`galactic` installation guide

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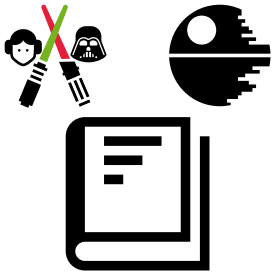

0.0.7

Contents

1 Introduction

py-galactic is a python package for studying formal concept analysis.  [1]

2 Install py-galactic

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.

2.1.1 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

[1]

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.

2.1.3 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 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 \
    --pre \
    --force \
    --no-cache-dir \
    --find-links https://galactic.univ-lr.fr/packages \
    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
```

2.3 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.