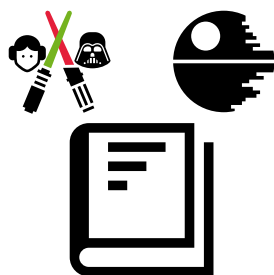


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# galactic installation guide

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0.4.0

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### 1 Introduction

*py-galactic* is a python package for studying formal concept analysis.



### 2 Install py-galactic

#### 2.1 Prebuilt packages

##### 2.1.1 Ubuntu

Add a new source for packages:

```
$ echo "deb [trusted=yes] http://galactic.univ-lr.fr/debian ./" |
sudo tee /etc/apt/sources.list.d/galactic.list > /dev/null
```

Update the packages:

```
$ sudo apt update
```

Install 'galactic':

```
$ sudo apt install galactic
```

The galactic package has been installed into `/opt/galactic` and shortcuts to applications:

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- galactic-laser-ui
- galactic-laser-bin
- galactic-ruler-ui
- galactic-ruler-bin
- galactic-stats

have been created in `/usr/bin`.

## 2.2 Development packages

### 2.2.1 Prerequisite

*py-galactic* requires

- [python >= 3.6](#), a programming language that comes pre-installed on linux and Mac OS X, and which is available [on Windows](#);
- [PyGObject](#), which provides bindings for [GObject](#) based libraries such as GTK and many more;
- [graphviz](#), which is a graph visualization software.

#### 2.2.1.1 Ubuntu

Install the [PyGObject](#) binding for [GObject](#) and [graphviz](#).

```
# apt install python3-gi python3-gi-cairo gir1.2-gtk-3.0
# apt install libgraphviz-dev
```

Eventually export the installed python packages using the special variable `PYTHONPATH`

If you are using *python3.7* on linux, you have to add symbolic links for the [GObject](#) bindings:

```
# cd /usr/lib/python3/dist-packages/gi/
# sudo ln -s \
#     _gi-cairo.cpython-36m-x86_64-linux-gnu.so \
#     _gi-cairo.cpython-37m-x86_64-linux-gnu.so
# sudo ln -s \
#     _gi.cpython-36m-x86_64-linux-gnu.so \
#     _gi.cpython-37m-x86_64-linux-gnu.so
```

#### 2.2.1.2 macOS

- install [python >= 3.6](#) [on macOS](#)
- install [homebrew](#)
- install the [PyGObject](#) bindings for [GObject](#), [graphviz](#) and [gettext](#)

```
$ brew install pygobject3 gtk+3 adwaita-icon-theme
$ brew install graphviz
$ brew install gettext
$ brew link --force gettext
```

Eventually export the installed python packages using the special variable `PYTHONPATH`.

### 2.2.1.3 Windows

- go to [msys2](#) and download the x86\_64 installer
- follow the instructions on the page for setting up the basic environment
- run `C:\msys64\mingw64.exe` - a terminal window should pop up

Execute:

```
$ pacman -Suy
```

for updating the [msys2](#) environment.

Execute:

```
$ pacman -S msys/gcc mingw-w64-x86_64-toolchain base-devel
```

for setting a basic development environment.

Execute:

```
$ pacman -S mingw-w64-x86_64-python3 mingw-w64-x86_64-python3-pip
```

for installing python and pip.

Execute:

```
$ pacman -S mingw-w64-x86_64-graphviz
```

for installing [graphviz](#).

Execute:

```
$ pacman -S mingw-w64-x86_64-gtk3 mingw-w64-x86_64-python3-gobject
```

for installing the [PyGObject](#) bindings.

Execute:

```
$ pacman -S mingw-w64-x86_64-python3-numpy mingw-w64-x86_64-python3-scipy
```

for installing *numpy* and *scipy*.

### 2.2.2 Installation

Important

Make sure you have installed [python >= 3.6](#), [graphviz](#), and [PyGObject](#) before installing this package.

Install *py-galactic* using the command (replace `pip` with `python3 -m pip` on windows if you are using the MSYS2 system).

```
$ pip install \
  --find-links https://galactic.univ-lr.fr/packages \
  py-galactic
```

To upgrade to the current stable branch, use

```
$ pip install \
  --upgrade \
```

```
--find-links https://galactic.univ-lr.fr/packages \  
py-galactic
```

To upgrade to the current develop branch, use

```
$ pip install \  
  --upgrade \  
  --find-links https://galactic.univ-lr.fr/packages \  
  --pre \  
  py-galactic
```

pip is a script that downloads and installs modules from the Python Package Index, [PyPI](#). It should come installed with your python distribution. If you are running linux, pip may be bundled separately. On a Debian-based system (including Ubuntu), you can install it using

```
# apt-get update  
# apt-get install python3-pip
```

### 3 Getting Help

Important

If you have any difficulties with *py-galactic*, please feel welcome to [file an issue](#) on gitlab so that we can help.