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PL/OFFX_DOCX

DOCX processor and generator

v4.0.0

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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_const.ST_PageOrientation default ploffx_const.pageOrient_portrait: Page orientation

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

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.

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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 subscript
 - 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.

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- p_type ploffx_document_type.ST_HdrFtr default
- ploffx_document_type.c_default_hfr : Specifies the header type
- 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_hfr : Specifies the footer type
- 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 '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.

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- 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: v2.0.0

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.

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_const.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 :

- 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

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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 plofff_document_type.ST_TabJc: Specifies the type of tab stop.
- p_pos number: Specifies the position of tab stop.
- p_leader plofff_document_type.ST_TabTlc default plofff_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:

- 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.

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- 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

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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

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

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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 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 plofff_document_type.CT_Underline default null: Specifies the underline properties.
- p_vertAlign varchar2 default null: Specifies the vertical alignment of the text.
 - o baseline

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- 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.

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- 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 :

- p_style plofff_const.ST_Border default null : Specifies the style of the border
- p_color plofff_const.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 it has been assigned to in points
- p_shadow boolean default null : Specifies the border has shadow
- p_frame boolean default null : Specifies the border has frame

Return : plofff_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: plofff_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: plofff_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 plofff_document_type.CT_Border default null: Specifies the top side border
- p_bottom plofff_document_type.CT_Border default null: Specifies the bottom side border
- p_left plofff_document_type.CT_Border default null: Specifies the left side border
- p_right plofff_document_type.CT_Border default null: Specifies the right side border

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

AddChart

Type: function

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Description: Add chart to a previous created paragraph.

Version: v3.6.0

Parameters:

- p_paragraph_id pls_integer: Specifies an existing paragraph
- p_chart plofffx_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 plofffx_const.ST_Underline: Create underline type.

Return: plofffx_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 plofffx_document_type.ST_HdrFtr default
plofffx_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 plofffx_document_type.ST_HdrFtr default
plofffx_document_type.c_default_hfr: Specifies the header type
- p_element_id pls_integer: Specifies the element id.

Return: -