

INatAutoStudio

This chapter covers the following topics:

- Purpose
 - Properties
 - Methods
-

Purpose

The root interface of the Natural Studio Automation interface. A handle to this interface is passed to each plug-in during activation (`INaturalStudioPlugIn::OnActivate`) and deactivation (`INaturalStudioPlugIn::OnDeactivate`).

Properties

The following properties are available:

- Objects
- ControlBars
- Types
- PlugIns
- ResultViews
- System

Objects

Used to navigate to the `INatAutoObjects` interface.

Natural Data Format	Variant Type	Remark
HANDLE OF OBJECT	VT_DISPATCH (INatAutoObjects)	Get only

ControlBars

Used to navigate to the `INatAutoControlBars` interface.

Natural Data Format	Variant Type	Remark
HANDLE OF OBJECT	VT_DISPATCH (INatAutoControlBars)	Get only

Types

Used to navigate to the `INatAutoTypes` interface.

Natural Data Format	Variant Type	Remark
HANDLE OF OBJECT	VT_DISPATCH (INatAutoTypes)	Get only

PlugIns

Used to navigate to the `INatAutoPlugIns` interface.

Natural Data Format	Variant Type	Remark
HANDLE OF OBJECT	VT_DISPATCH (INatAutoPlugIns)	Get only

ResultViews

Used to navigate to the `INatAutoResultViews` interface.

Natural Data Format	Variant Type	Remark
HANDLE OF OBJECT	VT_DISPATCH (INatAutoResultViews)	Get only

System

Used to navigate to the `INatAutoSystem` interface.

Natural Data Format	Variant Type	Remark
HANDLE OF OBJECT	VT_DISPATCH (INatAutoSystem)	Get only

Methods

The following methods are available:

- Refresh
- MessageBox
- ShowHelp
- ProgressIndicator

Refresh

Initiates an automatic refresh in Natural Studio.

Parameters

Name	Natural Data Format	Variant Type	Remark
RefreshObject	A	VT_BSTR	Optional

RefreshObject

This parameter is either not specified (unspecific refresh) or contains the refresh object formatted as an XML document (specific refresh). The object is formatted according to the following DTD. The meaning of the individual elements is analog to the DTD describing `INatAutoSelectedObjects::SelectedObjects`.

```
<!ELEMENT ritem (rguid?, rtype, rkey, rinfo?, (ntype, nkey, nname?))?>
<!ELEMENT rguid (#PCDATA)>
<!ELEMENT rtype (#PCDATA)>
<!ELEMENT rkey (#PCDATA)>
<!ELEMENT rinfo (#PCDATA)>
<!ELEMENT ntype (#PCDATA)>
<!ELEMENT nkey (#PCDATA)>
<!ELEMENT nname (#PCDATA)>
```

MessageBox

Displays a standard message box in Natural Studio.

Parameters

Name	Natural Data Format	Variant Type	Remark
Return value	I4	VT_I4	
Text	A	VT_BSTR	
Caption	A	VT_BSTR	Optional
Style	I4	VT_I4	Optional

Return value

Indicates the button that the user pressed in response to the message box.

- 1: OK
- 2: CANCEL
- 3: ABORT
- 4: RETRY
- 5: IGNORE
- 6: YES
- 7: NO

Text

The text to be displayed in the message box.

Caption

The caption of the message box.

Style

The message box style is specified by adding one of the following styles

0: OK
 1: OKCANCEL
 2: ABORTRETRYIGNORE
 3: YESNOCANCEL
 4: YESNO
 5: RETRYCANCEL

to one of the following styles:

16: MB_ICONHAND
 32: MB_ICONQUESTION
 48: MB_ICONEXCLAMATION
 64: MB_ICONASTERISK

The default is 0.

ShowHelp

Displays a specific help topic in a specific help file.

Parameters

Name	Natural Data Format	Variant Type	Remark
Return value	L	VT_BOOL	
HelpTopic	I4	VT_I4	Optional
HelpFile	A	VT_BSTR	Optional

Return value

If the specified help file or topic is not found, FALSE is returned, otherwise TRUE.

HelpTopic

A topic in the specified help file. If HelpTopic is omitted, the contents page of the help file is displayed.

HelpFile

A help file specified with full path name. If HelpFile is omitted, the specified topic in the Natural Studio help file is displayed. If both HelpTopic and HelpFile are omitted, the contents page of the Natural Studio help file is displayed.

ProgressIndicator

Creates and returns a new progress indicator.

Parameters

Name	Natural Data Format	Variant Type	Remark
Return value	HANDLE OF OBJECT	VT_DISPATCH (INatAutoProgressIndicator)	
Steps	I4	VT_I4	
Style	I4	VT_I4	Optional
Frequency	I4	VT_I4	Optional
Caption	A	VT_BSTR	Optional
Animation	A	VT_BSTR	Optional

Return value

The newly created progress indicator.

Steps

The number of steps this by which the progress indicator can be advanced.

Style

The style of the progress indicator. Possible values are:

0	Status bar. The progress of the operation is displayed as a text in the status bar.
1	Gradient bar. The progress of the operation is displayed as a percentually growing gradient bar. Optionally an additional text can be displayed in the status bar.
2	Dialog. The progress of the operation is displayed as a dialog box containing an animation.

Frequency

By default, the progress indicator is redrawn after each step. If Frequency is specified, it is redrawn only each Steps/Frequency steps. This can be used to avoid flickering.

Caption

Applicable with progress indicators of style Dialog. The caption to display in the dialog.

Animation

Applicable with progress indicators of style Dialog. Path and file name of an animation file (.avi) to display in the dialog.