
> - *Select the Audio tab.*
> - *From the* **Master Bus Mode** *drop-down list, choose* **5.1 Surround***.*
>
> *If you check the* **Start all new projects with these settings** *box, new projects will default to the Master bus mode setting you selected. This default also applies to projects created with the New Project Wizard.*
>
> *Inserting multichannel media:*
>
> - *Drag the multichannel media to the timeline.*
> - *In the dialog box, select* **Yes** *to set the project to 5.1 surround mode. Selecting* **No** *leaves the project in stereo.*

In 5.1 surround mode, the following tracks are added to the track list:
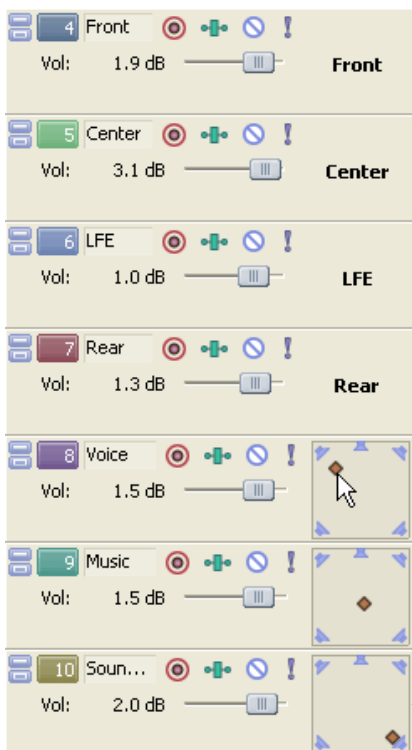
Track	Description
4 Front — Vol: 1.9 dB — Front	The Front track is used for the front-left and -right channels. You can use a pan envelope to pan between the right and left channels.
5 Center — Vol: 3.1 dB — Center	The Center track is used for the center channel. No panning is available.
6 LFE — Vol: 1.0 dB — LFE	The LFE track is used for the low-frequency effects channel (subwoofer). No panning is available.
7 Rear — Vol: 1.3 dB — Rear	The Rear track is used for the rear-left and rear-right channels. You can use a pan envelope to pan between the right and left channels.
8 Voice — Vol: 1.5 dB	For the Voice, Music, and Sound Effects tracks, you can use the surround panner in the track header to pan these tracks throughout the soundfield.
9 Music — Vol: 1.5 dB	In 5.1 surround mode, the Mixer window displays faders you can use to adjust the overall levels of the front, rear, center, and LFE channels.
10 Soun... — Vol: 2.0 dB	Surround Panner

5.1 surround panning

After your project is set up for 5.1 surround sound you can begin panning.

If you have a joystick, you can use it to control surround panning. A force-feedback joystick such as the Microsoft® SideWinder® Force Feedback 2 joystick can add a tactile element to your editing sessions.

For more information about joysticks, see the online help (from the Vegas Movie Studio Help menu and choose Contents and Index).

Note: *5.1 surround is available only in Vegas Movie Studio Platinum.*

Assign tracks to surround channels

Each track can be assigned to the front, center, LFE, or rear channels, or you can pan a track freely within the soundfield.

Right-click the surround panner in the track header and choose a command from the shortcut menu to choose a surround pan mode:

Mode	Function
Surround Pan	Used to pan a track anywhere among the front, center, LFE, or rear channels. Drag the orange pan point in the surround panner to indicate where the track's audio should be sent.
	You can use a pan envelope to automate left/right panning (front/rear panning cannot be automated).
Front Only	Used for the front-left and front-right channels. You can use a pan envelope to pan between the right and left channels.
Center Only	Used for the center channel. No panning is available.
LFE Only	Used for the low-frequency effects channel (subwoofer). No panning is available.
Rear Only	Used for the rear-left and rear-right channels. You can use a pan envelope to pan between the right and left channels.

Panning a track

You can perform surround panning using any of the following methods:

- Assign a track to the front, center, LFE, or rear channels. When a track is assigned to a channel, its audio output is sent to the selected channel. For more information, see the previous section, "Assigning tracks to surround channels."
- If a track is set to **Front**, **Rear**, or **Surround Pan** mode, you can use a pan envelope to adjust left/right panning.

  Pan envelopes are not used when a track is set to **Center** or **LFE** mode.
- If a track is not set to **Front**, **Center**, **LFE**, or **Rear** mode, use the surround panner in the track header.

Panning a track in Surround Pan mode

Drag the orange pan point in the surround panner window to position the sound within the soundfield.
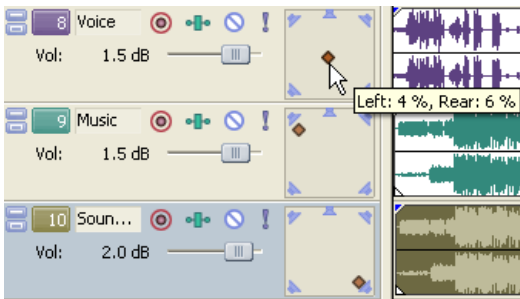
You can drag the orange pan dot to any position in the soundfield. The Voice track is panned near the center.

The Music track is panned to the left-front speaker.

The Sound Effects track is panned to the right-rear speaker.

> **Tips:**
> - *Double-click the pan point to reset it to the center listening position.*
> - *Keyboard and mouse shortcuts can help you position the pan point quickly and accurately. For more information about keyboard shortcuts, see the online help (from the Vegas Movie Studio Help menu, choose Contents and Index).*

Automating panning with envelopes

If a track is set to Front, Rear, or Surround Pan mode, you can use a pan envelope to adjust left/right panning.

1. Select the track you want to pan.

2. From the Insert menu, choose Audio Envelopes, and then choose Pan from the submenu.

3. Add points and adjust the envelope set edit panning throughout the track.

   The pan envelope is added to the left/right position of the pan point (front/rear panning cannot be automated).

   For example, if a track's pan point is set to 10% left and the pan envelope point is set to 10% right, the sound will be played through the center at the envelope point.

   For more information about adjusting envelopes, see the online help (from the Vegas Movie Studio Help menu, and choose Contents and Index).

Changing the pan mode

Right-click the surround panner on a track, choose Pan Type from the shortcut menu, and then choose a pan type from the submenu.

For more information about panning modes, see the online help (from the Vegas Movie Studio Help menu, and choose Contents and Index).

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