

Installation

This ISOLA distribution contains all codes (Matlab GUI and Fortran executables) in two folders, zipped as **isola_GUI_2020.zip** and **isola_FORTRAN_2020.zip**. Unzip these files in your computer as, e.g., `c:\isola_GUI_2020` and `c:\isola_FORTRAN_2020`, and then add `c:\isola_FORTRAN_2020` to your System path.

Remark 1: Use of drive C and specific folder name is not obligatory; it is given here as an example.

Remark 2: Instead of unzipping the two distribution files in two separate folders, you may unzip both in same folder e.g. `c:\isola` and then add this folder BOTH in system path AND in Matlab path.

Paths

1. System Path

In the example below we refer to Windows 10, (the procedure is almost the same for other Windows versions), detailed instructions on how to do this task can be easily found by a simple Google search, based on your operating system.

[System path: Right mouse click on My computer icon, Properties, Advanced System Settings, Environment Variables, System Variables, Path, Edit, where editing means to add a folder (Pressing button New), e.g. `c:\isola_FORTRAN_2020`. Then press OK and *restart* your computer.]

Besides the ISOLA distribution files, the code relies on some additional software also, e.g. GMT for plotting, gawk for file format conversion, gsview (or similar) for postscript file display. It is expected by ISOLA that these codes are installed and are added in system path also.

We strongly suggest using the provided *.exe files, not compiling codes by the users. In any case Fortran files are included in the installation zip files and can be compiled by a compiler like gfortran or similar.

2. Matlab Path

Similarly, `c:\isola_GUI_2020` must be added in your Matlab path (IMPORTANT: select with subfolders).

[Open Matlab, File, **Set Path Add with subfolders** option]: and select the `c:\isola_GUI_2020` folder.]

Then your Matlab path should contain

`c:\isola_GUI_2020`

`c:\isola_GUI_2020\hcplot`

`c:\isola_GUI_2020\m_map`

`c:\isola_GUI_2020\stereonets`

`C:\Program Files\MATLAB\R2010a\m_map` (or another path to m_map folder)

Remember to install (at least) the following Matlab toolboxes: Control System Toolbox, Filter Design Toolbox, Mapping Toolbox, Signal Processing Toolbox, Statistics Toolbox, System Identification Toolbox.

Installation Check

After installation type `chkinst` in Matlab's command window and check the output for possible errors.

The correct installation should result in the output like this (results depend on the naming of the installation folder/path):

```
Checking if isola.m is in Matlab path
Found isola.m in C:\Program Files\MATLAB\R2009b\isola_dev\isola.m
Checking for m_map
Found m_gshhs.m in C:\Program Files\MATLAB\R2009b\m_map\m_gshhs.m
Checking for Stereonets package.
```

```
Found Stereonet.m in C:\Program Files\MATLAB\R2009b\stereonets\Stereonet.m
It seems that Mapping Toolbox is installed.
It seems that Control System Toolbox is installed.
It seems that Signal Processing Toolbox is installed.
It seems that Statistics Toolbox is installed.
It seems that System Identification Toolbox is installed.
It seems that GMT is installed. OK. Make sure you have high resolution
coastlines installed also.
It seems that gsview is installed. OK. Make sure it has the name
gsview32.exe (in windows).
It seems that isola FORTRAN CODE is installed. OK.
It seems that gawk is installed. OK.
```

Configuration

The latest ISOLA GUI versions allow the user to select between GMT version (4 or 5, version 6 is not supported yet) and Postscript file viewer (`gsview32`, `gsview64` or some other postscript viewer code). This is done through the **isolacfg.isl** file located in the ISOLA GUI folder. Open this file with a simple text editor and edit the following lines, accordingly, take care of the formatting.

Example of isolacfg.isl:

GMT version: 4

PS FILE VIEWER: gsview64

(leave the NUMBER OF INVERSION SAMPLES unchanged i.e. 8192)

Useful Software

Additionally, we recommend downloading from web pages of A. Lomax the code **SeisGram-2K**, very useful for viewing data SAC files.

It is also useful if user has installed a code for calculating focal mechanism from first-motion polarity, e.g. code **Focmec** of J.A. Snoke.