

TRANSFORMING DITA DOCUMENTS TO PDF USING CSS

PART 3 – ADVANCED FONTS USAGE

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Introduction - Font Declaration

- Set the font properties:
 - font-family
 - font-weight
 - font-size
 - font-style
 - Etc.

```
:root {  
  font-family: Arial;  
}  
  
body {  
  font-family: "Roboto", sans-serif;  
  font-size: 12pt;  
}
```

https://developer.mozilla.org/en-US/docs/Web/CSS/font#constituent_properties

Introduction – PDF Standard Fonts

- 14 fonts in PDF standard
- Automatically embedded in PDF documents
- Available in all PDF viewers
 - Courier (Regular, Bold, Oblique, BoldOblique)
 - Helvetica (Regular, Bold, Oblique, BoldOblique)
 - Times-Roman (Regular, Bold, Italic, BoldItalic)
 - Symbol
 - ZapfDingbats

Introduction - Supported Fonts

- System Fonts: Arial, Times New Roman, etc.
 - Windows
 - Linux
 - macOS
- TrueType Font (TTF) / OpenType Font (OTF)

Introduction – Fallback Fonts

- Using a comma-separated list
 - Family name
 - Generic name

```
*[class ~= "pr-d/codeblock"] {  
  font-family: 'Roboto Mono', 'Ubuntu Mono', monospace;  
}
```

- Oxygen PDF Chemistry custom fallback fonts list:
 - Add support for symbols and CJK languages
 - Available on both Windows or Linux

How to declare a Web Font?

- Using the `@import` CSS at-rule
 - combined with `url()` function

```
@import url('https://fonts.googleapis.com/css2?family=Roboto:ital@0;1&display=swap');
```

<https://developer.mozilla.org/en-US/docs/Web/CSS/@import>

How to declare a Local Font?

- Using the @font-face CSS at-rule
 - font-family property
 - font-style property
 - font-weight property
 - src property (combined with url() function)

```
@font-face {  
  font-family: 'Roboto';  
  font-style: normal;  
  font-weight: 400;  
  src: url(fonts/Roboto-Regular.ttf);  
}
```

<https://developer.mozilla.org/en-US/docs/Web/CSS/@font-face>

How to use the Fonts?

- Using the font CSS properties (font-family, font-weight, font-style, etc.)

 Note:

- Style is usually normal or italic
- Weight is a number or a name

400 = Regular

700 = Bold

How to use the Fonts?

Best Practices:

- Use quotation marks in family names (' or ")
- Keep the same name when declaring a font
- Don't forget to add fallback fonts!



How to set a Font in Header/Footer?

- Using the @page CSS at-rule
- Using the font properties

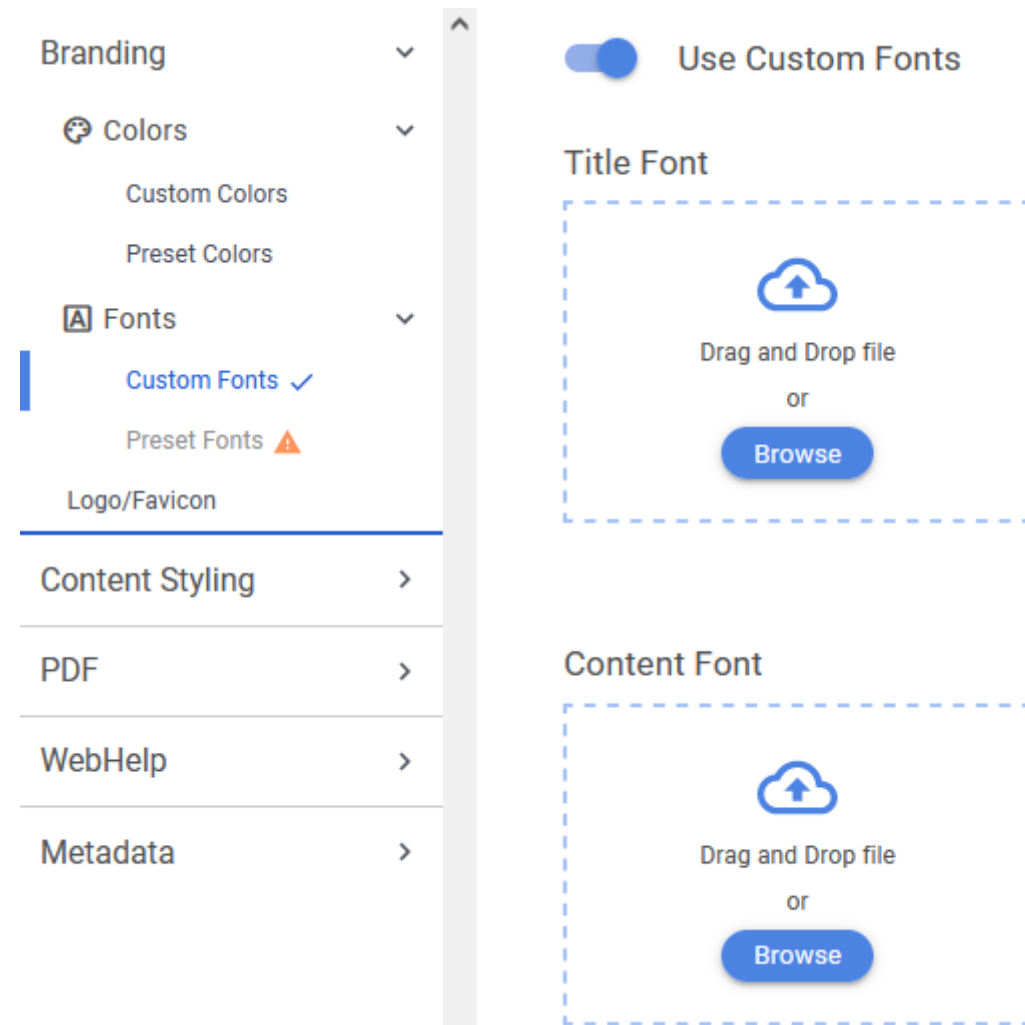
```
@page {  
  font-size: 12pt;  
  font-family: "Arial";  
}  
  
@page chapter {  
  font-size: 16pt;  
  font-family: "Calibri";  
}
```

https://www.oxygenxml.com/doc/versions/24.1/ug-ope/topics/dcpp_default_page_definitions_css.html

<https://developer.mozilla.org/en-US/docs/Web/CSS/@page>

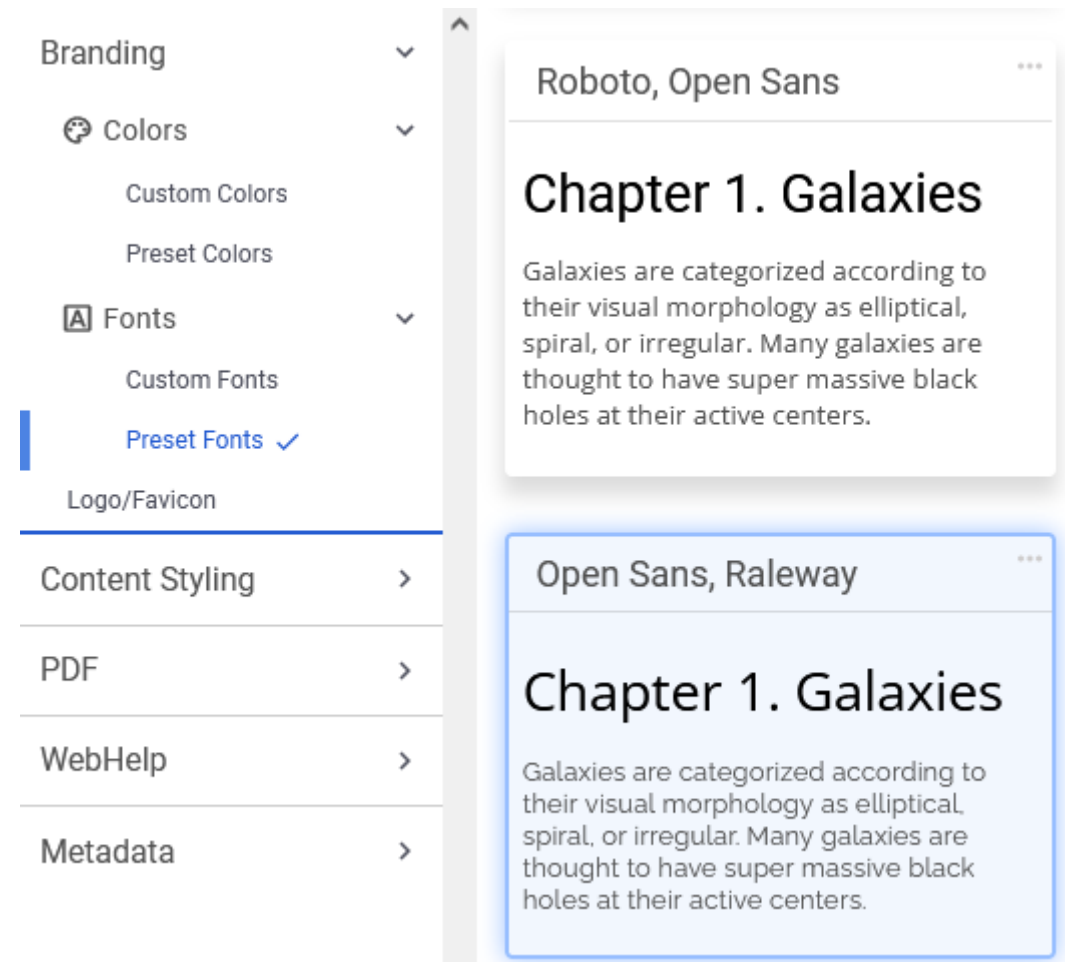
How to use Oxygen Styles Basket to define fonts?

- Using the dedicated Fonts gallery
- Custom Fonts:
 - Upload your own TTF files



How to use Oxygen Styles Basket to define fonts?

- Using the dedicated Fonts gallery
- Preset Fonts:
 - System Fonts
 - Google Fonts



The screenshot displays the Oxygen Styles Basket interface. On the left, a navigation menu includes 'Branding', 'Colors', 'Fonts', and 'Logo/Favicon'. The 'Fonts' section is expanded, showing 'Custom Fonts' and 'Preset Fonts' (which is selected with a checkmark). Below this are 'Content Styling', 'PDF', 'WebHelp', and 'Metadata'. On the right, two style cards are visible. The top card, titled 'Roboto, Open Sans', shows the text 'Chapter 1. Galaxies' in a bold, sans-serif font, followed by a paragraph of text. The bottom card, titled 'Open Sans, Raleway', shows the same text but with a different font style, highlighted with a blue border.

How to define a font based on a language?

- Using the `:lang` pseudo-class in the selector

```
:root:lang(zh) {  
  font-family: "Noto Sans SC", "Arial", sans-serif;  
}
```

- Filtering based on `@xml:lang` attribute
- <https://developer.mozilla.org/en-US/docs/Web/CSS/:lang>

How to create an accessible PDF?

- Meet the regulations set in Section 508 Amendment
https://en.wikipedia.org/wiki/Section_508_Amendment_to_the_Rehabilitation_Act_of_1973
- Compliant to PDF/UA1 ISO standard
 - Tagging of the content
 - Adding alternate text for images
 - Embedding all the used fonts
 - Etc.
- Usage of the `pdf.accessibility="yes"` DITA parameter

How to troubleshoot some common errors?

- Warning: “coverage set class table not yet supported”
 - Not an important warning, can be ignored
- Glyph “?” not available in font
 - The font doesn’t have any matching glyph for a given character
- For PDF/UA-1, all fonts, even the base 14 fonts, have to be embedded!
 - Some base fonts have not been declared in the CSS

Useful Links

- https://www.oxygenxml.com/doc/versions/24.1/ug-chemistry/topics/ch_fonts_basic_fonts.html
- https://www.oxygenxml.com/doc/versions/24.1/ug-chemistry/topics/ch_fallback_fonts.html
- https://www.oxygenxml.com/doc/versions/24.1/ug-chemistry/topics/ch_fonts_using_installed_fonts.html
- https://www.oxygenxml.com/doc/versions/24.1/ug-chemistry/topics/ch_fonts_using_web_fonts.html
- https://www.oxygenxml.com/doc/versions/24.1/ug-chemistry/topics/ch_fonts_using_local_font_files.html
- https://www.oxygenxml.com/doc/versions/24.1/ug-chemistry/topics/ch_fonts_font_embedding.html

- https://www.oxygenxml.com/doc/versions/24.1/ug-ope/topics/dcpp_fonts.html
- https://www.oxygenxml.com/doc/versions/24.1/ug-ope/topics/dcpp_headers_and_footers.html
- https://www.oxygenxml.com/doc/versions/24.1/ug-ope/topics/dcpp_accessibility.html

Feedback

How was the information presented in this webinar?

THANK YOU!

Any questions?

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