{ewc mvbmp2, viewerbmp2, !main_toc.shg}

Click "Read Me First" to get instructions on how to use Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Gallery Walk to walk through a series of Viewer sample topics and see how they were put together.

Click Layout, Multimedia, Moving, Looking Up, or Changing to get information about the different types of features you can use in Viewer titles.

The Features Used and Contents buttons are not implemented in this screen.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

{ewc mvbmp2, viewerbmp2, !walk_toc.shg}

Click "Read Me First" to get instructions on how to use Viewer Gallery.

Click Features or Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click any of the sample buttons to see a particular sample from the Gallery Walk.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

{ewc mvbmp2, viewerbmp2,!frsthead.shg}

About Viewer Gallery

The Viewer Gallery title describes different features you can use in Multimedia Viewer titles. It also shows examples of sample topics with different combinations of those features.

To do anything in this demo, just point to a hot region. A hot region is one in which the cursor turns to a pointing finger. Then click the left mouse button.

Click here to find out about topics on Viewer features.

Click here to find out about samples of real Viewer titles.

Getting Help

Wherever you are in this sample, if you need information about what to do, click the following button:

What to do
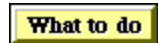
Leaving the Gallery

To leave Gallery, select the square (system) button in the upper left corner of the Viewer window and then select Close.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

When you select a feature category from the "Welcome to Viewer" screen, Viewer displays a list of features in the category you selected. You can then select any feature from the list to read about it.

In feature lists, you can jump to a different category by selecting any of the following buttons from the top of the screen. Click any of these buttons to find out about the feature list it displays:

{ewc mvbmp2, viewerbmp2, !features.shg}

The following buttons appear at the top of each feature screen in Gallery. Click any of these buttons to find out what it does:

{ewc mvbmp2, viewerbmp2, !feathead.shg}

To close this window (About Gallery), double-click the square button in its upper left corner.

Lists ways to control text layout for topics.

Lists ways to insert pictures, sounds, animations, and video into topics.

Lists ways to move from one topic to another.

Lists ways to mark information so users can search for it.

Lists ways to change Viewer's user interface.

When you are in the "Welcome to Viewer" screen: to see sample Viewer titles, select the following button:

{ewc mvbmp2, viewerbmp2, !walkbutt.bmp}

You can walk through each sample screen by screen, just like in an art gallery. In each screen, you can see the Viewer features used to create the screen.

Other Viewer topics: the following buttons appear at the top of each sample screen in the Gallery Walk. Click any of these buttons to find out what it does:

{ewc mvbmp2, viewerbmp2, !walkbutt.shg}

To close this window (About Gallery), double-click the square button in its upper left corner.

Jumps to the "table of contents" for the Gallery Walk

Shows a "schematic diagram" of the Gallery topic listing the Viewer features it uses. Click any name in the diagram to see a description of that feature.

Returns to the main Table of Contents for Gallery.

Jumps to the previous sample in the Gallery Walk.

Jumps to the next sample in the Gallery Walk.

Gives information about what to do after viewing the sample.

Jumps to the sample you were looking at immediately before the current sample.

Shows information about what to do after reading about the feature.

Shows a list of the Gallery Walk samples that use the feature.

Jumps to a "table of contents" for the feature category. In this example, when you click the Layout button, Viewer displays a list of buttons for the different layout features in Viewer. You can then select any button to read about that feature.

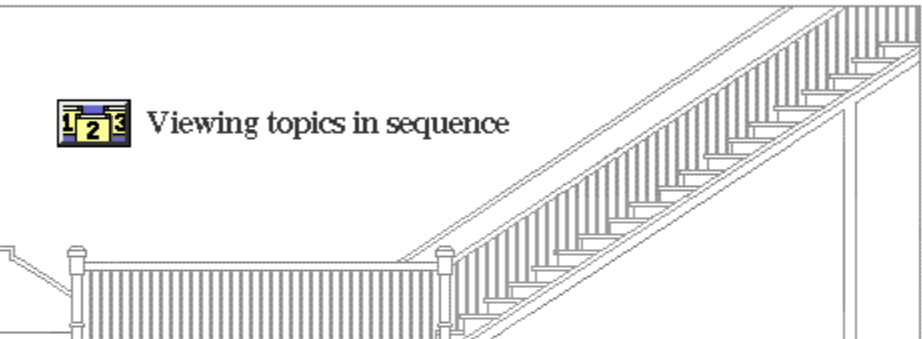Returns to the main Table of Contents for Gallery.

Jumps to the next feature in this category.

Jumps to the previous feature in this category.

Jumps to the feature description you were looking at immediately before the current feature description.

Viewing topics in sequence

Jumping to another topic

These topics describe ways you can connect topics in Viewer titles. Click the button for any "moving between topics" feature to get more information about that feature.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Layout, Multimedia, Looking Up, or Changing to get information about the different types of features you can use in Viewer titles.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

Viewing topics in sequence

1 2 3

Moving

Sample Topics | What to do

Contents | Next Feature

Back | Previous Feature

In Viewer titles you can connect topics in a "forward" and "backward" sequence. These sequences are known as "browse sequences." Browse sequences allow you to present material that should be read in sequential fashion.

In the standard Viewer user interface, the buttons labeled "<<" and ">>" at the top of the screen move forward and backward in a browse sequence. Click the ">>" button to move to the next topic in this sequence.

This topic describes ways you can author topics that can be read in sequence.

Click Moving to see the table of contents for topics about moving between topics.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Next Feature or the >> button to read about the next feature in this series of "moving" topics. In the second and later topics of this sequence, click Previous Feature or the << button to read about the previous feature in this series of topics.

The Sample Topics button is not yet implemented in this demo.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

All sample topics in Gallery Walk are part of a browse sequence. The Gallery Walk is, itself, a single browse sequence. The Next Sample and Previous Sample buttons in each sample screen jump to the next and previous sample topic in Gallery Walk, respectively.

Click the following text to jump to the Directory screen for Gallery Walk:

Gallery Walk Directory

You can also use hot spots to move backward and forward in a browse sequence. For example, the "Previous Feature" and "Next Feature" buttons in the title region of the topic are actually hot spots that move back and forth through browse sequences in this title. Click the "Previous Feature" button to see the first screen on browse sequences or the "Next Feature" button to see the next topic in the sequence "Moving Between Topics."

You can connect any two topics in a Viewer title by creating a hot spot that jumps from one topic to the other. When the user selects the hot spot in the first topic, Viewer automatically displays the second topic. These types of connecting hot spots are known as **jumps**.

Normally, hot spots for jumps are underlined and appear in green type. Click the following hot spot to jump to a new topic:

Jump to new topic

This topic describes ways you can author jumps to arbitrary topics in a title.

Click Moving to see the table of contents for topics about moving between topics.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Previous Feature button to read about the previous feature in this series of "moving" topics.

The Sample Topics button is not yet implemented in this demo.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

All sample topics in Gallery Walk use jumps. The Gallery Walk Directory button in each sample screen jumps to the Gallery Walk contents screen. Also, in Features Used popups for each sample, each callout jumps to a topic describing a Viewer feature.

Click the following text to jump to the Directory screen for Gallery Walk:

Gallery Walk Directory

Hot spots for jumps may also be pictures rather than text. Click the following button to jump to the previous topic on jumps:

+

{ewc mvbmp2, viewerbmp2, !layo_nav.shg}

{ewc mvbmp2, viewerbmp2, !layotofo.shg}

Viewer supports most of the character and paragraph formats supported in Word for Windows. You can use any of the following character formats:

Bold
Italic
<u>Single underline</u>
Small caps
Colors

Titles can use any fonts that appear on end users' machines. For example:

Arial
Book Antiqua
Century Schoolbook
Lucida Sans
Times New Roman
Wingdings

Viewer supports the following standard paragraph alignments:

left alignment

center alignment

right alignment

If you need to line up information in a topic, use standard Word for Windows tables. You can use this feature to line up standard text tables:

ROW 1 COLUMN1	ROW 1 COLUMN2	ROW 1 COLUMN3
ROW 2 COLUMN1	ROW 2 COLUMN2	ROW 2 COLUMN3

Or you can use table to align bitmaps in a horizontal or vertical grid:

{ewl mvbmp2, viewerbmp2, ! aligntbl.bmp}	{ewl mvbmp2, viewerbmp2, ! aligntbl.bmp}	{ewl mvbmp2, viewerbmp2, ! aligntbl.bmp}
{ewl mvbmp2, viewerbmp2, ! aligntbl.bmp}	{ewl mvbmp2, viewerbmp2, ! aligntbl.bmp}	{ewl mvbmp2, viewerbmp2, ! aligntbl.bmp}

These topics describe ways you can lay out information in Viewer titles. Click the button for any layout feature to get more information about that feature.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Multimedia, Moving, Looking Up, or Changing to get information about the different types of features you can use in Viewer titles.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of

the screen.

This topic describes ways you can use text, paragraph, and table formatting in Viewer titles.

Click Layout to see the table of contents for layout topics.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Next Feature to read about the next feature in this series of "layout" topics.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

The following sample topics in Gallery Walk use topic-layout features.
Click any topic name to view the topic.

Photography: Aperture/Depth of Field
Photography: Focal Length

{ewc mvbmp2, viewerbmp2, !layomult.shg}

You can design topics so that Viewer displays information in rectangular regions within the topic. These regions are known as **panes**. Every Viewer topic has at least one pane: the **master pane**. This text is appearing in the master pane, which is the only pane that can include scrollbars. The master pane may include any topic features including hot spots, pictures, and other multimedia elements.

Master panes can have nonscrolling regions that include any valid topic features including text, hot spots, pictures, and other multimedia elements. The "Viewer Gallery" title bar with the navigation buttons at the top of this screen appears in a nonscrolling region.

This topic shows how to use panes to lay out topics in Viewer titles.

Click Layout to see the table of contents for layout topics.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Next Feature to read about the next feature in this series of "layout" topics or Previous Feature to read about the previous feature.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

The following sample topics in Gallery Walk use panes. Click any topic
name to view the topic.

Boating: Navigation/Safety
Boating: Did You Know?

Topics may include panes other than the master pane. Panes other than the master pane are known as **regular panes**. Since regular panes cannot scroll, topics that appear in regular panes must be small enough to fit completely in the pane.

Click here to display a topic in the lower right pane of this topic.

You can also use hot spots in one pane to display information in a different pane. This feature is useful for creating "control panels" of icons or buttons that display different topics within a designated pane in the topic.

Click here to close the panes in this topic.

{ewc mvbmp2, viewerbmp2, !layopop.shg}

Instead of displaying information in the main Viewer window, you can display it in a **popup.** Popups are fixed-size, immovable, nonscrollable windows that appear on top of the main Viewer window. (Usually, users select a hot spot to display topics in popups). They can contain any topic features including text, hot spots, pictures, or multimedia elements. However, they are especially useful for notes, comments, definitions, or other quick-reference information that isn't long enough to require scrolling.

Click here to display a standard popup.

Click here to display a custom popup.

This topic shows how to display information in popups.

Click Layout to see the table of contents for layout topics.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Next Feature to read about the next feature in this series of "layout" topics or Previous Feature to read about the previous feature.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

All sample topics in Gallery Walk use popups. Click the following text to jump to the Directory screen for Gallery Walk:

Gallery Walk Directory

Standard popups are sized large enough to display the topics they contain. Viewer automatically positions a standard popup so it doesn't hide the hot spot that displayed the popup. Click anywhere outside this popup to make it disappear.

You can specify the size, position, and background color for custom popups. Use custom popups if you want to ensure the popup doesn't cover important information in the topic. Click anywhere outside this popup to make it disappear.

{ewc mvbmp2, viewerbmp2, !layosewi.shg}

Instead of displaying information in the main Viewer window, you can display it in a **secondary window**. Secondary windows are sizable, moveable, scrollable windows that appear on top of the main Viewer window. (Usually, users select a hot spot to display topics in secondary windows).   They can contain any topic features including text, hot spots, pictures, or multimedia elements.

Click here to display a secondary window.

This topic shows how to display information in secondary windows.

Click Layout to see the table of contents for layout topics.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Next Feature to read about the next feature in this series of "layout" topics or Previous Feature to read about the previous feature.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

The following sample topics in Gallery Walk use secondary windows.
Click any topic name to view the topic.

Gardening: Perennials
Gardening: Trees and Shrubs

You specify the size, placement, background color, and title bar text for all secondary windows. However, users can resize and move secondary windows just like normal windows. (Try this with this secondary window.)

Secondary windows, like the main window, may have scrolling and nonscrolling regions. The previous paragraph is in the nonscrolling region; you can scroll the other paragraphs in this window.

Secondary windows continue displaying even after the user jumps to a new topic; they must be closed explicitly. You can author secondary windows so that they remain on top of the main Viewer window when the user jumps to another topic.

To close this secondary window, double-click the square (system) button in the upper left corner of the window.

You aren't required to use the same pane layout for every topic in your title. Viewer gives you the flexibility to use different pane designs on a topic-by-topic basis.

This topic shows how change the panes you use to display information for different topics.

Click Layout to see the table of contents for layout topics.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Previous Feature to read about the previous feature in this series of "layout" topics. (This button isn't implemented after you jump to the topic with the new pane layout.)

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

The following topics in Gallery Walk change pane layouts. Click any topic name to view the topic.

Boating: Navigation/Safety
Boating: Did You Know?

This topic uses the pane layout you saw in the topic on panes ("Multiple Topics in a Window").

Click here to see a topic that uses a different pane layout.

This topic shows the different layouts for the master pane and two other panes in the topic.

As you can see, you can change the placement, size, background color, and border for the panes used in any Viewer topic.

{ewc mvbmp2, viewerbmp2, !mm_nav.shg}

These topics describe ways you can use pictures, sounds, animation, and video in Viewer titles. Click the button for any multimedia type to see a list of topics about that type. Then click any button in the popup to get more information about that feature.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Layout, Moving, Looking Up, or Changing to get information about the different types of features you can use in Viewer titles.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

- Playing on topic entry
- Playing from a hot spot
- Playing from a controller
- Sounds with sections

🎞️	Video/Animation embedded into topics
🎞️	Video/Animation with sections

- Pictures embedded in topics
- Pictures with captions
- Copiable pictures
- Working with 256-color pictures

{ewc mvbmp2, viewerbmp2, !picemb.shg}

The most common way to use pictures in a Viewer title is to embed them in topic text. When you embed a picture, the text wraps around the margins of the picture. When you scroll the topic text, the picture scrolls along with the text in which it is embedded.

Viewer offers three ways to align embedded pictures with text:

Character alignment aligns the topic text with the baseline of the picture.   {ewc mvbmp2, viewerbmp2, !alignmnt.bmp}   This type of alignment is useful for icons or drop caps in text.

{ewl mvbmp2, viewerbmp2, !alignmnt.bmp}**Left alignment** aligns the bitmap with the left edge of topic text and wraps the text around the right and bottom borders of the bitmap.

{ewr mvbmp2, viewerbmp2, !alignmnt.bmp}**Right alignment** aligns the bitmap with the right edge of topic text and wraps the text around the left and bottom borders of the bitmap.

This topic describes ways you can embed pictures in topics.

Click Multimedia to see the table of contents for multimedia topics.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Next Feature button to read about the next feature in this series of multimedia topics.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

All sample topics in Gallery Walk use pictures embedded in panes.
Virtually all pictures in nonscrolling regions, panes, and popups in Gallery Walk are embedded in panes.

Click the following text to jump to the Directory screen for Gallery Walk:

Gallery Walk Directory

{ewc mvbmp2, viewerbmp2, !piccap.shg}

Viewer allows you to display a caption to identify any picture that appears in a topic. You can display the caption using different types of alignments relative to the picture:

{ewc mvbmp2, viewerbmp2, [256color caption=";b Left"]! caption.bmp [16color dither caption=";b Left"]! caption.bmp}

{ewc mvbmp2, viewerbmp2, [256color caption=";b Centered"]! caption.bmp [16color dither caption=";b Centered"]! caption.bmp}

{ewc mvbmp2, viewerbmp2, [256color caption=";b Right"]! caption.bmp [16color dither caption=";b Right"]! caption.bmp}

{ewc mvbmp2, viewerbmp2, [256color caption=";t Top"]! caption.bmp [16color dither caption=";t Top"]! caption.bmp}

{ewc mvbmp2, viewerbmp2, [256color caption=";b Bottom"]! caption.bmp [16color dither caption=";b Bottom"]! caption.bmp}

You can also specify different foreground and background colors for the caption:

This topic describes ways to use captions with pictures.

Click Multimedia to see the table of contents for multimedia topics.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Next Feature button to read about the next feature in this series of multimedia topics or Previous Feature to read about the previous feature.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

The following sample topic in Gallery Walk has a picture with a caption. Click the topic name to view it:

Photography: Focal Length ("wildlife photography" popup)

{ewc mvbmp2, viewerbmp2, !piccopy.shg}

You can allow users to copy bitmaps in your title. To test this, point to the following text and click, then look at the contents of the Clipboard using the Windows Clipboard appliction:

{ewl mvbmp2, viewerbmp2, !16color.bmp}Click the following button to copy the picture to the Clipboard.

Click the following icon to view the picture in the Clipboard.

This topic describes ways to insert pictures into topics so users can copy the pictures to the Clipboard.

Click Multimedia to see the table of contents for multimedia topics.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Next Feature button to read about the next feature in this series of multimedia topics or Previous Feature to read about the previous feature.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

The following sample topic in Gallery Walk has a picture you can copy to the Clipboard. Click the topic name to view it:

Photography: Focal Length ("wildlife photography" popup)

{ewc mvbmp2, viewerbmp2, !pic256.shg}

You may have a 256-color picture in your title and want Viewer to display this picture on systems that have only 16-color (standard VGA) video boards. When you create the title, you can tell Viewer to display a different version of the picture on systems that support only 16 colors.

Suppose you have the following 256-color picture. Click here to view picture. (Your machine must be in a 256-color mode to see this picture.)

Viewer allows you to display a 16-color version of the picture on 16-color systems. Click here to view picture.

For more realistic rendering, you can display a dithered 16-color version of the picture on 16-color systems. Click here to view picture.

Or you can display the 16-color picture in MCGA mode. Click the magnifying-glass icon in the upper right corner of the bitmap to view the picture in MCGA mode. Click here to view picture. (Your machine must be in a 16-color mode to see the magnifying-glass icon with this picture.)

This topic describes how to use 256-color pictures in titles that will be viewed on systems with 16-color video displays.

Click Multimedia to see the table of contents for multimedia topics.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Next Feature button to read about the next feature in this series of multimedia topics or Previous Feature to read about the previous feature.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

No topics in Gallery Walk include instructions for displaying pictures on 16-color systems. (The Viewer 2.0 authoring system assumes that you have a 256-color video adapter.)

{ewc MVBmp2, ViewerBmp2, !256color.bmp }

{ewc MVBmp2, ViewerBmp2, !16color.bmp}

{ewc MVBmp2, ViewerBmp2, [mcga]!256color.bmp}

{ewc mvbmp2, viewerbmp2, !sndautop.shg}

One easy way to use sound in a Viewer topic is to play it automatically when the user displays a topic. For example, you might play background music (CD audio, or a MIDI sequence) or a waveform audio file while the user reads information in the topic.

You can use this feature when the user displays topics in new panes or secondary windows.

[+] Click here to play a sound (waveform audio) after jumping to a new topic.
[+] Click here to play music (MIDI) after showing a topic in a secondary window.
[+] Click here to play a sound (waveform audio) after showing a topic in a pane.

This topic describes how to play audio automatically when the user displays a given topic.

Click Multimedia to see the table of contents for multimedia topics.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Next Feature button to read about the next feature in this series of multimedia topics or Previous Feature to read about the previous feature. (These buttons are not active in the "jump to new topic" example.)

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

The following sample topics in Gallery Walk play sounds automatically on topic entry. Click any topic name to view the topic.

Photography: Aperture/Depth of Field
Photography: Focal Length

{ewc mvbmp2, viewerbmp2, !sndautpp.shg}

You can tell Viewer to play a sound sequence over and over when the user displays a topic. This effect is known as **looping**.

Click here to return to the main topic about playing sounds on topic entry.

You can tell Viewer to play a specific range of any sound sequence when the user displays a topic. This topic is playing the first five seconds of a MIDI sequence.

Click here to close this window.

This mechanism provides a way for you to play sound when you display information in a different part of the current window.

Click here to close this pane.

{ewc mvbmp2, viewerbmp2, !sndhspot.shg}

Another way to use sound in Viewer topics is to play it when the user selects a hot spot. You can play either a complete sound sequence or a given portion of a sound sequence. You can also tell Viewer to play the sound over and over until the user changes topics.

[+] Click here to play a looping sound (waveform audio). The sound stops playing when you leave this topic.

This topic describes how to play audio when the user selects a hot spot.

Click Multimedia to see the table of contents for multimedia topics.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Next Feature button to read about the next feature in this series of multimedia topics or Previous Feature to read about the previous feature.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

The following sample topic in Gallery Walk includes hot spots that play sounds. Click any topic name to view the topic.

Boating: Safety ("bells" and "fog horns" hot spots)

{ewc mvbmp2, viewerbmp2, !sndcontl.shg}

To give users control over sounds, you can add a sound controller to your topic. Sound controllers can be used to play waveform sounds, MIDI files, or CD audio.

{ewr MVMCI2, ViewerMCI, [device WaveAudio][stdcontrol][caption 'Standard Controller']! control.wav}Standard sound controllers have three controls. Users can drag the slider control to move the playback forward or backward, select the stop button to stop playback, or select the play/pause button to start or pause playback.

{ewr MVMCI2, ViewerMCI, [buttons stop pause play scanl scanr][caption `Custom Controller']!control.wav}You can also customize controllers. The following controller includes stop, pause, play, rewind, and fast-forward buttons but no slider control.

Controllers can be character-aligned, left-aligned, or center-aligned.

Character-aligned {ewc MVMCI2, ViewerMCI, [device WaveAudio][stdcontrol][caption `Character Aligned']!control.wav} controllers appear as part of text.

{ewl MVMCI2, ViewerMCI, [device WaveAudio][stdcontrol][caption `Left Aligned']! control.wav}Left-aligned controllers appear at the left margin with text wrapping around the right edge of the controller.

{ewr MVMCI2, ViewerMCI, [device WaveAudio][stdcontrol][caption `Right Aligned'] ! control.wav}Right-aligned controllers appear at the right margin with text wrapping around the left edge of the controller.

This topic describes how to insert audio controllers into topics and customize the controllers.

Click Multimedia to see the table of contents for multimedia topics.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Next Feature button to read about the next feature in this series of multimedia topics or Previous Feature to read about the previous feature.

All controllers in this topic are active. Click any button to control playback, or drag the slider control to move the playback point to a different point in the audio sequence.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

No topics in Gallery Walk include sound controllers.

{ewc mvbmp2, viewerbmp2, !sndsect.shg}

You can set up sound controllers that allow users to begin playback from a particular named position in the sound sequence. These names delimit **sections** in the sound sequence. You can define sections to begin at any point in a waveform, MIDI file, or CD audio track. For any section, you can define a pause point where the user can stop playback, a tick mark for the slider control, or both.

```
{ewr MVMCI2, ViewerMCI, [device WaveAudio][buttons playpause stop
menu][slider][caption 'Sections/Pauses'][sections '$Waves 1' 0
'$#Bells' 8640 '$#Waves 2' 11009 '$#Foghorn' 13882 '$#Gulls'
19081]!sndsect.wav}
```
The following controller includes five sections: "Waves 1," "Bells," "Waves 2," "Foghorn," and "Gulls." To begin playback from any section, select the menu in the lower left corner of the controller and select the section from the drop-down. To pause at section breaks, select Pauses from the menu before playback.

This topic describes how to divide audio into different sections on audio controllers.

Click Multimedia to see the table of contents for multimedia topics.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Next Feature button to read about the next feature in this series of multimedia topics or Previous Feature to read about the previous feature.

The controller in this topic is active. Click any button to control playback, or drag the slider control to move the playback point to a different point in the audio sequence.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

No topics in Gallery Walk include sound controllers with section divisions.

Viewer titles may include video clips created by Video for Windows or animation sequences created by animation packages that support the Media Control Interface (MCI) in Windows. A simple way to use video or animation is to embed a clip that plays from beginning to end, or loops, automatically.

To give users control over video and animation in topics, you can include a video or animation controller.

`{ewr MVMCI2, ViewerMCI, [device AVIVideo][stdcontrol][caption `Standard Controller'][size 57 109] !embedded.avi}`Standard video or animation controllers have three controls. Users can drag the slider control to move the playback forward or backward, select the stop button to stop playback, or select the play/pause button to start or pause playback.

`{ewr MVMCI2, ViewerMCI, [device AVIVideo][buttons stop pause play scanl scanr][caption `Custom Controller'][size 57 109] ! embedded.avi}`You can also customize controllers. The following controller includes stop, pause, play, rewind, and fast-forward buttons.

Controllers can be character-aligned, left-aligned, or center-aligned.

Character-aligned `{ewc MVMCI2, ViewerMCI, [device AVIVideo][stdcontrol] [caption `Character Aligned'][size 57 109]!embedded.avi}` controllers appear as part of text.

`{ewl MVMCI2, ViewerMCI, [device AVIVideo][stdcontrol][caption `Left Aligned'][size 57 109] !embedded.avi}`Left-aligned controllers appear at the left margin with text wrapping around the right edge of the controller.

`{ewr MVMCI2, ViewerMCI, [device AVIVideo][stdcontrol][caption `Right Aligned'] !embedded.avi}`Right-aligned controllers appear at the right margin with text wrapping around the left edge of the controller.

This topic describes how to embed video and animation into topics and create or customize controllers.

Click Multimedia to see the table of contents for multimedia topics.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Next Feature button to read about the next feature in this series of multimedia topics or Previous Feature to read about the previous feature.
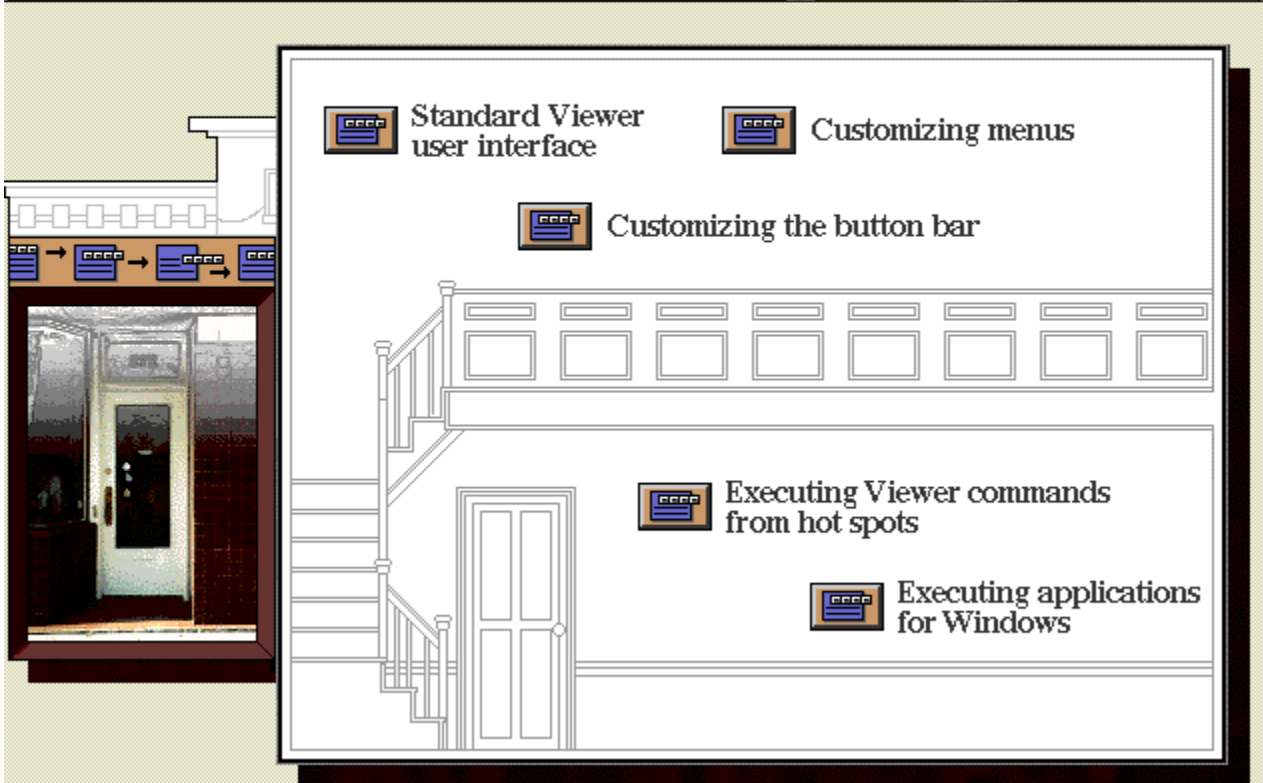
All controllers in this topic are active. Click any button to control playback, or drag the slider control to move the playback point to a different point in the video sequence.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

The following sample topics in Gallery Walk use animation and video embedded in topics. Click any topic name to view the topic.

Boating: Safety ("running lights," "light houses" hot spots)
Boating: Did You Know? ("one bell," "turning to port" hot spots)
Photography: Aperture/Depth of Field
Photography: Focal Length

You can set up controllers that allow users to play video or animation from a particular point in the sequence. You can also give these playback points identifying names. Each playback point delimits a **section** in the video or animation sequence.

For video or animation sequences, you define the frame at which each section break appears. For each section break you can also define either or both of the following:

A pause point where the user can stop playback

A tick mark that appears on the slider control

The following controller includes three sections: "Bell Ringing," "Light Flashing," and "Turn to Port." To begin playback from any section, select the menu in the lower left corner of the controller and select the section from the drop-down. To pause at section breaks, select Pauses from the menu before playback.

```
{ewl MVMCI2, ViewerMCI, [device AVIVideo][buttons playpause stop
menu][slider][caption 'Sections/Pauses'][sections '$Bell Ringing'
1160 '$#Light Flashing' 7500 '$#Turn to Port' 12660]!vidsect.avi}
```

This topic describes how to divide video and animation clips into different sections on audio controllers.

Click Multimedia to see the table of contents for multimedia topics.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Previous Feature button to read about the previous feature in this series of multimedia topics.

The controller in this topic is active. Click any button to control playback, or drag the slider control to move the playback point to a different point in the audio sequence.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

The following sample topics in Gallery Walk use animation and video controllers with section divisions. Click any topic name to view the topic.

Photography: Aperture/Depth of Field
Photography: Focal Length

Standard Viewer user interface

Customizing menus

Customizing the button bar

Executing Viewer commands from hot spots

Executing applications for Windows

These topics describe the standard Viewer user interface and ways you can change this interface.

Click the button for any "changing Viewer" feature to get more information about that feature.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Layout, Multimedia, Moving, or Looking Up to get information about the different types of features you can use in Viewer titles.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

Normally, Viewer uses a menu bar and a button bar at the top of the screen. The following illustration shows how these elements appear:

File	Edit	Bookmark	Help			
Contents	Index	Go Back	History	Search	<<	>>
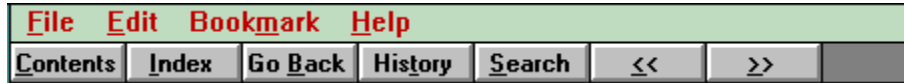
Click any menu or button for a description of that button or menu.

Click here to see a topic with standard menu and button bars.

This topic describes the standard Viewer button and menu bars.

Click Changing to see the table of contents for topics about changing how Viewer works.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Next Feature to read about the next feature in this series of topics. This button is not active In the topic showing the actual standard button and menu bars.

In the topic illustrating the button and menu bar, each button and menu activates a popup describing the button, menu, or menu command. To make any popup disappear, simply click outside the popup. To make all currently displayed popups disappear, click outside all of them.

In the topic where the actual button and menu bars appear at the top of the screen, the buttons (except << and >>) and menus are active. Click the green text hot spot in this topic to return to the topic that describes what these buttons and menus do.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

No sample topics in Gallery Walk use the standard Viewer user interface.

The standard Viewer menu and button bars appear at the top of this topic window.

Click here to return to the topic on the standard Viewer menus and buttons.

Includes the following commands:

File

Open...

Print Topic
Print Setup...

Exit

Click any command for a description of that command.

Open: displays a standard "file open" dialog so you can open another Viewer title.

Click here to practice using the Open command.

To practice using the Open command:

1. <u>Click here to display the File Open dialog.</u>

2. When the dialog opens, select another Viewer title (.MVB file) from the dialog. Or click the Cancel button in the dialog to close it.

To close the Practice Instructions window, double-click the square button in the upper left corner.

Print Topic: prints the topic you're currently viewing.

Click here to practice using the Print Topic command.

To practice using the Print Topic command:

Click here to print this topic.   To cancel printing, click the Cancel button in the dialog.

To close the Practice Instructions window, double-click the square button in the upper left corner.

Print Setup: displays a standard "Print Setup" dialog so you can select a printer and set up print options.

Click here to practice using the Print Setup command.

To practice using the Print Setup command:

1. Click here to display the Print Setup dialog.

2. Select the printer you want to use to print topics and any options for that printer. Or choose the Cancel button to close the dialog.

To close the Practice Instructions window, double-click the square button in the upper left corner.

Exit: closes the title and exits Viewer.

Click here to practice using the Exit command.

To practice using the Exit command:

Click here to close this window and return to the standard Viewer user interface.

Offers the following commands:

Edit

Copy...

Annotate...

Click any command for a description of that command.

Copy: copies text in the topic you're viewing to the Clipboard in Windows.

Click here to practice using the Copy command.

1. [Click here to open the Copy dialog.](#)

2. Drag the mouse over the text you want to copy.

3. Select the Copy button. Or select the Cancel button to close the dialog.

4. Open the Clipboard application in Windows to see the text you copied.

To close the Practice Instructions window, double-click the square button in the upper left corner.

Annotate: provides a way you can associate a note with a topic in a Viewer title.

Click here to practice using the Annotate command.

To enter an annotation:

1. Click here to open the Annotate dialog:

2. Type the annotation text.

3. Choose the Save button. Or choose Cancel to close the dialog.

4. To see the annotation, click the paper clip in the upper left corner of this topic.

To close the Practice Instructions window, double-click the square button in the upper left corner.

Offers the following command (click for a description):

Bookmark
Define...

Define: allows you to set a named bookmark to mark a place in the topic. After you define bookmarks, the Bookmark menu lists these bookmarks. Selecting any bookmark from the menu jumps to the topic in which the bookmark is set.

Click here to practice using the Bookmark command.

To set a bookmark:

1. Click here to open the Define dialog:

2. Enter the bookmark name in the text box and choose OK. Or choose Cancel to remove the dialog.

3. Click here to see the list of bookmarks. (This is the equivalent of opening the Bookmark menu again.)

To close the Practice Instructions window, double-click the square button in the upper left corner.

Offers the following command (click for a description):

Help
About Viewer...

Gives information about Viewer or about the title. At author time you define the information Viewer displays when this command is selected.

Click here to practice using the About Viewer command.

To practice using the About Viewer... command:

Click here to get information about Gallery

To close the Practice Instructions window, double-click the square button in the upper left corner.

Contents Button: Jumps to the Table of Contents for the title. (This button in the standard Viewer user interface performs the same function as the Contents button in the upper right corner of this topic.)

Click here to jump to the Table of Contents for Viewer Gallery. (If you then want to return to the topic on standard Viewer buttons and menus, click the Back button in the upper right corner of the screen.)

Index Button: Displays a list of keywords and allows you to jump to any of the topics containing that keyword. In Viewer, this type of searching is known as **keyword** searching.

Keyword indexes work in much the same ways as indexes in printed books. Authors define keywords, and the topics associated with them, at author time.

For more information about using the Index command, see the topic "Keyword Search with Default Keyword Index."

Click here to jump to the topic describing keyword searching.

Go Back Button: Displays whatever topic you were most recently viewing. Viewer maintains a list of topics you have displayed in the main Viewer window. This command moves backward through the list, displaying topics in reverse order. (This button in the standard Viewer user interface performs the same function as the Back button in the upper right corner of this topic.)

Click here to jump to the topic you most recently viewed.

History Button: Displays the list of topics you have displayed in the main Viewer window. You can select any topic name from this list to jump to that topic.

Practice Instructions

To practice using the history list:

1. Click the History button on the button bar.

2. Click a topic name in the list and choose Go To to jump to that topic. (If you then want to return to the topic on standard Viewer buttons and menus, click the Back button in the upper right corner of the screen.) Or choose Cancel to remove the dialog.

To close the Practice Instructions window, double-click the square button in the upper left corner.

Search Button: Allows you to enter arbitrary text and jump to any topics containing that text. In Viewer, this is known as **full-text** searching. Viewer automatically creates the full-text search index for a title at build time.

For more information about using the Search command, see the topic "Standard Full-Text Search."

<u>Click here to jump to the topic describing full-text searching.</u> (If you then want to return to the topic on standard Viewer buttons and menus, click the Back button in the upper right corner of the screen.)

<< Button: Displays the previous topic in an author-defined sequence. These author-defined sequences are known in Viewer as **browse sequences**. (This button in the standard Viewer user interface performs the same function as the Previous Feature button in the upper right corner of this topic.)

For more information about moving back and forth through a sequence of topics, see the topic "Viewing Topics in Sequence."

(If you then want to return to the topic on standard Viewer buttons and menus, click the Back button in the upper right corner of the screen.)

>> Button: Displays the next topic in an author-defined sequence. These author-defined sequences are known in Viewer as **browse sequences**. (This button in the standard Viewer user interface performs the same function as the Next Feature button in the upper right corner of this topic.)

For more information about moving back and forth through a sequence of topics, see the topic "Viewing Topics in Sequence."

Click here to jump to the topic describing browse sequences. (If you then want to return to the topic on standard Viewer buttons and menus, click the Back button in the upper right corner of the screen.)

You can change the menu bar for your title and the menus it contains on a topic-by-topic basis. For example, you can remove standard menus, remove or disable menu commands, add your own custom menus, add commands to standard or custom menus, or hide the entire menu bar.

Click here to see a topic with a custom menu bar.

This topic describes ways to change the menu bar for different topics.

Click Changing to see the table of contents for topics about changing how Viewer works.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Next Feature to read about the next feature in this series of topics or Previous Feature to read about the previous feature. These buttons are not active in the topic showing the actual custom menu bar.

In the topic where the custom menu bar appears on top of the screen, the menus are active. To return to the topic that describes the standard Viewer user interface, click Changing, then click Standard Viewer User Interface . (Changes to the menu bar affect the standard Viewer user interface described in this topic.)

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

The standard Viewer menu bar is removed for all samples in Gallery Walk.

The menus in this topic have the following changes:

1.   On the File menu, the Open topic is disabled.

2.   The Edit menu has a Copy Bitmap command that copies the bitmap in this topic to the Clipboard in Windows.

3.   The Help menu is removed.

4.   A new menu, "Search," includes commands normally found on buttons in the standard Viewer user interface.
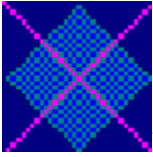
Test any of these menus to see these changes and their effects. (If you run the Copy Bitmap command, run the Clipboard Viewer application in Windows to see the bitmap copied into the Clipboard.

Click here to return to the topic on changing the standard Viewer menu bar.

You can change the button bar for your title on a topic-by-topic basis. For example, you can remove buttons or disable standard buttons, add your own buttons, or hide the entire button bar.

Click here to see a topic with a custom button bar.

This topic describes ways to change the button bar for different topics.

Click Changing to see the table of contents for topics about changing how Viewer works.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Next Feature to read about the next feature in this series of topics or Previous Feature to read about the previous feature. These buttons are not active in the topic showing the actual custom button bar.

In the topic where the custom button bar appears on top of the screen, the buttons are active. To return to the topic that describes the standard Viewer user interface, click Changing, then click Standard Viewer User Interface . (Changes to the button bar affect the standard Viewer user interface described in this topic.)

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

The standard Viewer button bar is removed for all samples in Gallery Walk.

Customizing the button bar

Changing

Contents

Next Feature

Sample Topics What to do

Back

Previous Feature

The button bar in this topic has the following changes:

1.   It does not include the Index, Go Back, History, Search, <<, and >> buttons.

2.   It redefines the Contents button so it jumps to the main screen on "changing Viewer" topics instead of the Gallery Table of Contents.

3.   It adds a new button, "Placeholder" that sets a bookmark in this topic.

Test either button to see its effect.

Click here to return to the topic on changing the standard Viewer button bar.

You can not only assign standard button commands to menus or standard menu commands to buttons; you can assign any standard Viewer command to a hot spot. When users click the hot spot, Viewer runs the command.

Hot spots for Viewer commands may be either text or pictures.

Click here to display the Viewer History dialog.

(Click here for more information about the History command.)

Click this button to display the Viewer Bookmark Define dialog.

(Click here for more information about the Bookmark Define command.)

This topic describes ways you can execute standard menu or button commands from hot spots.
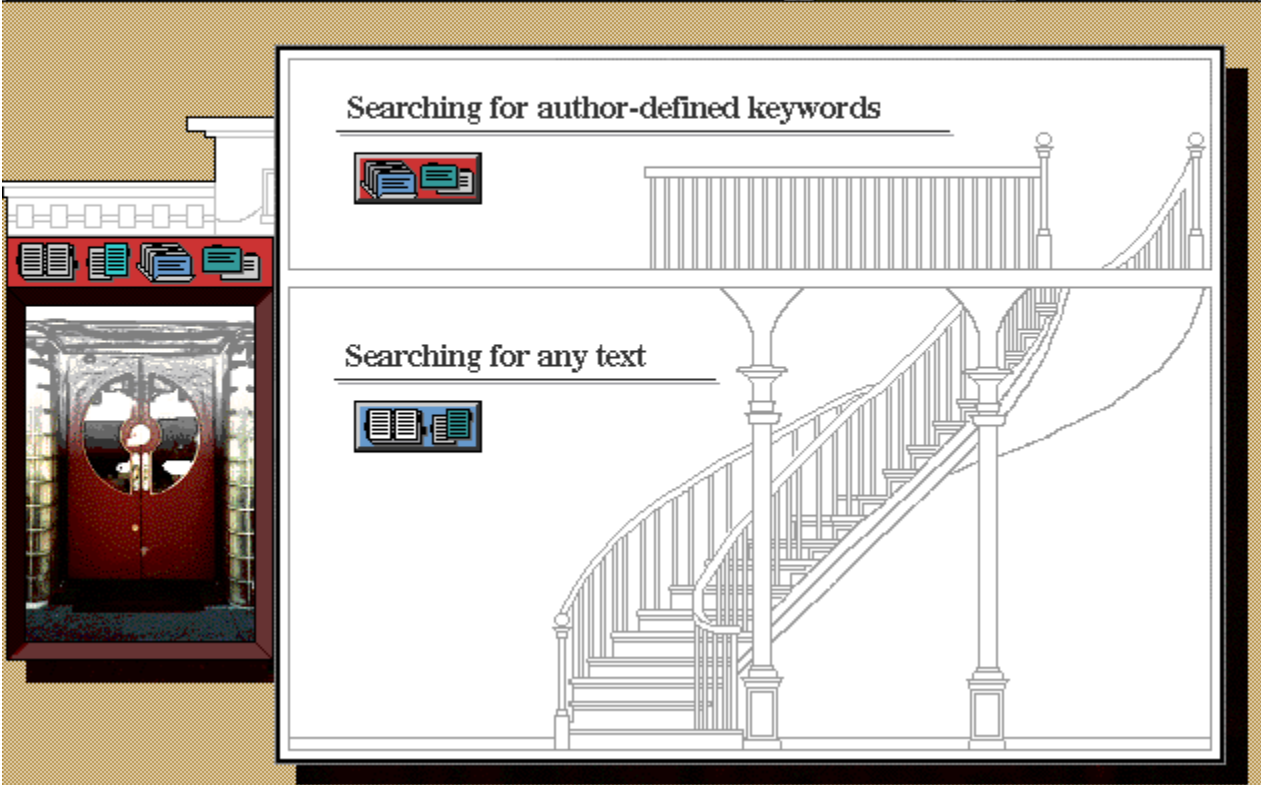
Click Changing to see the table of contents for topics about changing how Viewer works.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Next Feature to read about the next feature in this series of topics or Previous Feature to read about the previous feature.

All sample topics in Gallery Walk execute Viewer commands from hot spots. All nonscrolling regions in Gallery Walk include Contents, Back, Next Sample, and Previous Sample hot spots that activate Viewer commands. Also, the file-card icon in the Gardening samples executes the standard Viewer Search command.

Click the following text to jump to the Directory screen for Gallery Walk:

Gallery Walk Directory

Viewer allows you to execute applications for Windows from hot spots in titles. You can start applications in normal, maximized, or minimized state.

Hot spots for running external applications may be either text or pictures.

Click here to run the Notepad application. (Note that this application begins in "'minimized" state.)

[+] Click this button to run the Clock application in normal state.

This topic describes ways you can execute applications for Windows from hot spots.

Click Changing to see the table of contents for topics about changing how Viewer works.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Previous Feature to read about the previous feature in this series of topics.

No sample topics in Gallery Walk execute applications for Windows.

Searching for author-defined keywords

Searching for any text

These topics describe keyword and full-text searching in Viewer titles. Click the button for any keyword or full-text searching to see a list of topics about that type of searching. Then click any button in the popup to get more information about that feature.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Layout, Multimedia, Moving, or Changing to get information about the different types of features you can use in Viewer titles.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

Keyword search with default keyword index

Keyword search with multiple keyword indexes

- Standard full-text search
- Search with topic groups
- Field search
- Date/time search
- Searchable pictures

The Index command in Viewer (usually found on the button bar) provides a way to look up topics containing a predefined keyword or expression. This command works much the same way as a book index: the author defines keywords for each topic, and the Index command displays a list of all topics in which a particular keyword has been defined.

Ordinarily, the Index command works with a single, default keyword index. That index includes keywords defined in all topics within the title.

Click here to practice using the Index command with a default keyword index.

This topic describes how to search using the default keyword index in a title.

Click Looking Up to see the table of contents for search topics.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Next Feature button to read about the next feature in this series of search topics. This button is not active in the practice topics.

In the practice topics, the Index button on the button bar is active.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

Gallery Walk samples do not use keyword indexes.

Practice Instructions

To practice using the Index command with the default keyword index:

1. Choose the Index button from the button bar.

2   Make sure the Current Index drop-down shows Main Keyword Index.

3   In the Index List, click "practice keyword 1." The list shows the number of times this term appears in the Viewer Gallery title. Then choose OK.

4   Viewer displays a Topics Indexed list showing which topics have "practice keyword 1" defined. Select "Keyword Search Practice" from the list.

5   Choose Go To in the Topics Indexed list.

Here is the topic you selected from the Topics Indexed list.

Select Cancel in the Topics Indexed list to close the list.

Then click here to return to the topic on keyword searching with default indexes.

You can define more than one keyword index for your title. For example, if your title consists of several different books, you can construct a keyword index for each book.

Click here to practice using the Index command with a multiple keyword indexes.

This topic describes how to search using author-defined keyword indexes in a title.

Click Looking Up to see the table of contents for search topics.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Next Feature button to read about the next feature in this series of search topics or Previous Feature to read about the previous feature. These buttons are not active in the practice topics.

In the practice topics, the Index button on the button bar is active.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

Gallery Walk samples do not use keyword indexes.

Practice Instructions

To practice using the Index command with multiple keyword indexes:

1   Choose the Index button from the button bar.

2   Open the Current Index drop-down and select Keyword Index 2.

3   In the Index List, click the expression "practice keyword 2." The list shows the number of times this term appears in the Viewer Gallery title. Then choose OK.

4   Viewer displays a Topics Indexed list showing which topics have "practice keyword 2" defined. Select "Multiple Index Practice."

5   Choose Go To in the Topics Indexed list.

Here is the topic you selected from the Topics Indexed list.

As you saw, a different set of index keywords was defined within the second keyword index named Keyword Index 2. The same keyword may be defined in more than one index, as you saw if you also looked at the list for Main Keyword Index. (Choose To Index to return to the Index dialog if you want to check this.)

Select Cancel in the Topics Indexed list (or Index dialog) to close the list.

Then <u>click here to return to the topic on keyword searching with multiple indexes.</u>

Viewer 2.0 offers users the ability to search titles for occurrences of arbitrary text. This feature is known as **full-text search**. Users can enter expressions involving text and Viewer operators and see a list of any topics containing that text. Using the list, they can jump from topic to topic until they find the exact information they're looking for.

The simplest form of full-text searching is one in which users simply type in text and search for topics containing that text.

Click here to practice simple full-text searching.

This topic describes how to perform simple full-text searching.

Click Looking Up to see the table of contents for search topics.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Next Feature button to read about the next feature in this series of search topics or Previous Feature to read about the previous feature. These buttons are not active in the practice topics.

In the practice topics, the Search button on the button bar is active.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

The following sample topics in Gallery Walk use full-text searching.
Click any topic name to view the topic.

Gardening: Perennials (index card icon)
Gardening: Trees and Shrubs (index card icon)

Practice Instructions

To practice simple full-text searching:

1 Choose the Search button from the button bar.

2 In the Search by Word box, type the word "specialized." In the Search In radio buttons, make sure the radio button "All Topic Groups" is selected. Then choose OK.

3 Viewer displays a Search Results list showing which topics have the word "specialized." Make sure "Full-Text Practice 1" is selected.

4 Choose Go To in the Search Results list.

Here is the topic you selected from the Search Results list. It includes the word "specialized," which you selected from the list.

Select Cancel in the Topics Indexed list to close the list.

Then click here to return to the topic on basic full-text searching.

You may want to give users the ability to search for text in only part of a title. For example, if your title consists of several different books, you can construct a **topic group** for each book. After you assign topics to each topic group, users can pick which topic groups they want to search for text. The search covers only the topics in the topic groups the user has selected.

Click here to practice full-text searching with topic groups.

This topic describes how to restrict the number of topics in a full-text search by using topic groups.

Click Looking Up to see the table of contents for search topics.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Next Feature button to read about the next feature in this series of search topics or Previous Feature to read about the previous feature. These buttons are not active in the practice topics.

In the practice topics, the Search button on the button bar is active. (When the standard Viewer user interface appears in the practice, the other buttons and menus are active, as well.)

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

The following sample topics in Gallery Walk are part of a searchable topic group. Click any topic name to view the topic.

Gardening: Perennials (index card icon)
Gardening: Trees and Shrubs (index card icon)

Search with topic groups

Sample Topics   What to do

Contents   Next Feature

Back   Previous Feature

Practice Instructions

To practice full-text searching with a topic group:

1   Choose the Search button from the button bar.

2   In the Search by Word box, type the expression "enters or exits." (Don't Include the quotes.)

3   In the Search In radio button group, select the Selected Topic Groups radio button. In the Topic Groups list, select the checkbox for Topic Group Practice. Then choose OK.

4   Viewer displays a Search Results list showing which topics have the word "enters" or the word "exits." Make sure "Topic Group Search Result" is selected.

5   Choose Go To in the Search Results list.

Search with topic groups

Looking Up Sample Topics What to do

Contents
Next Feature
Back
Previous Feature

Here is the topic you selected from the Search Results list. It includes the words "enters" and "exits," which you selected from the list.

Topic groups have other functions in Viewer titles. You can tell Viewer to execute a set of commands when the user first enters or finally exits a topic group. One way you can use this feature is to define a specific set of buttons or menus for each different topic group. This topic includes a standard menu and button bar at the top of the screen; Viewer puts them in because you jumped to the topic group named Topic Group Practice, and it removes them when you leave the topic group.

Select Cancel in the Topics Indexed list to close the list.

Then click here to return to the topic on full-text searching with topic groups.

Another way users can perform full-text searching is to find topics in which search text is defined as a **field value**. When you author the title, you indicate which text in each topic is a field value.

For example, in the Gardening sample title in Gallery, you might have a field named "Type" and mark occurrences of the words "perennial," "bulbs," and "evergreen" as values for that field. Users can then search for any topics in which, for example, the field named Type has the value "perennial."

Click here to practice full-text searching with fields.

This topic describes how to search text for field values.

Click Looking Up to see the table of contents for search topics.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Next Feature button to read about the next feature in this series of search topics or Previous Feature to read about the previous feature. These buttons are not active in the practice topics.

In the practice topics, the Search button on the button bar is active.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

The following sample topics in Gallery Walk allow field searching. Click any topic name to view the topic.

Gardening: Perennials (index card icon)
Gardening: Trees and Shrubs (index card icon)

Practice Instructions

To practice full-text searching with field values:

1   Choose the Search button from the button bar.

2   Choose Search By Category >>.

3   In the Search by Category list, select Viewer Term from the Category drop-down list. Then select "word wheel" from the Keyword drop-down list and choose OK.

4   Viewer displays a Search Results list showing which topics have the expression "word wheel" defined as a field value for the category "Viewer Terms." Make sure "Field Search Result" is selected.

5   Choose Go To in the Search Results list.

Here is the topic you selected from the Search Results list.

In this practice topic, you selected the fields and field values from drop-down lists. To add this feature to a Viewer title, you simply tell Viewer to add a field to the list and create a list of values for that field. These drop-down lists are known as {vfld2305849056527646730}**word wheel{vfld2305847957016018944}s**. To create a {vfld137438953482}word wheel{vfld11132555231232}, you tell Viewer the {vfld137438953482}word wheel{vfld2377900062085742592} name to create at the same time you define the field name for the Search dialog.

Select Cancel in the Topics Indexed list to close the list.

Then <u>click here to return to the topic on full-text searching with fields.</u>

In addition to searching for topics containing particular text, you can search for topics containing a date or time value. Normally, Viewer treats any numbers it finds, including dates or times, as "pure" numbers. For example, if it finds a date such as "7/4/1776," it treats 7, 4, and 1776 as a separate numbers to be added to the index.

To make sure Viewer finds time and date values correctly, you must explicitly mark them as date and times values at author time. You must also make sure they appear in a format Viewer can recognize.

Click here to practice full-text searching with dates and times.

This topic describes how to search text for date and time values.

Click Looking Up to see the table of contents for search topics.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Next Feature button to read about the next feature in this series of search topics or Previous Feature to read about the previous feature. These buttons are not active in the practice topics.

In the practice topics, the Search button on the button bar is active.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

No sample topics in Gallery Walk include searching for date/time values.

Practice Instructions

To practice full-text searching with a date value:

1   Choose the Search button from the button bar.

2   Choose Search By Category >>.

3   In the Search by Category list, select Search Date from the Category drop-down list. Then select "07/04/1776" from the Keyword drop-down list and choose OK.

4   Viewer displays a Search Results list showing which topics have the date "07/04/1776" defined. Make sure "Date Search Result" is selected.

5   Choose Go To in the Search Results list.

Here is the topic you selected from the Search Results list. This topic contains instances of the date the U.S. signed the Declaration of Independence: {vfld2377902944008798222}{dtype2}07/04/1776{dtype}{vfld146028888064} in the format Viewer expects for dates, or July 4th, 1776 in more familiar text format.If a topic includes a date or time in a format (like "July 4th, 1776") that Viewer doesn't recognize, you must create a file to associate the unrecognized format with the Viewer-recognized format. The unrecognized form of the date or time is known as an alias, and the file in which you associate the alias with a Viewer-recognized format is known as an alias file.

ßN

Select Cancel in the Topics Indexed list to close the list.

Then click here to return to the topic on full-text searching with date/time values.

Sometimes you may want to tell Viewer to highlight pictures as well as text when the user performs a full-text search. For example, if a picture has text in it, you might want Viewer to highlight the picture when the user enters that text as a search query.

Using the Hotspot Editor provided in this package, you can associate search text with any picture. Then, when the user enters that search text as a search query, Viewer lists all the topics where the picture appears in the Search Results list.

Click here to practice full-text searching with pictures.

This topic describes how to find topics with searchable pictures using full-text search queries.

Click Looking Up to see the table of contents for search topics.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Previous Feature button to read about the previous feature in this series of search topics. This button is not active in the practice topics.

In the practice topics, the Search button on the button bar is active.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

No sample topics in Gallery Walk include searchable pictures.

Practice Instructions

To practice full-text searching with searchable pictures:

1   Choose the Search button from the button bar.

2   In the Search by Word box, type the word "argyle." In the Search In radio button group, make sure the radio button "All Topic Groups" is selected. Then choose OK.

3   Viewer displays a Search Results list showing which topics have the word "argyle." Make sure "Search Picture Practice" is selected.

4   Choose Go To in the Search Results list.

Here is the topic you selected from the Search Results list. Note that the word you searched for does not appear in this topic. The picture has the search text associated with it, so Viewer recognized it as a search hit and highlighted it.

Select Cancel in the Topics Indexed list to close the list.

Then click here to return to the topic on full-text searching with pictures.

Navigation

Ancient mariners, including traders sailing between Crete and Egypt around 2500 B.C., the Phoenicians, circa 600 B.C., the Irish before 10 A.D., followed soon after by the Vikings, and the Polynesians around 600 A.D., all used some kind of navigation to steer their ships, through well known as well as unknown, waters.

The methods of navigation are almost as numerous as the navigators that used them. Astronomical guides such as the path of the Sun and stars; meteorological signs such as the direction of the winds; technological tools including the magnetic compass, the sextant, modern gyroscopes and computerized inertial systems; graphic records of previous journeys depicted on charts and maps.

Safety

The International Regulations for Preventing Collisions at Sea, were adapted, almost world-wide in 1889. Some of the recommendations included the display of <u>running lights</u>, which were traditionally red for port and green for starboard, loud warnings such as <u>bells</u>, or gongs, and later, <u>fog horns</u>, for traveling in foggy weather, <u>light houses</u> to warn of shoals and rocky coasts, as well as separate shipping lanes for heavily traveled routes.
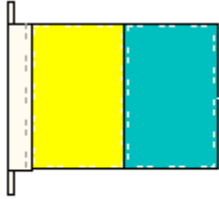
I have something
to communicate
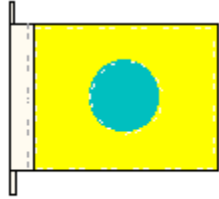
I am directing my
course to port

{ewl MVMCI2, ViewerMCI, [device AVIVideo][caption 'Running Lights'][autostart][looping][share video]!boat_lit.avi}

{ewl MVMCI2, ViewerMCI, [device AVIVideo][stdcontrol][share video][caption 'Lighthouse']! boat_lhs.avi}

Click Gallery Walk Directory to see the table of contents for Gallery Walk samples.

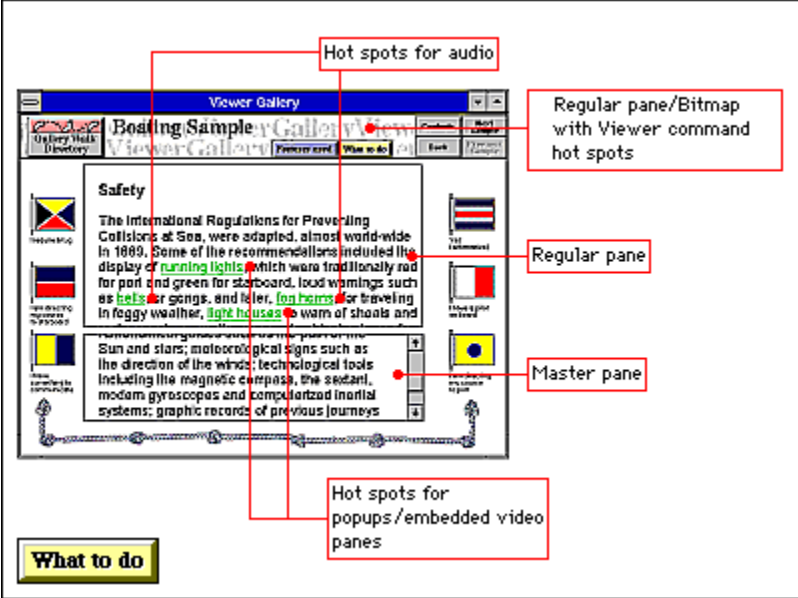Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Next Sample to see the next topic in the Gallery Walk.

Click Features Used to see a list of features used in the topic and jump to descriptions of those features.

In the Safety window, click the colored, underlined text "bells" or "fog horns" to play sounds.

In the Safety window, click the colored, underlined text "running lights" or "light houses" to display popups with animations. To close either popup, click anywhere outside the popup. To control the Lighthouse animation, click the play/pause or stop button or drag the thumb on the slider control.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

Did you know?

The speed at which a boat travels is measured in knots. The term came from the relationship between a line dropped into the water which was knotted at intervals of 47.25 feet and a 28-second "hourglass." One nautical mile, 6,076 feet per hour, was the speed the boat was traveling if the knot appeared as the sand ran out. This is one "knot."

Telling time on board a ship is done using a bell. A "watch" is a four-hour period of time. The ship's bell is struck once for each half hour. "One bell" designates the first half hour, "two bells" the second half hour, etc., so that "eight bells" makes up a four-hour watch.

Directions in boating terms are a bit different than those most "landlubbers" are used to. Port is the equivalent of left, as in "turning to port," which is turning to the left. Starboard is the indication for right. The front of a boat is "fore," from fore deck, while the rear is "aft" from afterdeck.

{ewc MVMCI2, ViewerBmp2, !boat_lit.bmp}

{ewc MVMCI2, ViewerBmp2, !boat_bel.bmp}

{ewl MVMCI2, ViewerMCI, [device AVIVideo][stdcontrol][share video][caption 'One Bell']! boat_bel.avi}

{ewl MVMCI2, ViewerMCI, [device AVIVideo][stdcontrol][share video][caption 'Port Turn']!
boat_sbd.avi}

Click Gallery Walk Directory to see the table of contents for Gallery Walk samples.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Next Sample to see the next sample topic in the Gallery Walk. Click Previous Sample to see the previous sample topic.

Click Features Used to see a list of features used in the topic and jump to descriptions of those features.

In the "Did you know?" window, click the colored, underlined text "One bell" or "turning to port" to display popups with animations. (You must scroll down to display the "turning to port" hot spot.) To control either animation, click the play/pause or stop button or drag the thumb on the slider control. To close the popup, click anywhere outside the popup.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

Popups
Video embedded in topics

Regular panes
Viewer command hot spots

Click Contents to return to the main Table of Contents for Viewer Gallery.
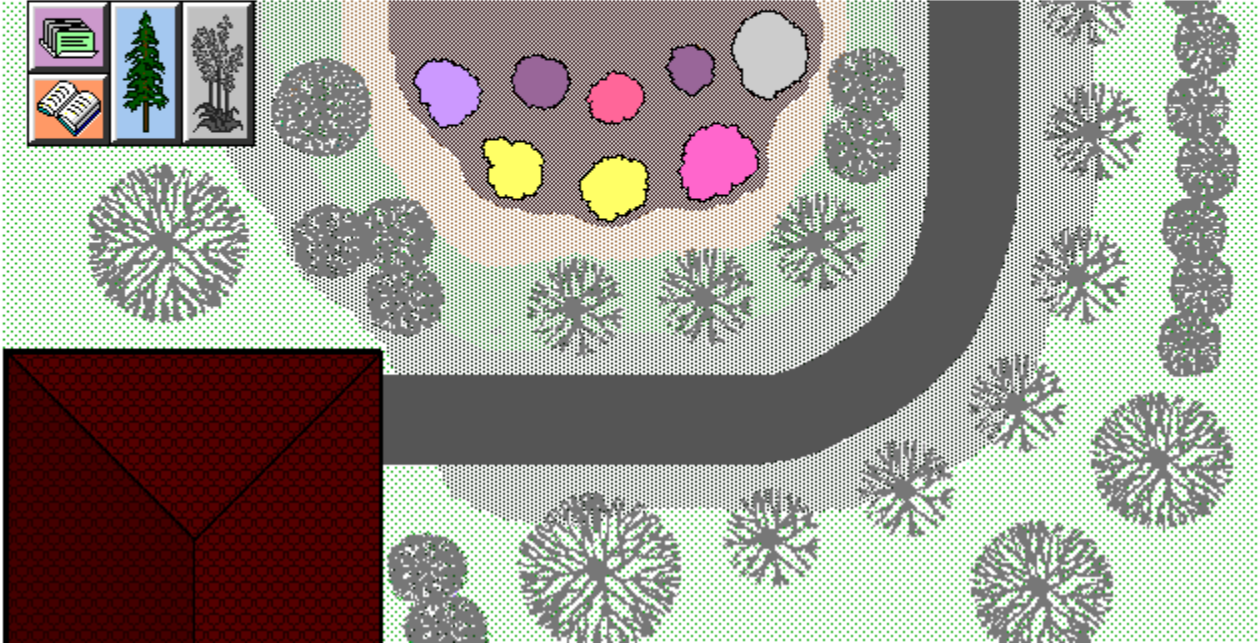
Click Back to see the topic you were most recently viewing.

**To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.**

Gallery Walk
Directory

Gardening Sample

Contents | Next Sample

Features used | What to do

Back | Previous Sample

Landscapes

The Perennial Garden

Click on any plants shown in color for suggestions on planting perennials.

Gallery Walk Directory

Gardening Sample

GalleryViewer
ViewerGallery

| Contents | Next Sample |
| Back | Previous Sample |

Features used | What to do

Landscapes

Trees and Shrubs

Click on any tree or shrub shown in color for suggestions on planting.
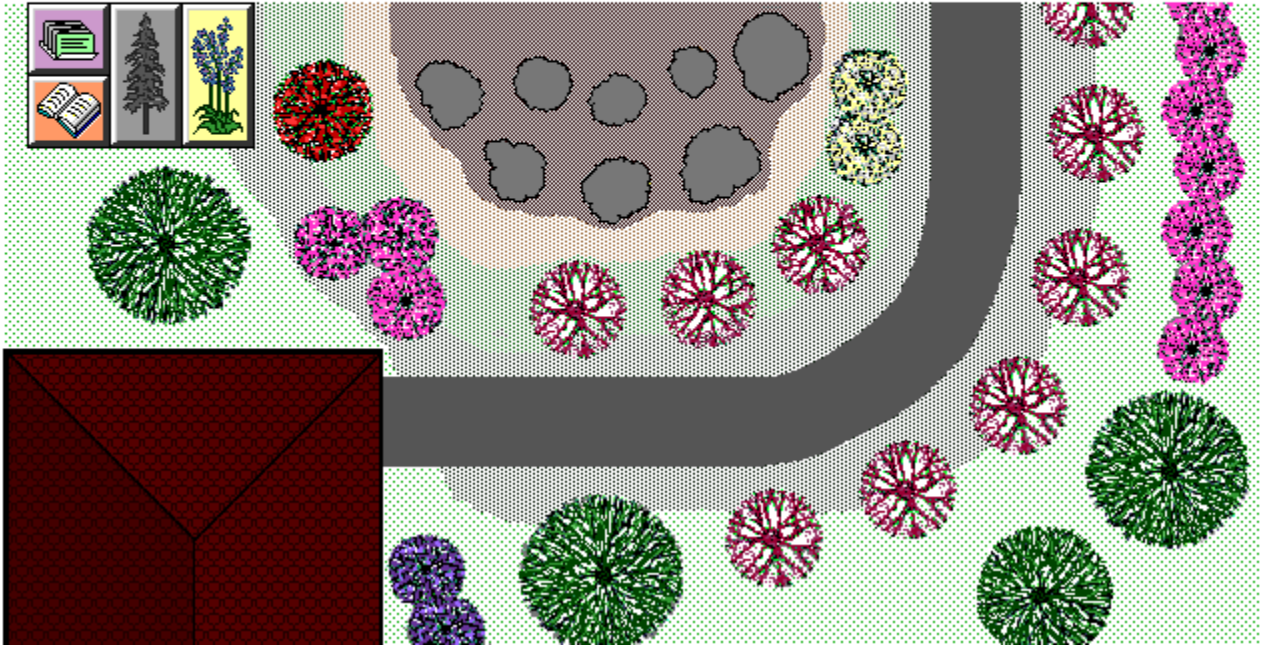
Click any callout to see a desription of the Viewer feature the callout points to. Some callouts pop up lists of features; click any feature in the list to see a description.

If you want to return to the sample after reading the feature description, click Back in the feature description window.

Perennials in the Landscape

The perennials, in modern day landscapes, fulfill a number of gardening crtiteria. Two things they all have in common: they are all herbaceous, and they all come back year after year to show off the blooms and foliage that have made them so popular.

Many perennials will produce blossoms for as little as a week, or given the right care, some may bloom from late Spring through Summer. Most perennials can be counted on to produce flowers, sometimes in brilliant profusion, for years with little care other than regular fertilizing and watering. Most need good soil and the proper lighting, which can be anywhere between full sun and full shade.

Given that they need little care, produce wonderful color, return regularly, and in most cases, multiply fairly rapidly, gardeners and landscape designers have found perennials to be very cost effective. Many can be divided after a few years and replanted in other spots around the garden, or traded with friends and neighbors. In any nursery or garden shop you can usually find a great variety of perennials that are right for your climate and are usually very reasonably priced.

Perennials also fit well into a number of garden styles. They are at home in borders, grouped together in large color masses, naturalized in smaller clumps among taller shrubs and grasses in smaller splashes of color, in flower beds mixed with annuals and bulbs, as well as containers of every size and shape. New varieties are being introduced regularly, offering the gardener a chance to experiment and reshape the garden, landscape or patio in any number of ways; something that seems to fill the need most gardeners creative needs.

Trees and Shrubs

There seems to be some discussion in gardening and landscape literature in defining the difference between a tree and a shrub. The most consistent criterion seems to be height, although it is also the most disputed, due to the fact that a shrub in one environment may reach tree height in another, or it may be trained to grow in a tree form. The other side of that coin are trees that are pruned and trained as tall shrubs. Generally it is assumed that shrubs range in size from 2 feet, to 9 feet or more, while trees range from 9 or 10 feet to as much as 100 feet.

The range of available trees and shrubs in any given climate zone allows the landscape designer to plan for just about any environmental situation. It also makes it very important that they are chosen carefully.

Some things to consider when purchasing trees:

Mature height and spread. You may purchase a young, 6 foot, bare root tree that will eventually reach 30 feet in height with an equal spread. At this size it could shade out existing plants or block a window view within just a few years.

Environmental needs and hardiness. Does it need full sun, and acid soil,with good drainage? Is it drought tolerant and will it hold up to hot summer winds? How fast does it grow and what else can be planted alongside of it? Is it disease resistant?

Design considerations. Trees and shrubs come in various forms, such as round-headed, pyramidal, and irregular, and they may have single, multi-stemmed, or low branching trunks.

Uses in the landscape. Fragrant flowers may appear in spring, followed later by brilliantly colored foliage set off by a heavily textured bark. Birds can be attracted to various plantings, or you may be considering a hedge or screen.

Maintenance. One factor that is often overlooked is how much attention your tree or shrub will need. It may need frequent pruning to maintain a pleasing shape, or fruit may fall on sidewalks or cars, causing stains and generally constant cleanup. A special consideration, especially around sewer or water lines, is the invasiveness of the roots or the plant itself. Once planted, the tree or shrub may be hard to control.

Many more factors can be taken into account, such as picking species specific to your zone, initial costs of buying and planting, and location concerns such as street plantings, small yard plantings, etc.

A little research and/or a good nursery person can help you make your landscape a place you can enjoy year round and for a long time.

Japanese Anemone

Anemone hybrida

Type: {vfld137438953483}Perennial{vfld-9114861779770408960}.

Size: 2-4 feet high.

Light preference: {vfld137438953485}Sun{vfld14431090114560}, or{vfld137438953485} partial shade{vfld14431090114560}. Will tolerate {vfld137438953485}full shade{vfld-9114861779770408960}.

Soil preference: Good, moisture retentive clay soil.

Flowers: Semidouble petals on long stems in white, or pink.

Tolerance: {vfld137438953484}Slow to establish{vfld13331578486784}, but then {vfld137438953484}spreads rapidly{vfld-35323456014778368}.

Common uses: Long-lived perennial excellent for fall color in partial shade.

Daisy

Anthemis cupaniana

Type: {vfld137438953483}Perennial{vfld-9114861779770408960}.

Size: 9-12 inches.

Light preference: {vfld137438953485}Full sun{vfld-9114861779770408960}.

Soil preference: Well drained.

Flowers: White starburst flowers, 2 inches across, with yellow centers.

Tolerance: {vfld137438953484}Good{vfld-35323456014778368}.

Common uses: Flowers all summer long.
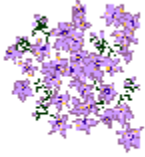
Bellflower

Campanula carpatica

Type:{vfld137438953483}Perennial{vfld-9114861779770408960}.

Size: 8 inches, but may reach 18 inches.

Light preference: {vfld137438953485}Sun{vfld14431090114560}, or{vfld137438953485} partial shade{vfld-9114861779770408960}.

Soil preference: Good, well drained soil.

Flowers: Blue or white open bell or cup shaped, 1-2 inches across on erect single stems.

Tolerance: {vfld137438953484}Hardy{vfld-35323456014778368}.

Common uses: Rock gardens, borders. Blooms late spring.

Primrose

Primula vulgaris

Type: {vfld137438953483}Perennial{vfld-9114861779770408960}.

Size: 4-6 inches.

Light preference: {vfld137438953485}Partial shade{vfld14431090114560}, or {vfld137438953485}sun{vfld-9114861779770408960}.

Soil preference: Fertile, moist soil.

Flowers: Small, brightly colored five petal florets on single stems. Many colors.

Tolerance: {vfld137438953484}Hardy{vfld-35323456014778368}.

Common uses: Late winter, early spring color. Ground cover.

Bluebells

Endymion scilla

Type: {vfld137438953483}Perennial{vfld12232066859008}, {vfld137438953483}bulbs{vfld-9114861779770408960}.

Size: 20 inches.

Light preference: {vfld137438953485}Full sun{vfld14431090114560} or {vfld137438953485}part shade{vfld-9114861779770408960}.

Soil preference: Dry through summer, water fall and winter.

Flowers: Up to twelve 3/4 inch bell shaped flowers, blue, white and pink, hang from stems.

Tolerance: {vfld137438953484}Good{vfld-35323456014778368}.

Common uses: Early spring color, ground cover.

Border Carnation

Dianthus caryophyllus

Type: {vfld137438953483}Perennial{vfld-9114861779770408960}.

Size: 12-14 inches.

Light preference: {vfld137438953485}Full sun{vfld-9114861779770408960}.

Soil preference: Light, fast draining soil.

Flowers: Prolific 2 inch double fragrant blooms, available in many colors.

Tolerance: {vfld137438953484}Good{vfld-35323456014778368}.

Common uses: Garden favorite, blooms spring through summer, borders, containers.

Douglas Fir

Pseudotsuga menziesii

Type: {vfld137438953483}Evergreen{vfld-9114861779770408960}.

Size: 80-200 feet.

Light preference: {vfld137438953485}Sun{vfld14431090114560}, or {vfld137438953485}partial shade{vfld-9114861779770408960}.

Soil preference: Sandy loams with good drainage.

Flowers: Reddish brown cylindrical cone, 2-3 inches long.

Tolerance: {vfld137438953484}Okay{vfld13331578486784} to {vfld137438953484}good{vfld-35323456014778368}.

Common uses: A favorite Christmas tree, easily shaped when young.

Japanese Quince

Cydonia japonica

Type: {vfld137438953483}Deciduous shrub{vfld-9114861779770408960}.

Size: 4-5 feet.   Larger when trained on wall.
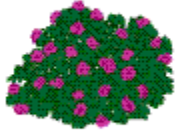
Light preference: {vfld137438953485}Sun{vfld14431090114560}, {vfld137438953485}partial shade{vfld-9114861779770408960}.

Soil preference: Most soils except high alkaline.

Flowers: Large red blooms.

Tolerance: {vfld137438953484}Very tolerant{vfld-35323456014778368} of variety conditions

Common uses: Ornamental, fruit for canning, cuttings.

Butterfly Bush

Buddleia davidii

Type: Hardy deciduous shrub or semievergreen shrub.

Size: 7-10 feet.

Light preference: Full sun.

Soil preference: Light alkaline with good drainage.

Flowers: Scented.   Range from deep violet to red-purple.

Tolerance: Good.   Needs regular pruning.

Common uses: Attracts butterflies.   Sweet scent.

Flowering Plum

Prunus cerasifera

Type: {vfld137438953483}Deciduous tree{vfld-9114861779770408960}.

Size: 20 feet high and wide.

Light preference: {vfld137438953485}Full sun{vfld-9114861779770408960}.

Soil preference: Well drained.

Flowers: Single pink blossoms.

Tolerance: {vfld137438953484}Good{vfld-35323456014778368}.

Common uses: Purplish-red foliage, some fruit, good street tree.

Common Lilac

Syringa vulgaris

Type: Hardy deciduous shrub.

Size: 10-20 feet.

Light preference: Sun, partial shade.

Soil preference: Alkaline.

Flowers: Fragrant, single or double. Variety of colors.

Tolerance: Hardy, but may bloom irregularly.

Common uses: Ornamental, fragrance, cut flowers, containers.

Rhododedron

Rhododendron

Type: Medium shrub/small tree. {vfld137438953483}Deciduous{vfld12232066859008} or {vfld137438953483}evergreen{vfld-9114861779770408960}.

Size: 6-30 feet.

Light preference: {vfld137438953485}Partial shade{vfld-9114861779770408960}.

Soil preference: Acidic, cool, moist, but not wet.

Flowers: Impressive display spring to fall depending on variety.

Tolerance: {vfld137438953484}Half-hardy{vfld-35323456014778368}. Most -5 to -10.

Common uses: Ornamental, some fragrant.

Click Gallery Walk Directory to see the table of contents for Gallery Walk samples.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Next Sample to see the next topic in the Gallery Walk. Click Previous Sample to see the previous topic.

Click Features Used to see a list of features used in the topic and jump to descriptions of those features.

Click the file cards to search for perennials and trees matching given characteristics. Click here for instructions.

Click the book icon for more information about using perennials in gardens.

Click the tree icon for information about using trees and shrubs in gardens.

In the contour map, click any colored "flower bed" to display a description of a perennial type.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

1 Click the file-cards icon. (You can move the Practice Instructions window at any time if it obscures your view of the Search dialog box or the sample topics.)

2 Make sure the Gardening Sample topic group is selected

3   Choose Search By Category >>.

4   Select a "Gardening: ..." category from the Category drop-down list. Then select a value from the Keyword drop-down list.

5   To narrow your search further, click Add Row and repeat step 3. When you are ready to carry out the search, click OK.

6   Viewer displays a Search Results list showing which plants match the characteristics you entered.

7   Choose Go To in the Search Results list. Viewer displays the topic with the characteristics you selected in steps 4 and 5. (You can move or minimize the Topics Found list if it obscures your view of the topic.)

To close the Practice Instructions window, double-click the square (system) button in the upper left corner of the window.
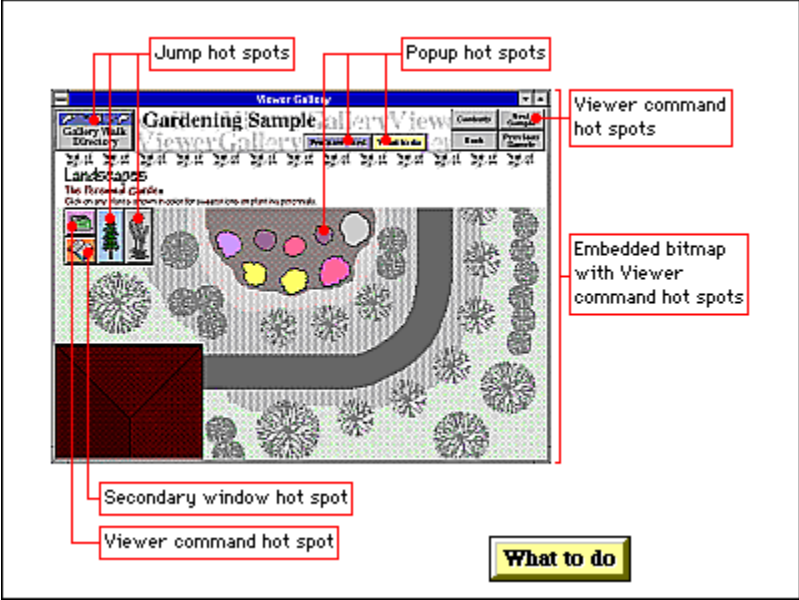
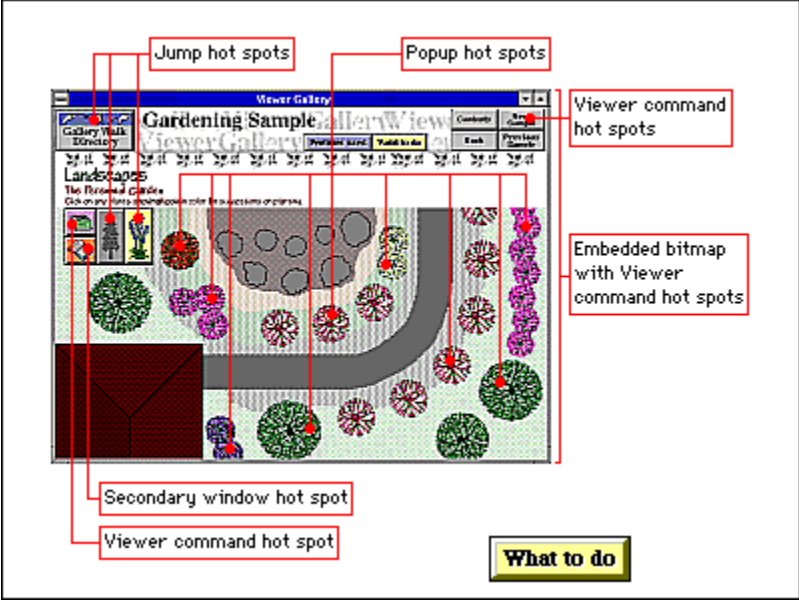Click Gallery Walk Directory to see the table of contents for Gallery Walk samples.

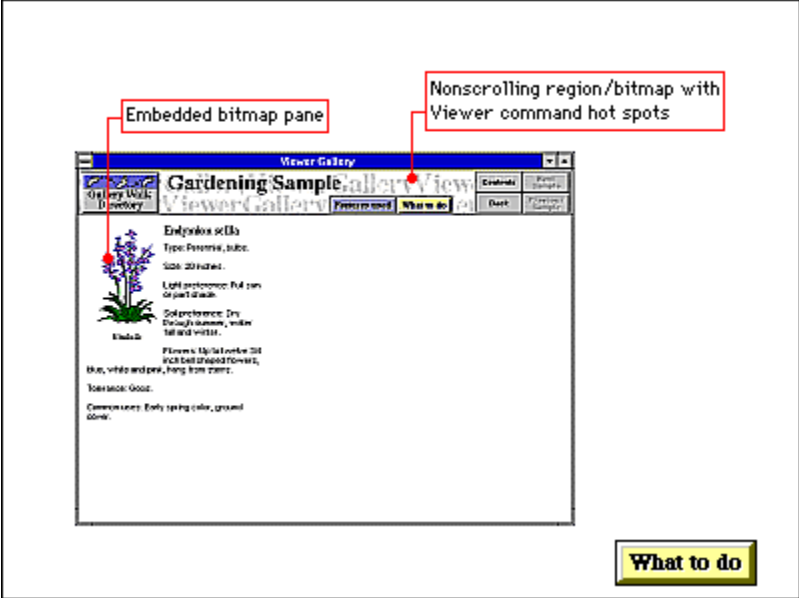Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Next Sample to see the next topic in the Gallery Walk. Click Previous Sample to see the previous topic.

Click Features Used to see a list of features used in the topic and jump to descriptions of those features.

Click the file cards to search for perennials and trees matching given characteristics. Click here for instructions.

Click the book icon for more information about using perennials in gardens.

Click the tree icon for information about using trees and shrubs in gardens.

In the contour map, click any colored "tree" to display a description of a tree or shrub type.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

Click Gallery Walk Directory to see the table of contents for Gallery Walk samples.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Features Used to see a list of features used in the topic and jump to descriptions of those features.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

Photography Sample GalleryViewerGalleryViewe
ViewerGallery
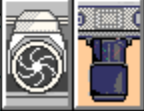
Gallery Walk Directory

Contents | Next Sample
Features used | What to do
Back | Previous Sample

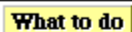# Photography The Basics: Time & Light
Aperture & Shutter Speed

The aperture size, measured in f-stops, is controlled by a mechanical diaphragm located inside the camera lens. Through this aperture light travels to the camera shutter. The shutter, a curtain-like mechanism that opens and closes at different speeds, measured in fractions of a second, allows the light, after entering the lens for a given amount of time, thus exposing it.

{ewc MVMCI2, ViewerMCI, [device AVIVideo][buttons playpause stop menu][slider][caption 'Aperture and Depth of Field'][sections 'Long Depth of Field' 0 '$#Mid-Range Depth of Field' 4300 '$#Narrow Depth of Field' 9100][share AVI]! phot_dpf.avi}

Aperture values are   indicated on the camera lens as f-stops and are numerical values relative to the amount of light that is transmitted when the lens is stopped down. The   f-stop scale is an international standard, and is shown on a lens as f/1   f/1.4   f/2   f/2.8   f/4   f/5.6   f/8   f/11   f/16. Remember, the higher the f-number" the smaller the aperture opening. Opening up the aperture one stop (f/16 to f/11) allows twice as much light to enter the lens. At the same time the exposure time (shutter speed.) should be halved to compensate for the increased amount of light entering the camera; 1/125th of a second, would be reduced to 1/60th of a second, indicated on the camera as 125, 60, etc.

Photography Sample GalleryViewe
ViewerGallery

Gallery Walk Directory

Contents | Next Sample
Features used | What to do
Back | Previous Sample

Photography The Basics: Time & Light
Lens & Focal Length

Focal length is another important aspect in the the aperture/shutter speed equation. Focal length, affects image size, angle of vision, and focusing distance. Focal length, as a simple rule, refers loosely to the field of vision (angle) of the human eye. A 50 mm lens is considered normal, in that it encompasses the area normally seen by a person looking straight ahead.

{ewc MVMCI2, ViewerMCI, [device AVIVideo][buttons playpause stop menu][slider][caption 'Focal Length'][sections '$#Normal' 9880

As focal length increases, the angle of view becomes narrower, the depth of field becomes shallower, and the image in focus becomes larger. In a 100mm, or telephoto lens the

'$#Telephoto' 17500 '$#Focal Lengths' 19630 '$#When and Why' 19750 '$Wide-Angle' 0][share AVI]! phot_fcl.avi}
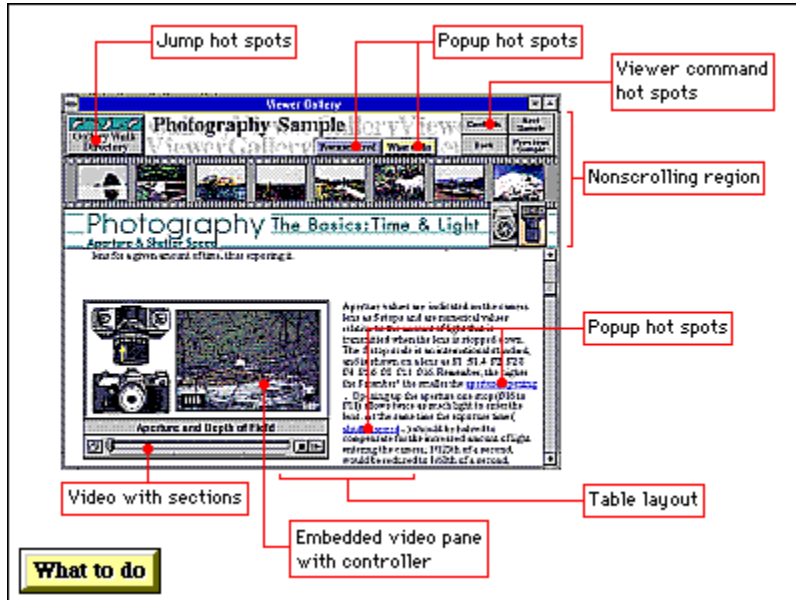
subject appears larger, or closer than at 50mm. A telephoto is an excellent lens for wildlife photography, because it allows you to remain at a distance, while filling the frame with that rare song bird you hope to identify. A 35mm, or wide-angle lens, makes the subject appear smaller and more distant than a normal lens. It is the lens to take with you when visiting the Grand Canyon, as it will take in the panoramic, dramatic views that make Canyon the wonder that it is.

A large aperture (small number) needs a short exposure time. The reverse is also true; a small aperture (large number) needs a longer exposure time.

Various scales have been formulated to show aperture to shutter speed relationships. The table below, with film speed as a constant, will result in the same exposure.

The first row indicates f-stops, and the second row, shutter speed:

1	2	2.8	4	5.6	8	11	16	22	32
500	250	125	60	30	15	8	4	2	1

Click Gallery Walk Directory to see the table of contents for Gallery Walk samples.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Next Sample to see the next topic in the Gallery Walk. Click Previous Sample to see the previous topic.

Click Features Used to see a list of features used in the topic and jump to descriptions of those features.

To control the Depth of Field/Aperture animation, click the play/pause or stop button or drag the thumb on the slider control. To stop at pause points in the animation, click the menu in the lower-left corner of the controller and select Pauses. To start playback at any section break, click the menu and select the section name.

Within the text on aperture settings, click any colored, highlighted text to pop up additional information.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

Click Gallery Walk Directory to see the table of contents for Gallery Walk samples.

Click Contents to return to the main Table of Contents for Viewer Gallery.

Click Back to see the topic you were most recently viewing.

Click Next Sample to see the next topic in the Gallery Walk. Click Previous Sample to see the previous topic.

Click Features Used to see a list of features used in the topic and jump to descriptions of those features.

To control the Focal Length animation, click the play/pause or stop button or drag the thumb on the slider control. To stop at pause points in the animation, click the menu in the lower-left corner of the controller and select Pauses. To start playback at any section break, click the menu and select the section name.

Click the colored text "wildlife photography" to display a bitmap. To copy this bitmap to the Clipboard, click the button. You can then view the bitmap in the Clipboard Viewer application or paste it into any application.

To exit Viewer Gallery, double-click the square (system) button in the upper left corner of the screen.

+ Click here to copy this picture to the Clipboard.