TRANSFORMING XML AND HTML DOCUMENTS TO PDF USING CSS

PART 3 – GLOBAL PAGE LAYOUT

Julien Lacour, Syncro Soft

julien_lacour@oxygenxml.com

Oxygen Webinar, April 7th 2021

Introduction – CSS for Printing

- ## Differences between paged media vs. screen media

  - Fixed size vs. Dynamic size

  - Collection of pages vs. Continuous display

- ## New concepts:

  - Bookmarks

  - Table of contents

  - Page numbers

  - Page breaks

  - Footnotes

  - Etc.

Introduction – The @page CSS at-rule

- Define fixed printing properties for pages
  - Size
  - Margins
  - Background
  - Etc.

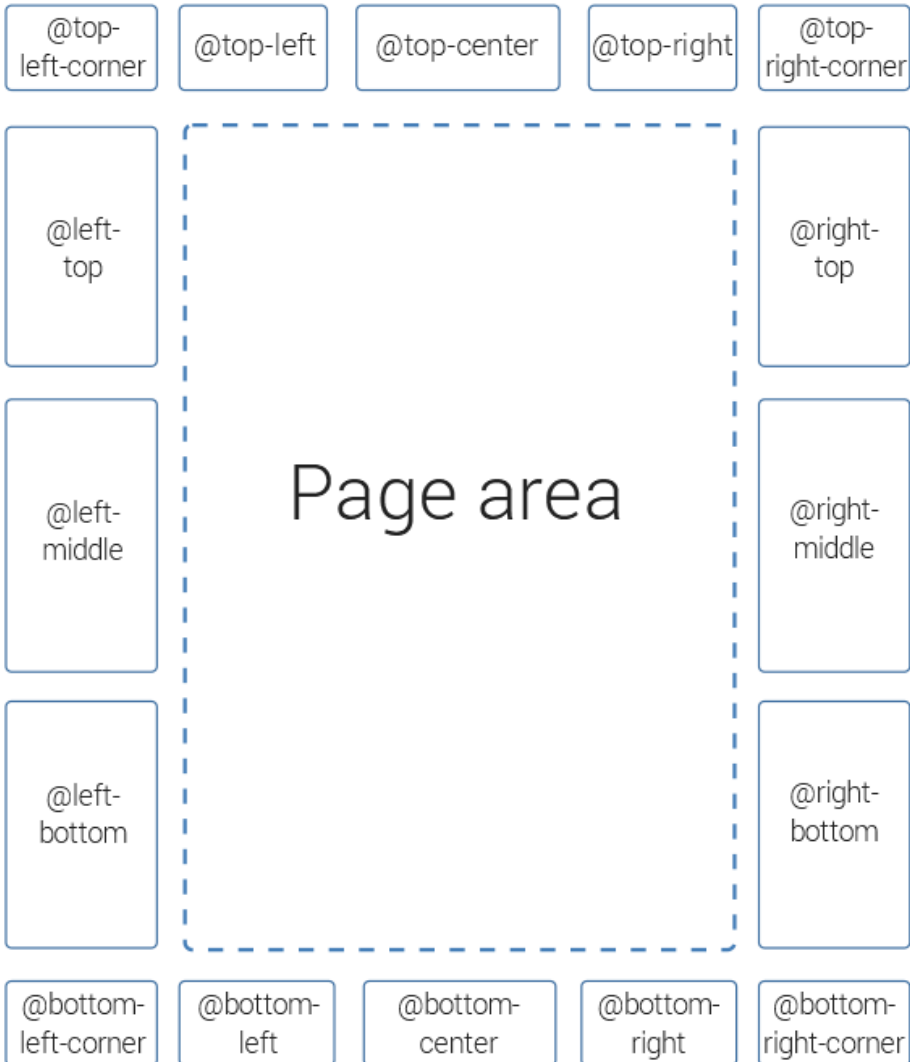- Define headers and footers (page-margin boxes)

  https://www.w3.org/TR/css-page-3/#at-page-rule

Introduction – The page-selectors

- Page type selectors: a case-sensitive named page type

- Page pseudo-classes
  - :left
  - :right
  - :first
  - :blank

  <u>Note:</u> Pseudo-classes can be mixed

  https://www.w3.org/TR/css-page-3/#page-selectors

Introduction – The page-margin boxes

@top-left-corner	@top-left	@top-center	@top-right	@top-right-corner

@left-top		@right-top
@left-middle	Page area	@right-middle
@left-bottom		@right-bottom

@bottom-left-corner	@bottom-left	@bottom-center	@bottom-right	@bottom-right-corner

https://www.w3.org/TR/css-page-3/#margin-boxes

Before we start…

- "Le Tour du monde en quatre-vingts jours" (Around the World in Eighty Days) by Jules Verne

- Text and images are from Project Gutenberg

- Style is extracted into a separate CSS

    https://www.gutenberg.org/ebooks/46541

Poll

What is your level of CSS knowledge?

How to define pages

- Use of the @page CSS at-rule (with pseudo-classes)

- Define page-selectors for each page type: cover, default, etc.

- Use CSS 'page' property for page type selectors declaration:
  - On an element
  - On a pseudo-element

```
body {
    page: default;
}
```

How to define pages

- Set size and margins globally

- Available page sizes

    - ISO 216 Standard: A4, A3, B5, etc.

    - ANSI Standard: US-Letter, US-Legal

    - Dimensions: 4in, 4in 8in

    Note: Oxygen PDF Chemistry default is US-Letter (8.5x11in).

- Set page-margin boxes

How to rotate a page

- Use the size: landscape property

```css
@page landscape {
    size: landscape;
}
```

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

How to divide page content into columns

- Use the column-count property

    https://developer.mozilla.org/en-US/docs/Web/CSS/column-count

```
@page two-columns {
    column-count: 2;
}
```

How to control page breaks

- Use of the 3 dedicated properties (at element-level):
  - page-break-before
  - page-break-inside
  - page-break-after

  https://developer.mozilla.org/en-US/docs/Web/CSS/page-break-before

  https://developer.mozilla.org/en-US/docs/Web/CSS/page-break-inside

  https://developer.mozilla.org/en-US/docs/Web/CSS/page-break-after

How to control page breaks

- Use of the 2 dedicated properties (at page-level):
    - -oxy-initial-page-number
    - -oxy-force-page-count

- Induce the notion of odd/even pages

- Control the starting/ending page

https://www.oxygenxml.com/doc/versions/23.1/ug-chemistry/topics/ch_chapters.html

How to control page breaks

- Use orphans/widows properties on an element

  Note: Oxygen PDF Chemistry uses a default value of '2' inside paragraphs for both properties.

  https://developer.mozilla.org/en-US/docs/Web/CSS/orphans

  https://developer.mozilla.org/en-US/docs/Web/CSS/widows

Additional Links

https://www.oxygenxml.com/doc/versions/23.1/ug-chemistry/topics/ch_the_page_rule.html

https://www.oxygenxml.com/doc/versions/23.1/ug-chemistry/topics/ch_columns.html

https://www.oxygenxml.com/doc/versions/23.1/ug-chemistry/topics/ch_controlling_page_breaks.html

https://www.oxygenxml.com/doc/versions/23.1/ug-chemistry/topics/ch_chapters.html

https://www.oxygenxml.com/doc/versions/23.1/ug-chemistry/topics/ch_headers-and-footers.html

Full Tutorial:

https://www.oxygenxml.com/doc/versions/23.1/ug-chemistry/topics/ch_putting_all_together.html

THANK YOU!

Any questions?

Julien Lacour

julien_lacour@oxygenxml.com