

# Asciidoctor Diagram

*Supported Diagram Types*

brought to you with ♥ by barthel

version: 8562ad92

*This document describes and shows all diagram types provided by AsciiDoctor Diagram.*

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# Chapter 1. Introduction and goals

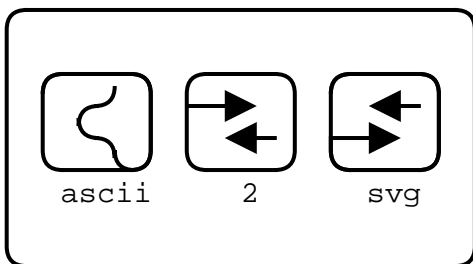
This document should give an overview over all supported diagram types provided by AsciiDoctor Diagram<sup>[DIAG]</sup>.

# Chapter 2. ASCIIToSVG

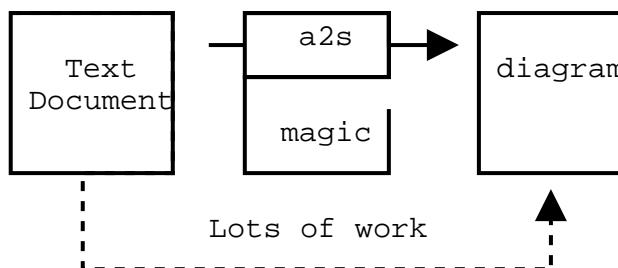
ASCIIToSVG parses ASCII art diagrams, attempting to convert them to an aesthetically pleasing SVG output.

— ASCIIToSVG, <https://github.com/asciitosvg/asciitosvg>

## 2.1. Internal diagram source



## 2.2. External diagram source file



# Chapter 3. Barcodes

The barcode extension provides barcode rendering. Barcode macros can be specified using blocks, inline macros or block macros.

— AsciiDoctor Diagrams, <https://docs.asciidoctor.org/diagram-extension/latest/#barcode>

## 3.1. bookland (ISBN)



## 3.2. codabar



## 3.3. code25

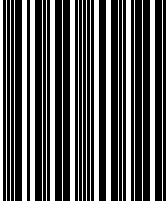


## 3.4. code25iata

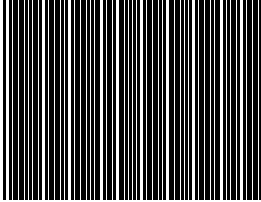


## 3.5. code25interleaved





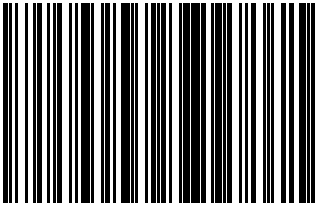
### **3.6. code39**



### **3.7. code93**



### **3.8. code128**



### **3.9. code128a**



### **3.10. code128b**



### 3.11. code128c



### 3.12. ean8



### 3.13. ean13



### 3.14. gs1\_128

No valid data because of <FNC1>.

### 3.15. qrcode



### 3.16. upca



# Chapter 4. Blockdiag

*blockdiag* and its family generate diagram images from simple text files.

— Takeshi KOMIYA, <http://blockdiag.com/en/index.html>

*blockdiag* supports many types of diagrams like

- activity diagram (w/ [actdiag](#)) and
- block diagram (w/ [blockdiag](#)),
- logical network diagram (w/ [nwdiag](#)).
- sequence diagram (w/ [seqdiag](#)),

All these tools layouts diagram elements automatically and generates beautiful diagram images from simple text format (similar to graphviz's DOT format).

## 4.1. actdiag

*actdiag* is a simple activity-diagram image generator and generates activity-diagram images from .diag files (similar to graphviz's DOT files).

— Takeshi KOMIYA, <http://blockdiag.com/en/actdiag/index.html>

### 4.1.1. Internal diagram source



#### 4.1.2. External diagram source file



## 4.2. blockdiag

*blockdiag* generates block-diagram images from .diag files (similar to graphviz's DOT files).

— Takeshi KOMIYA, <http://blockdiag.com/en/blockdiag/index.html>

### 4.2.1. Internal diagram source



#### 4.2.2. External diagram source file



### 4.3. nwdiag

*nwdiag* generates network-diagram images from .diag files (similar to graphviz's DOT files).

— Takeshi KOMIYA, <http://blockdiag.com/en/nwdiag/index.html>

#### 4.3.1. Internal diagram source



And, **nwdiag** package includes more scripts called **rackdiag** and **packetdiag**.

### 4.3.2. rackdiag

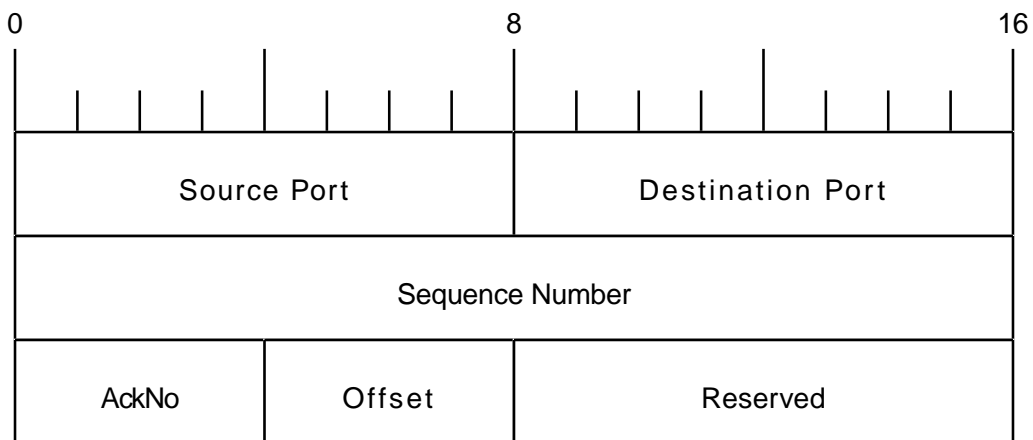
**rackdiag** generates rack-structure diagram images:



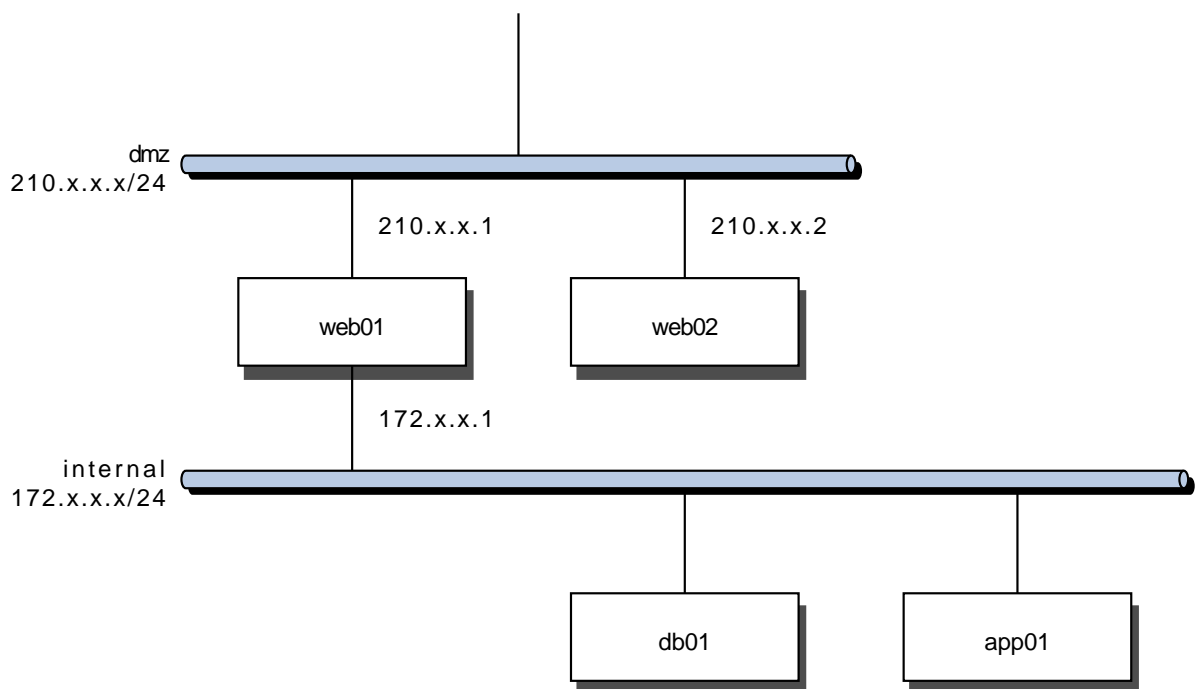


### 4.3.3. packetdiag

**packetdiag** generates packet header diagram images:



### 4.3.4. External diagram source file

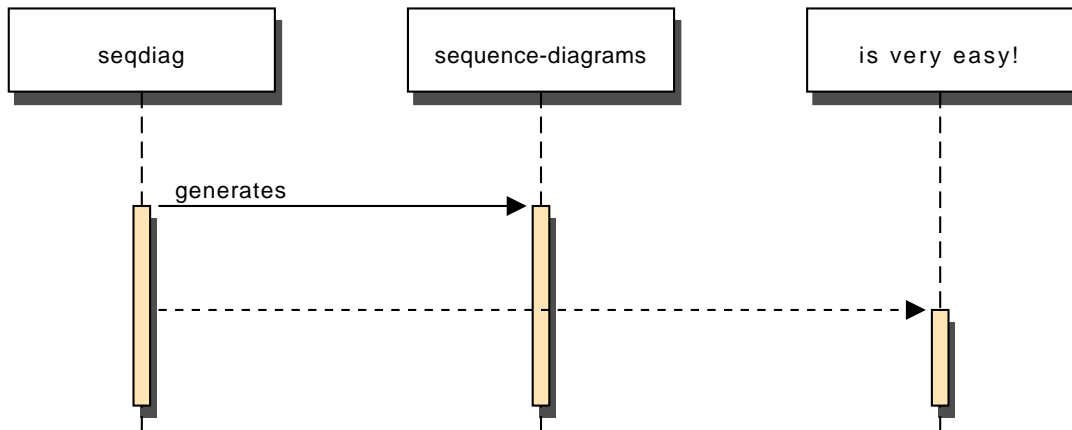


## 4.4. seqdiag

*seqdiag* generates sequence-diagram images from *.diag* files (similar to graphviz's DOT files).

— Takeshi KOMIYA, <http://blockdiag.com/en/seqdiag/index.html>

### 4.4.1. Internal diagram source



### 4.4.2. External diagram source file



# Chapter 5. BPMN

## BPMN everywhere, for everyone

Create, embed and extend BPMN diagrams.

— bpmn.io, <https://bpmn.io/toolkit/bpmn-js/>

## 5.1. Internal diagram source



## 5.2. External diagram source file

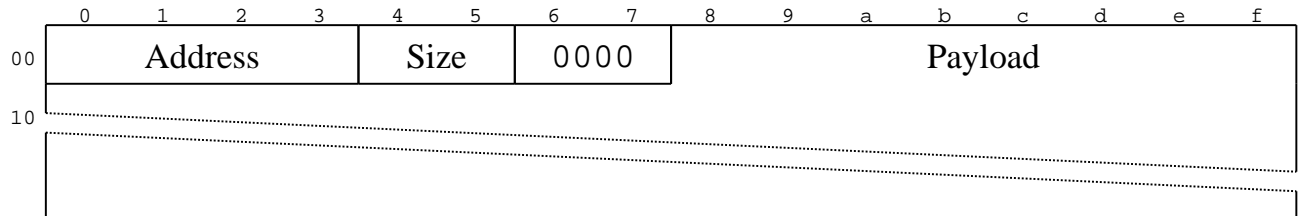


## Chapter 6. Bytefield

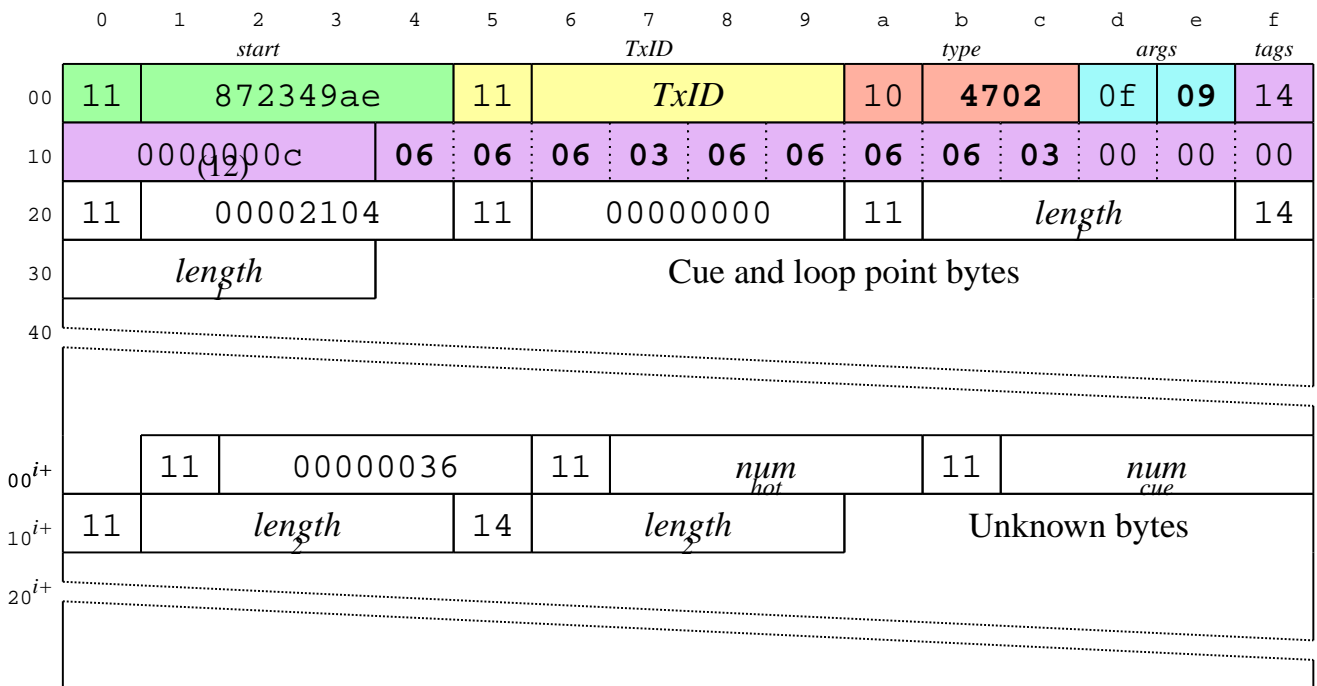
## Generating byte field diagrams.

— bytefield, <https://github.com/Deep-Symmetry/bytefield-svg>

## 6.1. Internal diagram source



## 6.2. External diagram source file



# Chapter 7. Diagrams as (Python) Code

## Diagrams — Diagram as Code

Diagrams lets you draw the cloud system architecture in Python code.

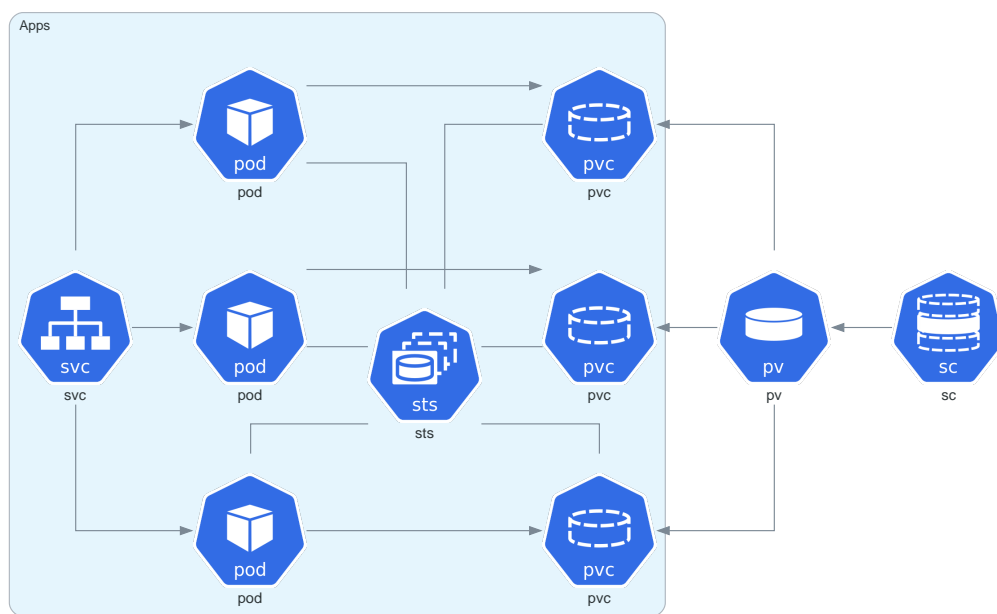
It was born for prototyping a new system architecture without any design tools. You can also describe or visualize the existing system architecture as well.

— Diagrams, <https://diagrams.mingrammer.com/>

## 7.1. Internal diagram source



## 7.2. External diagram source file



Stateful Architecture

# Chapter 8. Ditaa

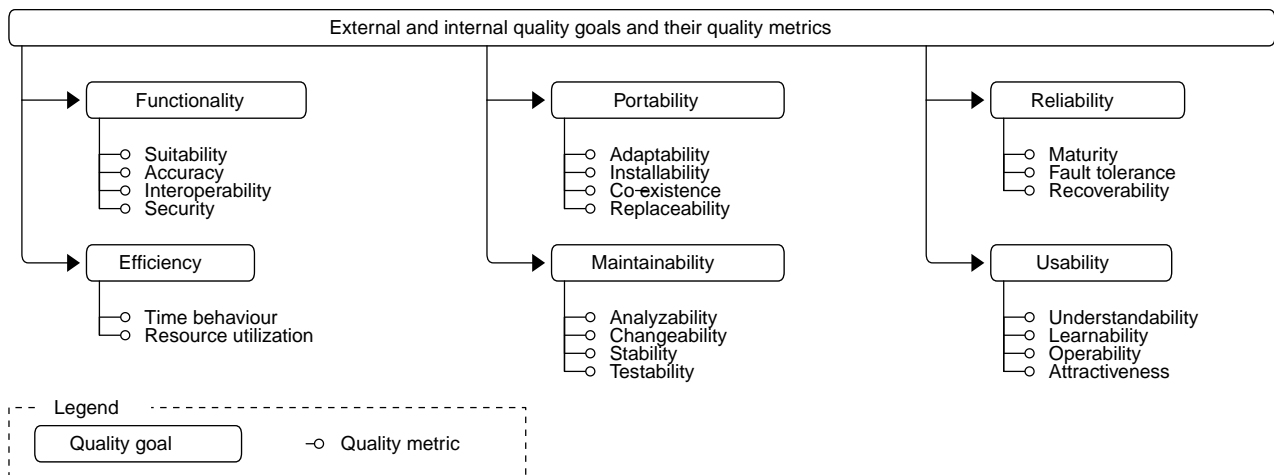
Ditaa is a small command-line utility written in Java, that can convert diagrams drawn using ascii art into proper bitmap graphics.

— ditaa, <http://ditaa.sourceforge.net/>

## 8.1. Internal diagram source



## 8.2. External diagram source file



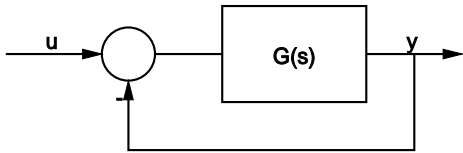


# Chapter 9. Dpic

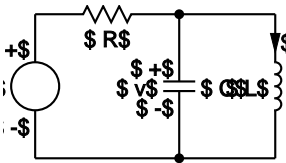
Dpic is an implementation of the pic "little language" for creating line drawings and illustrations for documents, web pages, and other uses.

— J. D. Aplevich, <https://gitlab.com/aplevich/dpic>

## 9.1. Internal diagram source



## 9.2. External diagram source file



# Chapter 10. ERD

Translates a plain text description of a relational database schema to a graphical entity-relationship diagram.

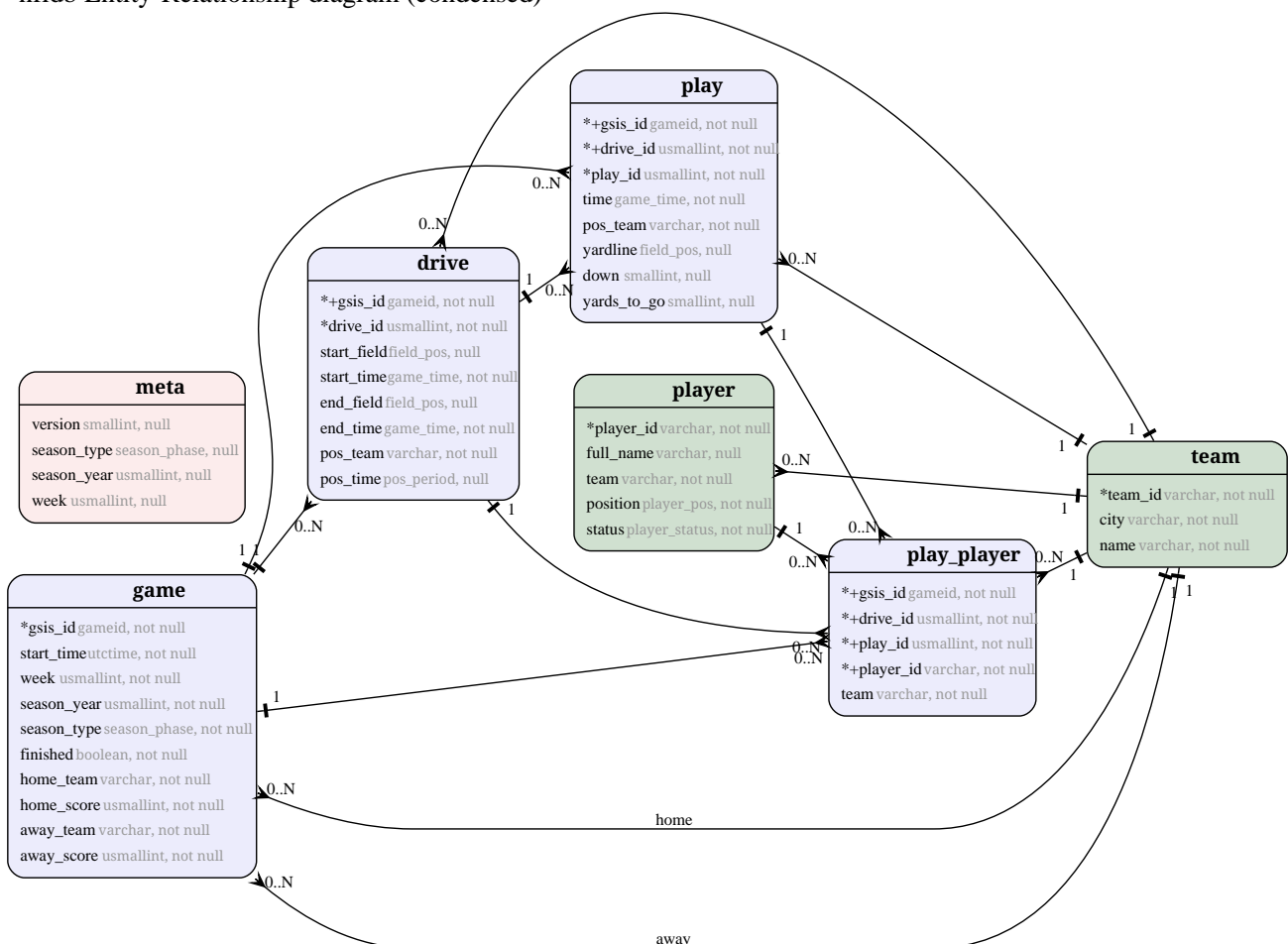
— erd, <https://github.com/kaishuu0123/erd-go>

## 10.1. Internal diagram source



## 10.2. External diagram source file

nfldb Entity-Relationship diagram (condensed)



# Chapter 11. Gnuplot

Gnuplot is a portable command-line driven graphing utility originally created to allow scientists and students to visualize mathematical functions and data interactively, but has grown to support many non-interactive uses such as web scripting.

— Gnuplot, <http://gnuplot.info/>

## 11.1. Internal diagram source

### Simple Plots



## 11.2. External diagram source file

# Mandelbrot function

`mand({0,0},compl(x,y),30)` —



# Chapter 12. graphviz

Graphviz is open source graph visualization software. Graph visualization is a way of representing structural information as diagrams of abstract graphs and networks. It has important applications in networking, bioinformatics, software engineering, database and web design, machine learning, and in visual interfaces for other technical domains.

— graphviz, <https://graphviz.gitlab.io/>

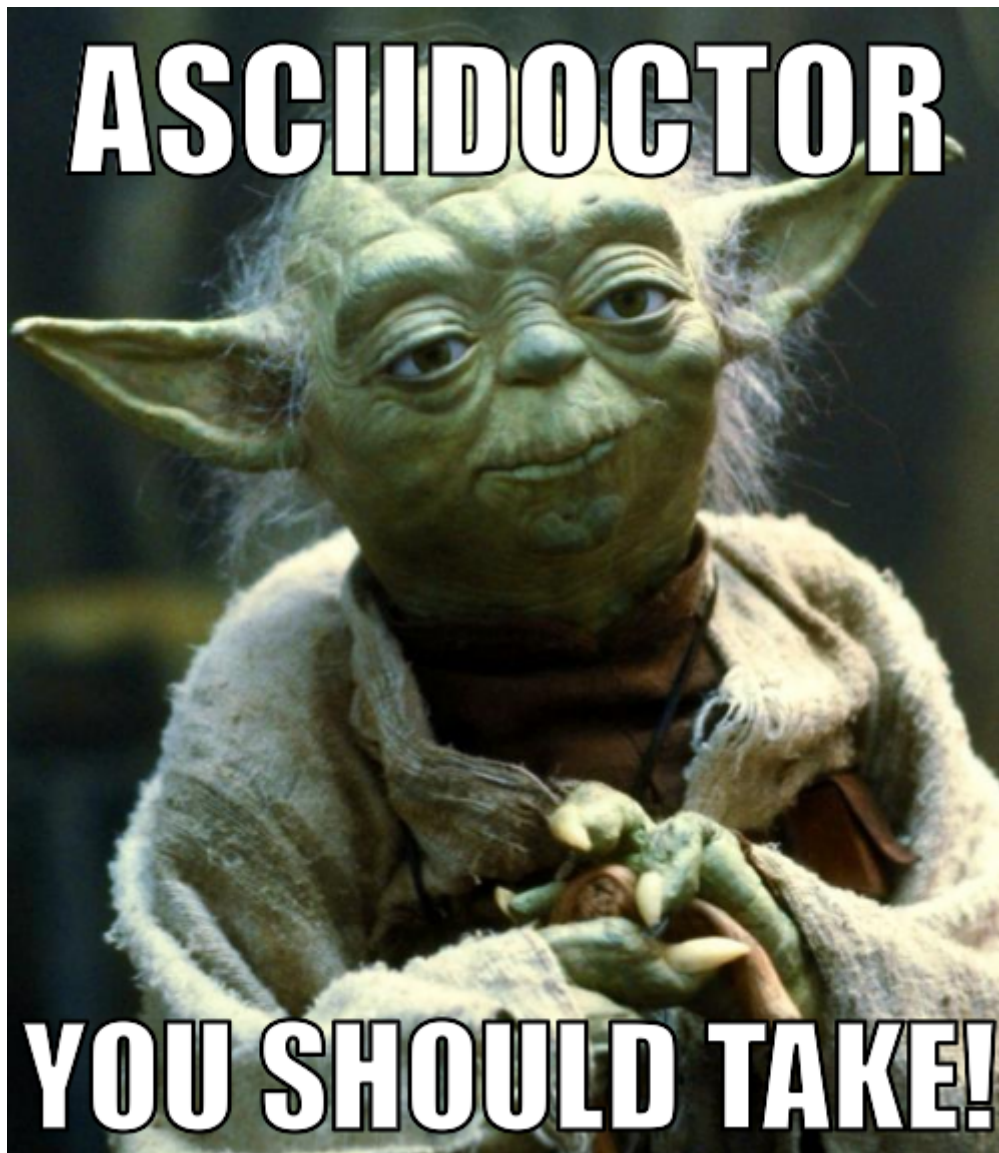
## 12.1. Internal diagram source



## 12.2. External diagram source file



## Chapter 13. meme



# Chapter 14. mermaid

I had a forward slash defined in the label of a diagram node.

```
graph LR
  M[Main\n/]
```

This could be rendered successfully by other mermaid engines, like the one that renders the preview in the vscode plugin. But caused `mmdc` to crash with

```
Error: Evaluation failed: Error: Diagram error not found.
    at pptr://__puppeteer_evaluation_script__:45:17
    at ExecutionContext._ExecutionContext_evaluate (...)
    at process.processTicksAndRejections (...)
    at async ExecutionContext.evaluate (...)
    at async CDPJSHandle.evaluate (...)
    at async CDPElementHandle.$eval (...)
    at async renderMermaid (...)
    at async parseMMD (...)
    at async run (...)
    at async cli (...)
```

However, as soon as I add double quotes

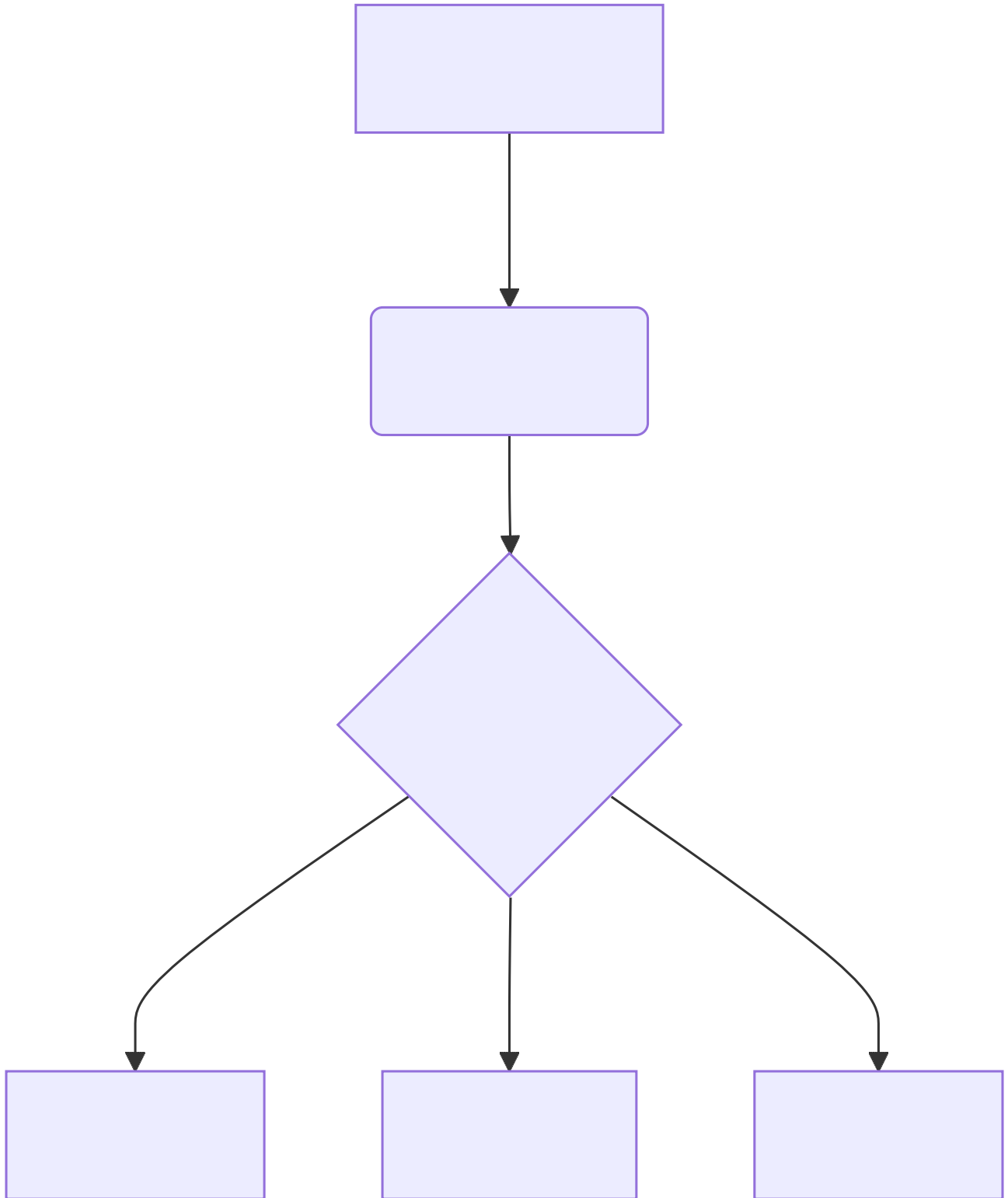
```
graph LR
  M["Main\n/"]
```

everything works fine. So this is rather an issue to handle in `mermaid-js/mermaid-cli` (if at all).

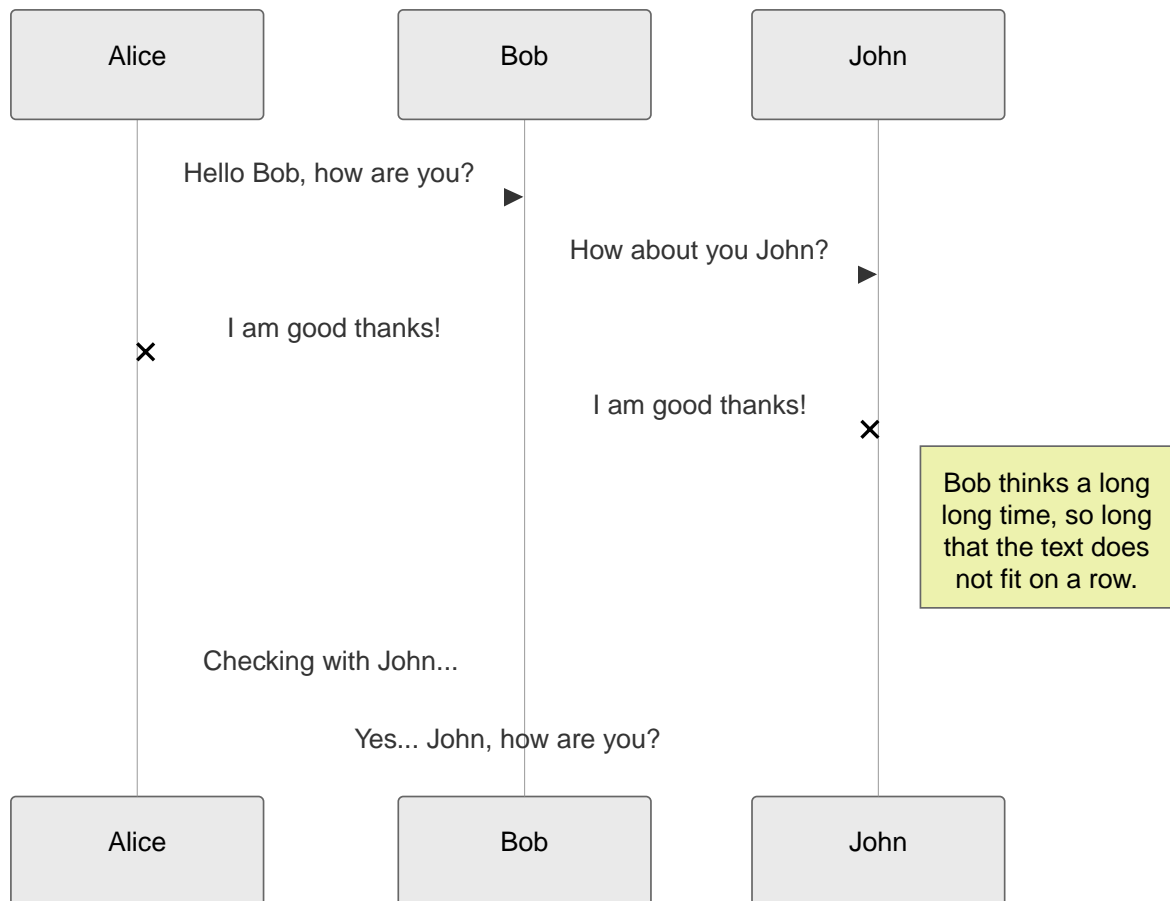
— gibso (@github), <https://github.com/barthel/docker-asciidoctor/pull/3>

## 14.1. Internal diagram source





## 14.2. External diagram source file



# Chapter 15. mscgen

*Mscgen* is a small program that parses Message Sequence Chart descriptions and produces PNG, SVG, EPS or server side image maps (ismaps) as the output. Message Sequence Charts (MSCs) are a way of representing entities and interactions over some time period and are often used in combination with SDL.

— mscgen, <http://www.mcternan.me.uk/mscgen/>

## 15.1. Internal diagram source



The `mscgen` backend is currently not supported.

## 15.2. External diagram source file



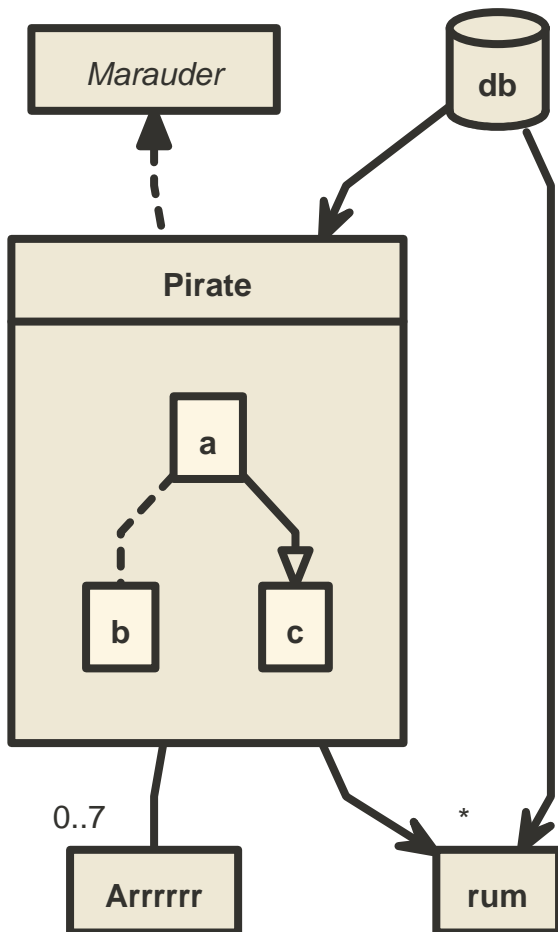
The `mscgen` backend is currently not supported.

# Chapter 16. Nomnoml

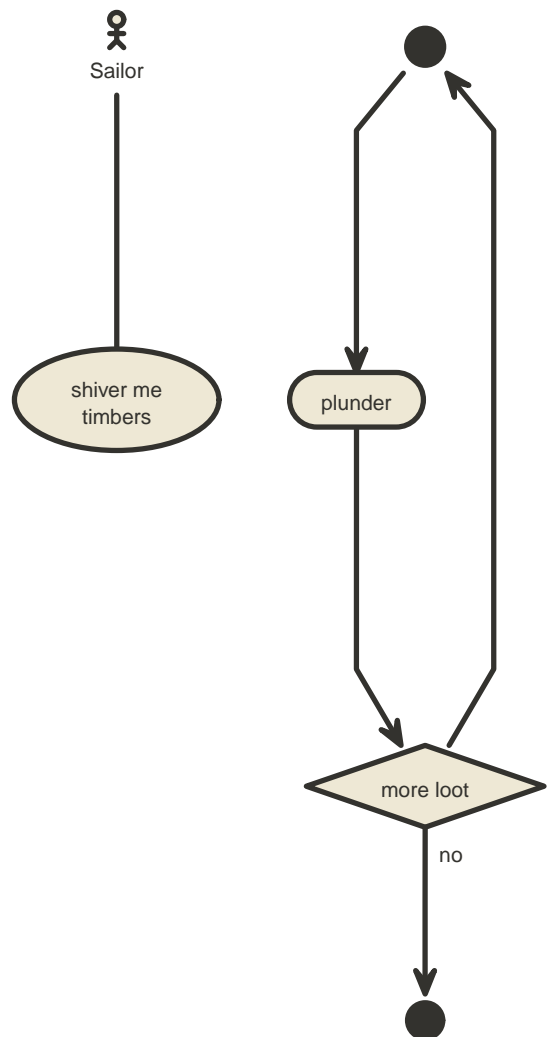
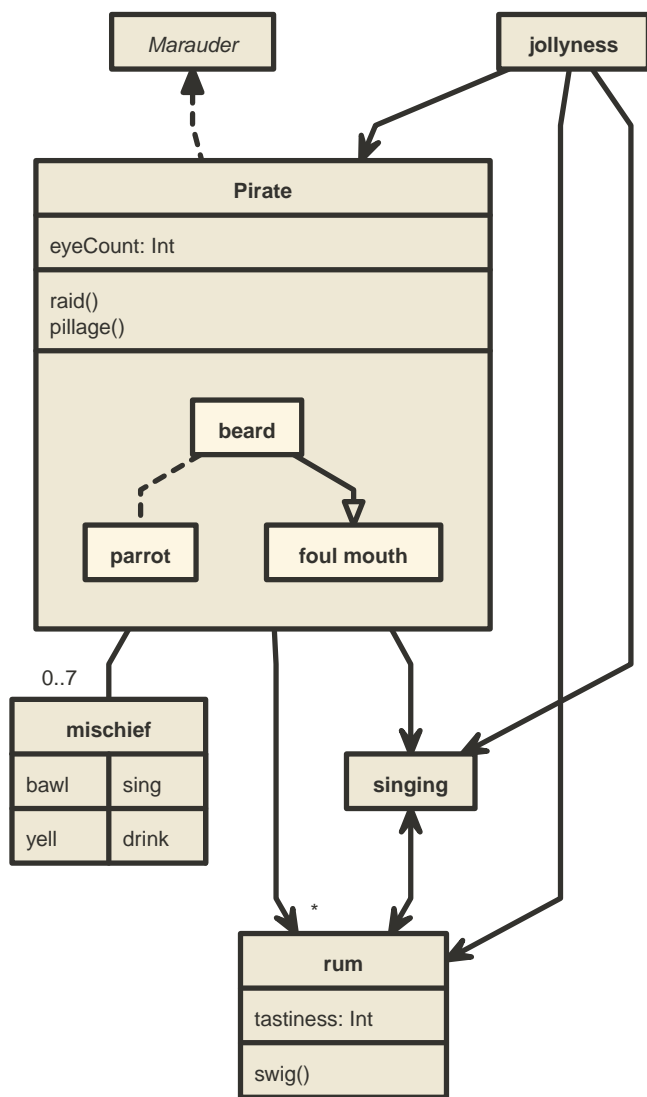
Nomnoml is a tool for drawing UML diagrams based on a simple syntax. It tries to keep its syntax visually as close as possible to the generated UML diagram without resorting to ASCII drawings.

— Daniel Kallin, <https://github.com/skanaar/nomnoml>

## 16.1. Internal diagram source



## 16.2. External diagram source file

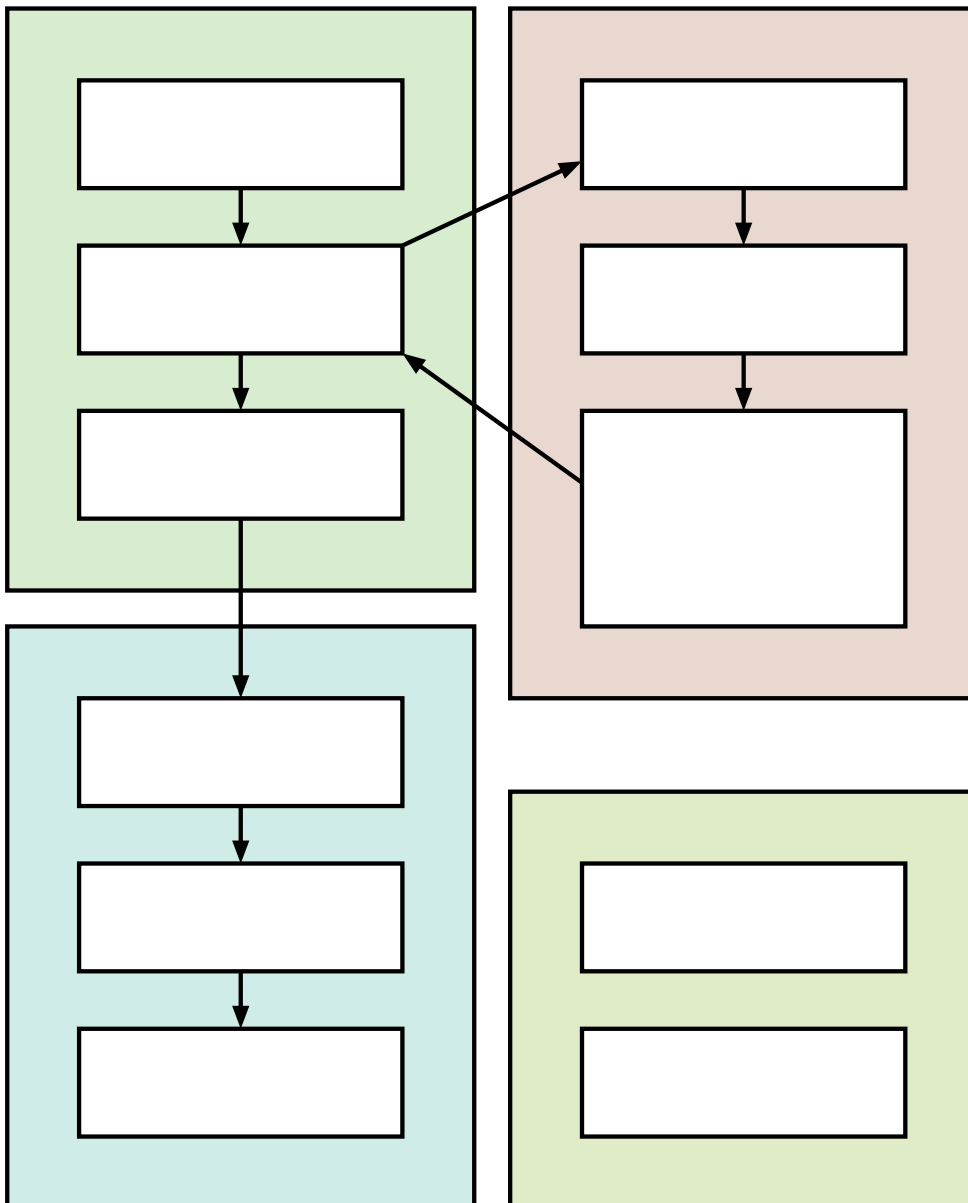


# Chapter 17. Pikchr

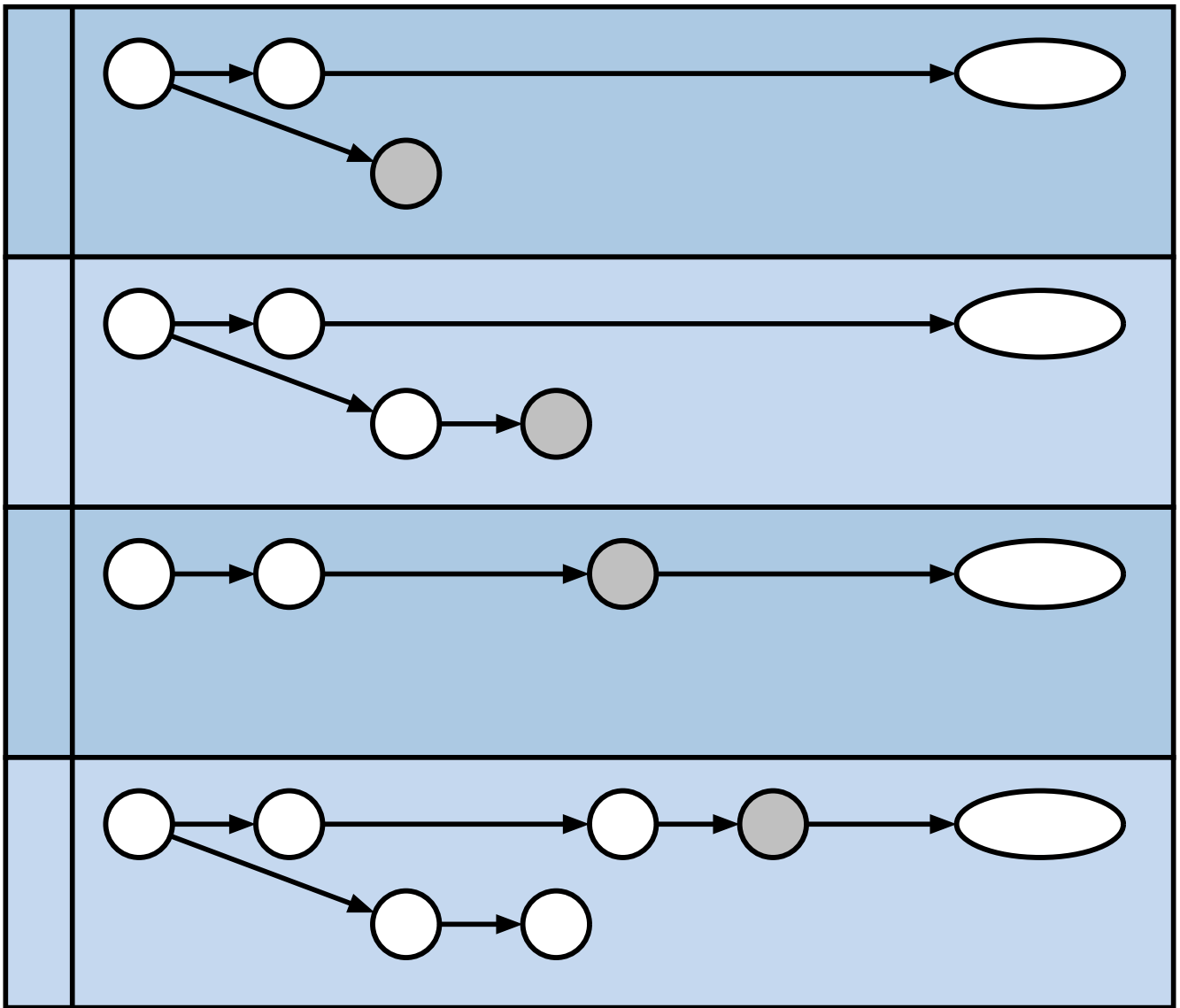
Pikchr (pronounced "picture") is a PIC-like markup language for diagrams in technical documentation. Pikchr is designed to be embedded in fenced code blocks of Markdown or similar mechanisms of other documentation markup languages.

— Pikchr, <https://pikchr.org/home/doc/trunk/homepage.md>

## 17.1. Internal diagram source



## 17.2. External diagram source file



# Chapter 18. PlantUML

*PlantUML* is a component that allows to quickly write :

- Sequence diagram
- Usecase diagram
- Class diagram
- Activity diagram (here is the legacy syntax)
- Component diagram
- State diagram
- Object diagram
- Deployment diagram
- Timing diagram

The following non-UML diagrams are also supported:

- Network
- Wireframe graphical interface
- Archimate diagram
- Specification and Description Language (SDL)
- Dita diagram
- Gantt diagram
- MindMap diagram
- Work Breakdown Structure diagram
- Mathematic with AsciiMath or JLaTeXMath notation
- Entity Relationship diagram

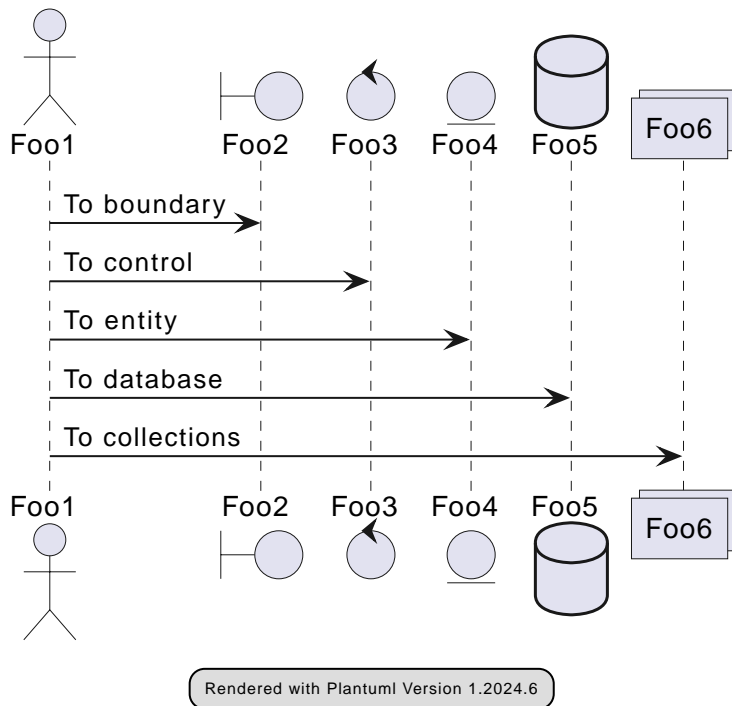
Diagrams are defined using a simple and intuitive language.

— PlantUML, <https://plantuml.com/>

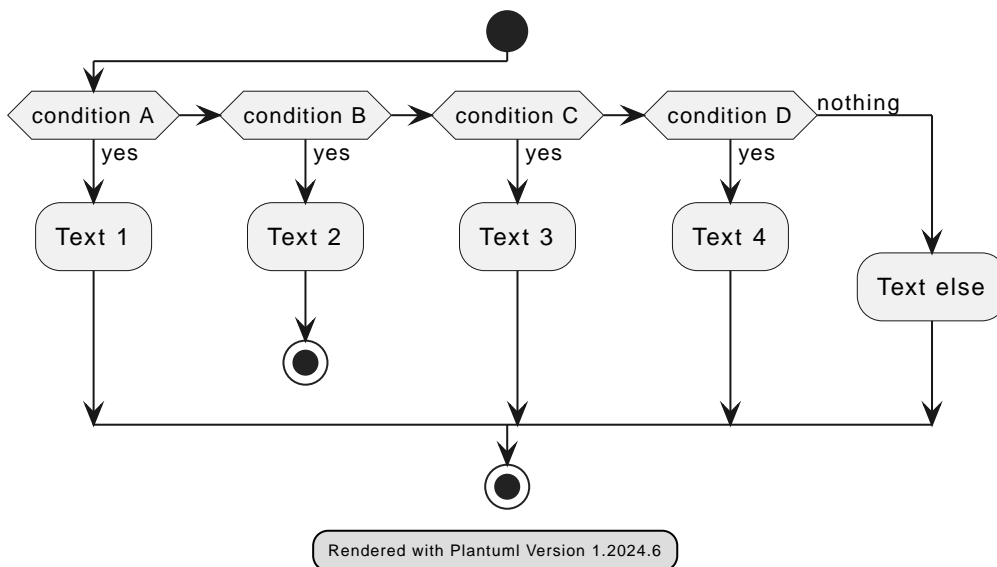
## 18.1. PlantUML

### 18.1.1. Internal diagram source





### 18.1.2. External diagram source file



## 18.2. Salt

*Salt* is a subproject included in PlantUML that may help you to design graphical interface.

— PlantUML, <https://plantuml.com/salt>

### 18.2.1. Internal diagram source

Just plain text

This is my button

☐ Unchecked radio

☒ Checked radio

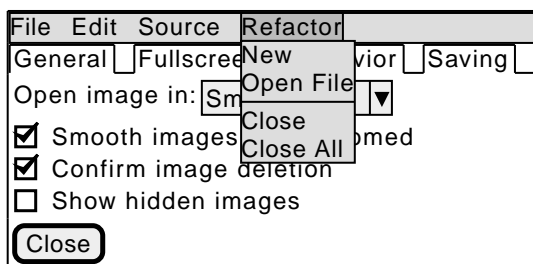
☐ Unchecked box

☒ Checked box

Enter text here

This is a droplist

## 18.2.2. External diagram source file



# Chapter 19. state-machine-cat (smcat)

## State Machine cat

write beautiful state charts

— Sander Verweij, <https://github.com/sverweij/state-machine-cat>

## 19.1. Internal diagram source



## 19.2. External diagram source file

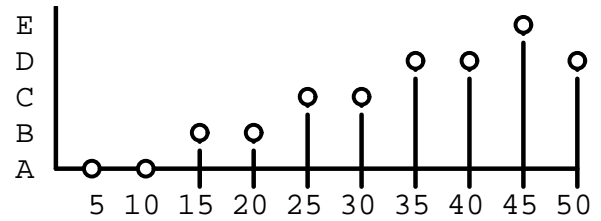
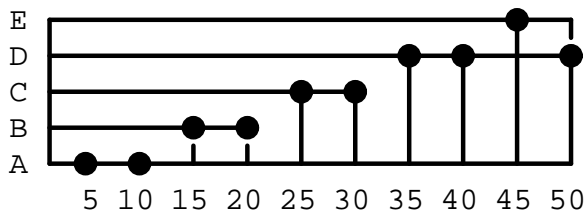


# Chapter 20. Svgbob

Svgbob can create a nice graphical representation of your text diagrams.

— Jovansonlee Cesar, <https://github.com/ivanceras/svgbob/>

## 20.1. Internal diagram source



## 20.2. External diagram source file

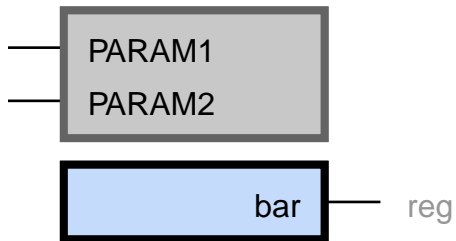


# Chapter 21. Symbolator

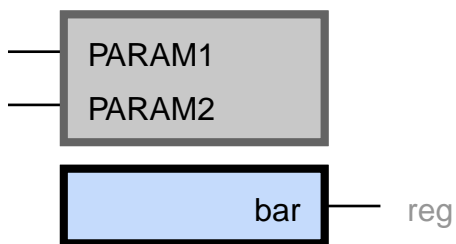
Symbolator is a component diagramming tool for VHDL and Verilog. It will parse HDL source files, extract components or modules and render them as an image.

— Kevin Thibedeau, <https://kevinpt.github.io/symbolator>

## 21.1. Internal diagram source



## 21.2. External diagram source file



# Chapter 22. Syntrax

Syntrax is a railroad diagram generator. It creates a visual illustration of the grammar used for programming languages.

— Kevin Thibedeau, <https://kevinpt.github.io/syntrax>

## 22.1. Internal diagram source



## 22.2. External diagram source file





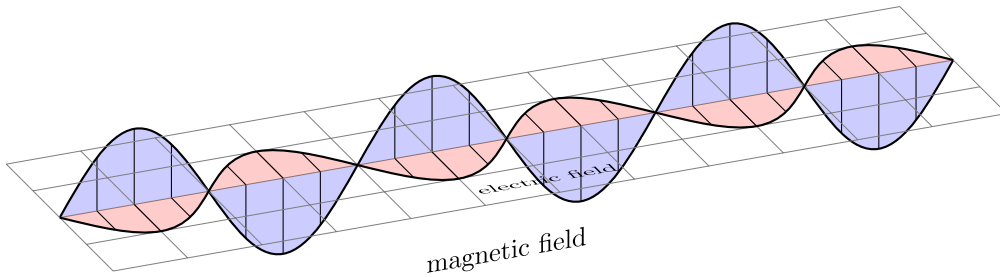
# Chapter 23. Tikz

“What is TikZ?”

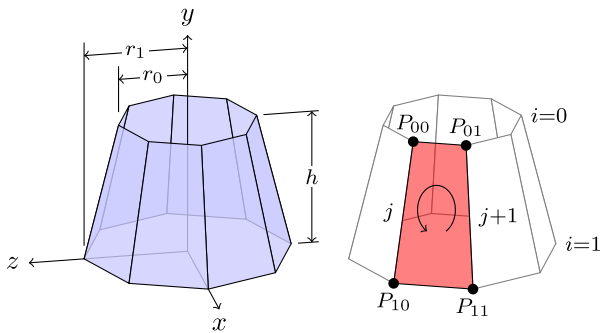
Basically, it just defines a number of TEX commands that draw graphics.

— Till Tantau, <https://pgf-tikz.github.io/pgf/pgfmanual.pdf>

## 23.1. Internal diagram source



## 23.2. External diagram source file



# Chapter 24. UMLet

UMLet is a free, open-source UML tool with a simple user interface: draw UML diagrams fast, create sequence and activity diagrams from plain text, share via exports to eps, pdf, jpg, svg, and clipboard, and develop new, custom UML elements.

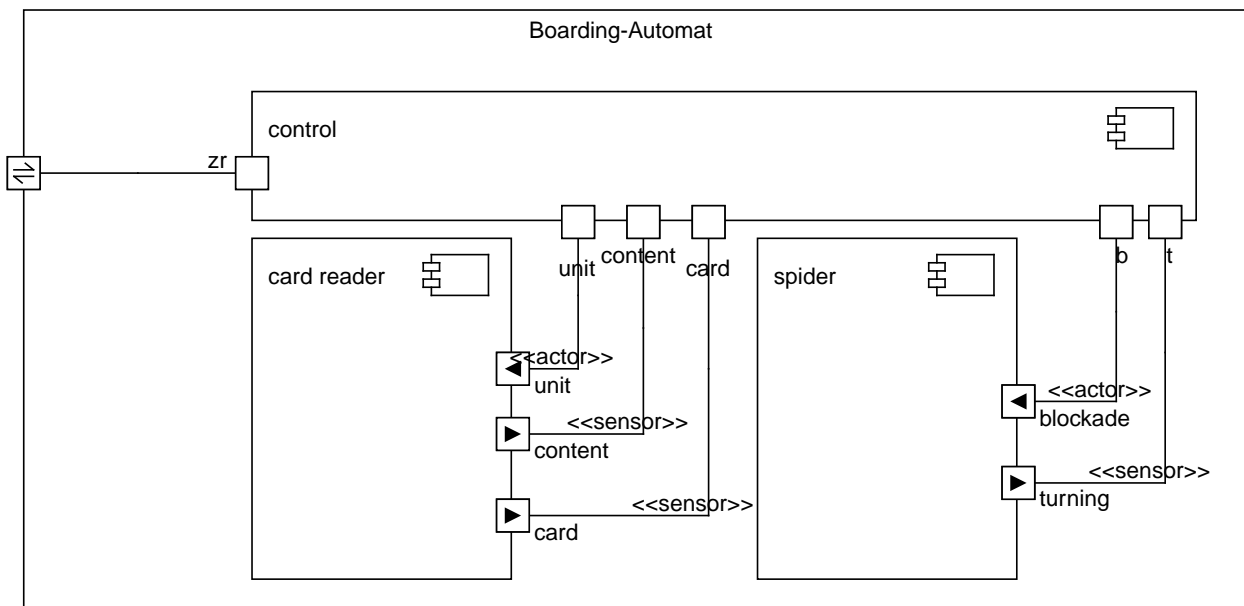
— The UMLet Team, <https://www.umlet.com>

## 24.1. Internal diagram source



The **umlet** backend currently does not support internal diagram sources.

## 24.2. External diagram source file

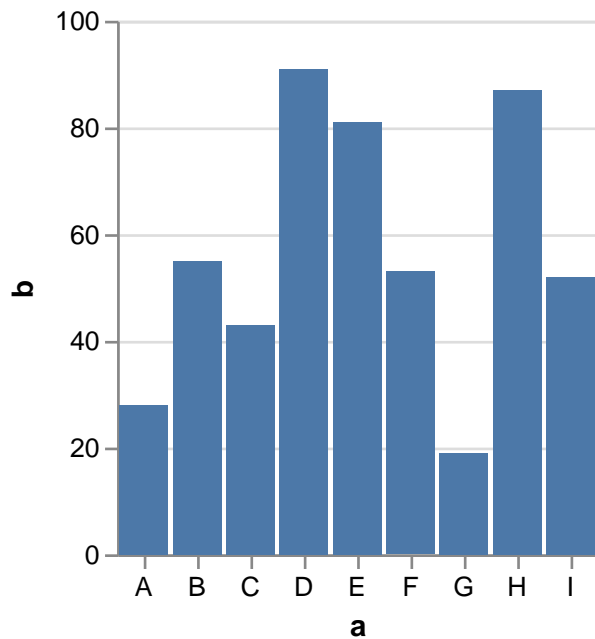


# Chapter 25. Vega Lite

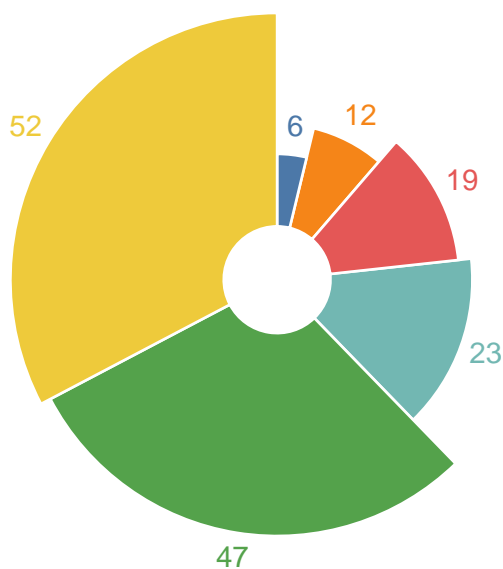
Vega-Lite is a high-level grammar of interactive graphics. It provides a concise, declarative JSON syntax to create an expressive range of visualizations for data analysis and presentation.

— Vega, <https://vega.github.io/vega-lite/>

## 25.1. Internal diagram source



## 25.2. External diagram source file



# Chapter 26. Vega

Vega is a visualization grammar, a declarative language for creating, saving, and sharing interactive visualization designs. With Vega, you can describe the visual appearance and interactive behavior of a visualization in a JSON format, and generate web-based views using Canvas or SVG.

— Vega, <https://vega.github.io/vega/>

## 26.1. Internal diagram source



## 26.2. External diagram source file



# Chapter 27. WaveDrom

WaveDrom draws your Timing Diagram or Waveform from simple textual description.

— WaveDrom, <https://wavedrom.com/>

## 27.1. Internal diagram source



## 27.2. External diagram source file

|    |    |       |    |           |       |    |    |              |     |    |    |       |                                    |    |  |               |  |  |
|----|----|-------|----|-----------|-------|----|----|--------------|-----|----|----|-------|------------------------------------|----|--|---------------|--|--|
| 31 | 29 | 28    | 26 | 25        | 24    | 20 | 19 | 15           | 14  | 12 | 11 | 7     | 6                                  | 0  |  |               |  |  |
| nf |    | mop   |    | vm        | lumop |    |    |              | rs1 |    |    | width |                                    | vd |  | 0 0 0 0 1 1 1 |  |  |
|    |    | 0 0 0 |    | 0 0 0 0 0 |       |    |    | base address |     |    |    |       | destination of load                |    |  |               |  |  |
|    |    | 0 0 0 |    | 1 0 0 0 0 |       |    |    |              |     |    |    |       | VLxU,VLE zero-extended             |    |  |               |  |  |
|    |    | 1 0 0 |    | 0 0 0 0 0 |       |    |    |              |     |    |    |       | VLxU,VLE zero-extended, fault-only |    |  |               |  |  |
|    |    | 1 0 0 |    | 1 0 0 0 0 |       |    |    |              |     |    |    |       | VLxU sign-extended                 |    |  |               |  |  |
|    |    |       |    |           |       |    |    |              |     |    |    |       | VLxU sign-extended, fault-only-f   |    |  |               |  |  |

# Bibliography

- [DIAG] AsciiDoctor Project (en): *AsciiDoctor Diagram*. <https://asciidoctor.org/docs/asciidoctor-diagram/> (Retrieved March 29, 2020)