

New functions for creating XLSX documents from filePro. Version 6.1.00 (USP 6.0.02)

Note: A value described as a handle references a numeric typed field of size 8.
e.g. 'declare handle(8,0)'. This can also be an untyped variable,
provided it is large enough to store the returned handle value.

e = XL_OPEN(file [, name])
Start building an XLSX output file.

Parameters -

file : Path to the file to create. If no full path is given the
generated file will be placed in the PFTMP or equivalent
directory.
name : The name for the default sheet that will be created. Defaults to
Sheet1.

If the filename does not end in ".xlsx" it will be added on creation.

Returns "1" on succes and "-1" on error. XL_ERROR() can be called to return
the last error.

Note: Only one XLSX file can be created at a time.

e = XL_SAVE([password])
Save the current XLSX file.

Parameters -

password : If specified, encrypt the XLSX output file using Agile
encryption (AES128).

Returns "1" on succes and "-1" on error. XL_ERROR() can be called to return
the last error.

Note: Encrypted XLSX files cannot be opened with most third party programs
such as LibreOffice and OpenOffice. They are fully supported by Excel
however. The documents are saved in an encrypted CFB file.

handle = XL_ADDSHEET([name])
Add a new sheet to the XLSX document.

Parameters -

name : The name for the sheet to be created. Defaults to auto naming the
sheet based on the Sheet1, Sheet2, ..., SheetN template.

Returns a handle to a new sheet object on success and "-1" on error.
XL_ERROR() can be called to return the last error.

e = XL_ADDCELL([data [, style [, sheet [, row [, col]]]])
Add a new cell to the XLSX document.

Parameters -

data : Data to be inserted into the document. A cell starting with '='
will be treated as a formula.
style : Handle to style to be used for this cell. Use blank to use the

default style.
sheet : Handle to sheet to insert the cell on. Use blank, "0", or "-1"
to use the default sheet.
row : Row to place the cell (0 indexed).
col : Column to place the cell (0 indexed).

Returns "1" on succes and "-1" on error. XL_ERROR() can be called to return the last error.

Note: Using an empty or negative row/column value will cause the cell to be added using the auto counter in the sheet, incrementing the column value after the cell is added. Specifying a location will reposition the auto counter. Formulas can be used as part of the data as well by prefixing the string with '='.

e = XL_ADDCELL2([data [, style [, sheet [, cell]]])
Add a new cell to the XLSX document.

Parameters -

data : Data to be inserted into the document. A cell starting with '=' will be treated as a formula.
style : Handle to style to be used for this cell. Use blank to use the default style.
sheet : Handle to sheet to insert the cell on. Use blank, "0", or "-1" to use the default sheet.
cell : The Excel style cell to insert the cell. e.g. "A1" "D6" "F6".

Returns "1" on succes and "-1" on error. XL_ERROR() can be called to return the last error.

Note: Using an empty cell number will cause the cell to be added using the auto counter in the sheet, incrementing the column value after the cell is added. Specifying a location will reposition the auto counter. Formulas can be used as part of the data as well by prefixing the string with '='.

handle = XL_FORMAT(format)
Create a new format to use with the XLSX document.

Parameters -

format : Excel format string to use to format the a style. e.g.
"\$ #,###,nnn.nn"
"% ##n.n"
"m/d/yyyy"

Returns a handle to a new format object on success and "-1" on error. XL_ERROR() can be called to return the last error.

e = XL_COLWIDTH(width, firstcol, lastcol [, sheet])
Change the default column width for a sheet between a range.

Parameters -

width : Width of the column(s). e.g. "24" "12.5", "11"
firstcol : Zero based column index or column letter to set from.
lastcol : Zero based column index or column letter to set to.

sheet : Handle to sheet to change the cell widths.

Returns "1" on success and "-1" on error. XL_ERROR() can be called to return the last error.

handle = XL_FONT(font, [size [, attr [, color]]])
Create a new font to use with the XLSX document.

Parameters -

font : Name of the font to use.

size : Point size of the font. e.g. "11" "8.42" "12", default "11.0"

attr : List of attributes to apply to this font, separated by commas.

e.g. "bold,italic"

Values:

"bold"
"italic"
"underline"
"strike"
"unlocked"
"hidden"
"wrap"
"shrink"
"fill"
"left"
"center"
"right"
"justify"
"top"
"bottom"
"vjustify"
"vcenter"

color : The RGB Hex value to set the font color.

e.g. "000000" "ADD8E6"

Returns a handle to a new font object on success and "-1" on error.

XL_ERROR() can be called to return the last error.

handle = XL_BORDER(borderstyle [, color])
Create a new border to use with the XLSX document.

Parameters -

borderstyle : The style to use with this border. Must be one of the following values:

"thin"
"medium"
"dashed"
"dotted"
"thick"
"hair"
"medium_dashed"
"dash_dot"
"medium_dash_dot"
"dash_dot_dot"
"medium_dash_dot_dot"
"slant_dash_dot"

color : The RGB Hex value to set the border color.

e.g. "000000" "ADD8E6"

Returns a handle to a new border object on success and "-1" on error.
XL_ERROR() can be called to return the last error.

handle = XL_FILL(bg [, fg [, fill]])

Create a new fill to use with the XLSX document.

Parameters -

bg : The RGB Hex value to set the background fill color.

e.g. "000000" "ADD8E6"

fg : The RGB Hex value to set the foreground fill color.

e.g. "000000" "ADD8E6"

fill : The fill pattern to use, defaults to "solid" fill. Value must be one of the following.

"solid"

"medium_gray"

"dark_gray"

"light_gray"

"dark_horizontal"

"dark_vertical"

"dark_down"

"dark_up"

"dark_grid"

"dark_trellis"

"light_horizontal"

"light_vertical"

"light_down"

"light_up"

"light_grid"

"light_trellis"

"gray_125"

"gray_0625"

Returns a handle to a new fill object on success and "-1" on error.

XL_ERROR() can be called to return the last error.

e = XL_ADD_DT(date, time [, style [, sheet [, row [, col]]]])

Combine two fields into a single spreadsheet datetime field and insert it as a new cell in the XLSX document.

Parameters -

date : filePro date field.

time : filePro time field.

style : Handle to style to be used for this cell. Use blank to use the default style.

sheet : Handle to sheet to insert the cell on. Use blank, "0", or "-1" to use the default sheet.

row : Row to place the cell (0 indexed).

col : Column to place the cell (0 indexed).

Returns "1" on succes and "-1" on error. XL_ERROR() can be called to return the last error.

e = XL_ADD_DT2(date, time [, style [, sheet [, cell]]])

Combine two fields into a single spreadsheet datetime field and insert it as a new cell in the XLSX document.

Parameters -

date : filePro date field.
time : filePro time field.
style : Handle to style to be used for this cell. Use blank to use the default style.
sheet : Handle to sheet to insert the cell on. Use blank, "0", or "-1" to use the default sheet.
cell : The Excel style cell to insert the cell. e.g. "A1" "D6" "F6".

Returns "1" on succes and "-1" on error. XL_ERROR() can be called to return the last error.

```
handle = XL_CHART(type [, title [, xname [, yname [, row [, col [, stylenum  
[ , sheet [, xoff [, yoff [, xscale [, yscale]]]]]]]]]]))
```

Add a new chart to the XLSX document.

Parameters -

type : Type of chart to create. Must be one of the following values.

"area"
"area_stacked"
"area_stacked_percent"
"bar"
"bar_stacked"
"bar_stacked_percent"
"column"
"column_stacked"
"column_stacked_percent"
"doughnut"
"line"
"line_stacked"
"line_stacked_percent"
"pie"
"scatter"
"scatter_straight"
"scatter_stright_markers"
"scatter_smooth"
"scatter_smooth_markers"
"radar"
"radar_with_markers"
"radar_filled"

title : The title for this chart.

xname : The title for the x-axis.

yname : The title for the y-axis.

row : Row to place the cell (0 indexed).

col : Column to place the cell (0 indexed).

stylenum : Number of the built in Excel style to use. Must be between "1" and "48". The default style is 2. The value is one of the 48 built-in styles available on the "Design" tab in Excel 2007.

sheet : Handle to sheet to insert the chart on. Use blank, "0", or "-1" to use the default sheet.

xoff : X axis offset to place the chart, in pixels.

yoff : Y axis offset to place the chart, in pixels.

xscale : Scale the chart along the x axis. e.g. "1", "0.5" "2". Value

cannot be negative.
yscale : Scale the chart along the x axis. e.g. "1", "0.5" "2". Value cannot be negative.

Returns a handle to a new chart object on success and "-1" on error.
XL_ERROR() can be called to return the last error.

Note: The chart functions do not use the auto counter found in the sheets and instead will default to "0", "0" or "A1" when used for insertion.

```
handle = XL_CHART2(type [, title [, xname [, yname [, cell [, stylenum [, sheet  
[, xoff [, yoff [, xscale [, yscale]]]]]]]]))
```

Add a new chart to the XLSX document.

Parameters -

type : Type of chart to create. Must be one of the following values.

- "area"
- "area_stacked"
- "area_stacked_percent"
- "bar"
- "bar_stacked"
- "bar_stacked_percent"
- "column"
- "column_stacked"
- "column_stacked_percent"
- "doughnut"
- "line"
- "line_stacked"
- "line_stacked_percent"
- "pie"
- "scatter"
- "scatter_straight"
- "scatter_stright_markers"
- "scatter_smooth"
- "scatter_smooth_markers"
- "radar"
- "radar_with_markers"
- "radar_filled"

title : The title for this chart.

xname : The title for the x-axis.

yname : The title for the y-axis.

cell : The Excel style cell to insert the cell. e.g. "A1" "D6" "F6".

stylenum : Number of the built in Excel style to use. Must be between "1" and "48". The default style is 2. The value is one of the 48 built-in styles available on the "Design" tab in Excel 2007.

sheet : Handle to sheet to insert the chart on. Use blank, "0", or "-1" to use the default sheet.

xoff : X axis offset to place the chart, in pixels.

yoff : Y axis offset to place the chart, in pixels.

xscale : Scale the chart along the x axis. e.g. "1", "0.5" "2". Value cannot be negative.

yscale : Scale the chart along the x axis. e.g. "1", "0.5" "2". Value cannot be negative.

Returns a handle to a new chart object on success and "-1" on error.
XL_ERROR() can be called to return the last error.

Note: The chart functions do not use the auto counter found in the sheets and instead will default to "0", "0" or "A1" when used for insertion.

handle = XL_CHARTSHEET(type [, title [, xname [, yname [, stylenum]]]])

Add a new chartsheet to the XLSX document. A chartsheet is a full chart that occupies it's own sheet and cannot contain any cells.

Parameters -

type : Type of chart to create. Must be one of the following values.

"area"
"area_stacked"
"area_stacked_percent"
"bar"
"bar_stacked"
"bar_stacked_percent"
"column"
"column_stacked"
"column_stacked_percent"
"doughnut"
"line"
"line_stacked"
"line_stacked_percent"
"pie"
"scatter"
"scatter_straight"
"scatter_stright_markers"
"scatter_smooth"
"scatter_smooth_markers"
"radar"
"radar_with_markers"
"radar_filled"

title : The title for this chart.

xname : The title for the x-axis.

yname : The title for the y-axis.

stylenum : Number of the built in Excel style to use. Must be between "1" and "48". The default style is 2. The value is one of the 48 built-in styles available on the "Design" tab in Excel 2007.

Returns a handle to a new chartsheet object on success and "-1" on error. XL_ERROR() can be called to return the last error.

e = XL_SERIES(chartnum, sheet, namerow, namecol, cfirstrow, cfirstcol, clastrow, clastcol, vfirstrow, vfirstcol, vlastrow, vlastcol)

Add a series to a chart or chartsheet.

Parameters -

chartnum : Handle to a chart or chartsheet to add series.

sheet : Handle to sheet to get values from. Use blank, "0", or "-1" to use the default sheet.

namerow : Series name row (0 indexed).

namecol : Series name column (0 indexed).

cfirstrow : Categories first row (0 indexed).

cfirstcol : Categories first column (0 indexed).

clastrow : Categories last row (0 indexed).

clastcol : Categories last column (0 indexed).
vfirstrow : Values first row (0 indexed).
vfirstcol : Values first column (0 indexed).
vlastrow : Values last row (0 indexed).
vlastcol : Values last column (0 indexed).

Returns "1" on succes and "-1" on error. XL_ERROR() can be called to return the last error.

e = XL_SERIES2(chartnum, sheet, namecell, cfirst, clast, vfirst, vlast)
Add a series to a chart or chartsheet.

Parameters -

chartnum : Handle to a chart or chartsheet to add series.
sheet : Handle to sheet to get values from. Use blank, "0", or "-1" to use the default sheet.
namecell : Series name Excel style cell. e.g. "A1" "D6" "F6".
cfirst : Categories first Excel style cell. e.g. "A1" "D6" "F6".
clast : Categories last Excel style cell. e.g. "A1" "D6" "F6".
vfirst : Values first Excel style cell. e.g. "A1" "D6" "F6".
vlast : Values last Excel style cell. e.g. "A1" "D6" "F6".

Returns "1" on succes and "-1" on error. XL_ERROR() can be called to return the last error.

e = XL_PROTECTSHEET(sheet, password)
Add a password to restrict editing of a sheet.

Parameters -

sheet : Handle to sheet to protect. Use blank, "0", or "-1" to use the default sheet.
password : Password to use to protect this sheet.

Returns "1" on succes and "-1" on error. XL_ERROR() can be called to return the last error.

e = XL_PROTECTCHARTSHEET(cs, password)
Add a password to restrict editing of a chartsheet.

Parameters -

cs : Handle to chartsheet protect.
password : Password to use to protect this sheet.

Returns "1" on succes and "-1" on error. XL_ERROR() can be called to return the last error.

e = XL_ERROR()
Return the last error generated by the XLSX set of functions.

Returns the last error string generated by the XLSX engine.

e = XL_SETPOS(row [, col [, sheet]])
Set the auto counter position for a sheet.

Parameters -

row : Row to move auto counter to (0 indexed).
col : Column to move auto counter to (0 indexed).
sheet : Handle of sheet to set. Use blank, "0", or "-1" to use the default sheet.

Returns "1" on succes and "-1" on error. XL_ERROR() can be called to return the last error.

e = XL_SETPOS2(cell [, sheet])

Set the auto counter position for a sheet.

Parameters -

cell : Excel style cell to set the auto counter to. e.g. "A1" "D6".
sheet : Handle of sheet to set. Use blank, "0", or "-1" to use the default sheet.

Returns "1" on succes and "-1" on error. XL_ERROR() can be called to return the last error.

e = XL_NEXTROW([sheet])

Move the auto counter down a row for a sheet.

Parameters -

sheet : Handle of sheet to set. Use blank, "0", or "-1" to use the default sheet.

Returns "1" on succes and "-1" on error. XL_ERROR() can be called to return the last error.

e = XL_NEXTCOL([sheet])

Move the auto counter one column for a sheet.

Parameters -

sheet : Handle of sheet to set. Use blank, "0", or "-1" to use the default sheet.

Returns "1" on succes and "-1" on error. XL_ERROR() can be called to return the last error.

handle = XL_STYLE([font [, fill [, fmt [, btop [, bbot [, bleft
[, bright]]]]]])

Add a new style to the XLSX document.

Parameters -

font : Handle to font object to use.
fill : Handle to fill object to use.
fmt : Handle to format object to use.
btop : Handle to border object to use for top border.
bbot : Handle to border object to use for bottom border.
bleft : Handle to border object to use for left border.
bright : Handle to border object to use for right border.

Returns a handle to a new style object on success and "-1" on error.
XL_ERROR() can be called to return the last error.

```
e = XL_IMAGE(img [, row [, col [, sheet [, xoff [, yoff [, scalex [, scaley  
[, flag]]]]]]]]))
```

Add a new image to the XLSX document.

Parameters -

img : Path to image file to use.
row : Row to insert the image on (0 indexed).
col : Column to insert the image on (0 indexed).
sheet : Handle of sheet to insert image. Use blank, "0", or "-1" to use the default sheet.
xoff : X-axis offset for the image, in pixels.
yoff : Y-axis offset for the image, in pixels.
scalex : Scale the image along the x-axis. e.g. "1", "0.5" "2". Value cannot be negative.
scaley : Scale the image along the y-axis. e.g. "1", "0.5" "2". Value cannot be negative.
flag : Option of how to position image.
"0" - Default positioning.
"1" - Move and size image with the cells.
"2" - Move but don't size image with the cells.
"3" - Don't move or size the image with the cells.
"4" - Same as "1" but wait to apply hidden cells.

Returns "1" on succes and "-1" on error. XL_ERROR() can be called to return the last error.

Note: The image functions only support PNG, JPEG, and BMP files.

```
e = XL_IMAGE2(img [, cell [, sheet [, xoff [, yoff [, scalex [, scaley  
[, flag]]]]]]]]);
```

Add a new image to the XLSX document.

Parameters -

img : Path to image file to use.
cell : Excel style cell to insert the image. e.g. "A1" "D6" "F6".
sheet : Handle of sheet to insert image. Use blank, "0", or "-1" to use the default sheet.
xoff : X-axis offset for the image, in pixels.
yoff : Y-axis offset for the image, in pixels.
scalex : Scale the image along the x-axis. e.g. "1", "0.5" "2". Value cannot be negative.
scaley : Scale the image along the y-axis. e.g. "1", "0.5" "2". Value cannot be negative.
flag : Option of how to position image.
"0" - Default positioning.
"1" - Move and size image with the cells.
"2" - Move but don't size image with the cells.
"3" - Don't move or size the image with the cells.
"4" - Same as "1" but wait to apply hidden cells.

Returns "1" on succes and "-1" on error. XL_ERROR() can be called to return the last error.

Note: The image functions only support PNG, JPEG, and BMP files.

```
#####  
#                                     #  
#           NEW 6.0.03 FUNCTIONS       #  
#                                     #  
#####
```

e = XL_LASTCMD()
Get debug information about the last XLSX call.

Returns the last evaluated command parse string.

e = XL_MARGINS([left, [right, [top, [bottom, [sheet]]]])
Set the worksheet print margins.

Parameters -

- left : Left margin in inches, e.g. "0.5", "1", "0.75". A blank or negative value will use the default of "0.7".
- right : Right margin in inches, e.g. "0.5", "1", "0.75". A blank or negative value will use the default of "0.7".
- top : Top margin in inches, e.g. "0.5", "1", "0.75". A blank or negative value will use the default of "0.75".
- bottom : Bottom margin in inches, e.g. "0.5", "1", "0.75". A blank or negative value will use the default of "0.75".
- sheet : Handle of sheet to set the margins. Use blank, "0", or "-1" to use the default sheet.

Returns "1" on succes and "-1" on error. XL_ERROR() can be called to return the last error.

e = XL_LANDSCAPE([sheet])
Set the worksheet to print in landscape mode.

Parameters -

- sheet : Handle of sheet to change mode. Use blank, "0", or "-1" to use the default sheet.

Returns "1" on succes and "-1" on error. XL_ERROR() can be called to return the last error.

e = XL_PORTRAIT([sheet])
Set the worksheet to print in portrait mode.

Parameters -

- sheet : Handle of sheet to change mode. Use blank, "0", or "-1" to use the default sheet.

Returns "1" on succes and "-1" on error. XL_ERROR() can be called to return the last error.

e = XL_GRIDLINES(option [, sheet])
Set if the worksheet should display gridlines when printed.

Parameters -

option : Which Gridlines to print. Cannot be blank. Must be one of the following values.

"hide_all"
"show_all"
"show_screen"
"show_print"

sheet : Handle of sheet to change mode. Use blank, "0", or "-1" to use the default sheet.

Returns "1" on succes and "-1" on error. XL_ERROR() can be called to return the last error.

e = XL_FITPAGES([height, [width, [sheet]])

Fit the printed area to a specific number of pages both vertically and horizontally.

Parameters -

height : Number of pages vertically. A value of "0" or blank will set the height as necessary.

width : Number of pages horizontally. A value of "0" or blank will set the height as necessary.

sheet : Handle of sheet to change mode. Use blank, "0", or "-1" to use the default sheet.

Returns "1" on succes and "-1" on error. XL_ERROR() can be called to return the last error.

e = XL_PAPERTYPE(type [, sheet])

Set the paper format for the printed output of a worksheet.

Parameters -

type : The paper format to use with a printed worksheet. Must be one of the following values.

"default"
"letter"
"tabloid"
"ledger"
"legal"
"statement"
"executive"
"a3"
"a4"
"a5"
"b4"
"b5"
"folio"
"quarto"
"10x14"
"11x17"
"note"
"envelope"
"envelope_9"
"envelope_10"
"envelope_11"
"envelope_12"

"envelope_14"
"c"
"d"
"e"
"envelope_dl"
"envelope_c3"
"envelope_c4"
"envelope_c5"
"envelope_c6"
"envelope_c65"
"envelope_b4"
"envelope_b5"
"envelope_b6"
"monarch"
"fanfold"
"german_std_fanfold"
"german_legal_fanfold"

sheet : Handle of sheet to change type. Use blank, "0", or "-1" to use the default sheet.

Returns "1" on succes and "-1" on error. XL_ERROR() can be called to return the last error.

e = XL_CENTERH([sheet])

Center the worksheet data horizontally between the margins on the printed page.

Parameters -

sheet : Handle of sheet to change mode. Use blank, "0", or "-1" to use the default sheet.

Returns "1" on succes and "-1" on error. XL_ERROR() can be called to return the last error.

e = XL_CENTERV([sheet])

Center the worksheet data vertically between the margins on the printed page.

Parameters -

sheet : Handle of sheet to change mode. Use blank, "0", or "-1" to use the default sheet.

Returns "1" on succes and "-1" on error. XL_ERROR() can be called to return the last error.

e = XL_PRINTACROSS([sheet])

Change the default print direction to across then down.

Parameters -

sheet : Handle of sheet to change mode. Use blank, "0", or "-1" to use the default sheet.

Returns "1" on succes and "-1" on error. XL_ERROR() can be called to return the last error.

e = XL_SETHEADER(string [, margin, [limage, [cimage, [rimage, [sheet]]]])
 Set the printed page header.

e = XL_SETFOOTER(string [, margin, [limage, [cimage, [rimage, [sheet]]]])
 Set the printed page footer.

Parameters -

- string : The header/footer definition string. See below for format options. Cannot be blank.
- margin : The margin in inches to use for the header/footer. A blank, "0", or negative value will use the default margin of "0.3".
- limage : Full path to an image to use in place of the left image placeholder.
- cimage : Full path to an image to use in place of the center image placeholder.
- rimage : Full path to an image to use in place of the right image placeholder.
- sheet : Handle of sheet to set header/footer. Use blank, "0", or "-1" to use the default sheet.

Format Options -

Control	Category	Description
&L	Justification	Left
&C		Center
&R		Right
&P	Information	Page number
&N		Total number of pages
&D		Date
&T		Time
&F		File name
&A		Worksheet name
&Z		Workbook path
&fontsize	Font	Font size
&"font,style"		Font name and style
&U		Single underline
&E		Double underline
&S		Strikethrough
&X		Superscript
&Y		Subscript
&[Picture]	Images	Image placeholder
&G		Same as &[Picture]
&&	Miscellaneous	Literal ampersand &

Text in headers and footers can be justified to the left, center and right by prefixing the text with the control characters &L, &C and &R. For example, "&LHello, World!", "&CHello, World!", "&RHello, World!"

For simple text, if the justification is not specified the text will be center aligned. However, you must prefix the text with &C if you use any other formatting.

You are limited to 3 images in a header/footer.

Returns "1" on succes and "-1" on error. XL_ERROR() can be called to return the last error.

Note: The image types supported are PNG, JPEG, and BMP files. There is a hard limit of 255 characters in a header/footer string, including control characters. Strings longer than this will not be written to the document.

e = XL_SETBACKGROUND(image [, sheet])
Set the background image for a worksheet.

Parameters -

image : Full path to an image to use as the sheet background.
sheet : Handle of sheet to set background image. Use blank, "0", or "-1" to use the default sheet.

Returns "1" on succes and "-1" on error. XL_ERROR() can be called to return the last error.

Note: The image types supported are PNG, JPEG, and BMP files.

e = XL_HIDEZEROS([sheet])
Hide zero values in worksheet cells.

Parameters -

sheet : Handle of sheet to change mode. Use blank, "0", or "-1" to use the default sheet.

Returns "1" on succes and "-1" on error. XL_ERROR() can be called to return the last error.

e = XL_SHOWROWCOL([sheet])
Show row and column headers on the printed page.

Parameters -

sheet : Handle of sheet to change mode. Use blank, "0", or "-1" to use the default sheet.

Returns "1" on succes and "-1" on error. XL_ERROR() can be called to return the last error.