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3D Space Window




The **Three Dimension (3D) Space** window shows the 3D Space as seen through the lens of a video camera. Use the camera tools in the [Walker Toolbox](#), or in the [Plane Walker Window](#) to move the camera about the 3D Space and view [Pictures](#), [Albums](#) and [Movies](#) on the walls. You can also use the [Camera Icon](#) to adjust **Camera Height**, **Tilt**, and **Zoom** qualities, all of which change the view you see in the 3D Space Window.

The **Selected Object Toolbar** contains:



In [Guest Mode](#), click on a **Picture**, **Album**, or **Movie** to select it.

In [Master Mode](#), select the **Default Cursor** tool  in the Walker Toolbox and click on a Picture, Album, or Movie to select it.

3D Space Window: 3D Viewing Area

Shows the cameras view of the **3D Space**.

3D Space Window: 3D Space Name

Contains the **File Name** of the current **3D Space**.

Selected Object Toolbar: Show Menu Tool



Displays the [3D Space Window Menu](#).

Selected Object Toolbar: Play Attached Sound Tool



Plays the [Attached Sound](#) connected to the selected [Picture](#), [Album](#), or [Movie](#). **Play Attached Sound** is enabled when you first select the **Multimedia Object** to which an Attached Sound is connected. You can also play sounds with the **Play Attached Sound Tool**, which is in [Master Mode](#) in the [Walker Toolbox](#) .

Selected Object Toolbar: List Album Tool



Displays the next image in a selected [Album](#). **List Album** is enabled only when the **Album** is selected. You can also use List Album Mode, which is selected using the **List Album Tool** in [Master Mode](#) in the [Walker Toolbox](#).

Selected Object Toolbar: Show True Image Tool



Opens the [True Image Window](#) to display the selected [Picture](#). The **Picture** is displayed in its original size and with its original colors.

See also:

[Walker Toolbox](#): [Show True Image tool](#)

Selected Object Toolbar: View Object Tool



Moves the **Camera** directly in front of the selected **Object**.

See also:

[Walker Toolbox: View Object tool](#)

Selected Object Toolbar: Attachment Editor Tool



Displays the [Attachment Editor Dialog Box](#).

Use this **Dialog Box** to write [Attached Text](#) and connect [Attached Sound](#) (.wav file) to a **Multimedia Object**.

The first part of the Attached Text is displayed in the **Attached Text Box** in the [3D Space Window](#).

An Attached Sound must be no longer than 30 seconds.

Additionally, controls in this dialog box let you attach functions to Multimedia Objects which can then be used as command buttons to modify the current 3D Space or run other programs.

Selected Object Toolbar: Picture Name Box



Displays the **File Name** of the selected **Multimedia Object**.

Selected Object Toolbar: Help



Run **Help**.

3D Space Window: Album Indicator



Indicates that the **Multimedia Object** currently under the cursor is an [Album](#) or [Movie](#).

3D Space Window: Attached Sound Indicator



Indicates that the Object Under Cursor has an [Attached Sound](#).

3D Space Window: Attached Text Box

This box contains the beginning of the [Attached Text](#) for the Object Under Cursor.

If the Object Under Cursor is an [Album](#), you can read the current [Pictures](#) Attached Text by pressing the **<Tab>** key.

3D Space Window: Current Time

Shows the current time.

3D Space Window: On-Line Help

Displays a brief description of the Tool Under Cursors function.

3D Space Window Menu



Displays the **3D Space Window Menu**.

✓ Guest mode
M aster mode
S ettings ...
N ew 3D Space
O pen 3D Space ...
S ave 3D Space ...
C opy all ...
M IDI Player ...
W alking Show ...
E xit

3D Space Window Menu: Guest Mode

Guest Mode allows you to view a 3D Space, but not modify it in any way. [Pictures](#), [Albums](#) and [Movies](#) can be viewed, and [Attached Sounds](#) can be played in Guest Mode. If the 3D Space has [Background MIDI Music](#), music plays while you view a 3D Space.

Selecting the **Guest Mode** enables the following windows and toolboxes:

[3D Space Window](#), which displays the video camera view of the 3D Space.

[Plane Walker Window](#), which displays a [Floor Plan](#) of the 3D Space, and which includes the [Camera Icon](#). Move the camera around the 3D Space by dragging **Pinocchio** by the nose. You can control the **Zoom** of the camera with the **Zoom In** and **Zoom Out** tools above the **Camera Icon**.

[True Image window](#), which displays a **Picture** at its original size and with its original colors. (**True Image** window appears when you select a **Multimedia Object** and click the [Show True Image Tool](#) in the **Selected Object Toolbar**).

[Walker Toolbox \(Guest Mode\)](#), which contains tools for controlling the position of the video camera.

3D Space Window Menu: Master Mode

Master Mode allows you to modify a 3D Space, or build from scratch. You can do everything in Master Mode that you can do in [Guest Mode](#), but you can also create rooms, and place [Pictures](#), [Albums](#), and [Movies](#) on the walls. You can also set up a 3D Space to play [Background MIDI Music](#), and you can connect [Attached Sounds](#) to Pictures.

In addition to the windows and toolboxes enabled in Guest Mode, selecting Master Mode enables the following windows and toolboxes:

[Plane Builder Window](#) (an enhanced version of the [Plane Walker Window](#)), which displays a [Floor Plan](#) of the 3D Space, and includes the [Height Control Tool](#) and the [Camera Icon](#).

You create rooms by drawing them on the Floor Plan.

[Chooser Window](#) displays thumbnails (miniature images) of Pictures, Wallpapers or Movies that you can place on 3D Space walls. You place a Multimedia Object on a wall by dragging its thumbnail from the Chooser Window to the wall.

[Builder Toolbox](#) contains tools for building 3D Spaces.

[Walker Toolbox](#) (Master Mode), which contains additional tools for playing Attached Sounds and viewing objects in the 3D Space, for deleting objects from the 3D Space, and for opening windows that have been closed.

3D Space Window Menu: Settings

Displays the [VHSB Setting Dialog Box](#), which you can use to select **Default Directories** for [Pictures](#), [Attached Sounds](#), and [Background MIDI Music](#) files.

The VHSB Setting Dialog Box also includes options you can use to improve the performance and behavior of the [Chooser Window](#), which you use to select images to place in your 3D Space.

The dialog box also includes an option to customize the Title Screen displayed when **VHSB** is started.

3D Space Window Menu: Copy All

Copies all the files used to build the 3D Space into a selected directory. If the 3D Space is already named, choosing **Copy All** displays the [Select Destination Path Dialog Box](#). If the 3D Space is not named, choosing Copy All displays the [Select Destination Path and File Name Dialog Box](#). Use these dialog boxes to select the directory into which all the 3D Space files are copied. In addition to the 3D Space files, Copy All copies all the **Image**, **Sound**, and **Movie** files used in the 3D Space to the destination directory.

The **Select Destination Path Dialog Box** also includes options you can use to create a distribution floppy disk or network directory that contains the **VHSB** program files as well as the 3D Space data files.

3D Space Window Menu: New 3D Space

Choose this option if you would like to create a new **3D Space** from scratch.

3D Space Window Menu: Open 3D Space

Displays the [Open 3D Space File Dialog Box](#), which is used to locate and open a 3D Space file (.mus).

3D Space Window Menu: Save 3D Space

Displays the [Save 3D Space File Dialog Box](#), which you can use to save the current 3D Space file by a different name. To save changes to the current 3D Space, do not change the name in the **File Name** box, and Click **Yes** when asked whether you want to replace the current file.

3D Space Window Menu: MIDI Player

Displays the [Select MIDI File Dialog Box](#), which you use to select and play a sequence of one or more **MIDI files** to use as [Background MIDI Music](#). The music sequence repeats until you **Stop** it with the **Select MIDI File** dialog box, or until you quit VHSB. The music sequence also continues to play while you play an [Attached Sound](#).

If you do not have a sound card that can play MIDI files, this command is dimmed.

3D Space Window Menu: Walking Show

Opens [Select Walking Show Mode Dialog Box](#) and starts the **Walking Show**. The Walking Show sequence plays until you move the camera anywhere.

3D Space Window Menu: Exit

Quits **VHSB** and returns you to **Windows**.

VHSB Settings Dialog Box



Use **Hotspots** placed on the image to obtain descriptions of the settings you can change using this Dialog Box. VHSB saves all the settings into the [VHSB.INI](#) file and restores them from this file at startup.

VHSB Settings: Browse Button



Displays the [Select Search Path Dialog Box](#) which you use to add a directory for the selected object type.

VHSB Settings: Delete Button



Deletes the directory currently shown in the selected object types directory box from the directory list.

VHSB Settings: Clear All Button



Deletes all the directories in the selected object types directory list.

VHSB Settings: Title Screen File Name

Shows the file name of the currently selected **Startup Image**.

VHSB Settings: Title Screen Browse Button



Displays the [Select Title Screen Dialog Box](#) which is used to locate and select an image file that VHSB displays upon startup.

VHSB Settings: Default Title Screen Button

Default

Restores the default Title Screen.

VHSB Settings: Fast Image Convert

Speeds the display of images in the [3D Space Window](#). This feature uses additional space on your Hard Drive.

VHSB Settings: Fast Chooser Preview Image

Speeds the display of images and changes the behavior of the [Chooser Window](#) so that when you resize the window, the entire window fills with images. By default, only six images are displayed, even when you stretch the window.

VHSB Settings: VHSB Desktop Color Change Button

Displays the standard Windows **Change Color Dialog Box**.

VHSB Settings: VHSB Desktop Color View Area

Shows the currently selected Desktop Color.

VHSB Settings: VHSB Desktop Color Default Button

Default

Restores the default desktop color.

VHSB Settings: Show Plane Builder/Walker

When enabled, shows the [Plane Builder/Walker](#) window on startup.

VHSB Settings: Enable Activate Chooser Window

When enabled, shows the [Chooser Window](#) on startup.

VHSB Settings: Enable Searching Message

When enabled, shows a **Searching For File** message while loading a 3D Space. **Desktop** must be enabled to activate this function.

VHSB Settings: Enable Desktop

When enabled, shows **Desktop** as background.

VHSB Settings: Help



Runs **Help** with this topic.

VHSB Settings: OK



Closes **VHSB Setting Dialog Box** and sets the default [Picture](#), [Attached Sound](#), and [MIDI](#) directories.

VHSB Settings: Cancel



Closes **VHSB Setting Dialog Box** without changes.

VHSB Settings: Loading VHSB in Expert Mode

When enabled, the **3D Space** will be loaded in [Expert Mode](#). The **Start VHSB** window will be skipped.

VHSB Settings: Texture Alias Editor

When enabled, the [Texture Alias Editor Dialog Box](#) can be displayed if the **3D Space** contains any textures.

VHSB Settings: Keep Aspect Ratio

When enabled a resized [Picture](#) retains its original proportions.

VHSB Settings: Enable Log File

When this checkbox is checked, VHSB writes a **Log** file while loading a 3D Space. The Log file contains the list of components (like Pictures or Wallpapers) which could not be found during the loading process. The Log file appears in the same directory as the **MUS** file.

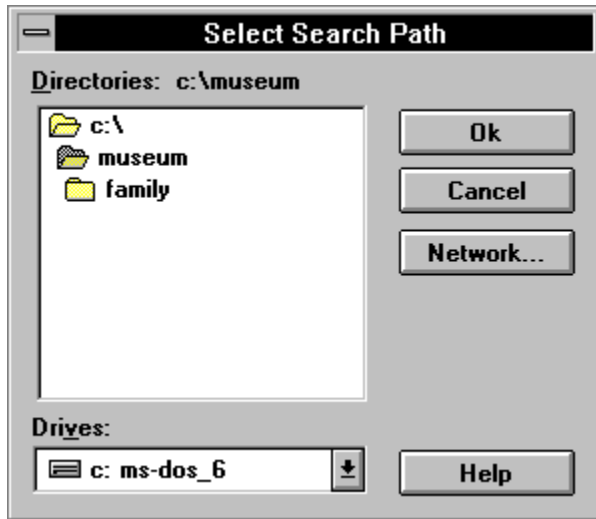
VHSB Settings: Enable Collider

When this checkbox is checked the Collider is enabled so the **Camera** can not move through walls and other obstacles.

VHSB Settings: Play MIDI Upon Startup

When this checkbox is checked, VHSB automatically starts to play **Background MIDI Music** for the given 3D Space on startup.

Select Search Path Dialog Box

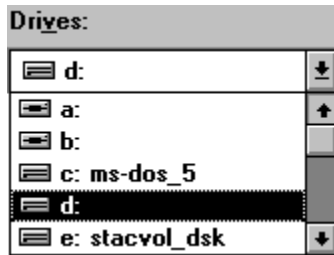


Use this dialog box to add a directory for the selected object type.

Select Search Path: Directories

Is a standard **Windows Directory List**. Double-click on a directory name to select and open the directory. The name of the selected directory appears above the list.

Select Search Path: Drives



Is a standard **Windows Drives List**. Select the drive that contains the directory in which you want to save the 3D Space files.

Select Search Path: Network



Opens a standard Windows **Connect Network Device** dialog box.

Select Search Path: Help



Runs **Help** with this topic.

Select Search Path: OK



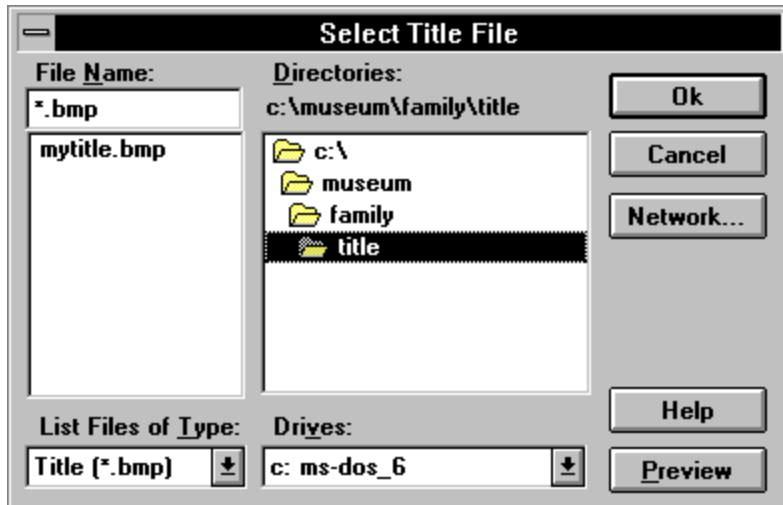
Closes **VHSB Setting** dialog box and saves the directory for the selected object type.

Select Search Path: Cancel



Closes the **VHSB Setting** dialog box without changes.

Select Title Screen Dialog Box



Use this **dialog box** to locate and select an image file that **VHSB** displays during startup.

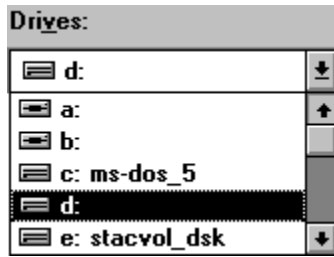
Select Title Screen: File Name

Is a standard **Windows File Name List**. Double-click a **File Name** to select an image file to display during startup. The name of the selected **Title Screen** appears above the list.

Select Title Screen: Directories

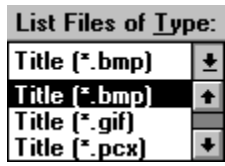
Is a standard **Windows Directory List**. Double-click on a directory name to select and open the directory. The name of the selected directory appears above the list.

Select Title Screen: Drives



Is a standard **Windows Drives List** to select the drive that contains the directory where your **Title Screen** Image is located.

Select Title Screen: List File of Type



Shows the **kind** of files displayed in the **File List**.

Select Title Screen: Preview



Opens the [True Image Window](#) to view the selected **Title Screen File**.

Select Title Screen: Network



Opens a standard Windows **Connect Network Device** dialog box.

Select Title Screen: Help



Run **Help** with this topic.

Select Title Screen: OK



Closes the **Select Title Screen File** dialog box and selects the image file for **VHSB** to display during startup.

Select Title Screen: Cancel



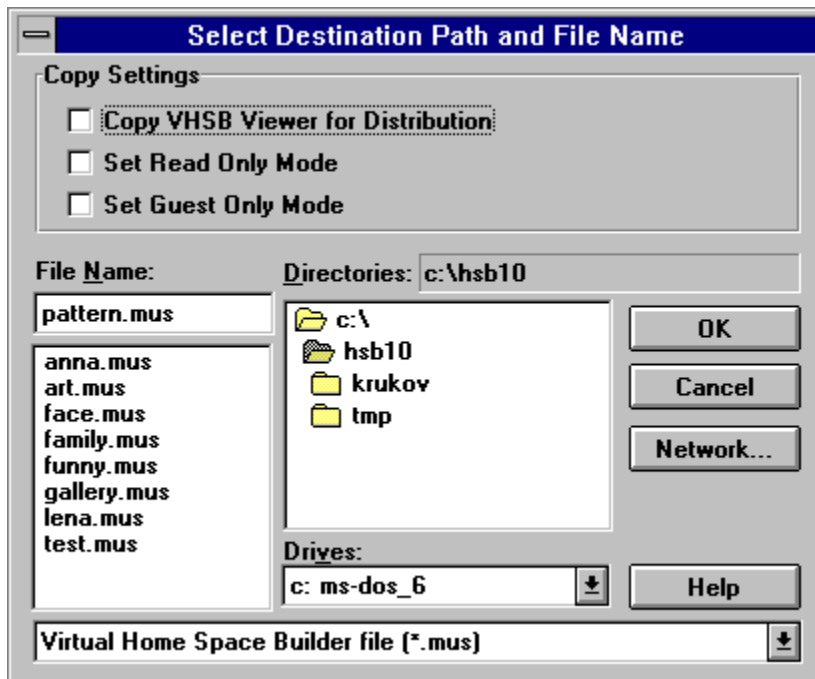
Closes the **Select Title Screen File** dialog box without saving changes.

Select Destination Path Dialog Box



Use this dialog box to locate and select the directory where you want to save your Virtual Home Space Builder files. Use the **Copy Settings** to set up the 3D Space for distribution.

Select Destination Path and File Name Dialog Box



Use this dialog box to locate and select the directory where you want to save your Virtual Home Space Builder files. Use the **Copy Settings** to set up the 3D Space for distribution.

Select Destination Path: File Name

Is a standard **Windows File Name List**. Double-click on a **File Name** to select a **3D Space File**. The name of the selected **3D Space** appears above the list.



Tip

Present if current 3D Space name is **untitled.mus**.

Select Destination Path: Directories

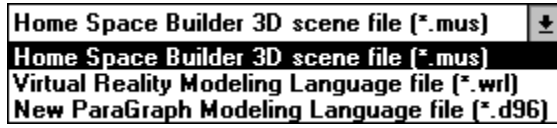
Is a standard **Windows Directory List**. Double-click on a directory name to select and open the directory. The name of the selected directory appears above the list.

Select Destination Path: Drives



Is a standard **Windows Drives List**. Select the drive that contains the directory in which you want to save the 3D Space files from this list.

Select Destination Path: List File of Type



Shows the **kind** of files listed in the **File List**.

Select Destination Path: Network



Opens the standard Windows **Connect Network Device** dialog box.

Select Destination Path: Help



Run **Help** with this topic.

Select Destination Path: Alias Editor

Alias Editor

Displays the [Texture Alias Editor Dialog Box](#), which you use to change the textures alias. The Alias Editor Button is visible only if Texture Alias Editor is enabled in the [VHSB Setting Dialog Box](#).

Select Destination Path: Copy Settings - Copy Executable files

Copies **all** the files necessary to make a distributable floppy disk or network directory. With this option selected, all the data and program (**.exe, .dll**) files necessary to view a 3D Space are copied to the destination directory.

Select Destination Path: Copy Settings - Guest Only mode

Copies the 3D Space files so **VHSB** executes only in [Guest Mode](#) . [Master Mode](#) cannot be selected. User can not modify this **3D Space**.

Select Destination Path: Copy Settings - Read Only Mode

Copies the 3D Space files so that [Pictures](#), [Albums](#), [Movies](#), [Attached Sounds](#), and [Background MIDI Music](#) files can neither be added nor deleted from the 3D Space. You can change the **3D Space** and save it under new name, though.

Select Destination Path: Copy Settings - Copy HSB File

If this checkbox is checked, the **Preview File** (3D Space Thumbnail view) will also be copied to the destination directory.

Select Destination Path: OK



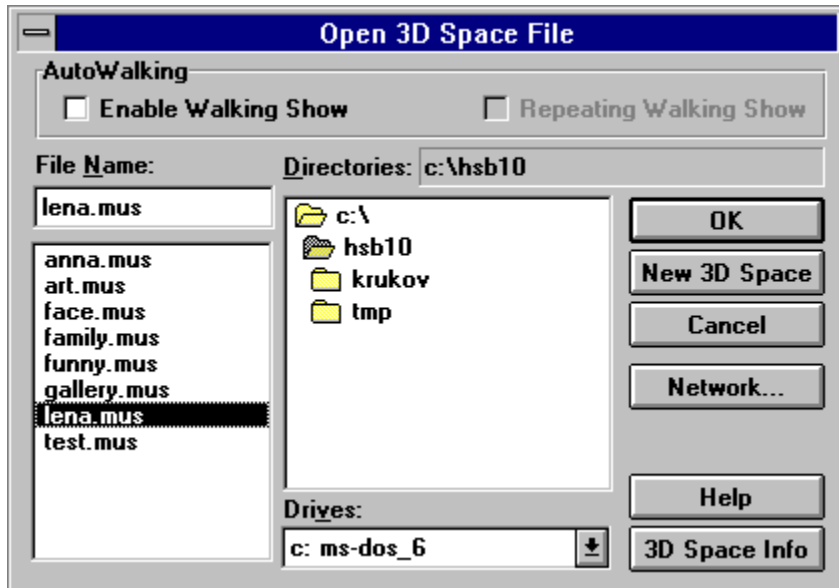
Closes **Select Destination Path Dialog Box** and starts copying. If an error occurs, the **Copy Error Message Box** will appear.

Select Destination Path: Cancel



Closes the **Select Destination Path Dialog Box** without saving.

Open 3D Space File Dialog Box



Use this **Dialog box** to locate and select a 3D Space file to load.

Open 3D Space: Enable Walking Show

Runs the **Walking Show** sequence one time when the 3D Space is loaded.

Open 3D Space: Repeating Walking Show Mode

Starts the cyclic **Walking Show** sequence when the 3D Space is loaded. The **Walking Show** sequence repeats until you move the camera anywhere.

Open 3D Space: File Name

Is a standard **Windows File Name List**. Double-click on a **File Name** to select and load a **3D Space** file. The name of the selected 3D Space appears above the list.

Open 3D Space: Directories

Is a standard **Windows Directory List**. Double-click on a **Directory Name** to select and open the directory. The name of the selected directory appears above the list.

Open 3D Space: Drives



Is a standard **Windows Drives List**. Select the drive that contains the directory from which you want to load the 3D Space files.

Open 3D Space: New 3D Space

New 3D Space

Opens a **New 3D Space** as **Untitled.mus**.

See also:

[Builder Toolbox: New 3D Space tool](#)

Open 3D Space: Network



Opens a standard Windows **Connect Network Device** dialog box.

Open 3D Space: Help



Runs **Help** with this topic.

Open 3D Space: 3D Space Info

3D Space Info

Opens the [3D Space Info Dialog Box](#).

Open 3D Space: OK



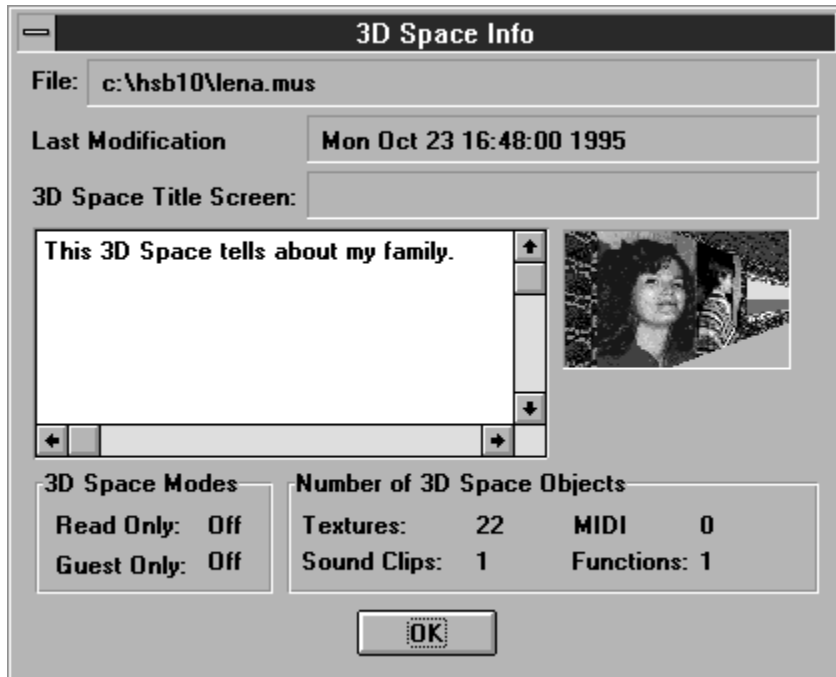
Closes the **Open 3D Space File** dialog box and loads a selected 3D Space.

Open 3D Space: Cancel



Closes the **Open 3D Space File** dialog box without loading.

3D Space Info Dialog Box



Use this Dialog Box to see global **3D Space information**.

3D Space Info: File

Contains the **File Name** of the selected **3D Space**.

3D Space Info: Last Modification Date

Shows the **Date** of the last modification of the **3D Space**.

3D Space Info: Title Screen

Displays the **File Name** of the image file that **VHSB** displays upon startup.

3D Space Info: Text Area

Text area where you read attached text.

3D Space Info: Title Screen Thumbnail View

Displays thumbnail image of the **Title Screen**.

3D Space Info: Read Only Mode

Indicates that selected **3D Space** cannot be modified. You can modify the 3D Space and save it under a new name.

3D Space Info: Guest Only Mode

Indicates that selected 3D Space executes in [Guest Mode](#) only. [Master Mode](#) cannot be selected. User cannot modify this **3D Space**.

3D Space Info: Number of Images

Shows the total number of images in the 3D Space, including the number of [Pictures](#), **Pictures** in [Albums](#), **Frames** in the [Movies](#) and **Textures** as [Wallpaper](#).

3D Space Info: MIDI Files Number

Shows the total number of [MIDI](#) files in the **Play List**.

3D Space Info: Number of Attached Sounds

Shows the total number of [Attached Sounds](#) connected to all **Multimedia Objects** .

3D Space Info: Functions Number

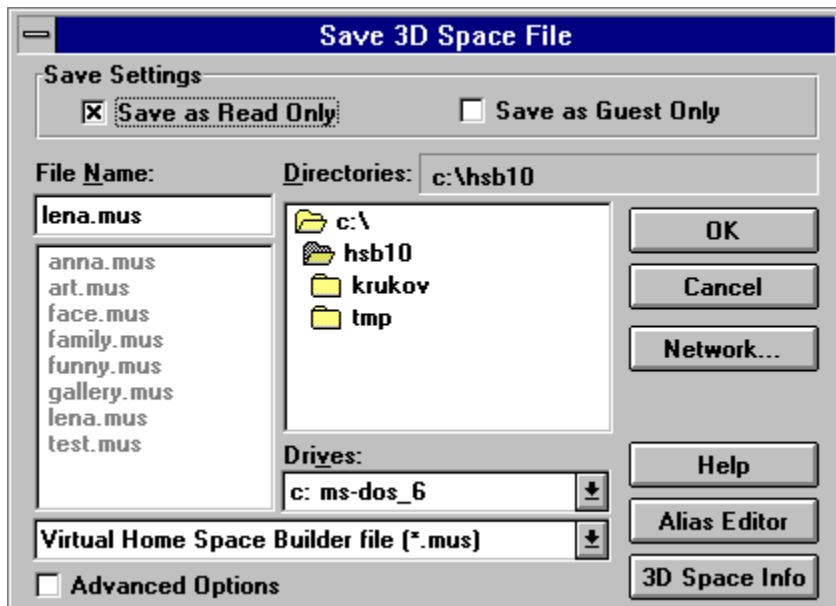
Shows total number of **Functions** attached to all **Multimedia Objects** .

3D Space Info: OK



Closes the **3D Space Info Dialog Box**.

Save 3D Space File Dialog Box



Use this dialog box to select the file name by which you want to save the current 3D Space. Use the **Save Settings** to set up the 3D Space.

Save 3D Space: File Name

Is a standard **Windows File Name List**. Double-click a **File Name** to select and load a **3D Space file**. The name of the selected **3D Space** appears above the list.

Save 3D Space: Directories

Is a standard **Windows Directory List**. Double-click on a **Directory** name to select and open the directory. The name of the selected directory appears above the list.

Save 3D Space: Drives



Is a standard **Windows Drives List**. Select the drive that contains the directory in which you want to save the 3D Space files from this list.

Save 3D Space: List File of Type



Shows the type of files listed in the **File List**.

Save 3D Space: Alias Editor



Displays the [Texture Alias Editor Dialog Box](#), which you use to change a textures alias. The Alias Editor Button is visible only if the Texture Alias Editor is enable in the [VHSB Setting Dialog Box](#).

Save 3D Space: Save Settings - Guest Only Mode

Saves the 3D Space files so **VHSB** can execute in [Guest Mode](#) only. [Master Mode](#) cannot be selected.

Save 3D Space: Save Settings - Read Only Mode

Saves the 3D Space file so that [Pictures](#), [Albums](#), [Movies](#), [Attached Sounds](#), and [Background MIDI Music](#) files can neither be added nor deleted from the 3D Space. User can modify the 3D Space and save it under new name.

Save 3D Space: 3D Space Info

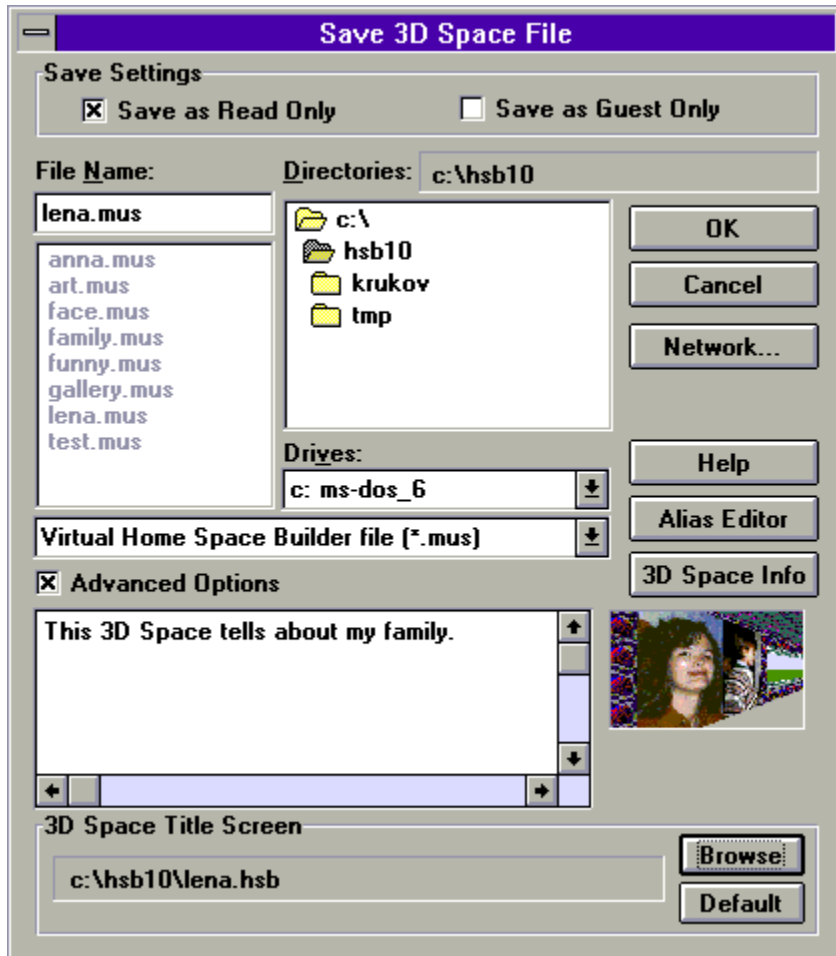
3D Space Info

Opens the [3D Space Info Dialog Box](#).

Save 3D Space: Advanced Options

Selecting this option displays the [Advanced Save 3D Space File Dialog Box](#) which is used to select the image file that **VHSB** displays at startup.

Advanced Save 3D Space File Dialog Box



Use this dialog box to locate and select a **3D Space File** name by which you want to save the current 3D Space. Use the **Save Settings** to set up the 3D Space. Use advanced options to select a **Title Screen** and write Attached Text.

Advanced Save 3D Space: Advanced Options

Deselecting this option displays the ordinary [Save 3D Space File Dialog Box](#).

Advanced Save 3D Space: Attached Text Box

Text area where you enter attached text. Press the **Enter** key for carriage return. The standard Windows editing keys (Ctrl+Z for undo, Ctrl+X for cut, Ctrl+C for copy, and Ctrl+V for paste) do not work in this dialog.

Advanced Save 3D Space: Title Screen Thumbnail View

Displays a thumbnail image of the **Title Screen**.

Advanced Save 3D Space: Title Screen

Contains the **File Name** of the image file that **VHSB** displays upon startup.

Advanced Save 3D Space: Title Screen Browse Button



Displays the [Select Title Screen Dialog Box](#) which you use to locate and select an image file that VHSB displays when it starts.

Advanced Save 3D Space: Default Title Screen Button



Restores the default startup screen.

Save 3D Space: Network



Opens a standard Windows **Connect Network Device** dialog box.

Save 3D Space: Help



Runs **Help** with this topic.

Save 3D Space: OK



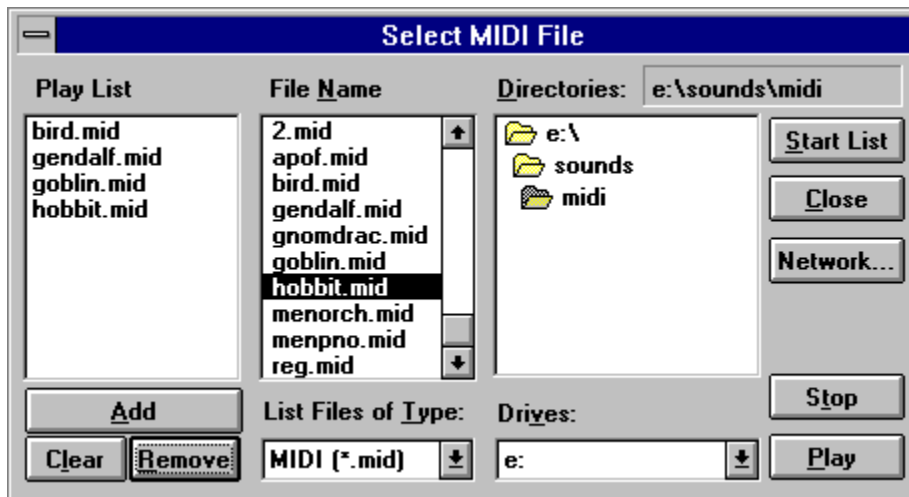
Closes the **Save 3D Space File Dialog Box** and saves the current 3D Space.

Save 3D Space: Cancel



Closes the **Save 3D Space File** dialog box without saving.

Select MIDI File Dialog Box



Use this dialog to select **MIDI** files to play as [Background MIDI Music](#). You can play a single MIDI file over and over, or you can play a sequence of MIDI files over and over.

Note: You need a **Sound Blaster** or compatible sound card to play MIDI music.

Select MIDI: Play List

Is a list of [MIDI](#) files that are played as **Background MIDI Music**. The files are played in the order they are listed. This list begins playing when **Start Playing MIDI List** Button is pushed.

Select MIDI: File Name

Is a standard **Windows File Name List**. Double-click a **File Name** to select a [MIDI](#) file. The name of the selected MIDI file appears in the **Play List**.

Select MIDI: Directories

Is a standard **Windows Directory List**. Double-click a **Directory Name** to select and open the directory. The name of the selected directory appears above the list.

Select MIDI: Add



Adds the **.mid** file currently selected in the **File Name** list to the bottom of the **Play List**.

Select MIDI: Clear



Clears all the [MIDI](#) files in the **Play List**.

Select MIDI: Remove



Removes the [MIDI](#) file currently selected in the **Play List**.

Select MIDI: List File of Type

List Files of Type:

Sounds (*.mid)	↓
Sounds (*.mid)	

Shows the **kind** of files listed in the **File List**, **.mid** files.

Select MIDI: Drives



Is a standard **Windows Drives List**. Select the drive that contains the directory with [MIDI](#) files.

Select MIDI: Start List

Start List

Closes the **Select MIDI File** dialog box and plays all the [MIDI](#) files in the **Play List**. The **Play List** repeats until you quit VHSB or until you return to this dialog box and click **Stop**.

Select MIDI: Close



Stores **Play List** and closes the **Select MIDI File** dialog box without starting the **Play List**.

Select MIDI: Network



Opens the standard Windows **Connect Network Device** dialog box.

Select MIDI: Play



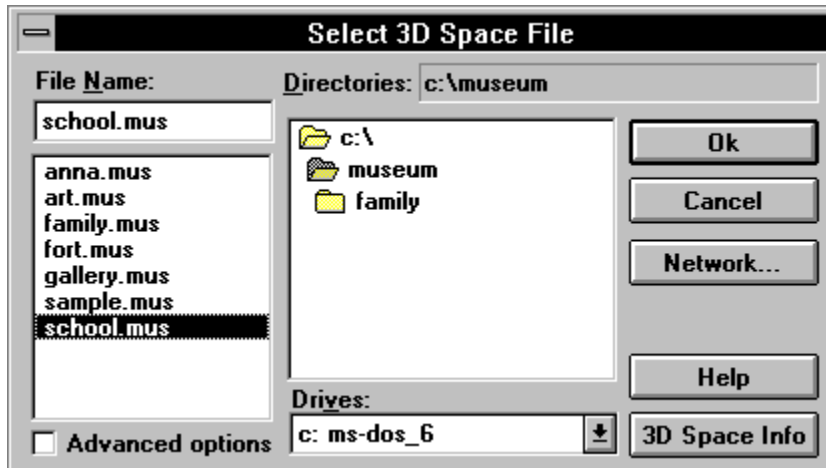
Plays only the selected MIDI file in the **File Name** list.

Select MIDI: Stop



Stops playing [Background MIDI Music](#) from the **File Name** list or **Play List**.

Select 3D Space File Dialog Box



Use this dialog box to locate and select a 3D Space file to attach to the **Function**.

Select 3D Space: File Name

Is a standard **Windows File Name List**. Double-click on a **File Name** to select and load a **3D Space file**. The name of the selected 3D Space appears above the list.

Select 3D Space: Directories

Is a standard **Windows Directory List**. Double-click on a **Directory name** to select and open the directory. The name of the selected directory appears above the list.

Select 3D Space: Drives



Is a standard **Windows Drives list**. Select the drive that contains the directory from which you want to load the 3D Space files.

Select 3D Space: 3D Space Info



Opens the [3D Space Info Dialog Box](#).

Select 3D Space: OK



Closes the **Select 3D Space File Dialog Box** and attaches the selected 3D Space to the **Function**.

Select 3D Space: Cancel



Closes the **Select 3D Space File Dialog Box** without loading.

Select 3D Space: Advanced Options

Selecting this option displays the [Advanced Select 3D Space File Dialog Box](#) which is used to specify options that **VHSB** uses when loading the selected 3D Space.

Select 3D Space: Network



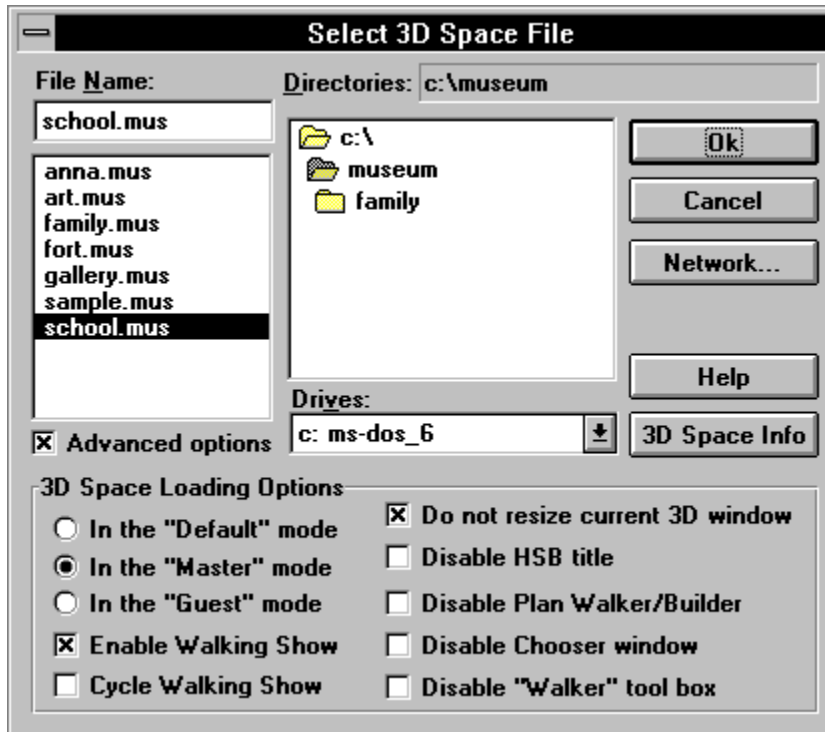
Opens a standard Windows **Connect Network Device** dialog box.

Select 3D Space: Help



Run **Help** with this topic.

Advanced Select 3D Space File Dialog Box



Use this dialog box to specify options that **VHSB** uses when loading the selected 3D Space

Advanced Select 3D Space: In the Default Mode

Selected 3D Space will startup either in Guest Mode or Master Mode, depending on how it was originally saved.

Advanced Select 3D Space: In the Master Mode

Selected 3D Space will startup in Master Mode, regardless of how it was originally saved.

Advanced Select 3D Space: In the Guest Mode

Selected 3D Space will startup in Guest Mode, regardless of how it was originally saved.

Advanced Select 3D Space: Enable Walking Show

Runs the **Walking Show** sequence one time when 3D Space is loaded.

Advanced Select 3D Space: Repeating Walking Show

Starts the cyclic **Walking Show** sequence when the 3D Space is loaded. The **Walking Show** sequence repeats until you move the camera anywhere.

Advanced Select 3D Space: Do not Resize 3D Space Window

The selected 3D Space will startup using the existing size and position of the 3D Space Window, regardless of how it was originally saved.

Advanced Select 3D Space: Disable VHSB Title Screen

Selected 3D Space will startup without showing any **Title Screen**, regardless of how it was originally saved.

Advanced Select 3D Space: Disable Plane Walker/Builder

Selected 3D Space will startup without showing the Plane Walker Window or Plane Builder Window, regardless of how it was originally saved.

Advanced Select 3D Space: Disable Chooser Window

The selected 3D Space will startup without showing the Chooser Window, regardless of how it was originally saved.

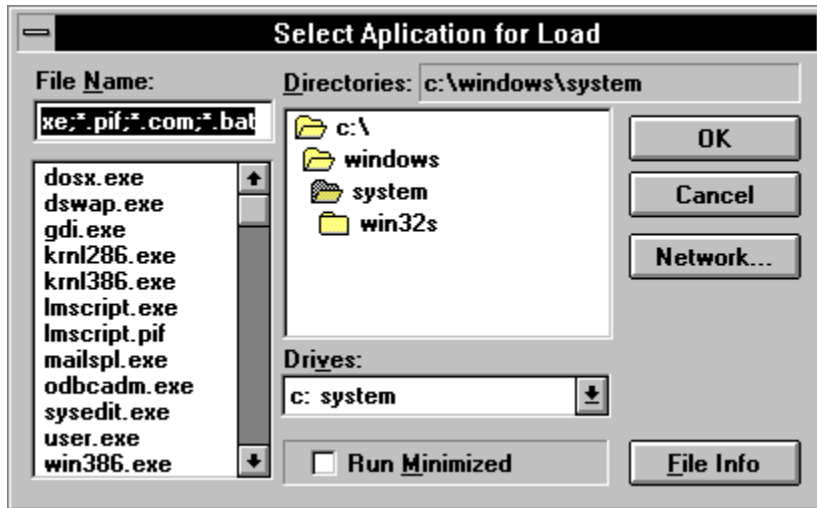
Advanced Select 3D Space: Disable Walker Toolbox

The selected 3D Space will startup without showing the Walker Toolbox, regardless of how it was originally saved.

Advanced Select 3D Space: Advanced Options

Deselecting this option displays the [Select 3D Space File Dialog Box](#) which is used to locate and select a 3D Space file to attach to the **Function**.

Select Application for Load Dialog Box



Use this dialog box to locate and select an application to attach to a [Picture](#) or [Movie](#).

Select Application: File Name

Is a standard **Windows File Name List**. Double-click on a **File Name** to select an application. The name of the selected application appears above the list.

Select Application: Directories

Is a standard **Windows Directory List**. Double-click on a **Directory name** to select and open the directory. The name of the selected directory appears above the list.

Select Application: Drives



Is a standard **Windows Drives list**. Select the drive that contains the directory with your application files from this list.

Select Application: Run Minimized

Attached application will run in the **Minimize Mode**.

Select Application: File Info

Displays additional information about selected application.

Select Application: OK



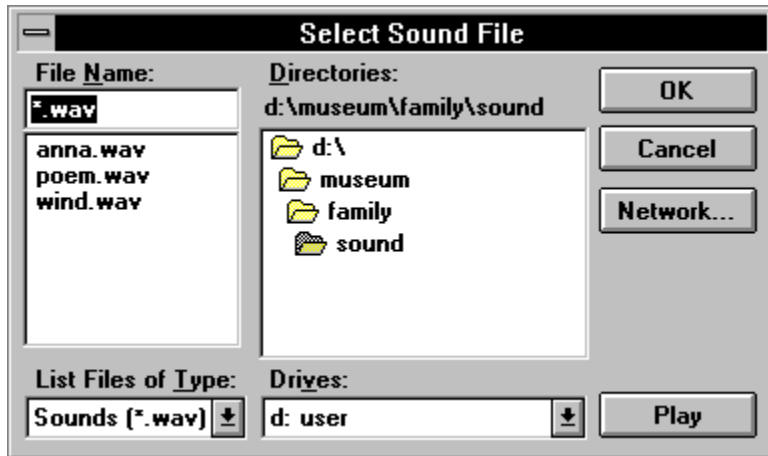
Closes the **Select Application for Load** dialog box and attaches the selected application.

Select Application: Cancel



Closes the **Select Application for Load** dialog box without attaching.

Select Attached Sound File Dialog Box



Use this dialog box to locate and select an [Attached Sound](#) file to attach to a **Multimedia Object**.

Select Attached Sound: File Name

Is a standard **Windows File Name List**. Double-click on a **File Name** to select an [Attached Sound File](#). The name of the selected file appears above the list.

Select Attached Sound: Directories

Is a standard **Windows Directory List**. Double-click on a Directory name to select and open it. The name of the selected directory appears above the list.

Select Attached Sound: Drives



Is a standard **Windows Drives list**. Select the drive that contains the directory with your [Attached Sound](#) files.

Select Attached Sound: List Files of Type

Is a standard **Windows Files of Type list**. Select the Type of [Attached Sound files](#) you want to select.

Select Attached Sound: Play Sound



Plays the selected [Attached Sound](#) (.wav file).

Select Sound: OK



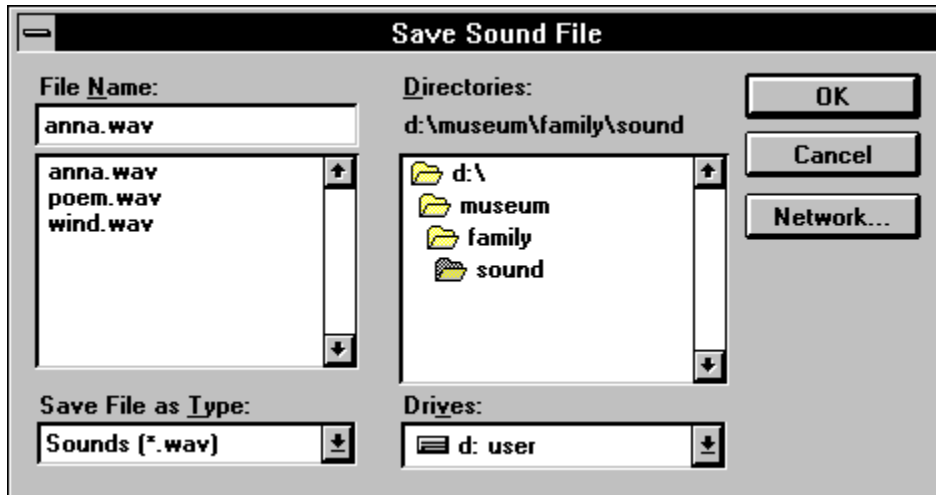
Closes the **Select Attached Sound File** dialog box and attaches the selected [Attached Sound](#).

Select Attached Sound: Cancel



Closes the **Select Attached Sound File** dialog box without attaching.

Save Attached Sound File Dialog Box



Use this **Dialog Box** to save an [Attached Sound](#) file.

Save Attached Sound: File Name

Is a standard **Windows File Name List**. Double-click on a **File Name** to select an [Attached Sound](#) file. The name of the selected file appears above the list.

Save Attached Sound: Directories

Is a standard **Windows Directory List**. Double-click on a Directory name to select and open it. The name of the selected directory appears above the list.

Save Attached Sound: Drives



Is a standard **Windows Drives List**. Select the drive that contains the directory from which you want to select the [Attached Sound](#) file.

Save Attached Sound: List Files of Type

Is a standard Windows **Files of Type list**. Select the **Type** of [Attached Sound](#) file that you want to select.

Save Attached Sound: OK



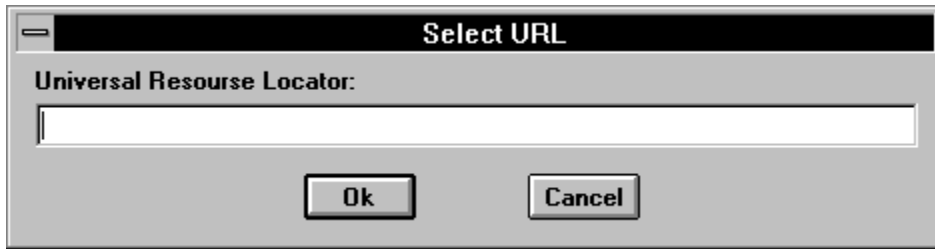
Closes **Save Attached Sound File Dialog Box** and saves the selected [Attached Sound](#).

Save Attached Sound: Cancel



Closes the **Save Attached Sound File Dialog Box** without saving.

Select URL Dialog Box



Use this dialog box to insert a [URL](#) to attach to a **Multimedia Object**.

Select URL: URL

Use this line to input a [URL Name](#).

Select URL: OK



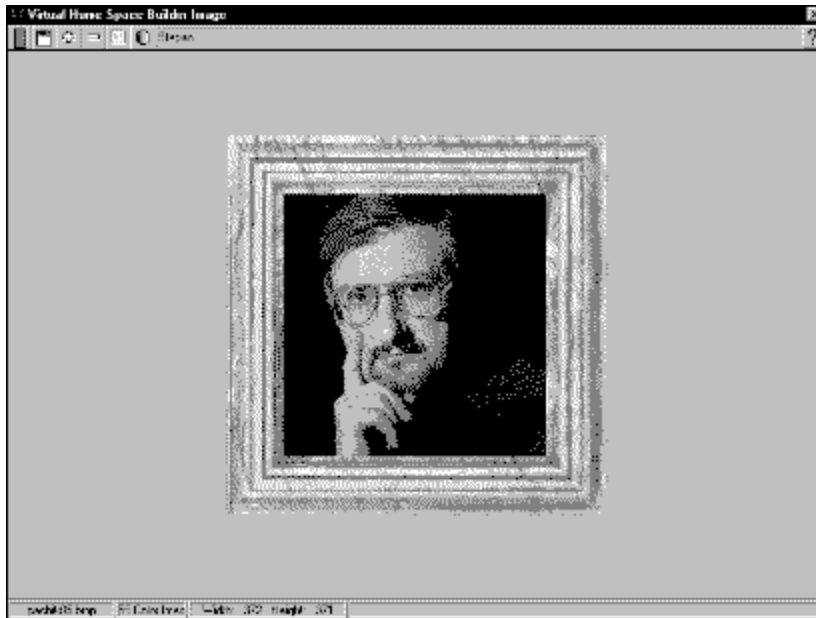
Closes the **Select URL Dialog Box** and attaches it to a **Multimedia Object**.

Select URL: Cancel



Closes the **Select URL Dialog Box** without attaching.

True Image Window



The **True Image Window** displays a [Picture](#) in its original size and with its original colors, as saved in your image file. To display a [Picture](#) in the True Image Window, select a [Picture](#) in the [3D Space Window](#), and click on the **Show True Image Tool** in the **Selected Object Toolbar**. Alternately, you can select **Show True Image Mode** in the [Walker Toolbox](#) and then click on the **Picture**. To close the **True Image Window**, double-click the **System Menu** icon in the upper left corner of the window, or select **Close** item in the System Menu.

True Image Window: Image View

Displays the current image in its original size and with its original colors.

True Image Window: Exit



Quits the **True Image** window and returns to VHSB.

True Image Window: Zoom In Tool



Increases the size of the image.

True Image Window: Zoom Out Tool



Decreases the size of the image.

True Image Window: Real Size Image Tool



Displays the original size of the image.

True Image Window: Change Image Attributes Tool



Displays the [Image Attributes Dialog Box](#), which you can use to change the **Brightness** and **Contrast** of an image. You can also set **Gamma Correction** to compensate for non-linear response of a video display.

True Image Window: Save Image Tool



Displays the [Save Image File Dialog Box](#), which you can use to save the current image under a different name. To save changes to the current image, do not change the name in the **File Name** box and Click **Yes** when asked whether you want to replace the current file.

True Image Window: Attached Text Box

This box contains the beginning of the [Attached Text](#) for the selected Multimedia Object.

True Image Window: Help Tool



Activates the **True Image Window** Help Topic.

True Image Window: File Name Box

Contains the **File Name** of the current image.

True Image Window: Palette Box

Contains the Number of colors in the current image.

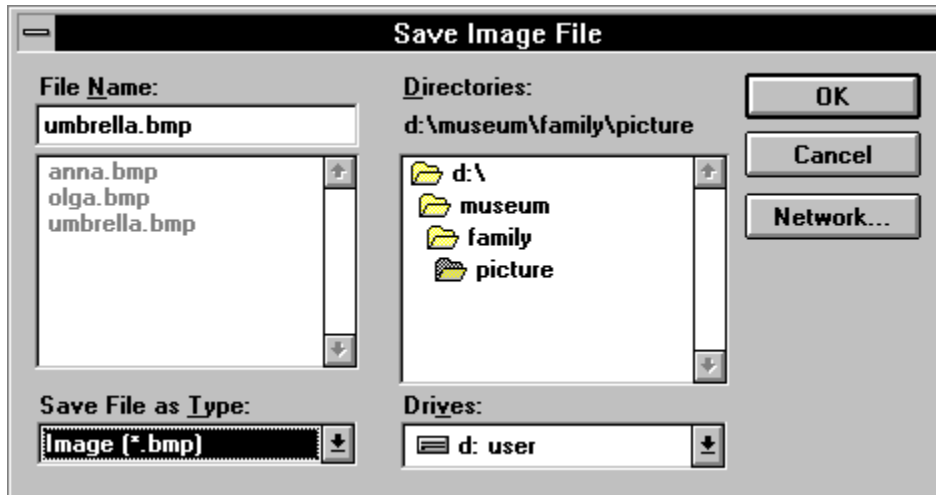
True Image Window: Image Size Box

Contains the Width and Height, in pixels of the image.

True Image Window: On-Line Help Box

Displays a brief description of the tool under the cursor.

Save Image File Dialog Box



Use this dialog box to select the image **File Name** you want to save the current image under.

Save Image: File Name

Is a standard **Windows File Name List**. Double-click on a **File Name** to select the **Image file**. The name of the selected **Image** appears above the list.

Save Image: Directories

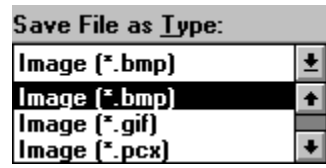
Is a standard **Windows Directory List**. Double-click on a **Directory name** to select and open the directory. The name of the selected directory appears above the list.

Save Image: Drives



Is a standard **Windows Drives List**. Select the drive that contains the directory in which you want to save the **Image** file.

Save Image: List File of Type



Shows the type of files listed in the **File List**.

Save Image: OK



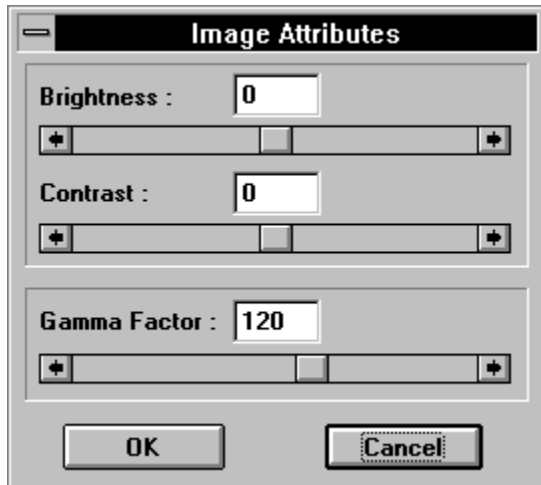
Closes the **Save Image File** dialog box and saves the current **Image** into the selected file.

Save Image: Cancel



Closes the **Save Image File Dialog Box** without saving.

Image Attributes Dialog Box



Use this **dialog box** to change the **Brightness** and **Contrast** of the **Image**. You can also set the **Gamma Correction** to compensate for the non-linear response of the video display.

Image Attributes: Brightness

Contains the **Brightness** value for the current image. The **Contrast** value has a range from -127 to 127.

Image Attributes: Brightness Control

Is a standard **Windows Scroll Bar**. The scroll bar is used to change the **Brightness** value. This function sets **Brightness** value for the current **Image**. The **Brightness** value has a range from -127 to 127.

Image Attributes: Contrast

Contains the **Contrast** value for the current **Image**. The contrast value has a range from -127 to 127.

Image Attributes: Contrast Control

Is a standard **Windows Scroll Bar**. Horizontal scroll bar used to change contrast value. This function sets contrast value for the current image. The contrast value has a range from -127 to 127.

Image Attributes: Gamma Factor

Contains the current **Gamma** value. The value must be in the range from 0 to 200 which represents a gamma value from 0 to 2.0. Setting the gamma to 0 will turn off **Gamma Correction**. The default gamma value is 120. Images will look better on the screen with Gamma Correction since this compensates for the non-linear response of a video display.

Image Attributes: Gamma Factor Control

Is a standard **Windows Scroll Bar**. The horizontal scroll bar is used to change the **Gamma Correction** value. The value must be in the range of 0 to 200 which represents a gamma value from 0 to 2.0. Setting the gamma to 0 will turn off **Gamma Correction**. The Default Gamma value is 120.

Image Attributes: OK



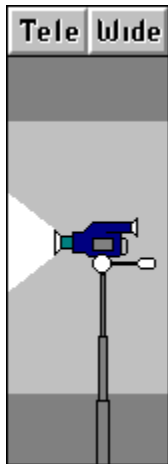
Closes the **Image Attributes** dialog box and saves the current **Gamma** value.

Image Attributes: Cancel



Closes the **Image Attributes** dialog box without changing value.

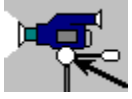
Camera Icon



The **Camera Icon** is a representation of a video camera that you can adjust with your mouse or with the [Walker Toolbox](#) to change the **Height, Angle (Tilt)** or **Zoom Qualities** of the camera.

Zoom Quality is the distance at which a camera is focused. At a long distance, the camera has a narrow field of view. At a short distance, the camera has a wide field of view. You can adjust the VHSB camera Zoom Qualities with the Zoom In and Zoom Out settings. Zoom In sets a long focal distance with a narrow field of view. Zoom Out sets a short focal distance with a wide field of view.

Camera Icon: Height



Drag the camera handle up and down to move the camera up and down.

Camera Icon: Tilt



Drag the camera handle up and down to tilt the camera down and up.

Camera Icon: Zoom In

Tele

Click to **Zoom In**.

Camera Icon: Wide

Wide

Click to **Zoom Out**.

Select 3D Space File for Edit Dialog Box



Use this **Dialog box** to locate and select a **3D Space** file to load.

Select 3D Space File: File Name

Is a standard **Windows File Name List**. Double-click a **File Name** to select and load **3D Space** file. The name of the selected 3D Space appears above the list.

Select 3D Space File: Directories

Is a standard **Windows Directory List**. Double-click on a **Directory name** to select and open the directory. The name of the selected directory appears above the list.

Select 3D Space File: Drives



Is a standard **Windows Drives list**. Select the drive that contains the directory from which you want to load the **3D Space** files.

Select 3D Space File: Network



Opens a standard Windows **Connect Network Device** dialog box.

Select 3D Space File: Pattern Directory

Pattern directory

Sets the default directory with **3D Space** pattern.

Select 3D Space File: Preview

Displays a thumbnail image of the 3D Space View. You can create a thumbnail using the [Accelerator](#) - <Alt/T>.

Select 3D Space File: Help



Runs **Help** with this topic.

Select 3D Space File: OK



Closes the **Select 3D Space File Dialog Box** and loads the selected **3D Space**.

Select 3D Space File: Cancel



Closes the **Select 3D Space File Dialog Box** without loading.

Select 3D Space File for View Dialog Box



Use this Dialog box to locate and select a **3D Space** file to load.

Select 3D Space File: Demo Directory

Demo directory

Sets the default directory with **3D Space** demo.

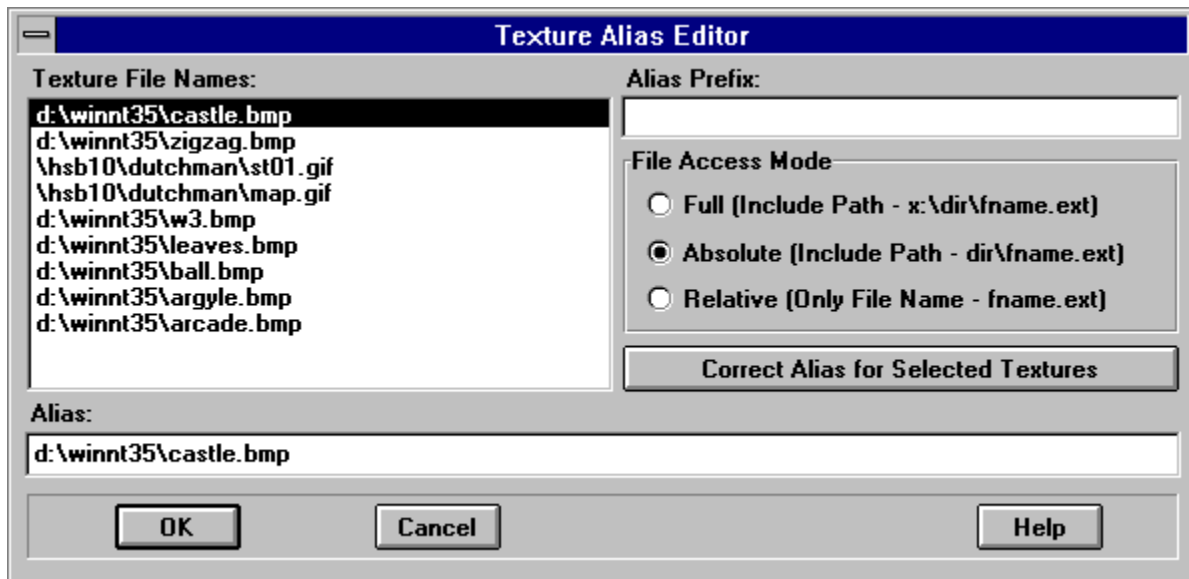
Select 3D Space File: Enable Walking Show

Runs the **Walking Show** sequence one time when the **3D Space** is loaded.

Select 3D Space File: Repeating Walking Show Mode

Starts the cyclic **Walking Show** sequence when the 3D Space is loaded. The **Walking Show** sequence repeats until you move the camera anywhere.

Texture Alias Editor Dialog Box



Use this **Dialog Box** to change a textures alias. This feature is included because various VRML browsers load textures in different manners. Some browsers require absolute references [<http://www.paragraph.com/myspace/texture1.rgb>] and other browsers require relative references [texture1.rgb]. This editor allows you to modify the references for your VRML files quickly and automatically.

Alias Editor: File Name

Is a standard **Windows File Name List**. Double-click on a **File Name** to run the [True Image Window](#).

Alias Editor: Alias Prefix

Alias prefix will be added to selected files according to current access mode. If Alias prefix is a [URL](#) address (Ex. `http://paragraph.com`) the alias will be corrected according to URL syntax.

Alias Editor: Access Mode - Full

Alias prefix will be added to the selected files.

Alias Editor: Access Mode - Absolute

Alias prefix will be added to the selected files without indicating a drive letter.

Alias Editor: Access Mode - Relative

Alias prefix will be added to selected files (using file name only).

Alias Editor: Correct

Corrects all selected files.

Alias Editor: Alias

Shows the corrected **Texture Alias**.

Alias Editor: OK



Closes the **Texture Alias Editor Dialog Box** and save aliases.

Alias Editor: Cancel



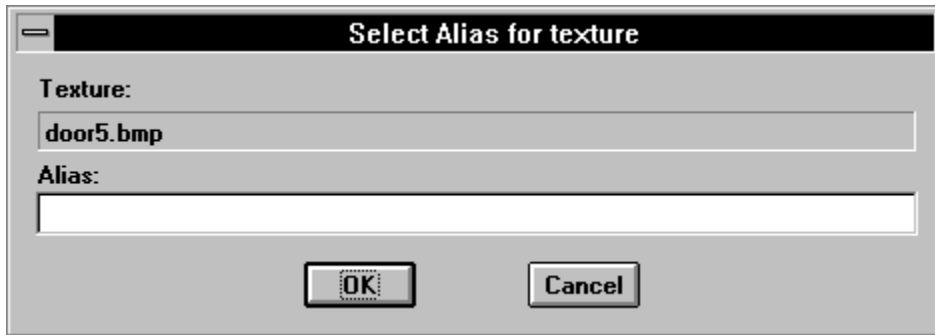
Closes the **Texture Alias Editor Dialog Box** without changes.

Alias Editor: Help



Runs **Help** with this topic.

Select Alias for Texture Dialog Box



Use this **Dialog Box** to change a textures alias.

Select Alias: OK



Closes the **Select Alias for Texture Dialog Box** and sets the alias.

Select Alias: Cancel



Closes **Select Alias for Texture Dialog Box** without changes.

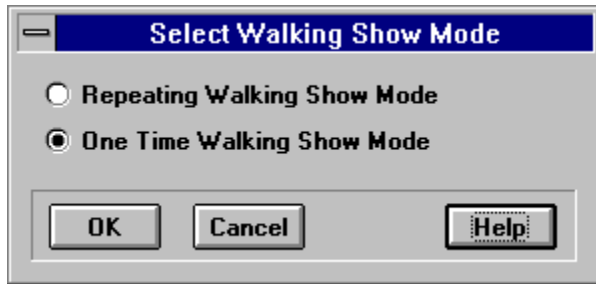
Select Alias: File Name

Contains the selected file name.

Select Alias: Alias

Shows the corrected **Texture Alias**.

Select Walking Show Mode Dialog Box



Use this **dialog box** to select **Walking Show Mode** which you want to run when 3D Space is loaded.

Walking Show: Repeating Walking Show Mode

Starts the cyclic **Walking Show** sequence when the 3D Space is loaded. The **Walking Show** sequence repeats until you move the camera anywhere.

Walking Show: One Time Mode

When enabled, the **Walking Show** sequence will be run one time when 3D Space is loaded.

Walking Show: OK



Closes the **Select Walking Show Mode Dialog Box** and saves new parameters.

Walking Show: Help

Runs **Help**.

Walking Show: Cancel



Closes the **Walking Show Dialog Box** without changes.

User Interface Reference



[VHSB Windows](#)



[VHSB Cursors](#)



[VHSB Multimedia Objects](#)



[Keyboard Controls](#)



[VHSB Export Files Format](#)



[Using URLs \(Universal Resource Locator\)](#)

What is VHSB?

Virtual Home Space Builder (VHSB) by **ParaGraph International** is a product that lets you easily create personal 3D multimedia galleries to enjoy with your family and friends and share with the world. VHSB allows you to easily build galleries from scratch or modify them using your own pictures, art, sounds and video. You can navigate through existing 3D Spaces, including those that come with VHSB, those you make yourself, those that friends send to you and those you download from the World Wide Web.

Here are just a few uses of VHSB:

- You can create personal multimedia galleries including 3D family albums, exhibitions, presentations, and virtual offices.
- You can create 3D multimedia environments for school projects, and tutorials.
- You can create 3D Home Pages viewable by any VRML browser.
- You can build personal 3D Web Organizers to create your own unique view of the World Wide Web.

You can create your personal 3D Desktop Organizers such as a 3D Program Manager and 3D On-Line Help, or arrange files and documents within your 3D desktop universe.

The main type of 3D Spaces produced by VHSB are buildings with one or more floors and one or more rooms on each floor. Rooms can have windows and doors. Any wall, ceiling and floor can be [Airbrushed](#) or covered by [Wallpapers](#). [Pictures](#), [Albums](#) and [Movies](#) can be placed on any wall. In VHSB, all Pictures, Albums, and Movies are advanced [Multimedia Objects](#) which can have [Attached Text](#), [Attached Sounds](#) and [Attached Functions](#). A [Walking Show](#), which is a pre-recorded guided tour through the 3D Space, can also be added.

VHSB runs in two different modes. **Guest Mode** allows you to travel through previously built 3D Spaces. In this mode, you move a Camera through a 3D Space, view Pictures, Albums and Movies, read Attached Text, listen to Attached Sounds and MIDI music, and can use Attached Functions. In this mode, you cannot modify the 3D Space in any way. To edit an existing 3D Space or create a new one, you must use **Master Mode**. Master Mode includes all the functionality of Guest Mode, but adds the opportunity to [Build 3D Spaces](#) for yourself.

What You Need to Run VHSB

[Technical Requirements](#)

[Starting VHSB](#)

[VHSB in the Windows Environment](#)

[Using Command Line Flags](#)

[About the INI File](#)

Technical Requirements

Hardware

Virtual Home Space Builder 1.0 requires at least a 386/33 computer with 4MB RAM and a color monitor with **256 colors** or more. To achieve better rendering performance, you will need a **486/33** or higher with **8 MB RAM**. A mouse is strongly recommended because VHSBs user interface is designed for use with a mouse.

At a minimum, a VGA video card is required. An **SVGA** video card is strongly recommended. You will have better results if you use one of the well-known Windows(TM) accelerators, such as #9, Diamond Stealth, Orchid Kelvin etc.

VHSB can be used without a sound card, but if you would like to use [Attached Sounds](#), you must have a **Sound Blaster(TM)** or compatible sound card. If you would like to use [Background MIDI Music](#), your sound card must support the MIDI interface.

Software

VHSB 1.0 runs on Windows 3.1 and later versions, Windows NT and Windows 95.

Starting VHSB

The first time you use VHSB, it is recommended that you view an existing 3D Space to familiarize yourself with the VHSB interface.

First, you must start VHSB.EXE. If VHSB was installed from a CD ROM using the **Setup** program, simply double-click the VHSB icon in the corresponding program group window. If you are using Windows 95, you can start VHSB using the **Start** menu in the **Task Bar**.

When you start VHSB.EXE, a screen with the inscriptions, **Virtual Home Space Builder**, and [Main Menu](#) appears. Select the **View** button in the Main Menu. The [Open 3D Space File Dialog Box](#), will appear. Select any file with extension **MUS** (3D Space file) and press **OK**. The selected 3D Space will load and you can explore it. To return to the Main Menu without viewing a 3D Space, select **Cancel** in the dialog box. See the [Navigating in 3D Spaces](#) topic for instructions on how to move through 3D Spaces.

While navigating through a 3D Space, you can play [Background MIDI Music](#) by selecting the corresponding item in the [3D Space Window Menu](#).

You can view a [Walking Show](#) by selecting the Walking Show item in the 3D Space Window Menu. If a given 3D Space does not have a Walking Show (a corresponding .WLK file), the Walking Show item will be disabled.

When you are done exploring a 3D Space, you can return to the Main Menu by selecting the Return to Main Menu option in the 3D Space Window Menu.

Press Exit in the Main Menu to quit the program.

How to Use Help

There are three ways to use **On-Line Help** in VHSB.

First, you can press the **F1 key** at any time while you are in VHSB. The corresponding Help topic will be loaded and displayed. VHSB will display the **Help Contents** page, or if available, the topic which directly relates to what you are doing at the moment.

Second, you can display a Help topic by clicking the buttons with the [?] symbol in the top right corners of the [3D Space Window](#), [Chooser Window](#) and [True Image Window](#). Additionally, you can select the **Help Buttons** which are located in a number of dialog boxes. In both cases, the topic related to the window or dialog box will be displayed.

Third, VHSB displays **Help Messages** in the program itself. Whenever you select any element of VHSB's interface (like a button, edit control etc.) with the right mouse-button, the corresponding Help Message is displayed in a balloon. If you place the cursor over any button in the **3D Space Window** or the [Walker Toolbox](#), the corresponding help message is displayed in the 3D Space Windows **Help String**. When you place the cursor over any button in the [Builder Toolbox](#), the corresponding help message is displayed in the [Plane Builder Windows](#) Help String. The **Chooser Window** and **True Image Window** also have Help Strings for the buttons located in them.

Images in Help

VHSB Help topics include many images. Most of the images have **Hotspots**, which work similarly to hypertext links. You can click on any aspect of an image to receive an explanation of what that image represents. Hotspots are invisible, but if you place the cursor over a hotspot, the cursor's shape changes.

Most screenshots of menus and dialog boxes were made for the **Expert** interface. In the **View**, **New** and **Edit** interfaces, these controls have some minor differences.

VHSB Help is a standard Windows Help file. If you are not familiar with the Windows Help system, please read the corresponding Windows documentation. The VHSBHELP.HLP file must be located in the same directory as VHSB.EXE to be available.

Using Command Line Flags

You can start VHSB.EXE using **Command Line Flags**. Most Command Line Flags duplicate the effects of the interface settings which are stored in the VHSB.INI file. **Important:** a Command Line Flag has priority over interface settings.

The command format is:

VHSB.EXE /<FLAG1> /<FLAG2> ... [MYSPACE.MUS]

When you specify the MUS file name in the command line, VHSB will load the specified 3D Space applying the Command Line Flags. Settings which are not enabled by flags will be restored from the INI file.

You can use the following command line flags:

/EDIT - Same effect as the **Edit** button in **Main Menu**.
/VIEW - Same effect as the **View** button in **Main Menu**.
/NEW - Same effect as the **New** button in **Main Menu**.
/EXPERT - Same effect as the **Expert** button in **Main Menu**.

/NOTITLE - Does not display title screen while loading.
/NODESKTOP - Hides VHSBs desktop in background.

/AUTOWALK - Starts **One Time Walking Show** on startup.
/CYCLEWALK - Starts **Repeating Walking Show** on startup.

/WRITELOG - VHSB writes a **Log** file while loading a 3D Space.
The Log file contains the list of components (like Pictures or Wallpapers) which could not be found during the loading process. The Log file appears in the same directory as the **MUS** file.

About the INI File

VHSB automatically maintains the **VHSB.INI** file, which is located in the same directory as VHSB.EXE. VHSB.INI contains VHSB settings that you specify. VHSB restores settings from the INI file at startup. Settings can be changed in **Master Mode** by selecting the **Settings Item** in the [3D Space Window Menu](#).

If you start VHSB.EXE from a directory which does not contain VHSB.INI, default settings will be applied. In this case, VHSB.INI will appear in the VHSB directory after settings are changed. If you start VHSB from a **CD or Network Drive**, default settings will also be applied, but if you change any settings during such a session, the corresponding VHSB.INI file will appear in your Windows directory. When you start VHSB from a CD or network drive next time the INI file located in the Windows directory will be used.

We do not recommend editing VHSB.INI manually.

VHSB in the Windows Environment

Palette.

VHSB uses its own 256-color palette. If you start VHSB while Windows is in **High Color** or **True Color** modes, the colors in other applications will not be changed. If Windows is running in **256 Color** mode, starting VHSB will cause insignificant changes in other applications colors. Original colors will be restored when you exit VHSB. We do not recommend simultaneously using VHSB with programs such as picture editors while in 256 Color mode.

The Associate Function.

VHSB automatically associates MUS files with VHSB.EXE in Windows. After you start VHSB once, just double-click on any MUS file icon to view the 3D Space in **Guest Mode**. If you move VHSB.EXE to another location, the association will only become available after you start VHSB from the new directory.

Windows 95 Shortcuts for MUS files.

When you select a MUS files shortcut in Windows 95 using the right mouse button, you will see four additional items in the corresponding shortcut menu: **Edit, View, New** and **Expert**. If you choose Edit, View or Expert, VHSB will start the specified MUS file using the corresponding mode. If you select New, VHSB will start with the New interface to create a new 3D Space.

Navigating in 3D Spaces.

You may navigate 3D Spaces either in [Guest Mode](#) or [Master Mode](#).

VHSBs navigation metaphor is moving a camera. Using the **Camera Tools** buttons in the [Walker Toolbox](#), you can move the camera horizontally, turn it, adjust the **Camera Height**, **Tilt**, and **Zoom Qualities**, but cannot move the camera through walls, ceilings or other obstacles. All Camera Tools are duplicated with [Keyboard Control Buttons](#). You can simultaneously press two or more control buttons, with the resulting motion being a superposition of the corresponding simple motions. For the same effect, you can combine pressing Camera Tool buttons with one or more keyboard control buttons.

To adjust the Camera Height, Tilt, and Zoom Qualities, you can also use the [Camera Icon](#). When you adjust the Camera Height using the icon, the camera freely goes through ceilings and other obstacles.

You also can use [Pinocchio](#) to move the camera quickly around the **Floor Plan** in the [Plane Walker Window](#) and [Plane Builder Window](#).

Building 3D Spaces.

[The Basic Concept](#)

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Building: The Basic Concept

Building 3D Spaces in VHSB is similar to sculpting, where you take a piece of material and cut out all unnecessary parts. At any stage during the building process, you can add a **rectangular solid body** to your structure, or remove an invisible imaginary rectangular body. For simplicity, we call added or removed bodies **Boxes**. When you add a box, it is not necessary to place its bottom on the ground or another body: the box can hang in the air. Of course, if you would like to build a realistic structure, you should place the structure on the ground or on some base. If you would like to remove a box, you should first check to see which bodies have parts in common with the box you are removing. By removing the box, you also remove all parts inside of the box. If you would like to undo any action, an advanced Undo function is available.

Building Rooms, Windows and Doors

This topic describes how to use the [Add Box](#) and [Remove Box](#) tools in the [Builder Toolbox](#) to create rooms, and how to cut out doors and windows in rooms.

Creating a Room:

1. Adjust the [Height Control Tool](#) to specify the height of the room and how high the room is floating off the floor.
2. Select the **Add Box** tool in the **Builder Toolbox**.
3. Place the mouse pointer at one corner of the room (in the **Floor Plan** of the **Plane Builder Window**), click the left mouse button, move the mouse pointer to the opposite corner of the room, and click the left mouse button again.
4. Now, cut away the interior of the room. Adjust the top and bottom **Laths** in the Height Control Tool so they are inside the top and bottom of the existing box, select the **Remove Box** tool in the Builder Toolbox, and draw a box within the box you drew using Add Box. The distance between the inside and outside boxes is the thickness of the walls. The difference in height between the top of the room and the interior cutaway is the thickness of the ceiling, and the difference in height between the bottom of the room and interior cutaway is the thickness of the floor.

Joining Rooms:

1. Create the first room.
2. Create the second room so that it overlaps the first. Touching walls are automatically joined.

Creating a Door or a Window in a Wall:

1. Use the Height Control tool to specify the top and bottom of the door or window.
2. Select the Remove Box tool in the Builder Toolbox.
3. Place the mouse pointer at one corner of an imaginary box, click the left mouse button, move the mouse pointer to the opposite corner, and click the left-mouse button again. The portion of the wall within the imaginary box is removed to create a door or window.

Building: How To Build A Multi-Level Construction

To build a multi-level structure, you should first adjust the [height of your 3D Space](#) to make room for all the levels you will build. Then you can build each level one-by-one. To make the levels adjacent, click on a wall of the existing level. After that, two red **Height Indicators** in the [Height Control Tool](#) will show the top and bottom heights of the selected wall. Shift the **Laths** so that the bottom Lath matches the top mark, and then start building the upper level.

Another way to create a multi-level structure is to build both levels simultaneously. For example, if you would like to construct a two-level building, you can first add a box which is the same size as the entire building. Then you can remove a box to cut out a room for the first floor. After that you can move the Lath to cut out a room for the second floor, making sure to leave space between the floor and ceiling. Finally, you can cut out windows, doors and the like.

When you build a multi-level Home Space, the floor plan may become very complicated. A feature lets you simplify the plan by showing only the level you are currently working on. Click the **Set** button in the [Builder Toolbox](#) and select the **Show Only Current Level** option. You can now change the **Lower/Upper Height Level** settings to see only the level you are working with in the [Plane Builder Window](#).

Building: Decorating 3D Spaces

To build a beautiful Home Space, use Pictures, Colors and Wallpapers. In Virtual Home Space Builder 1.0, its easy to use these items:

1. Select the **Picture**, **Airbrush** or **Wallpaper** button in the [Chooser Window](#),
2. Select the directory on your disk that contains the picture or wallpaper files,
3. Drag and drop the item from the Chooser Window to the 3D Space window.

Place [Albums](#) and [Movies](#) on the walls in a similar fashion.

Notice that you can apply Wallpapers to any surface (walls, floor, ceiling, etc.), but can only hang Pictures on vertical surfaces.

Building: Draw Wall and Draw Face

The **Draw Wall** tool is used to simplify building walls. First, select the Draw Wall tool in the [builder toolbox](#). Specify the walls height by raising or lowering the **Laths** of the [Height Control Tool](#), or shifting the entire toolbar up or down. The wall can be as tall or short as you want, or can even float at any height. In the [Plane Builder Window](#), click where you want the wall to begin. Click where you want a wall segment to end. Double-click where you want the wall to end.

The **Draw Face** tool creates one-sided surfaces. The tool is available in the **System Menu** of the Plane Builder Window (the button with the minus sign in the top left corner). This tool works similarly to the **Draw Wall** tool, with two exceptions. First, the segments need not be at right angles. Second, you must set the surfaces in a clockwise direction if you want the visible surface to face in, or counterclockwise if you want the visible surface to face out. If you want both surfaces to be visible, you should build all segments twice - in clockwise and counterclockwise directions. The **Remove Box Tool** may work improperly if the removed box contains walls built using Draw Face. In this case try to use **Clear Rect** menu item located beneath the Draw Face menu item.

VHSB Windows.

There are seven windows in VHSB :

3D Space Window

Plane Walker Window

Walker Toolbox

Plane Builder Window

Builder Toolbox

Chooser Window

True Image Window

Keyboard Controls.

[Movement Control](#)

[Hot Keys](#)

[Accelerators](#)

[Using the Clipboard](#)

Movement Control

If the [Plane Walker Window](#), [Plane Builder Window](#) or [3D Space Window](#) are activated, you can manipulate the camera using the keyboard.

The program uses the following keys:

- 7 , Home** - Rotates left;
- 9 , Page Up** - Rotates right;
- 8 , Up Arrow** - Moves camera forward;
- 5 , 2, Down Arrow** - Moves camera back;
- 4 , Left Arrow** - Moves camera left;
- 6 , Right Arrow** - Moves camera right;
- + (Keypad Plus)** - Moves camera up;
- (Keypad Minus)** - Moves camera down;
- Insert** - Tilts the camera up;
- Delete** - Tilts the camera down;

Pressing **Ctrl** with any other key doubles the speed of the motion produced with the key.

Hot Keys

<Ctrl>

- Pressing with any movement key or tool doubles the speed of the motion produced with this key.
- Pressing with [Add Box Tool](#) allows you to drag [Pinocchio](#) around the [Floor Plan](#) without creating an exterior.
- Pressing with [Remove Box Tool](#) allows you to drag Pinocchio around the Floor Plan without creating an interior.

<Tab>

- Displays the first part of [Attached Text](#) when an [Album](#) is the Object Under Cursor .
- Uses a [Picture](#) as a command button when an **Album** is the Object Under Cursor .

<Tab> + Click Left Mouse Button

- Open [Select Alias for Texture Dialog Box](#) when [Show True Image Tool](#) selected.

<Ctrl> + Click Left Mouse Button

- Copies the **Object Under Cursor** (**Picture, Album, Movie or Wallpaper**) into the **Basket**.

<Shift> + Click Left Mouse Button

- Pastes an **Object** from the **Basket** (Picture, Album, Movie or Wallpaper) to the Wall.

<Ctrl> + <Shift> + Click Left Mouse Button

- Pastes an **Object** from the **Basket** (Picture, Album, Movie or Wallpaper) to the Wall, and after this, copies the **Object Under Cursor** (Picture, Album, Movie or Wallpaper) into **Basket**.

<Ctrl> + <Insert>

- Copies an image of the scene in the 3D Space Window into the clipboard.

Accelerators

Alt/X - Quits **VHSB** and returns you to **Windows**.

Alt/A and Alt/Enter - Activates the [Attachment Editor Dialog Box](#) that corresponds to the selected Multimedia Object.

Alt/S - Plays the [Attached Sound](#) connected to a selected [Picture](#) [Album](#) or [Movie](#).

Alt/L - Displays the next **Picture** in a selected Album.

Alt/I - Opens the [True Image Window](#) to display the selected Picture at its original size and with its original colors.

Alt/V - Moves the **Camera** directly in front of the selected Multimedia Object.

Alt/R - Uses a Multimedia Object as a command button that changes the current 3D Space or runs another program.

Alt/M - Displays the [3D Space Window Menu](#).

Backspace - Removes the effect of the previous 3D Space-building operation.

Alt/T - Creates a **Thumbnail** view of the **3D Space** (.HSB file). This view is used to preview the 3D Space in the **Info** boxes of the [Select 3D Space File for Edit](#) and [Select 3D Space File for View](#) Dialog Boxes.

Alt/B - Creates a Bitmap of the view in the 3D Space Window (.BMP file).

Using the Clipboard

Use **Alt/B** to save the view in the 3D Space Window into the clipboard to use in another application (Ex: Microsoft Word).

See also:

[Hot Keys](#)

VHSB Cursors.

In **VHSB**, the cursors form switches in accordance with selected tools. The following cursors are used:

[Image Cursors](#)

[Attached Sound Cursors](#)

[Tool Cursors](#)

Image Cursors



- Paste a [Picture](#);



- Paste a [Movie](#);



- Paste a [Wallpaper](#);

Tool Cursors



- Deletes **Multimedia Object** ([Picture](#), [Movie](#) or [Wallpaper](#)).



- Moves an **Image** (**Picture**, [Album](#), or **Movie**) and changes its dimensions.



- Displays Multimedia Object in the [True Image Window](#).



- Sets the **Camera** directly in front of an image.



- Lists an Album.



- Copies the **Object Under Cursor** (**Picture**, **Album**, **Movie** or **Wallpaper**) into the **Basket**.



- Pastes an **Object** from the **Basket** (Picture, Album, Movie or Wallpaper) to the wall.



- Pastes the **Object** from the **Basket** (Picture, Album, Movie or Wallpaper) to the wall, and after this, copies the object which is on the wall, from the wall into the **Basket**.

Attached Sound Cursors



- No [Attached Sound](#) is connected to the **Object Under Cursor** ([Picture](#), [Album](#) or [Movie](#)).



- **Object Under Cursor** has an Attached Sound.

VHSB Multimedia Objects.

There are seven types of Multimedia Objects in **VHSB**:

- [Picture](#)
- [Album](#)
- [Wallpaper](#)
- [Movie](#)
- [Attached Text](#)
- [Attached Sound](#)
- [Background MIDI Music](#)

Picture

A **Picture** is a digital image. VHSB supports most popular image file formats, including **BMP, GIF, PCX, JPG, TGA, DCX, EPS, WMF, WPG, PCT, DIB,** and **RLE.** as **Pictures.**

Hanging a Picture

To hang a Picture, you should be in [Picture Mode](#). Drag the thumbnail image of the Picture from the [Chooser Window](#) and drop it to a wall where you want to hang it. The cursors hot point must be at the center of pictures position on the wall.



- Cursor style for **Picture Mode**.

Selecting a Picture

In [Guest Mode](#), click on a Picture to select it.

In [Master Mode](#), select the **Default Cursor Tool**  in the [Walker Toolbox](#) and click on a Picture to select it.


Resizing and Moving Pictures

To **Resize** a Picture, select the [Move/Resize Object](#) tool in the Walker Toolbox. Carefully place the tip of the cursor arrow on the top right corner of any Picture in the [3D Space Window](#) and hold the left mouse button. Drag the cursor to stretch the Picture. To **Move** a Picture, place the tip of the cursor arrow in the middle of any Picture. Hold the left mouse button and drag to any other location.



- Cursor style for **Move/Resize Object** mode.

Deleting a Picture


To delete a Picture from the wall, select the **Delete Object** tool  in the **Walker Toolbox**. When you place the cursor arrow over any Picture in the [3D Space Window](#) and press the left mouse button, the Picture will be immediately deleted.



- Cursor style for **Delete Picture** mode.

Picture True Image

The [True Image Window](#) is used for looking at Pictures in their natural size and real palette.

In Guest Mode click with the left mouse button on the Picture and select the  tool in the 3D Space Window.

In Master Mode, select the  tool in the Walker Toolbox.




- Cursor style in the **True Image** mode.

Album

An **Album** is two or more [Pictures](#) placed on top of one another on a wall. An **Album Indicator** in the [3D Space Window](#) shows when the cursor is over an Album. You can **Move, Resize**, and view an Albums **True Image** exactly as described in the Help topic for Pictures.

Selecting a Album

In [Guest Mode](#), click on an Album.

In [Master Mode](#), select the **Default Cursor** tool  in the [Walker Toolbox](#) and click on an Album.

List Album

To see the individual **Pictures** that an Album is composed of, select an Album, then click on the **List Album Tool** in the [3D Space Window](#) to flip to the next Picture. You can also select **List Album Mode** by pressing the {mlist_up.bmp} button in the [Walker Toolbox](#).



- Cursor style for List Album mode.

If you double click the mouse button on an Album while in List Album mode, the list procedure performs continuously and the Album becomes a [Movie](#). To stop listing, double click again.

Wallpaper

Wallpaper is a digital image, just like a [Picture](#). VHSB supports most popular image file formats, including BMP, GIF, PCX, JPG, TGA, DCX, EPS, WMF, WPG, PCT, DIB, and RLE as Wallpapers.

Attaching and Tiling Wallpapers

To attach Wallpapers to surfaces, select [Wallpaper Mode](#) in the [Chooser Window](#). Drag the **Thumbnail** image of the Wallpaper from the Chooser Window and drop it on any surface where the texture should be attached.



- Cursor style for Wallpaper mode.

To change Wallpaper characteristics such as **Tiling** and **Moving Wallpapers**, use the [Wallpaper Details](#) dialog box. If tiling is disabled, the texture is mapped once onto the entire surface. If tiling is enabled, **Width** and **Height** adjust the size of tile for periodic texture mapping. **Tile Offset** parameters adjust the tile grids displacement. You can attach [Movies](#) as Wallpaper.

Movie

A **Movie** is a sequence of two or more BMP, GIF, PCX, JPG, TGA, DCX, EPS, WMF, WPG, PCT, DIB, RLE files in the same directory that have file names with the same beginning characters followed by a sequence number.

For example, **Virtual Home Space Builder** interprets the following image files as eleven frames of a Movie:

myflik01.bmp myflik02.bmp myflik03.bmp myflik04.bmp myflik05.bmp
myflik06.bmp myflik07.bmp myflik08.bmp myflik09.bmp myflik10.bmp
myflik11.bmp

When played as a Movie, VHSB displays each image file in sequence, beginning with myflik01.bmp, then myflik02.bmp, then myflik03.bmp and so on.

To place a Movie in a 3D Space, first select [Movie Mode](#) in the [Chooser Window](#).

A **Thumbnail** image of the first picture in the Movie is displayed in the Chooser Window. Procedures for pasting and deleting Movies as well as moving them along walls and resizing them are the same as for a single [Picture](#). When pasted on a wall, the Movie begins playing. The Movie can be stopped if you switch on the **List Album** tool in the [Walker Toolbox](#) and double click on the Movie in the [3D Space Window](#). Double click again to start the Movie once more. The Movie can be played in the reverse direction. To do this, double click on the frame while holding the **Tab** key. If you repeat this operation, the movie plays in the original direction.

You can set parameters such as the Movies play direction and pasting the Movie as Wallpaper in the [Movie Details](#) dialog box.



- Cursor style for **Movie Mode**.

In [Guest Mode](#), click on a Movie to select it.

In [Master Mode](#), select the **Default Cursor tool**  in the **Walker Toolbox** and click on a **Movie** to select it.


Multimedia Object: Attached Text

Text can be attached to any selected [Picture](#), [Album](#) or [Movie](#). When an object contains **Attached Text**, the first line of the text is displayed in the **Attached Text Box** in the [3D Space Window](#) when you run the cursor over the object.

To attach or read Attached Text, click on the object to select it, and then click the **Attachment Editor Tool** in the [3D Space Selected Object Toolbar](#). In [Guest Mode](#) you can read the Attached Text in the [Picture Attachment Viewer Dialog Box](#) or [Movie Attachment Viewer Dialog Box](#). In [Master Mode](#) you can write or edit Attached Text in the [Picture Attachment Editor Dialog Box](#) or [Movie Attachment Editor Dialog Box](#).

Attached Sound

Attached Sounds are Windows .WAV files. You can attach .WAV files to [Pictures](#), [Albums](#) or [Movies](#). To attach a .WAV file, click the object to select it, then click the **Attachment Editor Tool** in the [3D Space Window](#). To play an attached .WAV file, select the object and click on the **Play Sound** tool in the **3D Space Window**.

To play Attached Sound in [Master Mode](#), select **Play Sound Mode**  in the [Walker Toolbox](#). After that, the cursor in the **3D Space Window** becomes a sound indicator. If the Object Under Cursor in the **3D Space Window** has an **Attached Sound**, the cursor resembles



. If there is no attached sound, the cursor resembles



. In order to play an **Attached Sound**, it is enough to click the mouse on the proper **Picture** in the **3D Space Window**.

Sound attachment is performed in the same way as text attachment in the [Picture Attachment Editor](#) or [Movie Attachment Editor](#).

Use the **Browse** button to select a prepared sound fragment from files with a **.WAV** extension. Using a microphone connected to the **Sound Blaster**, you can record a sound accompaniment for the object. Press **Record** to start recording. Press **Stop** to stop recording. Duration of the recorded fragment should not exceed 30 seconds. There is an indicator of recording time. Press the **Play** button to listen to the recording. If you are not satisfied, you can repeat the process once more. When doing so, the previous fragment is deleted.

Background MIDI Music

MIDI (Musical Instrument Digital Interface) is standard for electrically connecting instruments to a computer and for storing music in computer files. A MIDI sound sequence is a list of two or more MIDI files played in order.

To play MIDI-music, it is necessary to form a MIDI-file list in the [Select MIDI File Dialog Box](#). This window opens when you select the **MIDI Player** option in the [3D Space Window Menu](#). Open the required directory, select the needed .mid file, and press the **Add** button. The selected file is put into the **Play List**. Other midi-files are entered into the Play List in the same manner. To delete a file from the list, select it in the Play List column and press the **Remove** button. To delete all files (to clear up the list), press the **Clear** button. Each 3D Space file is connected to a single Play List which is saved with the 3D Space, and automatically starts playing when you open the 3D Space.

Start and Stop MIDI Player

To start playing the **Play List**, press the **Start Playing MIDI List** button in the Select MIDI File dialog box. To stop playing, select the MIDI Player option in the **3D Space Window Menu** and press the **Stop** button in the **Select MIDI File** dialog box. The **Play** button in this window is intended for previewing MIDI files, found in the **File Name** column.

VHSB Export Files Format

Home spaces can be saved in three formats:

- .MUS files (the only files that can be loaded by Virtual Home Space Builder 1.0)
- .WRL files (can be loaded by any VRML browser compliant with the VRML 1.0 final SPEC)
- .D96 files (export to the advanced ParaGraphs file format; you will need this conversion for future products in the Home Space product line).

Using URLs (Universal Resource Locator)

Universal Resource Locator (URL) is special form of attachment which allow to access global information resources shared through the Internet World. To use this feature, VHSB must work together with Netscapes Navigator v1.1 or later.

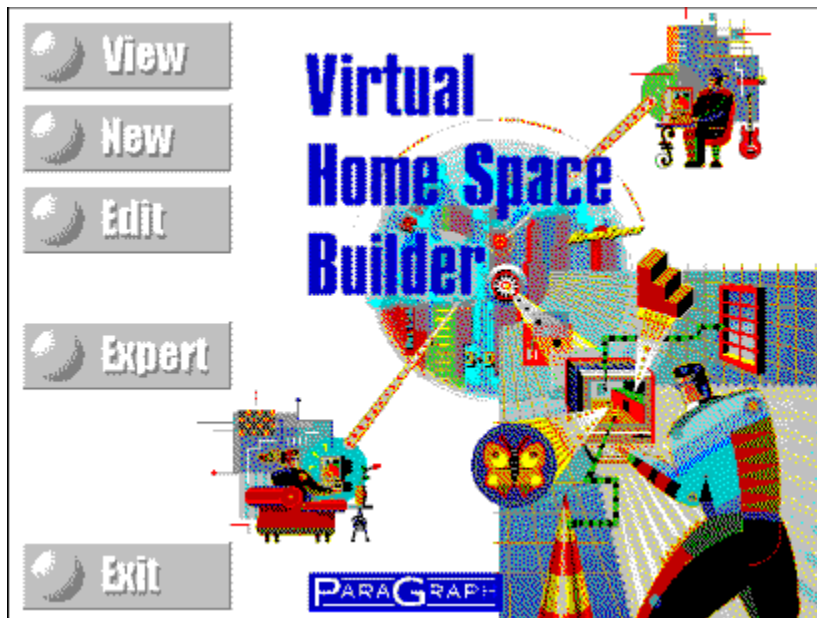
You can attach HTML/VRML links (URL) to [Pictures](#), [Albums](#) or [Movies](#). To attach URLs, use the [Attachment Editor](#).

Virtual Home Space Builder 1.0 is neither a VRML nor a HTML browser, but it can communicate with Netscape 1.1. When you double click on a picture with the attached URL (there is a finger cursor indicating that the picture has an attached URL), this URL is transferred to Netscape 1.1. If the URL is correct, Netscape will load the resource.

Important: when running VHSB with Windows NT, Netscape 1.1 must be open when you attempt to link to a URL. We do not guarantee proper communication with any other HTML browser.

This feature gives you an unlimited opportunity to create your own views of WWW within a convenient 3D paradigm.

Main Menu



VHSBs **Main Menu** allows you to choose one of four available **User Interface Types**: View, Edit, New, and Expert. The **View** interface allows you to view 3D Spaces in **Guest Mode**. The **Edit** and **New** interfaces allow you to work in **Master Mode**. You should use the Edit interface to edit an existing space. To create a new space from scratch, you should choose the New interface. The **Expert** interface allows you to switch modes and change all available settings. This interface is recommended for advanced VHSB users.

VHSB: Edit



Displays [Select 3D Space File for Edit Dialog Box](#) .

Use this **Dialog Box** to locate and open a 3D Space file (.mus) for editing. The 3D Space will open in [Master Mode](#).

VHSB: View

View

Displays [Select 3D Space File for View Dialog Box](#). Use this Dialog Box to locate and open a 3D Space file (.mus) to view. The 3D Space open in [Guest Mode](#).

VHSB: New



Opens a **New 3D Space** as "**Untitled.mus.**"

See also:

[Builder Toolbox : New 3D Space tool](#)

[Open 3D Space File Dialog Box : New 3D Space Button](#)

VHSB: Expert

Expert

Displays the [Open 3D Space File Dialog Box](#), which you use to locate and open a 3D Space file (.mus).

VHSB: Exit

Exit

Quits VHSB and returns you to Windows.

Walking Show

Walking Show is a guided tour through a 3D space.

You can start a Walking Show by selecting the [Walking Show item](#) in the [3D Space Window Menu](#).

You can record Walking Shows in [Master Mode](#) only. For this purpose, you should use the [Write Walking Show Tool](#) in the [Walker Toolbox](#).

A Walking Show records a sequence of all your motions in a 3D Space, including any actions like playing **Attached Sounds** or calling **Attached Functions**. When you run a Walking Show for a given 3D Space, VHSB will repeat everything you did while recording the show. Thus, Walking Show is a powerful tool for making guided presentations of your 3D Space.

VHSB stores Walking Shows in *.WLK files. If a 3D Space has the name MYSPACE.MUS, the corresponding Walking Show is called MYSPACE.WLK. Walking Shows should be placed in the same directory where the 3D Space is located.

Building: Drag & Drop Feature

You can Drag & Drop file icons into your 3D Space. The icon appears as a **Picture** on the wall. Double-click on the Picture to activate the application associated with the icon. For example, if the file is an EXE module, it will start. If the file is a text document, it will be loaded with the corresponding text editor. **Important:** before using the Drag & Drop feature, you should disable the desktop in the [VHSB Settings Dialog Box](#).

In **Windows 3.1 or 3.11** you can only Drag & Drop icons from **File Manager** (WINFILE.EXE)
In **Windows 95** you can Drag & Drop most icons, including shortcuts placed on the desktop.

You can determine whether or not it possible to Drag & Drop a given icon by looking at the shape of the mouse cursor. If Drag & Drop is available in a particular instance, you will see the standard Windows drag file mouse cursor when dragging the icon through the 3D Space Window. If the function is not available, the mouse cursor became a Stop sign.

Building: Attachments To Multimedia Objects

You can connect **Attached Text**, **Attached Sounds** and **Attached Functions** to any **Picture**, **Album** or **Movie**. You can make or edit attachments only in **Master Mode**. First, activate the **Default Cursor** in the [Walker Tool Box](#) and select a Multimedia Object. Now you can open the **Attachment Editor Dialog Box** by selecting the **Attachment Tool** in the **Selected Object Toolbar** in the [3D Space Window](#). You will see the [Picture Attachment Editor Dialog Box](#), [Album Attachment Editor Dialog Box](#) or [Movie Attachment Editor Dialog Box](#) respectively.

In **Guest Mode**, the Attachment Tool calls the corresponding **Attachment Viewer Dialog Boxes**, namely the [Picture Attachment Viewer Dialog Box](#), [Album Attachment Viewer Dialog Box](#) or [Movie Attachment Viewer Dialog Box](#) respectively. These dialog boxes do not allow you to modify attachments.

To attach **Text**, type it into the **Attached Text Box** in the Attachment Editor Dialog Box. You also can copy the text to the **System Clipboard** from any text editor and then paste it into the Attached Text Box using the standard **Shift+Ins** keyboard shortcut. You can edit the Attached Text in the Attachment Editor Dialog Box, but if you would like to do this in another text editor, you can copy the text into the System Clipboard by pressing **Ctrl+Ins**. Now you can paste it into the text editor, edit it, and return it into the Attachment Editor Dialog Box in the same manner.

To attach a previously recorded **Attached Sound** you should press the **Browse** button in the **Attached Sound Section** of the opened Attached Editor Dialog Box. Using this button, you can select a prepared sound fragment from files with a **.WAV** extension. Using a microphone connected to your **Sound Blaster**, it is possible to record a sound accompaniment for the **Picture**. When the **Record** button is pressed, recording starts. Press **Stop** to stop recording. Duration of the recorded fragment should not exceed 30 seconds. There is an indicator of recording time. By pressing the **Play** button, you can listen to the attached fragment. If you are not satisfied, you can repeat recording once more. When doing so, the previous fragment is deleted.

To attach a **Function**, you should select it from the **Function List** available in the Attachment Editor. These lists are different for Pictures, Albums and Movies. One of the functions suggested in the Function List is **Multifunction**. When you choose it, the [Multifunction Editor Dialog Box](#) is displayed. Fill the **Selected Functions List** by choosing a sequence of functions from the **Available Functions List**. To activate the attached function, double-click on the chosen Multimedia Object. If a Multifunction is attached, the program will perform all the functions from the Selected Function List one-by-one.

The last function in the Selected Functions List must always be **Multifunction: Stop Executing**. Placing Multifunction: Stop Executing anywhere else in the list lets you create a **Multisession Multifunction**. In this case, each Stop Executing statement represents the end of a different Multifunction session. You can activate the sessions one-by-one by double-clicking on the corresponding Multimedia Object when the previous session is finished.

VHSB Publishing Options

You can send your finished galleries (using snail mail, email, BBSs, commercial on-line services) for your friends to explore on their own local PCs. Use the **Copy All** item in [3D Space Window Menu](#) to prepare all 3D Space components, then copy the components to diskette or upload them to a BBS or on-line service. You can e-mail the MUS file to anybody that has HSB. For more information about the Copy All feature, see [Saving 3D Spaces On Your Hard Disk](#).

To share your Home Space with the world, you can publish 3D Spaces on the Internets World Wide Web. For more information, see [VHSB and Internet](#).

VHSB And Internet

In his book "VRML - Browsing & Building Cyberspace" Mark Pesce says, ParaGraph International's Home Space Builder (HSB) is an excellent example of a well-designed and easy-to-use entry level VRML authoring tool. Its fluid interface makes world creation a click-and-drag process. Rich worlds with colorful surfaces, texture maps, pictures, and links all are no more than a few clicks away.

VHSB can be used to create VRML Web sites, to create a personal Web organizer, and to create Multimedia 3D Spaces that are downloadable over the Internet.

VHSB as VRML Authoring Tool.

VHSB can save any 3D Space in VRML format. The 3D Spaces created by VHSB can be viewed by anybody with a **VRML browser** such as WebSpace, WorldView, WebFX and others. VHSB outputs files fully compatible with the VRML 1.0 standard.

To save a given 3D Space in VRML format, use the **Save 3D Space** or **Copy All** items in the [3D Space Window Menu](#). For more information, see [Saving 3D Spaces On Your Hard Disk](#).

Your Personal 3D Web Organizer.

You can use VHSB as a personal Web organizer. This feature is available only if you use the **Netscape Navigator, Version 1.1 or later**. You can attach **URLs** to **Pictures, Albums** and **Movies**. Use the **Attach URL** function which is available in the **Function List** of the **Attachment Editor Dialog Box**. For more information about attachments, see [Attachments To Multimedia Objects](#). The link to the attached URL is processed when you double-click on a Multimedia Object. At that moment, the Netscape browser will start, and will load the URL.

Publishing on the Web.

To prepare 3D Spaces for downloading over the Internet, first use the **Copy All** feature to put all 3D Space components into one directory on your hard drive. You should compress all files using a program such as PKZIP, ARJ etc. For the convenience of your viewers, it is better to package the components into a self-extracting archive. Finally, put the prepared archive on your Web server and reference it on your Home Page.

If your 3D Space is saved in MUS format, be sure that the VHSBVIEW viewer is included in the downloading archive. Otherwise only people who purchased VHSB will be able to explore your 3D Space. VHSBVIEW may be freely distributed.

Saving 3D Spaces On Your Hard Disk

Copy All and Save 3D Space Modes

You can save 3D Spaces using the **Copy All** or **Save 3D Space** options in the [3D Space Window menu](#). When designing a 3D Space, you might use Pictures and Textures located anywhere on your computer or network. If you are sure that all these resources will be available the next time you load the 3D Space, simply use **Save 3D Space**, and indicate the directory and filename of the 3D Space. All Textures and Pictures acquire absolute references (paths) to their respective locations. Thus, the 3D Space is actually a local copy: it is not portable to any other computer. To make a portable copy, use **Copy All**, and perform the same operation. All 3D Space components are copied into one destination directory (you can see progress windows), and all references to Picture and Texture files are relative to this directory (no paths will be indicated in the file).

Using either method, you must select your desired **file format** before saving your 3D Space. Use the [Select Destination Path And File Name Dialog Box](#) to select the needed file format.

File Formats

3D Spaces can be saved in three formats:

- **.MUS** files (the only files that can be loaded by VHSB 1.0, this is the default file format).
- **.WRL** files (can be loaded by any VRML browser compliant with VRML 1.0 SPEC).
- **.D96** files (export to the advanced ParaGraphs file format; you will need this conversion for future products in the Home Space product line).

More About Copy All

When you choose Copy All, the [Select Destination Path Dialog Box](#) will appear. This dialog box allows you to select a destination directory to copy your 3D Space components. The export file format is selected here.

There are four options in the dialog box. Check the **Copy VHSB Viewer for Distribution** checkbox to copy the VHSBVIEW viewer and its components into the directory. The VHSBVIEW viewer is freely distributable. Check the **Set Read Only Mode** checkbox to prevent the possibility of saving the 3D Space after any further edits. To save any further edits, save using a different name. Check the **Set Guest Only Mode** checkbox to limit viewing of the 3D Space only to Guest Mode. The only way to modify such a space is to save it using a different name, then reload and edit this copy. The **Copy Thumbnail file** dialog box appears only if a corresponding 3D Space preview file (**.HSB file**) exists. If you select this checkbox, the .HSB file will also be copied.

The **Alias Editor** button in the [Select Destination Path Dialog Box](#) calls up the [Texture Alias Editor Dialog Box](#). Use this dialog box if you want the corresponding 3D Space file (.MUS, .WRL or .D96) to contain full-length paths for textures. This is especially important when you save your 3D Space in WRL format. In this case, the texture aliases should be the corresponding URLs.

Finishing Touches

Use the **Advanced Options** checkbox in the [Save 3D Space File Dialog Box](#) to attach text to your 3D Space and to select a **Title Screen**. After the checkbox is selected, the [Advanced Save 3D Space Dialog Box](#) appears. Enter text that describes your 3D Space into the **Attached Text Box**. Select an image file for a Title Screen using the **Browse button**. The **Default** button sets the **Default Title Screen**.

VHSB displays the Title Screen while loading the 3D Space. To see Title Screens, you must have the desktop enabled. To do this, check the **Enable Desktop** checkbox in [VHSB Settings Dialog Box](#).

You can read text attached to a 3D Space and view the corresponding Title Screen by selecting the **Expert** Option in the **Main Menu**. To do this, press the **Info Button** in the [Open 3D Space File Dialog Box](#).

You can also create a **Preview Screen** for your 3D Space. When you choose **View** or **Edit** in the **Main Menu**, this Screen appears in the **Open 3D Space File** Dialog Box when you select the **MUS** file. To create a Preview Screen, select a view you like within the 3D Space Window and press **Alt+T**. A file with the same name as the 3D Space and the extension, **HSB**, will be saved in the same directory as the MUS file. This file contains the corresponding Preview Screen. VHSB will use the Preview Screen as the Title Screen if no other Title Screen is selected.

VHSB Media Options

Digital Images & Sounds

VHSB supports most popular image file formats, including **BMP, GIF, PCX, JPG, TGA, DCX, EPS, WMF, WPG, PCT, DIB, RLE**. To use your own images, you should convert them to one of the formats listed above. You can use MIDI sounds as the Background Music and attach WAV files to any **Picture, Album** or **Movie**. For more information see [Attachments To Multimedia Objects](#).

- VHSB allows you to use digital media from virtually any source, including:
- Your own original creations and recordings;
- Internet, On-Line services (like AOL) and BBSs;
- Digital collections of clip art and sound;
- Scanned images and transparencies;
- PhotoCD;
- Art from computer art programs.

Animations & Video

You can attach standard Windows **AVI** and **FLI** files to any **Picture, Album** or **Movie**. To do so, select the **Play AVI or FLI files** function for the chosen Multimedia Object. Select this function from the corresponding **Function List**. For more information how to attach functions see [Attachments To Multimedia Objects](#). Be sure you have software to run AVI and FLI files, as it does not come with VHSB.

For your convenience, VHSB contains libraries of textures, movies and sounds which you can use to create your own 3D Spaces. All these sources are freely distributable for non-commercial purposes. If you use digital files created by somebody else, please first read and understand the licensing provisions for these files to avoid possible legal problems. Make sure you have (or acquire) the right to use and distribute any digital media files created by others.

Attachment Editor Dialog Box

In [Master Mode](#) displays:

- [Picture Attachment Editor](#)
- [Album Attachment Editor](#)
- [Picture Attachment Editor for Album](#)
- [Movie Attachment Editor](#)

depending on the selected Multimedia Object.

In [Guest Mode](#) displays:

- [Picture Attachment Viewer](#)
- [Album Attachment Viewer](#)
- [Picture Attachment Viewer for Album](#)
- [Movie Attachment Viewer](#)

depending on the selected Multimedia Object.

Use this dialog box to write [Attached Text](#) for a selected **Multimedia Object** and to attach [Attached Sound](#) (.wav file) to the object. The first part of the Attached Text is displayed in the **Attached Text Box** in the [3D Space Window](#) .

Additionally, **Controls** in this Dialog Box let you use a selected Multimedia Object as a command button that changes the current 3D Space or runs another program.

Picture Attachment Viewer Dialog Box



Use this dialog box to read the [Attached Text](#) for a [Picture](#) or listen to an [Attached Sound](#) (.wav file).

The first part of the Attached Text is displayed in the **Attached Text Box** in the [3D Space Window](#).

Picture Attachment Viewer: File

Shows the selected [Picture](#) file name.

Picture Attachment Viewer: Attached Text Box

Text area where you read the [Picture Attached Text](#).

Picture Attachment Viewer: Thumbnail View

Displays a thumbnail image of the [Picture](#).

Picture Attachment Viewer: Attached Sound

Shows the selected [Attached Sound](#) (.wav file).

Picture Attachment Viewer: Play Sound



Plays the selected [Attached Sound](#) (.wav file).

Picture Attachment Viewer: Stop Sound



Stops playing an [Attached Sound](#).

Picture Attachment Viewer: Function

Shows the Function that VHSB performs when a [Picture](#) is double-clicked.

Picture Attachment Viewer: Parameters

Shows the parameters that are passed to the application the selected **Function** is starting.

Picture Attachment Viewer: Comment

Shows the **Function Comment**.

Picture Attachment Viewer: OK



Closes the **Picture Attachment Viewer** dialog box.

Picture Attachment Editor Dialog Box



Use this dialog box to write [Attached Text](#) for a [Picture](#) and to attach [Attached Sound](#) (.wav file) to a Picture. The first part of the Attached Text is displayed in the **Attached Text Box** in the [3D Space Window](#). The **Picture Attachment Editor** allows you to view Attached Text, create new text, edit existing text, or attach sounds to Pictures. Attached Sounds must be shorter than 30 seconds.

Additionally, **Functions** in this dialog box lets you use a Picture as a command button that loads a new 3D Space, or runs another program.

Picture Attachment Editor: File

Shows the selected [Picture](#) file name.

Picture Attachment Editor: Attached Text Box

Text area where you enter the [Attached Text](#) for a Picture. Press the **Enter** key for carriage return. The standard Windows editing keys (Ctrl+Z for undo, Ctrl+X for cut, Ctrl+C for copy, and Ctrl+V for paste) do not work.

Picture Attachment Editor: Thumbnail View

Displays a thumbnail image of the [Picture](#).

Picture Attachment Editor: Attached Sound

Shows the selected [Attached Sound](#) file (.wav file).

Picture Attachment Editor: Play Sound



Plays the selected [Attached Sound](#) (.wav file).

Picture Attachment Editor: Stop Sound



Stops recording or playing an [Attached Sound](#).

Picture Attachment Editor: Record Sound



Begins recording an [Attached Sound](#). You must have a **Sound Blaster** or compatible sound card with a microphone to record sound.

Picture Attachment Editor: Delete Sound



Deletes the selected .wav file.

Picture Attachment Editor: Sound Browse



Displays the [Select Attached Sound Dialog Box](#), which you use to locate and select a .wav file to attach to a [Picture](#).

Picture Attachment Editor: Sound Record Time

Displays **Recording Time** in seconds.

Picture Attachment Editor: Function

Shows the [Function List](#) that VHSB performs when the [Picture](#) is double-clicked.

Picture Attachment Editor: Parameters

Shows parameters that are passed to the application that the selected [Function](#) is starting.

Picture Attachment Editor: Comment

Text area where you enter the **Function Comment**.

Picture Attachment Editor: OK



Saves all changes and closes **Picture Attachment Editor**. If you recorded an [Attached Sound](#) using a microphone, it calls [Save Attached Sound Dialog Box](#). You must select a file name to save the sound.

Picture Attachment Editor: Cancel



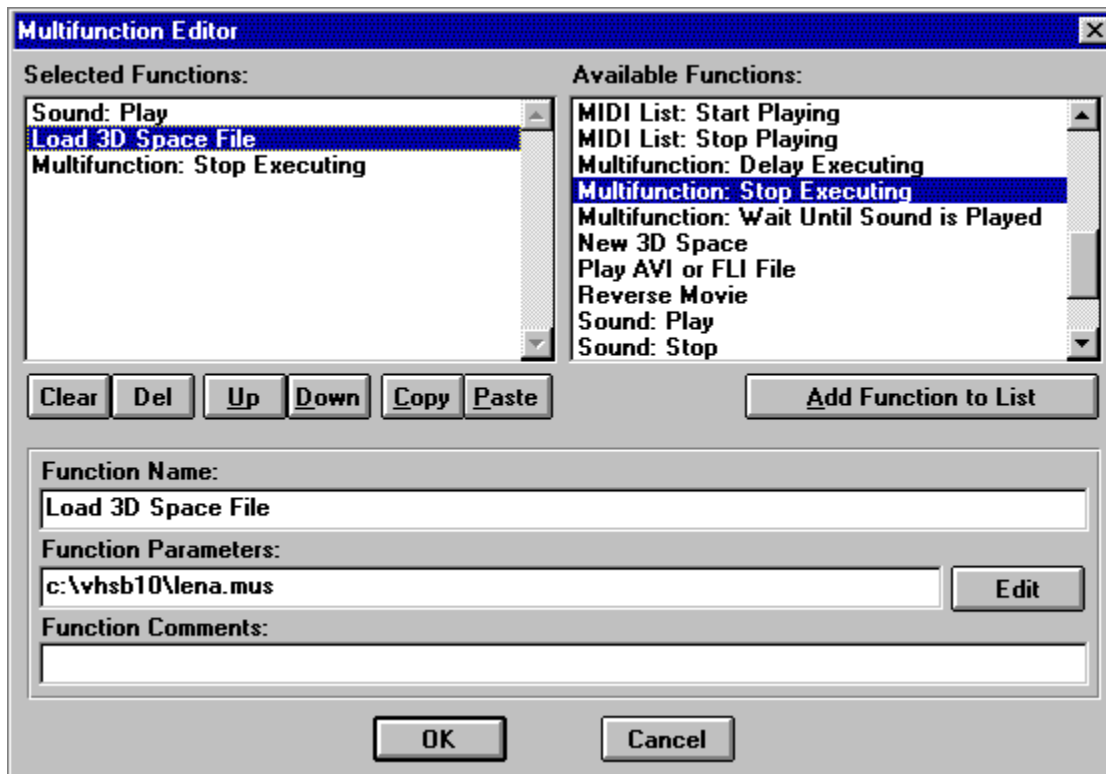
Closes **Picture Attachment Editor** without changes.

Function List for Picture

Select any of the following **Functions** from the list:

- **None** - VHSB performs no action.
- **Activate Copy All Dialog** - VHSB opens the [Select Destination Path Dialog Box](#).
- **Activate Open 3D Space Dialog** - VHSB opens the [Open 3D Space Dialog Box](#).
- **Activate Save 3D Space Dialog** - VHSB opens the [Save 3D Space Dialog Box](#).
- **Activate True Image Window** - VHSB opens the [True Image Window](#) for the currently displayed image.
- **Exit: Conditional** - VHSB quits with prompt.
- **Exit: Unconditional** - VHSB quits without prompt.
- **Link to URL** - VHSB opens Select URL dialog box, where you can insert a **URL**.
- **Load 3D Space File** - VHSB closes the current 3D Space and opens another 3D Space. Displays the [Select 3D Space File Dialog Box](#), which you use to locate and open a 3D Space file (.mus).
- **Load Any Document** - Loads any document.
- **Load Any Program** - VHSB starts the specified program using parameters entered in the parameters box. Displays the [Select Application for Load Dialog Box](#), which you use to locate the needed program.
- **MIDI List: Start Playing** - VHSB starts playing the [Background MIDI Music](#) specified in the Play List.
- **MIDI List: Stop Playing** - VHSB stops playing the **Background MIDI Music** specified in the Play List.
- **Multifunction** - VHSB performs a list of **Functions**. Displays the [Multifunction Editor Dialog Box](#).
- **Multifunction: Delay Executing** - VHSB suspends executing the **Function Queue**.
- **New 3D Space** - VHSB opens new 3D Space.
- **Play .AVI or .FLI Files** - VHSB starts playing the standard Windows movie file (.avi or .fli) attached to the selected [Picture](#) in a separate window.
- **Sound: Play** - VHSB starts playing the [Attached Sound](#) connected to the selected [Picture](#).
- **Sound: Stop** - VHSB stops playing the **Attached Sound**.
- **Start Walking Show** - Starts playing [Walking Show](#)
- **Switch to Guest Mode** - Switches current VHSB mode to [Guest Mode](#).
- **Switch to Master Mode** - Switches current VHSB mode to [Master Mode](#).

Multifunction Editor Dialog Box



Use this dialog to create a list of Functions to execute as **Attached Function**.

Multifunction Editor: Selected Function List

Is a list of **Functions** that are executed as an attached function. The functions are executed in the order they are listed. This list will execute when user double clicks on selected [Picture](#), [Album](#) or [Movie](#).

Multifunction Editor: Available Function List

Is an [Available Function List](#). Double-click a **Function Name** to select an attached function. The name of the selected Function appears at the bottom of the **Selected Function List**.

Multifunction Editor: Clear All Button



Clears all the functions in the **Selected Function List**.

Multifunction Editor: Delete Button



Removes the currently selected Functions from the **Selected Function List**.

Multifunction Editor: Up Button



Moves currently selected Function up the List.

Multifunction Editor: Down Button



Moves currently selected Function down the List.

Multifunction Editor: Copy Button

Copies the entire **Selected Function List** into internal storage. This stored list can be inserted into the Selected Function List of any other Multimedia Object by pushing the **Paste** button.

Multifunction Editor: Paste Button

Inserts the **Selected Function List** stored in the clipboard with the **Copy** button into the current list; placing it after the cursor.

Multifunction Editor: Add Function to Selected List Button

< - Add function to selected list

Adds the currently selected Function from the **Available Function List** to the bottom of the **Selected Function List**.

Multifunction Editor: Function Indicator



Shows which Function VHSB performs when a [Picture](#), [Album](#) or [Movie](#) is double-clicked.

Multifunction Editor: Function Parameters

Shows parameters that are passed to the program the selected **Function** is starting.

Multifunction Editor: Function Comments

Shows the **Function Comment**.

Multifunction Editor: Edit Button

Displays the [Select Application for Load Dialog Box](#), which is used to locate the required program.

Multifunction Editor: Help Button



Run **Help** with this topic.

Multifunction Editor: OK Button



Saves the **Selected Function List** and closes the **Multifunction Editor** dialog box.

Multifunction Editor: Cancel Button



Closes **Multifunction Editor Dialog Box** without saving the **Selected Function List**

Available Function List

Select any of the following **Functions** from the list. If VHSB cannot complete any particular function, it is ignored.

- **Activate Copy All Dialog** - VHSB opens the [Select Destination Path Dialog Box](#).
- **Activate Open 3D Space Dialog** - VHSB opens the [Open 3D Space Dialog Box](#).
- **Activate Save 3D Space Dialog** - VHSB opens the [Save 3D Space Dialog Box](#).
- **Activate True Image Window** - VHSB opens the [True Image Window](#) for the currently displayed image.
- **Album: List** - VHSB displays the entire **Album** from start to finish.
- **Album: Show as Movie** - VHSB displays the selected Album as a [Movie](#).
- **Album: Show Last Picture** - VHSB displays the last image in the selected **Album**.
- **Album: Show Next Picture** - VHSB displays the next image in the selected [Album](#).
- **Exit: Conditional** - VHSB quits with prompt.
- **Exit: Unconditional** - VHSB quits without prompt.
- **Link to URL** - VHSB opens Select URL Dialog Box, where you can insert a [URL](#).
- **Load 3D Space File** - VHSB closes the current 3D Space and opens another 3D Space. Displays the [Select 3D Space File Dialog Box](#), which you use to locate and open a 3D Space file (.mus).
- **Load Any Document** - Loads any document.
- **Load Any Program** - VHSB starts the specified program using parameters entered in the parameters box. Displays the [Select Application for Load Dialog Box](#), which you use to locate the needed program.
- **MIDI List: Start Playing** - VHSB starts playing the [Background MIDI Music](#) specified in the Play List.
- **MIDI List: Stop Playing** - VHSB stops playing the **Background MIDI Music** specified in the Play List.
- **Multifunction: Delay Executing** - VHSB suspends executing the **Function Queue**.
- **Multifunction: Stop Executing** - VHSB stops execution portion of multifunction list. Next time the selected object is double-clicked, the next portion of multifunction executes. May attach 2 or more different multifunctions to one object in this manner.
- **Multifunction: Wait Until Sound is Played** - VHSB freezes any motion until sound finishes playing.
- **New 3D Space** - VHSB opens new 3D Space.
- **Play AVI or FLI files** - VHSB starts playing the standard Windows movie file (.avi or .fli) attached to the selected [Picture](#) in a separate window.
- **Reverse Movie** - VHSB starts showing current **Movie** in the Reverse mode.
- **Sound: Play** - VHSB starts playing the [Attached Sound](#) connected to the selected [Picture](#).
- **Sound: Stop** - VHSB stops playing the **Attached Sound**.
- **Start Walking Show** - Starts playing [Walking Show](#)
- **Stop Movie** - VHSB stops showing current [Movie](#).
- **Switch to Guest Mode** - Switches current VHSB mode to [Guest Mode](#).
- **Switch to Master Mode** - Switches current VHSB mode to [Master Mode](#).

Album Attachment Viewer Dialog Box



Use this dialog box to read a [Pictures Attached Text](#) and listen to an [Attached Sound](#) (.wav file).

The first part of the Attached Text is displayed in the **Attached Text Box** in the [3D Space Window](#).

Album Attachment Viewer: File

Shows the selected [Picture](#) file name.

Album Attachment Viewer: Attached Text Box

Text area where you read the [Attached Text](#).

Album Attachment Viewer: Thumbnail View

Displays a thumbnail image of the [Picture](#) in the [Album](#).

Album Attachment Viewer: Attached Sound

Shows the selected [Attached Sound](#) (.wav file).

Album Attachment Viewer: Play Sound



Plays the selected [Attached Sound](#) (.wav file).

Album Attachment Viewer: Stop Sound



Stops playing an [Attached Sound](#).

Album Attachment Viewer: Function

Shows the Function that VHSB performs when an [Album](#) is double-clicked.

Album Attachment Viewer: Parameters

Shows the parameters that are passed to the application the selected **Function** is starting.

Album Attachment Viewer: Comment

Shows the **Function Comment**.

Album Attachment Viewer: Picture Mode Radio Button

Selects **Picture Mode** to read [Attached Text](#) of a [Picture](#) in the [Album](#) or listen to an [Attached Sound](#) (.wav file).

Displays [Picture Attachment Viewer for Album Dialog Box](#).

Album Attachment Viewer: Placement Status Line

Reports that this [Picture](#) will be first in the [Album](#) when the **3D Space** is loaded.

Album Attachment Viewer: OK



Closes the **Album Attachment Viewer** dialog box.

Album Attachment Viewer: Help

Runs **Help**.

Album Attachment Editor Dialog Box



Use this dialog box to write an [Attached Text](#) for an [Album](#) and to connect an [Attached Sound](#) (.wav file) to a **Picture**. The first part of the Attached Text is displayed in the **Attached Text Box** in the [3D Space Window](#). The **Album Attachment Editor** allows you to view Attached Text, create new text, edit existing text, or Attach Sounds to an **Album**. The Attached Sound must be shorter than 30 seconds.

Additionally, **Functions** in this dialog box lets you use an **Album** as a command button that loads a new 3D Space, or runs another program.

Album Attachment Editor: File

Shows the selected [Picture](#) file name.

Album Attachment Editor: Attached Text Box

Text area where you type the [Attached Text](#). Press the **Enter** key for carriage return. The standard Windows editing keys (Ctrl+Z for undo, Ctrl+X for cut, Ctrl+C for copy, and Ctrl+V for paste) do not work.

Album Attachment Editor: Thumbnail View

Displays a thumbnail image of the current [Picture](#) in the [Album](#).

Album Attachment Editor: Attached Sound

Shows the selected [Attached Sound](#) (.wav file).

Album Attachment Editor: Play Sound



Plays the selected [Attached Sound](#) (.wav file).

Album Attachment Editor: Stop Sound



Stops recording or playing an [Attached Sound](#).

Album Attachment Editor: Record Sound



Begins recording an [Attached Sound](#). You must have a **Sound Blaster** or compatible sound card with an attached microphone to record sound.

Album Attachment Editor: Delete Sound



Deletes the selected .wav file.

Album Attachment Editor: Sound Browse



Displays the [Select Attached Sound Dialog Box](#), which you use to locate and select a .wav file to attach to an [Album](#).

Album Attachment Editor: Sound Record Time

Displays **Recording Time** in seconds.

Album Attachment Editor: Function

Shows the [Function List](#) that VHSB performs when the [Album](#) is double-clicked.

Album Attachment Editor: Parameters

Shows parameters that are passed to the application the selected [Function](#) is starting.

Album Attachment Editor: Comment

Text area where you enter the **Function Comment**.

Album Attachment Editor: Picture Mode Radio Button

Selects **Picture Mode** to read and correct [Attached Text](#) for [Pictures](#) in the [Album](#), and to listen to an [Attached Sound](#) (.wav file).

Displays [Picture Attachment Editor for Album Dialog Box](#).

Album Attachment Editor: Placement Check Box

Sets this option to place this [Picture](#) on top of the [Album](#) when the 3D Space is loaded.

Album Attachment Editor: OK



Saves all changes and closes **Album Attachment Editor**. If you recorded an [Attached Sound](#) using the microphone, it calls the [Save Attached Sound Dialog Box](#). You must select a file name to save the recorded sound.

Album Attachment Editor: Help

Runs **Help**.

Album Attachment Editor: Cancel



Closes the **Album Attachment Editor** without changes.

Function List for Album

Select any of the following **Functions** from the list:

- **None** - VHSB performs no action.
- **Activate Copy All Dialog** - VHSB opens the [Select Destination Path Dialog Box](#).
- **Activate Open 3D Space Dialog** - VHSB opens the [Open 3D Space Dialog Box](#).
- **Activate Save 3D Space Dialog** - VHSB opens the [Save 3D Space Dialog Box](#).
- **Activate True Image Window** - VHSB opens the [True Image Window](#) on the currently displayed image.
- **Album: List** - VHSB displays the entire Album from start to finish.
- **Album: Show as Movie** - VHSB displays the selected Album as a [Movie](#).
- **Album: Show Last Picture** - VHSB displays the last image in the selected Album.
- **Album: Show Next Picture** - VHSB displays the next image in the selected [Album](#).
- **Exit: Conditional** - VHSB quits with prompt.
- **Exit: Unconditional** - VHSB quits without prompt.
- **Link to URL** - VHSB opens the Select URL Dialog Box, where you can insert a [URL](#).
- **Load 3D Space File** - VHSB closes the current 3D Space and opens another 3D Space. Displays the [Select 3D Space File Dialog Box](#), which is used to locate and open a 3D Space file (.mus).
- **Load Any Document** - Loads any document.
- **Load Any Program** - VHSB starts the specified program using any parameters entered in the parameters box. Displays the [Select Application for Load Dialog Box](#), which you use to locate the needed program.
- **MIDI List: Start Playing** - VHSB starts playing the [Background MIDI Music](#) specified in the **Play List**.
- **MIDI List: Stop Playing** - VHSB stops playing the **Background MIDI Music** specified in the **Play List**.
- **Multifunction** - VHSB performs a list of Functions. Displays the [Multifunction Editor Dialog Box](#).
- **Multifunction: Delay Executing** - VHSB suspends executing the **Function Queue**.
- **New 3D Space** - VHSB opens new 3D Space.
- **Play AVI or FLI files** - VHSB plays a standard Windows movie file (.avi or .fli) attached to the selected [Picture](#) in a separate window.
- **Sound: Play** - VHSB plays the [Attached Sound](#) attached to the selected [Picture](#).
- **Sound: Stop** - VHSB stops playing the Attached Sound.
- **Start Walking Show** - Starts playing [Walking Show](#)
- **Switch to Guest Mode** - Switches current VHSB mode to [Guest Mode](#).
- **Switch to Master Mode** - Switches current VHSB mode to [Master Mode](#).

Picture Attachment Viewer for Album Dialog Box



Use this dialog box to read [Attached Text](#) for [Pictures](#) in the [Album](#), and to listen to an [Attached Sound](#) (.wav file).

The first part of the Attached Text is displayed in the **Attached Text Box** in the [3D Space Window](#) when the **Tab key** is pushed.

Picture Attachment Viewer: Album Mode Radio Button

Selects **Album Mode** to read and correct [Attached Texts](#) for [Pictures](#) in the [Album](#), and to listen to [Attached Sound](#) (.wav file).

Displays [Album Attachment Viewer Dialog Box](#).

Picture Attachment Viewer: Placement Status Line

Reports that this [Picture](#) will be first in the [Album](#) when the 3D Space is loaded.

Picture Attachment Viewer: Help Button

Runs **Help**.

Picture Attachment Editor for Album Dialog Box



Use this dialog box to write [Attached Text](#) for a [Picture](#) in the [Album](#) and to attach an [Attached Sound](#) (.wav file). The first part of the Attached Text is displayed in the **Attached Text Box** in the [3D Space Window](#). The **Picture Attachment Editor** views Attached Text, creates new text, edits existing text, or attaches sounds to **Pictures**. The Attached Sound must be no longer than 30 seconds.

Additionally, **Functions** in this dialog box lets you use a **Picture** as a command button that loads a new 3D Space, or runs another program when the **Tab key** is pressed.

Picture Attachment Editor: Album Mode Radio Button

Selects **Album Mode** to read and correct [Attached Texts](#) for [Pictures](#) in the [Album](#), and to listen to [Attached Sound](#) (.wav file).

Displays [Album Attachment Editor Dialog Box](#).

Picture Attachment Editor: Placement Check Box

Set this option to make this [Picture](#) the first picture in the [Album](#).

Picture Attachment Editor: Help Button

Runs **Help**.

Movie Attachment Viewer Dialog Box



Use this dialog box to read [Attached Text](#) for a [Movie](#) and listen to [Attached Sound](#) (.wav file).

The first part of the attached text is displayed in the **Attached Text Box** in the [3D Space Window](#) .

Movie Attachment Viewer: File

Shows the selected [Movie](#) file name.

Movie Attachment Viewer: Attached Text Box

Text area where you read the [Movie Attached Text](#).

Movie Attachment Viewer: Thumbnail View

Displays a thumbnail image of the [Movie](#).

Movie Attachment Viewer: Frame Exposure Time

Displays the amount of time each movie frame is displayed.

Movie Attachment Viewer: Number of Frame

Displays the total number of movie frames.

Movie Attachment Viewer: Attached Sound

Shows the selected [Attached Sound](#) (.wav file).

Movie Attachment Viewer: Play Sound



Plays the selected [Attached Sound](#) (.wav file).

Movie Attachment Viewer: Stop Sound



Stops playing the [Attached Sound](#).

Movie Attachment Viewer: Function

Shows the name of the function that **VHSB** performs when the [Movie](#) is double-clicked.

Movie Attachment Viewer: Parameters

Shows parameters that are passed to the program the selected **Function** is starting.

Movie Attachment Viewer: Comment

Shows the **Function Comment**.

Movie Attachment Viewer: OK

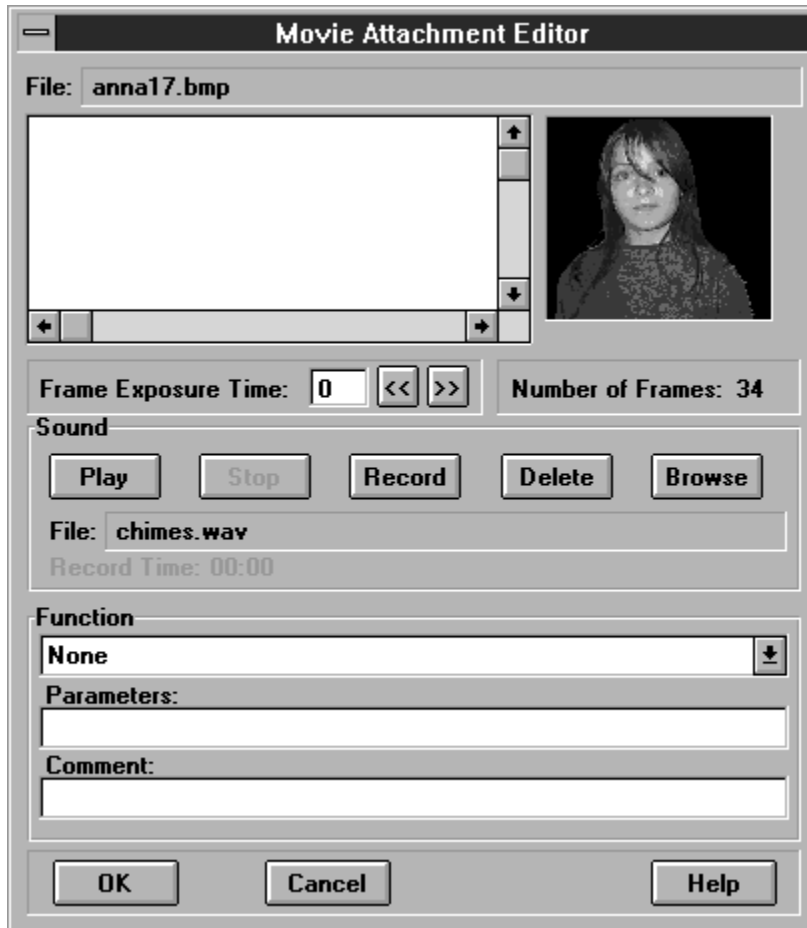


Closes **Movie Attachment Viewer** dialog box.

-Movie Attachment Viewer: Help

Runs **Help**.

Movie Attachment Editor Dialog Box



Use this dialog box to write [Attached Text](#) for a [Movie](#) and to connect [Attached Sound](#) (.wav file) to a Movie. The first part of the Attached Text is displayed in the **Attached Text Box** in the [3D Space Window](#). An Attached Sound must be shorter than 30 seconds. Additionally, **Functions** in this dialog box lets you use a Movie as a command button that loads a new 3D Space, or runs another program.

Movie Attachment Editor: File

Shows the selected [Movie](#) file name.

Movie Attachment Editor: Attached Text Box

Text area where you enter the [Movie Attached Text](#). Press the **Enter** key for carriage return. The standard Windows editing keys (Ctrl+Z for undo, Ctrl+X for cut, Ctrl+C for copy, and Ctrl+V for paste) do not work.

Movie Attachment Editor: Thumbnail View

Displays a thumbnail image of the [Movie](#).

Movie Attachment Editor: Frame Exposure Time

Determines the amount of time each movie frame is displayed. Lower exposure time values display frames faster and higher values display frames slower. Enter a value or use the >> to raise and << to lower the **Frame Exposure Time**.

Movie Attachment Editor: Number of Frames

Displays the total number of [Movie Frames](#).

Movie Attachment Editor: Attached Sound

Shows the selected [Attached Sound](#) (.wav file.)

Movie Attachment Editor: Play Sound



Plays the selected [Attached Sound](#) (.wav file).

Movie Attachment Editor: Stop Sound



Stops recording or playing an [Attached Sound](#).

Movie Attachment Editor: Record Sound



Begins recording an [Attached Sound](#). You must have a **Sound Blaster** or compatible sound card with a microphone to record sound.

Movie Attachment Editor: Delete Sound



Deletes the selected .wav file.

Movie Attachment Editor: Sound Browse



Displays the [Select Attached Sound Dialog Box](#), which you use to locate and select a .wav file to attach to a [Movie](#).

Movie Attachment Editor: Sound Record Time

Displays **Recording Time** in seconds.

Movie Attachment Editor: Function

Shows the [Function List](#) that **VHSB** performs when the [Movie](#) is clicked.

Movie Attachment Editor: Parameters

Shows parameters that are passed to the program the selected [Function](#) is starting.

Movie Attachment Editor: Comment

Text area where you enter the **Function Comment**.

Movie Attachment Editor: OK



Saves all changes and closes the **Movie Attachment Editor** dialog box.

If you record an [Attached Sound](#) using a microphone, it calls [Save Attached Sound Dialog Box](#). You must select a file name to save the recording.

Movie Attachment Editor: Help

Runs **Help**.

Movie Attachment Editor: Cancel



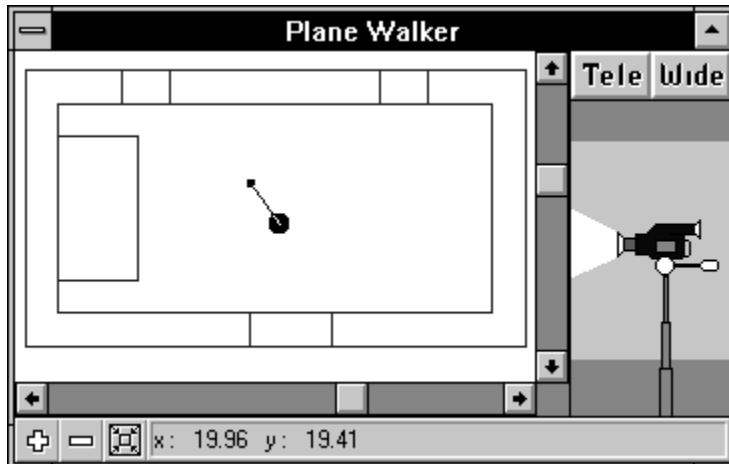
Closes **Movie Attachment Editor** dialog box without changes.

Function List for Movie

Select any of the following **Functions** from the list:

- **None** - VHSB performs no action.
- **Activate Copy All Dialog** - VHSB opens the [Select Destination Path Dialog Box](#).
- **Activate Open 3D Space Dialog** - VHSB opens the [Open 3D Space Dialog Box](#).
- **Activate Save 3D Space Dialog** - VHSB opens the [Save 3D Space Dialog Box](#).
- **Activate True Image Window**- VHSB opens the [True Image Window](#) on the currently displayed image.
- **Exit: Conditional** - VHSB quits with prompt.
- **Exit: Unconditional** - VHSB quits without prompt.
- **Link to URL** - VHSB opens Select URL Dialog Box, where you can insert a [URL](#).
- **Load 3D Space File** - VHSB closes the current 3D Space and opens another 3D Space. Displays the [Select 3D Space File Dialog Box](#), which you use to locate and open a 3D Space file (.mus).
- **Load Any Document** - Loads any document.
- **Load Any Program** - VHSB starts the specified program using any parameters entered in the parameters box. Displays the [Select Application for Load Dialog Box](#), which is used to locate the needed program.
- **MIDI List: Start Playing** - VHSB starts playing the [Background MIDI Music](#) specified in the Play List.
- **MIDI List: Stop Playing** - VHSB stops playing the Background MIDI Music specified in the Play List.
- **Multifunction** - VHSB performs a list of Functions. Displays the [Multifunction Editor Dialog Box](#).
- **Delay Executing Multifunction Queue** - VHSB suspends executing the **Function Queue**.
- **New 3D Space** - VHSB opens a new 3D Space.
- **Play AVI or FLI files** - VHSB starts playing the standard Windows movie file (.avi or .fli) in a separate window.
- **Reverse Movie** - VHSB starts showing current Movie in the Reverse mode.
- **Sound: Play** - VHSB starts playing the [Attached Sound](#) connected to the selected **Movie**.
- **Sound: Stop** - VHSB stops playing the Attached Sound.
- **Start Walking Show** - Starts playing [Walking Show](#)
- **Stop Movie** - VHSB stops showing current [Movie](#).
- **Switch to Guest Mode** - Switches current VHSB mode to the [Guest Mode](#).
- **Switch to Master Mode** - Switches current VHSB mode to the [Master Mode](#).

Plane Walker Window

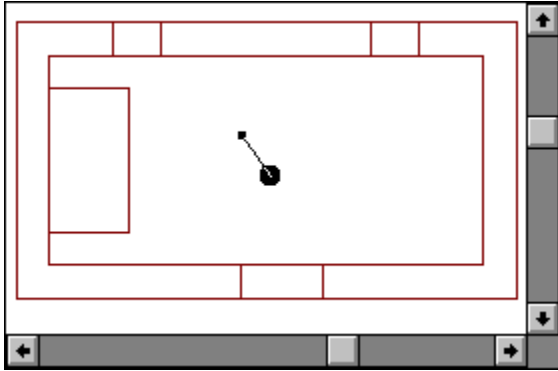


The **Plane Walker Window** shows a [Floor Plan](#) of the **3D Space** and includes [Pinocchio](#), which you can use to move the **Camera** around the 3D Space. The Plane Walker Window also includes the [Camera Icon](#), which you can use to adjust the **Height, Angle (Tilt)** and **Zoom Qualities** of the Camera.

See also:

[Plane Builder Window](#)

Plane Walker Window: Floor Plan Area



The **Floor Plan** shows the 3D Space from above. Walls look like rectangles. Doors and windows look like wall segments. [Pinocchio](#) moves about the Floor Plan.

Plane Walker Window: Full View Tool



Shows the projection of the entire 3D Space on the [Floor Plan](#).

Plane Walker Window: Zoom In Tool



Increases the size of walls seen in the [Floor Plan](#), but decreases the size of the area you see.

Plane Walker Window: Zoom Out Tool



Decreases the size of walls seen in the [Floor Plan](#), but increases the size of the area you see.

Plane Walker Window: Coordinate Box

Shows the **X** and **Y coordinates** of the cursor.

Floor Plan: Pinocchio Button

Use the **Pinocchio Button** to quickly move the camera around the **Floor Plan**. The button consists of a **body** (the big black circle) and a **nose** (the short segment with the small black circle at the end). Pinocchio's position on the floor plan represents the camera's position and the direction it is facing. The camera moves through the 3D Space at the same speed as you move Pinocchio around the floor plan. Using Pinocchio, you can freely move through walls and any other obstacles. Moreover, you can jump around the 3D Space by double-clicking at the point in the floor plan where you want to jump. Pinocchio (and the camera in 3D Space) will immediately jump to that point.



Drag Pinocchio around the floor plan to move the camera through the 3D Space.



Drag the body of the Pinocchio Button to move the camera without changing the direction it is facing.



Drag Pinocchio by the end of the nose to trail the camera (like a child's toy wagon) or turn it towards walls.

Walker Toolbox



The **Walker Toolbox** is a toolbox that includes tools for manipulating the camera, opening other windows and working with [Pictures](#). In [Guest Mode](#), the Walker Toolbox contains **16 buttons** and in [Master Mode](#), **28 buttons**: these are additional buttons for working with objects, opening and closing the [Plane Builder Window](#), [Chooser Window](#), and selecting various modes.

In Master Mode, use **Esc** to switch the current tool to the **Default Cursor Tool**.

Walker Toolbox: Rotate Camera Left Tool



Swings the camera to the left. Zoom, height, and tilt remain the same.

Keypad Equivalent: 7

Press **Ctrl** to double the speed of the motion produced with the tool.

Walker Toolbox: Move Camera Forward Tool



Moves the camera forward. Zoom, Height, and Tilt remain the same.

Keypad Equivalent: 8, Up Arrow

Press **Ctrl** to double the speed of the motion produced with the tool.

Walker Toolbox: Rotate Camera Right Tool



Swings the camera to the right. Zoom, Height, and Tilt remain the same.

Keypad Equivalent: 9

Press **Ctrl** to double the speed of the motion produced with the tool.

Walker Toolbox: Move Camera Up Tool



Raises the camera. Zoom, Direction, and Tilt remain the same.

Keypad Equivalent: +

Press **Ctrl** to double the speed of the motion produced with the tool.

Walker Toolbox: Move Camera Left Tool



Moves the camera left. Zoom, Height, and Tilt remain the same.

Keypad Equivalent: 4, Left Arrow

Press **Ctrl** to double the speed of the motion produced with the tool.

Walker Toolbox: Move Camera Back Tool



Moves the camera backward. Zoom, Height, and Tilt remain the same.

Keypad Equivalent: 2, Down Arrow

Press **Ctrl** to double the speed of the motion produced with the tool.

Walker Toolbox: Move Camera Right Tool



Moves the camera right. Zoom, Height, and Tilt remain the same.

Keypad Equivalent: 6, Right Arrow

Press **Ctrl** to double the speed of the motion produced with the tool.

Walker Toolbox: Restore Default Height Tool



Restores the default camera height. Zoom, Direction, and Tilt remain the same.

Walker Toolbox: Tilt Camera Down Tool



Tilts the camera down. Zoom, Direction, and Height remain the same.

Keypad Equivalent: Delete

Press **Ctrl** to double the speed of the motion produced with the tool.

Walker Toolbox: Restore Default Tilt Tool



Tilts the camera up or down until it is level. Zoom, Direction, and Height remain the same.

Walker Toolbox: Tilt Camera Up Tool



Tilts the camera up. Zoom, Direction, and Height remain the same.

Keypad Equivalent: Insert

Press **Ctrl** to double the speed of the motion produced with the tool.

Walker Toolbox: Move Camera Down Tool



Lowers the camera. Zoom, Direction, and Tilt remain the same.

Keypad Equivalent: -

Press **Ctrl** to double the speed of the motion produced with the tool.

Walker Toolbox: Zoom In Tool



Zooms the camera in so that objects appear closer. Direction, Height, and Tilt remain the same.

Walker Toolbox: Restore Default Zoom Tool



Restores the default zoom. Direction, Height, and Tilt remain the same.

Walker Toolbox: Zoom Out Tool



Zooms the camera out so that objects appear farther away. Direction, Height, and Tilt remain the same.

Walker Toolbox: Call Plane Walker Window Tool



Selects [Plane Walker Window](#) (as if you clicked in the window). If it is behind other windows, it is brought to the front.

Walker Toolbox: View Object Tool



Moves the camera directly in front of the **Selected Object**.
See also:

[Selected Object Toolbar: View Object Tool](#)



Tip

Present in [Master Mode](#) only.

Walker Toolbox: Show True Image Tool



Opens the [True Image Window](#) to display the selected [Picture](#). The Picture is displayed at its original size, and with its original colors.

See also:

[Selected Object Toolbar: Show True Image Tool](#)



Tip

Present in [Master Mode](#) only.

Walker Toolbox: Move/Resize Tool



Selects the **Move/Resize Tool**. Use the **Move/Resize** cursor to **drag** a [Picture](#), [Album](#), or [Movie](#) from one place to another on a wall, or from one wall to another. Click and drag the upper right corner of a **Selected Object** to resize it.



Tip

Presents in [Master Mode](#) only.

Walker Toolbox: Delete Object Tool



Deletes the selected **Multimedia Object**.



Tip
Present in [Master Mode](#) only.

Walker Toolbox: Play Attached Sound Tool



Plays the [Attached Sound](#) connected to a [Picture](#).
See also:

[Selected Object _ Toolbar: Play Attached Sound Tool](#)



Tip
Present in [Master Mode](#) only.

Walker Toolbox: List Album Tool



Displays the next image in an [Album](#).
See also:

[Selected Object Toolbar: List Album Tool](#)



Tip

Present in [Master Mode](#) only.

Walker Toolbox: Default Cursor Tool



Selects the **Default Cursor**.



Tip

Present in [Master Mode](#) only.

Walker Toolbox: Write Walking Show Tool



Records a **Walking Show** sequence. To record a Walking Show, first select the **Write Walking Show** tool. Then move through the 3D Space, show Attached Text, play Attached Sounds, etc. Every action will be recorded until you click the Write Walking Show tool once more.



Tip

Present in [Master Mode](#) only.

Walker Toolbox: Reserved Tool



Reserved Tool.



Tip

Present in [Master Mode](#) only.

Walker Toolbox: Call Plane Builder Window Tool



Replaces the [Plane Walker Window](#) with the [Plane Builder Window](#). If neither window is showing, displays the Plane Builder window.



Tip

Present in [Master Mode](#) only.

Walker Toolbox: Call Chooser Window Tool



Displays the [Chooser Window](#)



Tip

Present in [Master Mode](#) only.

Walker Toolbox: Undo Tool



Removes the result of the previous building operation. By clicking **Undo** repeatedly, you can undo all the operations you performed since last saving (or creating) the 3D Space.

See also:

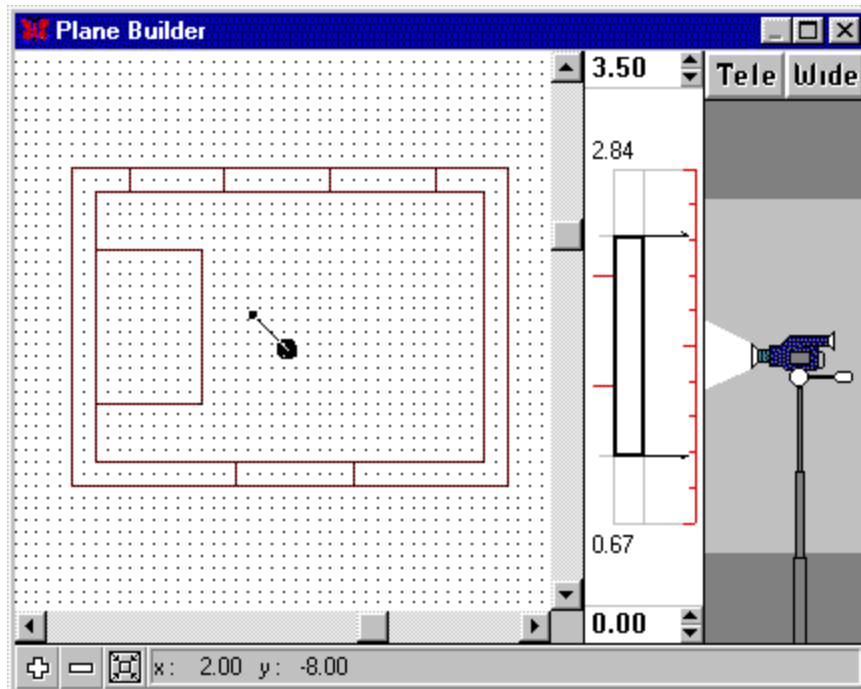
[Builder Toolbox: Undo Tool](#)



Tip

Present in [Master Mode](#) only.

Plane Builder Window



The **Plane Builder window** contains the [Floor Plan](#), where you build rooms for your 3D Space, and the **Coordinate Box**, where you can see the cursor coordinates. This window includes the [Height Control Tool](#), which you use to control the height of the rooms you create, and to control the dimensions of sections you cut away to create room interiors, doors, and windows. The Plane Builder window also includes the [Camera Icon](#), which you use to control the view of the 3D Space you are creating.

The red scale in the **Height Control Tool** shows the height of the space in which you build your 3D Space. The bold rectangle in the control shows the vertical dimensions of new rooms that you place in the 3D Space. Before you draw a new room, drag the top arrow to specify the height of the room. Then create the room by drawing a box using the [Add Box](#) tool.

To create the interior of a room, drag the top and bottom arrows in the Height Control Tool slightly towards the middle and use the [Remove Box](#) tool to draw a box inside the new room. The difference in height between the top of the room and the interior cutaway is the thickness of the ceiling, and the difference in height between the bottom of the room and interior cutaway is the thickness of the floor. You also adjust the top and bottom arrows to cut away doors and windows with the Remove Box tool.

See also:

[Plane Walker Window](#)

Plane Builder Window: Full View Tool



Shows a projection of the entire **3D Space** on the [Floor Plan](#).

Plane Builder Window: Zoom In Tool



Increases the size of walls seen in the floor plan, but decreases the size of the area you see in the [Floor Plan](#).

Plane Builder Window: Zoom Out Tool

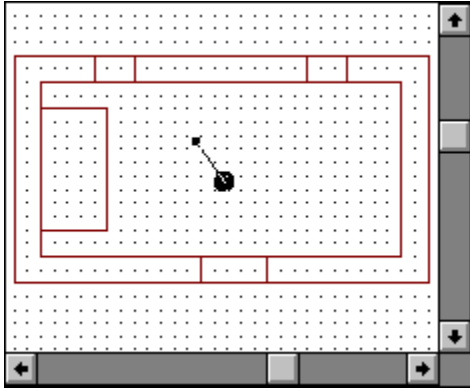


Decreases the size of walls seen in the [Floor Plan](#), but increases the size of the area you see in the floor plan.

Plane Builder Window: Coordinate Box

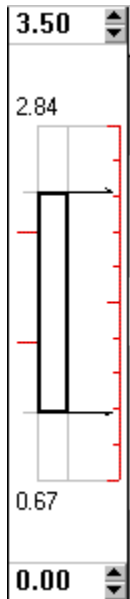
Shows the **X** and **Y** coordinates of the cursor.

Plane Builder Window: Floor Plan Area



The **Floor Plan** area shows the floor plan of the 3D Space. Draw the rooms, doors, and windows of your 3D Space in the Floor Plan area. The Floor Plan shows the 3D Space from above. Draw rooms as inner and outer rectangles seen from above. Draw doors and windows by removing sections of walls created by the inner and outer rectangles. [Pinocchio](#) moves about the Floor Plan.

Height Control Tool



Use this tool to control the vertical dimensions of sections. Drag the Laths up and down to set the upper and lower height of a segment. The red horizontal marks to the left of the bar are **Height Indicators**. Click on any object in the 3D Space window, and the Height Indicators will show the bottom and top height of the object.

Segment Height: Scale

Shows the height of the virtual space in which you build your 3D Space.

Segment Height: Top Lath

Specifies the top level of the segment that will be constructed.

Segment Height: Top Indicator

Displays the top level of the segment that will be constructed.

Segment Height: Bottom Lath

Specifies the bottom level of the segment that will be constructed.

Segment Height: Bottom Indicator

Displays the bottom level of the segment that will be constructed.

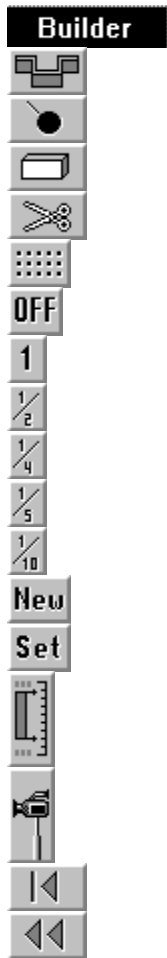
Segment Height: Position Bar

Specifies the vertical dimensions of segment that will be constructed.

Segment Height: Height Indicator

Height Indicators, the red marks on the left side of the height line, show the height of the wall selected in the [3D Space Window](#).

Builder Toolbox



The **Builder** toolbox contains construction tools, coordinate grid parameters, Snap-to-Grid settings for the [Plane Builder Window](#), and a button to switch to Drag Pinocchio mode.

Use **Esc** to change the current selected building tool to Pinocchio. You also can use the right mouse button for this purpose if the cursor is in the Plane Builder Window.

Builder: Add Wall Tool



Selects the **Add Wall tool**, which creates walls in the 3D Space.

Use the [Height Control Tool](#) to specify the height of the wall, then click Add Wall and draw the wall in the floor plan. See [How to Build a 3D Space](#) for more instructions.

To drag **Pinocchio** around the floor plan without creating an exterior, hold the **<Ctrl>** key.

Builder: Pinocchio



Selects [Pinocchio](#) which drags the camera around the [Floor Plan](#). The metaphor is similar to dragging a child's toy wagon.

Builder: Add Box Tool



Selects the **Add Box tool**, which creates the exterior of boxes in the 3D Space. Use the [Height Control Tool](#) to specify the height of the box, then click Add Box and draw the exterior of the box in the floor plan. See [How to Build a 3D Space](#) for instructions. To drag the **Pinocchio** around the floor plan without creating a box, hold the **<Ctrl>** key.

Builder: Remove Box Tool



Selects the **Remove Box Tool**, which you can use to remove parts of a box, or to remove a section of a wall to create a door or window. Use the [Height Control Tool](#) to specify the vertical dimensions of a room interior, door, or window, and then click Remove Box and draw the room interior, door, or window in the Floor Plan. See [How to Build a 3D Space](#) for further instructions.

To drag the **Pinocchio** around the floor plan without removing material, hold the **<Ctrl>** key.

Builder: Zoom In Tool



Increases the size of walls seen in the [Floor Plan](#), but decreases the size of the area you see in the floor plan.

Builder: Zoom Out Tool



Decreases the size of walls seen in the [Floor Plan](#), but increases the size of the area you see in the floor plan.

Builder: Set Coordinate Grid Tool



Changes the **Grid** shown in the [Floor Plan](#).

Switches between Grid types:

Dots - Draws the floor plan grid as a pattern of black dots.

None - Removes the floor plan grid;

Builder: Snap-to-grid Off Tool

OFF

Turns off the **snap-to-grid** feature so that you can draw wall edges anywhere on the [Floor Plan](#) grid.

Builder: Snap to Grid Tool

1

Forces the edges of a new wall to align with the [Floor Plan](#) grid.

Builder: Snap to 1/2 Grid Tool



Forces the edges of a new wall to align with a **snap-to grid** where each visible grid square contains four snap-to grid squares.

Builder: Snap to 1/4 Grid Tool



Forces the edges of a new wall to align with a **snap-to grid** where each visible grid square contains sixteen snap-to grid squares.

Builder: Snap to 1/5 Grid Tool



Forces the edges of a new wall to align with a **snap-to grid** where each visible grid square contains twenty-five snap-to grid squares.

Builder: Snap to 1/10 Grid Tool



Forces the edges of a new wall to align with a **snap-to grid** where each visible grid square contains one hundred snap-to grid squares.

Builder: New 3D Space Tool

New

Opens a new 3D Space.

Builder: Settings Tool

Set

Displays the [Builder Settings Dialog Box](#), which you can use to set several important dimensions. All dimensions are measured in meters, and entered in decimal form. Maximal length and width values do not exceed 63 m. Height is calculated from ground level.

Builder: Full View Tool



Shows the projection of the entire 3D Space on the [Floor Plan](#).

Builder: Camera Icon On/Off Tool



Hides and restores the [Camera Icon](#) in the [Plane Builder Window](#).

Builder: Height Control Tool On/Off Tool



Hides and restores the [Height Control Tool](#) in the [Plane Builder Window](#).

Builder: Undo Tool



Removes the effect of the previous 3D Space-building operation. By clicking **Undo** repeatedly, you can undo all the operations you performed since last saving (or creating) the 3D Space.

See also:

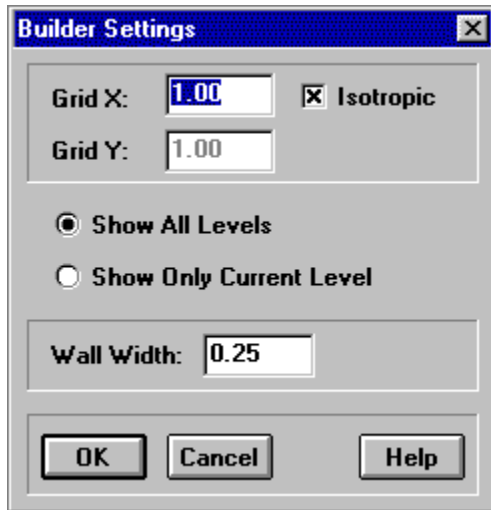
[Walker Toolbox: Undo](#)

Builder: Undo All Tool



Undo All of the operations you performed since last saving (or creating) the 3D Space.

Builder Settings Dialog Box



Use this dialog box to determine several important 3D Space dimensions. All dimensions are measured in conditional units and input in decimal form. Maximal length and width values cannot exceed **63**.

Builder Settings: Grid X

Sets the **X** coordinate grid dimension (in meters).

Builder Settings: Grid Y

Sets the **Y** coordinate grid dimension (in meters).

Builder Settings: Isotropic

When **Isotropic** is selected, the snap-to-grid retains a proportion of 1 to 1. With Isotropic deselected, the snap-to grid can take any proportion: 1 to 1, 1 to 2, etc. It is important that the grid is displayed at a size and scale that makes it visible as a grid, and not so small as to make it invisible.

Builder Settings: Upper Height Level

Sets the limit of the **Upper Level** of a 3D Space in conditional units. The area between the **Upper Level** and the **Lower Level** is the **Current Level**. The [Floor Plan](#) shows only the **Current Level** when the **Show Only Current Level** option in the [Builder Settings Dialog Box](#) is selected. Otherwise, if the **Show All Levels** option is selected, the **Floor Plan** displays all the levels of the given 3D space.



To change the value of the **Upper Height Level**, click on the small rectangle which contains the corresponding number. The edit box appears as in the picture above. You can enter a number directly or use the up/down arrows to adjust the value. To save the change, either press **Enter**, push the button with the small black rectangle, or simply click somewhere outside the edit control. To cancel the last change, press **Esc** or push the button with the cross sign.

Builder Settings: Lower Height Level

Sets the limit of the **Lower Level** of a 3D Space in conditional units. The area between the **Lower Level** and the **Upper Level** is the **Current Level**. The [Floor Plan](#) shows only the **Current Level** when the **Show Only Current Level** option in the [Builder Settings Dialog Box](#) is selected. Otherwise, if the **Show All Levels** option is selected, the **Floor Plan** displays all the levels of the given 3D space.



To change the value of the **Lower Height Level**, click on the small rectangle which contains the corresponding number. The edit box appears as in the picture above. You can enter a number directly or use the up/down arrows to adjust the value. To save the change, either press **Enter**, push the button with the small black rectangle, or simply click somewhere outside the edit control. To cancel the last change, press **Esc** or push the button with the cross sign.

Builder Settings: Show All Levels

Selecting this option shows the [Floor Plan](#) of the entire 3D Space, without eliminating any level.

Builder Settings: Show Only Current Level

Selecting this option shows only part of the 3D Space, between the **Upper** and **Lower Levels**, on the [Floor Plan](#). The Floor Plan shows only part of the 3D Space, either the Upper or Lower Level, from above.

Builder Settings: Wall Width

Sets the width of walls drawn using Draw Wall, as shown on the [Floor Plan](#).

Builder Settings: Help



Run **Help** with this topic.

Builder Settings: OK



Closes the **Builder Settings** dialog box and saves new parameters.

Builder Settings: Cancel



Closes the **Builder Settings** dialog box without changes.


Chooser Window (Picture, Airbrush, Wallpaper, Movie)

The **Chooser window** shows thumbnail images of [Pictures](#), [Wallpapers](#), and [Movies](#) which you can use in the 3D Space. The Chooser window also shows colors for painting walls, ceilings, and floors.

Chooser Window Toolbar:




The **On-Line Help Box** shows the name of the tool or image file under the cursor.

To attach a **Picture** to a 3D Space wall, click the  [Picture Tool](#) and drag the picture from the Chooser window to a 3D Space wall.

To create an [Album](#), click the  [Picture Tool](#) and drag two or more Pictures from the Chooser window to the same spot on a 3D Space wall.

To create a **Movie**, click the  [Movie Tool](#) and drag any of the movie images from the Chooser window to a 3D Space wall.

To **Airbrush** a wall, ceiling, or floor, click the  [Airbrush Tool](#) and drag the color you want to use from the Chooser window to any surface.

To place **Wallpaper** on any 3D Space surface, click the  [Wallpaper Tool](#) and drag a wallpaper image to any surface.

Press **F5** to refresh thumbnail images in the Chooser window. It is useful when you change or add an image file to the image directory when the Chooser window is open to that directory.

VHSB saves the paths to the directories last used for Pictures, Wallpapers and Movies in the **INI file** and restores the paths at start up.

Chooser: Picture Tool



Selects the [Picture Mode](#) and displays thumbnail images of [Pictures](#) in the currently selected picture directory. Drag and drop the Pictures to any wall

Chooser: Airbrush Tool



Selects the [Airbrush Mode](#) and displays a palette of colors you can use to paint any 3D Space surface. Drag and drop the colors to any surface

Chooser: Wallpaper Tool



Selects the [Wallpaper Mode](#) and displays thumbnail images of the [Wallpaper](#) patterns in the currently selected wallpaper directory. Drag and drop the Wallpapers to any surface.

Chooser: Movie Tool



Selects the [Movie Mode](#) and displays thumbnail images of the [Movie](#) frame images in the currently selected movie directory. Drag and drop the Movies to any wall.

Chooser: Help



Activates Chooser Topic Help.

Chooser: Object List

This list contains six thumbnail images when the **Fast Chooser Preview Image** option in the [VHSB Settings dialog box](#) from the 3D Space Window menu is disabled, or more when the Fast Chooser Preview Image option is enabled.

Chooser: Palette Entry

This area contains 256 thumbnail colors in the Palette.

Chooser: On Line Help

This box shows the name of the tool or image file under the cursor.

Chooser: Picture Mode



To attach a **Picture** to a wall, click on the Picture in the **Chooser** window and drag it to a wall in the **3D Space Window**. To create an [Album](#), drag two or more Pictures from the Chooser window to the same spot on a wall.



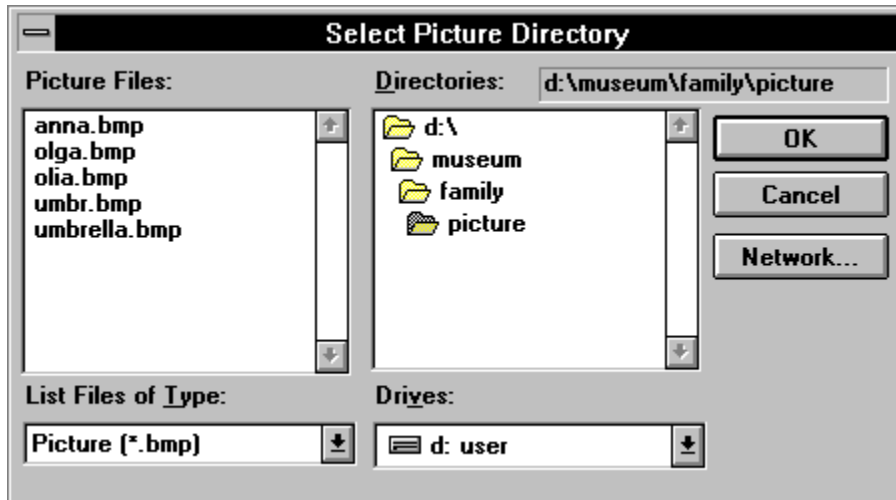
Cursor style in **Picture Mode**.

Chooser: Directory Selection Tool (Picture Mode)



Displays the [Select Picture Directory Dialog Box](#), which you can use to select a directory that contains [Picture](#) images. Select the first **Picture** file for loading into **Chooser Window**.

Select Picture Directory Dialog Box



This dialog box is similar to a standard Windows **Open** dialog box. Locate and select an image file to make the directory containing the file into the current [Picture](#) directory.

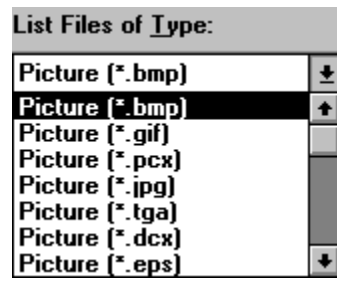
Select Picture: File Name

Is a standard Windows **File Name List**. Double-click a File Name to select and load a [Picture](#) file.

Select Picture: Directories

Is a standard Windows **Directory List**. Double-click a Directory name to select and open the directory. The name of the selected directory appears above the list.

Select Picture: List File of Type



Shows the **type** of files listed in the **File List**.

Select Picture: Drives



Is a standard Windows **Drives List**. Select the drive containing Pictures from this list.

Select Picture: OK



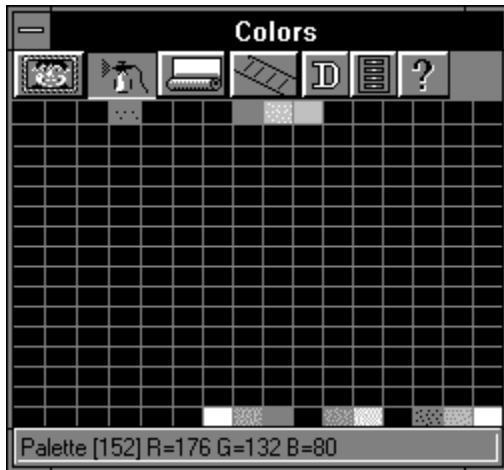
Closes **Select Picture Directory** dialog box and loads the selected [Picture](#) into the **Chooser** window.

Select Picture: Cancel



Closes **Select Picture Directory** dialog box without browsing.

Chooser: Airbrush Mode

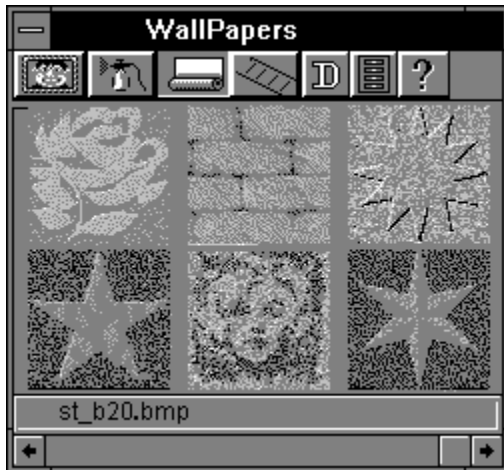


To paint a wall, ceiling, or floor, drag the color you want to use from the **Chooser** window to any surface.



Cursor style in **Airbrush Mode**.

Chooser: Wallpaper Mode



To place wallpaper on the surface of a wall, drag the wallpaper image from the **Chooser** window to any surface.



Cursor style in **Wallpaper Mode**.

Chooser: Wallpaper Detail Tool



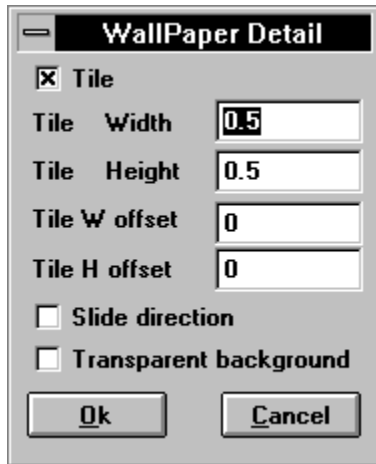
Displays the [Wallpaper Detail Dialog Box](#), which is used for advanced wallpaper functions.

Chooser: Directory Selection Tool (Wallpaper Mode)



Displays the [Select Wallpaper Directory Dialog Box](#), which is used to select a directory containing Wallpaper images. Select the first Wallpaper file for loading into the **Chooser** window.

Wallpaper Detail Dialog Box



Use this dialog box to control whether a [Wallpaper Image](#) is tiled on a wall surface, or stretched and compressed to fill the wall surface. If you choose to tile Wallpaper, you can control the size of the tiles, and the placement of the tiles relative to the lower left corner of the wall surface.

Wallpaper Detail: Tile

Select to cover a wall surface with tiled [Wallpaper Images](#). Deselect to fill a surface with one tile of the selected wallpaper.

Wallpaper Detail: Tile Width

Specifies whether the tiled image is stretched or squished in width. A value of 1 means that the image is neither stretched or squished. A value of 10 means that the width of the image is stretched by a factor of ten.

Wallpaper Detail: Tile Height

Specifies the whether the tiled image is stretched or squished in height. A value of 1 means that the image is neither stretched or squished. A value of 10 means that the height of the image is stretched by a factor of ten.

Wallpaper Detail: Tile W Offset

Specifies the horizontal offset (shift) of the first tile placed in the lower left corner of the wall surface. A value of .5 shifts the first tile to the left by 1/2 the image size.

Wallpaper Detail: Tile H Offset

Specifies the vertical offset (shift) of the first tile placed in the lower left corner of the wall surface. A value of .5 shifts the first tile down by 1/2 the image size.

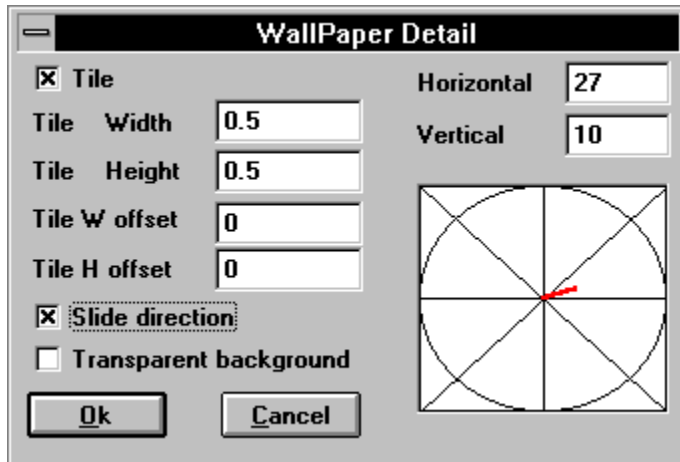
Wallpaper Detail: Slide Direction

This option moves the [Wallpaper Image](#) (or images when tiled) across the wall, ceiling, or floor. Selecting this option displays the [Extended Wallpaper Detail Dialog Box](#), which is used to select the direction and speed of images moving across the wall, ceiling, or floor.

Wallpaper Detail: Transparent Background

This option sets transparent color for Image - RGB [0,0,0].

Extended Wallpaper Detail Dialog Box



Use this dialog box to control whether a [Wallpaper Image](#) is tiled on a wall surface, or stretched and compressed to fill the wall surface. If you choose to tile **Wallpaper**, you can control the size of the tiles, and the placement of the tiles relative to the lower left corner of the wall surface. You can also select the direction and speed of images moving across the wall, ceiling, or floor.

Extended Wallpaper Detail: Slide Direction

Deselecting this option displays the [Wallpaper Detail Dialog Box](#), which is used to control whether a [Wallpaper Image](#) is tiled on a surface, or stretched and compressed to fill the surface. If you choose to tile **Wallpaper**, you can control the size of the tiles, and the placement of the tiles relative to the lower left corner of the wall surface.

Extended Wallpaper Detail: Direction/Speed Selector

Click inside the **Direction/Speed Selector** to select the direction that the [Wallpaper Image](#) (when untiled) or images (when tiled) moves across the wall, ceiling, or floor. The length of the direction line determines the speed with which the image tiles move.

Extended Wallpaper Detail: **Horizontal**

Shows the **X** value of the **Direction/Speed** setting. X values range from minus 100 to 100. Enter a number from -100 to 100 to change the value.

Extended Wallpaper Detail: Vertical

Shows the **Y** value of the Direction/Speed setting. Y values range from minus 100 to 100.
Enter a number from -100 to 100 to change the value.

Wallpaper Detail: OK



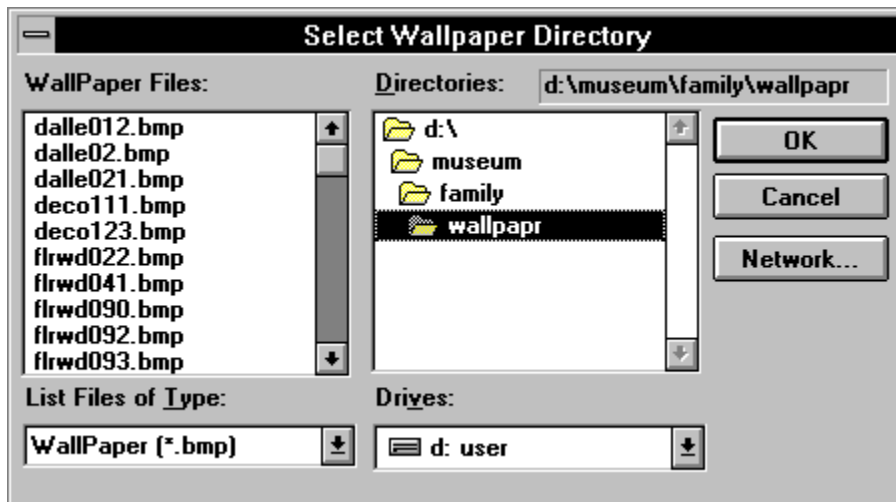
Closes the **Wallpaper Setup Box** and saves new parameters.

Wallpaper Detail: Cancel



Closes the **Wallpaper Setup Box** without saving.

Select Wallpaper Directory Dialog Box



This dialog box is similar to the standard Windows **Open** dialog box. Select a Wallpaper image file to select the directory as the current [Picture](#) directory.

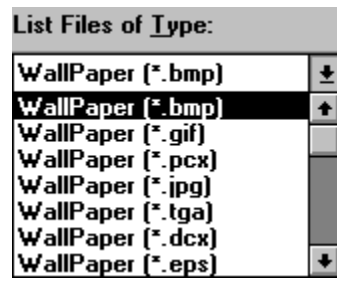
Select Wallpaper: File Name

Is a standard Windows **File Name List**. Double-click on a File Name to select and load Wallpaper File.

Select Wallpaper: Directories

Is a standard Windows **Directory List**. Double-click a Directory name to select and open the directory. The name of the selected directory appears above the list.

Select Wallpaper: List File of Type



Shows the **Type** of files listed in the **File List**.

Select Wallpaper: Drives



Is a standard Windows **Drives List**. Select the drive containing Wallpapers.

Select Wallpaper: OK



Closes **Select Wallpaper Directory Dialog Box** and loads the selected [Picture](#) into the Chooser Window.

Select Wallpaper: Cancel



Closes **Select Wallpaper Directory Dialog Box** without saving.

Chooser: Movie Mode



To create a [Movie](#), drag any one of the movie images from the Chooser window to a wall.



Cursor style in **Movie** mode.

Chooser: Movie Detail Tool



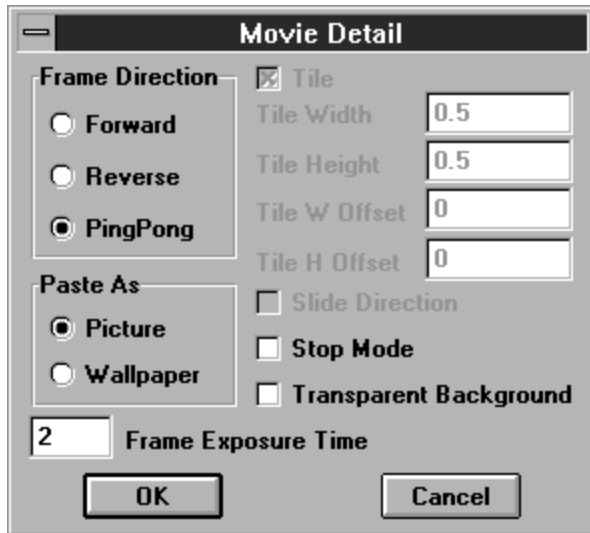
Displays the [Movie Detail Dialog Box](#), which you can use to specify how the movie images are sequenced to create a [Movie](#). The Movie Detail Dialog Box also contains an option for placing a Movie as [Wallpaper](#), which fills a wall, ceiling, or floor with the movie images.

Chooser: Directory Selection Tool (Movie Mode)



Displays the [Select Movie File Dialog Box](#), which is used to select a directory containing [Movie](#) images. Select the first Movie file for loading into the **Chooser Window**.

Movie Detail Dialog Box



Use this dialog box to control whether a [Movie](#) plays forward, backward, or alternates between playing forward and backward. Also use this dialog box to select whether a movie plays inside a frame or stretches to fill a surface.

Movie Detail: Forward

Plays [Movie](#) images in the order of their sequence numbers.

Movie Detail: Reverse

Plays [Movie](#) images in the reverse order of their sequence numbers.

Movie Detail: Ping-Pong

Alternates between playing a [Movie](#) forward and reverse.

Movie Detail: Paste as Picture

Plays a [Movie](#) in a frame that is the same size as the frame images.

Movie Detail: Paste as Wallpaper

Stretches a [Movie](#) frame to fill a surface.

Movie Detail: Stop Mode

Paste [Movie](#) as an [Album](#) without playing it.

Movie Detail: Frame Exposure Time

Determines the amount of time each [Movie](#) frame is displayed. Lower exposure time values display frames faster and higher values display frames slower.

Movie Detail: Tile

Select to cover a wall surface with tiled [Movie](#) images. Deselect to fill wall surface with selected **Movie Image**.

Movie Detail: Tile Width

Specifies whether the tiled [Movie](#) image is stretched or squished in width. A value of 1 means that the image is neither stretched or squished. A value of 10 means that the width of the image is stretched by a factor of ten.

Movie Detail: Tile Height

Specifies whether the tiled [Movie](#) image is stretched or squished in height. A value of 1 means that the image is neither stretched or squished. A value of 10 means that the height of the image is stretched by a factor of ten.

Movie Detail: Tile W offset

Specifies the horizontal offset (shift) of the first tile placed in the lower left corner of the wall surface. A value of .5 shifts the first tile to the left by 1/2 the image size.

Movie Detail: Tile H offset

Specifies the vertical offset (shift) of the first tile placed in the lower left corner of the wall surface. A value of .5 shifts the first tile down by 1/2 the image size.

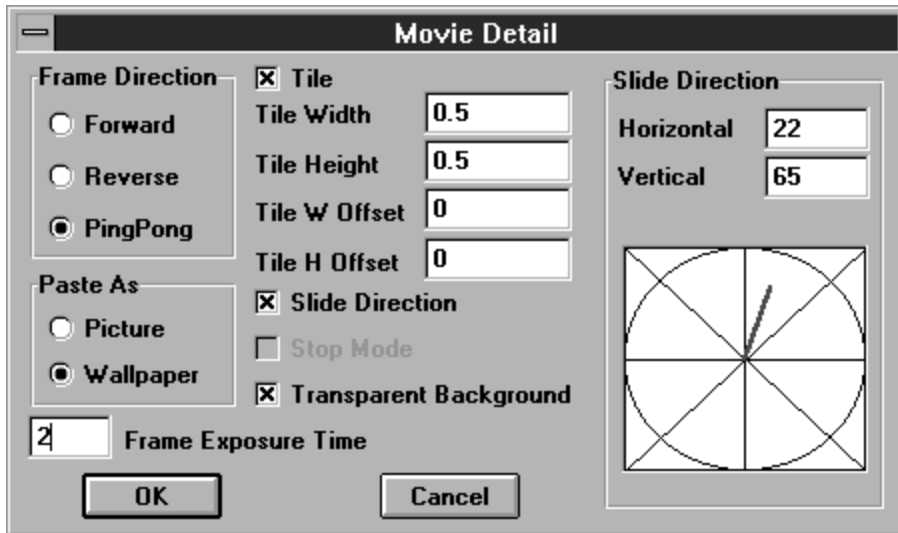
Movie Detail: Slide Direction

With `Movie` as `Wallpaper` selected, this option slides the movie across the wall, ceiling, or floor. Selecting this option displays the [Extended Movie Detail Dialog Box](#), which you use to select the direction and speed of images moving across the surface.

Movie Detail: Transparent Background

This option sets transparent color for image - RGB[0,0,0].

Extended Movie Detail Dialog Box



Use this dialog box to control whether a [Movie](#) plays forward, backward, or alternates between playing forward and backward. Also use this dialog box to select whether a movie plays in a frame or stretches to fill a wall surface. You can also select the direction and speed of images moving across the surface.

Extended Movie Detail: Slide Direction

Deselecting this option displays the [Movie Detail Dialog Box](#), which you use to control whether a [Movie](#) plays forward, backward, or alternates between playing forward and backward. Also use this dialog box to select whether a movie plays in a frame or stretches to fill a surface.

Extended Movie Detail: Direction/Speed Selector

Click in the Direction/Speed Selector to select the direction that the [Movie](#) images move across the wall, ceiling, or floor. The length of the direction line determines the speed with which the image tiles move across the surface.

Extended Movie Detail: Horizontal

Shows the **X** value of the Direction/Speed setting. X values range from minus 100 to 100. Enter a number from -100 to 100 to change the value.

Extended Movie Detail: Vertical

Shows the **Y** value of the Direction/Speed setting. Y values range from minus 100 to 100. Enter a number from -100 to 100 to change the value.

Movie Detail: OK



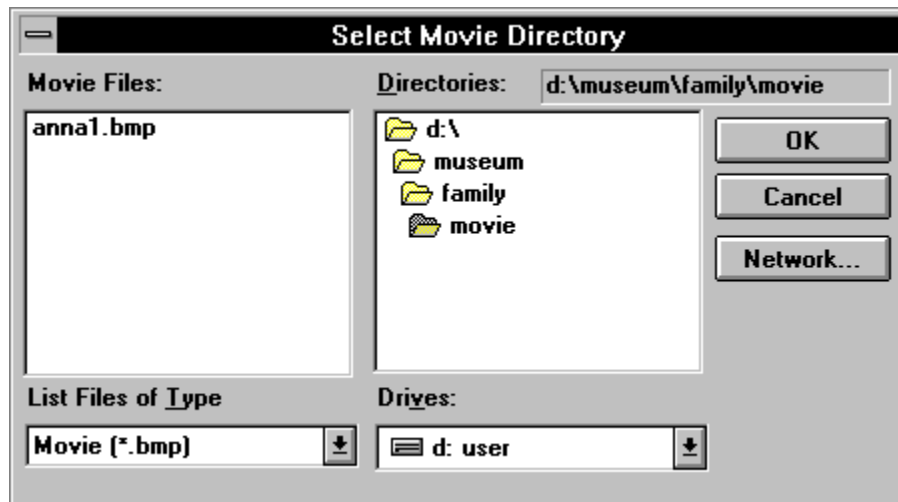
Closes **Wallpaper Setup Box** and saves new parameters.

Movie Detail: Cancel



Closes **Wallpaper Setup Box** without saving parameters.

Select Movie Directory Dialog Box



This dialog box is similar to the standard Windows Open dialog box. Locate and select an image in a [Movie](#) sequence to select the movie images in the selected directory. A **VHSB Movie** is a sequence of two or more image files in the same directory that have file names with the same beginning characters followed by a sequence number. For example, Virtual Home Space Builder interprets the following image files as eleven frames of a movie:

myflik01.bmp myflik02.bmp myflik03.bmp myflik04.bmp myflik05.bmp myflik06.bmp
myflik07.bmp myflik08.bmp myflik09.bmp myflik10.bmp myflik11.bmp

Movie displays each image file in sequence, beginning with myflik01.bmp, then myflik02.bmp, then myflik03.bmp, and so on.

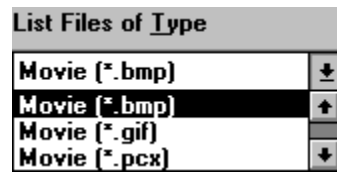
Select Movie: File Name

Is a standard Windows **File Name List**. Double-click a **File Name** to select and load Movie file.

Select Movie: Directories

Is a standard Windows **Directory List**. Double-click a **Directory name** to select and open the directory. The name of the selected directory appears above the list.

Select Movie: List File of Type



Shows the only **type** of files listed in the **File List**.

Select Movie: Drives



Is a standard Windows **Drives List**. Select the drive containing **Movies**.

Select Movie: OK



Closes **Select Movie Directory Dialog Box** and loads the selected movie in the **Chooser** window.

Select Movie: Cancel



Closes **Select Movie Directory Dialog Box** without browsing.

