Asymetrix Web 3D Help Contents Press F1 for assistance on Help.



Using Asymetrix Web 3D

Step-by-step instructions to help you complete your tasks.



Reference Information

Answers to common questions; concepts; and guides to terminology, commands, and the interface.



Technical Support

Support options you can access to get the most from your Asymetrix product.



Using Asymetrix Web 3D Click a category below to see related topics.

- **Concepts**
- Scene elements
- Scene and model basics
- Fine-tuning a scene
- **Animating models**
- Advanced projects
- **Asymetrix Web 3D and OLE**



Concepts

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About Asymetrix Web 3D

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- Scene and model basics
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- Fine-tuning a scene
- **Animating models**
- **Advanced projects**
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Using Asymetrix Web 3D

Click a category below to see related topics.

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- Scene elements
- Scene and model basics
- Fine-tuning a scene

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Asymetrix Web 3D and OLE

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Displaying a scene or icon in a container application

Displaying a snapshot or animation in a container application

Editing embedded or linked Asymetrix Web 3D scenes

Embedding a new scene

Embedding or linking an existing scene

Playing a linked or embedded animation Updating your OLE registration database



Click a topic or menu name below for more information.

Screen map and shortcuts

Map of screen elements
Keyboard and mouse shortcuts

Menu command reference

To view an alphabetic list of commands, see Alphabetic command reference.

- File menu
- Edit menu
- View menu
- Tools menu
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- Help menu



Click a topic or menu name below for more information.

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1 <Filename>

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Click a topic or menu name below for more information.

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Click a topic or menu name below for more information.

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Create Simple Model

Import Model

Modify 3D

Modify Model

Modify Surface & Color

Modify Animation

Modify Warp

Modify URL

- Scene menu
- Window menu
- Help menu



Click a topic or menu name below for more information.

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Scene menu

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Modify Backdrop

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Preview Snapshot

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Preview All Frames

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Window menu



Help menu



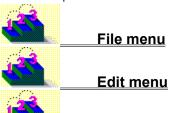
Click a topic or menu name below for more information.

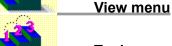
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Tools menu



Models menu



Scene menu



Window menu

Cascade
Tile Horizontally
Tile Vertically
Arrange Main Windows
Arrange Icons
1 < Window Name>



Help menu



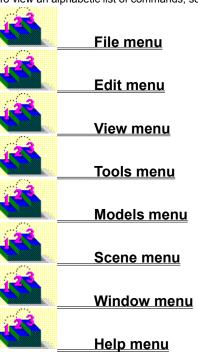
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Alphabetic command reference

Click a letter to display commands.

To view commands by menu name, see Menu command reference.

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K L M N O P

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1 <Filename> 1 < Window Name>

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About Asymetrix Web 3D Animated Surface (dialog box) **Animation Palette Arrange Catalog Entries** Arrange Icons Arrange Main Windows Asymetrix Web 3D Startup (dialog box)

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Asymetrix Web 3D Startup (dialog box) Tools menu / Options / File tab

See also...

Use to create a new scene or open an existing scene.

Option	Description
New Scene	Creates a new scene.
Open Scene	Opens an existing scene.

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Step by step
Building a scene
Command
Options



New

File menu See also...

Keyboard: Ctrl+N

Toolbar:



Creates a new scene.

If another scene is currently open, Asymetrix Web 3D asks whether to save your changes, then closes it before creating a new scene.

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Step by step
Building a scene
Command
Options

Open or Import

You can use the Open, Import Graphic, Import Model, Choose File To Print, and Modify Soundtrack dialog boxes in similar ways to select and access a particular type of file. For details, click a command or dialog box name

- <u>Choose File To Print (dialog box)</u> <u>Import Graphic (dialog box)</u>
- Import Model
- Modify Soundtrack
- Open

Step by step
About imported models
Adding a soundtrack to an animation
Creating a picture model
Importing a model

Open

File menu or Browse button

Keyboard: Ctrl+O

Toolbar:

Use to open an existing scene, Catalog, snapshot, or animation.

If another scene is currently active, Asymetrix Web 3D asks whether to save your changes, then closes the existing scene before opening a new scene. If another Catalog, Snapshot, or Animation window is currently open, Asymetrix Web 3D leaves it open, and opens a second Catalog, Snapshot, or Animation window.

Option	Description
File Name	Lists all files in the current default directory with the default file extension for the selected file format. A file selected from this list replaces the contents of the File Name box.
List Files Of Type	Indicates the default file extension. The drop-down list includes all other available file types. For a complete list of file formats you can open, see Asymetrix Web 3D .
Directories	Displays the default path. Change the directory by selecting a new path from the Directories box, which lists all directories available on the current drive. To change the drive, make a selection in the Drives box.
Drives	Lists the available drives. Selecting a new drive changes the contents of the Directories box.
Network	Available if your system is connected to a network and you are running Windows for Workgroups. Opens the Network dialog box from which you can choose additional drives and directories.

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Commands
Import Graphic (dialog box)
Import Model
Modify Soundtrack

Close

File menu

Keyboard: Ctrl+W

Closes the active window (<u>Snapshot</u>, <u>Animation</u>, or <u>Catalog</u>). If an open snapshot or Catalog has not yet been saved, Asymetrix Web 3D asks whether to save the file before closing.

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Command

<u>Open</u>

Save

File menu

Keyboard: Ctrl+S

Toolbar:



Saves the active window (<u>Scene Preview</u>, <u>Snapshot</u>, <u>Catalog</u> or <u>Animation window</u>) under the current name. If an open scene, snapshot, or Catalog has not been named and saved, Asymetrix Web 3D opens the <u>Save As</u> dialog box.

Tip Saving a file deselects any selected objects in a scene.

Command Save As

Save As

Saves a new <u>scene</u>, <u>snapshot</u>, or <u>Catalog</u> under a specific file name. An existing scene, snapshot, or <u>Catalog</u> or <u>animation</u> file can be saved under the current or a new file name.

Option	Description
File Name	Specifies the file name under which a scene, snapshot, Catalog, or animation file will be saved. By default, Asymetrix Web 3D adds the file extension .SCN to scene names, .BMP to snapshot names, .CAT to Catalog names, and .AVI to animation files.
	If the scene, snapshot, Catalog or animation file has been named and saved, the existing file name appears in the File Name box. Change the file name by entering a new name in the box.
Save File As Type	Indicates .SCN, .BMP, .CAT or .AVI is the default file extension. The drop-down list includes all other available file types. For a complete list of file formats in which you can save, see <u>About file formats supported by Asymetrix Web 3D</u> .
	Note When you save an animation as a bitmap file format (such as .BMP, <u>.GIF</u> , or <u>.JPG</u>), each animation frame is saved as a single numbered bitmap file, with the name truncated to four characters. For example, if enter the name INSANITY.BMP in the File Name box, the files will be named INSA0001.BMP, INSA0002.BMP, and so on. If you have more than 9,999 frames in your animation, name the file using three characters or fewer, such as IN.BMP, to leave room for a number longer than four digits.
Directories	Displays the default path. Change the directory by selecting a new path from the Directories box, which lists all directories available on the current drive. To change the drive, make a selection in the Drives box.
Drives	Lists the available drives. Selecting a new drive changes the contents of the Directories box.
Network	Available if your system is connected to a network and you are running Windows for Workgroups. Opens the Network dialog box from which you can choose additional drives and directories.

Command

<u>Save</u>

New Catalog

Creates a new Catalog. If an existing Catalog is currently open, Asymetrix Web 3D leaves it open, and creates a new Catalog.

Step by step
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Creating and modifying a Catalog
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New
Options

Print

File menu

Keyboard: Ctrl+P

Prints the contents of the active <u>Snapshot</u>, <u>Animation</u>, or <u>Scene Preview</u> window.

Option	Description
Printer	Displays the current printer or output device and the connected port.
Print Contents Of Active Window	Prints the active window.
Print From File	Specifies a file to print.
	File. Specifies a file to print. Enter the name of a file. Clicking Browse opens the <u>Print From File</u> dialog box, in which you can choose a file to print.
Number Of Copies	Specifies the number of copies to print.
Margins	Specifies margins used when printing. Disabled if printing from a file.
	Scale Scene To Window. Prints the image at actual size.
	Scale To Fit Printer Margins. Prints the image as large as the printer allows, while maintaining the image's proportions.
	Scale To Fit Custom Margins. Prints using margins you specify.
Printer (button)	Opens the Print Setup dialog box.

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Step by step
Printing a frame of an animation
Printing a scene or snapshot

Print From File (dialog box) File menu / Print / Browse

Use to select a <u>scene</u> or <u>snapshot</u> to print from a file.

Option	Description
File Name	Lists all files in the current default directory with the default file extension for the selected file format. A file selected from this list replaces the contents of the File Name box.
List Files Of Type	Indicates the default file extension. The drop-down list includes all other available file types.
Directories	Displays the default path. Change the directory by selecting a new path from the Directories box, which lists all directories available on the current drive. To change the drive, make a selection in the Drives box.
Drives	Lists the available drives. Selecting a new drive changes the contents of the Directories box.
Network	Available if your system is connected to a network and you are running Windows for Workgroups. Opens the Network dialog box from which you can choose additional drives and directories.

Step by step
Printing a frame of an animation
Printing a scene or snapshot
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Print

Print Setup (dialog box) File menu / Print / Printer

Displays the available printers and their assigned ports.

Option	Description
Printer	Determines the printer used.
	Default Printer. Lists the default printer and its assigned port.
	Specific Printer. Lists available printers and their assigned ports.
Orientation	Sets paper orientation to portrait (taller than wide) or landscape (wider than tall).
Paper	Specifies paper size and tray.
Options	Opens the Options dialog box in which you can set additional printer options.
Network	Available if your system is connected to a network and you are running Windows for Workgroups. Opens the Network dialog box from which you can choose additional drives and directories.

Tip If the printer you want is not displayed, or if the assigned port is incorrect, change the printer information through the Windows Control Panel. For details, refer to the <u>Microsoft Windows User's Guide</u>.

Step by step
Printing a frame of an animation
Printing a scene or snapshot
Command
Print

Send File menu

Sends the current file (if saved) using a MAPI (Messaging Application Programming Interface) compliant application, such as Microsoft Mail. Asymetrix Web 3D prompts you to save the file you want to send.

1 <Filename> (most recently used files)

Opens a recently used file. Asymetrix Web 3D lists the four most recently used files.

Command

<u>Open</u>

Exit

File menu

Keyboard: Alt+F4

Ends the current session and exits Asymetrix Web 3D. If you have not saved your work, Asymetrix Web 3D asks whether to save your changes. If more than one instance of Asymetrix Web 3D is running, Exit closes only the active instance.

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Command

Close

Exit & Return

File menu

Ends the current session of Asymetrix Web 3D and returns to the OLE <u>container application</u>. If you have not saved your work, Asymetrix Web 3D asks whether to save your changes.

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Command

<u>Exit</u>

Edit menu

Undo/Redo

Edit menu

Keyboard: Ctrl+Z or Alt+Backspace

Toolbar:



Undoes or redoes the effect of your last action in the current instance of Asymetrix Web 3D, if that action can be undone or redone.

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Commands

Clear Copy Cut Duplicate Paste

Cut

Edit menu

Keyboard: Ctrl+X or Shift+Del

Toolbar:



Removes the selection and places it on the Windows Clipboard, replacing the previous Clipboard contents. If nothing is selected, the command is dimmed on the menu.

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Commands

Clear Copy Duplicate Paste Undo/Redo Copy Edit menu

Keyboard: Ctrl+C or Ctrl+Insert

Toolbar:



Places a copy of the selection on the Windows Clipboard, replacing the previous Clipboard contents. If nothing is selected, the command is dimmed on the menu.

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Commands

Clear
Cut
Duplicate
Paste
Undo/Redo

Paste

Edit menu

Keyboard: Ctrl+V or Shift+Ins

Toolbar:



Pastes the contents of the Windows Clipboard into the current <u>scene</u>. If the Clipboard is empty or its contents cannot be pasted, the Paste command is dimmed on the menu.

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Commands

Clear
Copy
Cut
Duplicate
Undo/Redo

Clear

Edit menu

Keyboard: Del

Removes the current selection without placing it on the Windows Clipboard. If nothing is selected, the command is dimmed on the menu.

To reverse this action, choose <u>Undo</u> from the Edit menu before you do anything else.

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Commands

Copy
Cut
Duplicate
Paste
Undo/Redo

Duplicate Edit menu

Keyboard: Ctrl+D

Makes an exact duplicate of the selected <u>model</u> without using the Windows Clipboard.

Commands

Clear Copy Cut Paste Undo/Redo

Select All

Edit menu

Keyboard: Ctrl+A

Selects all models in the current scene.

To cancel the selection, click anywhere away from the selection.

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Step by step Selecting models

Reset Position

Edit menu

Resets a model's position to the center of the scene.

L

Step by step
<u>Arranging a model in a scene</u>
<u>Resetting a model's location, rotation, or scale</u>

Commands
Reset Orientation
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Reset Orientation

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Resets a model to a flat orientation.

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Step by step
<u>Arranging a model in a scene</u>
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Commands
Reset Position
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Resets a model's size to the size in which it was created.

L

Step by step
<u>Arranging a model in a scene</u>
<u>Resetting a model's location, rotation, or scale</u>

Commands
Reset Orientation
Reset Position

View menu

Boxes View menu

Toolbar:



Displays <u>models</u> in the <u>Scene Preview window</u> as the shapes of the boxes that bound them. Asymetrix Web 3D works fastest in this mode because it does not have to recalculate as much information for each change you make to models in the <u>scene</u>.

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Wireframes

View menu





Displays <u>models</u> in the <u>Scene Preview window</u> as line drawings without color, <u>surface</u>, or <u>shading</u> information. When moving, <u>rotating</u>, or sizing, this view displays just the bounding box, then redraws the model when it is dropped. The Wireframes view draws changes to a <u>scene</u> more slowly than the <u>Boxes</u> view, but more quickly than the <u>Solid Models</u> view.

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Solid Models View menu





Displays $\underline{\text{models}}$ in the $\underline{\text{Scene Preview window}}$ as 3D objects with rough $\underline{\text{surface}}$ and $\underline{\text{shading}}$ effects from $\underline{\text{lights}}$. The $\underline{\text{Solid Models}}$ view is the slowest of the views to draw changes to a $\underline{\text{scene}}$.

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Boxes Options Wireframes

On Camera Area submenu View menu / On Camera Area

Enlarges or reduces the working area of the <u>Scene Preview window</u>.

Step by step
About Asymetrix Web 3D
About camera perspective
Setting the camera perspective

Backdrop View menu

Keyboard: F4

Displays or hides the <u>scene's</u> backdrop in the <u>Scene Preview window</u>.

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Adding a backdrop
Modifying a backdrop

Commands

Backdrop Gradient (dialog box)
Modify Backdrop

Scene Contents

View menu

Keyboard: F2

Toolbar:



Displays or hides the Scene Contents window, which lists all <u>scene</u> attributes such as <u>backdrop</u>, <u>lights</u>, and <u>soundtrack</u>; and all <u>models</u> and their attributes such as <u>surfaces</u>, <u>warps</u>, and <u>animation paths</u>.

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Step by step About Asymetrix Web 3D



Toolbar:



Displays or hides the Catalog, a window that contains preset <u>scene</u> elements such as <u>models</u>, <u>surfaces</u>, <u>lights</u>, <u>paths</u>, scenes, and <u>backdrops</u>. You can <u>drag</u> scene elements from the Catalog and <u>drop</u> them into the <u>Scene Preview</u> or <u>Scene Contents</u> window.

Step by step
About Asymetrix Web 3D
About the Catalog window

Position Palette

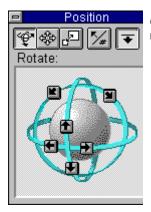
View menu

Keyboard: F8

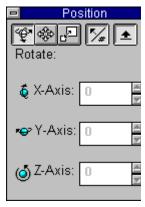
Toolbar:

Displays or hides the Position palette, which you can use to <u>rotate</u>, <u>move</u> or <u>scale</u> a <u>model</u> in the <u>Scene Preview window</u>.

Button/Keyboard Description		
₽	Changes cursor to with which you can rotate a model. Press	
F9	Shift to rotate around depth (Z) axis. Press Ctrl to constrain rotation to a single axis. If palette is expanded, displays graphical or numerical rotation controls.	
*	Changes cursor to with which you can move a model left, right, up, or down. Press Shift to move model forward and back in	
F10	3D space. If palette is expanded, displays graphical or numerical movement controls.	
-5-	Changes the cursor to with which you can scale (resize) a model. Press Shift to scale only width. Press Ctrl, then drag the	
F11	mouse up or down to scale only height. Press Ctrl, then drag the mouse left or right to scale only depth. If palette is expanded, displays graphical or numerical scaling controls.	
₹	Displays or hides additional controls.	
F12	Toggles expanded Position palette from graphical to numerical controls.	



Graphical controls. Clicking an arrow rotates the model in the direction indicated.



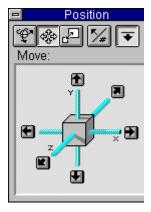
Numerical controls. Sets precise values for a model's rotation.

X-Axis: Modifies model's rotation around its X or horizontal axis (rotates model front to back). A positive value rotates model away from the camera; a negative value rotates model toward the camera.

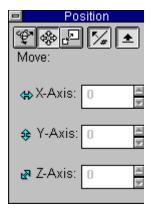
Y-Axis: Modifies model's rotation around its Y or vertical axis (rotates model side to side). A positive value rotates model to the left; a negative

value rotates model to the right.

Z-Axis: Modifies model's rotation around its Z or depth axis (rotates model in a circle). A positive value rotates model to the left; a negative value rotates model to the right.

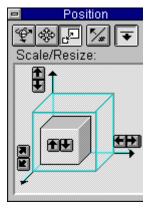


Graphical controls. Clicking an arrow moves the model in the direction indicated.

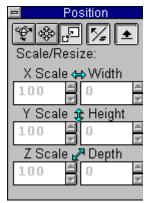


Numerical controls. Sets precise values for a model's position.

- X-Axis: Modifies model's position along its X or horizontal axis. A positive value moves model to the left; a negative value moves model to the right.
- Y-Axis: Modifies model's position along its Y or vertical axis. A positive value moves model down; a negative value moves model up.
- Z-Axis: Modifies model's position along its Z or depth axis. A positive value moves model back; a negative value moves model forward.



Graphical controls. Clicking an arrow scales the model in the direction indicated.



Numerical controls. Sets precise values for a model's scale (percentage of its initial size) and size.

- X Scale: Modifies model's scale along its X (horizontal) axis. A value over 100 increases the model's size; a value below 100 decreases the model's size.
- Width: Modifies model's width.
- Y Scale: Modifies model's scale along its Y (vertical) axis. A value over 100 increases the model's size; a value below 100 decreases the model's size.
- Height: Modifies model's height.
- Z Scale: Modifies model's scale along its Z (depth) axis. A value over 100 increases the model's size; a value below 100 decreases the model's size.
- Depth: Modifies model's depth.

Step by step

About Asymetrix Web 3D
About the Position palette
Arranging a model in a scene
Resetting a model's location, rotation, or scale

Animation Palette

View menu

Toolbar:



Displays or hides the Animation palette, which you can use to preview the $\underline{\text{animation}}$ defined by the $\underline{\text{animation}}$ paths of all $\underline{\text{models}}$ in a $\underline{\text{scene}}$.

Button	Description
	Previews the animation paths of all models in the scene at actual speed, dropping <u>frames</u> if they can't be <u>generated</u> quickly enough.
11	Previews the animation paths of all models in the scene, but does not play frames at actual speed.
	Stops or resumes playing a stopped animation from the current frame.
K	Returns to first frame of all animation paths.
1	Backs up one frame.
I	Advances one frame.
K	Advances to last frame of all animation paths.

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Step by step

Animating a model
Generating an animation
Modifying a model's animation path
Previewing an animation
Printing a frame of an animation

Commands

Modify Animation
Preview Animation
Preview All Frames

Toolbar View menu

Toggles the toolbar on or off the screen.

Screen map

Map of screen elements

Status Bar

View menu

Toggles the status bar on or off the active window.

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Screen map

Map of screen elements

Main Status Bar

Toggles the status bar on or off the main Asymetrix Web 3D window.

Screen map

Map of screen elements

Convert Snapshot (Colors tab)

Converts a generated snapshot to a different size or color palette.

Colors	<u>S</u> ize
Option	Description
Original Image	Lists number of colors available on current system and snapshot's <u>color depth</u> in bits per pixel.
New Image	Sets snapshot to use a new color palette and dithering options:
	Colors. Sets snapshot's color depth and palette.
25 Be common colors in the 64 16 16	Monochrome (1-bit): Dithers the image to a black-and-white palette. Colors (4-bit): Dithers the image to the standard Windows palette. Colors (8-bit): Dithers the image to the default Asymetrix Web 3D palette. Colors (8-bit): Counts how often each color occurs, then creates a palette of the 236 most e image and the 20 Windows colors and dithers the image to it. Colors (16-bit): Recreates the image's colors precisely (does not impose a palette). Colors (16-bit): Dithers the image to a palette of 16 grays. Colors (8-bit): Dithers the image to a palette of 236 grays. All grays will be recreated precisely. Colors (8-bit): Dithers the image to a palette of 256 grays. Some grays may not be recreated
	ompel Palette (8-bit): Dithers the image to the standard Asymetrix Compel palette.
	File. Sets the snapshot to use a color palette file (.PAL), or the palette of a specific bitmap. Clicking Browse opens the Open dialog box, in which you can import a palette.
	Dithering. Sets how Asymetrix Web 3D blends the available colors to approximate those specified in the snapshot.
	 Ordered: poorest quality; fastest dithering speed. ffuse: best quality; slower dithering speed. uster: average quality; medium dithering speed. None: no dithering. Only available for 16-bit or higher images.

Step by step Changing a snapshot's color depth or size

Commands

Generate Animation
Generate Snapshot
Options
Snapshot & Animation Settings

Convert Snapshot (Size tab)

Converts a generated snapshot to a different size or color palette.

<u>C</u> olors	Size
Option	Description
Original Image	Lists the snapshot's current width and height in the units you specify.
New Image	Sets the snapshot to a new size.
	Image Size. Sets the snapshot to a standard size. Or you can set a custom size.
	Width, Height, Units. Sets the snapshot's width and height to a specific size in units you choose.
	Scale Proportionally. Maintains the snapshot's width to height ratio as its width or height is changed.
	Scaling Method. Specifies how the snapshot is resized.
	Basic: poorest quality; fastest scaling method.
•	Good: average quality; fast scaling method.
•	Better: good quality (can be blurry); slow scaling method.
	Best: best quality; slowest scaling method.

Set Transparent Color
Tools menu / Snapshot (right-click menu)

Specifies a color as transparent when you save the snapshot in a format that supports transparency (such as <u>.GIF</u>).

Note This setting overrides the Transparent Background option in the Snapshot & Animation Settings dialog box.

Option	Description
Use Transparent Color	Makes transparent the selected color when you save the snapshot in a format that supports transparency (such as .GIF).
Transparent Color	Shows a swatch of the color selected to be transparent.
Pick Color From Screen	Allows you to choose the transparent color by clicking anywhere on the screen. When you click this button, the RGB (red/green/blue) values of the pixel currently under the pointer are displayed.

Step by step
Generating a snapshot
Saving a file with a transparent background

Command
Snapshot & Animation Settings (Colors tab)
Snapshot (right-click menu)

Arrange Catalog Entries Tools menu

Arranges icons of entries in <u>Catalog</u>.

Step by step
Creating and modifying a Catalog
Command
Catalog

Photo CD Converter

Tools menu

Starts the Photo CD Converter application, which you can use to convert images you select from a Photo CD to bitmap (.BMP) format.

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Options (Program tab)

Keyboard: F7

Sets default settings and options for working in Asymetrix Web 3D.

Program	<u>M</u> odels <u>F</u> ile
Option	Description
Catalog Options	Sets options for the default Catalog that starts with Asymetrix Web 3D.
	Default. Sets which catalog file opens when you start Asymetrix Web 3D. Clicking Browse opens the Open dialog box, in which you can select a Catalog file.
	Spacing. Sets default distance between Catalog entries.
	When Creating New Catalog Entry. Prompt User For File Name: opens the <u>Save As</u> dialog box when you add a catalog entry. Create File Name: automatically creates names for new catalog entries.
Zoom Dialogs	Makes dialog boxes appear to zoom out as they open.
Display Solid Models In Previews & OLE	Shows dialog box previews and scenes in OLE <u>container applications</u> as <u>solid models</u> .
Generate Snapshot Button Uses Last Settings	When the Generate Snapshot toolbar button is clicked, immediately generates a snapshot using the last settings from the Generate Snapshot dialog box without opening the dialog box.

Options (Models tab)

Keyboard: F7

Sets default settings and options for working in Asymetrix Web 3D.

<u>P</u> rogram	Models <u>File</u>
Option	Description
Default Colors	Sets default colors used to create models.
	Face. Sets color applied to model face. Click color button to set a new color.
	Side. Sets color applied to model sides. Click color button to set a new color.
	Default. Sets color applied to <u>simple models</u> and <u>imported models</u> that do not have <u>surface</u> information. Click color button to set a new color.
	Bevel. Displays color applied to model <u>bevels</u> . Click color button to set a new color.
Wireframe Display	Sets default colors used to display models as wireframes.
Colors	Line. Sets color used to draw a model in Wireframe mode. Click color button to set a new color.
	Selected. Sets color used for selection lines in Wireframe or <u>Boxes</u> mode. Click color button to set a new color.
	Backfaces Hidden In Wireframe Mode. Hides <u>surfaces</u> of models in Wireframe mode which would be hidden if the <u>scene</u> were displayed in <u>Solid Models</u> mode.
Move In Steps Of	Sets increments in which model <u>moves</u> , <u>rotates</u> , or <u>scales</u> when adjusted using the <u>Position palette</u> , mouse, or arrow keys.

Options (File tab)

Keyboard: F7

Sets default settings and options for working in Asymetrix Web 3D.

<u>P</u> rogram	Models File
Option	Description
At Startup	Sets what opens when you start Asymetrix Web 3D.
	Use Startup Dialog. Opens the Startup dialog box, from which you can choose a startup option.
	Create New Scene. Creates a new <u>scene</u> . New scene contents are determined by the default options you set in the <u>Snapshot & Animation Settings</u> dialog box.
	Display Open Dialog Box. Displays the Open dialog box so you can select a scene to work with.
New Scenes	Specifies what settings are used to create a new scene.
	Use Snapshot & Animation Defaults. Creates new scenes using the default options set in the Snapshot & Animation Settings dialog box.
	Use Scene File As Template. Creates new scenes using an existing scene file's settings and content as a template.
	File. Specifies a scene file to use as a template. Enter the name of a scene file, or click Browse to display the Open dialog box, in which you can choose a file to to use as a template.

Commands

Convert Snapshot
Generate Animation
Generate Snapshot
New
Snapshot & Animation Settings

Models menu

Create Text Model or Modify Text Model

Models menu

Keyboard: Ctrl+T (Create Text Model command)

Toolbar:

(Create Text Model command)

Creates a 3D <u>model</u> from text or modifies an existing 3D <u>text model</u>. You can set the font and style of the text before creating the text model.

Option Description

Toolbar Click a button below to see its description.

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Font Sets the font of the text model. Size Sets the font size of the text model.

Enter Text Here Sets the text for the model. Press Shift+Enter to start a new line of text.

Model Name Displays the model name. The model name is automatically set to the text in the field. Double-click in the box to enter a new name, or click <u>Modify</u> to enter a new name and description for the model.

Spelling Opens the Spelling dialog box.

Character Map Opens the Character Map dialog box, in which you can select alternative characters to include in the text model.

Modify 3D Opens the Modify 3D dialog box, in which you can set the bevel and thickness for the model.

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Step by step
About text and picture models
Creating a text model

Commands

Modify 3D
Modify Letter Model (dialog box)
Modify Name (dialog box)
Spelling (dialog box)

Cut

Cuts selected text to the Windows Clipboard, replacing the previous Clipboard contents.

Сору

Copies selected text to the Windows Clipboard, replacing the previous Clipboard contents.

Paste

Pastes the contents of the Windows Clipboard into the Enter Text Here area.

Bold

Makes selected text bold.

Italic

Makes selected text italic.

Align left

Aligns all text to left.

Center

Centers all text.

Align right
Aligns all text to right.

JustifyJustifies text.

Subscript

Formats selected text as subscript.

Normal

Sets text's vertical alignment to normal (neither subscript nor superscript).

Superscript

Formats selected text as superscript.

Modify Name (dialog box) Any scene element dialog box or right-click menu

Allows you to set a new name and description for a scene element.

Option	Description
Name	Sets a name to display in the Scene Contents window and status bar.
	Note To modify the name of a group of elements, such as lights or paths, right-click the group in the Scene Contents window, then enter a name.
Description	Sets a description to display in the status bar.

Commands

Create Picture Model

Create Text Model

Modify Animation

Modify Backdrop

Modify Cube (dialog box)
Modify Cylinder (dialog box)
Modify Imported Model (dialog box)

Modify Letter Model (dialog box)

Modify Lights

Modify Picture Model (dialog box)

Modify Ring (dialog box)

Modify Sphere (dialog box)

Modify Sub-part (dialog box)

Modify Surface & Color

Modify Text Model (dialog box)

Modify Warp

Spelling (dialog box) Models menu / Create Text Model / Spelling

Provides options for correcting the spelling of words used in $\underline{\text{text models}}$.

Option	Description
Not In Dictionary; Invalid Character; Capitalization	Displays unknown text, unknown use of punctuation, or unknown capitalization scheme.
Change To	Displays suggested new text to replace the unknown text. Double-click to enter corrections here.
Suggestions	Displays a list of alternative words for the unknown text, if available.
Personal Dictionary	Specifies a dictionary to open. Enter the name of a dictionary.
Add	Adds the unknown text to a custom user dictionary.
Ignore group	Specifies types of words to ignore.
	Words In UPPERCASE. Ignores words containing only capital letters.
	Words With Numbers. Ignores words containing numbers.
Ignore	Ignores the unknown text.
Ignore All	Ignores every occurrence of the unknown text.
Change	Changes unknown text to the text specified in the Change To box.
Change All	Changes every occurrence of the unknown text to the text specified in the Change To box.

Command Create Text Model

Create Picture Model

Models menu

Keyboard: Ctrl+M

Toolbar:



Imports graphic files to create <u>3D picture models</u>. For <u>bitmaps</u>, Asymetrix Web 3D converts the image to black and white, then <u>traces</u> around the black to create a 3D picture model. For graphic files defined by polygons and lines (such as <u>metafiles</u>), Asymetrix Web 3D uses the information in the source file to create a 3D picture model.

Option	Description
Create Model From Graphic File	Imports a graphic file to use in creating a model.
	File. Specifies a file to import. Enter the name of a graphic file. Clicking Browse opens the Import Graphic dialog box, in which you can choose a file to import.
	Paste Graphic From Clipboard. Pastes a graphic file from the Windows Clipboard into the dialog box.
	Preview. Previews the graphic file.
	Note Metafiles may appear distorted in the preview area, but will be imported without distortion.
	Autotrace. Creates a model by converting a bitmap to black and white, then tracing around the black.
	Trace Options. Opens the <u>Trace Options</u> dialog box, which specifies how a bitmap is converted to black and white, and how closely it is traced.
Model Name	Model Name. Displays the model name. Double-click in the box to enter a new name, or click Modify to enter a new name and description for the model.
Modify 3D	Opens the $\underline{\text{Modify 3D}}$ dialog box, in which you can set the $\underline{\text{bevel}}$ and thickness for the model.

Step by step

About text and picture models Creating a picture model

Commands

Import Graphic (dialog box)

Modify 3D
Modify Name (dialog box)
Modify Picture Model (dialog box)
Modify Sub-part (dialog box)
Trace Options (dialog box)

Import Graphic (dialog box) Models menu / Create Picture Model / Browse

Used to import a bitmap or metafile.

Option	Description
File Name	Lists all files in the current default directory with the default file extension for the selected file format (.BMP, .DIB, or .WMF). A file selected from the File Name list replaces the contents of the File Name box.
List Files Of Type	Indicates that the default file types are the graphic types .BMP, .DIB, and .WMF. The drop-down list includes all other available file types.
Directories	Displays the default path. Change the directory by selecting a new path from the Directories box, which lists all directories available on the current drive. To change the drive, make a selection in the Drives box.
Drives	Lists the available drives. Selecting a new drive changes the contents of the Directories box.
Preview	Previews the bitmap or metafile.
Preview Selection	Enables the Preview area.
Network	Available if your system is connected to a network. Opens the Network dialog box from which you can choose additional drives and directories.

Step by step
Creating a picture model
Command
Create Picture Model

Trace Options (dialog box) Models menu / Create Picture Model / Trace Options

Specifies which shades in a <u>bitmap</u> are converted to white, and how closely it is <u>traced</u> to create a <u>picture model</u>.

Option	Description
Tightness Of Fit	Sets how closely (in pixels) to trace the curves in a bitmap, once it has been converted to black and white.
Ignore	Shades Lighter Than. Sets the shades that will be considered white when tracing a bitmap.
	Things Smaller Than. Sets the size of areas that will be traced (in pixels).

Step by step
Creating a picture model
Command
Create Picture Model

Create Simple Model submenu

Creates geometrically defined $\underline{\mathsf{models}}$.

Submenu item	Description
Sphere	Creates a sphere model.
Ring	Creates a ring model.
Cylinder	Creates a cylinder model.
Cube	Creates a cube model.
Cone	Creates a cone model, based on a cylinder.
Plane	Creates a plane model, based on a cube.
Octahedron	Creates an octahedron model, based on a sphere.
Barrel	Creates a barrel model, based on a sphere.
Gear	Creates a gear model, based on a cylinder.
Hexnut	Creates a hexnut model, based on a ring.
Tube	Creates a tube model, based on a cylinder.
Double Bell	Creates a double bell model, based on a sphere.

Step by step
About simple models Adding a preset model

Modifying a simple model's shape

Commands

Modify Cube (dialog box)
Modify Cylinder (dialog box)
Modify Ring (dialog box)
Modify Sphere (dialog box)

Import Model Models menu

Keyboard: Ctrl+I

Imports a $\underline{3D \ model \ file}$ created in another program into a \underline{scene} . Asymetrix Web 3D supports \underline{models} that use the Autodesk 3D Studio (.3DS) or AutoCAD (.DXF) format.

Option	Description
File Name	Lists all files in the current default directory with the default file extension for the selected file format. A file selected from this box replaces the contents of the File Name box.
List Files Of Type	Indicates that geometry files (extensions .3DS or .DXF) are the default file type.
Directories	Displays the default path. Change the directory by selecting a new path from the Directories box, which lists all directories available on the current drive. To change the drive, make a selection in the Drives box.
Drives	Lists the available drives. Selecting a new drive changes the contents of the Directories box.
Network	Available if your system is connected to a network. Opens the Network dialog box from which you can choose additional drives and directories.

Step by step
About imported models
Importing a model
Commands
Imported Model Surface (dialog box)
Modify Imported Model (dialog box)

Imported Model Surfaces (dialog box) Models menu / Import Model

Opens when you import a model in .3DS format and Asymetrix Web 3D cannot locate the surface mapping files required to display it.

Option	Description
Reassign Surface Mappings	.3DS Filename (Map Type) -> New Filename list. Lists Autodesk 3D Studio surface map file names that cannot be found. Select a surface map name, click Browse, and then select a file to assign to it.

Step by step
About imported models
Importing a model
Commands
Import Model
Modify Imported Model (dialog box)

Modify 3D Models menu

Modifies the currently selected <u>text</u> or <u>picture model's</u> 3D options.

Option	Description
Bevel	Sets type of angle on a model's edges. Adding a <u>bevel</u> causes a model to redraw and <u>generate</u> more slowly.
	None. Removes model's bevel.
	Angled. Adds 45-degree bevel to model's edges.
	Concave Curve. Adds concave bevel to model's edges.
	Convex Curve. Adds convex bevel to model's edges.
	Bevel Size. Sets bevel's size as a percentage of the model's depth.
Thickness	Sets model's depth in relation to the apparent width of the Scene Preview window.
Preview	Preview. Previews 3D options. Click to stop and start rotation.
	Update. Applies options set in dialog box to model in preview area.

Step by step
About text and picture models
Creating a picture model
Creating a text model

Create Text Model
Create Picture Model

Modify Model Models menu

You can use the Modify Model command to change text, picture, simple, and imported models you've created. For details about modifying a specific type of model, click a topic below.

- Modify Cube (dialog box)
- Modify Cylinder (dialog box)
- Modify Imported Model (dialog box)
- Modify Letter Model (dialog box)
- Modify Picture Model (dialog box)
- Modify Ring (dialog box)
- Modify Sphere (dialog box)
- Modify Sub-part (dialog box)
- Modify Text Model (dialog box)

Step by step
About imported models
About simple models
About surfaces
About text and picture models

Modify Picture Model (dialog box)

Models menu / Modify Model

Modifies the name of the selected <u>picture model</u>.

Option	Description
Model Name	Displays the model or sub-part's name. Double-click in the box to enter a new name, or click
	Modify to enter a new name and description for the model or sub-part.

Step by step
About text and picture models
Creating a picture model
Commands
Create Picture Model

Modify Sub-part or Modify Letter Model (dialog box)

Models menu / Modify Model

Modifies the name of the selected <u>sub-part</u> of a model or <u>text model</u>.

Option	Description	
Model Name	Displays the name of the sub-part of the model or text model. Double-click in the box to enter a	
	new name, or click Modify to enter a new name and description for the sub-part.	

Step by step
About text and picture models
Creating a picture model
Creating a text model
Commands

Create Picture Model
Create Text Model

Modify Imported Model (dialog box) Models menu / Modify Model

Modifies the selected imported $\underline{\text{model's}}$ name and $\underline{\text{meshes}}$.

Option	Description
Model Name	Displays the model name. Double-click in the box to enter a new name, or click <u>Modify</u> to enter a new name and description for the model.
Mesh Operations	Manipulates the triangles that make up the surface of an imported model.
	Flip Normals. Reassigns the front and back of each triangle. Use this option when you can't see an imported model once you've rendered it.
	Melt. Makes a surface more faceted, and less smooth.
	Weld. Makes a surface less faceted, and more smooth.
	Unify Normals. Orients all the triangles in a mesh in the same direction.
	Sub Diivide. Divides each triangle in a mesh into three triangles.

Step by step
About imported models
Importing a model

Commands
Import Model
Imported Model Surface (dialog box)
Modify Name (dialog box)

Modify Cube (dialog box) Models menu / Modify Model

Example...

Modifies the selected cube or plane <u>model</u>.

Option	Description	
Model Name	Displays the model name. Double-click in the box to enter a new name, or click <u>Modify</u> to enter a new name and description for the model.	
Preview	Previews options set in dialog box.	
Update	Applies options set in dialog box to model in preview area.	
Size X	Sets model's width. Range of values: .001 to 5000.	
Size Y	Sets model's height. Range of values: .001 to 5000.	
Size Z	Sets model's depth. Range of values: .001 to 5000.	
Divisions	Sets number of triangles that make up the model. Range of values: 2 to 16.	

Step by step
About simple models Adding a preset model

Modifying a simple model's shape

Commands

Create Simple Model
Modify Cylinder (dialog box)
Modify Name (dialog box)
Modify Ring (dialog box)
Modify Sphere (dialog box)

{ewl ewl, ewBitmap, cube.dib}

If you do not see a series of example snapshots, you do not have file CUBE.DIB.

Modify Cylinder (dialog box) Models menu / Modify Model

Modifies the selected cylinder, cone, gear, or tube <u>model</u>.

Option	Description
Model Name	Displays the model name. Double-click in the box to enter a new name, or click <u>Modify</u> to enter a new name and description for the model.
Preview	Previews options set in dialog box.
Update	Applies options set in dialog box to model in preview area.
Upper Radius	Adjusts radius of circle at top of model. Range of values: .001 to 5000.
Lower Radius	Adjusts radius of circle at bottom of model. Range of values: .001 to 5000.
Radial Divisions	Adjusts number of wedge shapes that make up model's circular faces. Range of values: 3 to 256.
Height Divisions	Adjusts number of rows of triangles that make up model's vertical faces. Range of values: 1 to 32.
Height	Adjusts model's height. Range of values: .001 to 5000.
Radial Power	Contorts model's curves away from or toward its horizontal and vertical axes. A value close to 10 collapses model toward its center to resemble a cross; a value close to 0 expands model's curves to resemble a square. Range of values: .01 to 10.
End Caps	Places faces on ends of model.
Petals	Molds model into a flower shape with the specified number of petals. Range of values: 1 to 16.
Petal Size	Adjusts size of petals (if petals are specified). Range of values: 0 to 1.
	If petal size is greater than 0 and Radial Divisions have not already been set, Asymetrix Web 3D automatically changes the Radial Divisions to 16 times the value of Petals when the Update button is clicked.
Petal Shape	Modifies the shape of model's petals. A value close to 0 make petals more squared; a value close to 10 makes petals more pointed. Range of values: .01 to 10.
	If petal size is greater than 0, petal shape is less than .5 or greater than 4, and Radial Divisions have not already been set, Asymetrix Web 3D automatically changes the Radial Divisions to 32 times the value of Petals when the Update button is clicked.

Step by step
About simple models Adding a preset model

Modifying a simple model's shape

Commands

Create Simple Model
Modify Cube (dialog box)
Modify Name (dialog box) Modify Ring (dialog box)
Modify Sphere (dialog box) **Example 1:** Illustrates the radius, divisions, power, and end caps parameters.

Example 2:: Illustrates the petal parameters.

{ewl ewl, ewBitmap, cylndr1.dib}

If you do not see a series of example snapshots, you do not have file CYLNDR1.DIB.

{ewl ewl, ewBitmap, cylndr2.dib}

If you do not see a series of example snapshots, you do not have file CYLNDR2.DIB.

Modify Ring (dialog box) Models menu / Modify Model

Modifies the selected ring or hexnut <u>model</u>.

Option	Description
Model Name	Displays the model name. Double-click in the box to enter a new name, or click $\underline{\text{Modify}}$ to enter a new name and description for the model.
Preview	Previews options set in dialog box.
Update	Applies options set in dialog box to model in preview area.
Power X	Contorts model's curves away from or toward its horizontal and vertical axes. A value close to 10 collapses model to make it resemble a cross; a value close to 0 expands model to make it resemble a square. Range of values: .01 to 10.
Power Y	Contorts curves of the circles that comprise the model away from or toward their horizontal and vertical axes. A value close to 10 collapses each circle to make model seem composed of crosses; a value close to 0 expands each circle to make model seem composed of squares. Range of values: .01 to 10.
Thickness	Adjusts radius of circles that comprise model. Range of values: .001 to 5000.
Ring Radius	Adjusts radius of entire model. Range of values: .001 to 5000.
Major Divisions	Adjusts number of circles that make up model. Range of values: 3 to 100.
Minor Divisions	Adjusts number of lines in circles that make up model. Range of values: 3 to 100.

Step by step

About simple models
Adding a preset model
Modifying a simple model's shape

Commands

Create Simple Model
Modify Cube (dialog box)
Modify Cylinder (dialog box)
Modify Name (dialog box)
Modify Sphere (dialog box)

{ewl ewl, ewBitmap, ring.dib}

If you do not see a series of example snapshots, you do not have file RING.DIB.

Modify Sphere (dialog box) Models menu / Modify Model

Modifies the selected sphere, octahedron, barrel, or double bell <u>model</u>.

Option	Description
Model Name	Displays the model name. Double-click in the box to enter a new name, or click <u>Modify</u> to enter a new name and description for the model.
Preview	Previews options set in dialog box.
Update	Applies options set in dialog box to model in preview area.
Fineness	Adjusts number of triangles that make up model. Range of values: 1 to 5.
Power X	Contorts model's curves away from or toward its horizontal axis. A value close to 10 elongates the curve (to resemble a top); a value close to 0 squares the curve. Range of values: 0 to 10.
Power Y	Contorts model's curves away from or toward its vertical axis. A value close to 10 elongates the curve; a value close to 0 squares the curve. Range of values: 0 to 10.
Power Z	Contorts model's curves away from or toward its depth axis. A value close to 10 elongates the curve; a value close to 0 squares the curve. Range of values: 0 to 10.
Radius X	Adjusts length of model's horizontal axis. Range of values: .001 to 5000.
Radius Y	Adjusts length of model's vertical axis. Range of values: .001 to 5000.
Radius Z	Adjusts length of model's depth axis. Range of values: .001 to 5000.
Optimize For Bitmap Surface	Adjusts model's surface to better display bitmap patterns, <u>bump textures</u> , or <u>reflection maps</u> .

Step by step

About simple models
Adding a preset model
Modifying a simple model's shape

Commands

Create Simple Model
Modify Cube (dialog box)
Modify Cylinder (dialog box)
Modify Name (dialog box)
Modify Ring (dialog box)

{ewl ewl, ewBitmap, sphere.dib}

If you do not see a series of example snapshots, you do not have file SPHERE.DIB.

Modify Surface & Color (Surface Pattern tab)

Models menu

Modifies the surface of a model.

Note Click a tab below to see its options.

Surface Pattern	Highlights Effects		
Option	Description		
Surface Name	Displays the surface's name. Double-click in the box to enter a new name, or click <u>Modify</u> to enter a new name and description for the surface.		
Surface Preview	Previews surface options.		
Surface Pattern	Color. Sets pattern to a color. To change color, see the Surface Settings options below.		
	Bitmap Pattern. Sets pattern to a <u>bitmap</u> . To apply a different bitmap, see the Surface Settings options below.		
	Solid Material. Sets pattern to a preset solid material. To change material, see the Surface Settings options below.		
	Note If you apply a solid material surface to a model, the surface will not be visible until you generate a snapshot or animation of the scene.		
Surface Settings	Color surface pattern options.		

- Color button: displays <u>Color Wheel</u> dialog box.
- Color tiles: set pattern to a color.

Bitmap surface pattern options.

- Bitmap: contains list of preset pattern files, or indicator that file is imported.
- File: displays selected file's name. Double-click to enter a different file name, or click Browse to select a new file. Bitmap surfaces can be found in the Bitpatrn subdirectory of your Catalog directory.
 - Note You can also select a digital video (.AVI) file to play as a model's surface.
 - Tile Bitmap: sets how often a bitmap is repeated on a model's surface.

Note If you tile a bitmap surface, the surface will not appear tiled until you generate a snapshot or animation of the scene.

Solid Material, Granite surface pattern options.

- Scale: sets how often pattern is repeated on a model's surface. A value of 100% displays the pattern once, a value of 50% displays the pattern four times, and so on.
- Stone: sets color of stone, and percentage of stone in relation to other pattern elements.
- Grains: sets color of grain, and percentage of grain in relation to other pattern elements.

Solid Material, Marble surface pattern options.

- Scale: sets how often pattern is repeated on a model's surface. A value of 100% repeats the pattern once, a value of 50% repeats the pattern four times, and so on.
- Vein Curliness: sets curliness of vein.
- Stone: sets color of stone, and percentage of stone in relation to other pattern elements.
- Vein: sets color of vein, and percentage of vein in relation to other pattern elements.
- Grainline: sets whether grainline shows on top, sides, or front of model.

Solid Material, Wood surface pattern options.

- Scale: sets how often pattern is repeated on a model's surface. A value of 100% repeats the pattern once, a value of 50% repeats the pattern four times, and so on.
- Grain Curliness: sets curliness of grain.
- Wood: sets color of wood, and percentage of wood in relation to other pattern elements.
 - Grain 1: sets color of grain, and percentage of grain in relation to other pattern elements.
- Grainline: sets whether grainline shows on top, sides, or front of model.

Single Sided Sets a surface to appear only on the outer faces of a model.

Double Sided Sets a surface to appear on both the inner and outer faces of a model.

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Step by step

About surfaces
Adding a texture to a model's surface
Applying a digital video file as a surface
Applying a surface to a model
Creating a "glass" surface
Creating models that appear to be lights
Making a color surface appear transparent
Making a scene and backdrop appear smoky
Making a scene and backdrop appear snowy
Making a solid material surface transparent
Making a surface reflect a bitmap
Making a surface reflective
Making all models in a scene reflect a bitmap
Modifying a model's surface

Commands

Color Wheel (dialog box)
Import Graphic (dialog box)
Modify Name (dialog box)
Snapshot & Animation Settings

Submerging a model in "water"

Example 1: Illustrates the Surface Pattern tab parameters.

Example 2: Illustrates the Highlights tab parameters.

Example 3: Illustrates the Effects tab parameters.

{ewl ewl, ewBitmap, surf1.dib}

If you do not see a series of example snapshots, you do not have file SURF1.DIB.

Modify Surface & Color (Highlights tab) Models menu

Modifies the $\underline{\text{surface}}$ of a $\underline{\text{model}}$.

Surface Pattern	Highlights: Effects	
Option	Description	
Surface Name	Displays the surface's name. Double-click in the box to enter a new name, or click <u>Modify</u> to enter a new name and description for the surface.	
Surface Preview	Previews surface options.	
Surface Finish	Sets how surface changes with <u>light</u> .	
	Highlight Size. Adjusts the amount of area the highlight covers.	
	Highlight Intensity. Adjusts highlight brightness.	
	Unhighlighted Surface. Adjusts shade of unhighlighted surfaces.	
Bump Texture Defines a surface's texture.		
	Texture. Contains list of preset texture files, or indicates that file is imported or that no file is selected.	
	File. Displays selected file's name. Double-click to enter a different file name, or click Browse to select a new file. Bump textures can be found in the Bumps subdirectory of your Catalog directory.	
	Tile Texture. Sets how often the texture <u>bitmap</u> is repeated on a model's surface.	

{ewl ewl, ewBitmap, surf2.dib}

If you do not see a series of example snapshots, you do not have file SURF2.DIB.

Modify Surface & Color (Effects tab) Models menu

Modifies the $\underline{\text{surface}}$ of a $\underline{\text{model}}$.

Surface Pattern	Highlights Effects	
Option	Description	
Surface Name	Displays the name that appears in the <u>Scene Contents window</u> and status bar. Double-cli in the box to enter a new name, or click <u>Modify</u> to enter a new name and description for th surface.	
Surface Preview	Previews surface options.	
Reflections	Sets how reflective a surface is, and what it reflects.	
	Use Reflection Map. Check to make a model's surface appear to reflect a bitmap.	
	Reflection. Lists preset reflection files, or indicates that file is imported or that no file is selected.	
	File. Displays selected file's name. Double-click to enter a different file name, or click Browto select a new file. Reflection maps can be found in the Rflctns subdirectory of your Cata directory.	
	Enable Optical Effects When Ray Tracing. Check to make an object reflect both a reflection map and the scene around it if either Ray Traced or Ray Traced w/Shadows are selected generating options.	
	Intensity. Adjusts how much of the <u>reflection map</u> or <u>scene</u> the model's surface reflects.	
Transparency	Adjusts surface's transparency.	

{ewl ewl, ewBitmap, surf3.dib}

If you do not see a series of example snapshots, you do not have file SURF3.DIB.

Color Wheel (dialog box)

Displays colors you can choose for <u>surfaces</u> or <u>backdrops</u>.

Option	Description	
Color Wheel	Sets a color.	
Lightness	Adjusts lightness of all colors.	
Color	Displays selected color.	
Opacity	Displays the transparency of a color, from 0 to 255.	
	Note Opacity is only available when modifying a color used as a surface.	
RGB Values	Sets amounts of Red, Green, and Blue in a color, from 0 to 255.	
HLS Values	Hue. A value between 0 and 255 that sets a color's quality corresponding to its position in the spectrum, ranging from red through yellow, green, cyan, blue, and magenta.	
	Lightness. A value between 0 and 255 that represents the amount of white or black in a color.	
	Saturation. A value between 0 and 255 that represents the intensity of a color.	

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Step by step

About color in Asymetrix Web 3D
About color palette shift
Applying a surface to a model
Making a scene and backdrop appear smoky
Making a scene and backdrop appear snowy
Making a solid material surface transparent
Modifying a model's surface

Command

Modify Surface & Color

Animated Surface (dialog box) Models menu / Modify Surface & Color

Opens when you select an .AVI file, rather than a bitmap, to apply as a model's surface. Sets start and end frames of .AVI file to play. Start and end frames can only be defined once. To reset an animation's start and end frames, you must reselect it as a bitmap pattern in the Surface Pattern tab of the Modify Surface & Color dialog box.

Option	Description
Preview	Displays selected .AVI file.
Frames To Use	Start/End. Set the starting and ending frame numbers for the .AVI file. Click to set the currently visible Start and End frame numbers.
Start Time	Sets how many seconds after start of animation surface .AVI file begins to play.
	Asymetrix Web 3D displays the start frame until the .AVI file starts playing.
Duration	Time in seconds of selected .AVI clip.
Continuous Loop	Sets .AVI file to play continuously on surface.
Freeze On Last Frame	Sets .AVI file to play once on surface, then hold on last frame.

Step by step
Applying a digital video file as a surface
Command
Modify Surface & Color

Modify Animation (Movement tab)

Modifies an animation path for a model.

Movement	<u>Spin </u>
Option	Description
Animation Path Name(s)	Sets an animation path to modify.
	Modify. Opens the Modify Name dialog box, in which you can enter a new name and description for the path.
Duration	Seconds. Sets time length in seconds for the selected animation path.
Start And End Positions	Enter Scene. Creates path for model to enter <u>scene</u> . Click, then set the model's initial position using the Offscreen Position option described below.
	Leave Scene. Creates path for model to leave scene. Click, then set the model's final position using the Offscreen Position option described below.
	Don't Move. Specifies that model remain in place.
	Wait Offscreen. Specifies that model wait offscreen in the specified location for the specified duration.
	Custom. Indicates that the current path contains path information not created with this dialog box. Custom paths can only be edited, not created.
Offscreen Position	Sets model's initial or final Offscreen position. Click an intersection to set a model's position.

Step by step

About animation in Asymetrix Web 3D
Adding a soundtrack to an animation
Animating a model
Animating sub-parts of a model
Generating an animation
Modifying a model's animation path
Modifying a model's animation path sequence
Previewing an animation
Printing a frame of an animation
Staggering when models enter a scene

Commands

Generate Animation
Modify Name (dialog box)
Modify Soundtrack
Preview All Frames
Preview Animation

Modify Animation (Spin tab)

Modifies an <u>animation path</u> for a <u>model</u>.

M <u>o</u> vement Spin	Effects
Option	Description
Animation Path Name(s)	Sets an animation path to modify.
	Modify. Opens the $\underline{\text{Modify Name}}$ dialog box, in which you can enter a new name and description for the path.
No Spin	Specifies that model not spin.
Spin Entire Model	Specifies that entire model spins.
Spin Sub-parts Only	Specifies that only <u>sub-parts</u> of model spin.
Spin Both Model And Sub-parts	Specifies that both model and its sub-parts spin.
Number Of Turns	Specifies how many turns spinning objects perform. Positive numbers cause the model to rotate in the direction set in the Preview & Define Spin area; negative numbers cause the model to rotate in the opposite direction.
	Note You must specify a number of turns, or no spin will be applied to the model.
Preview & Define Spin	Spin Left/Right (Local Y). Specifies that model rotate from left to right, around its vertical axis.
	Spin Up/Down (Local X). Specifies that model rotate from top to bottom, around its horizontal axis.
	Propeller (Local Z). Specifies that model rotate from left to right, around its depth axis.
	Define Spin. Specifies that model rotate in the direction set by clicking in the Preview & Define Spin box.

Modify Animation (Effects tab)

Modifies an animation path for a model.

M <u>o</u> vement	Spin Effects
Option	Description
Animation Path Name(s)	Sets an animation path to modify.
	Modify. Opens the <u>Modify Name</u> dialog box, in which you can enter a new name and description for the path.
Sub-part Sequence	Apply To Motion. Specifies that stagger options you set (described below) apply to model's motion.
	Apply To Spin. Specifies that stagger options you set (described below) apply to model's spin.
	Stagger Sub-parts First To Last. Specifies that model's <u>sub-parts</u> move or spin in the order they are listed in the <u>Scene Contents window</u> .
	Stagger Sub-parts Last To First. Specifies that model's sub-parts move or spin in reverse of the order they are listed in the Scene Contents window.
	Stagger In A Random Sequence. Specifies that model's sub-parts move or spin in random order.
	Stagger Factor. Specifies how far along its animation path each sub-part will progress before the next sub-part begins moving or spinning.
Offscreen Orientation	Sets how model is oriented as it enters or leaves scene.
	Enable. Specifies that as a model moves along an animation path, it tumbles from the offscreen orientation to the orientation of the model in the <u>Scene Preview window</u> .

Modify Warp (Front tab) Models menu

Defines how the selected $\underline{\mathsf{model}}$ will be stretched or twisted.

Front	<u>S</u> ide <u>I</u> op	
Option	Description	
Warp	Sets how bow and angle sliders warp model from the front.	
	Symmetrically. Adjusts both front edges in the same direction.	
	Mirrored. Adjusts front edges opposite each other.	
	Independently. Adjusts front edges independently.	
Twist (Front/Back)	Sets how many degrees away from center the model's front and back twist.	
Bow	Adjusts the amount model's center is raised above or below its edges.	
Angle	Adjusts the angle of the model's ends.	
Enable Warp	Applies warp to model. Sub-parts cannot be moved individually, but only along with the rest of the model.	
Disable Warp	Removes warp from model, so that sub-parts can be moved individually.	
Warp Name	Displays the <u>warp's</u> name. Double-click in the box to enter a new name, or click <u>Modify</u> to enter a new name and description for the warp.	
Preview	Previews warp options set in dialog box. Click to stop and start rotation.	
Update	Applies options set in dialog box to model in preview area.	
Reset	Removes all warps from model.	

Step by step Modify Name (dialog box) {ewl ewl, ewBitmap, warp.dib}

If you do not see a series of example snapshots, you do not have file WARP.DIB.

Modify Warp (Side tab) Models menu

Defines how the selected \underline{model} will be stretched or twisted.

<u>F</u> ront	Side <u>I op</u>	
Option	Description	
Warp Sets how bow and angle sliders warp model from the side.		
	Symmetrically. Adjusts both side edges in the same direction.	
	Mirrored. Adjusts side edges opposite each other.	
	Independently. Adjusts side edges independently.	
Twist (Left/Right)	Sets how many degrees away from center the model's sides twist.	
Bow	Adjusts the amount model's center is raised above or below its edges.	
Angle	Adjusts the angle of the model's ends.	
Enable Warp	Applies warp to model. Sub-parts cannot be moved individually, but only along with the rest of the model.	
Disable Warp	Removes warp from model, so that sub-parts can be moved individually.	
Warp Name	Displays the <u>warp's</u> name. Double-click in the box to enter a new name, or click <u>Modify</u> to enter a new name and description for the warp.	
Preview	Previews warp options set in dialog box. Click to stop and start rotation.	
Update	Applies options set in dialog box to model in preview area.	
Reset	Removes all warps from model.	

Modify Warp (Top tab) Models menu

Defines how the selected \underline{model} will be stretched or twisted.

<u>F</u> ront	Side Top:	
Option	Description	
Warp	Sets how bow and angle sliders warp model from the top.	
	Symmetrically. Adjusts both top edges in the same direction.	
	Mirrored. Adjusts top edges opposite each other.	
	Independently. Adjusts top edges independently.	
Twist (Top/Bottom)	Sets how many degrees away from center the model's top and bottom twist.	
Bow	Adjusts the amount model's center is raised above or below its edges.	
Angle	Adjusts the angle of the model's ends.	
Enable Warp	Applies warp to model. Sub-parts cannot be moved individually, but only along with the res of the model.	
Disable Warp	Removes warp from model, so that sub-parts can be moved individually.	
Warp Name	Displays the <u>warp's</u> name. Double-click in the box to enter a new name, or click $\underline{\text{Modify}}$ enter a new name and description for the warp.	
Preview	Previews warp options set in dialog box. Click to stop and start rotation.	
Update	Applies options set in dialog box to model in preview area.	
Reset	Removes all warps from model.	

Modify URL Models menu

Allows you to enter a <u>URL</u> to be associated with a model. The URL is used by the Scene Viewer application.

Snapshot & Animation Settings (Size tab)

Keyboard: Shift+F3

Sets how snapshots and animations are generated.

Note The OLE tab is only available when performing in-place editing in a linked or embedded scene.

Size Quality	Colors Effects Animation OLE
Option	Description
Size	Sets snapshot or animation to an Image Size you choose.
	Note To generate snapshots larger than 4092 pixels wide when your <u>color depth</u> is 8 bits per pixel, 2046 pixels when your color depth is 16 bits per pixel, or 1364 pixels when your color depth is 24 bits per pixel, you must generate to file.
	Width, Height, Units. Sets snapshot's width and height to a size in units that you specify. Also changes automatically when you choose a preset image size.
	Scale Proportionally. Maintains snapshot's width to height ratio as its width or height is changed.
Default	Makes the settings you have specified in this dialog box the default for new scenes you create.

Step by step

About animation in Asymetrix Web 3D
About color in Asymetrix Web 3D
About surfaces
Changing a snapshot's color depth or size
Generating a snapshot
Generating an animation

Commands

Convert Snapshot
Generate Animation
Generate Snapshot
Modify Animation
Modify Surface & Color
Options

Snapshot & Animation Settings (Quality tab)

Keyboard: Shift+F3

Sets how snapshots and animations are generated.

Note The <u>OLE</u> tab is only available when performing <u>in-place editing</u> in a <u>linked</u> or <u>embedded scene</u>.

Option	Description
Quality	Sets output style and smoothing for the snapshot.
•	Snapshot Style. Determines amount of detail used to generate
	snapshots.
	Wireframes: draws wireframe models; fastest
	generating method.
	Note If you choose Wireframes, your snapshot or
	animation will generate at the color depth of your video driver.
	Solid Models: draws solid models using rough
	approximations of <u>shading</u> ; slower generating method.
	Note If you choose Solid Models, your snapshot or
	animation will generate at the <u>color depth</u> of your video driver. If
	you select the Solid Model generating style, you cannot
	generate a snapshot larger than your screen. Realistic: draws solid models using realistic shading.
	Realistic w/Shadows: draws solid models, using
	realistic shading and shadows.
	Ray Traced: draws solid models using realistic
	shading and reflections; excellent quality.
	Ray Traced w/Shadows: draws solid models using
	realistic shading, reflections, and shadows; excellent quality.
	Smoothing. Sets how smooth high-contrast areas will appear.
Number Of Ray	Sets number of ray traced reflections to draw in scene. Only
Traced Reflections	available when the selected Snapshot Style is Ray Traced or
	Ray Traced w/Shadows.
Default	Makes the settings you have specified in this dialog box the
	default for new scenes you create.

Snapshot & Animation Settings (Colors tab)

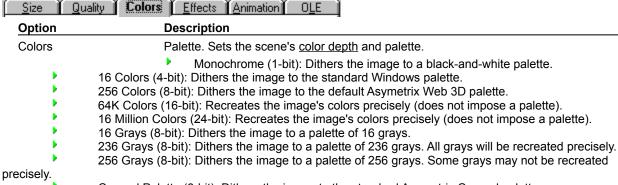
Scene menu

Keyboard: Shift+F3

Sets how snapshots and animations are generated.

Note The OLE tab is only available when performing in-place editing in a linked or embedded scene.

Note Click a tab below to see its options.



Compel Palette (8-bit): Dithers the image to the standard Asymetrix Compel palette.

File. Sets the snapshot to use a color palette file (.PAL), or the palette of a specific bitmap. Clicking Browse opens the Open dialog box, in which you can import a palette.

Dithering. Sets how Asymetrix Web 3D blends the available colors to approximate those specified in the snapshot.

- Ordered: poorest quality; fast dithering speed.
- Diffuse: best quality; slow dithering speed.
- Cluster: average quality; medium dithering speed.
 - None: no dithering. Only available for 16-bit or higher images.

Transparent background Use Color From Upper Left Pixel Of Snapshot. Makes transparent all pixels that are the color of the upper-left pixel in the snapshot, both in the snapshot window and when you save the snapshot in a format that supports transparency (such as .GIF).

Note This option makes the background transparent only when the upper left pixel is part of the background. If the pixel is part of the image, all pixels in the image that are the same color will be transparent, while the background remains opaque.

Note This setting is overridden when you select a different color as transparent in the <u>Modify Transparent Color</u> dialog box.

Default Makes the settings you have specified in this dialog box the default for new scenes you create.

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Snapshot & Animation Settings (Effects tab)

Keyboard: Shift+F3

Sets how snapshots and animations are generated.

Note The OLE tab is only available when performing in-place editing in a linked or embedded scene.

Size Quality	Colors Effects Animation OLE
Option	Description
Fog	Sets use of <u>fog</u> effects in scene.
	Use Fog In Scene. Specifies that objects appear more diffuse the farther back in the scene they are.
	Fog Color. Specifies fog color. A dark color makes objects look darker the further away they are; a light color makes objects look brighter the further away they are.
	Fog Thickness. Specifies the transparency of a fog effect.
Environment Map	Use Environment Map. Specifies that all <u>models</u> in scene will reflect a selected <u>bitmap</u> rather than other scene elements.
	File. Lists selected <u>environment map</u> file's name. Clicking Browse opens the <u>Import Graphic</u> dialog box in which you can choose an environment map to use. Environment maps can be found in the Rflctns subdirectory of your Catalog directory.
Default	Makes the settings you have specified in this dialog box the default for new scenes you create.

Snapshot & Animation Settings (Animation tab)

Keyboard: Shift+F3

Sets how snapshots and animations are generated.

Size Quality Colors Effects Animation OLE		
Option	Description	
Frame Rate	Sets how many <u>frames</u> per second (fps) are generated. Higher frame rates result in smoother motion, but create more files. The default frame rate is 15 fps.	
Animation Playback	Specifies what action is taken when the animation reaches the last frame. The default is Play Again When Done.	
Play Animation When File Is Loaded	Plays the animation in the Scene Viewer application.	
Default	Makes the settings you have specified in this dialog box the default for new scenes you create.	

Snapshot & Animation Settings (OLE tab)

Keyboard: Shift+F3

Sets how snapshots and animations are generated.

Note The <u>OLE</u> tab is only available when performing <u>in-place editing</u> in a <u>linked</u> or <u>embedded scene</u>.

Size Quality Colors	<u>Effects Animation</u> OLE
Option	Description
Container Presentation	Display Which <u>.AVI</u> Frame. Sets the first or last <u>frame</u> of an animation to display in the OLE <u>container application</u> .
	First. Displays first frame of animation.
	Last. Displays last frame of animation.
	Make Snapshot Background Transparent. Makes the background of an embedded or linked snapshot transparent. Permanently affects the file.
	Note Only snapshots with solid color backgrounds generated using the Realistic, Realistic w/Shadows, Ray Traced, or Ray Traced w/Shadows generating style can be made transparent.
Default	Sets default size, animation frames per second, snapshot style, smoothing, palette, dithering, fog, and environment map options for new scenes you create to those specified in this dialog box.

Camera Perspective submenu
Scene menu / Camera Perspective

Displays the <u>scene</u> at a normal, telephoto, or wide angle perspective.

Submenu item	Keyboard	Description
Normal	F5	Displays the scene at a normal perspective.
Wide Angle	Shift+F5	Displays the scene at a wide perspective, or as if through a wide-angle lens. The <u>model's</u> depth is emphasized.
Telephoto	Ctrl+F5	Displays the scene close up, or as if through a telephoto lens. Models look flatter, and depth is de-emphasized.

Step by step
About camera perspective
About creating 3D graphics with Asymetrix Web 3D
Setting the camera perspective

Modify Backdrop

Adds a backdrop to a scene.

Option	Description
Backdrop Name	Displays the backdrop's name. Double-click in the field to enter a new name, or click <u>Modify</u> to enter a new name and description for the backdrop.
Style	Defines backdrop settings.
	Default White. Sets backdrop to white.
	Color. Sets backdrop to a color. Clicking the color button opens the Color Wheel dialog box.
	<u>Gradient</u> . Sets backdrop to a blend of colors. Clicking the color button opens the <u>Backdrop</u> <u>Gradient</u> dialog box.
	Note A gradient backdrop generates at the color depth of the current video driver.
	Picture. Sets backdrop to a bitmap or metafile.
	File. Lists selected picture's name. Clicking Browse opens the <u>Import Graphic</u> dialog box where you can import a graphic or metafile.
	Picture Options. Opens the <u>Picture Options</u> dialog box, where you can define how a bitmap backdrop is displayed in the scene.

Step by step
Adding a backdrop
Modifying a backdrop

Commands
Backdrop Gradient (dialog box)
Color Wheel (dialog box)
Import Graphic (dialog box)
Modify Name (dialog box)
Picture Options (dialog box)

Backdrop Gradient (dialog box) Scene menu / Modify Backdrop / Gradient

Defines a gradient to apply to the backdrop of a scene.

Option	Description
Gradient Style	Applies a gradient style as follows:
Color Options	Major Color/Minor Color. Displays gradient's primary or secondary color. Clicking the color button opens the <u>Color Wheel</u> dialog box.
	Blend. Creates a gradient that blends major and minor colors into each other.
	Maximum Colors/Minimum Colors. Creates a multicolored gradient by blending the colors on the Color Wheel between the major and minor colors, taking the longest path (for Maximum Colors) or shortest path (for Minimum Colors) around the wheel.
Preview & Set Center	Previews backdrop gradient. Clicking anywhere in area sets gradient's center. Clicking and dragging in area sets gradient's direction, if it has one.

Step by step
Adding a backdrop
Modifying a backdrop

Commands
Color Wheel (dialog box)
Modify Backdrop

Picture Options (dialog box) Scene menu / Modify Backdrop / Picture Options

Defines how a <u>bitmap</u> <u>backdrop</u> is displayed in the <u>scene</u>, and whether it has a border color.

Option	Description
Size Options	Defines how a bitmap backdrop is displayed in the scene, based on the image size settings you choose in the <u>Snapshot & Animation Settings</u> dialog box.
	Center Picture In Scene. Centers the picture in the scene. The color of the area surrounding the picture is determined by the solid color selected for the backdrop.
	Stretch Picture To Snapshot Size. Resizes the bitmap backdrop.
	Stretch Picture Proportionally. Resizes the bitmap backdrop, but maintains its height to width ratio.
	Stretch Snapshot To Picture Size. Adjusts the image size to the bitmap's original size.
Border Color	Defines backdrop border color.
	Default White. Sets backdrop border to white.
	Color. Sets backdrop border to a color. Clicking the color button opens the Color Wheel dialog box, where you can select a color to apply.

Step by step
Adding a backdrop
Modifying a backdrop

Commands
Import Graphic (dialog box)
Modify Backdrop

Modify Lights Scene menu

Modifies a <u>light</u> defined for the <u>scene</u>.

Option	Description
Light Name(s)	Lists lights that can be modified.
	Modify. Opens the Modify Name dialog box, in which you can modify both the light's name and description.
Settings	Intensity. Sets amount of white and black in the light. Enter a value, or adjust the slider.
	Color. Displays light's color. Clicking the color button opens the <u>Color Wheel</u> dialog box.
	Light Casts <u>Shadows</u> . Enables light to cast shadows in a <u>snapshot</u> or <u>animation</u> , if either Realistic w/Shadows or <u>Ray Traced</u> w/Shadows is specified in the <u>Snapshot</u> <u>& Animation Settings</u> dialog box.
	Note As Asymetrix Web 3D generates a scene with shadows, the progress indicator tracks the calculation of shadows for each light in the scene.
Preview & Set Light Direction	Displays light's direction. Click in preview area to reset direction.
	Show All Lights. When clicked, briefly displays the combined effect of all lights in scene.

Step by step<u>About creating 3D graphics with Asymetrix Web 3D</u> Adding lights Including only a model's shadow in a scene Modifying a light

Command

Modify Name (dialog box)

Modify Soundtrack

Adds a wave audio (.WAV) file you select to accompany an animation.

Option	Description
File Name	Lists all files in the current default directory with the default file extension for the selected file format. A file selected from this list replaces the contents of the File Name box.
List Files Of Type	Indicates .WAV is the default file extension.
Directories	Displays the default path. Change the directory by selecting a new path from the Directories box, which lists all directories available on the current drive. To change the drive, make a selection in the Drives box.
Drives	Lists the available drives. Selecting a new drive changes the contents of the Directories box.
Network	Available if your system is connected to a network. Opens the Network dialog box from which you can choose additional drives and directories.

Step by step
Adding a soundtrack to an animation
Commands
Generate Animation
Modify Name (dialog box)

Preview Snapshot

Toolbar:



Select an area of the <u>scene</u> in the <u>Scene Preview window</u> with the cursor to preview it.

Step by step
About Asymetrix Web 3D
Generating a snapshot
Previewing a snapshot

Command

Generate Snapshot

Preview Animation

Scene menu

Previews the <u>animation paths</u> of all <u>models</u> in the <u>scene</u> at actual speed, dropping <u>frames</u> if they can't be <u>generated</u> quickly enough to display.

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Step by step<u>About animation in Asymetrix Web 3D</u> Generating an animation Previewing an animation

Commands

Animation Palette
Generate Animation
Preview All Frames

Preview All Frames

Scene menu

Previews all $\underline{\text{frames}}$ of the $\underline{\text{animation paths}}$ of all $\underline{\text{models}}$ in the $\underline{\text{scene}}$, slowing down if necessary to play each frame.

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Step by step<u>About animation in Asymetrix Web 3D</u> Generating an animation Previewing an animation

Commands

Animation Palette
Generate Animation
Preview Animation

Generate Snapshot

Keyboard: F3

Toolbar:



Specifies how to generate a snapshot of the scene or a frame of animation, and where to create the snapshot (in the Snapshot window or to a file).

Option	Description
Style	Sets generating detail for the snapshot.
	Wireframes. Draws wireframe models; fastest generating method.
	Note If you choose Wireframes, your snapshot will generate at the <u>color depth</u> of your video driver.
	Solid Models. Draws <u>solid models</u> using rough approximations of <u>shading</u> ; slower generating method.
	Note If you choose Solid Models, your snapshot will generate at the <u>color depth</u> of your video driver. If you select the Solid Model generating style, you cannot generate a snapshot larger than your screen.
	Realistic. Draws solid models using realistic shading.
	Realistic w/Shadows. Draws solid models, using realistic shading and shadows.
	Ray Traced. Draws solid models using realistic shading and reflections; excellent quality.
	Ray Traced w/Shadows. Draws solid models using realistic shading, reflections, and shadows; excellent quality.
Snapshot Image Statistics	Displays snapshot's width, height, <u>color depth</u> , <u>dithering</u> , and smoothing options as defined in the <u>Snapshot & Animation Settings</u> dialog box.
	Snapshot Settings. Opens the Snapshot & Animation Settings dialog box.
Generate Image Of	Defines what is included in the snapshot.
	Current Scene. Generates a snapshot of the current scene.
	Single Frame Of Animation. Generates a snapshot of a specified frame of all model animations in the scene.
Destination	Specifies where to generate a snapshot.
	Display In Window. Generates the snapshot in a <u>Snapshot window</u> . Does not automatically save the snapshot.
	Generate Directly To File. Saves the snapshot directly to a file, generating the snapshot in a minimized Snapshot window.
	Note To generate snapshots larger than 4092 pixels wide when your <u>color depth</u> is 8 bits per pixel, 2046 pixels when your color depth is 16 bits per pixel, or 1364 pixels when your color depth is 24 bits per pixel, you must generate to file.
	File. Lists selected file name to generate snapshot to. Clicking Browse opens the Save As dialog box where you can select a location in which to save a snapshot and a format for saving it.

Step by step Generating a snapshot

Commands

Generate Animation
Options
Save As
Snapshot & Animation Settings

Generate Animation

Scene menu

Keyboard: Ctrl+F3

Specifies how to $\underline{\text{generate}}$ an $\underline{\text{animation}}$ of a $\underline{\text{scene}}$, and where to save the animation.

Option	Description
Style	Sets generating detail for the animation.
	Wireframes: draws <u>wireframe models</u> ; fastest generating method. Note If you choose Wireframes, your animation will generate at the <u>color depth</u> of your video driver Solid Models: draws <u>solid models</u> using rough approximations of <u>shading</u> ; slower generating
method. driver.	Note If you choose Solid Models, your animation will generate at the color depth of your video
•	Realistic: draws solid models using realistic shading. Realistic w/Shadows: draws solid models, using realistic shading and <u>shadows</u> . <u>Ray Traced</u> : draws solid models using realistic shading and <u>reflections</u> ; excellent quality. Ray Traced w/Shadows: draws solid models using realistic shading, reflections, and shadows;
excellent quality.	
Animation Statistics	atistics Displays animation's width, height, <u>color depth</u> , <u>dithering</u> , smoothing, and frames per second options as defined in the <u>Snapshot & Animation Settings</u> dialog box, as well as the total time to complete all the scene's animation paths.
	Animation Settings. Opens the Snapshot & Animation Settings dialog box.
Compression	Displays video compression system used for animation.
	Change. Opens the $\underline{\text{Video Compression}}$ dialog box where you can set how a file is compressed.
Repeat Frame	Defines whether to add copies of the first and last <u>frames</u> to the generated .AVI file, or skip frames at the beginning, end, or beginning and end of an animation.
	First. If you enter a positive number, specifies number of copies of the first frame to add to beginning of file. If you enter a negative number, specifies the number of frames to skip from the beginning of the animation before generating.
	Last. If you enter a positive number, specifies number of copies of the last frame to add to end of file. If you enter a negative number, specifies the number of frames to skip from the end of the animation before generating.
Output File	Specifies where to generate animation. Entering a bitmap file name makes Asymetrix Web 3D generate an animation as a sequence of bitmaps.
	File. Lists selected file name to generate animation to. Clicking Browse opens the <u>Save As</u> dialog box where you can select a location in which to save the file and a format for saving it.
	Max Size. Estimates the file size of the uncompressed animation.

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Step by step

About animation in Asymetrix Web 3D Generating an animation

Commands
Generate Snapshot
Options
Save As
Snapshot & Animation Settings
Video Compression (dialog box)

Video Compression (dialog box)
Scene menu / Generate Animation / Change

Specifies which compression method to use in creating an <u>.AVI</u> file of <u>animation paths</u> in a <u>scene</u>.

Option	Description
Compressor	Lists types of compressors available on your system.
Compression Quality	Adjusts compression quality. May not be available for all drivers.
Key Frame Every	Defines how often compressor stores a <u>frame</u> to use as a base point for displaying intermediate frames.
Data Rate	Defines how fast the .AVI file transfers information.
Configure	Displays additional configuration options for a specific compressor, if available.

Step by step
About animation in Asymetrix Web 3D
Generating an animation
Command
Generate Animation

Windows menu

Arrange Main Windows

Tiles the <u>Scene Preview window</u>, <u>Scene Contents window</u>, and <u>Catalog</u>, then minimizes any open <u>Snapshot</u> or <u>Animation</u> windows.

Step by step About Asymetrix Web 3D

Commands
Arrange Icons
Cascade
Tile Horizontally
Tile Vertically

Tile Horizontally

Tiles all open Asymetrix Web 3D windows horizontally, giving each window an equal amount of screen area.

Step by step
About Asymetrix Web 3D
Commands
Arrange Icons

Arrange Icons
Arrange Main Windows
Cascade
Tile Vertically

Tile Vertically Window menu

Tiles all open Asymetrix Web 3D windows vertically, giving each window an equal amount of screen area.

Step by step About Asymetrix Web 3D Commands Arrange Icons
Arrange Main Windows
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Tile Horizontally

Cascade Window menu

Tiles all open Asymetrix Web 3D windows so that they overlap in a cascading pattern.

Step by step About Asymetrix Web 3D

Commands
Arrange Icons
Arrange Main Windows
Tile Horizontally
Tile Vertically

Arrange Icons Window menu

Arranges all minimized Asymetrix Web 3D window icons along the bottom of the main Asymetrix Web 3D window.

Step by step About Asymetrix Web 3D Commands Arrange Main Windows
Cascade
Tile Horizontally
Tile Vertically

1 <Window Name>

Window menu

Makes the selected open Asymetrix Web 3D window active. Open windows can include: <u>Scene Preview</u>, <u>Scene Contents</u>, <u>Snapshot windows</u>, <u>Animation windows</u>, and <u>Catalogs</u>.

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Arrange Icons
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Help menu

Contents

Help menu

Opens the online Help Contents screen.

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Asymetrix Web 3D Help Contents
Search For Help On
Technical Support

Search For Help On

Opens the online Help Search dialog box.

Commands
About Asymetrix Web 3D
Contents
Technical Support

Technical Support

Opens the online Help topic on Technical Support for Asymetrix Web 3D.

Step by step
Calling Technical Support
Technical Support Contents
Using America Online
Using CompuServe
Using Internet
Using the Asymetrix Bulletin Board System (BBS)

Commands

Contents Search For Help On

System Info Help menu

Displays information about your system configuration.

Option	Description
Display Information	Provides information about your system's display capability.
	Video Driver. Lists your default video driver file, if available.
	Driver Name. Lists name of your default video driver, if available.
	Driver Version. Lists version of your default video driver, if available.
	Display Resolution. Lists current screen resolution.
	Display Colors. Lists number of currently available colors.
	Logical Pixel Size. Lists how many logical units are defined per pixel.
System Status	Processor. Displays type of processor in system.
	Mode. Displays whether system is running in enhanced or normal mode.
	Math co-processor. Displays whether system includes a co-processor.
	Free memory. Displays currently available virtual memory (includes both physical memory and 386 swap file for Enhanced mode).
	User memory. Displays percentage of allocated space free for the Windows USER function.
	GDI memory. Displays percentage of allocated space free for the Windows GDI function
	Windows directory. Displays location of Windows directory.
	TEMP directory. Displays location of Windows temp directory.
	Drives. Lists each drive on the system or network, and space available on each.
Multimedia Drivers	Lists all available multimedia drivers installed on the system.

About Asymetrix Web 3D

Displays the version number and Asymetrix Web 3D copyright information.

RIght-click menus

Paths (right-click menu)

Provides access to frequently used commands for modifying an <u>animation path</u>. Click a button or command name below to see its description.



Step by step

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Animating a model
Animating sub-parts of a model
Generating an animation
Modifying a model's animation path
Modifying a model's animation path sequence
Previewing an animation
Printing a frame of an animation
Staggering when models enter a scene

Commands

Copy Cut Duplicate Paste

Backdrop (right-click menu)

Provides access to frequently used commands for modifying a backdrop. Click a button or command name below to see its description.



Step by step
About Asymetrix Web 3D
Adding a backdrop
Modifying a backdrop

Commands

Copy
Cut
Duplicate
Paste

Scene Contents (right-click menu)

Provides access to commands for modifying the <u>Scene Contents window</u>. Click a button or command name below to see its description.



Step by step About the Scene Contents window

Commands

Copy Cut Duplicate Paste

Select Font
Scene Contents (right-click menu)

Allows you to select a font for the text in the <u>Scene Contents window</u>.

Option	Description
Font	Sets the font of the Scene Contents window text from the fonts available on your system.
Font Style	Sets the font style.
Size	Sets the font size.
Sample	Displays an example of the selected font style and size.

Step by step
About the Scene Contents window
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Scene Contents Window (right-click menu)

Lights (right-click menu)

Provides access to frequently used commands for modifying <u>lights</u>. Click a button or command name below to see its description.



Modify Lights
Modify Name (dialog box)
Create Ambient Light
Create Directional Light

Step by step<u>About creating 3D graphics with Asymetrix Web 3D</u> Adding lights
Modifying a light

Commands

Copy
Cut
Duplicate
Paste

Create Ambient Light Lights (right-click menu)

Creates a <u>light</u> that brightens every <u>surface</u> of a <u>model</u> in a <u>scene</u>. Lights are always positioned outside the scene.

Step by step
About creating 3D graphics with Asymetrix Web 3D
Adding lights
Modifying a light
Command
Modify Lights

Create Directional Light Lights (right-click menu)

Creates a <u>light</u> that brightens the <u>surface</u> of a <u>model</u> based on whether the surface faces toward or away from the light. Lights are always positioned outside the <u>scene</u>.

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Adding lights
Modifying a light
Command
Modify Lights

Picture Model (right-click menu)

Provides access to frequently used commands for modifying <u>picture models</u>. Click a button or command name below to see its description.



Modify 3D Modify Name (dialog box) Modify Surface & Color

Modify Animation

Modify URL

Modify Warp

Step by step
About text and picture models
Creating a picture model

Commands

Scene (right-click menu)

Provides access to frequently used commands for modifying a scene. Click a button or command name below to see its description.



Snapshot & Animation Settings

Modify Name (dialog box)

Modify Backdrop

Modify Lights
Modify Soundtrack

Generate Snapshot

Generate Animation

Print

Preview Full Size

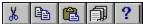
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Modifying a backdrop
Printing a scene or snapshot

Commands

Copy
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On Camera Area submenu
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Catalog Scene (right-click menu)

Provides access to frequently used commands for modifying a <u>scene</u> in a <u>Catalog</u>. Click a button or command name below to see its description.



Snapshot & Animation Settings Modify Name (dialog box) Modify Backdrop Modify Lights

Step by step

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Commands

Copy Cut

Duplicate
Generate Snapshot
On Camera Area submenu

Paste

Preview Full Size

Print

Preview Full Size Scene (right-click menu)

Resizes <u>scene</u> to Image Size set in <u>Snapshot & Animation Settings</u> dialog box.

Step by step About Asymetrix Web 3D

Commands

On Camera Area submenu
Scene (right-click menu)
Snapshot & Animation Settings

Simple Model: Ring (right-click menu)

Provides access to frequently used commands for modifying a simple model based on a ring shape. Click a button or command name below to see its description.



Modify Model

Modify Name (dialog box)

Modify Surface & Color

Modify Animation
Modify URL

Modify Warp

Step by step
About simple models
Adding a preset model
Modifying a simple model's shape

Commands

Simple Model: Ring (right-click menu)

Provides access to frequently used commands for modifying a simple model based on a ring shape. Click a button or command name below to see its description.



Modify Model

Modify Name (dialog box)

Modify Surface & Color

Modify Animation
Modify URL

Modify Warp

Step by step
About simple models
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Commands

Simple Model: Cube (right-click menu)

Provides access to frequently used commands for modifying a simple model based on a cube shape. Click a button or command name below to see its description.



Modify Model

Modify Name (dialog box)

Modify Surface & Color

Modify Animation
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Modify Warp

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Simple Model: Cylinder (right-click menu)

Provides access to frequently used commands for modifying a <u>simple model</u> based on a cylinder shape. Click a button or command name below to see its description.

Modify Model
Modify Name (dialog box)
Modify Surface & Color
Modify Animation
Modify URL
Modify Warp

Step by step
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Commands

Simple Model: Sphere (right-click menu)

Provides access to frequently used commands for modifying a <u>simple model</u> based on a sphere shape. Click a button or command name below to see its description.

Modify Model
Modify Name (dialog box)
Modify Surface & Color
Modify Animation
Modify URL
Modify Warp

Step by step
About simple models
Adding a preset model
Modifying a simple model's shape

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Model (right-click menu)

Provides access to frequently used commands for modifying an <u>imported model</u>. Click a button or command name below to see its description.

Modify Model
Modify Name (dialog box)
Modify Surface & Color
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Modify URL
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About imported models Importing a model

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Snapshot (right-click menu)

Provides access to frequently used commands for modifying a <u>snapshot</u>. Click a button or command name below to see its description.

Convert Snapshot
Print

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Changing a snapshot's color depth or size Generating a snapshot

Commands

Snapshot (right-click menu)

Provides access to frequently used commands for modifying a <u>snapshot</u>. Click a button or command name below to see its description.

Convert Snapshot Set Transparent Color Print

Soundtrack (right-click menu)

Provides access to frequently used commands for modifying a <u>scene's soundtrack</u>. Click a button or command name below to see its description.

Modify Soundtrack

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Step by step

About animation in Asymetrix Web 3D
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Staggering when models enter a scene

Commands

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Sub-part (right-click menu)

Provides access to frequently used commands for modifying the <u>sub-parts</u> of a <u>model</u>. Click a button or command name below to see its description.

Modify 3D Modify Name (dialog box) Modify Surface & Color Modify Animation Modify Warp

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Making a model a sub-part of another model

Commands

Surface (right-click menu)

Provides access to frequently used commands for modifying a <u>surface</u>. Click a button or command name below to see its description.

Modify Surface & Color Modify Name (dialog box)

Step by step

About surfaces
Adding a texture to a model's surface
Applying a digital video file as a surface
Applying a surface to a model
Creating a "glass" surface
Creating models that appear to be lights
Making a color surface appear transparent
Making a scene and backdrop appear smoky
Making a scene and backdrop appear snowy
Making a solid material surface transparent
Making a surface reflect a bitmap
Making a surface reflective

Making all models in a scene reflect a bitmap Modifying a model's surface

Submerging a model in "water"

Commands

Copy Cut

Duplicate

Paste

Text Model (right-click menu)

Provides access to frequently used commands for modifying <u>text models</u>. Click a button or command name below to see its description.

Modify Text Model
Modify Name (dialog box)
Modify 3D
Modify Surface & Color
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Step by step About text and picture models

Creating a text model

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Letter Model (right-click menu)

Provides access to frequently used commands for modifying sub-parts of <u>text models</u>. Click a button or command name below to see its description.

Modify 3D
Modify Name (dialog box)
Modify Surface & Color
Modify Animation
Modify URL
Modify Warp

Step by step About text and picture models

Creating a text model

Commands

Warp (right-click menu)

Provides access to frequently used commands for modifying a <u>warp</u>. Click a button or command name below to see its description.

Modify Name (dialog box)
Modify Warp

Step by step Warping a model

Commands

Copy Cut Duplicate Paste

Catalog (right-click menu)

Provides access to frequently used commands for modifying a <u>Catalog</u>. Click a button or command name below to see its description.

Arrange Catalog Entries

Step by step

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Adding a backdrop
Adding a preset model
Adding lights
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Applying a surface to a model

Commands

Copy
Cut
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Modify Name (dialog box)
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Paste

Cut

Removes the selected object and places it on the Windows Clipboard, replacing the previous Clipboard contents. This command is dimmed on the menu if unavailable.

Сору

Places a copy of the selected object on the Windows Clipboard, replacing the previous Clipboard contents. This command is dimmed on the menu if unavailable.

Paste

Pastes the contents of the Windows Clipboard into the active window. This command is dimmed on the menu if unavailable.

Duplicate

Duplicates the selected object without using the Windows Clipboard. This command is dimmed on the menu if unavailable.

Help

Provides help on this menu's commands.

Point & Click

Keyboard: Shift+F1

Toolbar:



Changes the cursor to a question mark. Click any $\underline{\mathsf{model}}$ with the question mark to open online Help for that model.

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Commands
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Contents
Search For Help On



Glossary

Click a letter to display Asymetrix Web 3D glossary terms.

2D (two-dimensional)
3D (three-dimensional)

Α

add depth
animation
Animation palette
animation path
Animation window
ANSI characters
audio/video interleaved (.AVI)

В

backdrop bevel bitmap boxes bump texture

C

camera perspective
Catalog
color depth
color palette
container application

D

dithering drag and drop

E-F

embedded object environment map fog frame

G-H

generate GIF gradient highlight

I - K

imported model in-place editing JPEG

L-M

light linked object mesh metafile models move

N - **O**

<u>name</u>

object linking and embedding (OLE) OLE registration database

Ρ

picture model Position palette

Q - **R**

ray tracing reflection map refract render rotate

S

scale scene

Scene Contents window Scene Preview window

server application

shading

shadows

simple model

<u>snapshot</u>

Snapshot window

solid models

soundtrack

starter scene

sub-part

<u>surface</u>

swap file

T - V

text model
texture map
tracing
transparency
uniform resource locator (URL)
vector graphic

W - **Z**

warping wireframes

2D (two-dimensional)

Having width and height only; a flat surface.

3D (three-dimensional)

Having (or seeming to have) depth, as well as width and height.

add depth

To create a 3D model from a 2D picture or text by adding a third dimension (depth).

animation

Series of frames in which changing bitmaps show motion over time. Animations are saved in audio/video interleaved (.AVI) format.

Animation palette

Palette containing tools that play animations in the Scene Preview window.

animation path

A motion path (containing motion and direction) that you assign to a model to create an animation.

Animation window

Window in which animations of a scene are generated.

ANSI characters

Set of characters that cor	ntains the standard Am	erican keyboard c	haracters non-Eng	lich letters, and s	elodmy
SEL UI GIIAI ACIEIS IIIAI CUI	Italiis liie stailualu Alli	tiicaii ktybbaiu c	Haraclers, Hon-Eng	ilion iellero, and s	MILIDUIS.

audio/video interleaved (AVI)

Digital video format in which a series of audio and video frames are played in sequence (interleaved) to produce an animation.

backdrop

Scene background. Can be a color, gradient, or bitmap.

bevel

Ornamental effect applied to the edges of a text or picture model, so that edges meet in a curve or flattened area rather than at a 90-degree angle.

bitmap

Stored set of bits that defines each pixel in an image. Bitmaps have the file extension .BMP or .DIB.

boxes

View in the Scene Preview window in which the models are drawn as bounding boxes. This view is the fastest to generate.

bump texture

Bitmap that can be applied to a surface, changing the reflection and shading to give the appearance of a bump or ripple in the surface.

camera perspective

The representation of a scene as viewed through a camera lens. The perspective can be normal, wide angle, or telephoto.

Catalog

Window that contains scene elements. Drag elements from the Catalog and drop them into the Scene Preview or Scene Contents window to add them to a scene.

color depth

Number of bits that defines the color of each pixel in a file; a 2-color bitmap contains 1 bit per pixel; a 16-color bitmap contains 4 bits per pixel; a 256-color bitmap contains 8 bits per pixel and so on.

color palette

Predefined set of colors stored in a palette file (.PAL).

container application

Application in which you can place objects from a server application. Asymetrix Web 3D is not a container application.

dithering

Process of blending existing palette colors to approximate additional colors. To display a high-resolution color image on a system that has fewer colors than the image, Windows dithers the existing palette colors.

drag and drop

Process of clicking an element in the Catalog, dragging it to the Scene Preview or Scene Contents window, and then releasing the mouse button. You can also drag elements from the Scene Contents window into the Catalog.

embedded object

OLE object created in a server application that is stored as part of a container application file. Compare linked object.

environment map

Bitmap that can be applied to a scene to create a simulated reflection off all reflective model surfaces. An environment map is not a true mirror image.

fog

Effect that makes models appear to be behind a progressively thicker white screen the farther back in a scene they appear. Fog does not affect backdrops.

frame

Still image from an animation file. A series of frames played in succession produces the illusion of movement, similar to a film or videotape.

generate

To translate a 3D scene into a snapshot or animation (saved in bitmap or audio/video interleaved format, respectively). Also known as render. Generating draws scenes in a higher resolution and more detail than is visible in the Scene Preview window.

For a snapshot, generating translates the scene into a bitmap.

For an animation, generating combines models and animation paths.

Graphic Interchange Format (GIF)

File format for storing bitmap images in 8-bit color (256 colors) on the Internet. Files in this format have a .GIF file name extension.

gradient

Gradual blending of two or more fill colors.

highlightBright spot on the surface of a model caused by a light.

imported model

3D model file created in another program, then added to a scene. Asymetrix Web 3D supports models that use the Autodesk 3D Studio (.3DS) or AutoCAD (.DXF) format.

in-place editing

Technique that allows you to edit a linked or embedded scene without leaving the container application.

Joint Photographic Experts Group (JPEG)

File format for storing compressed images in 24-bit color (true color or 16.7 million colors). Files in this format have a .JPG file name extension. When you compress images using this format, you may lose some pixel information, which can degrade the image.

light

Effect that brightens models in a scene. Ambient light brightens every surface of models. Directional lights such as Default Left Light, brighten based on whether the model surface faces toward or away from the light. Lights are always positioned outside the scene.

linked object

Reference in a container application to an OLE object created in a server application and stored in a separate file. Compare embedded object.

mesh

Sub-part of an imported model.

metafile

Image defined as a series of graphic objects (such as lines, squares or rectangles, and circles) instead of pixels (such as a bitmap).

models

3D objects (clip art, pictures, and text) that make up a scene.

move

Process of changing a model's position in 3D space.

name

Word or phrase that identifies a scene or any of its elements (model, surface, backdrop, light, warp, or animation path) in the Scene Contents or Catalog window, and in the status bar when the element is selected.

object linking and embedding (OLE)

Technique for creating an object in one application (the server application), then incorporating it into a file from another application (the container application). Asymetrix Web 3D is a server application.

OLE registration database

List of OLE server applications maintained by Windows.

picture model

Model created from a bitmap (.BMP or .DIB) or vector graphic such as a metafile (.WMF). For bitmaps, Asymetrix Web 3D converts the image to black and white, then traces around the black to create a picture model. You can apply the original bitmap to the face of the model as a surface. For metafiles, Asymetrix Web 3D uses the information in the source file to create a picture model.

Position palette

Palette containing tools that rotate, move, and scale models in the Scene Preview window.

ray tracing

Method of simulating light rays passing through a scene. Ray tracing results from a series of complex calculations, and can be very slow.

reflection map

Bitmap that can be applied to a model to create a simulated reflection off a shiny surface. A reflection map is not a true mirror image.

refract

To turn or bend light when it passes from one medium into another of different density. For example, light refracts when it passes from air through glass.

render

See generate.

rotate

To turn a model around an axis or center point.

scale

To reduce or increase a model's size.

scene

Elements contained in the Scene Preview or Scene Contents window, including all models (their attributes and positions), surfaces, animation paths, lights, and the backdrop.

Scene Contents window

Window that lists all scene attributes such as backdrop, light, and soundtrack; and all models and their attributes, such as surfaces and animation paths. To view details of an element in this window, double-click it.

Scene Preview window

Window in which you arrange, edit, and manipulate models to create a 3D scene.

server application

Application that creates objects that can be linked or embedded in a container application. Asymetrix Web 3D is a server application, not a container application.

shading

How colors on a surface vary, based on where light strikes the model's surface (creating a lighter color) and where light does not strike the model's surface, or where the model's surface is in the shadows (creating a darker color).

shadows

Area in the scene where a light is block	cked by models. Directional ligh	ite cast shadows.	ambient lights do r	not
Alea III lile Scelle Wilele a liqill is biol	ckeu by models. Directional liqu	แอ บลอเ อแลนบพอ,	annoient ilunts do i	ıυι.

simple model

Geometric model generated by Asymetrix Web 3D, based on one of four shapes: sphere, ring, cube, or cylinder.

snapshot

Bitmap generated from the scene you create.

Snapshot window

Window in which snapshots of a scene are generated.

solid models

View in the Scene Preview window in which models are drawn as solids. This view displays all characteristics of models, including their surfaces and shading, and is the slowest to generate.

soundtrack

Wave audio (.WAV) file saved as part of an animation.

starter scene

Scene in which models have already been placed and modified, which can be used as a template.

sub-part

Individual parts of a model, such as the letters of a text model, that can be modified independently of the model itself.

surface

Appearance of a model's exterior, such as gold or marble.

swap file

Space on a hard disk that Windows uses for virtual memory management. Effectively extends the amount of memory available to a system.

text model

Model created from text.

texture map

Bitmap applied as a surface that simulates a texture or pattern, such as brick or leopard skin.

tracing

Process of creating a 3D picture model from a bitmap. Asymetrix Web 3D converts the image to black and white, then traces around the black to create a picture model.

transparency

State in which clear pixels in a bitmap allow objects and colors behind them to show through.

uniform resource locator (URL)

Reference used to locate any data object (such as a text or graphic file) on the Internet. Each URL includes information on the access protocol to be used, the machine where data is stored, the port from which to request the data, and the path to and name of the data.

vector graphic

Graphic (such as a metafile, .WMF) stored as a set of instructions describing how to draw the graphic rather than as a series of pixels (such as a bitmap).

warping

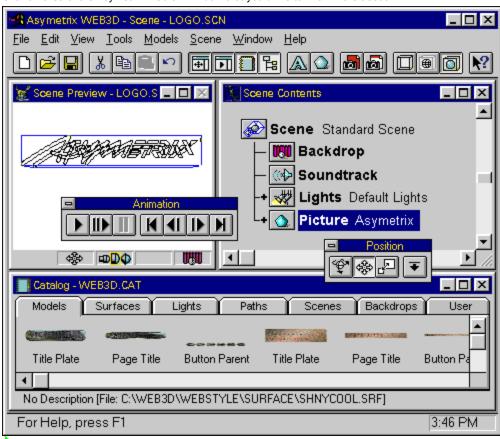
Process of bending or twisting models.

wireframes

View in the Scene Preview window in which models are drawn as wireframes. This view displays some 3D characteristics of models, and generates quickly.



Map of screen elements
Click an area of the Asymetrix Web 3D window that you'd like to know more about.



New

Creates a new scene or Catalog.

▶ Open
Opens an existing scene, Catalog, or snapshot.

Save

Saves the active window (scene, snapshot, or Catalog) to a file.

Cut

Removes the selected object and places it on the Windows Clipboard, replacing the previous Clipboard contents.

▶ Copy
Places a copy of the selected object on the Windows Clipboard, replacing the previous Clipboard contents.

Paste

Pastes the contents of the Windows Clipboard into the active window.

Undo

Reverses the effect of your most recent action.

Position Palette

Displays and hides the Position palette used to rotate, move, and scale models.

▶ Animation Palette
Displays and hides the Animation palette used to preview models' animation paths.

▶ Catalog
Displays and hides the Catalog, a window that contains preset scene elements. You can drag elements from the Catalog and drop them into the Scene Preview or Scene Contents window to add them to a scene.

▶ Scene Contents window

Displays and hides the Scene Contents window, which lists all scene attributes, and all models and their attributes.

Create Text Model

Opens the Create Text Model dialog box.

▶ Create Picture Model
Opens the Create Picture Model dialog box.

▶ Generate Snapshot
Generates a snapshot of the scene, using the current snapshot and animation settings.

▶ Preview Snapshot
Changes the cursor to ▶ with which you can select an area of the screen to preview as a snapshot.

Boxes

Displays the models in the Scene Preview window as their bounding shapes.

Wireframes

Displays the models in the Scene Preview window as wireframes.

Solid Models

Displays the models in the Scene Preview window as solid objects.

Point and Click Help

Changes cursor to with which you can click an element of Asymetrix Web 3D to get Help on it.

Scene Preview window

Window in which you arrange, edit, and manipulate models to create a 3D scene.

Scene Contents window

Window that lists all scene attributes such as backdrop, lights, and soundtrack; and all models and their attributes such as surfaces, warps, and animation paths. To view details of an element's attributes, double-click it.



Represents the entire scene and all its sub-parts. Double-click the icon to collapse or expand the view of the scene's elements, or double-click the text to open the Snapshot & Animation Settings dialog box.

Backdrop
Represents the scene's backdrop and its name. Double-click to modify the backdrop.

Soundtrack
Represents the soundtrack that will be included with the scene when it is generated as an animation, and the name of the sound file. Double-click to select a file to use as a soundtrack.



Lights

Represents the group of lights included in the scene. Double-click the icon to view the individual lights in the group, or double-click the text to modify the lights.



Picture
Represents a picture model. Double-click the icon to view the model's elements, or double-click the text to modify the model.

Catalog

Window that contains scene elements. Drag elements from the Catalog and drop them into the Scene Preview or Scene Contents window.

Toolbar

Displayed across the top of the Asymetrix Web 3D main window. Provides fast mouse access to menu commands. Can be converted into a floating palette by dragging away from the edge of the window. Can be displayed or hidden by selecting Toolbar from the View menu.

Catalog status bar

Displays the currently selected element's description and name.

Main Window status bar

Provides help on the menu or toolbar command currently under the cursor and displays the time. While generating an animation, displays the number of the frame being generated and the total number of frames to be generated.

Scene Preview window status bar

Displays the name of the selected model; or, after previewing a snapshot, displays how many lines were generated for the preview; or, after resizing the Scene Preview window, displays the current size as a percentage of the final snapshot size. Also displays the currently selected Position palette tool, and the current camera perspective.

Position palette

Palette that contains tools that rotate, move, and scale models in the Scene Preview window.

▶ Rotate

Changes the cursor to • with which you can rotate a model.

Move

Changes the cursor to • with which you can move a model left, right, up, or down.

Scale

Changes the cursor to • with which you can scale (resize) a model.

▶ Expand
Expands the Position palette to display graphical and numerical positioning controls.

Animation palette

Palette containing tools that play animations in the Scene Preview window.

▶ Play
Previews the animation paths of all models in the scene at actual speed, dropping frames if they can't be generated quickly enough.

▶ Play all
Previews the animation paths of all models in the scene, but does not play frames at actual speed.

Pause

Stops or resumes playing a stopped animation from the current frame.

Rewind

Returns to first frame of all animation paths.

▶ Back one frame

Backs up all animation paths one frame.

Advance one frame

Advances all animation paths one frame.

Advance to end

Advances to last frame of all animation paths.

Menu bar

Contains all Asymetrix Web 3D commands.

To view the contents of a menu, do one of the following:

- Click the menu name with the mouse. Press Alt+*n* (the underlined letter in the menu name).

Title bar

The area at the top of the Asymetrix Web 3D window that indicates which window is currently active and the name of the project file that is currently open.

Keyboard and mouse shortcuts
General shortcuts
Getting Help
Working with text
Moving a model
Rotating a model
Scaling a model
Working with models
Working with scenes



Use the following keyboard and mouse shortcuts to get help.

For this type of Help	Do this
List of Help topics	Press F1.
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Help on a specific element	Right-click element, then click on right-click toolbar.
Help on an interface element	Click ▶, then click an element; or press Shift+F1, then click an element.

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Working with text Keyboard and mouse shortcuts Categories...

Use the following keyboard and mouse shortcuts to work with text in the Create Text Model dialog box.

То	Do this
Select word	Double-click in word
Extend text selection	Shift+arrow key
Select a range of text	Click at beginning of text, press Shift, click at end
Move insertion point	Press an arrow key
Move right one word	Press Ctrl+Right Arrow
Move left one word	Press Ctrl+Left Arrow
Insert a line	Ctrl+Enter

Moving a model Keyboard and mouse shortcuts

You can <u>move</u> a <u>model</u> using the <u>Position palette</u>. To begin, either click the ▶ tool on the Position palette or press F10 to activate the

cursor.

То	Using the keyboard	Using the mouse	
Move right	Select the model, then hold down the Right Arrow key	Select the model, then drag mouse right	
Move left	Select the model, then hold down the Left Arrow key	Select the model, then drag mouse left	
Move up	Select the model, then hold down the Up Arrow key	Select the model, then drag mouse up	
Move down	Select the model, then hold down the Down Arrow key	Select the model, then drag mouse down	
Move back in 3D space	Select the model, then hold down Shift+Right Arrow or Shift+Up Arrow	Select the model, press Shift, then drag mouse right	
Move closer in 3D space	Select the model, then hold down Shift+Left Arrow or Shift+Down Arrow	Select the model, press Shift, then drag mouse left	

Rotating a model Keyboard and mouse shortcuts

You can <u>rotate</u> a <u>model</u> using the <u>Position palette</u>. To begin, either click the ▶ tool on the Position palette or press F9 to activate the

cursor.

То	Using the keyboard	Using the mouse
Rotate clockwise around vertical axis	Select the model, then hold down the Right Arrow key	Select the model, then drag mouse right
Rotate counterclockwise around vertical axis	Select the model, then hold down the Left Arrow key	Select the model, then drag mouse left
Rotate clockwise around horizontal axis	Select the model, then hold down the Up Arrow key	Select the model, then drag mouse up
Rotate counterclockwise around horizontal axis	Select the model, then hold down the Down Arrow key	Select the model, then drag mouse down
Rotate clockwise around depth axis	Select the model, then hold down Shift+Right Arrow or Shift+Up Arrow	Select the model, press Shift, then drag mouse right
Rotate counterclockwise around depth axis	Select the model, then hold down Shift+Left Arrow or Shift+Down Arrow	Select the model, press Shift, then drag mouse left
Constrain rotation to around vertical axis only		Select the model, press Ctrl, then drag mouse right or left
Constrain rotation to around horizontal axis only		Select the model, press Ctrl, then drag mouse up or down

Scaling a model Keyboard and mouse shortcuts

You can <u>scale</u> a model using the <u>Position palette</u>. To begin, either click the * tool on the Position palette or press F11 to activate the

cursor.

То	Using the keyboard	Using the mouse
Make entire model smaller	Select the model, then hold down Shift+Down Arrow key	Select the model, then drag mouse left
Make entire model larger	Select the model, then hold down Shift+Up Arrow key	Select the model, then drag mouse right
Scale width smaller	Select the model, then hold down the Right Arrow key	Select the model, press Shift, then drag mouse left
Scale width larger	Select the model, then hold down the Left Arrow key	Select the model, press Shift, then drag mouse right
Scale height smaller	Select the model, then hold down the Down Arrow key	Select the model, press Ctrl, then drag mouse down
Scale height larger	Select the model, then hold down the Up Arrow key	Select the model, press Ctrl, then drag mouse up
Scale depth smaller	Select the model, then hold down Shift+Left Arrow	Select the model, press Ctrl, then drag mouse left
Scale depth la <u>rger</u>	Select the model, then hold down Shift+Right Arrow	Select the model, press Ctrl, then drag mouse right

General shortcuts Keyboard and mouse shortcuts

Use the following keyboard and mouse shortcuts to work in Asymetrix Web 3D.

<u>To</u>	Press
Open a scene, Catalog, or snapshot	Ctrl+O
Print a scene, snapshot, or animation frame	Ctrl+P
Save a scene, snapshot, or Catalog	Ctrl+S
Undo or redo the last action	Ctrl+Z
Display the Scene Contents window	F2
Display the Position palette	F8
Select the rotation tool on the Position palette	F9
Select the move tool on the Position palette	F10
Select the scale tool on the Position palette	F11
Expand the Position palette	F12
Toggle between graphical/numerical display if the Position palette is expanded	Shift+F12
Switch the focus from one window to the next	Ctrl+F6
Exit Asymetrix Web 3D	Alt+F4

Working with models Keyboard and mouse shortcuts

Use the following keyboard and mouse shortcuts to work with models.

То	Do this
Create a text model	Press Ctrl+T
Create a picture model	Press Ctrl+M
Select a single model	Click the model
Select multiple models	Shift+click the models
Add to or remove from selection	Shift+click each model you want to add or remove
Select all models in a scene	Press Ctrl+A
Modify a model	Double-click the model in the <u>Scene</u> <u>Preview window</u>
Expand a model in the <u>Scene</u> <u>Contents window</u>	Double-click the model in the Scene Contents window
Select a <u>sub-part</u> of a model	Click the sub-part in the Scene Contents window

Working with scenes Keyboard and mouse shortcuts

Use the following keyboard and mouse shortcuts to work with scenes.

To	Press
Display or hide a scene's backdrop	F4
Switch to Wide Angle camera perspective	Shift+F5
Switch to Telephoto camera perspective	Ctrl+F5
Switch to Normal camera perspective	F5
Modify options	F7
Modify snapshot and animation settings	Shift+F3
Generate a snapshot	F3
Generate an animation	Ctrl+F3

Point & click topics

Scenes

Point & click

A scene is a collection of elements displayed in the <u>Scene Preview</u> or <u>Scene Contents</u> window. A scene includes all <u>models</u> (their attributes and positions), <u>surfaces</u>, <u>animation paths</u>, <u>lights</u>, and the <u>backdrop</u>.

After you've created a scene, you can generate a snapshot or animation from it to use alone or incorporate into other programs.

Scene concepts and step-by-step procedures

About Asymetrix Web 3D

About camera perspective

About creating 3D graphics with Asymetrix Web 3D

About editing scenes in a container application

About the Scene Contents window

Adding a backdrop

Adding a preset model

Adding lights

Building a scene

Generating a snapshot

Generating an animation

Modifying a backdrop

Modifying a light

Setting the camera perspective

Working in Asymetrix Web 3D

Scene commands

Boxes

On Camera Area

Options

Print

Snapshot & Animation Settings

Snapshot (right-click menu)

Solid Models

Soundtrack (right-click menu)

Wireframes

.

Backdrop Point & click

A backdrop is a scene's background, and can be white, a color, a bitmap, or a gradient. You can hide a scene's backdrop to make a draft of the scene that generates more quickly, or display a scene's backdrop to see the scene as it will finally appear.

Backdrop concepts and step-by-step procedures

About Asymetrix Web 3D About creating 3D graphics with Asymetrix Web 3D About the Scene Contents window Adding a backdrop Building a scene Generating a snapshot Generating an animation Modifying a backdrop Working in Asymetrix Web 3D

Backdrop commands

Backdrop Backdrop Gradient (dialog box) Modify Backdrop

Soundtrack

Point & click

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A soundtrack is a wave audio (.WAV) file saved as part of an animation.

Soundtrack concepts and step-by-step procedures

About animation in Asymetrix Web 3D

Soundtrack command

Modify Soundtrack

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Lights Point & click

Lights are effects that brighten <u>models</u> in a <u>scene</u>. Ambient light brightens every surface of a model. Directional light (such as Default Left Light) brightens based on whether the model's <u>surface</u> faces toward or away from the light. Lights are always positioned outside the scene.

Light concepts and step-by-step procedures

About creating 3D graphics with Asymetrix Web 3D

Light commands

Create Ambient Light
Create Directional Light **Modify Lights**

Text model

Point & click

A text <u>model</u> is created from text. Asymetrix Web 3D creates a text model by adding depth, or a third dimension, to two-dimensional shapes.

Text model concepts and step-by-step procedures

About text and picture models Creating a text model

Text model commands

<u>Create Text Model</u> <u>Modify 3D</u> <u>Modify Text Model (dialog box)</u>

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Letter model

Point & click

A letter model is a sub-part of a text model. Asymetrix Web 3D creates a text model by adding depth, or a third dimension, to two-dimensional shapes.

Letter model concepts and step-by-step procedures

About text and picture models
Creating a text model

Letter model commands

Create Text Model Modify 3D Modify Lettter Model (dialog box)

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Picture model

Point & click

A picture <u>model</u> is a model created from a graphic file such as a <u>bitmap (.BMP or .DIB)</u> or <u>metafile (.WMF)</u>. To create a picture model from a bitmap, Asymetrix Web 3D converts the image to black and white, then <u>traces</u> around the black. You can apply the original bitmap to the face of the model as a <u>surface</u>. To create a picture model from a metafile, Asymetrix Web 3D uses the information in the source file to create a 3D picture model.

Picture model concepts and step-by-step procedures

About text and picture models
Creating a picture model

Picture model commands

<u>Create Picture Model</u> <u>Modify 3D</u> <u>Modify Picture Model (dialog box)</u>

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Imported model Point & click

An imported <u>model</u> is a 3D model file created in another program, then added to a <u>scene</u>. Asymetrix Web 3D supports models created in Autodesk 3D Studio (.3DS) or AutoCAD (.DXF) format.

Imported model concepts and step-by-step procedures

About imported models Importing a model

Imported model commands

Import Model
Imported Model Surface (dialog box)

Simple model Point & click

A simple model is a geometric model created by Asymetrix Web 3D, based on one of four shapes: sphere, ring, cube, or cylinder.

Simple model concepts and step-by-step procedures

About simple models
Adding a preset model

Simple model commands

Create Simple Model Modify Cube Modify Cylinder Modify Ring (dialog box) Modify Sphere (dialog box)

Sub-part Point & click

A sub-part is an individual part of a model, such as a part of a picture model, that can be modified independently of the model.

Sub-part concepts and step-by-step procedures

About the Scene Contents window

Making a model a sub-part of another model

Sub-part model commands

Modify Sub-part (dialog box)

Surface

Point & click

A model's surface is a thin layer, placed over the model's geometry. A surface can be a color, bitmap, or material.

Surface concepts and step-by-step procedures

About surfaces
Applying a surface to a model
Adding a texture to a model's surface
Making a surface reflect a bitmap
Making all models in a scene reflect a bitmap
Modifying a model's surface

Surface command

Modify Surface & Color

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Path

Point & click

An animation path is a motion path (containing motion and direction) that you assign to a <u>model</u> to create an <u>animation</u>.

Path concepts and step-by-step procedures

About animation in Asymetrix Web 3D
Adding a soundtrack to an animation
Animating a model
Animating sub-parts of a model
Generating an animation
Modifying a model's animation path
Modifying a model's animation path sequence
Playing a linked or embedded animation
Previewing an animation
Printing a frame of an animation

Staggering when models enter a scene

Path commands

Animation Palette
Generate Animation
Modify Animation
Preview All Frames
Preview Animation

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Warp Point & click

Warping is the process of bending or twisting a <u>model</u>.

Warp step-by-step procedure Warping a model

Warp command Modify Warp

Scene Contents window

Point & click

The Scene Contents window lists all scene attributes, such as the <u>backdrop</u>, <u>lights</u>, and <u>soundtrack</u>; and all <u>models</u> and their attributes, such as <u>surfaces</u>, <u>warps</u>, and <u>animation paths</u>.

Scene Contents window concepts and step-by-step procedures

About Asymetrix Web 3D
About the Scene Contents window
Selecting models

Scene Contents window command

Scene Contents

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Scene Preview window

Point & click

The Scene Preview window is where you arrange, edit, and manipulate <u>models</u> to create a 3D <u>scene</u>.

Scene Preview window concepts and step-by-step procedures

About Asymetrix Web 3D
About creating 3D graphics with Asymetrix Web 3D
About the Scene Contents window
Selecting models

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Catalog Point & click

The Catalog is the window that contains preset $\underline{\text{scene}}$ elements. You can $\underline{\text{drag}}$ elements from the Catalog and drop them into the $\underline{\text{Scene Preview}}$ or $\underline{\text{Scene Contents}}$ window to add them to a scene.

Catalog concepts and step-by-step procedures

About Asymetrix Web 3D Selecting models

Catalog commands

Arrange Catalog Entries Catalog

Snapshot window Point & click

The Snapshot window is the window in which Asymetrix Web 3D generates a snapshot.

Snapshot window concepts and step-by-step procedures

About Asymetrix Web 3D About camera perspective
About color in Asymetrix Web 3D About color palette shift About creating 3D graphics with Asymetrix Web 3D Generating a snapshot Previewing a snapshot

Printing a scene or snapshot

Snapshot window commands

Convert Snapshot Generate Snapshot Preview Snapshot

Animation window

Point & click

The Animation window is the window in which Asymetrix Web 3D generates an animation.

Animation window concepts and step-by-step procedures

About Asymetrix Web 3D

About camera perspective
About color in Asymetrix Web 3D

About color palette shift

About creating 3D graphics with Asymetrix Web 3D

Generating an animation

Previewing an animation

Printing a frame of an animation

Animation window commands

Generate Animation
Preview All Frames
Preview Animation

Technical Support

You can receive Asymetrix Technical Support in a variety of ways. Click a topic below for step-by-step instructions about Technical Support.

Calling Technical Support

Using America Online

Using CompuServe

Using Internet

Using the Asymetrix Bulletin Board System (BBS)

Using the World Wide Web

Calling Technical Support

Step by step

Registered Asymetrix product users receive 30 days of complimentary technical support, beginning with their first call to Asymetrix Technical Support. Phone support can be extended beyond the complimentary period by purchasing a technical support contract.

Use the appropriate Asymetrix technical support telephone numbers for your location as listed below.

Australia/Asia Pacific

Infotainment Asia Pacific Pty Ltd.

(61+3) 5255-471 (direct)

9 a.m. to 6 p.m. Eastern Standard Time

(61+3) 5255-482 (fax)

XLTECH Pty Ltd.

(61+2) 9752-111 (direct)

9 a.m. to 6 p.m. Eastern Standard Time

(61+2) 9752-167 (fax)

Europe (except France, Germany, and United Kingdom); Middle East; Africa;

Russia

(44) 1923-208433

9:00 to 17:00 GMT

(44) 1923-208419 (fax)

France

05-90-83-19 (freephone)

9:00 to 17:00 GMT

(44) 1923-208419 (fax)

Germany

01-30-81-27-07 (freephone)

9:00 to 17:00 GMT

(44) 1923-208419 (fax)

United Kingdom

0800-716957 (freephone)

9:00 to 17:00 GMT

(44) 1923-208419 (fax)

U.S.A. and rest of world

(206) 637-1600 (direct)

6 a.m. to 6 p.m. Pacific time, Monday through Thursday; 6

(206) 454-0672 (fax) a.m. to 3 p.m. Friday

When you call Technical Support, please be at your computer with your Asymetrix documentation and have the following information:

- Your Asymetrix product serial number (found on the first installation disk, your license agreement envelope, or your Asymetrix product box).
- The version of the Asymetrix product you are running.
- Your system configuration information (you can find this information by choosing System Info from the Help menu, or by double-clicking the System Info icon in the Asymetrix product program group, located in the Program Manager; or by double-clicking Windows Setup, located in the Program Manager in the Main group).
- The exact wording of any error message you have encountered.
- What happened and what you were doing when the problem occurred.
- How you tried to solve the problem.

When you leave a message or send a fax, please include the information listed above. A technical support representative will respond within two business days to messages sent and faxes left before or after business hours.

Step by step
Using America Online
Using CompuServe
Using Internet
Using the Asymetrix Bulletin Board System (BBS)
Using the World Wide Web

Using the Asymetrix Bulletin Board System (BBS)

Step by step

You can receive online technical support on the Asymetrix Bulletin Board System (BBS) by leaving a message for the Asymetrix System Operator. The System Operator checks the BBS daily for new messages and answers them within two business days (Monday through Friday). To help the System Operator answer your question, gather information about your system as described in Step 5 below.

The data configuration for the BBS is: no parity, 8 data bits, 1 stop bit.

To connect to the Asymetrix Bulletin Board System:

- 1 Call the Asymetrix BBS number:
 - If you have a 1200 to 9600 baud modem (v.32bis), call (206) 451-1173.
 - If you have a 9600 to 14,400 baud modem (v.32bis), call (206) 451-8290.
- 2 Enter your first and last names at the prompts.
 - If you are a new BBS user and you see a welcome message, there is probably another user with the same name. Hang up the phone, redial, and use a different name, such as "Jim" instead of "James," or include your middle initial.
- 3 Enter your password, then retype it to confirm its spelling.
- 4 If you are a new user, complete the new user questionnaire.
 - Make sure you have your Asymetrix product serial number (found on the first installation disk, your license agreement envelope, or your Asymetrix product box). You will be asked about your software and hardware. Where applicable, it is recommended that you accept the defaults.
- **5** To leave a message for the System Operator, type C for "Comments to the sysop," then leave a message containing the following information:
- All the information gathered about your system configuration. For details on gathering this information, see instructions below.
 - The version of DOS you are running.
 - The version of Windows you are running.
 - The version of the Asymetrix product you are running.
 - The exact wording of any error message you have encountered.
 - What happened and what you were doing when the problem occurred.
 - How you tried to solve the problem.
 - 6 To log off the BBS, type G for "Goodbye," then type Y to confirm.

Tip At any time, you can type "?" to get online command help. If you have any problems or difficulties with the Asymetrix BBS, leave a message for the BBS System Operator or call the Asymetrix Technical Support line at (206) 637-1600.

To gather system configuration information for the System Operator:

- 1 Choose System Info from the Help menu. If you cannot run your Asymetrix product, double-click the System Info icon in the product's program group, located in the Program Manager.
- 2 Copy down all the information listed in the System Status box.

Step by step
Calling Technical Support
Using America Online
Using CompuServe
Using Internet
Using the World Wide Web

Using CompuServe

Step by step

If you are a CompuServe member, you can receive online technical support by leaving a message for the Asymetrix Forum Moderator. The Forum Moderator checks CompuServe daily for new messages and answers them within two business days (Monday through Friday). To help the Forum Moderator answer your question, gather information about your system as described in Step 3 below.

Refer to your CompuServe documentation for step-by-step instructions for logging onto CompuServe, leaving messages for the Forum Moderator, and logging off CompuServe.

To connect to CompuServe:

- 1 Log on to CompuServe.
- 2 To connect to
- Windows Third Party Developer A forum, Section 1, type GO ASYMETRIX or GO WINAPA at the prompt.
- Multimedia Vendors forum, Section 15, type GO MULTIVEN at the prompt.
- IBM Ultimedia Tools A forum, Section 5, type GO ULTIATOOLS at the prompt.
 - 3 In the Asymetrix section (Section 1), leave a message for the Forum Moderator containing the following information:
- All the information gathered about your system configuration. For details on gathering this information, see instructions below.
- Your Asymetrix product serial number (found on the first installation disk, your license agreement envelope, or your Asymetrix product box) and version.
- The version of DOS you are running.
- The version of Windows you are running.
- The exact wording of any error message you have encountered.
- What happened and what you were doing when the problem occurred.
 - How you tried to solve the problem.
 - 4 Log off CompuServe.

To gather system configuration information for the Forum Moderator:

- 1 Choose System Info from the Help menu. If you cannot run your Asymetrix product, double-click the System Info icon in the product's program group, located in the Program Manager.
- 2 Copy down all the information listed in the System Status box.

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Step by step
Calling Technical Support
Using America Online
Using Internet
Using the Asymetrix Bulletin Board System (BBS)
Using the World Wide Web

Using America Online

Step by step

If you are an America Online member, you can receive online technical support by leaving a message for the Asymetrix Forum Moderator. The Forum Moderator checks America Online daily for new messages and answers them within two business days (Monday through Friday). To help the Forum Moderator answer your question, gather information about your system as described in Step 3 below.

Refer to your America Online documentation for step-by-step instructions for logging onto America Online, leaving messages for the Forum Moderator, and logging off America Online.

Note America Online operates a text telephone (TDD) for deaf or hearing-impaired members.

To connect to America Online:

- 1 Log on to America Online.
- 2 Do one of the following:
- From the Go To menu, select Keyword, then type Asymetrix.
 - Go to the Computing and Software area, select Industry Connection, then select Asymetrix.
- 3 Leave a message for the Forum Moderator containing the following information:
- All the information gathered about your system configuration. For details on gathering this information, see instructions below.
- Your Asymetrix product serial number (found on the first installation disk, your license agreement envelope, or your Asymetrix product box) and version.
 - The version of DOS you are running.
- The version of Windows you are running.
- The exact wording of any error message you have encountered.
- What happened and what you were doing when the problem occurred.
- How you tried to solve the problem.
 - 4 Log off America Online.

Tip You can receive the software required to use America Online at no cost, plus five complimentary hours of online time. For details about America Online, call (800) 827-6364 or (703) 893-6288.

To gather system configuration information for the Forum Moderator:

- 1 Choose System Info from the Help menu. If you cannot run your Asymetrix product, double-click the System Info icon in the product's program group, located in the Program Manager.
- 2 Copy down all the information listed in the System Status box.

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Step by step
Calling Technical Support
Using CompuServe
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Using Internet

Step by step

If you have access to Internet mail, you can receive online technical support by leaving a message for the Asymetrix Forum Moderator. The Forum Moderator checks Internet daily for new messages and answers them within two business days (Monday through Friday). To help the Forum Moderator answer your question, gather information about your system as described in Step 3 below.

Refer to your electronic mail documentation for step-by-step instructions about starting mail and sending messages on Internet.

To access Internet:

- 1 Start your electronic mail application.
- 2 In the box where you enter the receiver's address, type support@asymetrix.com or techsup@asymetrix.com.
- **3** Leave a message for the Forum Moderator containing the following information:
- All the information gathered about your system configuration. For details on gathering this information, see instructions below.
- Your Asymetrix product serial number (found on the first installation disk, your license agreement envelope, or your Asymetrix product box) and version.
- The version of DOS you are running.
- The version of Windows you are running.
- The exact wording of any error message you have encountered.
- What happened and what you were doing when the problem occurred.
- How you tried to solve the problem.
 - 4 Send your message.

To gather system configuration information for the Forum Moderator:

- 1 Choose System Info from the Help menu. If you cannot run your Asymetrix product, double-click the System Info icon in the product's program group, located in the Program Manager.
- 2 Copy down all the information listed in the System Status box.

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Step by step
Calling Technical Support
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Using the Asymetrix Bulletin Board System (BBS)
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Using the World Wide Web

Step by step

If you are have access to the World Wide Web (WWW), you can receive online technical information and technical support at the Asymetrix Web site. The Asymetrix Internet Tech Center Web page provides access to

- answers to frequently asked questions (FAQ), organized by product.
- the Asymetrix FTP (file transfer protocol) site, which includes an index of the names, size, details, and locations of all Asymetrix FTP files.
- Asymetrix online technical support, where you can leave a message. You message will be answered within two business days (Monday through Friday).

To access the Asymetrix web site:

- 1 Load your Windows Web browser (for example, NetScape or Mosaic).
- 2 Enter the location (URL) of the Asymetrix web site:

http://www.asymetrix.com.

To reach the Asymetrix Internet Tech Center Web page:

- 1 Click the Technical Services button on the Asymetrix main menu graphic.
- 2 Click the "Internet Tech Center" hyperlink.
- 3 Click the appropriate hyperlink to go to FAQ, the Asymetrix FTP site, or technical support.
- 4 If you click the "Submit a problem or suggestion to Asymetrix's Technical Support" hyperlink to go to technical support, enter your contact information, as well as the details of your problem, including the following information:
- All the information gathered about your system configuration. For details on gathering this information, see instructions below.
- Your Asymetrix product serial number (found on the first installation disk, your license agreement envelope, or your Asymetrix product box) and version.
 - The version of DOS you are running
- The version of Windows you are running
- The exact wording of any error message you have encountered
- What happened and what you were doing when the problem occurred
- How you tried to solve the problem

To gather system configuration information for the Forum Moderator:

- 1 Choose System Info from the Help menu. If you cannot run your Asymetrix product, double-click the System Info icon in the product's program group, located in the Program Manager.
- 2 Copy down all the information listed in the System Status box.

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Step by step
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Using America Online
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Using Internet
Using the Asymetrix Bulletin Board System (BBS)

Working in Asymetrix Web 3D

Step by step

In the <u>Scene Preview window</u> you move <u>3D</u> objects--called <u>models</u>--around the screen, rotate them to display different sides, move them forward and backward in 3D space, and <u>scale</u> their size. You can use the Scene Preview window to build a <u>scene</u> and arrange models in relationship to each other.

Asymetrix Web 3D provides a comprehensive collection of models (including shapes and text) and 3D tools to modify a scene. To use models and other scene elements stored in the <u>Catalog</u>, you <u>drag</u> them from the Catalog and <u>drop</u> them into the Scene Preview or <u>Scene Contents window</u>.

To work in Asymetrix Web 3D:

- 1 Add and create models.
- 2 Modify models by applying surfaces or arranging them in the scene.
- 3 Modify the scene by adding a backdrop, lights, or shadows.
- 4 To create an animation, add animation paths to a model.
- 5 From the File menu, choose Save to save the scene, then enter a file name in the Save As dialog box.
- 6 Generate a snapshot or animation of the scene.
- 7 Use the snapshot or animation:
 - Import the snapshot or animation into another application. Or link or embed the scene.
 - Print the scene or snapshot.

Step by step

About Asymetrix Web 3D

About creating 3D graphics with Asymetrix Web 3D

About the Scene Contents window

Adding a backdrop

Adding a preset model
Adding lights

Animating a model
Applying a surface to a model

Arranging a model in a scene

Creating a picture model

Creating a text model

Generating a snapshot

Generating an animation

Importing a model

Printing a scene or snapshot

Building a scene

Step by step

To build a scene in the Scene Preview window, you can

- begin with a starter scene and its <u>models</u> from the <u>Catalog</u>, then modify the models to create the scene you want.
- use an existing scene file as a template.
- reate a scene from scratch by <u>dragging</u> models from the Catalog and <u>dropping</u> them into the Scene Preview or <u>Scene Contents window</u>.

To use a starter scene:

Click the Scenes tab in the Catalog, then drag a starter scene from the Catalog and drop it into the Scene Preview or Scene Contents window.

To use an existing scene file as a template:

- 1 From the Tools menu, choose Options.
- 2 In the File tab, for At Startup, select Create New Scene.
- 3 Under New Scenes, select Use Scene File As Template, then click Browse.
- **4** Select a scene file to use as a template, click OK, and then click OK again to close the Options dialog box. When you restart Asymetrix Web 3D, the scene file opens as a template.

To create a scene from scratch:

- Drag a preset model from the Catalog. Or add a simple model using the Models menu.
- Create a text model.
- Create a picture model from a graphic.
 - Import a model.

To save a scene:

From the File menu, choose Save to save the scene, then enter a file name in the Save As dialog box.

Step by step

About imported models
About simple models
About text and picture models
About the Scene Contents window
Adding a preset model
Creating a picture model
Creating a text model
Importing a model

Commands

Create Picture Model
Create Simple Model submenu
Create Text Model
Import Model
New
Options

Adding a preset model Step by step

You can add a preset model to a scene, then modify it to fit your needs.

To add a preset model to a scene:

- Click the Models tab in the Catalog, then drag a model from the Catalog and drop it into the Scene Preview or Scene Contents window.
 - From the Models menu, choose Create Simple Model, then select a model to add. You can modify most models by selecting the model, then choosing Modify Model from the Models menu. For details about a specific model's options, click the Help button in the Modify Model dialog box.

About simple models About the Scene Contents window Modifying a simple model's shape

Commands

Catalog
Create Simple Model submenu
Modify Cube (dialog box)
Modify Cylinder (dialog box)
Modify Ring (dialog box)
Modify Sphere (dialog box)

Creating a text model

Step by step

You can create a 3D model from text you format.

To create a model from text:

- 1 From the Models menu, choose <u>Create Text Model</u>, or click ▶ on the toolbar.
- **2** Replace the words Enter Text Here with the text you want. You can create additional lines of text by pressing Shift+Enter.
- **3** Optional. To add <u>special (ANSI) characters</u> to your model, click Character Map, then double-click the character you want.
- 4 Select your text, then use the toolbar options to format it.
- **5** For Font, select a font.
- 6 Optional. To check the spelling of your text, click <u>Spelling</u>.
- 7 Optional. To modify the model's 3D options, click Modify 3D.
- **8** Optional. To change the model's <u>name</u>, under Model Name, type a name, or click the Modify button to open the <u>Modify Name</u> dialog box.

Note The model name is automatically set to the model's text when it is created.

9 Click OK to close the dialog box.

About text and picture models
Adding a preset model
Creating a picture model
Importing a model

Commands

Spelling (dialog box)
Create Text Model
Modify 3D
Modify Letter Model (dialog box)
Modify Name (dialog box)
Modify Text Model (dialog box)

Creating a picture model

Step by step

You can create a 3D <u>picture model</u> from any <u>bitmap</u> or graphic file composed of polygons and lines (for example, <u>vector graphics</u> such as <u>metafiles</u>) you can import or paste into Asymetrix Web 3D. Asymetrix Web 3D converts bitmap images to black and white, then <u>traces</u> the black to create a model.

For the tracing to produce a good image, a bitmap must have a well-defined outline, without fuzzy or blurry edges.

To create a picture model:

- 1 From the Models menu, choose Create Picture Model, or click on the toolbar.
- To import a picture, click Browse, locate the file, and then click OK. Or to paste a picture from the Clipboard, click Paste Graphic From Clipboard. Metafiles may appear distorted in the preview area, but will be imported without distortion.

Note A scene that includes models created from a metafile may appear in the Scene Preview window to include only a single large rectangular model. You may want to select and delete the large rectangular model so you can view the other models created from the file.

3 Optional. For a bitmap, click Trace Options to open the <u>Trace Options</u> dialog box, where you can determine how the bitmap will be converted to black and white, and how much detail will be traced.

Tip Because the tracing function traces perceived edges in the bitmap, the image must have a well-defined outline, without blur. You can use a paint program to eliminate blurriness.

- 4 Optional. To modify the model's 3D options, click Modify 3D.
- **5** Optional. To give the model a <u>name</u>, under Model Name, type a name, or click the Modify button to open the <u>Modify Name</u> dialog box.
- 6 Click OK to close the dialog box.

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About text and picture models Adding a preset model Creating a text model Importing a model

Commands

Create Picture Model
Import Graphic (dialog box)
Modify 3D
Modify Name (dialog box)
Modify Picture Model (dialog box)
Trace Options (dialog box)

Applying a surface to a model

Step by step

Each <u>model</u> has a default <u>surface</u>, which is the appearance of its exterior. You can give a model a different appearance by applying a different surface.

Asymetrix Web 3D applies the surface by wrapping it around the contours of the model or its <u>sub-part</u> (such as a character in a word). Each time you apply a new surface, Asymetrix Web 3D removes the old surface from the model.

To apply a surface to a model:

- 1 Click the Surfaces tab in the <u>Catalog</u>.
- 2 <u>Drag</u> a surface from the Catalog and <u>drop</u> it on the model in the <u>Scene Preview</u> or <u>Scene Contents</u> window. To apply a surface to a sub-part of a model (such as its <u>bevel</u>), from the View menu, choose <u>Scene Contents</u> to open the Scene Contents window, then drag a surface and drop it on the model's sub-part.
 - **Note** If you apply a wood, granite, marble, or rainbow surface to a model, the surface will not be visible until you generate a snapshot or animation of the scene.

Step by step
About surfaces
About the Scene Contents window
Modifying a model's surface

Commands Catalog Modify Surface & Color

Warping a model

Step by step

You can easily change a <u>model's</u> shape by <u>warping</u> it. However, once you've warped a model, if you want to move, rotate, or scale the model's <u>sub-parts</u>, you must temporarily disable the warp.

To warp a model:

- 1 Select a model in the Scene Preview or Scene Contents window.
- 2 From the Models menu, choose Modify Warp.
- 3 Change the model's bow, angle, or twist, then click OK to close the dialog box.

To move a sub-part of a warped model:

- 1 Select a warped model in the Scene Preview or Scene Contents window.
- 2 From the Models menu, choose Modify Warp, click Disable Warp, and then click OK.
- 3 In the Scene Contents window, expand the model to display its sub-parts, select the sub-part you want to move, then in the Scene Preview window, move, scale, or rotate the sub-part.
- 4 To reapply the warp, from the Models menu, choose Modify Warp, click Enable Warp, and then click OK.

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Step by step
About the Scene Contents window
Command
Modify Warp

Arranging a model in a scene

Step by step

The <u>Scene Preview window</u> is like a room in which you can arrange <u>models</u> in relationship to each other in 3D space. You can scale or change the size of one or more of the models, move them around the <u>scene</u>, and rotate them to display other sides. You can even position your models to be out of the scene, which means that the models or part of the models will be out of view in the next <u>snapshot</u> or <u>animation</u> you generate.

To arrange a model in a scene:

- To scale a model, click the scale button on the Position palette, then drag the model.
- To move a model left, right, up, or down in a scene, click the move button on the Position palette, then drag the model.
- To move a model closer or farther in 3D space, click the move button on the Position palette, then press Shift while dragging the model.
- To rotate a model, click the rotate button on the Position palette, then drag the model.

About Asymetrix Web 3D
About camera perspective
About creating 3D graphics with Asymetrix Web 3D
About the Position palette
About the Scene Contents window
Resetting a model's location, rotation, or scale
Rotating a model

Commands

Position Palette
Reset Orientation
Reset Position
Reset Size

Resetting a model's location, rotation, or scale

Step-by step

You can return a model to the center of the scene, a flat orientation, or to its size when created.

To reset a model's location to the center of a scene:

In the <u>Scene Contents</u> or <u>Scene Preview</u> window, select the model, then from the Edit menu, choose <u>Reset Position</u>.

To bring a model that is out of the scene back into view:

- 1 From the View menu, choose On Camera Area then choose 75% or a smaller percentage, so you can see the area outside the scene.
- 2 Select the model in the Scene Contents window, then move the model back into view using the move button on the Position palette.

To set a model to a flat orientation:

In the Scene Contents or Scene Preview window, select the model, then from the Edit menu, choose <u>Reset Orientation</u>.

To reset a model's size:

In the Scene Contents or Scene Preview window, select the model, then from the Edit menu, choose <u>Reset Size</u>.

About Asymetrix Web 3D
About camera perspective
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About the Position palette
About the Scene Contents window
Arranging a model in a scene
Scaling a model
Setting the camera perspective

Commands

Position Palette
Reset Orientation
Reset Position
Reset Size

Adding a backdrop Step by step

You can add a backdrop to your scene to create visual interest. You can use a solid color, a gradient, or a bitmap, metafile, or other graphic as a backdrop.

Note Models in a scene are always in front of a backdrop; lights, shadows, and fog do not affect a backdrop.

To add a backdrop to a scene:

- 1 Click the Backdrops tab in the Catalog.
- 2 <u>Drag</u> a backdrop from the Catalog and <u>drop</u> it in the <u>Scene Preview</u> or <u>Scene Contents</u> window. Note Show or hide a scene's backdrop by choosing Backdrop from the View menu.

Step by step
About Asymetrix Web 3D
About the Scene Contents window
Modifying a backdrop

Commands
Backdrop
Catalog

Adding lights Step by step

Lights set the scene's mood and style; a scene can take on a different feel when the brightness, direction, and color of lights are changed. Ambient light brightens every surface. Directional lights (such as White Right Light) brighten based on whether the model surface faces toward or away from the light. Lights sources always come from outside the scene.

To add a set of lights to a scene:

- 1 Click the Lights tab in the Catalog.
- 2 <u>Drag</u> a light set from the Catalog and <u>drop</u> it in the <u>Scene Preview</u> or <u>Scene Contents</u> window. It doesn't matter where you drop the lights because they affect the entire scene. Each light has a preset color and position you can modify.

Step by step
About creating 3D graphics with Asymetrix Web 3D
About the Scene Contents window
Modifying a light

Commands

Catalog Modify Lights

Adding shadows to a scene

Step by step

<u>Shadows</u> add dramatic effect, showing where a <u>scene's light</u> comes from. By default, each light set in the <u>Catalog</u> provides one light with shadows turned on. You can make additional lights cast shadows in your scene, however, the scene will take longer to <u>generate</u>.

Note Because a <u>backdrop</u> is not a <u>model</u>, shadows do not affect it. To create the effect of shadows on a backdrop, use a wall model.

To add shadows to a scene:

- 1 From the Scene menu, choose Modify Lights.
- 2 Under Light Name(s), select a light to cast shadows, check Light Casts Shadows, and then click OK.
- 3 From the Scene menu, choose Snapshot & Animation Settings, then click the Quality tab.
- **4** For <u>Snapshot</u> Style, select Realistic w/Shadows or <u>Ray Traced</u> w/Shadows, then click OK. **Note** Shadows are only visible after you generate a scene.
- **5** From the Scene menu, choose <u>Generate Snapshot</u>, then click OK.

 As Asymetrix Web 3D generates a scene with shadows, the progress indicator tracks the calculation of shadows for each light in the scene.

To adjust the scene lights to create dramatic shadows:

- 1 Add a wall and floor plane to your scene to provide surfaces for the shadows.
- 2 Choose Modify Lights from the Scene menu; in the Preview & Set Light Direction box move the light so that the bright spot is at the top and center of the sphere, then click OK.

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Step by step
About creating 3D graphics with Asymetrix Web 3D
Adding lights
Modifying a light

Commands

Modify Lights
Snapshot & Animation Settings

Setting the camera perspective Step by step

You can change the <u>camera perspective</u> so that <u>models</u> appear to change in size and distance. The models retain their actual size and place; only the perspective changes.

To make models appear at actual size and distance:

From the Scene menu, choose Camera Perspective, then choose Normal.

To make models appear larger and closer:

From the Scene menu, choose Camera Perspective, then choose Wide Angle.

To make models appear smaller and farther away:

From the Scene menu, choose Camera Perspective, then choose <u>Telephoto</u>.

Step by step
About camera perspective
Command
Camera Perspective

Animating a model

Step by step

To create an <u>animation</u>, you define a motion for all <u>models</u> in the <u>scene</u> that you want to move. To do this, you select preset <u>animation paths</u> for each model and then modify each animation path so that the model moves in the way you want.

For added interest, you can apply a soundtrack--a wave audio (.WAV) file--that plays with the animation.

To add an animation path to a model:

- 1 Click the Paths tab in the Catalog.
- 2 <u>Drag</u> an animation path from the Catalog and <u>drop</u> it on the model in the <u>Scene Preview</u> or <u>Scene Contents</u> window.
 - If you added more than one animation path to a model, in the Scene Contents window, double-click the model's Paths icon to expand its branch, then drag the animation paths and drop them into the order you want.
- 3 To preview the animation, from the Scene menu, choose Preview Animation.

About animation in Asymetrix Web 3D
About the Scene Contents window
Animating sub-parts of a model
Building a scene
Generating an animation
Previewing an animation

Commands

Catalog
Generate Animation
Preview All Frames
Preview Animation

Modifying a model's animation path

Step by step

You can modify an animation path applied to a model so that it moves in the way you want.

To modify an animation path:

- 1 Select the model, then from the Models menu, choose Modify Animation.
- 2 For Animation Path Name(s), select an animation path to modify.
- 3 In the Movement tab, under Duration, set the animation's length.
- **4** Under Start And End Positions, select whether the model enters the scene, leaves the scene, doesn't move, or waits offscreen on the animation path.
- 5 Under Offscreen Position, click to set where the model is positioned out of the scene.
- **6** Click the Spin tab, then set if and how the model spins. The spin can apply to the model, its <u>sub-parts</u> (such as each character in a text model), or both.
- 7 Click the Effects tab, then set the animation sequence (which part of the model moves first), whether the sequence applies to the motion or spin, and how the model is oriented offscreen.
- 8 Click OK.

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About animation in Asymetrix Web 3D
Adding a soundtrack to an animation
Animating a model
Animating sub-parts of a model
Generating an animation
Modifying a model's animation path sequence
Previewing an animation
Printing a frame of an animation
Staggering when models enter a scene

Commands

Animation Palette Generate Animation Modify Animation Preview All Frames Preview Animation

Modifying a model's animation path sequence

Step by step

When a <u>model</u> has more than one <u>animation path</u>, you can adjust the sequence of the paths so the model moves the way you want.

To adjust the sequence of animation paths:

- 1 From the View menu, choose Scene Contents to open the <u>Scene Contents window</u>.
- 2 In the Scene Contents tree, under the model's Path branch, drag the animation paths into the sequence you want. (The top path occurs first.)

Note If you apply fly-in and fly-out animation paths in sequence to a model, the model's motion will become a curve rather than two straight lines.

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Adding a soundtrack to an animation
Animating a model
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Generating an animation
Modifying a model's animation path
Previewing an animation
Printing a frame of an animation
Staggering when models enter a scene

Commands

Animation Palette Generate Animation Modify Animation Preview All Frames Preview Animation

Adding a soundtrack to an animation Step by step

You can easily apply a soundtrack to accompany your animation. Asymetrix Web 3D saves animations in audio/video interleaved (.AVI) format so that the animation frames are interleaved with the sound. As a result, the sound plays with the animation.

Note You can apply only one soundtrack to an entire animation.

To add a soundtrack to an animation:

- 1 From the Scene menu, choose Modify Soundtrack.
- 2 Select a wave audio (.WAV) file or an .AVI file that contains sound, then click OK.

About animation in Asymetrix Web 3D

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Animating sub-parts of a model

Generating an animation

Modifying a model's animation path
Modifying a model's animation path sequence

Previewing an animation
Printing a frame of an animation

Staggering when models enter a scene

Commands

Animation Palette

Generate Animation

Modify Animation

Preview All Frames

Preview Animation

Embedding a new scene

Step by step

You can <u>embed</u> a new, empty Asymetrix Web 3D <u>scene</u> in a <u>container application</u>, then use Asymetrix Web 3D to add <u>models</u>, <u>lights</u>, and other elements to this scene.

Note The container application you are working in may use slightly different menu command names than those listed below.

To embed a new scene:

- 1 From the container application's Edit or Insert menu, choose Insert Object.
- 2 Select Create New, then under Object Type, select Asymetrix Web 3D Scene.
- 3 Click OK to start Asymetrix Web 3D, then build your scene.
- **4** When you're finished, if Asymetrix Web 3D is in a separate window, from the File menu, choose Exit & Return. If it is not in a separate window, click away from the scene in the container document to display the container application.

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About editing scenes in a container application
About object linking and embedding (OLE)
Displaying a scene or icon in a container application
Displaying a snapshot or animation in a container application
Editing embedded or linked Asymetrix Web 3D scenes
Embedding or linking an existing scene
Playing a linked or embedded animation
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Embedding or linking an existing scene

Step by step

You can <u>embed</u> or <u>link</u> an existing <u>scene</u> file into a <u>container application</u>. To embed or link an existing scene, you must have already <u>built the scene in Asymetrix Web 3D</u> and saved it to a file.

Note The container application you are working in may use slightly different menu command names than those listed below.

To embed or link an existing scene file in a container application:

- 1 From the container application's Edit or Insert menu, choose Insert Object.
- 2 Select Create From File. If you want to link the scene, check Link.
- 3 Locate the scene file, then click OK.

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Editing embedded or linked Asymetrix Web 3D scenes Step by step

You can use Asymetrix Web 3D to edit a <u>scene</u> you have <u>embedded</u> or <u>linked</u> to an OLE <u>container application</u>. The updated scene appears in the container application.

Note The container application you are working in may use slightly different menu command names than those listed below.

To edit a linked or embedded scene:

- 1 In the container application, select the scene.
- 2 From the container application's Edit menu, choose Asymetrix Web 3D Scene Object (or Scene Object), then choose Edit to start Asymetrix Web 3D.
- 3 Edit the scene.
- **4** Optional. In Asymetrix Web 3D, generate a <u>snapshot</u> or <u>animation</u> to display in the container application, instead of the scene.
 - **Note** If you are regenerating an animation, in most cases, save it to the same name as the previous version so that you do not consume disk space with multiple animations.
- 5 When you're finished, if Asymetrix Web 3D is in a separate window, from the File menu, choose Exit & Return. If it is not in a separate window, click away from the scene in the container document to display the container application.

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Displaying a snapshot or animation in a container application

Step by step

You can determine what part of your <u>linked</u> or <u>embedded scene</u> appears in the <u>container application</u>. You can display a <u>snapshot</u> or <u>frame</u> of an <u>animation generated</u> from a scene, the scene itself, or the Asymetrix Web 3D icon.

Note The container application you are working in may use slightly different menu command names than those listed below.

To display a snapshot in a container application:

- 1 In the container application, link or embed a scene.
- **2** From the Scene menu, choose <u>Generate Snapshot</u>. If you make any changes to the scene, you must regenerate the snapshot.

To display an animation in a container application:

- 1 In the container application, link or embed a scene
- 2 To determine whether the first or last frame of the animation is displayed, from the Scene menu, choose Snapshot & Animation Settings, click the OLE tab, select First or Last, and then click OK.
- **3** From the Scene menu, choose <u>Generate Animation</u>. If you make any changes to the scene, you must regenerate the animation.

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Displaying a scene or icon in a container application Step by step

You can determine what part of your <u>linked</u> or <u>embedded scene</u> appears in the <u>container application</u>. You can display a <u>snapshot</u> or <u>frame</u> of an <u>animation generated</u> from a scene, the scene itself, or the Asymetrix Web 3D icon.

Note The container application you are working in may use slightly different menu command names than those listed below.

To display a scene in a container application:

- 1 In the container application, link or embed a scene.
 If you don't generate a snapshot or animation in Asymetrix Web 3D, the scene appears in the container application and uses the <u>Scene Preview</u> window settings.
- 2 To view the scene as <u>solid models</u>, from the Tools menu, choose <u>Options</u>, then check Display Solid Models In Previews & OLE.

To display the Asymetrix Web 3D icon in a container application:

In the container application's Insert Object dialog box, check Display As Icon.

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Playing a linked or embedded animation Step by step

You can play a <u>linked</u> or <u>embedded animation</u> using the Asymetrix Web 3D runtime player (which you can freely distribute with your files to play your animations), Microsoft Video for Windows, or the Media Player.

Note The container application you are working in may use slightly different menu command names than those listed below.

To play an animation:

1 Double-click WEB3DREG.EXE in the File Manager to open the Browse For WEB3DRUN.DLL dialog box. Locate the WEB3DRUN.DLL file, then click OK.

Note You only need to do this once for each system on which you want to play Asymetrix Web 3D animations.

2 In the container application, double-click the embedded or linked scene.

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Updating your OLE registration database Step by Step

If you are trying to <u>embed</u> or <u>link</u> a <u>scene</u> in an OLE <u>container application</u>, and the Insert Object dialog box does not contain the Asymetrix Web 3D Scene entry, you may need to update your <u>OLE registration database</u>.

Note The container application you are working in may use slightly different menu command names than those listed below.

To update your OLE registration database:

- 1 Start Asymetrix Web 3D by clicking the icon in the Program Manager, then exit Asymetrix Web 3D.
- 2 Double-click WEB3DREG.EXE in the File Manager to open the Browse For WEB3DRUN.DLL dialog box. Locate the WEB3DRUN.DLL file, then click OK.

The Asymetrix Web 3D Scene entry should now appear in the Insert Object dialog box.

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Previewing a snapshot

Step by step

Before you generate a snapshot, you may want to preview it, because generating can be quite time-consuming. You can preview your snapshot in several ways before creating the final version.

To preview only part of the snapshot:

From the Scene menu, choose <u>Preview Snapshot</u> to display a crosshair. In the <u>Scene Preview window</u>, use the crosshair to draw a box around the area you want to preview.

Note Snapshot previews do not include a backdrop.

To generate a draft of a snapshot:

From the Scene menu, choose <u>Generate Snapshot</u>. Under Style, select a faster generating style (such as <u>Solid Models</u>), then click OK to generate the draft.

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Previewing an animation

Step by step

Before you generate an animation, you may want to preview it, because generating can be quite time-consuming. You can preview your animation in several ways before creating the final version.

To preview the animation in real time:

From the Scene menu, choose Preview Animation.

Asymetrix Web 3D drops <u>frames</u> from the animation if the current system cannot play all the frames at the correct rate (measured in frames per second), so the preview may appear jerky or choppy. This preview can help you determine how long a <u>soundtrack</u> will play during the animation.

Tip To stop previewing an animation, click in the Scene Preview window.

To preview all frames in an animation:

From the Scene menu, choose <u>Preview All Frames</u>. In this preview, a soundtrack you've added will not play, and Asymetrix Web 3D will display all frames in the animation regardless of your system's speed.

To generate a draft of an animation:

- 1 From the Scene menu, choose Generate Animation.
- 2 Under Style, select a faster generating style (Wireframes and Solid Models are fastest, Ray Traced w/Shadows is slowest), then click OK to generate the draft.

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Step by step<u>About animation in Asymetrix Web 3D</u> Animating a model Generating an animation

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Preview All Frames
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Generating a snapshot

Step by step

When your <u>scene</u> is the way you want, you can <u>generate</u> a snapshot of it. Before generating, preview the snapshot, because this process can take a minute or more depending on the scene complexity and generating style you choose.

To generate and save a snapshot:

- 1 From the Scene menu, choose Generate Snapshot.
- 2 Under Style, select a generating style.
 - **Note** If you choose Wireframes or Solid Models, the snapshot will generate at the <u>color depth</u> of your video driver. If you choose Solid Models, you cannot generate a snapshot larger than your screen.
- 3 Under Generate Image Of, select whether to generate the current scene, or create a snapshot from a <u>frame</u> of <u>animation</u>. Use the <u>Animation palette</u> to go to the frame (its number appears in the Scene Preview window status bar).
- 4 Under Destination, set whether to generate the snapshot onscreen or to a file, and then enter a file name.
- **5** Click OK to generate the snapshot.
 - To stop generating, click Cancel in the status bar or press the Esc key.
- 6 To save the snapshot, select the Snapshot window, then from the File menu, choose <u>Save</u>.

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Generating an animation

Step by step

When your <u>scene</u> is the way you want, you can <u>generate</u> an <u>animation</u> of it. Before generating, preview the animation, because this process can take a minute or more depending on the scene complexity and generating style you choose.

Note Each <u>frame</u> in an animation is generated separately, which can take time.

To generate and save an animation:

- 1 From the Scene menu, choose Generate Animation.
- 2 Under Style, select a generating style.
 - **Note** If you choose Wireframes or Solid Models, the animation will generate at the <u>color depth</u> of your video driver.
- 3 Under Compression, click Change to set the type and quality of compression used.
- 4 Under Output File, enter a file name or click Browse to locate a file to which the animation will be saved. If you enter a bitmap file name, Asymetrix Web 3D will generate the animation as a sequence of bitmaps.
- 5 Under Repeat Frames, enter a positive number to add copies of the first or last frame to the generated .AVI file, or enter a negative number to skip generating frames at the beginning or end of the animation.
- 6 Click OK to generate the animation.
 - To stop generating, click Cancel in the status bar or press the Esc key.
 - **Tip** You can minimize the Asymetrix Web 3D main window, then switch to a different application while generating in the background. The minimized icon tracks the generating progress.
- 7 To view the results, click the play button in the <u>Animation window</u>.
 - If you aren't satisfied with the results, alter the models in the Scene Preview window or change the options in the Scene & Animation Settings dialog box, then regenerate the scene.

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Commands

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Generating complex or large snapshots

Step by step

Large <u>snapshots</u> using many colors can require a substantial amount of RAM to <u>generate</u>. If you have trouble generating a snapshot, try generating to a file first. If the snapshot still won't generate properly, try applying a <u>color palette</u> that uses fewer colors, and then regenerate the snapshot.

Note To generate snapshots larger than 4092 pixels wide when your <u>color depth</u> is 8 bits per pixel, 2046 pixels when your color depth is 16 bits per pixel, or 1364 pixels when your color depth is 24 bits per pixel, you must generate to file.

To generate a snapshot to a file:

- 1 From the Scene menu, choose Generate Snapshot.
- 2 Under Destination, select Generate Directly To File, enter a file name, and then click OK.

To generate a snapshot using fewer colors:

- 1 From the Scene menu, choose <u>Snapshot & Animation Settings</u>, then click the Colors tab.
- 2 For Palette, select a color palette with fewer colors, and then click OK.
- 3 From the Scene menu, choose Generate Snapshot, then click OK.

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Step by step <u>About Asymetrix Web 3D</u> <u>Generating a snapshot</u>

Commands
Generate Snapshot
Snapshot & Animation Settings

Printing a scene or snapshot

Step by step

You can print the entire contents of the <u>Scene Preview window</u> or just a <u>snapshot</u> that you've <u>generated</u>. Depending on options you set, your results from the <u>Snapshot window</u> or Scene Preview window may be very different. For example, <u>shadows</u> and <u>lights</u> do not appear in the Scene Preview window, but do appear in the Snapshot window. As a result, if you want to print with shadows and lights, print from the Snapshot window.

To print a scene or snapshot:

- 1 Select either the Scene Preview or Snapshot window, depending on which you want to print.
- 2 From the File menu, choose Print.
- 3 Select to print the active window's contents or a different snapshot file.
- **4** Under Margins, set whether the image is printed at actual size, scaled to fit within the default printer margins, or within margins you specify.
- 5 Click OK to start printing.

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Building a scene
Generating a snapshot
Printing a frame of an animation

Commands

Print Setup (dialog box)

Printing a frame of an animation

Step by step

You can generate a snapshot of a single frame of animation, then print it.

To print a single frame of animation:

- 1 From the File menu, choose Open, then select the <u>scene</u> containing the animation.
- **2** From the View menu, choose <u>Animation Palette</u>, and use it to move through the animation until you display the frame you want. Note the frame number shown in the status bar.
- 3 From the Scene menu, choose Generate Snapshot.
- 4 Under Generate Image Of, select Single Frame Of Animation, then enter the frame number.
- 5 Under Destination, select Display In Window, then click OK to generate the snapshot.
- **6** With the <u>Snapshot window</u> active, choose <u>Print</u> from the File menu, then click OK.

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Step by step
Building a scene
Printing a scene or snapshot

Commands

Print Setup (dialog box)

Saving a file with a transparent background Step by step

You can save any bitmap file or metafile that you can open in Asymetrix Web 3D with a <u>transparent</u> background in any format that supports transparency (such as <u>.GIF</u>). To do this, you designate a specific color in the image as transparent.

To save a file with a transparent background:

- 1 Open the file in Asymetrix Web 3D.
- 2 Right-click on the Snapshot Window and choose Set Transparent Color from the right-click menu.
- 3 In the <u>Set Transparent Color</u> dialog box, check Use Transparent Color, select the color you want to be transparent, and then click OK.
 - Note All pixels that are the color you select will be transparent, including those in the image.
- **4** From the File menu, choose <u>Save As</u> and save in a file format that supports transparency (such as .GIF).

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Step by step
About file formats supported by Asymetrix Web 3D
Generating a snapshot

Commands
Generate Snapshot
Set Transparent Color
Save As

Animating sub-parts of a model

Step by step

You can <u>animate</u> the <u>sub-parts</u> of a <u>model</u> to enter, leave, or spin in a <u>scene</u>.

To animate the sub-parts of a model:

- 1 Select a model with sub-parts.
- 2 From the Models menu, choose Modify Animation.
- 3 In the Movement tab, under Duration, set how long you want the animation to last.
- 4 Under Start And End Positions, select either Enter Scene or Leave Scene, then click a position in the Offscreen Position box for the models to enter from or go to when they leave.
- 5 In the Effects tab, check Apply To Motion or Apply To Spin, then select a method of staggering sub-parts.
- 6 Click OK.
- 7 From the Scene menu, choose Preview Animation.

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Staggering when models enter a scene

Step by step

You can <u>animate models</u> to enter a <u>scene</u> one at a time by applying a fly-in <u>path</u> to one model, and a Wait Offscreen path to another.

To animate models to enter a scene one at a time:

- 1 Create the models.
- 2 Select the model you want to enter the scene first, then from the Models menu, choose Modify Animation.
- 3 In the Movement tab, under Animation Path Names, enter a name for the path, such as Fly-In.
- 4 Set Duration to the length you want. (It must be the same length as the Wait Offscreen path.)
- **5** Under Start And End Positions, select Enter Scene, set the Offscreen Position to where you want the model to enter the scene, and then click OK.
- 6 Select the model you want to enter the scene next, then from the Models menu choose Modify Animation.
- 7 In the Movement tab, under Animation Path Names, enter a name for the path, such as Wait Offscreen.
- 8 Set Duration to the same length as the Fly-In path.
- **9** Under Start And End Positions, select Wait Offscreen, set the Offscreen Position to where you want the model to enter the scene, and then click OK.
- **10** In the <u>Scene Contents window</u>, select the Fly-in path and drop it on the second model, then select the wait path and drop it on the first model.
 - The paths should be in the correct order for each model.
- 11 From the Scene menu, choose Preview Animation.

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Commands

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Applying a digital video file as a surface Step by step

You can create an exciting <u>animation</u> effect by applying a digital video file (<u>.AVI</u>) or a <u>generated</u> animation file to a <u>model's surface</u>. You can also add an <u>animation path</u> to the model so that it rotates as it plays the video on its surface. However, this effect can take a lot of time and computer resources (RAM) to generate.

Note If the video is important to your message, make sure your audience is able to watch it before you begin rotating the model. In addition, use a <u>simple model</u> (such as a cube) so that the video can be viewed easily; for example, a video doesn't play well on the surface of a dinosaur model.

To apply a digital video file as a surface:

- 1 Select the model, then from the Models menu, choose Modify Surface & Color.
- 2 In the Surface Pattern tab, select Bitmap Pattern.
- 3 Under Surface Settings, click Browse to open the <u>Import Graphic</u> dialog box. From List Files Of Type, select AVI (*.avi), select a video file from the list box, and then click OK to open the <u>Animated Surface</u> dialog box.
- **4** Set the video's start and end <u>frames</u>, and whether the video loops continuously or freezes on the last frame, then click OK.
- 5 Click OK in the Modify Surface & Color dialog box.
- **6** From the Scene menu, choose <u>Generate Animation</u>, then click OK.

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Command

Modify Surface & Color

Changing a snapshot's color depth or size

Step by step

After you've generated a snapshot, you may want to modify its color depth or size.

You might want to change a snapshot's color depth, for example, if you want to display the same snapshot on different color systems, such as 24-bit (16.7 million colors) and 4-bit (16-colors). For the best results, generate the snapshot at the higher color depth, then convert it to the lower color depth.

Note Try to set your final snapshot size and <u>color palette</u> before you generate it. In general, you can reduce a snapshot's size or color palette successfully; but enlarging a snapshot or increasing color depth may not produce attractive results.

To change a snapshot's color depth or size:

- 1 From the Tools menu, choose Convert Snapshot.
- 2 In the Colors tab, under New Image For Palette, set a new palette. If you are converting a snapshot to 256 colors for an Asymetrix Compel presentation, choose Compel Palette (8-bit). If you are converting a snapshot from 24-bit or 16-bit to 8-bit (256 colors), choose Best 236 Colors (8-bit).
- 3 For Dithering, specify how to dither the snapshot.
- 4 Click the Size tab; under New Image, set a new size, then click OK.

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Step by step
About color in Asymetrix Web 3D
About color palette shift
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Importing a model Step by step

You can import a 3D model file created in another program into your scene. Asymetrix Web 3D supports models created in Autodesk 3D Studio (.3DS) or AutoCAD (.DXF) format.

To import a model:

- 1 From the Models menu, choose Import Model.
- 2 Enter a file name, or select a file from the list.
- 3 Click OK to import the model into your scene.

Note Imported model files often have associated <u>surface</u> mapping files. If Asymetrix Web 3D cannot locate an imported model's associated surface mapping files, the <u>Imported Model Surface</u> dialog box opens automatically. You can assign new files to use as surfaces, or search for the original surface mapping files Asymetrix Web 3D needs.

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Import Model
Imported Model Surface (dialog box)
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Selecting models

Step by step

In Asymetrix Web 3D, you can select one model, multiple models, or a model's sub-parts to work with.

To select a model:

Click the model in the <u>Scene Preview</u> or <u>Scene Contents</u> window.

To select all models in a scene:

From the Edit menu, choose Select All.

To select a sub-part of a model:

- 1 Double-click the model in the Scene Contents window to display its elements. If the model has sub-parts, they will be listed.
- 2 Click a sub-part in the Scene Contents window. The sub-part will also be selected in the Scene Preview window. Using the Position palette, you can <u>move</u>, <u>rotate</u>, <u>scale</u>, <u>warp</u>, or modify the sub-part's <u>surface</u> while it is selected.

To select multiple models or model sub-parts:

Shift+click or Ctrl+click each model or sub-part in the Scene Preview or Scene Contents window.

Step by step
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Select All

Adding a texture to a model's surface

Step by step

You can add a texture to a <u>model's surface</u> by choosing a <u>bump texture</u> to apply. A bump texture can be added to any <u>model</u>, no matter what type of surface it currently has.

To add a bump texture to a model's surface:

- 1 In the Scene Preview or Scene Contents window, select a model to modify.
- 2 From the Models menu, choose Modify Surface & Color, then click the Highlights tab.
- 3 Select a preset Bump Texture file from the Texture list, or click Browse to import a bitmap file as a texture. Bump textures can be found in the Bumps subdirectory of your Catalog directory.
- **4** Select a Tile Bitmap value to determine how many times the texture will be repeated over the surface. The higher the number, the more times the <u>bitmap</u> will be repeated on the surface.
- **5** Click OK to close the dialog box, and apply the bump texture to your model.

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Command

Modify Surface & Color

Making a model a sub-part of another model

Step by step

You can easily create a new model by making one model a sub-part of another in the Scene Contents window.

To make a model a sub-part of another model:

In the Scene Contents window, select the model you want to be a sub-part. <u>Drag</u> the model, then <u>drop</u> it onto a second model. The first model becomes a sub-part of the second model.

To disassociate sub-parts from a model:

- 1 In the Scene Contents window, select the model sub-part you want to disassociate, then drag the sub-part and drop it on the scene icon.
- 2 Repeat Step 1 for all the model sub-parts you want to disassociate.

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Step by step
About the Scene Preview and Scene Contents windows
Selecting models

Modifying a model's surface

Step by step

You can easily modify a model's surface by applying a color, bitmap, or solid material to it.

To modify a surface:

- 1 From the Models menu, choose Modify Surface & Color.
- 2 In the Surface Pattern tab, select Color, Bitmap Pattern, or Solid Material.
 - **Note** If you apply a wood, granite, marble, or rainbow surface to a model, the surface will not be visible until you generate a snapshot or animation of the scene. Also, if you tile a bitmap surface, the surface will not appear tiled until you generate a snapshot or animation of the scene. Bitmap surfaces can be found in the Bitpatrn subdirectory of your Catalog directory.
- 3 Click the <u>Highlights</u> tab, then set Highlight Size, Intensity, Unhighlighted Surface, or a <u>bump texture</u> for the surface.
- 4 Click the Effects tab.
- **5** Under Reflections, choose a preset <u>reflection map</u>; then use the Intensity slider to adjust how reflective the surface is, or use the <u>Transparency</u> slider to make the surface more or less transparent.
- 6 Click OK to close the dialog box.

Note If you add reflections to a model in a scene and want them to appear in a <u>snapshot</u> or <u>animation</u> you <u>generate</u> from it, you must choose <u>Ray Traced</u> or Ray Traced w/<u>Shadows</u> under Snapshot Style in the Quality tab of the <u>Snapshot & Animation Settings</u> dialog box.

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Command

Modify Surface & Color

Making a surface reflective

Step by step

You can make a model's surface reflective using the Asymetrix Web 3D reflection settings.

To make a surface reflective:

- 1 From the Scene menu, choose <u>Snapshot & Animation Settings</u>, then click the Quality tab.
- 2 For Snapshot Style, select Ray Traced, or Ray Traced w/Shadows, then click OK.
- 3 In the <u>Scene Contents window</u>, right-click the surface, then choose <u>Modify Surface & Color</u> from the right-click menu. (If you don't see the model's surface listed, double-click the model's icon to expand it.)
- 4 In the Surface Pattern tab, select Color, then under Surface Settings, select a color to apply.
- 5 In the Effects tab, set the Intensity of the object to Mirror, click Enable Optical Effects When Ray Tracing, and then click OK.
- **6** To see the reflective surface, generate a snapshot of the scene.

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Making a surface reflect a bitmap

Step by step

You can make a <u>model's surface</u> appear to reflect a <u>bitmap</u>. This is an easy way to create <u>scenes</u> that appear complex, but which <u>generate</u> quickly.

To make a surface reflect a bitmap:

- 1 In the <u>Scene Contents window</u>, right-click the surface, then choose <u>Modify Surface & Color</u> from the right-click menu.
- 2 In the Effects tab, click Use Reflection Map, then select a preset <u>reflection map</u>, or click Browse to import a file to use as a reflection. Reflection maps can be found in the Rflctns subdirectory of your Catalog directory.
 Note To make an object reflect both a reflection map and the scene around it, check Enable Optical Effects When Ray Tracing.
- 3 Move the Intensity slider close to Mirror, then click OK.
- **4** To see the reflection map, generate a snapshot of the scene.

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Making all models in a scene reflect a bitmap
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Commands

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Making all models in a scene reflect a bitmap

Step by step

You can make all <u>models</u> in a <u>scene</u> appear to reflect a <u>bitmap</u>. This is an easy way to create scenes that appear complex, but which <u>generate</u> quickly.

To make all models in a scene reflect a bitmap:

- 1 From the Scene menu, choose Snapshot & Animation Settings.
- 2 In the Effects tab, check Use Environment Map, enter the name of an <u>environment map</u> or click Browse to import a file as an environment map, and then click OK. Environment maps can be found in the Rflctns subdirectory of your Catalog directory.
- 3 To see the environment map, generate a snapshot of the scene.

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Making a color surface appear transparent

Step by step

You can make a color <u>surface</u> appear <u>transparent</u> by changing the surface's transparency.

To make a color surface transparent:

- 1 In the <u>Scene Contents window</u>, right-click the surface you want to modify.
- 2 Choose Modify Surface & Color from the right-click menu.
- **3** Click the Effects tab, then move the transparency slider toward Transparent. The change you have made will appear in the Surface Preview box.
- **4** Move the transparency slider until you achieve the effect you want, and then click OK to apply it to the surface of your model.
- **5** To see the transparent surface, generate a snapshot of the scene.

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Modifying a model's surface
Submerging a model in "water"

Commands

Generate Snapshot Modify Surface & Color

Making a solid material surface transparent

Step by step

You can make a solid material <u>surface</u> appear transparent by changing the opacity of one of its grain or vein colors.

Note You can only change the opacity of colors in Marble, Granite, or Wood solid material surfaces: you cannot set the opacity of colors in the Rainbow solid material surface.

To make a solid material transparent:

- 1 In the Scene Contents window, right-click the surface you want to modify.
- 2 Choose Modify Surface & Color from the right-click menu, then click Solid Material.
- **3** Under Surface Settings, select a color element (such as stone, vein, or grain color) to adjust, then click its color button to open the <u>Color Wheel</u> dialog box.
- **4** Set the color's Opacity (values between 1 and 15 simulate the transparency of air, values between 100 and 120 simulate the transparency of glass, and values between 130 and 140 simulate the transparency of water); then click OK.
 - The change you have made will appear in the Surface Preview box.
- **5** Repeat Steps 3 and 4 until you achieve the effect you want, then click OK to apply it to the surface of your model.
 - **Note** You must set the <u>Snapshot</u> Style to <u>Ray Traced</u> or Ray Traced w/<u>Shadows</u> in the <u>Snapshot & Animation</u> <u>Settings</u> dialog box to see <u>lights</u> reflect and <u>refract</u> correctly in the <u>scene</u>.
- 6 To see the transparent surface, generate a snapshot of the scene.

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Applying a surface to a model
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Making a scene and backdrop appear smoky
Making a scene and backdrop appear snowy
Making a surface reflect a bitmap
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Modifying a model's surface

Commands

Generate Snapshot Modify Surface & Color

Creating a "glass" surface

Step by step

You can quickly create the appearance that a <u>model</u> is made of glass using a modified <u>surface</u> and the <u>Ray Traced</u> or Ray Traced w/<u>Shadows</u> generating style.

Note A <u>backdrop</u> will never appear distorted when viewed through a transparent surface. To create the effect of a distorted backdrop, create a wall model and place it at the rear of your <u>scene</u>.

To create a "glass" surface:

- 1 Create a model, then from the Models menu, choose Modify Surface & Color.
- 2 In the Surface Pattern tab, select Color; then under Surface Settings select a color for your model.
- 3 In the Effects tab, move the Transparency slider almost to Transparent, then click OK.
- 4 Generate a <u>snapshot</u> of the scene using the Ray Traced or Ray Traced w/Shadows Snapshot Style to see your results.

Step by step<u>About creating 3D graphics with Asymetrix Web 3D</u> About surfaces
Adding a wall or floor
Making a color surface appear transparent

Command

Modify Surface & Color

Creating a reflection or environment map of a scene

Step by step

You can quickly create <u>snapshots</u> that appear to have complex <u>ray traced</u> reflections without actually ray tracing the entire <u>scene</u>. Start by <u>generating</u> one ray traced snapshot of a scene. Then, use the snapshot as a <u>reflection</u> or <u>environment map</u> for another scene that contains the <u>models</u> you want, and generate the scene using the Realistic or Realistic w/Shadows Snapshot Style.

To create a reflection or environment map of a scene:

- Create the scene you want to reflect.
- 2 From the Scene menu, choose Generate Snapshot.
- **3** Set the Snapshot Style to Ray Traced or Ray Traced w/<u>Shadows</u>, then click OK. When the snapshot is generated, <u>save</u> it.

To apply the snapshot as a reflection map:

- 1 Create a new scene that contains the model you want to reflect the snapshot.
- 2 Select a model, then from the Models menu, choose Modify Surface & Color.
- 3 In the Effects tab, click Use Reflection Map, enter the snapshot's file name in the File box, and then click OK.
- 4 From the Scene menu, choose Generate Snapshot.
- 5 Set the Snapshot Style to Realistic or Realistic w/Shadows, then click OK.

To apply the snapshot as an environment map:

- 1 Create a new scene that contains the models you want to reflect the snapshot.
- 2 From the Scenes menu, choose Snapshot & Animation Settings.
- 3 In the Effects tab, click Use Environment Map, enter the snapshot's file name in the File box, and then click OK.
- 4 From the Scene menu, choose Generate Snapshot.
- **5** Set the Snapshot Style to Realistic or Realistic w/Shadows, then click OK.

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Modifying a simple model's shape Step by step

You can quickly modify the shape of a simple model, such as a cube, sphere, or ring.

To modify a simple model's shape:

- 1 Select a simple model in the <u>Scene Preview</u> or <u>Scene Contents</u> window.
- 2 From the Models menu, choose Modify Model to open the appropriate dialog box.
- 3 Modify the model's values, then click Update to see how the model's shape will be changed.
- 4 When you've achieved the effect you want, click OK to apply the changes to your model.

Step by step
About simple models

Commands

Modify Cube (dialog box)
Modify Cylinder (dialog box)
Modify Ring (dialog box)
Modify Sphere (dialog box)

Modifying an imported model

Step by step

You can modify the surfaces of an imported model's <u>meshes</u> if you are having difficulty displaying it. A model you import into Asymetrix Web 3D may have the following problems:

- Meshes that don't all face the same direction, so that the model appears to have holes in it.
- Reversed meshes, so that a sub-part of the model is not visible when you display it in Solid Models view, or generate a snapshot.
 - Meshes that should be smooth but are faceted, so that a curved surface appears very angular.
- Meshes that should be faceted but are smooth, such as corners that meet in curves rather than angles. You can also modify the meshes of an imported model to change the way it looks. For example, you can subdivide a mesh so that it appears smoother.

To make a model's meshes face the same direction:

- 1 Select an imported model or one of its meshes in the Scene Contents window.
- 2 From the Models menu, choose Modify Model to open the Modify Imported Model dialog box.
- 3 Click Unify Normals, then click OK.
 If you can't see the model or mesh in Solid Models view, follow the procedure for reversing a model's meshes below.

To reverse a model's meshes:

- 1 Select an imported model or one of its meshes in the Scene Contents window.
- 2 From the Models menu, choose Modify Model to open the Modify Imported Model dialog box.
- 3 Click Flip Normals, then click OK.

To smooth a model's meshes:

- 1 Select an imported model or one of its meshes in the Scene Contents window.
- 2 From the Models menu, choose Modify Model to open the Modify Imported Model dialog box.
- 3 Click Weld, then click OK.

To facet a model's meshes:

- 1 Select an imported model or one of its meshes in the Scene Contents window.
- 2 From the Models menu, choose Modify Model to open the Modify Imported Model dialog box.
- 3 Click Melt, then click OK.

To sub-divide a model's meshes:

- 1 Select an imported model or one of its meshes in the Scene Contents window.
- 2 From the Models menu, choose Modify Model to open the Modify Imported Model dialog box.
- 3 Click Sub-divide, then click OK.

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Step by step
About imported models Adding a preset model Importing a model

Commands

Import Model
Imported Model Surface (dialog box)
Modify Imported Model (dialog box)

Modifying a backdrop

Step by step

You can modify a scene's backdrop to add interest to a scene.

To modify a backdrop:

- 1 From the Scene menu, choose Modify Backdrop.
- 2 Under Style, set the backdrop to Default White, Color, <u>Gradient</u>, or Picture:
 - For Solid Color, click the button to set the backdrop to a color.
- For Gradient, click the button to open the <u>Backdrop Gradient</u> dialog box, then select a Gradient Style to apply. Under Color Options, set the colors used in the gradient, then click OK.
- For Picture, click Browse to select a file, click the Picture Options button to set how the <u>bitmap</u> fits in the backdrop, and then click OK.
 - 3 Click OK to close the Modify Backdrop dialog box and apply your changes.

Step by step About Asymetrix Web 3D

Adding a backdrop
Adding a wall or floor

Commands

Backdrop
Backdrop Gradient (dialog box)
Modify Backdrop

Modifying a light

Step by step

You can modify a <u>light's</u> direction, brightness, or color.

To modify a light:

- 1 From the Scene menu, choose Modify Lights.
- 2 Under Light Name(s), select a light to modify.
- 3 Under Settings, set the Intensity (or brightness); click the Color button to select a color for the light.
- 4 If you selected a directional light (not Ambient), click in the Preview & Set Light Direction box to move the light to the position you want.
- **5** To briefly preview the effect of all lights added to the <u>scene</u>, click the Show All Lights button.
- 6 Click OK to close the dialog box and apply your changes.

Note As Asymetrix Web 3D generates a scene with shadows, the progress indicator tracks the calculation of shadows for each light in the scene.

Step by step<u>About creating 3D graphics with Asymetrix Web 3D</u>

Adding lights

Create Ambient Light
Create Directional Light
Modify Lights

Adding a wall or floor

Adding a wall or floor to your <u>scene</u> can define the scene's depth and <u>perspective</u>. Because walls and floors are models, they are affected by lights and shadows. Other models can also be moved behind a wall or under a floor.

To add a wall or floor to a scene:

- 1 From the Models menu, choose Create Simple Models, then choose Plane.
- 2 Using the Position palette, rotate, move, and scale the plane until it resembles a wall or floor.

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Adding a preset model
Arranging a model in a scene
Resetting a model's location, rotation, or scale

Commands

Create Simple Model submenu Modify Cube (dialog box) Position Palette

Submerging a model in "water"

Step by step

You can quickly create the appearance of a model submerged in water by modifying a plane.

To submerge a model in "water":

- 1 From the Models menu, choose Create Simple Models, then choose Plane.
- 2 Using the Position palette, rotate, move, and scale the plane until it resembles a floor.
- **3** From the Models menu, choose Modify Model, which for a plane opens the <u>Modify Cube</u> dialog box, enter a value of 1 for Size Z, and then click OK.
- 4 From the Models menu, choose Modify Surface & Color.
- 5 In the Surface Pattern tab, select Color, and then click blue.
- **6** In the Effects tab, move the Transparency slider slightly more than halfway toward Transparent, and then click OK to close the Modify Surface & Color dialog box.
- 7 Create the model you want to submerge in the water, then in <u>Solid Models</u> view, move the model until it intersects the plane.
- 8 Generate a snapshot of the scene using any snapshot style except Ray Traced or Ray Traced w/Shadows to see your results.

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Solid Models

Making a scene and backdrop appear smoky

Step by step

You can create the appearance of smoke over a <u>scene</u> and <u>backdrop</u> by placing a plane with a partially transparent pattern in front of the scene.

Note You can also use the Fog effect in the <u>Snapshot & Animation Settings</u> dialog box to add an appearance of fog or smoke to a scene; however, Fog does not affect backdrops, so scenes with backdrops may not look realistic.

To make a scene and backdrop appear smoky:

- 1 Create a scene that includes the models you want.
- 2 From the Models menu, choose Create Simple Model, then choose Plane.
- **3** Using the Position palette, rotate, move, and scale the plane until it resembles a wall in front of all the other models in your scene.
- 4 From the Models menu, choose Modify Surface & Color.
- 5 In the Surface Pattern tab, select Solid Material, then select Marble from the list.
- **6** Under Surface Settings, set the Scale slider all the way left, the Vein Curliness slider all the way right, and the Grainline to Face.
- 7 Set Stone to 70, then click the Color button to open the <u>Color Wheel</u> dialog box; set the Opacity to 60, then click OK.
- **8** Click the vein color button to open the Color Wheel dialog box; move the Lightness slider to the top, set Opacity to 255, and then click OK.
- 9 Click OK to close the Modify Surface & Color dialog box.
- 10 Generate a snapshot of the scene to see your results.

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Resetting a model's location, rotation, or scale

Commands

Create Simple Model submenu
Generate Snapshot
Modify Surface & Color
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Snapshot & Animation Settings

Making a scene and backdrop appear snowy

Step by step

You can create the appearance of snow over a <u>scene</u> and <u>backdrop</u> by placing a plane with a partially transparent pattern in front of the scene.

Note This effect works best against a dark backdrop.

To make a scene and backdrop appear snowy:

- 1 Create a scene that includes the models you want.
- 2 From the Models menu, choose Create Simple Model, then choose Plane.
- 3 Using the Position palette, rotate, move, and scale the plane until it resembles a wall in front of all the other models in your scene.
- 4 From the Models menu, choose Modify Surface & Color.
- 5 In the Surface Pattern tab, select Solid Material, then select Granite from the list.
- **6** Under Surface Settings, set Stone to 90, then click the color button to open the <u>Color Wheel</u> dialog box; set Opacity to 2, then click OK.
- 7 Set Grain 2 to 10 (Grains 1 and 3 will be 0), then click the Grain 2 color button to open the Color Wheel dialog box; move the Lightness slider to the top, set Opacity to 255, and then click OK.
- 8 Generate a snapshot of the scene to see your results.

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Commands

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Creating models that appear to be lights

Step by step

In addition to using preset lights from the Catalog, you can create <u>models</u> that appear to be directional <u>lights</u>.

Note These models only appear to be lights, and do not add any actual light to a scene.

To create models that appear to be lights:

- 1 From the Models menu, choose Create Simple Model, then choose Cone or Cylinder.
- 2 Using the Position palette, rotate, move, and scale the model until it appears in the location you want.
- 3 From the Models menu, choose Modify Surface & Color.
- 4 In the Surface Pattern tab, select Color, then under Surface Settings, click white.
- 5 In the Effects tab, move the Transparency slider approximately halfway toward Transparent, then click OK.
- 6 Generate a snapshot of the scene to see your results.

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Adding a preset model
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Resetting a model's location, rotation, or scale

Commands

Generate Snapshot
Modify Cylinder (dialog box)
Modify Surface & Color
Position Palette

Including only a model's shadow in a scene

Step by step

You can form a scene in which a model casts a shadow, but the model itself does not appear.

To include only a model's shadow in a scene:

- 1 From the View menu, choose On Camera Area, then choose 66%.
- 2 Add a wall model and a floor model to the scene, so the shadow has a surface on which to be cast.
- 3 Create the model whose shadow you want to cast.
- **4** In <u>Boxes</u> or <u>Wireframes</u> mode, position the model so that it is above the white area in the <u>Scene Preview</u> window.
- 5 In the <u>Scene Contents window</u>, double-click the <u>Lights</u> icon to display the individual lights, then <u>drag</u> a light, and <u>drop</u> it on the Lights icon to create a copy of it.
- **6** Double-click the icon for the light you just created to open the <u>Modify Lights</u> dialog box, click in the center of the Preview & Set Direction box to place the light directly above the scene, and then click OK.
- 7 From the Scene menu, choose Generate Snapshot.
- 8 Under Style, select Realistic w/Shadows or Ray Traced w/Shadows, then click OK.

Note As Asymetrix Web 3D generates a scene with shadows, the progress indicator tracks the calculation of shadows for each light in the scene.

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About creating 3D graphics with Asymetrix Web 3D
About the Scene Contents window
Arranging a model in a scene
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Commands

Boxes
Create Simple Model submenu
Generate Snapshot
Modify Lights
Wireframes

Creating and modifying a Catalog

Step by step

You can create a new Catalog of scene elements to use, or modify the Asymetrix Web 3D Catalog.

To create a new Catalog:

From the File menu, choose New Catalog.

To add elements to a new or existing Catalog:

Drag any scene element from the Scene Contents window and drop it in the Catalog you want. The element will automatically be placed in the appropriate Catalog tab.

You can store any type of scene element in the User tab of a Catalog. For example, you can place all the surfaces, models, backdrops, and lights you use most frequently in the User tab so you can find them quickly.

To store an element in the User tab of a Catalog:

- 1 Click the User tab in a Catalog.
- 2 Drag any scene element from the Scene Contents window and drop it in the User section of the Catalog.

To remove elements from a Catalog:

Select any scene element in the Catalog, then press Del. Asymetrix Web 3D displays a warning that deleting a Catalog entry cannot be undone. You are given the choice of deleting both the entry and its actual file, or just the entry.

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About the Scene Contents window
Selecting models

Commands
Catalog
New Catalog

Generating a 32-bit snapshot

Step by step

You can use Asymetrix Web 3D to generate 32-bit snapshots in .TGA format. Snapshots in .TGA format contain 24 bits of color information, and 8 bits of transparency (alpha-channel) information.

To generate a 32-bit snapshot:

- 1 From the Scene menu, choose Generate Snapshot.
- 2 Under Style, select a Realistic or Ray Traced generating style.
- 3 Under Generate Image Of, select whether to generate the current scene, or create a snapshot from a <u>frame</u> of <u>animation</u>. Use the <u>Animation palette</u> to go to the frame (its number appears in the Scene Preview window status bar).
- 4 Under Destination, click Generate To File, then enter a file name with a .TGA extension.
- **5** Click OK to generate the snapshot.

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Step by step About Asymetrix Web 3D Building a scene Generating complex or large snapshots
Previewing a snapshot

Commands

Generate Snapshot
Preview Snapshot
Snapshot & Animation Settings

About Asymetrix Web 3D

Concepts

In Asymetrix Web 3D, you create and arrange 3D <u>models</u> in the <u>Scene Preview window</u> to build a <u>scene</u> for use in World Wide Web pages. After you've created a scene, you can also <u>generate</u> a <u>snapshot</u> or <u>animation</u> from it for other uses, such as in multimedia presentations, CD-ROM projects, or word-processing documents.

Asymetrix Web 3D provides tools for creating scenes, including

- the Scene Preview window, which gives you the best idea of what your generated snapshot or animation will look like. You arrange, edit, and manipulate models in the Scene Preview window.
- the <u>Scene Contents window</u>, which lists all scene attributes such as the <u>backdrop</u>, <u>lights</u>, and <u>soundtrack</u>; and all models and their attributes such as <u>surfaces</u>, <u>warps</u>, and <u>animation paths</u>. (To view details of an element's attributes in the Scene Contents window, double-click it.)
- the <u>Catalog</u> window, which contains predefined scene elements you can <u>drag and drop</u> into the Scene Preview or Scene Contents window.
- the <u>Position palette</u>, which contains tools that <u>rotate</u>, <u>move</u>, and <u>scale</u> models in the Scene Preview window.
- the Animation palette, which contains tools that play animations in the Scene Preview window.

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About the Position palette
About the Scene Contents window
Building a scene
Generating a snapshot
Generating an animation
Working in Asymetrix Web 3D

Commands

Animation Palette
Catalog
Position Palette
Scene Contents

About animation in Asymetrix Web 3D

Concepts

You create <u>animation</u> in Asymetrix Web 3D by applying <u>animation paths</u> to <u>models</u>, then <u>generating</u> an animation. Animation paths are a set of instructions that tell a model how to move, whether to spin, and if the motion starts or ends outside the <u>scene</u>. One animation path of a model must completely finish before another can start; however, multiple models can be animated at the same time. The duration of the animation generated from a scene is determined by the model in the scene with the longest sequence of animation paths.

Asymetrix Web 3D generates an animation by generating a <u>snapshot</u> of a scene, adding the data to its .AVI file, moving all the models in the scene one <u>frame</u> along their paths, and then repeating the process.

Adding a soundtrack to an animation Animating a model Animating sub-parts of a model

Generating an animation

Modifying a model's animation path
Modifying a model's animation path sequence

Previewing an animation
Printing a frame of an animation

Staggering when models enter a scene

Commands

Animation Palette Generate Animation Modify Animation Preview All Frames

Preview Animation

About color in Asymetrix Web 3D

Concepts

You can create images in Asymetrix Web 3D in these color resolutions:

- 1-bit (black and white)
- 4-bit (16 colors)
- 8-bit (256 colors)
- 16-bit (65,536 colors)
- 24-bit (16.7 million colors)

Color resolution is determined by the number of bits that define each pixel. The more bits per pixel, the higher the resolution. Higher resolution means more colors can be included in the image, making the image more realistic, but it also requires more memory to store.

If you plan to display a <u>snapshot</u> online, you should <u>generate</u> it using the same number of colors or resolution as the target system on which you will display it. To set the snapshot's <u>color palette</u>, choose <u>Snapshot & Animation</u> <u>Settings</u> from the Scene menu, click the Color tab, and then select a color palette that contains the same number of colors or resolution as the target system.

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About Asymetrix Web 3D
About color palette shift
Changing a snapshot's color depth or size
Generating a snapshot

Commands

Convert Snapshot
Generate Snapshot
Snapshot & Animation Settings

About color palette shift

Concepts

If you display one <u>snapshot</u> or <u>animation</u> onscreen and then immediately display another, you may notice that the colors in the first image shift or distort onscreen. The distortion is called palette shift and may occur when you display images on an 8-bit display device.

An 8-bit display device can show any color from a selection of more than 16 million, but it can show only 256 of those colors at one time. It stores the 256 colors it's currently using in a color table, called a system or hardware palette.

When you create a snapshot or animation, Asymetrix Web 3D creates a <u>color palette</u> containing the snapshot's or animation's colors. The color palette determines the color of each pixel.

If you display an image on an 8-bit display device, the system palette and the image's color palette have to reconcile their colors. If the colors are similar, only slight changes are made. If the colors are different, the system palette discards its current colors and uses the image's color palette.

Displaying a succession of snapshots or animations that use different color palettes causes palette shifts during the color reconciliation process. The reason is simple: when the system palette replaces the first image's colors with those of the second image, the first image no longer has the colors it needs to display properly.

To prevent palette shifts, create a common palette of 256 colors and apply it to all of the images you're using, including snapshots and animations.

Note Palette shift only occurs on 8-bit display devices. To avoid it, use a 16-bit or 24-bit display device driver.

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About creating 3D graphics with Asymetrix Web 3D Concepts

Three-dimensional (3D) graphics produce the illusion of depth. Programs, such as Asymetrix Web 3D, that produce 3D graphics and <u>animations</u>, contain mathematical formulas for calculating <u>perspective</u> and the interplay of <u>lights</u> and <u>surfaces</u> that contribute to the illusion.

Asymetrix Web 3D creates 3D <u>models</u> by adding depth to flat shapes, such as text or outlines of graphics. The surfaces of the models are composed of polygons, such as triangles and rectangles. After a model has been created, you can cover its surfaces with colors or <u>bitmaps</u> to make it appear more realistic.

The Asymetrix Web 3D work space is called a scene. Your "view" of the scene is called the camera perspective. You can vary the camera perspective to change how the scene appears in the view.

Model's surfaces wouldn't be visible, or appear three-dimensional, without light sources to provide variation in shading. Asymetrix Web 3D provides default lighting for all scenes.

The amount of detail in a scene (such as lights, models, and transparent or reflective surfaces) affects how long it will take to <u>generate</u> a <u>snapshot</u> or animation of it. Asymetrix Web 3D offers several generating styles, which determine how much of a scene's detail is included in a snapshot or animation.

Generating style	Shows	Does not show
<u>Wireframe</u>	Model's geometry, perspective	Surfaces, <u>shadows</u> , applied or <u>ray</u> <u>traced</u> reflections, <u>environment</u> <u>map</u> , <u>dithering</u> , custom <u>color</u> <u>palettes</u> , or fog
Solid Models	Model's geometry, perspective, surfaces with rough color approximations	Shadows, applied or ray traced reflections, environment map, dithering, custom color palettes, or fog
Realistic	Model's geometry, perspective, surfaces, dithering, custom color palettes, fog, applied reflections	Shadows, ray traced reflections
Realistic w/Shadows	Model's geometry, perspective, surfaces, dithering, custom color palettes, fog, applied reflections, shadows	Ray traced reflections
Ray Traced	Model's geometry, perspective, surfaces, dithering, custom color palettes, fog, applied and ray traced reflections	Shadows
Ray Traced w/Shadows	Model's geometry, perspective, surfaces, dithering, custom color palettes, fog, applied and ray traced reflections, shadows	

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Step by step
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About imported models
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About text and picture models
About the Position palette

About file formats supported by Asymetrix Web 3D

Asymetrix Web 3D supports most bitmap, metafile, and animation file formats. The table below lists file formats you can open.

Category	File type	Extension
Bitmap	Bitmap	.BMP
	Device-independent bitmap	.DIB
	Graphics interchange format (8-bit color)	.GIF
	JPEG / JFIF (24-bit color)	.JPG
	PC Paintbrush	.PCX
	TARGA	.TGA
	Tagged image format	.TIF
Metafile	Windows metafile	.WMF
	Adobe Illustrator	.AI
	CorelDraw versions 3.x, 4.x, and 5.x	.CDR
	Computer graphics metafile	.CGM
	Micrografx DRAW!	.DRW
	Encapsulated PostScript	.EPS
	Lotus Picture	.PIC
	Macintosh PICT	.PCT
Video	Audio/video interleaved	.AVI
Catalog	Catalog	.CAT
Scene	Scene	.SCN

The table below lists file formats in which you can save:

Element	File type	Extension
Snapshot	Bitmap	.BMP
	Device-independent bitmap	.DIB
	TARGA	.TGA
	JPEG / JFIF (24-bit color)	.JPG
	Graphics interchange format	.GIF
Animation	Audio/video interleaved	.AVI
	Bitmap	.BMP
	Device-independent bitmap	.DIB
	TARGA	.TGA
	JPEG / JFIF (24-bit color)	.JPG
	Graphics interchange format	.GIF
Catalog	Catalog	.CAT
Scene	Scene	.SCN

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Command

Open Save

About camera perspective

Concepts

The space in an Asymetrix Web 3D <u>scene</u> is almost infinite. The camera perspective you choose (your observation point in the scene) determines how much of the space you see. The space is defined by X (width), Y (height), and Z (depth) axes that meet in an origin. The width and height of the scene at the origin are always approximately 1000 units. You can view a scene using one of three camera perspectives:

- Normal, which places the camera approximately 500 units in front of the origin, and includes 56 degrees of the scene.
- Wide Angle, which places the camera approximately 250 units in front of the origin, and includes 90 degrees of the scene.
- Telephoto, which places the camera approximately 1000 units in front of the origin, and includes 28 degrees of the scene.

You can move <u>models</u> anywhere within the scene space. However, Asymetrix Web 3D cannot draw models if they are placed closer than 385 units from the camera or farther than 100,000 units from the camera.

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Command

Camera Perspective

About simple models

Concepts

A simple model is the geometry that results from an equation for a cube, ring, cylinder, or sphere. Asymetrix Web 3D calculates each equation using default values, then approximates the model's shape using a series of triangles. Each time you modify a simple model using a dialog box, you are changing the values Asymetrix Web 3D uses to draw the model.

The more triangles that compose a simple model (controlled by fineness for spheres, and divisions for cubes, cylinders, and rings), the smoother and more flexible the model becomes. Unfortunately, the more triangles, the more memory (RAM) and time the calculations require. Experiment with the number of triangles to find a value that gives you a good balance between detail and time to generate.

About imported models
About text and picture models

Commands

Create Simple Model submenu
Modify Cube (dialog box)
Modify Cylinder (dialog box)
Modify Ring (dialog box)
Modify Sphere (dialog box)

About text and picture models

Concepts

Asymetrix Web 3D creates text and picture models by adding depth to two-dimensional shapes.

Asymetrix Web 3D creates a text model by drawing an outline of the characters you enter, making a copy of the outined characters to serve as the back face of the model, and then applying a side <u>surface</u> to connect the front and back faces.

Asymetrix Web 3D creates a picture model by first extracting shapes from a graphic file. For a <u>bitmap</u>, Asymetrix Web 3D converts the image to black and white, then <u>traces</u> around the black to create two-dimensional shapes. For a graphic file drawn with polygons and lines (such as a <u>metafile</u>), Asymetrix Web 3D uses the shape information in the source file. A file containing multiple shapes results in a model with <u>sub-parts</u>. Asymetrix Web 3D makes a copy of the shapes in the file to serve as the back face of the model or its sub-parts, then applies a side surface to connect the front and back faces.

Asymetrix Web 3D can also add <u>beveled</u> edges to text and picture models.

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About imported models
About simple models
Creating a picture model
Creating a text model
Importing a model

Commands

Create Text Model
Create Picture Model
Modify 3D
Modify Letter Model (dialog box)
Modify Picture Model (dialog box)
Modify Text Model (dialog box)

About imported models

Concepts

Imported models are 3D clip art <u>models</u> created in other programs, such as Autodesk 3D Studio (.3DS format) and AutoCAD (.DXF format). Imported models have 3D geometry, and may include <u>surface</u> information. You can apply new surfaces, <u>move</u>, <u>scale</u>, <u>rotate</u>, and <u>warp</u> imported models in Asymetrix Web 3D. Imported models are composed of sub-parts called <u>meshes</u>.

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Step by step
About simple models
About text and picture models

Commands
Import Model
Imported Model Surface (dialog box)
Modify Imported Model (dialog box)

About surfaces

Concepts

A <u>model's</u> surface is a thin layer, placed over the model's geometry. A surface can be a color, <u>bitmap</u>, or material. You can also layer additional effects on a surface to change its appearance. Surface layers can include

- a bump texture, which is a bitmap that defines a gray pattern. A bump texture can be placed over a surface to make it appear textured.
- a reflection map, which is a bitmap that defines a simulated reflection. A reflection map can be placed over a model's reflective surface to make the surface appear to reflect the image in the reflection map, rather than the scene.
- an environment map, which is a bitmap that defines a simulated reflection. An environment map is a reflection map that is applied to an entire scene. All models with reflective surfaces in the scene appear to reflect the image in the environment map.

Applying a surface to a model
Adding a texture to a model's surface
Making a surface reflect a bitmap
Making all models in a scene reflect a bitmap
Modifying a model's surface

Commands

Modify Surface & Color Snapshot & Animation Settings

About the Scene Contents window

Concepts

The Scene Contents window lists all scene attributes such as the <u>backdrop</u>, <u>lights</u>, and <u>soundtrack</u>; and all <u>models</u> and their attributes such as <u>surfaces</u>, <u>warps</u>, and <u>animation paths</u>.

Double-clicking each icon in the Scene Contents window will display its elements. Double-clicking an icon's text displays the element's Modify dialog box, if available.

You can also use the Scene Contents window to duplicate or copy some scene elements. You can

- duplicate any model by dragging and dropping its icon onto the Scene icon.
- duplicate any individual light by dragging and dropping its icon onto the Lights icon.
- duplicate any path of a model by dragging and dropping its icon onto the model's Paths icon.
- copy any surface, path, or warp from one model to another by dragging and dropping the surface, path, or warp icon onto the second model's icon.

Note You can change the Scene Contents window font to any font installed on your system. Right-click the Scene Contents window away from all scene elements, choose Select Font, select a font to use, and then click OK.

Icon	Represents	Double-click
,	The entire scene and all its sub-parts	The icon to collapse or expand the view of the scene's elements, or double-click the text to open the Snapshot & Animation Settings dialog box.
	The scene's backdrop	To display the Modify Backdrop dialog box.
•	The soundtrack that will be included with the scene when it is generated as an animation	To select a file to use as a soundtrack in the Modify Soundtrack dialog box.
• 	The group of lights included in the scene	The icon to view the individual lights in the group, or double-click the text to modify the lights.
-<">▶	A single light	The text to modify the light.
\triangle	A text model	The icon to view the model's elements, or double-click the text to display the <u>Create</u> <u>Text Model</u> dialog box.
, 	A picture model	The icon to view the model's elements, or double-click the text to display the Create Picture Model dialog box.
	A simple model based on a sphere	The icon to view the model's elements, or double-click the text to display the <u>Modify</u> <u>Sphere</u> dialog box.
	A simple model based on a cube	The icon to view the model's elements, or double-click the text to display the <u>Modify</u> <u>Cube</u> dialog box.
	A simple model based on a cylinder	The icon to view the model's elements, or double-click the text to display the <u>Modify</u> <u>Cylinder</u> dialog box.
O .	A simple model based on a ring	The icon to view the model's elements, or double-click the text to display the Modify Ring dialog box.
	An imported model	The icon to view the model's elements, or double-click the text to display the Modify Imported Model dialog box.
%	The sub-parts of an imported model	The icon to view the model's elements.

*	A sub-part of an imported model	The icon to view the model's elements, or double-click the text to display the Modify Imported Model dialog box.
	A surface of a model	The text to display the Modify Surface & Color dialog box.
	A sub-part of a model	The icon to view the model's elements, or double-click the text to modify the model.
	A model's group of animation paths	The icon to view the individual paths in the group, or double-click the text to display the <u>Modify Animation</u> dialog box.
	A single animation path	The text to display the Modify Animation dialog box.
	A model's warp	The text to display the <u>Modify Warp</u> dialog box.

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Creating and modifying a Catalog
Making a model a sub-part of another model
Selecting models

Command

Scene Contents

About the Position palette

Concepts

The Asymetrix Web 3D Position palette allows you to <u>rotate</u>, <u>move</u> or <u>scale models</u> in the <u>Scene Preview window</u>. You can use the Position palette in one of three ways:

- Click a tool on the Position palette to change the cursor, then use the mouse to rotate, move, or scale a model.
- Click the expand button
- on the Position palette to display additional graphical control buttons, then click the buttons to rotate, move, or scale a model.
- Click the expand button
- on the Position palette to display additional graphical control buttons; click the graphical/numerical toggle button to switch to numerical controls; and then enter numbers to precisely rotate, move, or scale a model.

Note If you choose to use the Position palette's numerical controls to rotate a model, you may notice that entering a value greater than 90 degrees for rotation about the Y-axis rotates the model to the position you indicated, but Asymetrix Web 3D changes the X, Y, and Z values you see.

Due to mathematical constraints in the way Asymetrix Web 3D calculates a model's orientation, rotation about the Y-axis is never expressed as a rotation greater than 90 degrees, or less than -90 degrees. When you enter a value greater than 90 for rotation about the Y-axis, Asymetrix Web 3D expresses the orientation in terms of rotation about the X and Z axes.

For example, when you rotate a model 180 degrees about its Y-axis, its orientation can also be expressed as rotating 180 degrees about the X-axis, 0 degrees about the Y-axis, and 180 degrees about the Z-axis.

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About the Scene Preview window

Concepts

The Asymetrix Web 3D Scene Preview window is where you do the majority of the work to create a <u>scene</u>. In the Scene Preview window, you can

- arrange, edit, and manipulate <u>models</u>, <u>surfaces</u>, <u>backdrops</u>, and other scene elements to create a 3D scene.
- drag models from the <u>Catalog</u> directly into the scene to work with them.
- right-click on a scene element to access commands for modifying the element's attributes.
- view your scene from the <u>camera's perspective</u> to give yourself an idea of what your 3D graphic will look

like.

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About the Catalog window

Concepts

The Asymetrix Web 3D Catalog window contains preset <u>scene</u> elements such as <u>models</u>, <u>surfaces</u>, <u>lights</u>, <u>paths</u>, scenes, and <u>backdrops</u>. You can <u>drag</u> scene elements from the Catalog window and drop them into the <u>Scene Preview</u> or <u>Scene Contents</u> window.

Once you have created a scene or scene element, you can add it to the Catalog or create additional catalogs. For instructions, see <u>Creating and modifying a Catalog</u>.

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Creating and modifying a Catalog

Commands

Catalog
Position Palette

About object linking and embedding (OLE) Concepts

Object linking and embedding (OLE) enables you to create an object in one application (the <u>server application</u>) and incorporate it into a file from another (the <u>container application</u>). Asymetrix Web 3D is a server application.

If you link a scene, the Asymetrix Web 3D scene information is stored in a different place than if you embed it. Whether you choose to link or embed your project depends on how you plan to use it. Asymetrix Web 3D stores

- embedded scenes in the container application's file, which maintains a link to Asymetrix Web 3D. Embed a <u>scene</u> when you want to use it in only one container application, and also want to be able to update it.
- linked scenes in a separate Asymetrix Web 3D file; the container application stores only a reference to the linked scene location, the file name, and the server application name (Asymetrix Web 3D). You can edit the original scene in Asymetrix Web 3D and automatically update all links to the scene in the container application.

Link a scene if you want to use it in a number of container applications.

If you plan to distribute a file that contains a linked or embedded animation, make sure you distribute the

- container application's file.
- generated animation file.
- Asymetrix Web 3D runtime player (WEB3DRUN.DLL), in case the recipient does not have Microsoft Video for Windows or the Media Player.

Note If you import a generated <u>snapshot</u> or animation into another application, rather than embed or link it, the snapshot or animation is stored in the application, without a connection to Asymetrix Web 3D. The only way to change an imported snapshot or animation is to modify the scene in Asymetrix Web 3D, regenerate the snapshot or animation, and then reimport it.

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Displaying a snapshot or animation in a container application
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Embedding a new scene
Embedding or linking an existing scene
Playing a linked or embedded animation
Updating your OLE registration database

About editing scenes in a container application Concepts

Asymetrix Web 3D supports <u>in-place editing</u>, a technique that allows you to edit a <u>scene</u> in the <u>container application</u>. If the container application also supports in-place editing, when you edit the <u>linked</u> or <u>embedded</u> scene, the container application's menus and toolbars are replaced by the Asymetrix Web 3D menus and toolbars.

If the container application does not support in-place editing, Asymetrix Web 3D appears in its own window.

Note Using in-place editing, you cannot change the on-camera area, have multiple <u>Snapshot windows</u> open, or hide the Asymetrix Web 3D toolbar. In addition, the Asymetrix Web 3D File and Window menus are not available.

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Embedding a new scene
Embedding or linking an existing scene
Playing a linked or embedded animation

Updating your OLE registration database