6 Processing

6.6.5 Madagascar

6.5 Madagascar

建议在Linux系统下使用

A generic user interface exists to Madagascar, an open source seismic processing package that is very popular in seismic R&D communities. In the builder, seismic pre- and poststack input and output files are either OpendTect or Madagascar formatted. The processing flow is constructed as a sequence of Madagascar programs, using their parameters. These programs are selected from a list of available programs (presently over 300), with a search field included to guide the user.

Madagascar processing results can be further analysed in OpendTect.

1. First Madagascar must be installed in order to use this interface between OpendTect and Madagascar.
2. It's not possible to view Madagascar plots directly from the OpendTect user interface on Windows. If the user wants to see the plot, she/he has to make her/his own arrangements like starting the xserver etc ...

地震处理后的可视化

Problems may occur occasionally when using Madagascar on a **Windows** system.

6.5.1 Madagascar Installation

Madagascar is an open-source, standalone software. To be used with OpendTect, *Madagascar* must first be installed, otherwise, when starting Madagscar , the next window will display an error message and missing program boxes.

The *Madagascar* package needs to be installed (see install) and the RSFROOT variable has to be set to the installation directory. In order to get the full UI, ensure that the text doc is installed. This can be done with:

设置环境变量RSFROOT
安装text doc

```
$RSFROOT/bin/sfdoc -t $RSFROOT/doc/txt
```

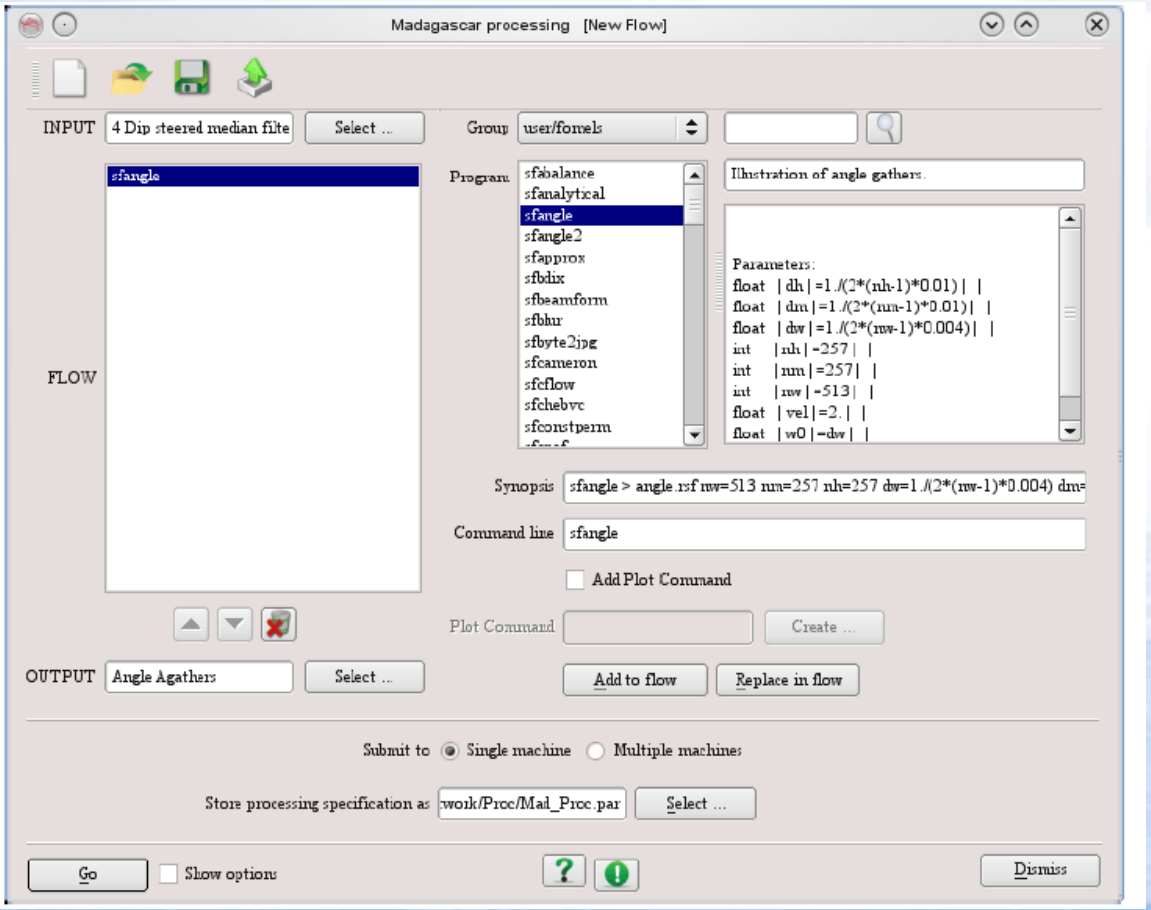
On **Windows**, Please ensure the following to be able to use the Madagascar link in OpendTect:

不建议在Windows系统下使用Madagascar

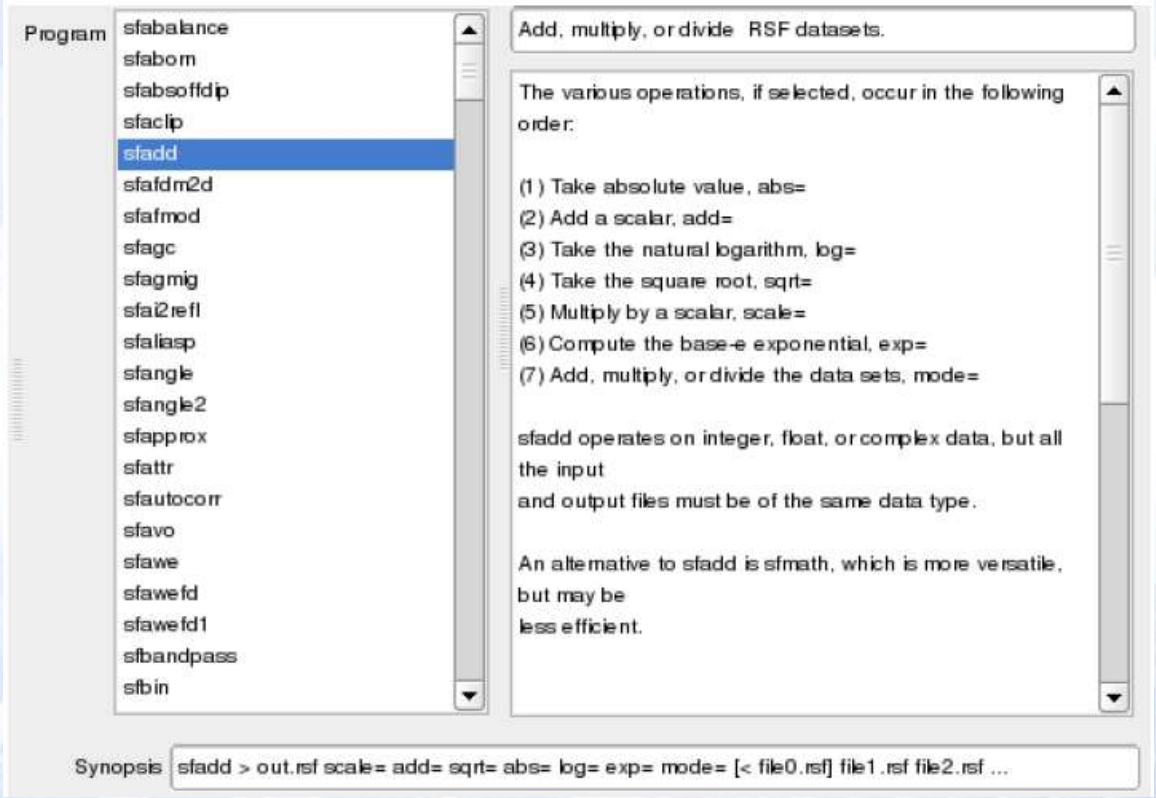
1. In Advanced System Settings -> Environment Variables, the variable RSFROOT must be set to the Madagascar installation folder. Setting this variable only in the Cygwin environment is not enough.
2. The variable PATH must include the Cygwin bin folder (e.g. C:\cygwin\bin).

6.5.2 Madagascar Processing Window

The *Madagascar* processing window can be launched from the OpendTect toolbar by pressing the *Madagascar* icon.



Select the input cube to be processed, and then choose a program or combination of programs. Programs are organized into groups of programs. Once one program is selected, a description of program's functions are shown in the neighboring frame.

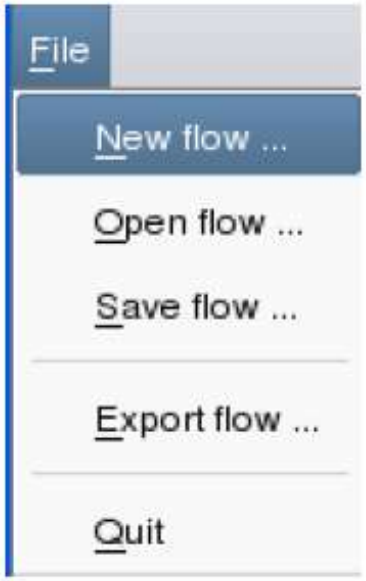


The different steps, as well as a synopsis, of the computation are provided. The descriptions of each program are available on the Madagascar website.

6.5.3 Toolbar

The toolbar is composed of the *file* option and three shortcut items.

The *file* option is as follows:



The toolbar contains three shortcuts to *create*, *open*, and *save* the flow:

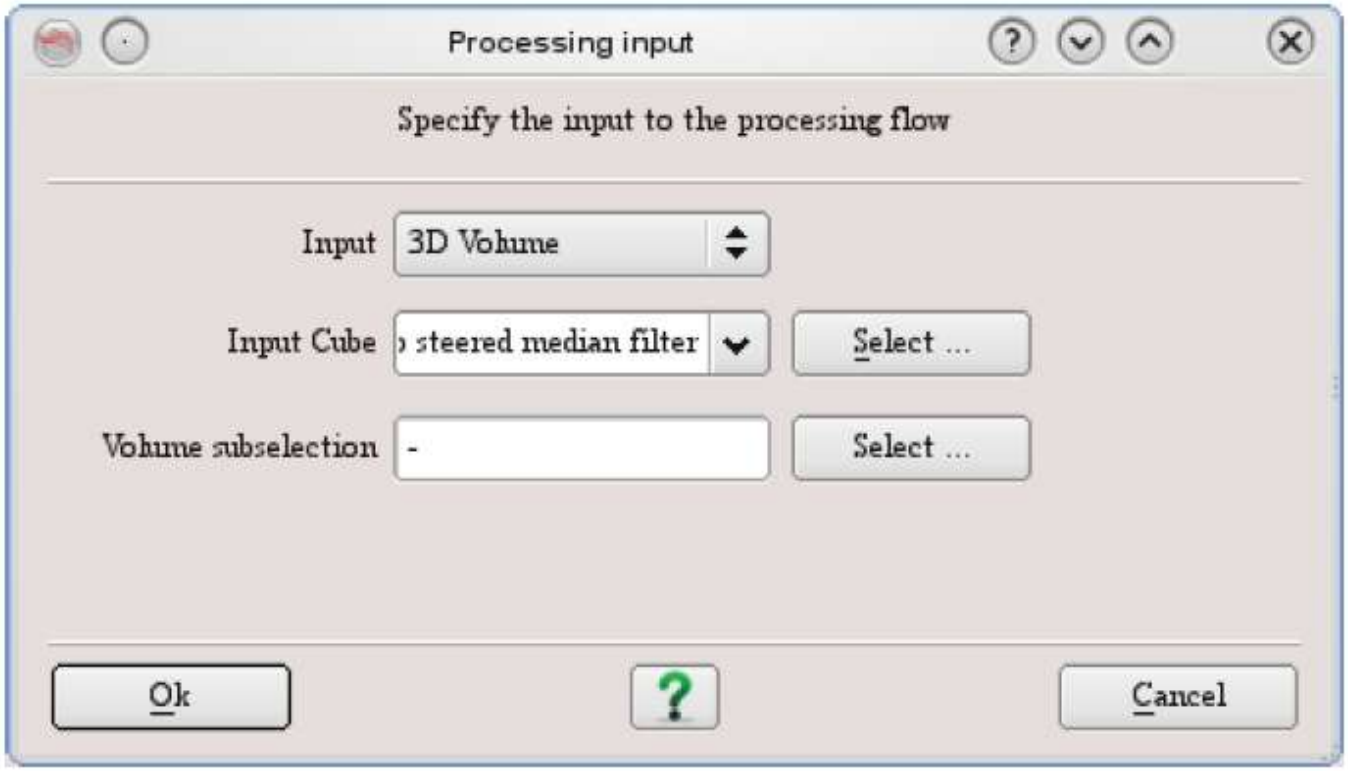
This creates a new processing flow.

This will open a saved flow.

This will save a newly created flow.

6.5.4 Processing Input

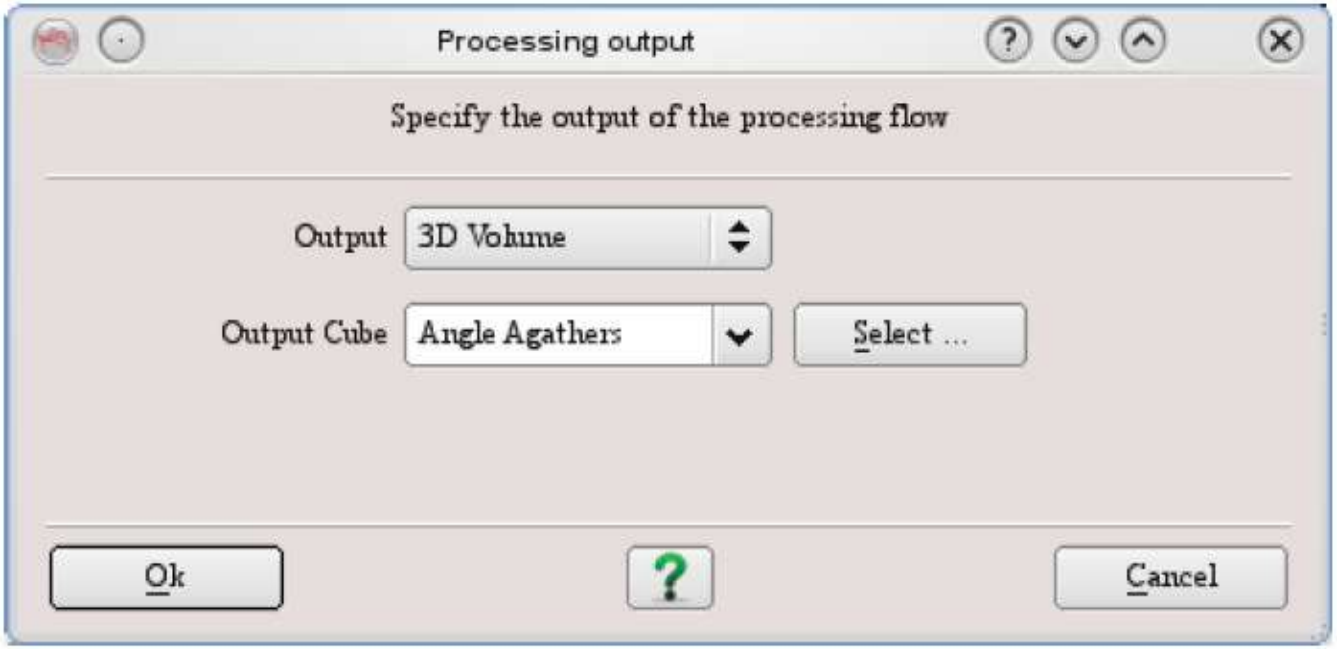
The first step is to select an input cube.



The input can be a 3D volume, a Prestack volume, a Madagascar volume, or None. It is possible to choose a volume sub-selection.

6.5.5 Madagascar Processing Output

The final step is to chose an output volume type.



Similar to the input selection, it can be a 3D volume, a Prestack volume, a Madagascar volume, or None.