The magic of Prince



Prince is a computer program that converts XML into PDF documents. It is simple, yet very powerful. The purpose of this small document is to showcase the formatting magic Prince can do. We have chosen to highlight ten of our favorite features. This document is written in XHTML and converted to PDF by – you guessed it – Prince. The entire

document is generated by one single 11k XHTML file including embedded CSS and SVG.

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#1: Columns

If you are reading the PDF version of this document, the first thing you may notice is the two-column layout. Columns are commonly used on paper and Prince supports CSS multi-column layouts. In this document, the number of columns has been set to 2, with a 1.5em gap between the columns. You can also specify that there should be a border between the columns.

#2: Counters

If you are reading the XHTML source code of this document, look for the h2 elements. You will notice that they contain the text of the headings, but not their number. The list item number, including the "#" and ":" are automatically generated by the style sheet. Generated content and counters are especially useful for complex documents. They are described in CSS level 2.1.

#3: Cross-references

Prince can read hyperlinks inside a document and generate page numbers accordingly. For example, it will automatically find out which page *Headers and Footers* are discussed on (page 2). Cross-references are used to generate the *Table of contents* (page 1).

#4: Leaders

Leaders consist of dots or dashes in a row leading the eye across a page. For example, the *Table of contents* has leaders in it. The leaders are not found in the document itself, but rather in the style sheet.

#5: Footnotes

Footnotes are essential in printed documents and Prince knows how to generate them. Unlike what some people think, footnotes are not the place to put information you don't want to see. More often, footnotes will actually attract attention. 9 of 10 of readers will read the footnotes before they read the text from where the footnotes are anchored.

#6: SVG



Scalable Vector Graphics (SVG) is a language for describing twodimensional graphics for the web.

SVG images scale better than traditional bitmapped images and are suitable for printing. The crown is generated by two SVG elements.

Н										Не							
Li	Be Be C N O F										F	Ne					
Na	Al Si P S Cl									Cl	Ar						
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Те	I	Xe
Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn
Fr	Ra	Ac															

Table 1: This table floats to the top of the page.

#7: Tables

Tables are commonly used on the web to achieve certain spatial layouts. Ourselves, we prefer using CSS for layouts and tables for tabular data. Here is an example of a real table:

	Color	Fruit	Computer
Apple	no	yes	yes
Orange	yes	yes	no

More complex tables are also possible, including tables within tables.

#8: Page floats

On paged media, elements can be set float to the top or bottom of pages. The table at the top of this page is an example.

#9: Box model

CSS offers a powerful box model for styling particular elements. Each element has three bands around it: the padding, border and

margin. Consider this example:

May God spare you from marriage with one who writes books!

—Bjørnstjerne Bjørnson

The quote above has a background color which extends into the padding area. Outside the padding is a thin solid border.

Boxes can float to the right or left, allowing other content to wrap around it. Typically, images are presented this way. However, we thought the quote was

May God spare you from marriage with one who writes books!

> —Bjørnstjerne Bjørnson

so important that we show it twice.

#10: Headers and footers

Printed documents often have page headers and footers. For example, page numbers are often printed at the bottom of the page, and the document and/or chapter title is shown at the top – except on title pages.

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