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# jts\_erd Documentation

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jts\_erd creates an ERD (entity-relationship diagram).  
It requires an extension of a json-table-schema as input.  
Depends on pygraphviz.

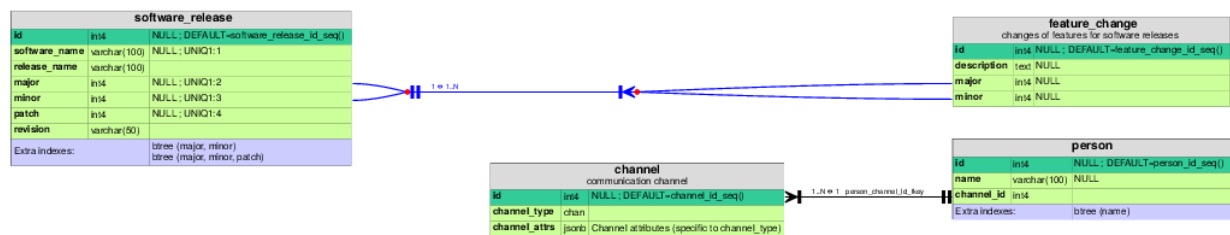


## INTRODUCTION

For now please look at these slides: 20150927\_talk.pdf

**TL;DR** Generate an entity-relationship diagram for a schema given as [JSON-table-schema](#).

Example of a resulting ERD:







## INSTALLATION

Install graphviz and build tools:

```
aptitude install pkg-config build-essential graphviz libgraphviz-dev
```

You will need at least PyGraphviz 1.3.1 when using python3.

Currently (as of version 1.3.1 of pygraphviz) on at least debian and ubuntu you need special install options due to a bug (<https://github.com/pygraphviz/pygraphviz/issues/71>):

```
pip3 install pygraphviz --install-option="--include-path=/usr/include/graphviz" --  
→install-option="--library-path=/usr/lib/graphviz/"
```

(gcc still throws a warning.)

Prepare a virtualenv with python3:

```
mkdir jts_erd  
cd jts_erd  
virtualenv -p python3  
source bin/activate
```

In the virtualenv root dir:

```
git clone https://github.com/iburadempa/jts_erd.git
```



## USAGE EXAMPLES

The main function `jts_erd.get_graph()` creates a graphviz graph from a (JSON-decoded) JSON-table-schema. An accompanying function, `jts_erd.save_svg()`, renders a graph in SVG format and saves it.

For examples look at the examples directory, [https://github.com/iburadempa/jts\\_erd/tree/master/examples](https://github.com/iburadempa/jts_erd/tree/master/examples)



## 4.1 jts\_erd

Generate an entity-relationship diagram from an extended JSON table schema.

*JSON table schema* is a simple schema for describing the structure of tabular data. It can be extended to allow for a comprehensive representation of an SQL relational database schema.

Starting from such a description this python module generates visualizations of the database schema using *graphviz* via *PyGraphviz*.

```
jts_erd.jts_erd.get_graph(json_table_schema, **options)
```

Create and return a graph from the given *json\_table\_schema*.

All keys from *options\_defaults* are allowed in *kwargs*.

```
jts_erd.jts_erd.options_defaults = {'bgcolor_indexes': '#ccccff',  
'default_namespace_name': 'public', 'display_columns': True, 'display_crowfoots':  
True, 'display_indexes': True, 'display_tooltips': True, 'edge_thickness': 1.0,  
'fontname': 'Helvetica', 'fontsize': 8, 'fontsize_label': 6, 'fontsize_title': 10,  
'html_color_default': '#ccff99', 'html_color_header': 'lightgrey',  
'html_color_header_for_table': {}, 'html_color_highlight': '#33cc99',  
'omit_isolated_tables': False, 'rankdir': 'LR', 'table_comment_wrap_width': 70}
```

Options and their default values.

Options:

- **html\_color\_header**
- **html\_color\_header\_for\_table**
- **html\_color\_default**
- **html\_color\_highlight**
- **fontname**
- **fontsize**
- **fontsize\_title**
- **fontsize\_label**
- **bgcolor\_indexes**
- **rankdir**: 'LR' or 'RL'; whether dependent tables appear on the right (left) hand side
- **edge\_thickness**
- **display\_columns**: bool

- **display\_indexes**: bool
- **display\_crowfoots**: bool
- **display\_tooltips**: bool
- **omit\_isolated\_tables**: bool
- **default\_namespace\_name**: string

`jts_erd.jts_erd.save_svg(json_database_schema, filepath, **options)`

Write an ERD in SVG format for a database to a file.

*json\_database\_schema* must be compatible with what `pg_jts` produces. *filepath* must end in `‘.svg’`.

Source: [https://github.com/iburadempa/jts\\_erd/](https://github.com/iburadempa/jts_erd/)

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