Zend_Rtf - Andries Seutens

<ac:macro ac:name="note"><ac:parameter ac:name="title">Under Construction</ac:parameter><ac:rich-text-body>
This proposal is under construction and is not ready for review. </ac:rich-text-body></ac:macro>

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Zend Framework: Zend_Rtf Component Proposal

Proposed Component Name	Zend_Rtf
Developer Notes	http://framework.zend.com/wiki/display/ZFDEV/Zend_Rtf
Proposers	Andries Seutens
Revision	0.1 - use-cases 0.2 - module overview (wiki revision: 36)

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1. Overview

Zend_Rtf module functions as a RTF **(Rich Text Format)** manipulation engine. It should be able to load existing documents, create new, modify and save modified documents. Thus it can help any PHP-driven application dynamically prepare documents in RTF by modifying existing template or generating document from a scratch.

2. References

- Word 2003: Rich Text Format (RTF) Specification, version 1.8

3. Component Requirements, Constraints, and Acceptance Criteria

Zend_Rtf module should/must supports the following features:

- Must be able to create new document
- Must be able to load an existing document and modify items
- Must be able to manipulate pages within document
    - add and remove pages
    - change the page order
    - copy pages
    - change the format
- Must support styles and markup to modify the visual look
    - alignment
    - font
    - font families
    - font size
    - font colors
    - italic
    - bold
    - background color
    - margins
    - borders
        - border kind
        - border type
        - border width
        - border color
        - border distance from paragraph
    - shading
    - scale
    - emboss
    - kerning
    - small capital
    - engrave
    - strike and double strike
    - subscript
    - superscript
    - ...
- Must be able to draw and modify tables (html-like)
- Tables must be able to be formatted as such:
    - table
        - borders
    - row
        - aligment
        - height
        - left, right margin
    - cell
        - left, right, top, bottom margin
        - shading
        - text direction
- Must be able to draw text using built-in fonts or custom TrueType fonts
- Must be able to draw primitives
    - lines
    - rectangles
    - olygons
    - circles
    - ellipses
    - sectors
- Must be able to create document footers and headers
    - Footers and headers must be able to turn on/off per page and as a whole
- Must be able to store metadata for the document
- Must support different page orientations
    - portrait
    - landscape
- Must support different page formats/sizes
    - A4
    - USLetter
    - B11 X 17
    - LGL8.5 X 14
    - HLT5.5 X 8.5
    - EXE7.5 X 10.5
    - A3
- Must support custom page formats/sizes
- Must be able to support unicode (help prefered here)
- Must be able to support tabs
- Must be able to support columns
- Must be able to support bullets and numbering
- Must be able to load images (*.bmp, *.jpg, *.gif)

In a later phase, there could be an engine for **PDF to RTF**, and vica versa.

4. Dependencies on Other Framework Components

- Zend_Exception
- ...

5. Theory of Operation

todo

6. Milestones / Tasks

- Milestone 1: Proposal
- Milestone 2: Proposal accepted
- Milestone 3: Working release
- Milestone 4: Unit tests
- Milestone 5: Documentation
- Milestone 6: Future enhancements

7. Class Index

- Zend_Rtf
- Zend_Rtf_Document
- Zend_Rtf_Page
- Zend_Rtf_Exception
- ...
  -
- Zend_Rtf_Style
- Zend_Rtf_Style_Abstract
- Zend_Rtf_Style_Paragraph
- Zend_Rtf_Style_Heading
- Zend_Rtf_Style_Table
- ...
  -
- Zend_Rtf_Section
- Zend_Rtf_Section_Abstract
- Zend_Rtf_Section_Header
- Zend_Rtf_Section_Footer
- ...
  -
- Zend_Rtf_Color
- Zend_Rtf_Color_Abstract
- Zend_Rtf_Color_Html
- Zend_Rtf_Color_Rgb
- ...

8. Use Cases

UC-1: creating an RTF document, and setting it's metadata:

```
$document = new Zend_Rtf_Document();
$document->properties['title']     = 'Title of the document';
$document->properties['subject']   = 'Subject of the document';
$document->properties['author']    = 'Author of the document';
$document->properties['manager']   = 'Manager of the author';
$document->properties['company']   = 'Company of the author';
$document->properties['operator']  = 'Person who last made changes to the document';
$document->properties['category']  = 'Category of the document';
$document->properties['keywords']  = 'Selected keywords for the document';
$document->properties['comment']   = 'Comments; text is ignored';
$document->properties['version']   = 'Version number of the document';
$document->properties['doccomm']   = 'Comments displayed in the Summary Info or Properties dialog box
in Word';
$document->properties['hlinkbase'] = 'The base address of all relative hyperlinks inserted in the
document.';
$document->properties['creatim']   = '2008-01-01 10:00:00';
$document->properties['printim']   = '2008-01-01 10:00:00';
$document->properties['buptim']    = '2008-01-01 10:00:00';

$metadata = $document->getMetadata();
```

UC-2: adding pages:

```
$document = new Zend_Rtf_Document();
$page = new Zend_Rtf_Page(Zend_Rtf_Page::SIZE_A4);

$document->pages[] = $page;
```

UC-3: using styles and adding text:

```
$document = new Zend_Rtf_Document();
$h1Format = new Zend_Rtf_Style('heading');
$h1Format->setBold(10)
         ->setSize(16)
         ->setFont(Zend_Rtf_Font::FONT_HELVETICA);

$h2Format = new Zend_Rtf_Style('heading');
$h2Format->setBold(10)
         ->setSize(14)
         ->setColor(new Zend_Rtf_Color_Rgb(125, 120, 115));

$h3Format = new Zend_Rtf_Style('heading');
$h3Format->setBold(10)
         ->setSize(12)
         ->setColor(new Zend_Rtf_Color_Html('EFEFEF'));

$paraFormat = new Zend_Rtf_Style('para');
$paraFormat->setSize(10);

$headFootFormat = new Zend_Rtf_Style('para');
$headFootFormat->setItalic();

$page = new Zend_Rtf_Page(Zend_Rtf_Page::SIZE_A4);
$page->setStyle($h1Format);
$page->writeText('This is the h1 section');

$page->setStyle($h2Format);
$page->writeText('This is the h2 section');

$page->setStyle($h3Format);
$page->writeText('This is the h3 section');

$page->setStyle($paraFormat);
$section->writeText('This is the first paragraph');
```

UC-4: creating document header and footer:

```
$document = new Zend_Rtf_Document();
$headFootFormat = new Zend_Rtf_Style('para');
$headFootFormat->setItalic();

$sectionHeader = new Zend_Rtf_Section_Header();
$sectionHeader->setStyle($headFootFormat);
$sectionHeader->writeText('This is the document header');

$sectionFooter = new Zend_Rtf_Section_Footer();
$sectionFooter->setStyle($headFootFormat);
$sectionFooter->writeText('This is the document footer');

$document->setHeader($sectionHeader);
$document->setFooter($sectionFooter);
```

UC-5: copying and modifying copied pages:

```
$document = new Zend_Rtf_Document();
$template = new Zend_Rtf_Page(Zend_Rtf_Page::SIZE_A4);
$template->writeText('i am a template page');

$pageClone = new Zend_Rtf_Page($template);
$pageClone->setPageSize(Zend_Rtf_Page::SIZE_LETTER_LANDSCAPE);
$pageClone->setNoFooter();
```

9. Class Skeletons

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