Outline Control
for Windows

Legal Stuff

Trademarks

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Overview

The outline control is a custom control for Microsoft Windows 3.x. Outline can be used with any Windows development language that is capable of calling functions from a Windows DLL or Visual Basic Extenstion (VBX). The outline control can be used as a numerically numbered outline or with numbering and indenting turned off can be used as a editable listbox..

The outline control is unlike most other outline controls available in that it is not intended to be a 'tree control'. It should be used as either an editable listbox or an outline (ex 1.1, 1.2).

This is a demo version and is not licensed for use in a application. A version of the outline control is available for use in applications (without the nag screen) for $75 (US funds only). Complete source code is available.

You should have

Common:

OUTLINE.DOC	Microsoft Word 2.0 format documentation
README.TXT	Readme file

DLL Version:

OL_DLL.DLL	Outline dynamic link library (redistributable)
OUTLINE.H	Header file.
OL_DLL.LIB	Outline import library.
TEST.EXE	Outline example program that shows how to work with the outline control.
TEST.ZIP written	File containing the source code for the example program in Visual C++ using the MFC.

VBX Version:

OL_VBX.VBX	Outline Visual Basic control design time VBX
*OL_RUN.VBX (redistributable)	Outline Visual Basic control runtime VBX
**TESTMFC.ZIP	MFC example program
**TEXTBC.ZIP	OWL 2.0 example program
**TEXTVB.ZIP	Visual Basic example program

* Not included with the demo version
** you will only receive one of the example programs

Support

Please send any questions or comments to CIS: 73611,1023.

You may also write and/or send payment to:
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VBX Properties and Events

Properties:

+**About**	+**AllowAppend**	+**AllowDelete**	+**AllowEdit**
+**AllowInsert**	BackColor	BorderStyle	+**Count**
CtlName	Drag Icon	Drag Mode	Enabled
FontBold	FontItalic	FontName	FontSize
FontStrikeThru	Height	+**Indent**	Index
Left	+**MaximumIndent**	+**Numbering**	Parent
+**Position**	+**Redraw**	TabIndex	TabStop
Tag	Text	Top	Visible
Width			

Events:

+AddNode	+ChangeNode	+ChangeSelection	+DeleteNode
+IndentNode	+InsertNode	+KillFocus	+LeftButtonClick
+LeftButtonDoubleClick	+MiddleButtonClick	+MiddleButtonDoubleClick	+RightButtonClick
+RightButtonDoubleClick	+SetFocus	+VerticalScroll	

Methods:

***AddItem**	RemoveItem	Refresh

* **AddItem** method is a little different from the standard implementation. The index argument that is normally optional is required by the outline **AddItem**. Index represents the indent level of the node, not

the position within the control.

In addition to the properties, events and methods listed above, messages may also be sent to the control using the documented messages for the Dynamic Link Library version. Here is an example of the code needed to send an OL_FLUSH message:

In the general declarations sections of your form:

```
Declare Function SendMessage& Lib "user" (ByVal hWnd%, ByVal wMsg%, ByVal wParam%, lp As Any)
Const WM_USER = &H400
Const OL_BASE = WM_USER + 200
Const OL_FLUSH = OL_BASE + 29
```

Where you want to send the message add:

```
retVal& = SendMessage(OL_VBX1.hWnd, OL_FLUSH, 0, 0)
```

OL_VBX1 is the name of the outline control and OL_FLUSH is the message to send. For a working example, see the event procedure for **Flush** in *TESTVB.*ZIP or Microsoft technicial document Q72677.

VBX Custom Properties

<u>**About** *(Dialog)*</u>

      Description: Displays a dialog box that contains the version number of OL_VBX.VBX.

      Usage: Used only from within the Visual Basic environment

      Remarks: To display the About dialog, click on the ellipsis (...) that appears in the properties list. This is a design time only property.

<u>**AllowAppend** *(Boolean)*</u>

      Description: Sets or returns TRUE or FALSE if the user is allowed to append new nodes to the end of the outline.

      Usage: [FORM.]*ctlname*.**AllowAppend** = *boolean%*

      Remarks: The default setting is TRUE. Valid settings are:

Setting	Description
TRUE	The user is allowed to append new nodes to the outline.
FALSE	The user is not allowed to append new node to the outline.

<u>**AllowDelete** *(Boolean)*</u>

      Description: Sets or returns TRUE or FALSE if the user is allowed to delete nodes within the outline.

      Usage: [FORM.]*ctlname*.**AllowDelete** = *boolean%*

      Remarks: The default setting is TRUE. Valid settings are:

Setting	Description
TRUE	The user is allowed to delete nodes within the outline.
FALSE	The user is not allowed to delete nodes within the outline.

<u>**AllowEdit** *(Boolean)*</u>

      Description: Sets or returns TRUE or FALSE if the user is allowed to edit nodes within the outline.

Usage: [FORM.]*ctlname*.**AllowEdit** = *boolean%*

Remarks: The default setting is TRUE. Valid settings are:

Setting	Description
TRUE	The user is allowed to edit nodes within the outline.
FALSE	The user is not allowed to edit nodes within the outline.

AllowInsert *(Boolean)*

Description: Sets or returns TRUE or FALSE if the user is allowed to insert nodes within the outline.

Usage: [FORM.]*ctlname*.**AllowInsert** = *boolean%*

Remarks: The default setting is TRUE. Valid settings are:

Setting	Description
TRUE	The user is allowed to insert nodes within the outline.
FALSE	The user is not allowed to insert nodes within the outline.

Count *(Integer)*

Description: Returns the number of nodes within the outline.

Usage: *Integer%* = [FORM.]*ctlname*.**Count**

Remarks: None

Indent *(Integer)*

Description: Sets or returns the current indent level of the current node.

Usage: [FORM.]*ctlname*.**Indent** = i*nteger%*

Remarks: The default setting is 0. The range is between 0 and 7. When setting a node's indent level, the indent level should not be set to more than the outlines current maximum level. The indent level can not be set to more than 7.

MaximumIndent *(Integer)*

Description: Sets or returns the maximum indent level of outline control.

Usage: [FORM.]*ctlname*.**MaximumIndent** = i*nteger%*

Remarks: The default setting is 7. The range is between 0 and 7. When setting a node's indent level. The maximum indent level is checked only when the user is changing the indent level.

Numbering *(Integer)*

Description: Sets or returns the current numbering style.

Usage: [FORM.]*ctlname*.**Numbering** = i*nteger%*

Remarks: The default setting is 1 (numeric). This controls the numbering style that appears to the left of each node. Valid settings are:

Setting	Description
0	No numbering. No numbering is displayed.
1	Numeric numbering. Nodes will automatically be numbered consecutively, 1, 2, 3, 4. If a node is indented, it takes on the parent's number plus a consecutive number 1.1, 1.2, 1.3, 1.4.

Position *(Integer)*

Description: Sets or returns the current node within the outline control.

Usage: [FORM.]*ctlname*.**Position** = i*nteger%*

Remarks: Position is zero based. The current position can not be set to less than zero or greater than the number of nodes within the outline control.

Redraw *(Boolean)*

Description: Sets or returns TRUE or FALSE if the outline control will be redrawn.

Usage: [FORM.]*ctlname*.**Redraw** = *boolean%*

Remarks: The default setting is TRUE. This setting is useful if many changes are being made to the outline control. Set **Redraw** to FALSE, make the changes and then set **Redraw** to TRUE. Valid settings are:

Setting	Description
TRUE	Redrawing occurs normally.
FALSE	No redrawing occurs.

VBX Custom Events

<u>**AddNode**</u> *(Event)*

Description: This event is fired after a node has been added to the control.

Syntax: **Sub** *ctlname_***AddNode**(Offset As Integer)

Remarks: After a node has been added to the control, this event is fired. Offset is the zero based position of the newly added node.

<u>**ChangeNode**</u> *(Event)*

Description: This event is fired after a node within the control has been changed.

Syntax: **Sub** *ctlname_***ChangeNode**(Offset As Integer)

Remarks: After a node has been changed, this event is fired. This event is fired every time the user types within a node. Offset is the zero based position of the changed node.

<u>**ChangeSelection**</u> *(Event)*

Description: This event is fired after the user changes the currently selected node.

Syntax: **Sub** *ctlname_***ChangeSelection**(Offset As Integer)

Remarks: After the user changes the currently selected node this event is fired. The selection can be changed by a mouse click or the keyboard. Offset is the zero based position of the selected node.

<u>**DeleteNode**</u> *(Event)*

Description: This event is fired after a node has been deleted from the control.

Syntax: **Sub** *ctlname_***DeleteNode**(Offset As Integer)

Remarks: After a node has been deleted from the control, this event is fired. Offset is the zero based position of the deleted node.

IndentNode *(Event)*

Description: This event is fired after a node has been indented.

Syntax: **Sub** *ctlname*_**IndentNode**(Offset As Integer)

Remarks: After a node has been indented, this event is fired. Offset is the zero based position of the effected node.

InsertNode *(Event)*

Description: This event is fired after a node has been inserted.

Syntax: **Sub** *ctlname_***InsertNode**(Offset As Integer)

Remarks: After a node has been inserted, this event is fired. Offset is the zero based position of the newly inserted node.

KillFocus *(Event)*

Description: This event is fired after the outline control has lost the input focus.

Syntax: **Sub** *ctlname_***KillFocus**()

Remarks: None.

LeftButtonClick *(Event)*

Description: This event is fired after the user clicks the left mouse button within the control.

Syntax: **Sub** *ctlname_***LeftButtonClick**()

Remarks: None.

LeftButtonDoubleClick *(Event)*

Description: This event is fired after the user double clicks the left mouse button within the control.

Syntax: **Sub** *ctlname_***LeftButtonDoubleClick**()

Remarks: None.

MiddleButtonClick *(Event)*

Description: This event is fired after the user clicks the middle mouse button within the control.

Syntax: **Sub** *ctlname_***MiddleButtonClick**()

Remarks: None.

MiddleButtonDoubleClick *(Event)*

Description: This event is fired after the user double clicks the middle mouse button within the control.

Syntax: **Sub** *ctlname*_**MiddleButtonDoubleClick**()

Remarks: None.

RightButtonClick *(Event)*

Description: This event is fired after the user clicks the right mouse button within the control.

Syntax: **Sub** *ctlname_***RightButtonClick**()

Remarks: None.

RightButtonDoubleClick *(Event)*

Description: This event is fired after the user double clicks the right mouse button within the control.

Syntax: **Sub** *ctlname_***RightButtonDoubleClick**()

Remarks: None.

SetFocus *(Event)*

Description: This event is fired after the outline control has gained the input focus.

Syntax: **Sub** *ctlname_***SetFocus**()

Remarks: None.

VerticalScroll *(Event)*

Description: This event is fired after the user scrolls the outline control.

Syntax: **Sub** *ctlname_***VerticalScroll**()

Remarks: None.

Outline Messages (DLL version)

Message	Description
OL_ADD_NODE	Appends a new node to the outline control.
OL_ALLOW_APPEND	Turns appending on / off within the outline control
OL_ALLOW_DELETE	Turns deletion on / off within the outline control
OL_ALLOW_EDIT	Turns editing on / off within the outline control
OL_ALLOW_INSERT	Turns insertion on / off within the outline control
OL_BOTTOM	Set the current position to the last node within the outline control.
OL_DELETE	Deletes the current text node or one at a specified position.
OL_FLUSH	Deletes all nodes from the outline.
OL_GET_CURRENT_NODE	Returns the index of the current node.
OL_GET_FONT	Get the current font used in the outline control
OL_GET_NODE_TEXT	Gets the text from a outline node.
OL_GET_NODE_TEXT_SIZE	Returns the size of the text within the text node.
OL_GET_NUM_NODES	Returns the number of nodes within the outline control.
OL_GET_NUMBERING_STYLE	Returns the current numbering style set.
OL_GET_TEXT_STREAM	Get all the text from all the nodes.
OL_GET_TEXT_STREAM_SIZE	Returns the size of the buffer required to hold the text stream.
OL_GETMAX_INDENT_LEVEL	Get the maximum indent level allowed.
OL_INDENT_IN	Moves the specified node's indent level in one unless the indent level is at maximum.
OL_INDENT_NUMBERING	Sets the style of indent numbering. Only numbering style (ex 1.1) is currently

supported

OL_INDENT_OUT	Moves the specified node's indent level out one unless the indent level is at minimum.
OL_INSERT	Inserts a text node above the current position or at a specified position.
OL_MOVE_BACKWARD	Moves the current focus node backward one node unless the current node is the first node in the outline control.
OL_MOVE_FORWARD	Moves the current focus node forward one node unless the current node is the last node in the outline control.
OL_NEXTCONTROL	Advances the focus to the next control in the dialog.
OL_PREVCONTROL	Advances the focus to the previous control in the dialog.
OL_SET_MAX_INDENT_LEVEL	Set the maximum indent level of the outline control.
OL_SET_NODE_TEXT	Set the text for a outline node.
OL_SET_TEXT_STREAM	Set all the text in an outline control from a text stream provided by the user.
OL_SETREDRAW	Sets the redraw flag on / off.
OL_TOP	Set the current position to the first text node within the outline control.

Note: All messages are described in detail in Message Reference section.

Message Reference (DLL version)

OL_ADD_NODE (OL_BASE + 1)

This message appends a new node to the outline.

Parameters	Type / Description
wParam	indent level of the node.
lParam	initial text to place in the node

Return Value:
BOOL   TRUE if the node was added, otherwise FALSE.

OL_ALLOW_APPEND (OL_BASE + 7)

This message changes the flag to allow / disallow appending of text nodes to the outline control.

Parameters	Type / Description
wParam	TRUE - Allow appending of text nodes FALSE - Do not allow appending of text nodes.
lParam	Not Used

Return Value:
Not Used

OL_ALLOW_DELETE(OL_BASE + 8)

This message changes the flag to allow / disallow deletion of text nodes within the outline control.

Parameters	Type / Description
wParam	TRUE - Allow deletion of text nodes FALSE - Do not allow deletion of text nodes.
lParam	Not Used

Return Value:
Not Used

OL_ALLOW_EDIT(OL_BASE + 9)

This message changes the flag to allow / disallow editing of text nodes within the outline control.

Parameters	Type / Description
wParam	TRUE - Allow editing of text nodes FALSE - Do not allow editing of text nodes.
lParam	Not Used

Return Value:
Not Used

OL_ALLOW_INSERT (OL_BASE + 10)

This message changes the flag to allow / disallow insertion of text nodes to the outline control.

Parameters	Type / Description
wParam	TRUE - Allow insertion of text nodes FALSE - Do not allow insertion of text nodes.
lParam	Not used. Must be zero.

Return Value:
Not Used

OL_BOTTOM (OL_BASE + 19)

This message changes the current position of the editable text node to the last node within the outline control. The node will be positioned to the top of the outline control.

Parameters	Type / Description
wParam	Not used. Must be zero.
lParam	Not used. Must be zero.

Return Value:
Not Used.

OL_DELETE (OL_BASE + 20)

This message deletes the nodes specified in the *wParam*. If the wParam is not a valid node, no deletion occurs.

Parameters	Type / Description
wParam	Node offset to delete or OL_NONODE to delete the current text node.
lParam	Not used. Must be zero.

Return Value:
Not Used.

OL_FLUSH (OL_BASE + 29)

This message deletes all of the nodes in the outline control. An empty node is always placed back into the outline to giver the user someplace to type.

Parameters	Type / Description
wParam	Not used. Must be zero.
lParam	Not used. Must be zero.

Return Value:
Not Used.

OL_GET_CURRENT_NODE (OL_BASE + 26)

This message returns in index of the currently active node.

Parameters	Type / Description
wParam	Not used. Must be zero.
lParam	Not used. Must be zero.

Return Value:

unsigned int	Index of the currently active node.

OL_GET_TEXT_STREAM(OL_BASE + 14)

This message retrieves the text from all nodes within the outline control and places them in a user provided buffer. The buffer size should be determined by calling OL_GET_TEXT_STREAM_SIZE. This format can be written to a file and later used with OL_SET_TEXT _STREAM to restore the outline.

Parameters	Type / Description
wParam	Size of the buffer provided
lParam	LPSTR pointer to the user buffer.

Return Value:

unsigned long	Number of characters actually returned.

OL_GET_TEXT STREAM_SIZE(OL_BASE + 15)

This message retrieves the size of the buffer required by the OL_GET_TEXT_STREAM message.

Parameters	Type / Description
wParam	Not Used. Must be zero.
lParam	Not Used. Must be zero.

Return Value:

unsigned long	Size of the buffer required for

OL_GET_FONT (OL_BASE + 25)

This message retrieves the currently selected font for the outline control.

Parameters	Type / Description
wParam	Not used. Must be zero.
lParam	Not used. Must be zero.

Return Value:
HFONT   Handle of the current font used by the outline
control is   returned in the low order word.
When the outline is   destroyed, this font handle
will be properly freed.

OL_GET_MAX_INDENT_LEVEL (OL_BASE + 28)

This message retrieves the maximum indent level for the outline control.

Parameters	Type / Description
wParam	Not used. Must be zero.
lParam	Not used. Must be zero.

Return Value:
    WORD   The number maximum number of indent
    levels allowed.

OL_GET_NODE_TEXT (OL_BASE + 13)

This message retrieves the text from a specified node to a user provided buffer. On return the buffer is always NULL terminated.

Parameters	Type / Description
wParam	Node number to get the text from. Node number is zero based. If this parameter is OL_NONODE then the current node is used.
lParam	FAR pointer to a character buffer large enough to hold the text within the outline node. It is assumed that the buffer is large enough to hold the entire node's contents. Used OL_GET_NODE_TEXT_SIZE to get the exact size of there buffer.

Return Value:
    int   The number of characters actually returned (not
                                        including the terminator) or OL_ERROR if
    the node   number was invalid.

OL_GET_NODE_TEXT_SIZE (OL_BASE + 12)

This message returns the size of the buffer required for the OL_GET_NODE_TEXT message..

Parameters	Type / Description
wParam	Node number to get the text from. Node number is zero based. If this parameter is OL_NONODE then the current node will be used.

lParam   Not used. Must be zero.

Return Value:
int   Size of the buffer required to hold all of the text within a   outline node (not including the terminator) or   OL_ERROR if the node number was invalid.

OL_GET_NUM_NODES (OL_BASE + 24)

This message retrieves the number of nodes within the outline control.

Parameters	Type / Description
wParam	Not used. Must be zero.
lParam	Not used. Must be zero.

Return Value:
int   Number of nodes within the outline control..

OL_GET_NUMBERING_STYLE (OL_BASE + 36)

This message returns the current number style set.

Parameters	Type / Description
wParam	Not used. Must be zero.
lParam	Not used. Must be zero.

Return Value:
WORD   Numbering style. OL_NUM_NONE or
                                    OL_NUM_NUMERIC.

OL_INDENT_IN (OL_BASE + 4)

This message moves the specified node in one indent level.

Parameters	Type / Description
wParam	Node number to indent. If this value is OL_NONODE then the current nodes indent will be changed.
lParam	Not used. Must be zero.

Return Value:
Not Used.

OL_INDENT_NUMBERING (OL_BASE + 6)

This message sets the style for automatic numbering of indent levels.

Parameters	Type / Description	
wParam	Number style	
	OL_NUM_NONE	No indent numbering
	OL_NUM_NUMERIC	Numeric labels Example: 1, 2, 1.1
lParam	Not used. Must be zero.	

Return Value:
    Not Used.

OL_INDENT_OUT (OL_BASE + 5)

This message moves the specified node out one indent level.

Parameters	Type / Description
wParam	Node number to indent. If this value is OL_NONODE then the current nodes indent will be changed.
lParam	Not used. Must be zero.

Return Value:
Not Used.

OL_INSERT (OL_BASE + 21)

This message insert a text node at a specified position. The indent level will be the same as the node that was inserted above.

Parameters	Type / Description
wParam	Node number to insert the new text node above.
lParam	LPSTR pointer to the text to place in the new node.

Return Value:
Not Used.

OL_MOVE_BACKWARD (OL_BASE + 3)

This message moves the current focus node backward one node unless the current node is the first node in the outline. The outline control will be scrolled to keep the current node visible.

Parameters	Type / Description
wParam	Not used. Must be zero.
lParam	Not used. Must be zero.

Return Value:
Not Used.

OL_MOVE_FORWARD (OL_BASE + 2)

This message moves the current focus node forward one node unless the current node is the last node in the outline. The outline control will be scrolled to keep the current node visible.

Parameters	Type / Description
wParam	Not used. Must be zero.
lParam	Not used. Must be zero.

Return Value:
Not Used.

OL_NEXTCONTROL (OL_BASE + 22)

This message moves focus to the next control within the dialog. This is just like pressing TAB within the control

Parameters	Type / Description
wParam	Not used. Must be zero.
lParam	Not used. Must be zero.

Return Value:
Not Used.

OL_PREVCONTROL (OL_BASE + 22)

This message moves focus to the previous control within the dialog. This is just like pressing SHIFT-TAB within the control

Parameters	Type / Description
wParam	Not used. Must be zero.
lParam	Not used. Must be zero.

Return Value:
Not Used.

OL_REDRAW (OL_BASE + 31)

This message forces a redraw of the entire outline control

Parameters	Type / Description
wParam	Not used. Must be zero.
lParam	Not used. Must be zero.

Return Value:
Not Used.

OL_SET_TEXT_STREAM (OL_BASE + 16)

This message sets the entire text within an outline by setting each node the user provided text. The text must be tab delimited.

Parameters	Type / Description
wParam	Not used. Must be zero.
lParam	FAR pointer to a character buffer containing the text to be placed into the outline control. Each node's text is delimited by a tab character.

Return Value:
int   Zero if successful or OL_ERROR if there was an
error.

OL_SET_MAX_INDENT_LEVEL (OL_BASE + 27)

This message sets the maximum number of indent levels allowed. This value must be less than OL_MAX_INDENT_LEVEL.

Parameters	Type / Description
wParam	The maximum number of indent levels to allow.
lParam	Not used. Must be zero.

Return Value:
    Not used..

OL_SET_NODE_TEXT (OL_BASE + 17)

This message sets the content text of a particular node.

Parameters	Type / Description
wParam	Node number to set the text. Node number is zero based.
lParam	FAR pointer that contains the new text.

Return Value:
    int   Zero of successful or OL_ERROR if the number
    was   invalid or there was an error.

OL_SET_REDRAW(OL_BASE + 30)

This message sets the redraw flag on/off. With the redraw flag off performance is enhanced.

Parameters	Type / Description
wParam	TRUE - redrawing occurs as normal FALSE - No redraws occur unless the user calls OL_REDRAW
lParam	Not used. Must be zero.

Return Value:
    Not used.

OL_TOP (OL_BASE + 18)

This message positions the current text node to the first text node within the outline control.

Parameters	Type / Description
wParam	Not used. Must be zero.
lParam	Not used. Must be zero.

Return Value:
Not used.

Outline Notifications (DLL version)

Normal Notifications	Description
OLN_ADDNODE	Sent after a node is added.
OLN_CHANGE	Sent when the user has taken some action that may have altered the text within the node
OLN_DELNODE	Sent after a node is deleted
OLN_INDENT	Sent after a node is indented.
OLN_INSNODE	Sent after a node is inserted.
OLN_KILLFOCUS	Sent when the outline control looses the input focus.
OLN_LBUTTONCLK	Sent when the left mouse button is clicked with the outline control.
OLN_LBUTTONDBLCLK	Sent when the left mouse button is double clicked on the outline control.
OLN_MBUTTONCLK	Sent when the middle mouse button is clicked with the outline control.
OLN_MBUTTONDBLCLK	Sent when the middle mouse button is double clicked on the outline control.
OLN_RBUTTONCLK	Sent when the right mouse button is clicked with the outline control.
OLN_RBUTTONDBLCLK	Sent when the right mouse button is double clicked on the outline control.
OLN_SELCHANGE	Sent when the selection in the outline control changes.
OLN_SETFOCUS	Sent when the outline control receives the input focus.
OLN_VSCROLL	Sent when the user interacts with the vertical scroll bar.

Note: All messages are described in detail in Notification Reference section.

Notification Reference (DLL version)

OLN_ADDNODE

The OLN_ADDNODE notification message is sent after a node has been appended to the outline control. The parent window of the outline control receives this notification message through a WM_COMMAND message.

Parameters	Type / Description
wParam	Specifies the node offset of the effected node.
lParam	Specifies the handle of the outline control in the low-order word, and specifies the OLN_ADDNODE notification message in the high-order word.

OLN_CHANGE

The OLN_CHANGE notification message is sent after the user has taken an action that may have altered the text in an outline node. This message is sent after the screen update. The parent window of the outline control receives this notification message through a WM_COMMAND message.

Parameters	Type / Description
wParam	Specifies the node offset of the effected node.
lParam	Specifies the handle of the outline control in the low-order word, and specifies the OLN_CHANGE notification message in the high-order word.

OLN_DELNODE

The OLN_DELNODE notification message is sent when a node has been deleted from the outline control. The parent window of the outline control receives this notification message through a WM_COMMAND message.

Parameters	Type / Description
wParam	Specifies the node offset of the effected node.
lParam	Specifies the handle of the outline control in the low-order word, and specifies the OLN_DELNODE notification message in the high-order word.

OLN_INDENT

The OLN_INDENT notification message is sent when the indent level of a node has changed. The parent window of the outline control receives this notification message through a WM_COMMAND message.

Parameters	Type / Description
wParam	Specifies the node offset of the effected node.
lParam	Specifies the handle of the outline control in the low-order word, and specifies the OLN_INDENT notification message in the high-order word.

OLN_INSNODE

The OLN_INSNODE notification message is sent when a node has been inserted into the outline control. The parent window of the outline control receives this notification message through a WM_COMMAND message.

Parameters	Type / Description
wParam	Specifies the node offset of the effected node.
lParam	Specifies the handle of the outline control in the low-order word, and specifies the OLN_INSNODE notification message in the high-order word.

OLN_KILLFOCUS

The OLN_KILLFOCUS notification message is sent when a outline loses the input focus. The parent window of the outline control receives this notification message through a WM_COMMAND message.

Parameters	Type / Description
wParam	Specifies the identifier of the outline control.
lParam	Specifies the handle of the outline control in the low-order word, and specifies the OLN_DBLCLK notification message in the high-order word.

OLN_LBUTTONCLK

The OLN_LBUTTONCLK notification message is sent when the left mouse button is clicked in the outline control. The parent window of the outline control receives this notification message through a WM_COMMAND message.

Parameters	Type / Description
wParam	Specifies the identifier of the outline control.
lParam	Specifies the handle of the outline control in the low-order word, and specifies the OLN_LBUTTONCLK notification message in the high-order word.

OLN_LBUTTONDBLCLK

The OLN_LBUTTONDBLCLK notification message is sent when the left mouse button is double clicked in the outline control. The parent window of the outline control receives this notification message through a WM_COMMAND message.

Parameters	Type / Description
wParam	Specifies the identifier of the outline control.
lParam	Specifies the handle of the outline control in the low-order word, and specifies the OLN_LBUTTONDBLCLK notification message in the high-order word.

OLN_MBUTTONCLK

The OLN_MBUTTONCLK notification message is sent when the middle mouse button is clicked in the outline control. The parent window of the outline control receives this notification message through a WM_COMMAND message.

Parameters	Type / Description
wParam	Specifies the identifier of the outline control.
lParam	Specifies the handle of the outline control in the low-order word, and specifies the OLN_MBUTTONCLK notification message in the high-order word.

OLN_MBUTTONDBLCLK

The OLN_MBUTTONDBLCLK notification message is sent when the middle mouse button is double clicked in the outline control. The parent window of the outline control receives this notification message through a WM_COMMAND message.

Parameters	Type / Description
wParam	Specifies the identifier of the outline control.
lParam	Specifies the handle of the outline control in the low-order word, and specifies the OLN_MBUTTONDBLCLK notification message in the high-order word.

OLN_RBUTTONCLK

The OLN_RBUTTONCLK notification message is sent when the right mouse button is clicked in the outline control. The parent window of the outline control receives this notification message through a WM_COMMAND message.

Parameters	Type / Description
wParam	Specifies the identifier of the outline control.
lParam	Specifies the handle of the outline control in the low-order word, and specifies the OLN_RBUTTONCLK notification message in the high-order word.

OLN_RBUTTONDBLCLK

The OLN_RBUTTONDBLCLK notification message is sent when the right mouse button is double clicked in the outline control. The parent window of the outline control receives this notification message through a WM_COMMAND message.

Parameters	Type / Description
wParam	Specifies the identifier of the outline control.
lParam	Specifies the handle of the outline control in the low-order word, and specifies the OLN_MBUTTONDBLCLK notification message in the high-order word.

OLN_SELCHANGE

The OLN_SELCHANGE notification message is sent when the selection in the outline is changed. The parent window of the outline control receives this notification message through a WM_COMMAND message.

Parameters	Type / Description
wParam	Specifies the node offset of the currently selected node.
lParam	Specifies the handle of the outline control in the low-order word, and specifies the OLN_SELCHANGE notification message in the high-order word.

OLN_SETFOCUS

The OLN_SETFOCUS notification message is sent when the a outline receives the input focus. The parent window of the outline control receives this notification message through a WM_COMMAND message.

Parameters	Type / Description
wParam	Specifies the identifier of the outline control.
lParam	Specifies the handle of the outline control in the low-order word, and specifies the OLN_SETFOCUS notification message in the high-order word.

OLN_VSCROLL

The OLN_VSCROLL notification message is sent when the outline control is scrolled. The parent window of the outline control receives this notification message through a WM_COMMAND message.

Parameters	Type / Description
wParam	Specifies the identifier of the outline control.
lParam	Specifies the handle of the outline control in the low-order word, and specifies the OLN_VSCROLL notification message in the high-order word.

Special Keyboard Interactions

Key	Action
CTRL-TAB	Indents the current node one tab position
CTRL-SHIFT-TAB	UN indents the current node one tabs position
CTRL-UP ARROW	Moves the current node to the pervious node.
CTRL-DOWN ARROW	Moves the current node to the next node.
INSERT	Inserts a node above the current node and moves focus to the inserted node.
CTRL-SHIFT-DELETE	Deletes the current node.
CTRL-HOME	Moves the current node to the first node within the outline control.
CTRL-END	Moves the current node to the last node within the outline control.
CTRL-PGUP	Move the outline control up one page.
CTRL-PGDN	Moves the outline control down one page.