A3DP GUI Toolkit

0.5

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Chapter 1

A3DP GUI Toolkit

1.1 Introduction

This directory contains a collection of Graphical User Interfaces (GUIs) based on the QGIS plugin platform. The GUIs are dialog-based user interfaces designed in Qt-5. The QGIS plugins platform supports the Python programming language, and as a result the A3DP GUI Toolkit is written in Python 3.7.

1.2 How Does It Work?

The Python-based QGIS plugins are designed as wrappers for the C++ software modules for SMACT. The QGIS plugins accept user input through the GUI dialogs, then pass on these input parameters to the C++ command line.

1.3 Requirements

The following pre-requisites must be satisfied to install and use the plugins.

- QGIS version 3.14 or newer
  - Version 3.16 long-term release is preferred for stability

To build documentation (optional), the following additional software are required.

- Doxygen v 1.8.18 or newer
- doxypypy v 0.8.8 or newer
- LaTex (optional) to create a PDF document

1.4 Installation

The plugins are installed in three steps:

1. Install QGIS
2. Deploy/Install plugins
3. Activate/Enable plugins in QGIS

Please follow the instructions provided in the ![user manual][1] to install the plugins.

1.5 Post-Installation

The installation will create menu items in QGIS, named `Image Registration` and `ATDR`. These will have sub-menu items corresponding to the different software modules delivered under SMACT.

To use these plugins, the location of the C++ software executables (`*.exe`) must be specified to the plugins. To specify the location, first launch the `Image Registration > Settings Configuration` plugin, then click the button [...] and select the folder (called `qgis-exes`).

The C++ software can be located anywhere on the same computer. If using the installer, `setup.cmd` version 0.3 or newer, the software will typically be placed at `C:\OSGeo4W64\smact`. In older versions, the installer will *NOT* copy the downloaded C++ software. In either case, users can manually copy all the EXE and DLL files to any folder on the computer, and select that folder from the `Image Registration > Settings Configuration` plugin dialog.

1.6 References

[1]: AUG Signals, "SMACT UI Installation Manual.pdf", August 2021

Chapter 2

Namespace Index

2.1 Packages

Here are the packages with brief descriptions (if available):

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File Index

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Here is a list of all files with brief descriptions:

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File Documentation

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