## **Basics**

WinSight gives you debugging information about window classes, windows, and messages. Using WinSight, you can study how any application creates classes and windows and monitor how windows send and receive messages.

WinSight uses three views to study applications:

- Window Tree view
- Class List view
- Message Trace view

WinSight is a passive observer: it intercepts and displays information about messages but does not prevent messages from getting to applications.

To watch windows sending and receiving messages, you can use WinSight to do the following:

- Find the window(s) you want to watch
- Trace the messages that get sent

#### What you need to know to begin using WinSight

Choose one of these topics for more information:

<u>Getting Started</u> <u>Messages WinSight Tracks</u> <u>WinSight Views</u>

### Tasks

Choose one of these topics for information about using WinSight:

Tracing Messages

Using the Find Window Mode

Using the Keyboard with WinSight

Using the Messages Menu to Trace Messages

Using the Mouse with WinSight

Using the Spy Menu to Display Window Details

Using the Start! and Stop! Menu

Using the Tree Menu to Display the Window Tree View

Using the View Menu to Display WinSight Views

## **Getting Started**

<u>See Also</u> To start WinSight, double-click the WinSight icon.

The first time you start WinSight, it displays the Window Tree view.

When you exit, WinSight saves your configuration. If you open all three views and exit WinSight, the next time you start it, all three views will be displayed.

## Using the Mouse with WinSight

Here is a list of actions with mouse and menu equivalents.

Action	With the mouse	With menus		
Select an item	Click			
Select multiple items	Ctrl+click			
Toggle highlighted item		Shift+click		
Show details of item	Double-click	Spy  <u>Open Detail</u>		
Expand one level	Click on <+>	Tree Expand One Level		
Expand branch	Right-click on <+>	Tree Expand Branch		
Collapse branch	Click on <->	Tree  <u>CollapseBranch</u>		
You can also use the mouse to resize the WinSight window or the panes.				

## Using the keyboard with WinSight

Action	With the keyboard	With mer	nus	
Select an item	Up or Down arrow			
Select multiple items	Ctrl+Shift Up or Down			
	arrow			
Move selection bar	Ctrl+Up or Down arrow	N		
Toggle highlighted item		Spacebar		
Expand one level	+	Tree Expa	and One LevelTExpandOneLevel	
Expand branch	*	Tree Expand BranchTExpandBranch		
Expand tree completely		Ctrl+*	Tree Expand AllTExpandAll	
Collapse branch	-	Tree  <u>Colla</u>	apse Branch	
The visit and left energy could be viscately.				

Here is a list of actions with keyboard and menu equivalents.

The right and left arrows scroll horizontally.

Use Tab or F6 to move the focus between panes. Use Shift+Tab or Shift+F6 to switch the focus in the opposite direction.

## Using WinSight

### <u>See also</u>

WinSight gives you debugging information about window classes, windows, and messages. You can study how any application creates classes and windows, and monitor how windows send and receive messages.

WinSight uses three views to study applications:

- Window Tree view
- Class List view
- Message Trace view

WinSight is a passive observer: it intercepts and displays information about messages but does not prevent messages from getting to applications.

To watch Windows sending and receiving messages, you can use WinSight to

- <u>Find</u> the window(s) you want to watch
- <u>Trace</u> the messages that get sent.
- **Note:** WinSight 16 (WINSIGHT.EXE) supports 16-bit Windows systems and WinSight 32 (WS32.EXE) supports 32-bit Windows systems.

### **Find Window Mode**

<u>See also</u>

Find Window mode allows you to monitor how specific windows send and receive messages. To enter Find Window mode choose Spy|<u>Find Window.</u>

Note: All other applications are suspended while you are in Find Window mode.

#### **Selecting Windows**

In Find Window mode, you can select windows in one of two ways:

• Move the mouse into the boundaries of a window object. A thick border appears around that window object, and the corresponding window name is highlighted in the <u>Window Tree view</u>.

• Use the cursor keys to select windows from the Window Tree view. When you hightlight a window name, WinSight puts a thick border around the corresponding window object.

To leave Find Window mode, click the mouse button, or press Escape. This removes the border from the screen but leaves the current window selected in the Window Tree view.

If you press Enter or double-click the highlighted window in the Window Tree view, you will see the <u>Detail window.</u>

**Note:** In WinSight 32 (WS32.EXE), you must use the up and down arrow keys to highlight a window when you are in Find Window mode. Select a window in the Window Tree view, then use the arrow keys to move through the Window Tree. The windows you select in the Window Tree will be outlined as you move through the tree.

## **Tracing Messages**

#### <u>See also</u>

When you monitor how windows or classes send and receive messages, you are tracing the patterns of these messages.

By default WinSight traces all messages and displays them in the Message Trace view.

You can trace messages in one of three ways:

• Choose Messages|Selected Classes or Messages|Selected Windows, then shift-click to select the classes (in the <u>Class List view</u>) or windows (in the <u>Window Tree view</u>) you want to trace.

- Choose Messages <u>All Windows</u> to select all the messages sent to windows.
- Choose Messages Options, then select any or all of the ten groups of messages.

Choose <u>Stop!</u> or Messages|Trace Off to control when WinSight stops tracing messages. The Message Trace view remains visible.

To resume tracing, choose one of the following menu commands:

- Start!
- Messages|Selected Classes
- Messages|Selected Windows
- Messages All Windows

#### WinSight menu commands

Here is a list of the menus and menu commands in WinSight. The menus are listed in the order they appear.

Spy Menu **Open Detail** Find Window Follow Focus (WS32.EXE only) Switch To (WS32.EXE only) <u>Exit</u> View Menu **Class List** Window Tree Message Trace Split Horizontal Split Vertical Tree Menu Expand One Level Expand Branch Expand All Collapse Branch Messages Menu Trace Off Selected Classes Selected Windows All Windows <u>Clear</u> Options... Processes... (WS32.EXE only) Stop! and Start! Help Menu Index **Finding Windows** Tracing Messages Menu Commands **Keyboard** Mouse Using Help About WinSight

## Spy Menu

Use the Spy menu to display more details for a window, locate the window for which you want to trace messages, or exit WinSight.

The Spy menu commands are:

<u>Open Detail</u> <u>Find Window</u> <u>Follow Focus</u> (WS32.EXE only) <u>Switch To</u> (WS32.EXE only) <u>Exit</u>

## Spy | Open Detail

Choose Spy|Open Detail to display more detail about the selected class or window.

Use this command to open the <u>Detail window</u>. The information in the window depends on the current active view, indicated by the dotted rectangle.

## Spy | Find Window

Choose Spy|Find Window to locate the window for which you want to trace messages. Use this command to enter <u>Find Window mode</u>.

**Note:** In WinSight 32 (WS32.EXE), you must use the up and down arrow keys to highlight a window when you are in Find Window mode. Select a window in the Window Tree view, then use the arrow keys to move through the Window Tree. The windows you select in the Window Tree will be outlined as you move through the tree.

## Spy | Follow Focus

You use the Follow Focus command to easily select the window you want to monitor in the Window Tree view. Follow Focus is available only in WinSight 32 (WS32.EXE).

To use Follow Focus:

- 1. Choose Follow Focus from the Spy menu.
- 2. Click on the window you want to monitor; WinSight highlights that window in the Window Tree view. When you click on a window, that window gains focus. If the window you click on covers the WinSight display, click on the title bar of WinSight to view the Window Tree view.

Follow Focus stays active until you toggle it off via the Spy menu.

## Spy | Switch To

The Switch To command gives focus to the window that you select in the Window Tree view. Switch To is available only in WinSight 32 (WS32.EXE).

To use Switch To:

- 1. Select (highlight) the window you want to give focus to in the Window Tree view of WinSight.
- 2. Choose Switch To from the Spy menu.

# Spy | Exit

Choose Spy|Exit to exit WinSight.

## View Menu

Choose the View menu to select a <u>view</u> and how WinSight displays it, either horizontally or vertically. The View commands are:

Class List Window Tree Message Trace Split Horizontal Split Vertical

## **WinSight Views**

### <u>See also</u>

WinSight can display three views within its main window:

- <u>Class List</u>
- Window Tree
- Message Trace

The Window Tree view is the initial default view, but you can use the <u>View menu</u> to open or close any of these views.

When you exit WinSight, WinSight saves your current desktop configuration.

WinSight automatically tiles the views within the main window, however, you can resize them.

## View | Class List

Choose the View|Class List command to display the Class List view.

If the Class List view is displayed, choosing this command hides the view.

**Note:** The term "class" refers to the class name with which the window class was registered with Windows via the RegisterClass API function. It does not refer to C++ classes.

### **Class List View**

See also

The Class List view displays all the currently registered window classes.

The format for the classes in the Class List view is:

Class (Module) Function Styles

You can see more information about a window class in the <u>Detail window</u> by doing one of the following:

- Double-clicking the window class in the Class List view. .
- Selecting the window class and press Enter. Selecting the window class and choose Spy|<u>Open Detail.</u>

## View | Window Tree

Choose View|Window Tree to display the <u>Window Tree view.</u> If the Window Tree view is displayed, choosing this command hides the view.

## Window Tree View

<u>See also</u>

The Window Tree view displays the hierarchy of windows on the desktop.

Use this display to do the following:

- Determine what windows are actually present.
- See the status of windows, including hidden windows.
- See which windows are receiving messages.
- Select the windows you want to trace messages for.

The format for the classes in the Window Tree view is:

Tree Handle {Class} Module Position "Title"

You can see more information about a window in the Detail window by doing one of the following:

- Double-click the window item in the view.
- Select the window item and press Enter.
- Select the window item and choose Spy|<u>Open Detail.</u>

## **Detail Window**

#### <u>See also</u>

The Detail window displays the class name, executable module, and other information about the selected window or class.

## View | Message Trace

Choose the View|Message Trace command to display the <u>Message Trace view</u>. If the Message Trace view is displayed, choosing this command hides the view.

### **Message Trace View**

#### <u>See also</u>

The Message Trace view displays information about messages received by selected windows or windows classes.

SendMessage messages are shown twice, once when they are sent and again when they return.

Dispatched messages are shown only once, since their return value is meaningless. The message display is indented to show how messages are nested within other messages.

The format for the messages in the Message Trace window is:

Handle "Title"-or-{Class} Message Status ...

#### Win32 Messages

Winsight checks if the task whose messages are being traced is a Win32 task. If so, it displays **[Win32]** immediately after the window handle on traced messages. These messages, however, are displayed in Win16 message format.

#### WS32 response time

WS32.EXE also displays the symbols + and \* to denote the following:

- \* means that WS32.EXE was too slow to catch all the messages
- + means a time out occurred in the hook procedure

The HookTimeOut setting in the WinSight.INI file (located in your Windows directory) denotes the time out for the WinSight hook procedure in milliseconds. If you set HookTimeOut = 1000 (the default), WinSight will time out for 1 second between messages. If you decrease the value of this setting, WinSight will respond faster, at the risk of loosing messages. Increasing this setting will slow down WinSight, but will increase the chance that it will catch all messages.

# View | Split Horizontal

Choose View|Split Horizontal to stack the <u>views</u> on top of one another.

# View | Split Vertical

Choose View|Split Vertical to display the <u>views</u> side by side.

#### Class

The name of the window class.

Some predefined Windows classes have numeric names and are shown with the number and a name.

## Module

The name of the executable module (.EXE or .DLL) that registered the class or created the window.

### Function

The address of the class window function.

## Styles

A list of the CS\_styles for the class. The names are the same as the CS\_definitions in WinTypes, except that the CS\_ is removed and the name is in mixed case.

### Tree

The lines and diamonds on the left of the view show the window tree structure. Each window is connected to its parent, siblings, and children.

## Handle

The window handle returned by CreateWindow.

### Position

The window's position.

If the window is hidden, the text "(hidden)" is displayed.

If the window is visible, the window coodinates are given as (xBegin,yBegin)-(xEnd,yEnd). Top-level windows use their own screen coordinates. Child windows use coordinates within the parent window client area.

### Title

The window title or text, returned by GetWindowText or a WM\_GETTEXT message. If the title is the null string, the quotation marks are omitted.

If the title is a null string in the Message Trace window, the class name is displayed in curly braces.

#### Message

The message name defined in WINDOWS.H.

Known undocumented Windows messages are shown in lower case.

Unknown message numbers (user-defined) are shown in one of the following formats:

- WM\_USER+0xXXXX if they are greater than or equal to WM\_USER
- WM\_0xXXXX if they are less than WM\_USER.

Registered message numbers (from RegisterWindowsMessage) are shown with their registered name in single quotation marks.

#### Status

One or more of the following items may be reported:

Dispatched The message was received via DispatchMessage

- Sent [from XXXX] The message was received via SendMessage. If it was sent from another window, "from XXXX" gives that window's handle. If it was sent from the same window receiving it, this is shown with "from self." If it was sent from Windows itself, the "from" phrase is omitted.
- Returns The message was received via SendMessage and is now returning.

...

Additional information specific to each message.

If a "returning message", the return value, either in numeric form, or more specific information for messages such as WM\_GETTEXT.

If a "sent and dispatched message", the message parameters. WinSight interprets the parameters to give a readable display. If a message has associated data structures, those structures are included in the display.

## Tree Menu

Choose the Tree menu to display, expand, or collapse window entries in the Window Tree view.

The diamonds on the left of the Class List and Window Tree windows invert color momentarily when the window receives a message. They also show if the window class has any children:

 $\bigcirc$  The window has no children.

The window has children, but they are hidden. To expand and see the children, click on the diamond, or select the window and press

. To expand to show all levels of child windows, select a window and right-click.

The window has children, and they are visible. To hide the children again, click the diamond, or select the parent window and press

⊖.

The Tree menu commands are:

Expand One Level Expand Branch Expand All Collapse Branch

# Tree | Expand One Level (+)

See also

Choose Tree|Expand One Level to expand an entry one level in the Window Tree view.

A plus sign in the diamond ( $^{\textcircled}$ ) next to an entry indicates that the window has children, but they are hidden.

# Tree | Expand Branch (\*)

See also

Choose Tree|Expand Branch to expand an entire branch in the Window Tree view.

A plus sign in the diamond ( $^{\textcircled}$ ) next to an entry indicates that the window has children, but they are hidden.

# Tree | Expand All (Ctrl+\*)

See also

Choose Tree|Expand All to expand all branches that are collapsed in the Window Tree view.

A plus sign in the diamond ( $^{\textcircled}$ ) next to an entry indicates that the window has children, but they are hidden.

# Tree | Collapse Branch (-)

See also

Choose Tree|Collapse Branch to collapse an entire branch in the <u>Window Tree view.</u>

A minus sign in the diamond () next to an entry indicates that the window's children are currently hidden. Tree

Tree|Expand Branch Tree|Expand One Level

### **Messages menu**

See also

Choose the Messages menu to select the types of messages you want to trace for the selected window(s).

You can configure WinSight to trace messages by:

- Window
- Window class
- Message type
- A combination of these
- The Messages menu commands are:

Trace Off

<u>Selected Classes</u> (16-bit WinSight only)

Selected Windows

All Windows

<u>Clear</u>

Options...

Processes,,,

# Messages | Trace off

Choose Messages|Trace Off to turn off message tracing. The <u>Message Trace view</u> remains visible.

Tracing resumes when you choose one of the following menu commands:

- .
- Messages|<u>Selected Classes</u> Messages|<u>Selected Windows</u>
- . Messages|<u>All Windows</u>

You can also use <u>Stop!</u> to turn off message tracing.

# Messages | Selected classes

Choose Messages|Selected Classes to trace messages going to a particular class.

This command is available in only WINSIGHT.EXE (the 16-bit WinSight) after you have selected a class in the <u>Class List view</u>.

Changing the selection in the Class List view will immediately change which windows have messages traced.

Choose Messages|Selected Classes to open the Message Trace view when it is hidden.

### Messages | Selected windows

Choose Messages|Selected Windows to trace messages going to a particular window.

This command is active only if you select a window in the Window Tree view.

Changing the selection in the Window Tree view will immediately change which windows have messages traced.

Choose Messages|Selected Windows to open the Message Trace view when it is hidden.

# Messages | All windows

Choose Messages|All Windows to trace all messages, regardless of what is selected in the <u>Window</u> <u>Tree view</u> or the <u>Class List view</u>.

Choose Windows|All Windows to open the <u>Message Trace view</u> when it is hidden.

# Messages | Clear

Choose Messages|Clear to clear all messages in the Message Trace view.

# Messages | Options...

Choose Messages|Options... to open the Message Trace Options dialog box.

Use the Messages Trace Options dialog box to choose the types of messages you want to trace.

**Tip:** For best performance, choose <u>Stop!</u> before you choose the Options command.

#### Messages to Trace check boxes

Use the <u>Messages to Trace check boxes</u> and the Individual Messages List Box to specify which messages to trace.

#### Interpret and Hex Values check boxes

Use the <u>Interpret Value, Hex Value, and Show Times checkboxes</u> to determine the message display format.

#### Log File check box

Use the Log File check box to log traced messages.

# Messages | Processes...

Choose the Processes command to display the Trace Process Messages dialog box. You can use this dialog box to select the processes whose messages you want to track:

- Highlight the specific processes you want to monitor, then choose OK.
- Check All Processes if you want to monitor all running processes.
- Check New Processes if you want to monitor new processes as you start them.
- Tip: For best performance, choose <u>Stop!</u> before you choose the Processes command.

Note: The Processes command is available only in WinSight 32 (WS32.EXE).

### **Messages to Trace checkboxes**

#### <u>See also</u>

Use the Messages to Trace check boxes on the Message Trace Options dialog box to choose the types of messages to trace.

You can configure WinSight to trace any of the following:

- All messages
- Subgroups of messages
- Individual messages
- A combination of groups and individual messages

#### All Messages

The All Messages checkbox allows you to select or deselect all ten subgroups of messages.

When All Messages is selected, all messages in the Individual Messages Display Box are highlighted. The All Messages checkbox is dimmed when the list box is used to either select or deselect an individual message.

#### Message Subgroups

To select specific <u>types of messages</u>, uncheck All Messages and check individual message groups. Checking the All Messages checkbox also turns on these checkboxes. Unchecking the All Messages checkbox turns off previously selected subgroup checkboxes.

When a subgroup is selected, the messages in that subgroup are highlighted in the Individual Messages Display Box. The subgroup checkbox is dimmed when the list box is used to either select or deselect an individual message in that group.

#### "Other" checkbox

The "Other" checkbox allows tracing of all messages that WinSight does not know about, such as unknown WM\_USER+xxxx and registered messages. This checkbox must be on for these messages to be traced. Checking the All Messages checkbox also turns on this checkbox.

#### Individual Messages list box

The Individual Messages List Box displays all of the messages that WinSight knows about. It is here that individual messages are selected or deselected. The All Messages checkbox and corresponding subgroup checkboxes are dimmed to indicate when individual messages are selected or deselected.

## **Messages WinSight tracks**

<u>See also</u>

The messages that WinSight tracks are listed under the following group headings. Click a group to see the corresponding list of messages tracked by WinSight. <u>Mouse</u> <u>Window</u> <u>Input</u> <u>System</u> <u>Pen</u> <u>Initialization</u> <u>Clipboard</u> <u>DDE</u> <u>Non Client</u> <u>Control</u> <u>MultiMedia</u> <u>Common controls</u> (WS32.EXE only)

<u>Other</u>

### Interpret Value, Hex Value, and Show Times checkboxes

See also

The Interpret and Hex Values check boxes determine the format of the Message Trace view display.

Check the Interpret Values checkbox to interpret message parameters and return values in a readable format.

Check the Hex Values checkbox to display message parameters as Hex Values of wParam and IParam, and also return Values as Hex.

Check the Show Times (WS32.EXE only) to display a timestmap with each message.

## Log File checkbox

<u>See also</u>

Check Log File to log trace messages to a file.

Enter a file name in the input box below the check box. If the file already exists, messages are appended to the end of the file.

To stop logging messages to the file, turn off the Log File check box.

# Mouse messages

<u>See also</u>

Check Mouse on the Message Trace Options dialog box to trace mouse messages.

The mouse messages that WinSight traces are:

WM\_HSCROLL WM\_LBUTTONDBLCLK WM\_LBUTTONDOWN WM\_LBUTTONDBLCLK WM\_MBUTTONDBLCLK WM\_MBUTTONDOWN WM\_MBUTTONUP WM\_MOUSEACTIVATE WM\_MOUSEMOVE WM\_RBUTTONDBLCLK WM\_RBUTTONDBLCLK WM\_RBUTTONDOWN WM\_RBUTTONUP WM\_SETCURSOR WM\_VSCROLL

### Window messages

<u>See also</u>

Check Window on the Message Trace Options dialog box to trace window messages.

The window messages that WinSight traces are (those messages in lowercase are undocumented Windows messages): WM\_ACTIVATE WM ACTIVATEAPP WM\_CANCELMODE WM CHILDACTIVATE WM\_CLOSE WM CREATE WM\_CTLCOLOR WM DESTROY WM\_ENABLE WM ENDSESSION WM\_ERASEBKGND WM GETDLGCODE WM\_GETMINMAXINFO WM GETTEXT WM\_GETTEXTLENGTH WM\_ICONERASEBKGND WM\_KILLFOCUS WM MOVE WM\_PAINT wm painticon WM\_QUERYDRAGICON WM\_QUERYENDSESSION WM\_QUERYNEWPALETTE WM QUERYOPEN WM\_QUIT WM\_SETFOCUS WM\_SETFONT WM SETREDRAW WM\_SETTEXT WM SHOWWINDOW WM\_SIZE

WM\_WINDOWPOSCHANGED

WM\_WINDOWPOSCHANGING

#### Input messages

See also

Check Input on the Message Trace Options dialog box to trace input messages.

The input messages that WinSight traces are (those messages in lowercase are undocumented Windows messages):

WM\_CHAR WM CHARTOITEM WM\_COMMAND WM DEADCHAR WM\_KEYDOWN WM KEYUP WM\_KEYLAST WM MENUSELECT WM\_MENUCHAR WM PARENTNOTIFY WM\_SYSCHAR WM SYSKEYDOWN WM\_SYSKEYUP WM SYSDEADCHAR WM\_TIMER WM\_VKEYTOITEM sm\_yomichar **Notification Control Messages** BN\_CLICKED **BN DOUBLECLICKED BN CLOSEUP** BN DBLCLK **BN DROPDOWN BN\_EDITCHANGE** CBN\_CLOSEUP CBN DBLCLK **CBN DROPDOWN CBN EDITCHANGE** CBN EDITUPDATE CBN\_ERRSPACE **CBN KILLFOCUS CBN SELCHANGE** CBN\_SELENDCANCEL CBN\_SELENDOK CBN\_SETFOCUS EN CHANGE EN ERRSPACE EN HSCROLL EN KILLFOCUS **EN\_MAXTEXT** 

EN\_SETFOCUS EN\_UPDATE EN\_VSCROLL LBN\_DBLCLK LBN\_ERRSPACE LBN\_KILLFOCUS LBN\_SELCANCEL LBN\_SELCHANGE LBN\_SETFOCUS

### System messages

<u>See also</u>

Check System on the Message Trace Options dialog box to trace system messages. The system messages that WinSight traces are: WM\_COMPACTING WM\_DEVMODECHANGE WM\_ENTERIDLE WM\_FONTCHANGE WM\_FONTCHANGE WM\_NULL WM\_PALETTECHANGED WM\_PALETTEISCHANGING WM\_POWER WM\_QUEUESYNC WM\_SPOOLERSTATUS WM\_SYSCOLORCHANGE WM\_SYSCOMMAND

WM\_TIMECHANGE

WM\_WININICHANGE

## Pen messages

See also Check Pen on the Message Trace Options dialog box to trace pen messages. The pen messages that WinSight traces are: WM\_RCRESULT WM\_HOOKRCRESULT WM\_GLOBALRCCHANGE WM\_SKB WM\_HEDITCTL

### Initialization messages

<u>See also</u>

Check Initialization on the Message Trace Options dialog box to trace initialization messages.

The initialization messages that WinSight traces are:

WM\_INITDIALOG WM\_INITMENU WM\_INITMENUPOPUP

### **Clipboard messages**

<u>See also</u>

Check Clipboard on the Message Trace Options dialog box to trace initialization messages.

The clipboard messages that WinSight traces are:

WM\_ASKCBFORMATNAME WM\_CHANGECBCHAIN WM\_CLEAR WM\_COPY WM\_CUT WM\_DESTROYCLIPBOARD WM\_DRAWCLIPBOARD WM\_PARWCLIPBOARD WM\_PAINTCLIPBOARD WM\_PASTE WM\_RENDERALLFORMATS WM\_RENDERFORMAT WM\_SIZECLIPBOARD WM\_UNDO WM\_VSCROLLCLIPBOARD

### **DDE messages**

<u>See also</u>

Check DDE on the Message Trace Options dialog box to trace dynamic data exchange messages.

The DDE messages that WinSight traces are:

WM\_DDE\_ACK WM\_DDE\_ADVISE WM\_DDE\_DATA WM\_DDE\_EXECUTE WM\_DDE\_INITIATE WM\_DDE\_POKE WM\_DDE\_REQUEST WM\_DDE\_TERMINATE WM\_DDE\_UNADVISE

### Non Client messages

<u>See also</u>

Check Non Client on the Message Trace Options dialog box to trace non-client messages.

The non-client messages that WinSight traces are:

WM\_NCACTIVE WM\_NCCALCSIZE WM\_NCCREATE WM\_NCDESTROY WM\_NCHITTEST WM\_NCLBUTTONDBLCLK WM\_NCLBUTTONDOWN WM\_NCLBUTTONUP WM\_NCMBUTTONDBLCLK WM\_NCMBUTTONDOWN WM\_NCMBUTTONUP WM\_NCMOUSEMOVE WM\_NCPAINT WM\_NCRBUTTONDBLCLK WM\_NCRBUTTONDOWN WM\_NCRBUTTONUP

### **Controls messages**

See also

Check Controls on the Message Trace Options dialog box to trace control messages. The control messages that WinSight traces are: BM\_GETCHECK BM\_GETSTATE **BM\_SETCHECK BM\_SETSTATE BM SETSTYLE CB\_ADDSTRING** CB\_DELETESTRING CB DIR **CB\_FINDSTRING** CB FINDSTRINGEXACT CB\_GETCOUNT CB\_GETCURSEL CB\_GETDROPPEDCONTROLRECT CB\_GETDROPPEDSTATE **CB GETEDITSEL CB\_GETEXTENDEDUI CB\_GETITEMDATA** CB\_GETITEMHEIGHT CB\_GETLBTEXT **CB GETLBTEXTLEN** CB\_INSERTSTRING CB\_LIMITTEXT CB\_RESETCONTENT CB\_SELECTSTRING **CB SETCURSEL** CB\_SETEDITSEL CB\_SETEXTENDEDUI CB\_SETITEMDATA CB\_SETITEMHEIGHT **CB SHOWDROPDOWN** DM\_GETDEFID DM\_SETDEFID EM\_CANUNDO EM\_EMPTYUNDOBUFFER **EM\_FMTLINES** EM\_GETFIRSTVISIBLELINE EM\_GETHANDLE EM\_GETLINE EM\_GETLINECOUNT EM\_GETMODIFY EM\_GETPASSWORDCHAR

EM GETRECT EM\_GETSEL **EM\_GETWORDBREAKPROC** EM\_LIMITTEXT EM\_LINEFROMCHAR EM LINEINDEX EM\_LINELENGTH EM\_LINESCROLL EM\_REPLACESEL EM\_SETHANDLE EM SETMODIFY EM\_SETPASSWORDCHAR EM\_SETREADONLY EM\_SETRECT EM\_SETSEL EM\_SETRECTNP **EM\_SETTABSTOPS EM\_SETWORDBREAK** EM\_SETWORDBREAKPROC EM\_UNDO LB\_ADDSTRING LB\_DELETESTRING LB DIR LB\_FINDSTRING LB\_FINDSTRINGEXACT LB\_GETCARETINDEX LB\_GETCOUNT LB\_GETCURSEL LB\_GETHORIZONTALEXTENT LB\_GETITEMDATA LB\_GETITEMHEIGHT LB\_GETITEMRECT LB GETSEL LB\_GETSELCOUNT LB\_GETSELITEMS LB\_GETTEXT LB\_GETTEXTLEN LB\_GETTOPINDEX LB\_INSERTSTRING LB\_RESETCONTENT LB\_SELECTSTRING LB\_SELITEMRANGE LB\_SETCARETINDEX LB\_SETCOLUMNWIDTH LB\_SETCURSEL

LB\_SETHORIZONTALEXTENT LB\_SETITEMDATA LB\_SETITEMHEIGHT LB\_SETSEL LB\_SETTABSTOPS LB\_SETTOPINDEX STM\_GETICON STM\_SETICON

#### Multimedia messages

<u>See also</u>

MM\_MIM\_OPEN MM\_MOM\_CLOSE MM\_MOM\_OPEN MM\_WIM\_CLOSE MM\_WIM\_DATA MM\_WIM\_OPEN MM\_WOM\_CLOSE MM\_WOM\_CLOSE MM\_WOM\_DONE MM\_WOM\_DONE

Check Multimedia on the Message Trace Options dialog box to trace multimedia messages. The multimedia messages that WinSight traces are: MM\_JOY1MOVE MM\_JOY1BUTTONDOWN MM\_JOY1BUTTONUP MM\_JOY1ZMOVE MM JOY2MOVE MM\_JOY2BUTTONDOWN MM\_JOY2BUTTONUP MM\_JOY2ZMOVE MM\_MCINOTIFY MM\_MIM\_CLOSE MM\_MIM\_DATA MM\_MIM\_ERROR MM\_MIM\_LONGDATA MM\_MIM\_LONGERROR

#### **Common controls messages**

See also Check Common Controls (WS32.EXE only) to trace the following types of messages: All ACM\_ messages All HDM\_ messages All HKM\_ messages All VM\_ messages All PBM\_ messages All SB\_ messages All TB\_ messages All TBM\_ messages All TCM\_ messages All TCM\_ messages

All TVM\_ messages All UDM\_ messages

#### **Other Messages**

#### See also

Check Other on the Message Trace Options dialog box to trace other types of messages.

The other messages that WinSight traces are (those messages in lowercase are undocumented Windows messages):

wm\_alttabactive wm begindrag WM\_COMMNOTIFY WM COMPAREITEM wm\_convertrequest wm convertresult WM\_DELETEITEM wm dragloop wm\_dragmove wm dragselect WM\_DRAWITEM WM DROPFILES wm\_dropobject wm entermenuloop wm\_entersizemove wm\_exitmenuloop wm\_exitsizemove wm filesyschange WM\_GETFONT wm gethotkey wm\_isactiveicon wm Ibtrackpoint WM\_MDIACTIVATE WM MDICASCADE WM\_MDICREATE WM MDIDESTROY WM MDIGETACTIVE WM MDIICONARRANGE WM\_MDIMAXIMIZE WM MDINEXT WM\_MDIRESTORE WM MDISETMENU WM\_MDITILE WM MEASUREITEM WM\_NEXTDLGCTL wm nextmenu wm\_querydropobject wm\_queryparkicon wm\_setvisible wm\_sethotkey

wm\_sizewait wm\_syncpaint wm\_synctask WM\_SYSTEMERROR wm\_systimer wm\_testing

#### Stop! and Start! Menu

<u>See also</u>

Use the Stop! and Start! menu to turn off or on real-time updating in WinSight.

All views are kept current as classes are registered, windows are created and destroyed, and messages are received.

This command is a toggle. When you choose Stop! to suspend activity, the command changes to Start!. When you choose Start! to resume activity, the command changes to Stop!.

Using Stop! allows you to study a particular situation. It also removes the overhead of having WinSight update itself constantly.

You can also use Messages|Trace Off to stop message tracing.

#### Help menu

The Help menu provides access to online Help, which comes up in a special Help window. One-line menu hints also appear on the status line at the bottom of the screen whenever you select a menu command.

The Help menu commands are: Index Finding Windows Tracing Messages Menu Commands Keyboard Mouse Using Help About WinSight

### Help | Index (F1)

The WinSight online Help has a <u>contents screen</u> that summarizes the organization and contents of the Help system.

To access the Help system from the index, choose one of the highlighted words or pictures on the contents: click it or Tab to it and then press Enter.

For more information on how to use a Help system under Windows, choose the Help|<u>Using Help</u> menu command.

# Help | Finding Windows

The Help|Finding Windows command displays help on locating windows.

## Help | Tracing Messages

The Help|Tracing Messages command displays help on tracing messages.

## Help | Menu Commands

Help|Menu Commands displays help on WinSight menus.

# Help | Keyboard

The Help|Keyboard command displays help on the keyboard.

## Help | Mouse

The Help|Mouse command displays help on the mouse.

## Help | Using Help

The Help|Using Help command displays information on how to use the WinSight Help system (or any other Help system under Windows).

### Help | About

The About command displays a dialog box that shows copyright and version information. Click OK or Enter to close the About dialog box.