

PL/PDF

PL/OFFX_DOCX

DOCX processor and generator

v4.8.0

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Introduction

PL/OFFX_DOCX is a PL/SQL based DOCX document generator from Oracle databases. Use PL/OFFX_DOCX to quickly and easily develop applications with dynamic content but also quality presentation and printing capabilities.

Links

Overview of the XML file formats in Office 2010: <http://technet.microsoft.com/en-us/library/cc179190.aspx>

XML Wordprocessing document structure: [http://msdn.microsoft.com/en-us/library/office/qq278308\(v=office.15\).aspx](http://msdn.microsoft.com/en-us/library/office/qq278308(v=office.15).aspx)

Installation

System requirements: Oracle 11g RDBMS Release 2 or higher. Oracle 11g Express Edition is supported.

PL/OFFX_DOCX is a collection of PL/SQL packages. Before using PL/OFFX_DOCX, make sure that the steps described in the InstallationGuide were completed.

Using PL/OFFX_DOCX

Essentially, PL/OFFX_DOCX is a series of calls to PL/OFFX_DOCX procedures and functions from a PL/SQL script, package, procedure or function. If you are not familiar with the PL/SQL programming language, study the Oracle documentation.

Contact

Contact us at: <mailto:info@plpdf.com>

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Init

Type: procedure

Description: Initializes generator program variables.

Version: v2.0.0

Parameters:

- p_unit varchar2 default 'mm': Default measurement unit
- p_orientation ploffx_document_type.ST_PageOrientation default ploffx_document_type.c_portrait: Page orientation

Return: -

setPageSize

Type: procedure

Description: Set page size setting.

Version: v4.7.0

Parameters:

- p_w number: Page width
- p_h number: Page height

Return: -

crParagraph

Type: function

Description: Create empty paragraph for content.

Version: v2.0.0

Parameters:

- p_bidi boolean default null: Right to Left Paragraph Layout
- p_contextualSpacing boolean default null: Ignore Spacing Above and Below When Using Identical Styles
- p_ind ploffx_document_type.CT_Ind default null: Set paragraph indentation
- p_alignment varchar2 default null: Paragraph horizontal alignment (left, center, right, justify)
- p_pageBreakBefore boolean default null: Start Paragraph on Next Page
- p_border ploffx_document_type.CT_PBdr default null: Paragraph Borders
- p_pStyle varchar2 default null: Referenced Paragraph Style
- p_spacing number default null: Spacing Between Lines and Above/Below Paragraph
- p_suppressAutoHyphens boolean default null: Suppress Hyphenation for Paragraph
- p_suppressLineNumbers boolean default null: Suppress Line Numbers for Paragraph
- p_textAlignment varchar2 default null: Vertical Character Alignment on Line
- p_widowControl boolean default null: Allow First/Last Line to Display on a Separate Page
- p_widowControl boolean default null: p_numPr pls_integer default null

Return: -

addParagraph

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Type: procedure

Description: Add paragraph to document

Version: v2.0.0

Parameters:

- p_paragraph_id pls_integer: Existing paragraph ID

addText

Type: procedure

Description: Add text to an existing paragraph.

Version: v2.0.0

Parameters:

- p_paragraph_id pls_integer: Specifies a reference to a previously defined paragraph.
- p_text varchar2: Specifies the value of this text.
- p_bold boolean default null: Bold text.
- p_border ploffx_document_type.CT_Border default null: Specifies text border properties
- p_case varchar2 default null: Specifies U(pper) or L(ower) case
- p_color varchar2 default null: Specifies text color in hexadecimal format
- p_fitText number default null: Display text in fix width.
- p_highlight varchar2 default null: Specifies highlight color around the text.
- p_italic boolean default null: Italic text.
- p_vertPosition number default null: Specifies the amount to be raised or lowered the text relation to the default baseline of the
- p_FontName varchar2 default nul: Specifies font family
- p_style varchar2 default null: Specifies the text style
- p_spacing number default null: Specifies the character spacing.
- p_strikeout number default null: Strikeout.
- p_FontSize number default null: Specifies the font size.
- p_underline ploffx_document_type.CT_Underline default null: Specifies the underline properties.
- p_vertAlign varchar2 default null: Specifies the vertical alignment of the text.
 - o baseline
 - o subscirpt
 - o superscritp
- p_w number default null: This element specifies the amount by which each character shall be expanded.

setListLevel

Type: procedure

Description: Set paragraph to a list element.

Version: v2.0.0

Parameters:

- p_paragraph_id pls_integer: Specifies a reference to a previously defined paragraph.
- p_level pls_integer default 0: Specifies the list level.
- p_numId pls_integer default 1: Specifies a reference to the list.

Return : -

AddHeader

Type: procedure

Description : Add paragraph to the document header.

Version: v3.0.0

Parameters :

- p_paragraph_id pls_integer : Specifies a reference to a previously defined paragraph.
- p_type ploffx_document_type.ST_HdrFtr default ploffx_document_type.c_default : Specifies the type of header.
 - o default
 - o even
 - o first

Return :

AddFooter

Type: procedure

Description : Add paragraph to the document footer.

Version: v3.0.0

Parameters :

- p_paragraph_id pls_integer : Specifies a reference to a previously defined paragraph.
- p_type ploffx_document_type.ST_HdrFtr default ploffx_document_type.c_default : Specifies the type of footer.
 - o default
 - o even
 - o first

Return :

crTable

Type: function

Description : Create table.

Version: v2.0.0

Parameters :

- p_width number default null : Specifies the table width.
- p_alignment varchar2 default ploffx_document_type.c_left : Specifies the table alignment.

Return : pls_integer : Index of the created table

addTable

Type: function

Description : Add previously defined table to the document.

Version: v2.0.0

Parameters :

- p_table_id pls_integer : Specifies a reference to a previously defined table.

Return : pls_integer : Index of the created table.

setTableBorders

Type: procedure

Description: Customize a previously defined table border properties.

Version: v2.0.0

Parameters:

- p_table_id pls_integer: Specifies a reference to a previously defined table.
- p_style varchar2 default null: Specifies the border style.
- p_width number default null: Specifies the border width.
- p_space number default null: Specifies the space between the border and the content.
- p_color varchar2 default null: Specifies the border color.

Return: -

AddRow

Type: function

Description: Add row to a previously defined table.

Version: v4.5.0

Parameters:

- p_table_id pls_integer: Specifies a reference to a previously defined table.
- p_alignment varchar2 default null: Specifies the alignment of the row.
- p_height number default null: Specifies the height of the row.
- p_tblheader boolean default null: Repeat table row on every new page.

Return: pls_integer: Index of the created row.

AddCell

Type: function

Description: Add cell to a previously defined table row.

Version: v2.0.0

Parameters:

- p_table_id pls_integer: Specifies a reference to a previously defined table.
- p_row_id pls_integer: Specifies a reference to a previously defined row.
- p_noWrap boolean default null: NoWrap.
- p_width number default null: Specifies the width of the cell.
- p_cellBorder ploffx_document_type.CT_TcBorders default null: Specifies the border of the cell.
- p_background ploffx_document_type.ST_HexColor default null: Specifies the background color of the cell.

Return: pls_integer: Index of the created cell.

TableaddParagraph

Type: procedure

Description: Add previously defined paragraph to a cell of table.

Version: v2.0.0

Parameters:

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- p_table_id pls_integer : Specifies a reference to a previously defined table.
- p_row_id pls_integer : Specifies a reference to a previously defined row.
- p_cell_id pls_integer : Specifies a reference to a previously defined cell.
- p_paragraph_id pls_integer : Specifies a reference to a previously defined paragraph.

addInlineImage

Type: procedure

Description: Add inline image to a paragraph.

Version: v2.0.0

Parameters:

- p_paragraph_id pls_integer : Specifies a reference to a previously defined paragraph.
- p_name varchar2 : Specifies the image name.
- p_file blob : Specifies a reference to the image source blob.
- p_width number : Specifies the image width.
- p_height number : Specifies the image height.

SetBackground

Type: procedure

Description: Change the background color of document.

Version: v2.0.0

Parameters:

- p_backcolor varchar2 : Specifies the background color of document, in hexadecimal RGB code.

Return: -

addTabStop

Type: procedure

Description: Add tab stop to a selected paragraph

Version: v2.0.0

Parameters:

- p_paragraph_id pls_integer : Specifies a reference to a previously defined paragraph.
- p_val ploffx_document_type.ST_TabJc : Specifies the type of tab stop.
- p_pos number : Specifies the position of tab stop.
- p_leader ploffx_document_type.ST_TabTlc default ploffx_document_type.c_none_Tlc : Specifies the character which shall be used to fill in the space created by a tab which ends at this custom tab stop

Return: -

addImage

Type: function

Description: Add inline image to a paragraph.

Version: v2.0.0

Parameters:

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- `p_paragraph_id pls_integer`: Specifies a reference to a previously defined paragraph.
- `p_name varchar2`: Specifies the image name.
- `p_file blob`: Specifies a reference to the image source blob.
- `p_width number`: Specifies the image width.
- `p_height number`: Specifies the image height.
- `p_x number`: Specifies the image x coordinate of position.
- `p_y number`: Specifies the image y coordinate of position.
- `p_textWrap varchar2 default 'wrapSquare'`: Specifies the text wrap around the image.
- `p_relativeFromH varchar2 default 'column'`: This element specifies the horizontal positioning of the image.
- `p_relativeFromV varchar2 default 'paragraph'`: This element specifies the vertical positioning of the image.
- `p_locked boolean default false`: Lock the image location when an application edits the document.
- `p_layoutInCell boolean default true`: Specifies how image shall behave when its anchor is located in a table cell.
- `p_allowOverlap boolean default true`: Specifies how image shall behave when its anchor is located in a table cell display time shall be allowed to overlap the contents of the other image.
- `p_behindDoc varchar2 default 'false'`: Specifies the image to be displayed behind or above of the content.

Return: `pls_integer`: Index of the added image.

AddSectionP

Type: function

Description: Add section for paragraph.

Version: v2.0.0

Parameters:

- `p_paragraph_id pls_integer`: Specifies a reference to a previously defined paragraph.
- `p_num number default null`: Specifies the number of columns.
- `p_space number default null`: Specifies the space between the columns.
- `p_type ploffx_document_type.ST_SectionMark`: Specifies the type of the break point.

Return: `pls_integer`: Index of the added section.

AddSectionB

Type: function

Description: Add section for body.

Version: v2.0.0

Parameters:

- `p_paragraph_id pls_integer default null`: Specifies a reference to a previously defined paragraph. If null, then will be create a new paragraph.
- `p_num number default null`: Specifies the number of columns.
- `p_space number default null`: Specifies the space between the columns.
- `p_type ploffx_document_type.ST_SectionMark`: Specifies the type of the break

point.

Return: pls_integer : Index of the added section.

setSectPrPg

Type: procedure

Description: Set section properties.

Version: v2.0.0

Parameters:

- p_section_id pls_integer default 0 : Specifies a reference to a previously defined section.
- p_w plx_sc.normalv2 default null : Specifies the page width.
- p_h plx_sc.normalv2 default null : Specifies the page height.
- p_orient ploffx_util.t_string default null : Specifies the page orientation.
- p_code plx_sc.normalv2 default null : Specifies a printer-specific paper code.
- p_bottom plx_sc.normalv2 default null : Specifies the distance between the bottom of the text margins for the main document and the bottom of the page for all pages in this section.
- p_footer plx_sc.normalv2 default null : Specifies the distance from the bottom edge of the page to the bottom edge of the footer.
- p_gutter plx_sc.normalv2 default null : Specifies the page gutter for each page in the current section.
- p_header plx_sc.normalv2 default null : Specifies the distance from the top edge of the page to the top edge of the header.
- p_left plx_sc.normalv2 default null : Specifies the distance between the left edge of the page and the left edge of the text extents for this document
- p_right plx_sc.normalv2 default null : Specifies the distance between the right edge of the page and the right edge of the text extents for this document.
- p_top plx_sc.normalv2 default null : Specifies the distance between the top of the text margins for the main document and the top of the page for all pages in this section.

Return: -

addSectionColumn

Type: procedure

Description: Add section column to a previously created section.

Version: v2.0.0

Parameters:

- p_section_id pls_integer default 0 : Specifies a reference to a previously defined section.
- p_num number : Number of columns.
- p_space number : Space between columns.

Return: -

addPageNumField

Type: function

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Description: Add page number to a header or footer paragraph.

Version: v2.0.0

Parameters:

- p_paragraph_id pls_integer: Specifies a reference to a previously defined paragraph. If null, then will be create a new paragraph.
- p_format varchar2 default ' * Arabic ': Specifies the format of the page number. In default case it use the arabic numbers.

Return: pls_integer: Index of the added page number.

addDateField

Type: function

Description: Add date field to a paragraph.

Version: v2.0.0

Parameters:

- p_paragraph_id pls_integer: Specifies a reference to a previously defined paragraph.
- p_format varchar2 default ' \@ yyyy-MM-dd ': Specifies the date format.

Return: pls_integer: Index of the added date field.

addAuthorField

Type: function

Description: Add author field to a previously defined paragraph.

Version: v2.0.0

Parameters:

- p_paragraph_id pls_integer: Specifies a reference to a previously defined paragraph.
- p_format varchar2 default null: Specifies the date format.

Return: pls_integer: Index of the added author field.

addHyperLink

Type: procedure

Description: Add author field to a previously defined paragraph.

Version: v2.0.0

Parameters:

- p_paragraph_id pls_integer: Specifies a reference to a previously defined paragraph.
- p_text varchar2: The hyperlink text.
- p_url varchar2: The hyperlink URL
- p_bold boolean default null: Bold text.
- p_border plofff_document_type.CT_Border default null: Specifies hyperlink border.
- p_case varchar2 default null: U(pper)/L(ower)case.
- p_color varchar2 default null: Specifies hyperlink text color.
- p_fitText number default null: Display text in fix width.
- p_highlight varchar2 default null: Specifies highlight color around the text.
- p_italic boolean default null: Italic text.
- p_vertPosition number default null: Specifies the amount to be raised or

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- lowered the text relation to the default baseline of the
- p_FontName varchar2 default nul : Specifies font family
 - p_style varchar2 default null : Specifies the text style
 - p_spacing number default null : Specifies the character spacing.
 - p_strikeout number default null : Strikeout.
 - p_FontSize number default null : Specifies the font size.
 - p_underline ploffx_document_type.CT_Underline default null : Specifies the underline properties.
 - p_vertAlign varchar2 default null : Specifies the vertical alignment of the text.
 - o baseline
 - o subscript
 - o superscript
 - p_w number default null : This element specifies the amount by which each character shall be expanded.

addTableOfContent

Type: function

Description: Add table of content to a previously defined paragraph.

Version: v2.0.0

Parameters:

- p_paragraph_id pls_integer : Specifies a reference to a previously defined paragraph.

Return: pls_integer : Index of the added table of content.

addField

Type: function

Description: Add field to a perviously defined paragraph.

Version: v2.0.0

Parameters:

- p_paragraph_id pls_integer : Specifies a reference to a previously defined paragraph.
- p_code varchar2 : Specifies the field codes for the simple field.

Return: pls_integer : Index of the added field.

getDoc

Type: procedure

Description: Returns the generated document. The document is closed and then returned.

Version: v2.0.0

Parameters: -

Return: -

parseDoc

Type: Processing docx files.

Description:

Version: v2.0.0

Parameters : -

Return : -

crList

Type: function

Description : Returns the ID of the created list.

Version: v3.0.0

Parameters :

- p_startValue pls_integer default 1 : Specifies the starting number for the listing.
- p_symbol XT_NUMBERING default numbering_symbol : Specifies the style of the list.

Return : pls_integer

AddListElement

Type: procedure

Description : Adds an element to a list

Version: v3.0.0

Parameters :

- p_paragraph_id pls_integer : Specifies the paragraph of the element that will be added to the list
- p_level pls_integer default 0 : Specifies the level of the element(0-8)
- p_list pls_integer default 1 : Specifies the list for the element to be added to.

Return : -

crParagraphBorder

Type: function

Description : Creates a paragraph border

Version: v3.0.0

Parameters :

- p_top plofff_document_type.CT_Border default null : Specifies the top border of the paragraph
- p_bottom plofff_document_type.CT_Border default null : Specifies the bottom border of the paragraph
- p_left plofff_document_type.CT_Border default null : Specifies the left border of the paragraph
- p_right plofff_document_type.CT_Border default null : Specifies the right border of the paragraph

Return : plofff_document_type.CT_PBdr : Returns a paragraph border which can be passed to crParagraph function

crBorder

Type: function

Description : Creates a paragraph border

Version: v3.0.0

Parameters :

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- `p_style ploffx_document_type.ST_Border` default null : Specifies the style of the border
- `p_color ploffx_document_type.ST_HexColor` default null : Specifies the color of the border
- `p_width` number default null : Specifies the width of the border in points
- `p_spacing` number default null : Specifies the spacing between the border and the area
- `p_shadow` boolean default null : Specifies the border has shadow
- `p_frame` boolean default null : Specifies the border has frame

Return : `ploffx_document_type.CT_Border` : Returns a border which can be passed to `crParagraphBorder` function or `AddText` procedure

crIndentation

Type: function

Description : Creates an indentation

Version: v3.0.0

Parameters :

- `p_left` number default null : Specifies the left indentation of the paragraph in units
- `p_right` number default null : Specifies the right indentation of the paragraph in units
- `p_hanging` number default null : Specifies the hanging indentation in units
- `p_firstLine` number default null : Specifies the indentation of the first of the paragraph in units

Return : `ploffx_document_type.CT_PBdr` : Returns an indentation which can be passed to `crParagraph` function

crSpacing

Type: function

Description : Creates a paragraph spacing

Version: v3.0.0

Parameters :

- `p_before` number default null : Specifies the spacing before the paragraph in points
- `p_after` number default null : Specifies the spacing after the paragraph in points
- `p_linespace` number default null : Specifies the line spacing of the paragraph in lines

Return : `ploffx_document_type.CT_Spacing` : Returns a paragraph spacing which can be passed to `crParagraph` function

crCellBorder

Type: function

Description : Creates a table cell border

Version: v3.5.0

Parameters :

- `p_top ploffx_document_type.CT_Border` default null : Specifies the top side border

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- p_bottom ploffx_document_type.CT_Border default null : Specifies the bottom side border
- p_left ploffx_document_type.CT_Border default null : Specifies the left side border
- p_right ploffx_document_type.CT_Border default null : Specifies the right side border

Return : ploffx_document_type.CT_TcBorders : Returns a border which can be passed to crCell function

AddChart

Type: function

Description : Add chart to a previous created paragraph.

Version: v3.6.0

Parameters :

- p_paragraph_id pls_integer : Specifies an existing paragraph
- p_chart ploffx_chart.CT_ChartSpace : Specifies an existing Chart
- p_x number default null : Specifies horizontal starting point
- p_y number default null : Specifies vertical starting point
- p_width number default null : Specifies the Chart area width
- p_height number default null : Specifies the Chart area width

Return : -

getDocument

Type: function

Description : Get the full docx document structure.

Version: v3.6.0

Parameters : -

Return : -

crUnderline

Type: function

Description : Create underline line type.

Version: v3.6.0

Parameters :

- p_type ploffx_document_type.ST_Underline : Create underline type.

Return : ploffx_document_type.CT_Underline : Return a line type which using to underline.

AddToHeader

Type: procedure

Description : Add an existing element to the document header.

Version: v3.0.0

Parameters :

- p_header ploffx_document_type.ST_HdrFtr default ploffx_document_type.c_default_hfr : Specifies the header type
- p_element_id pls_integer : Specifies the element id.

Return : -

AddToFooter

Type: procedure

Description: Add an existing element to the document footer.

Version: v3.0.0

Parameters:

- p_footer ploffx_document_type.ST_HdrFtr default
ploffx_document_type.c_default_hfr: Specifies the header type
- p_element_id pls_integer: Specifies the element id.

Return: -