

# **PDF Exporter extension for Polarion ALM**

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# 1 Preface

This document describes PDF Exporter as a Polarion extension. The exporter is an alternative to Polarion's native solution of converting Polarion Live Documents and Live Reports into PDF files.



# 2 Polarion configuration

This chapter has been moved to README.md#polarion-configuration.

# **3 Supported Features**

If you export a PDF you do not need to wait for completion. The PDF will be generated in the background and downloaded after completion. The timeout is 60 minutes.

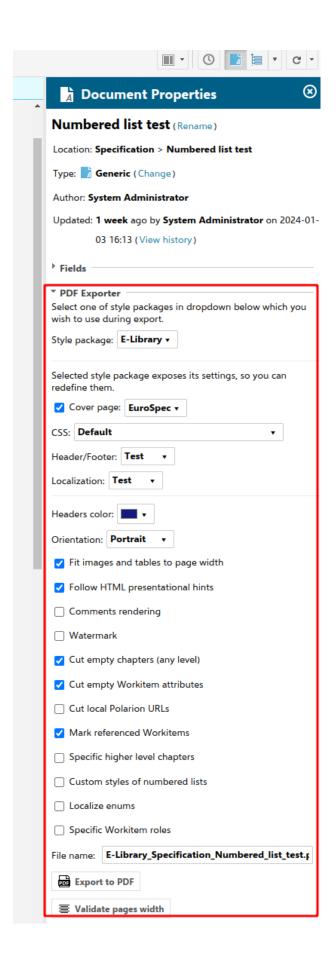
Thanks to Weasyprint the PDF-Exporter supports:

- PDF-version: 1.4, 1.7
- PDF-variants
  - ∘ PDF/A: **A-1b**, **A-2b**, **A-3b** and **A-4b**
  - PDF/UA: **UA-1**
- Direct printing of SVG-images
- CSS (partly)
  - · CSS Level 2 Revision 1 (passed Acid2 Test).
  - Selectors Level 3 / 4
  - CSS Text Module Level 3 / 4
  - CSS Fonts Module Level 3 / 4

# 4 Exporter description

As the extension is installed and configured to appear on Document Properties pane, you can open any document in a project where you configured PDF exporter, open Document Properties sidebar and you will see following section added there:



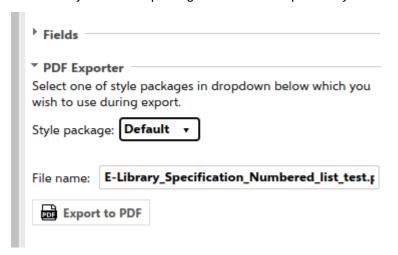




Selected area on the screenshot above belongs to PDF exporter extension. If you just click "Export to PDF" button you will get current document converted into PDF file with default settings.

### 4.1 Style packages

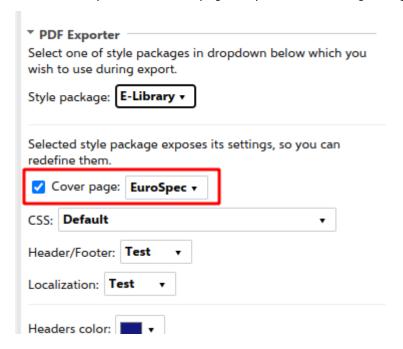
All exporter settings are combined into named style packages. Different packages can be configured different way as well as can hide their settings from being redefined by end user. In such a case you will be able only to select a package to use without possibility to redefine its settings:



In this case you can just click "Export to PDF" button relying on package settings as is.

### 4.1.1 Cover page

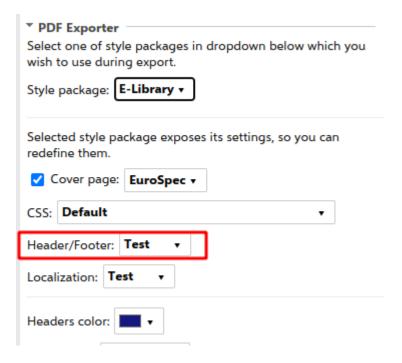
In first line of options pane there's a checkbox "Cover page", if ticked a dropdown will appear right hand side to select predefined cover page template to use during PDF generation:



# 4.1.2 Header/Footer

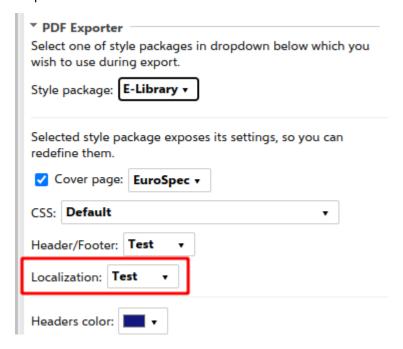
Settings for header/footer of generated PDF document also grouped into named settings and can be chosen in next dropdown:





### 4.1.3 Localization

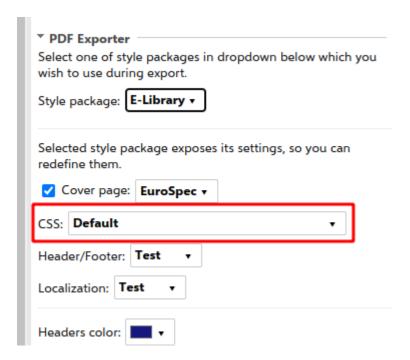
The same relates to localization settings, which one to use during PDF generation can be selected in next dropdown:



## 4.1.4 CSS

There can be different CSS settings created on admin pane each having its own name. You can chose which of them to use during PDF generation in second dropdown of options pane:

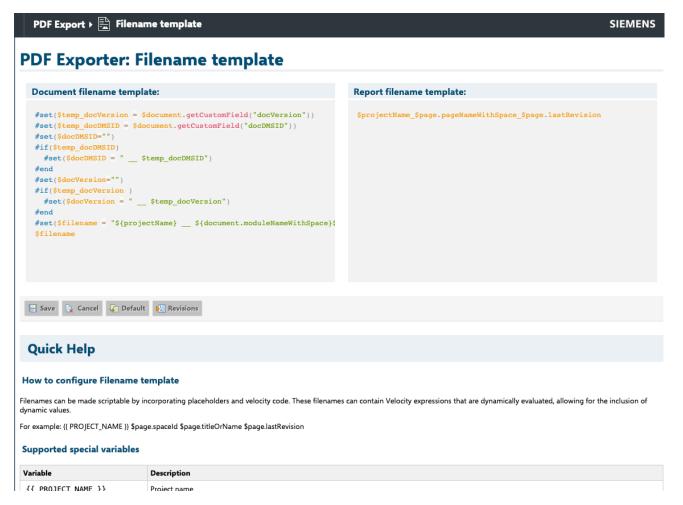




### 4.1.5 Filename template

In this section you can define a schema for the generation of the used PDF-filename. Variables can be used as well. On the left side there is the definition for LiveDocs, on the right side for LiveDocuments.





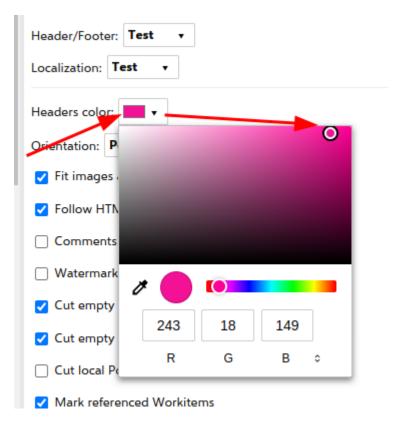
### 4.2 Options

A package can also expose its settings to be redefined by end user before exporting a document into PDF.

### 4.2.1 Headers color

By default dark blue color (Polarion's default) is used for headers, but you can change this selecting any other color:





As a result headers of generated PDF will be of selected color:

# 1.1 Purpose

A Product Specification is a complete description of the behavior of the product to be developed. It includes a set of User Stories that describe all the interactions that users will have with the software. In addition to User Stories, this document also contains Requirements.

## 1.2 Orphan header

## 1.3 Scope

The document describes a fictitious online eBook lending library with an optional online

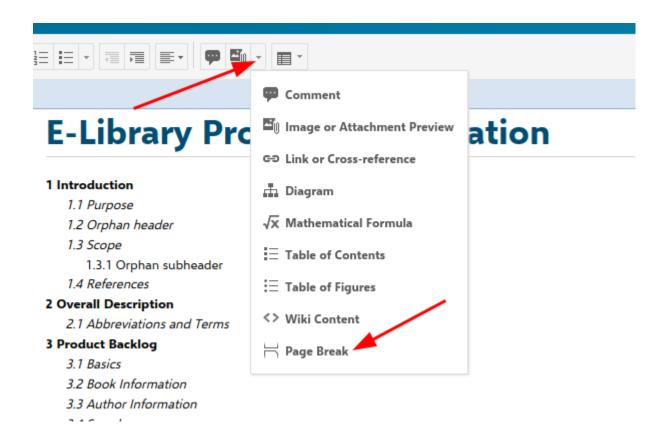
### 4.2.2 Paper size

This option specifies paper size of generated PDF document. Default is "A4".

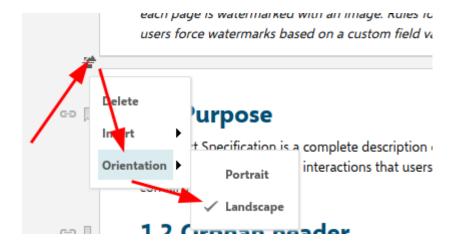
#### 4.2.3 Orientation

This option serves as a document wide page orientation setting, either "Portrait" (default) or "Landscape". If you don't have page breaks in a document, then all pages in generated PDF file will have an orientation selected by you in this dropbox. However you can insert a page break in document and override this document wide setting for certain pages (starting from page break and above till the beginning of document or till other page break). Page breaks can be inserted via toolbar button:





And then you can specify custom orientation for this page break:

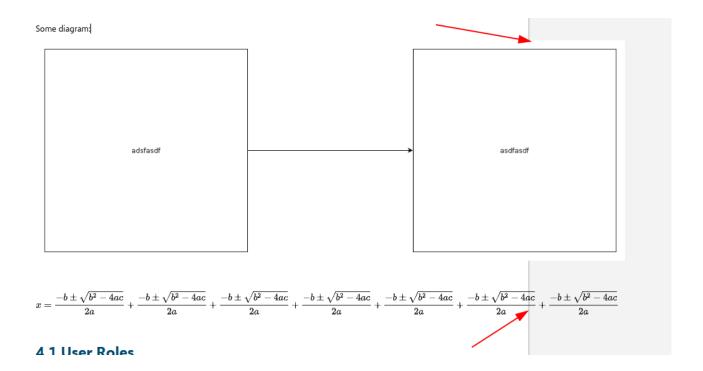


## 4.2.4 Fit images and tables to page width

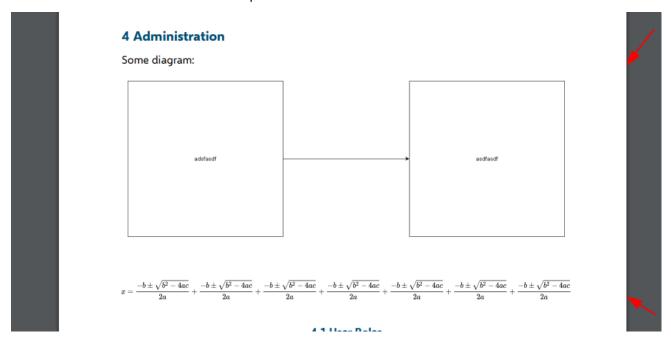
This option which is on by default tells PDF Exporter to fit images and tables into resulted page width even if their width in Polarion document exceed it.

Elements exceed Polarion document width:





And fit into PDF document width after export:



## 4.2.5 Follow HTML presentational hints

If you select this checkbox WeasyPrint will follow HTML presentational hints, i.e. if an HTML element has width attribute specified, it will be taken into account despite the fact that its usage is discouraged in favor of specifying width via element's style attribute.

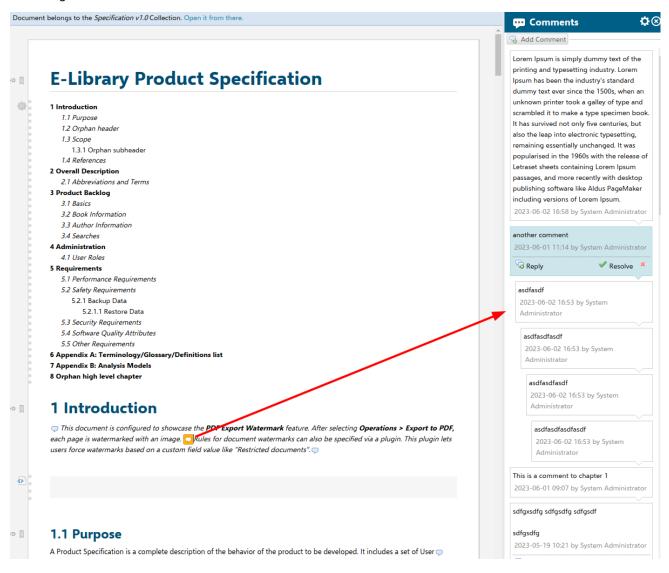
## 4.2.6 Comments rendering

This option which is on by default tells PDF Exporter to include Polarion document's comments into generated PDF document (REMARK: please take into account that this relates only to LiveDoc comments,



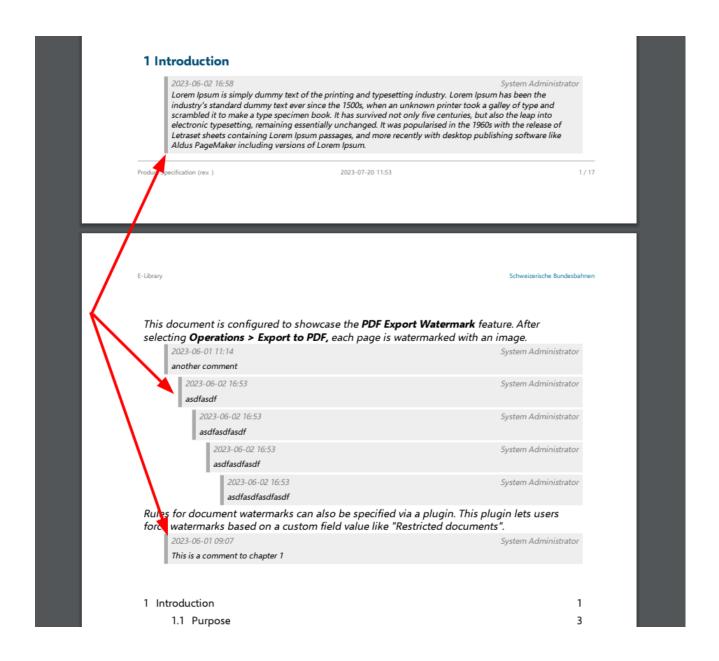
WorkItem comments regardless the fact they look like LiveDoc comments **won't be displayed** in generated PDF under any circumstances).

Following state of Polarion document:



Will result in following PDF:





If you though don't want comments to be included in generated PDF document - just un-check this checkbox.

#### 4.2.7 Watermark

If you select this checkbox all pages of resulted PDF document will include "Confidential" watermark:



# **E-Library Product Specification**

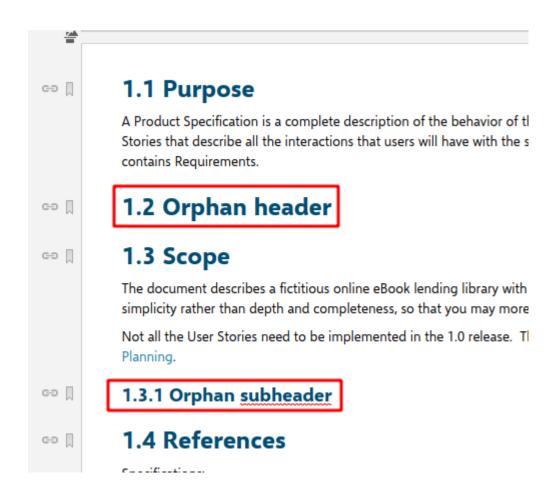
- 1 Introduction
  - 1.1 Purpose
  - 1.2 Orphan header
  - 1.3 Scope
    - 1.3.1 Orphan subheader
  - 1.4 References
- 2 Overall Description
  - 2.1 Abbreviations and Terms
- 3 Product Backlog
  - 3.1 Basics
  - 3.2 Book Information
  - 3.3 Author Information
  - 3.4 Searches
- 4 Administration
  - 4.1 User Roles
- 5 Requirements
  - 5.1 Performance Requirements
  - 5.2 Safety Requirements
  - 5.3 Security Requirements
  - 5.4 Software Quality Attributes
  - 5.5 Other Requirements
- 6 Appendix A: Terminology/Glossary/Definitions list

...

## 4.2.8 Cut empty chapters (any level)

If you select this checkbox empty chapters of any level will be excluded from being exported, like these selected in screenshot:

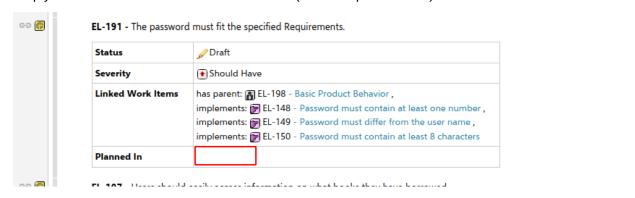




### 4.2.9 Cut empty Workitem attributes

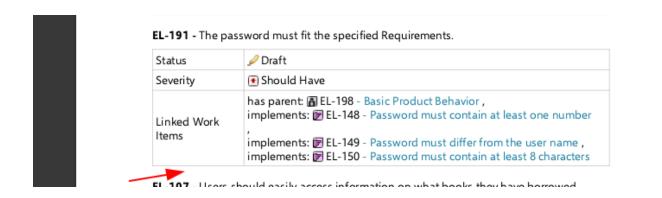
This option which is on by default tells PDF Exporter to exclude empty WorkItem attributes from resulted PDF document.

Empty Workitem attribute in Polarion document (tabular representation):



Excluded from resulted PDF document:





Empty Workitem attribute in Polarion document (non-tabular representation):

```
EL-191 - The password must fit the specified Requirements.

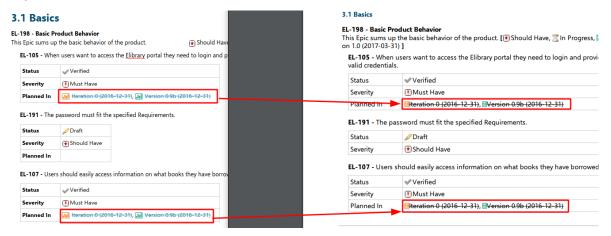
Draft, Should Have, has parent: EL-198 - Basic Product Behavior, implements: EL-148 - Password must contain at least one number, implements: EL-149 - Password must differ from the user name, implements: EL-150 - Password must contain at least 8 characters. [Planned In]
```

Also excluded from resulted PDF document:

```
EL-191 - The password must fit the specified Requirements. [  Draft,  Should Have, has parent:  EL-198 - Basic Product Behavior, implements:  EL-148 - Password must contain at least one number, implements:  EL-149 - Password must differ from the user name, implements:  EL-150 - Password must contain at least 8 characters ]
```

### 4.2.10 Cut local Polarion URLs

If you select this checkbox all anchors which link to local Polarion resources will be cut off leaving only text they contain:



#### 4.2.11 Mark referenced Workitems

If you select this checkbox, referenced Workitems will have special styling (dashes left hand side):



E-Library Product Specification Schweizerische Bundesbahnen

# 3 Product Backlog

Das System Concept Template funktioniert nur, wenn genau 1 WI vom Typ System vorhanden ist.

An drei Stellen im Dokument wird Wiki Content eingefügt, der z.B. aufruft:

#include\_macros("library/macros.documentSystemConcept")
#printSystemConceptChapterRegulations(\$document \$showlds)

Das führt derzeit zu einer Fehlermeldung:

Too many (2) workitems "system" are found. There shall be only 1 workitem "system" in LiveDoc.

Das Makro sollte überprüfen ob nur 1 System vom Subtyp "Under Consideration" existiert. Weitere Systeme vom Subtyp "similar/previous" sollten möglich sein.

Cross-Reference: Zweites System im Template vom Typ similar/previous

### 4.2.12 Specific higher level chapters

If you select this checkbox an input field will appear where you can specify which high-level chapters (as comma separated list of numbers) to be exported:

Specific higher level chapters	
1,3	
Cut empty chapters (any level)	

### 4.2.13 Custom styles of numbered lists

If you select this checkbox an input field will appear where you can override default styles of numbered lists in-lined in text. Shortcuts are used for simplicity:

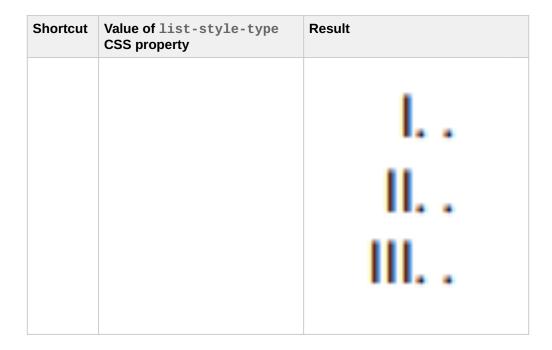


Shortcut	Value of list-style-type CSS property	Result
1	decimal	1 2 3
a	lower-alpha	a
		b
		C
i	lower-roman	



Shortcut	Value of list-style-type CSS property	Result
		i
		ii
		iii
		iv.
A	upper-alpha	A B
		C
I	upper-roman	

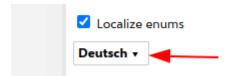




Default styles are 1ai. You can enter any combination, eg. a1iAI. Maximum depth of levels is 9. If you specify styles of less length, they will be repeated to form length of 9. For example if you enter 1ai resulted styles will be 1ai1ai1ai.

### 4.2.14 Localize enums

If you check this checkbox and select some non-English language from appeared dropbox:



Enumeration values which translations into specified language are provided in administration will be replaced by their translations in resulted PDF document.

Enumeration values in Polarion document:



As a result are replaced by their translations:

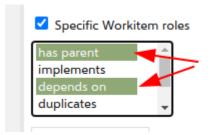


**EL-105** - When users want to access the Elibrary portal they need to login and provide valid credentials.



# 4.2.15 Specific Workitem roles

If you check this checkbox and select only certain roles of Workitem relations:



...then among all possible Linked Workitems:

**EL-105** - When users want to access the <u>Elibrary</u> portal they need to login and provide valid credentials.

Status	✓ Verified	
Severity	• Must Have	
Linked Work Items	has parent: 👔 EL-198 - Basic Product Behavior ,	
	implements: F EL-101 - User name must be validated when a new user account is created ,	
	implements: F EL-146 - User name may not contain spaces ,	
	implements: F EL-147 - Password must be validated when the user wants to change it ,	
	implements: F EL-151 - User name must contain at least one number ,	
	implements: F EL-152 - User name must be longer than 3 characters ,	
	is implemented by: 🔀 EL-18 - Failed: Login to the portal ,	
	blocks: 🕝 EL-217 - Dependent US ,	
	is verified by: FL-36 - Login to the portal	
Planned In	III Iteration 0 (2016-12-31), III Version 0.9b (2016-12-31)	

...will be taken only those which correspond selected roles (both direct and reverse directions):



EL-105 - When users want to access the Elibrary portal they need to login and provide valid credentials.

Status	✓ Verified	
Severity	Must Have	
Linked Work Items	has parent: EL-198 - Basic Product Behavior, implements: EL-101 - User name must be validated when a new user account is created, implements: EL-146 - User name may not contain spaces, implements: EL-147 - Password must be validated when the user wants to change it, implements: EL-151 - User name must contain at least one number,	
	implements: ☐ EL-152 - User name must be longer than 3 characters, is implemented by: ☐ EL-18 - Failed: Login to the portal, blocks: ☐ EL-217 - Dependent US, is verified by: ☐ EL-36 - Login to the portal	
Planned In	Iteration 0 (2016-12-31), IIII Version 0.9b (2016-12-31)	

And here is the resulted PDF document:

# **EL-105** - When users want to access the Elibrary portal they need to login and provide valid credentials.

Status	✓ Verified
Severity	• Must Have
Linked Work Items	has parent: 👔 EL-198 - Basic Product Behavior, blocks: 🕞 EL-217 - Dependent US
Planned In	⊞teration 0 (2016-12-31), ⊞Version 0.9b (2016-12-31)

# **5** Appendix

# 5.1 FAQs for CSS

## 5.1.1 reducing space between header and chapter title

```
h1 {
margin-top: 3em;
font-size: 1.2em;
page-break-after: avoid;
break-after: avoid;
}
--> lowering margin-top
```

# 5.1.2 page break before "heading 1"

```
h1 {
margin-top: 3em;
font-size: 1.2em;
page-break-after: avoid;
break-after: avoid;
}
```



--> adding break-before: page;

## 5.1.3 CSS for non printing elements

Some elements may be hidden for export to PDF. This can be achieved by applying CSS rules that set the elements' display to none:

```
#polarion-rp-parameters, #polarion-rp-page-script {
display: none;
}
```

### 5.2 other FAQs

### 5.2.1 my SVG images are not scaled for page width

Set the width explicitly.

## 5.2.2 generate PDFs of different variants

Weasyprint supports pdf/a-1b, pdf/a-2b, pdf/a-3b, pdf/a-4b, pdf/ua-1. This can be configured as parameter during call to Weasyprint (--pdf-variant <pdf-variant> where <pdf-variant> is one of the options above). By default a-2b is configured so the option is --pdf-variant pdf/a-2b.