

# Linux setup

Please note that SocExplorer is still under development, so things are supposed to move, it can fail to build sometimes or be buggy. Feel free to send us some bug reports!

If you are using Fedora, you can directly install socexplorer from our repository [here](#)  
Or alternatively [here](#)

## Prerequisites

All the next steps can be distribution dependent SocExplorer development is done on Fedora 23, but it should work with any other one, feedback are welcome!

- First you need a working linux machine with:
  - **Qt5 sdk** installed on it plus all the developments packages for Qt. Remember also to install modules such as QtWebkit.
  - **Python 2.6 or 2.7** with headers.
- Then you need to install **PythonQt**, a modified version for SocExplorer can be downloaded [here](#)
- To install PythonQt you just have to extract it somewhere, then from a terminal run:

```
qmake-qt5
make
sudo make install
```

## Building SocExplorer

- To build SocExplorer, once PythonQt is correctly build and installed you can get SocExplorer source code from code repository with this command:

```
hg clone https://hephaistos.lpp.polytechnique.fr/rhocode/HG_REPOSITORIES/LPP/INSTRUMENTATION/SocExplorer SocExplorer
```

You will get a SocExplorer directory with all the source code inside. To build it you just have to run:

```
cd SocExplorer
qmake-qt5
make
#note that to speedup the make step you can use "make -j N" to parallelize on N process(replace N with the number of cores you have).
```

- Now you can install SocExplorer, it will install the SocExplorer binary plus some libraries and desktop icon in your system, just run:

```
sudo make install
#this doesn't install the registers xml description file.
mkdir -p ~/.SocExplorer/config
cp ressources/Grlib.xml ~/.SocExplorer/config/Grlib.xml
```

Affected folders are:

- /usr/bin for SocExplorer executables.
- QT\_HEADERS\_PATH/SocExplorer for SDK headers.
- QT\_LIB\_PATH for shared libraries.
- QT\_LIB\_PATH/SocExplorer/plugins for plugins.
- /usr/share/qtcreator/templates/wizards/SocExplorerPlugin for Qtcreator wizard.
- /usr/share/applications/ for desktop launcher.

- /usr/share/SocExplorer/ for icon and xml soc description files.
- /etc/SocExplorer for global config files.

Now you should have a working SocExplorer, you can continue to install plugins or start write your own plugins.

## Building SocExplorer LPP's Plugins

If you are here it assume that you have an updated and working version of SocExplorer.

To get LPP's SocExplorer plugins you can either clone or download them from

here":[https://hephaistos.lpp.polytechnique.fr/rhocode/HG\\_REPOSITORIES/LPP/INSTRUMENTATION/SocExplorerPlugins](https://hephaistos.lpp.polytechnique.fr/rhocode/HG_REPOSITORIES/LPP/INSTRUMENTATION/SocExplorerPlugins).

- To clone:

```
hg clone https://hephaistos.lpp.polytechnique.fr/rhocode/HG_REPOSITORIES/LPP/INSTRUMENTATION/SocExplorerPlugins SocExplorerPlugins
```

Then first you may want to build only the plugins you plan to use, for example the SpaceWire plugin rely on STAR-Dundee usb driver which isn't free so if you don't have it you can't use it. To disable a plugin you have to edit the top qmake project file "SocExplorer\_Plugins.pro" and remove the plugin folder name inside or comment it. As example if we want to disable the SpwPlugin and the memcheckplugin:

The file was initially:

```
TEMPLATE = subdirs
CONFIG += ordered
```

```
SUBDIRS = \
    ahbuartplugin \
    ambaplugin \
    APBUARTPLUGIN \
    dsu3plugin \
    genericrwplugin \
    memctrlrplugin \
    memcheckplugin
```

```
unix:SUBDIRS += spwplugin
```

Then it become:

```
TEMPLATE = subdirs
CONFIG += ordered
```

```
SUBDIRS = \
    ahbuartplugin \
    ambaplugin \
    APBUARTPLUGIN \
    dsu3plugin \
    genericrwplugin \
    memctrlrplugin
```

- Then as for SocExplorer you just need to run:

```
cd SocExplorerPlugins
qmake-qt5
make
```

#note that to speedup the make step you can use "make -j N" to parallelize on N process(replace N with the number of cores you have).

- If the compilation succeed then you can install plugins, note that since socexplorer revision 65 the plugins are installed in /usr/lib(64)/SocExplorer/plugins by default so you need to be root.

```
sudo make install
```