
Foundation Developer Reference

4.1.2 Addendum

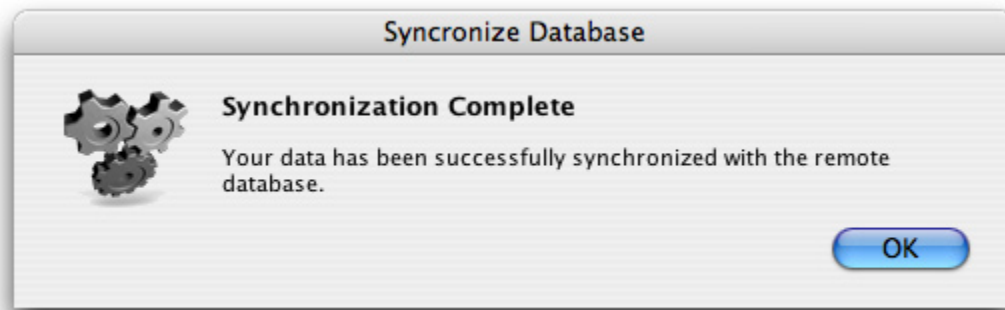
This document contains documentation for the new routines introduced in the 4.1.2 update. The Foundation Developer Reference is currently being overhauled. The routines in this document will be integrated into the existing documentation within the next few months.

Fnd_Dlg_CustomIcon

Fnd_Dlg_CustomIcon ({picture name}) → Text

Parameter	Type	Description
picture name	Text	The picture library name (optional)
Function result	Text	The name of the currently set custom icon

Use this routine to set and get the name of a picture in the 4D Picture Library to use in the alert, confirm, and request dialogs.



The image in the picture library should be exactly 64 pixels wide and 64 pixels high.

```
Fnd_Wnd_Title ("Synchronize Database")  
Fnd_Dlg_SetText ("Synchronization Complete";"Your data has been successfully...")  
Fnd_Dlg_CustomIcon ("GearsIcon")  
Fnd_Dlg_Display
```

This command will override any calls to the *Fnd_Dlg_SetIcon* routine.

Fnd_List_AddButton

Fnd_List_AddButton (button label)

Parameter	Type	Description
button label	Text	The label for the new button

This routine allows the developer to add an additional button to Foundation's Choice List dialog. For example, you could add a button that the user can click to enter a new choice if the choice they desire is not in the list.



If the user clicks the button added by this routine, the window is closed and the OK variable is set to 2.

```

LIST TO ARRAY("Countries";Countries_at)
Fnd_List_AddButton ("New Country...")
Fnd_List_ChoiceList ("Select a country...";->Countries_at)
Case of
  : (OK=1)
    [Contacts]Country:=Countries_at{$element_i}
  : (OK=2)
    [Contacts]Country:=Fnd_Dlg_Request ("Country Name:")
End case

```

The button will automatically size itself for its label. If necessary, the Choice List window will be automatically resized to ensure the new button does not overlap the **OK** and **Cancel** buttons.

Fnd_Text_Base64ToText

Fnd_Text_Base64ToText (text) → Text

Parameter	Type	Description
text	Text	The text to decode
Function result	Text	The decoded text

Converts Base64 encoded text back to 8-bit ASCII text.

```
[Message]Body:=Fnd_Text_Base64ToText ($encodedMessage_t)
```

Fnd_Text_DecodeBase64Blob

Fnd_Text_DecodeBase64Blob (->blob)

Parameter	Type	Description
blob	Pointer	The BLOB to decode

Converts the BLOB from Base64 format.

```
Fnd_Text_DecodeBase64Blob (->MessageBody_blob)
```

This routine is primarily designed for use with 4D 2003. If you're using 4D 2004, use the built-in **DECODE** command instead.

Fnd_Text_EncodeBase64Blob

Fnd_Text_EncodeBase64Blob (->blob)

Parameter	Type	Description
blob	Pointer	The BLOB to encode

Converts the BLOB to Base64 format.

```
Fnd_Text_EncodeBase64Blob (->MessageBody_blob)
```

This routine is primarily designed for use with 4D 2003. If you're using 4D 2004, use the built-in **ENCODE** command instead.

Fnd_Text_TextToBase64

Fnd_Text_TextToBase64 (text) → Text

Parameter	Type	Description
text	Text	The text to encode
Function result	Text	The encoded text

Converts 8-bit ASCII text to Base64 encoded text.

```
$encodedMessage_t:=Fnd_Text_TextToBase64 ([Message]Body)
```

Fnd_Tlbr_Button_Position

Fnd_Tlbr_Button_Position (button name; ->left; ->top; ->right; ->bottom)

Parameter	Type	Description
button name	Text	The name of a toolbar button
left	Pointer	Receives the button's left coordinate
top	Pointer	Receives the button's top coordinate
right	Pointer	Receives the button's right coordinate
bottom	Pointer	Receives the button's bottom coordinate

Use this routine to determine the position of a toolbar button in the current window. This will allow you to procedurally move other objects in the toolbar area based on the specified button's position, which might change due to localization.

```
C_LONGINT (Left_i;Top_i;Right_i;Bottom_i)
Fnd_Tlbr_Button_Add ("RptButton";"Reports";"Fnd_Btn_Print";"ReportMethod")
Fnd_Tlbr_FormMethod
If (Form event=On_Load_)
  Fnd_Tlbr_Button_Position ("RptButton";->Left_i;->Top_i;->Right_i;->Bottom_i)
  Left_i:=Right_i+13
  Right_i:=Left_i+SrchFieldWidth_i
  Top_i:=Top_i+5
  Bottom_i:=Top_i+SrchFieldHeight_i
  MOVE OBJECT (SrchField_t;Left_i;Top_i;Right_i;Bottom_i;*)
End if
```

The button's position will not be set until the button has been drawn by a call to the *Fnd_Tlbr_FormMethod* routine.

Foundation Windows routines are used, a plain window will be opened in the center of the screen.

Fnd_Tlbr_CurrentButton

Fnd_Tlbr_CurrentButton ({button name}) → Text

Parameter	Type	Description
button name	Text	A toolbar button name (optional)
Function result	Text	The name of the current toolbar style

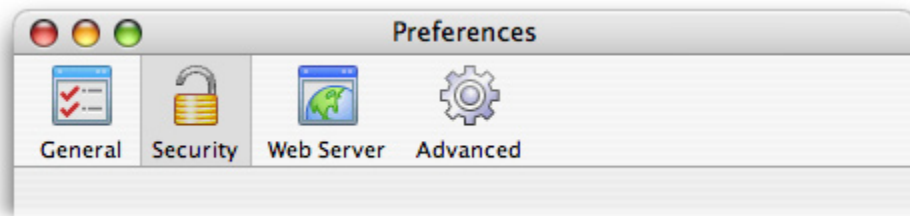
Sets and gets the toolbar button specified as the “current” button. Designed for use with the new “Prefs” style toolbar. See the [Fnd_Tlbr_Style](#) command for more information and example code.

Fnd_Tlbr_Style

Fnd_Tlbr_Style ({style name}) → Text

Parameter	Type	Description
style name	Text	A pre-programmed style name (optional)
Function result	Text	The name of the current toolbar style

This updated routine now accepts a new style named "Prefs." This style is designed to mimic the Mac OS X style preferences toolbar, which indicates which toolbar button represents the current page.



```
Fnd_Tlbr_Style ("Prefs")  
Fnd_Tlbr_Button_Add ("GenButton";"General";"Fnd_Btn_Settings";"GOTO PAGE(1)")  
Fnd_Tlbr_Button_Add ("SecButton";"Security";"Fnd_Btn_Unlock";"GOTO PAGE(2)")  
Fnd_Tlbr_Button_Add ("WebButton";"Web Server";"Fnd_Btn_Browser";"GOTO PAGE(3)")  
Fnd_Tlbr_Button_Add ("AdvButton";"Advanced";"Fnd_Btn_Gear";"GOTO PAGE(4)")  
Fnd_Tlbr_CurrentButton ("SecButton") ` Start on the Security page.
```

A Windows button style (not shown) is also supported by this new style to allow it to be used in cross-platform databases.

Fnd_Wnd_CloseBox

Fnd_Wnd_CloseBox ({display close box?}) → Boolean

Parameter	Type	Description
display close box?	Boolean	Display the close box? (optional)
Function result	Boolean	True if the next window will have a close box

Call this routine to add a close box to the next window displayed by the *Fnd_Wnd_OpenWindow* or *Fnd_Wnd_OpenFormWindow* commands.

```
Fnd_Wnd_CloseBox (True)  
Fnd_Wnd_OpenFormWindow (->[Fnd_Forms];"ConfigureScanner")
```

This routine will affect only the next window in the current process.

This routine replaces the *Fnd_Wnd_SetCloseBox* method.

Fnd_Wnd_Position

Fnd_Wnd_Position ({position setting}) → Number

Parameter	Type	Description
position setting	Longint	Window position (optional)
Function result	Number	The position setting for the next window

Allows the developer to set the window position for the upcoming dialog or window. The following positions are available using these constants:

Value	Foundation Constant	Description
0	Default	Centered on screen
1	<u>Fnd_Wnd_CenterOnScreen</u>	Centered on screen
2	<u>Fnd_Wnd_CenterOnWindow</u>	Centered over front most window
3	<u>Fnd_Wnd_MacOSXSheet</u>	Sheet if possible, or centered over front most window
4	<u>Fnd_Wnd_Stacked</u>	Stacked with other stacked windows
5	<u>Fnd_Wnd_StackOnWindow</u>	Stacked over the front most window

The Fnd_Wnd_MacOSXSheet position will use the sheet type window when using 4D 2004 on Mac OS X. It will also be used for alert and confirm dialogs displayed by the Dialog component if the ToolboxPack plug-in is installed. Otherwise the window will be centered over the front most window.

This command can be called before using many Foundation routines that take advantage of the Windows component. For example:

```
Fnd_Wnd_Position (Fnd_Wnd_CenterOnWindow)  
Fnd_Dlg_Alert ("A value in the Company field is required.")
```

This routine replaces the *Fnd_Wnd_SetPosition* method.

Fnd_Wnd_Title

Fnd_Wnd_Title ({title}) → Text

Parameter	Type	Description
title	Text	Window title (optional)
Function result	Text	The title for the next window

Gets and sets the window title for the upcoming window. Call this routine before calling *Fnd_Wnd_OpenWindow* or *Fnd_Wnd_OpenFormWindow*.

```
Fnd_Wnd_Title ("New Invoice for "+[Customers]Name)  
Fnd_Wnd_OpenFormWindow (->[Invoices];"Invoice")
```

DIALOG([Invoices];"Invoice")
CLOSE WINDOW

This method can also be called before many of the Foundation routines that display windows to override the default window title:

Fnd_Wnd_Title ("Find and Print")
Fnd_Find_Display

This routine replaces the *Fnd_Wnd_SetTitle* method.

Fnd_Wnd_Type

Fnd_Wnd_Type ({window type}) → Number

Parameter	Type	Description
window type	Longint	Window type (optional)
Function result	Text	The window type for the next window

Call this routine before calling *Fnd_Wnd_OpenWindow* or *Fnd_Wnd_OpenFormWindow* to specify the window type to use. You can pass any standard 4D window type constant.

Fnd_Wnd_Type (Modal dialog box)
Fnd_Wnd_OpenFormWindow (500;300)

This method can also be called before many of the Foundation routines that display windows to override the default window title:

Fnd_Wnd_Type (Plain fixed size window)
Fnd_Find_Display

This routine replaces the *Fnd_Wnd_SetType* method.