

# Java PDF generator showcase

# Example Clause

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## Instructions

### NOTE

This section explains some concepts frequently required by AsciiDoc novices. Please use this file as a template for your own clauses.

## Headlines

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All headlines are marked by "=" signs. The top level in each each file starts with level 2 ("=="). Important: For whatever strange reason, headings in annexes are marked differently.

## Figures

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If you want to reference a figure by using a figure number, it is important to use the following syntax. The figure identifier for <<img\_mindMap>> is the first statement of the header. Please adapt the width as appropriate, but generally a width of 800 is good for landscape-shaped figures and 400 is good for portrait-shaped ones.

### *This is an example figure*

It is important that you use the same syntax for all images, otherwise the automatic numbering is corrupted!

## Tables

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Tables are easy to deal with as long as you keep them simple! To add a table, please use the following syntax.

### *GDP of selected countries in trillions*

Country	2018	2019	2020	2021	2022
<i>Germany</i>	<i>3.95 USD</i>	<i>3.86 USD</i>	<i>3.80 USD</i>	<i>4.22 USD</i>	<i>4.26 USD</i>
<i>France</i>	<i>2.78 USD</i>	<i>2.72 USD</i>	<i>2.60 USD</i>	<i>2.94 USD</i>	<i>2.96 USD</i>
<i>United Kingdom</i>	<i>2.86 USD</i>	<i>2.83 USD</i>	<i>2.71 USD</i>	<i>3.13 USD</i>	<i>3.19 USD</i>
<i>Italy</i>	<i>2.07 USD</i>	<i>2.00 USD</i>	<i>1.89 USD</i>	<i>2.10 USD</i>	<i>2.12 USD</i>
<i>Spain</i>	<i>1.43 USD</i>	<i>1.39 USD</i>	<i>1.28 USD</i>	<i>1.43 USD</i>	<i>1.45 USD</i>

### *Countries in Europe*

Country	Population	Size
<i>Monaco</i>	<i>36371</i>	<i>1.98</i>
<i>Gibraltar</i>	<i>29431</i>	<i>6.8</i>

The first line is used for referencing. You can reference <<table\_countries>> in your text. The only thing you should change in that line is the table id, which is "table\_countries" in this case. Please do not remove the "#", please do not change anything else in that line.

You can define the style and width of each column. In our example, the first column takes 50% of the entire width, the second and third column take 25% each. The total width of the table is 75% of the text width. The letters after the width percentage indicate if the column is e=emphasis, m=monospaced, a=asciidoc, s=strong. The d=default does not need to be set.

Cell alignment: If you need to align a column, you may indicate this by setting ^,<, or >. Examples:

- ^25m = centered, 25% width, monospaced.
- >25e = aligned right, 25% width, emphasised
- <25 = aligned left, 25% width, asciidoc

In any case, please make sure that your table fit on a piece of A4 or letter-size paper!!

## Recommended Asciidoc Environment

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We recommend to use <http://asciidoctor.org> and <http://asciidoctor.org/docs/convert-asciidoc-to-pdf/> in combination with the <https://atom.io> editor.

### Installation on MacOS and Linux

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- Please follow the steps on <https://asciidoctor.org/#installation>.
- Install the bibtex extension: **gem install asciidoctor-bibtex**

### Installation on Windows

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We have made best experiences with the following steps:

- Install ruby for windows: <https://rubyinstaller.org/downloads/>. If you experience any issues, the following link may help: <https://stackoverflow.com/questions/18908708/installing-ruby-gem-in-windows>
- Open command prompt and install two gems:

- Execute: "gem install asciidoctor"
- Execute: "gem install asciidoctor-bibtex"
- Text your installation
- Open a folder that contains your Engineering Report asciidoc source files, including the **er.adoc** file.
- Execute the following command: **asciidoctor -r asciidoctor-bibtex er.adoc**

## Using Asciidoctor with Atom

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In Atom, you should install the following packages:

- asciidoc-preview
- autocomplete-asciidoc
- language-asciidoc
- markdown-writer: requires changing of key-map to allow for keyboard shortcuts such as e.g. **bold**
- platformio-IDE-terminal

This environment allows you to use keyboard shortcuts, autocomplete, syntax highlighting and a rendered preview for asciidoc; and provides you an terminal window within the editor to convert your asciidoc to html and pdf.

## Asciidoc Conversion

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In order to achieve a uniform look-and-feel of all ERs in both HTML and PDF, we have provided a css and theme file. The following commands can be used to convert the ER:

**Command for PDF output:** `asciidoctor-pdf -r asciidoctor-bibtex -a pdf-stylesdir=resources -a pdf-style=ogc -a pdf-fontsdir=resources/fonts er.adoc`

**Command for HTML output:** `asciidoctor -r asciidoctor-bibtex -a linkcss -a stylesheet=rocket-panda.css -a stylesdir=./stylesheets er.adoc`

## Source Code

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You can add code snippets using the following syntax:

### *Code Example XML*

```
<section>
  <title>Section Title</title> <!--1-->
</section>
```

<1> This notation allows to reference particular sections within the code.

You can alternatively use line numbers to reference a specific section in your code.

### ***Code Example JSON***

```
{ "menu": {  
  "id": "file",  
  "value": "File",  
  "popup": {  
    "menuitem": [  
      { "value": "New", "onclick": "CreateNewDoc()" },  
      { "value": "Open", "onclick": "OpenDoc()" },  
      { "value": "Close", "onclick": "CloseDoc()" }  
    ]  
  }  
}}
```

As shown in line 2, the value of "id" is "File".

## **Asciidoc(tor) Syntax Help**

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Is available e.g. here: <http://asciidoctor.org/docs/>

## **Use of Citations**

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For citations that also have an associated URL, the URL should be inserted inline as in <https://www.ogc.org/>. An endnote citation should still also be included (just in case the link stops working in the future).

Please use the following syntax to insert citations anywhere in the text:

The hail-and-rainbow protocol can be initiated at five levels:

- 
- tertiary
- supernumerary
- supermassive
- apocalyptic

```
cite:[VanZyl2009]
```

or, if it is more than one citation that should be added at the same location, use

```
cite:[Pross2018,OGCTechTrends2018]
```

which will create links in the compiled HTML/PDF that look as follows: , of for the second example given above, it results in

Then you need to provide all citation information in the file `resources/bibtex-file.bib`. This file uses the bibtex file format, which is defined in full detail <http://www.bibtex.org/Format/>. The bibtex-style file shall remain untouched.

The conversion of **takes place at the time of asciidoc-to-pdf/html conversion and requires two things:**

- The definition of the **bibtex-file** and the **bibtex-style** attributes. This is done in this template in file `<<bibtexAttributes,er.adoc>>`. Please make sure that both files are available at their defined locations.

Examples of bibtex attributes as set in file `er.adoc`

```
:bibtex-file: resources/bibtex-file.bib
:bibtex-style: resources/lncs.csl
```

- Adding a flag to the asciidoctor conversion command

```
asciidoctor -r asciidoctor-bibtex er.adoc
```

A full conversion command could look as in the following example:

```
asciidoctor -r asciidoctor-bibtex -a linkcss -a stylesheet=rocket-panda.css -a stylesdir=./resources/stylesheets er.adoc
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For further information, please consult <https://github.com/asciidoctor/asciidoctor-bibtex>.

## Example Clause

### *Instructions*

#### **NOTE**

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## Figures

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Tables are easy to deal with as long as you keep them simple! To add a table, please use the following syntax.

*Countries in Europe*

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The first line is used for referencing. You can reference `<<table_countries>>` in your text. The only thing you should change in that line is the table id, which is "table\_countries" in this case. Please do not remove the "#", please do not change anything else in that line.

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You can add code snippets using the following syntax:

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<1> This notation allows to reference particular sections within the code.

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