4 Survey - 4.5 Manage

4.5.1 Manage Attribute Sets

4.5.2 Manage Bodies

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4.5.4 Manage Cross-Plot Data

4.5.5 Manage Faults

4.5.6 Manage FaultStickSets

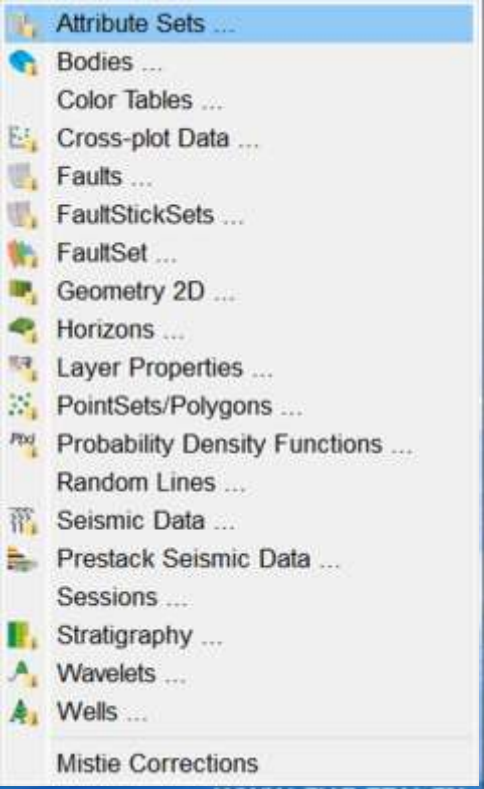
4.5.7 Manage Geometry 2D

4.5 Manage

OpendTect keeps track of the different files imported into or created by the system. Deleting, renaming, setting as default, merging of files (in some cases) …etc are controlled from the Manage window. Most objects (seismic volumes, horizons, well-s…etc) have a dedicated 'manager' that can be called from this menu.

The most frequently used managers can be reached directly from the main user interface:

All managers can be accessed via *Survey > Manage...*

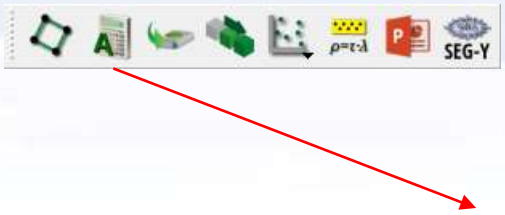


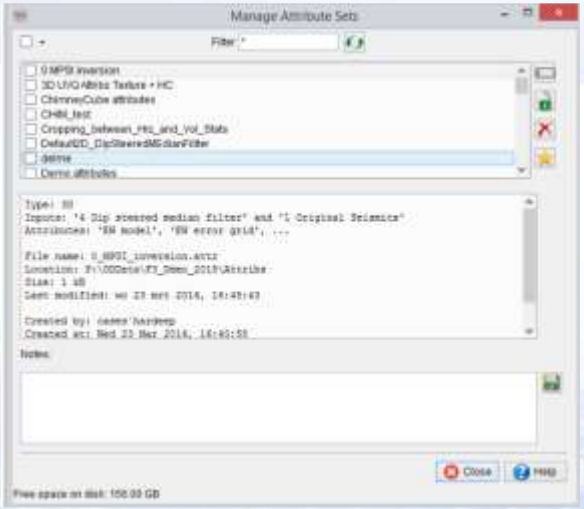
管理导入系统或创建的不同文件。
删除、重命名、设为默认、合并文件（有些情况）等，在Manage窗口来控制。大部分对象（地震体、层位、井等）都有自己的‘管理器’。
管理器可从主GUI界面到达。

4.5.1 Manage Attribute Sets

The attribute set files can be managed from this window (See below). It is launched from *Survey* > *Manage* > *AttributeSets...*

There are listed all the 2D and 3D attribute sets you have created or imported in the Attribute Set window . You can modify the attribute set name, set as default, remove etc. The icons are similar to the one from the general selection window.





Use the top filter to find the wanted element(s) by typing the name or a part of the name (complete the name with *): for example, to find 'Demo attributes', you can type *Demo*.

To save or restore a selection, right-click on a listed item and select the wanted action in the pop up menu.

查询 属性

4.5.2 Manage Bodies

Bodies created or imported to OpendTect are listed in this manager (See below). The manager can be accessed either following Survey > Manage > Bodies... or from the quick launch icon  .

Here you can rename, lock for editing, delete and set as default any body. The icons are similar to the one from the general selection window.

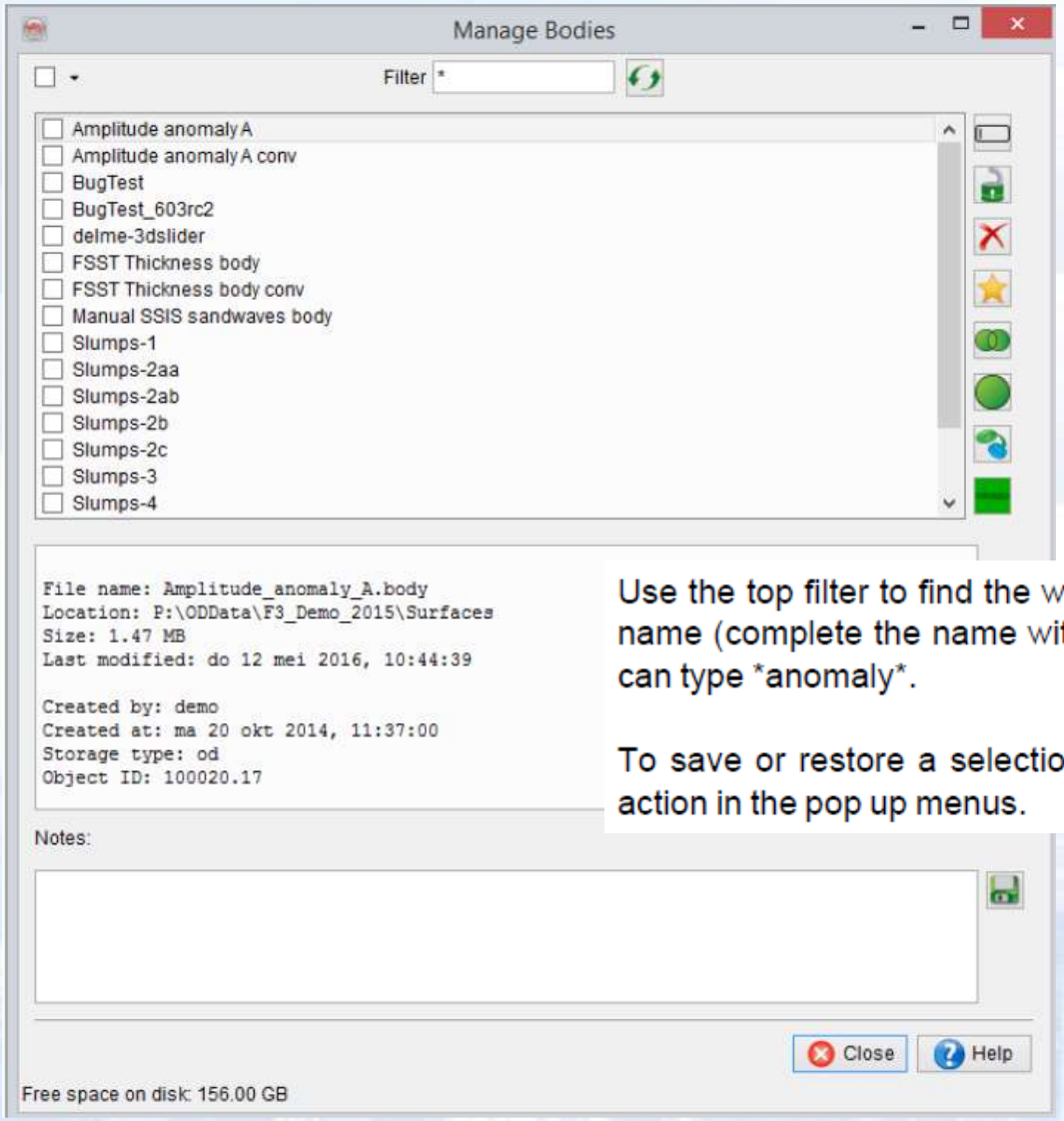
Additionally, four specific tools are available (for more information click on the links below this page):

 Body Operator

 Body Region Constructor

 Estimate Body Volume

 Switch Body Values.



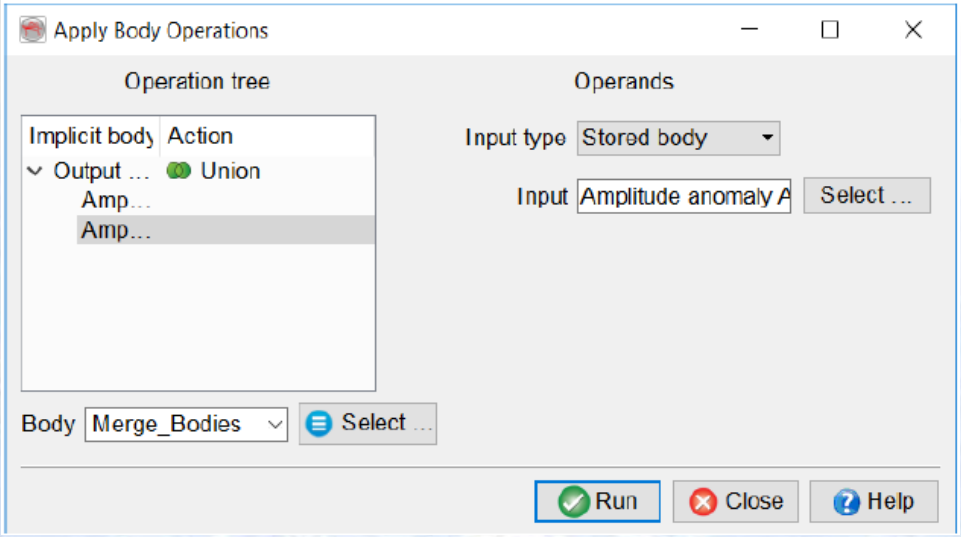
Use the top filter to find the wanted element(s) by typing the name or a part of the name (complete the name with *): for example, to find 'Amplitude anomaly A', you can type *anomaly*.

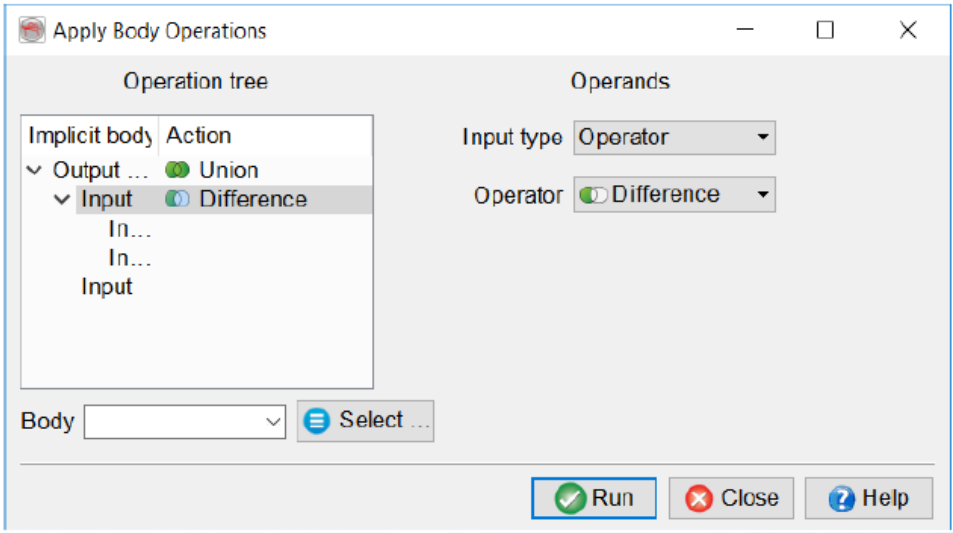
To save or restore a selection, right-click on a listed item and select the wanted action in the pop up menus.

4.5.2.1 Body Operator Body逻辑运算

The body operator, accessed from the icon in the Bodies manager, enables to perform various operations on a geological body (or combinations thereof), as listed below.

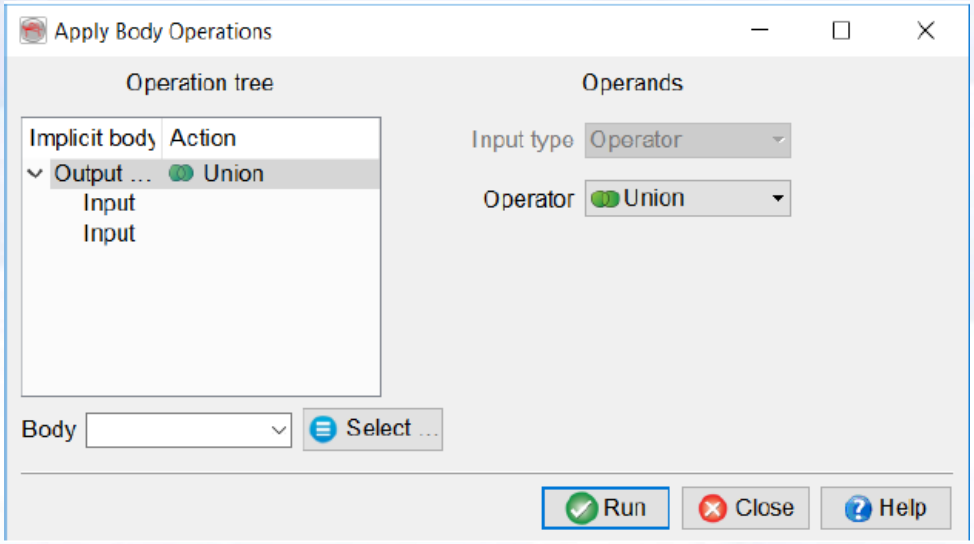
For all the operators, click on the Input to select either a saved body or create a body using an operator. Each operation needs 2 inputs. You can combine more than one input using an operator as input. After giving a name to the new body, it will be created after clicking on Run.

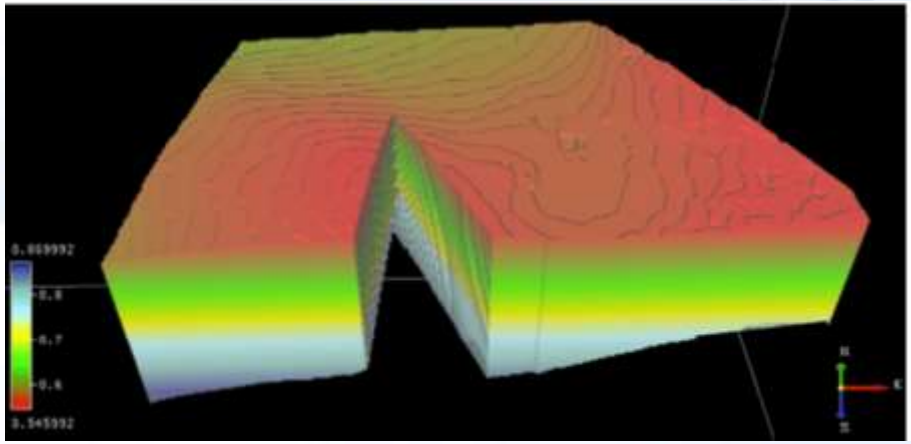




Union 合并

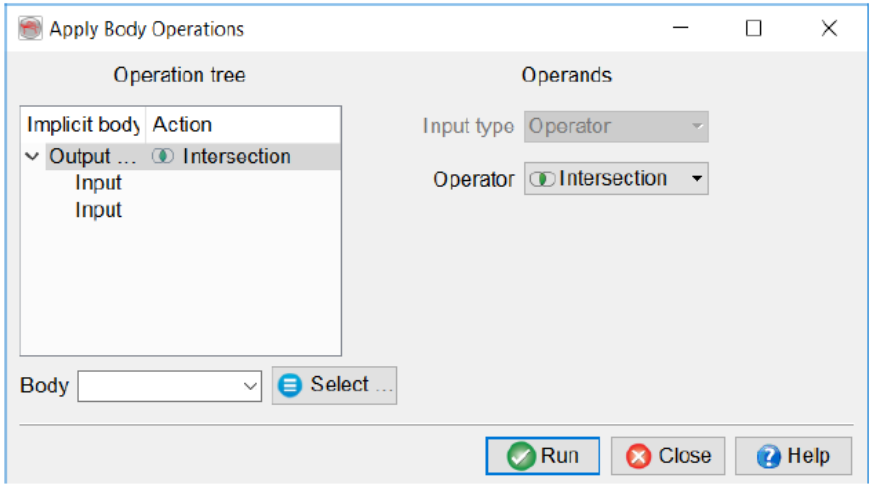
You can merge two or more bodies using the union operator as in the figure below:

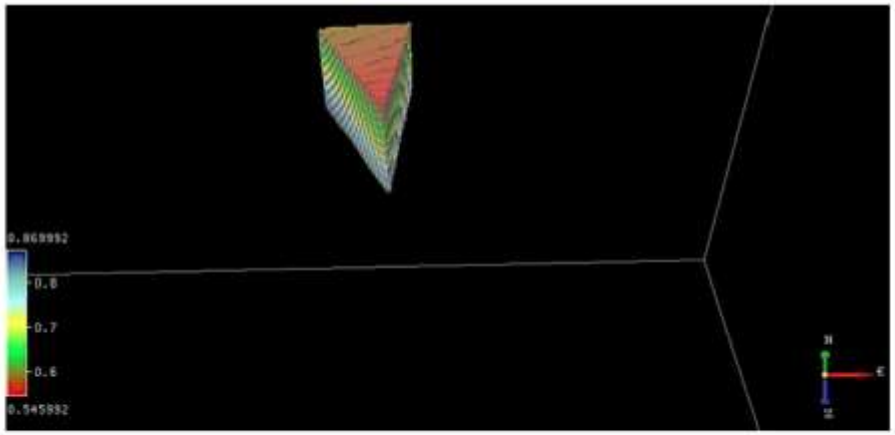




Intersection (交叉)

If you want to create a body from the shared portion of two bodies, you can use the intersection operator.

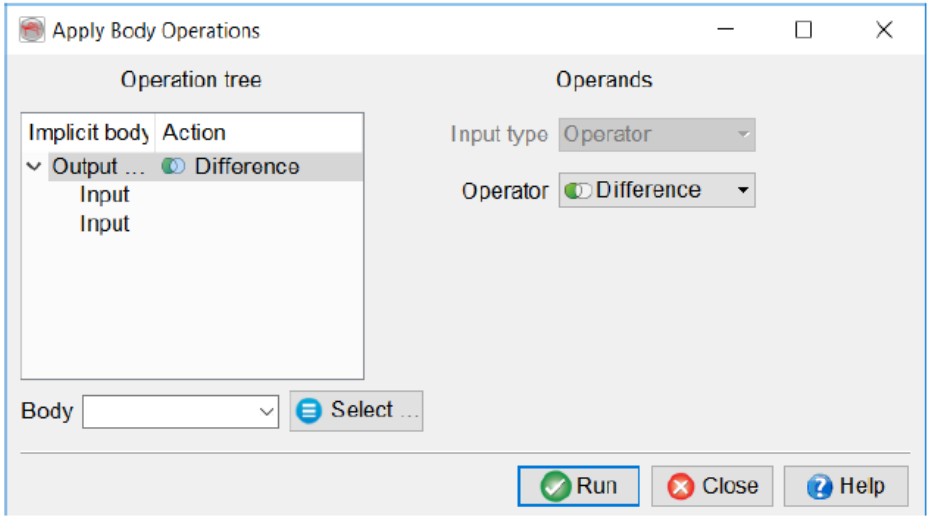


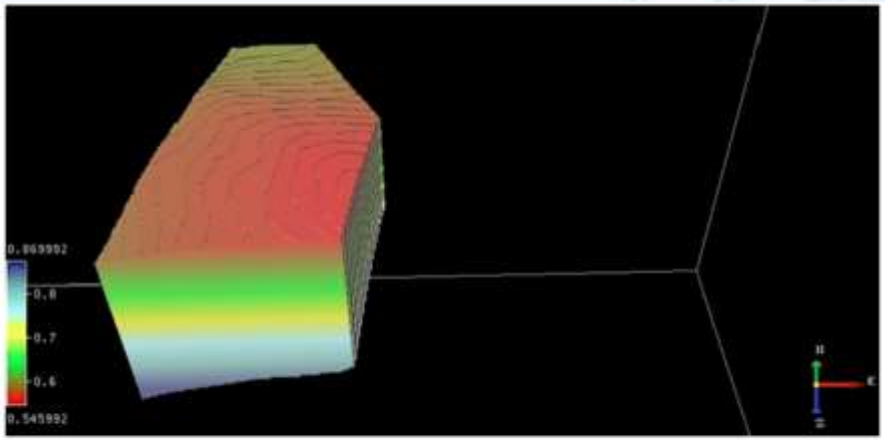


The result of the 'Intersection' operation.

Difference 作差

If the operator is Difference, the output will be a result of the subtraction Input1-Input2.

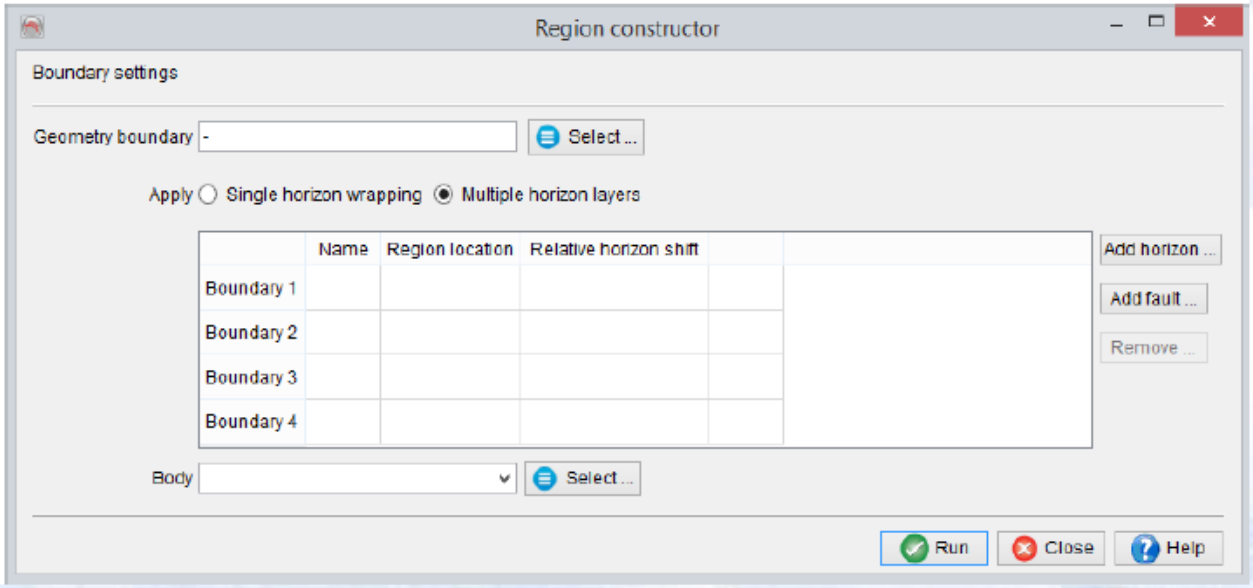




The result of the 'Difference' operation (the final body is the volume resulting from Body 2 minus Body 1).

4.5.2.2 Body Region Constructor　　Body区域构建

This tool allows you to create a regional body from your dataset using boundaries defined horizons and faults (or just a single wrapping horizon).

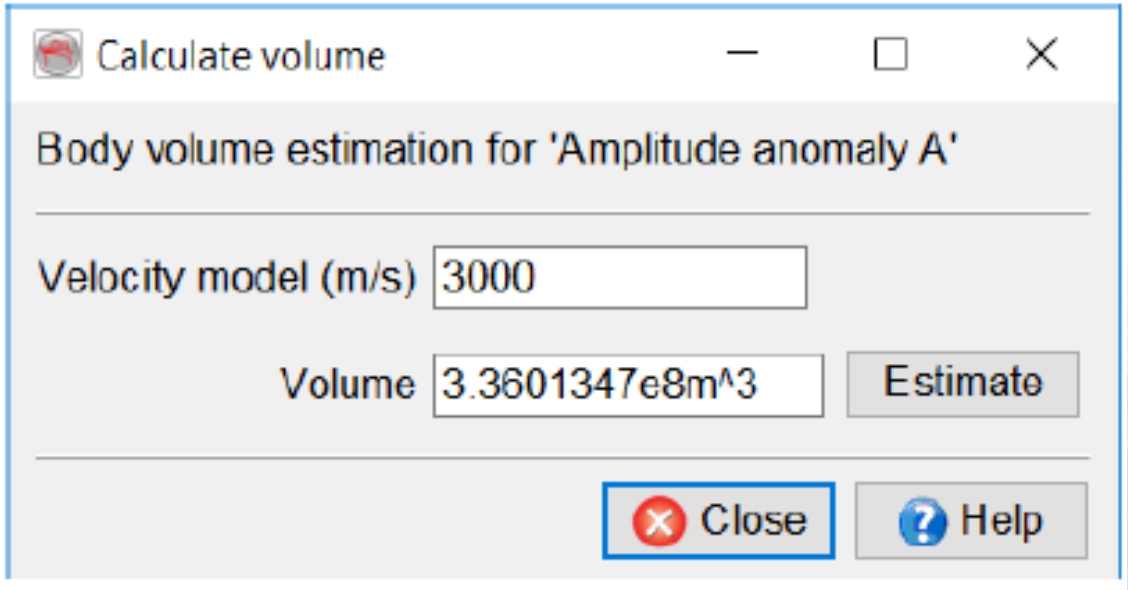


使用层位和断层（或仅是一个单独的wrapping层位），从数据集，创建一个区域的body。

4.5.2.3 Estimate Body Volume

The tool allows you to estimate the volume of any body. It can be accessed either from the manager or from the tree (right-click menu on a body listed in the tree or in the 3D scene).

The input velocity is an (estimated) velocity appropriate to the position of the body. A default velocity is provided but needs to be updated according to your survey. Click on Estimate to get the estimated volume (in m3).

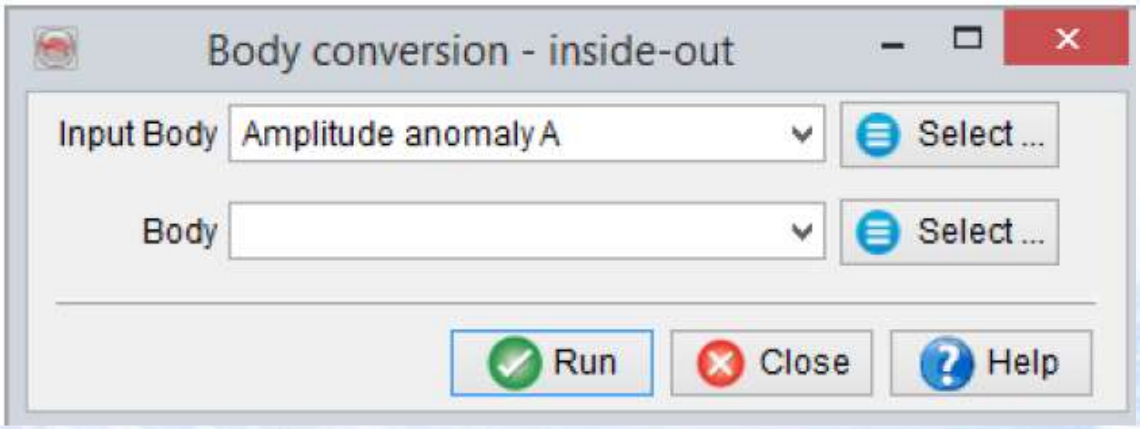


估算Body体积（需要速度模型）

4.5.2.4 Switch Body Values

The icon activates a window with dual functionality.

- If you have built a regional body using two horizons and a fault, creating a kind of 'compartment', this tool allows you to 'flip' this body to create its 'negative'.
- Previous versions of OpendTect had bodies in different formats. This tools can also be used to 'convert' these various formats into the standard format for 4.6.

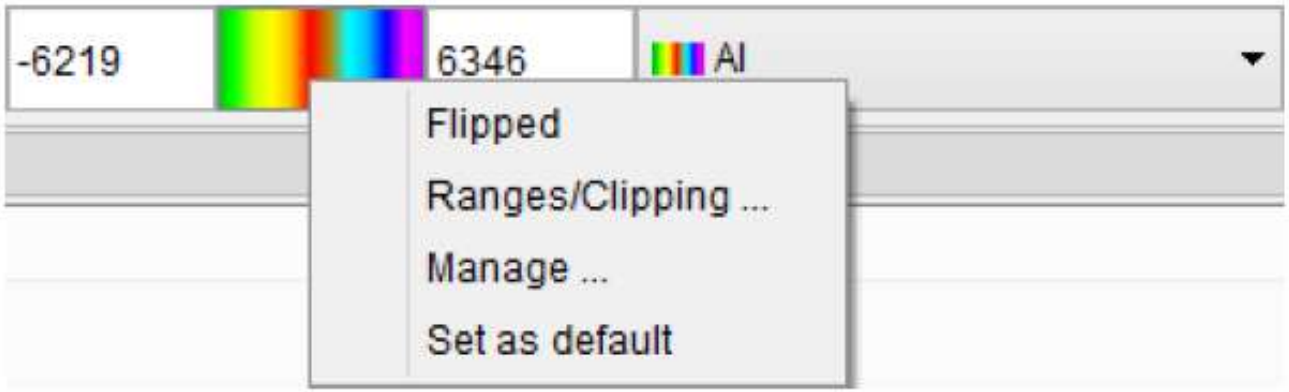


- 如果使用2个层位和一个断层创建了一个区域的body，创建’Compartment’
- 转换其他版本Opendtect创建的Body为6.6版本的OpendTect。

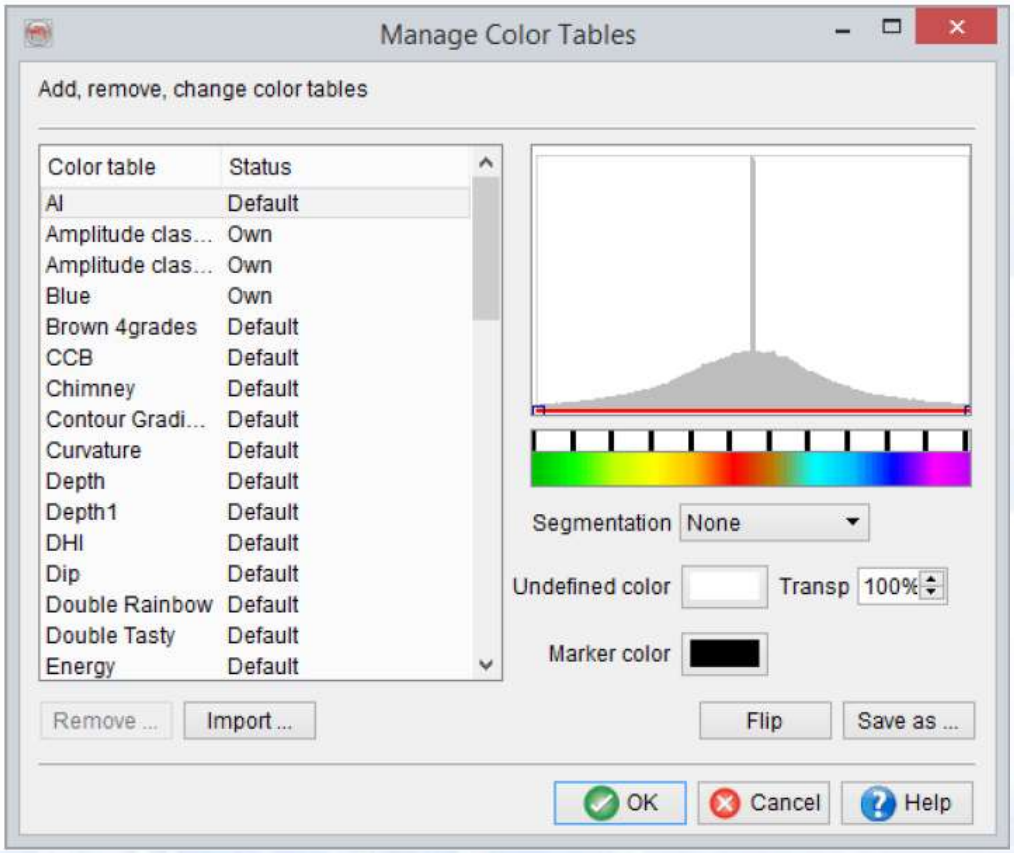
4.5.3 Manage Color Tables

The Color Table Manager gives access to the various settings used for data visualization to edit an existing colour table or create a new one.

The manager is accessible from Survey > Manage > Color Tables and from the right-click menu on the colour table in the 3D scene (See below).



管理Color Tables. 地震解释也是一种颜色艺术。

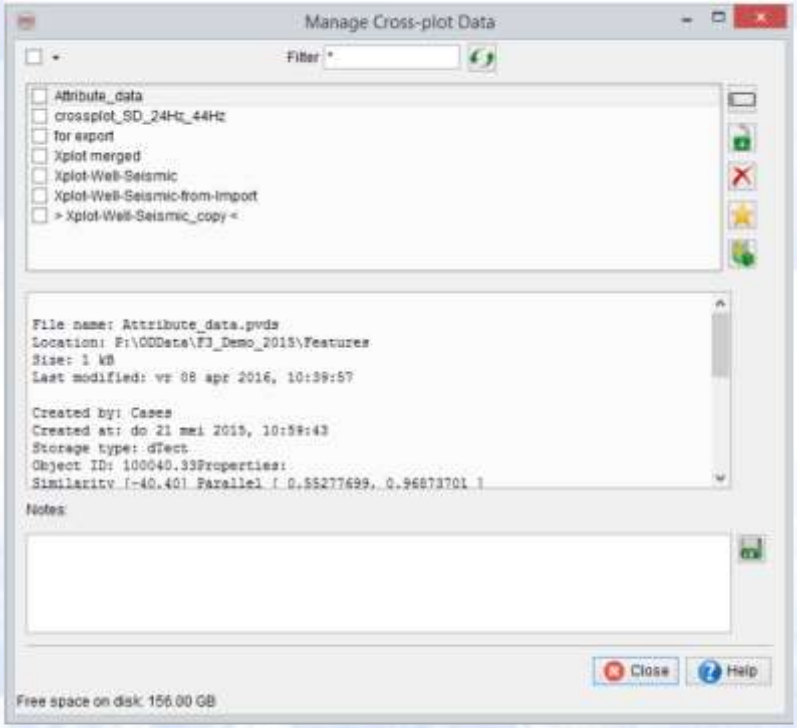


For a full description of the various options and possibilities, please see the following section: Color Tables

2.4节

4.5.4 Manage Cross-Plot Data

The crossplot file management is used to rename, remove, merge etc the stored crossplot data files.



is used to rename the selected crossplot data file.

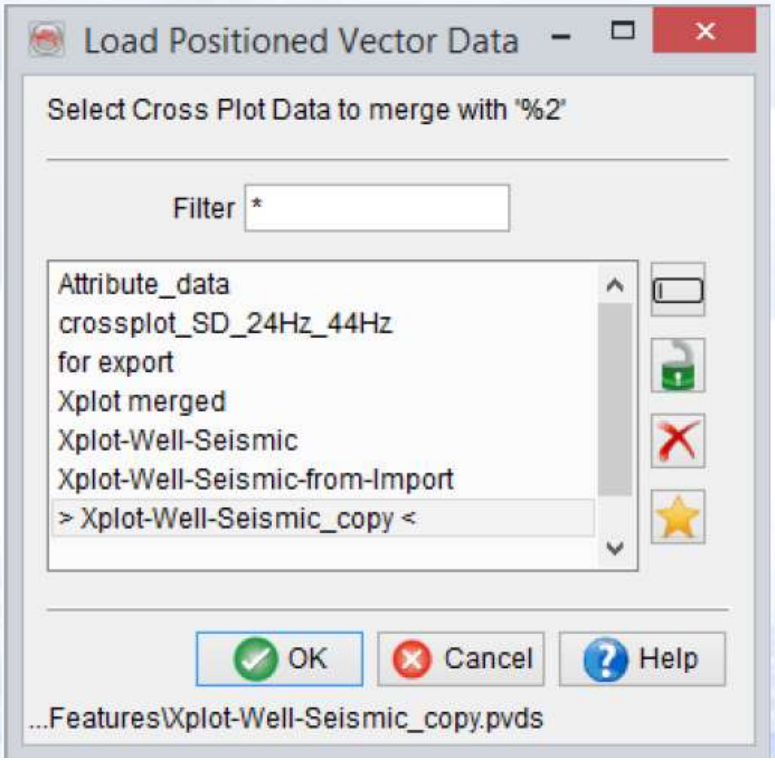
locks (read only) or unlocks the selected item.

remove the selected crossplot.

make the selected crossplot as a default data for crossplotting. If pressed, the selected item will be bounded by the signs (> Name <).

merge another crossplot with the selected one.

To merge two crossplots with different or similar attributes, you need to select a first crossplot and then after clicking on the icon, choose the second crossplot in the following window: 合并2个Crossplots（不同或相似的属性）



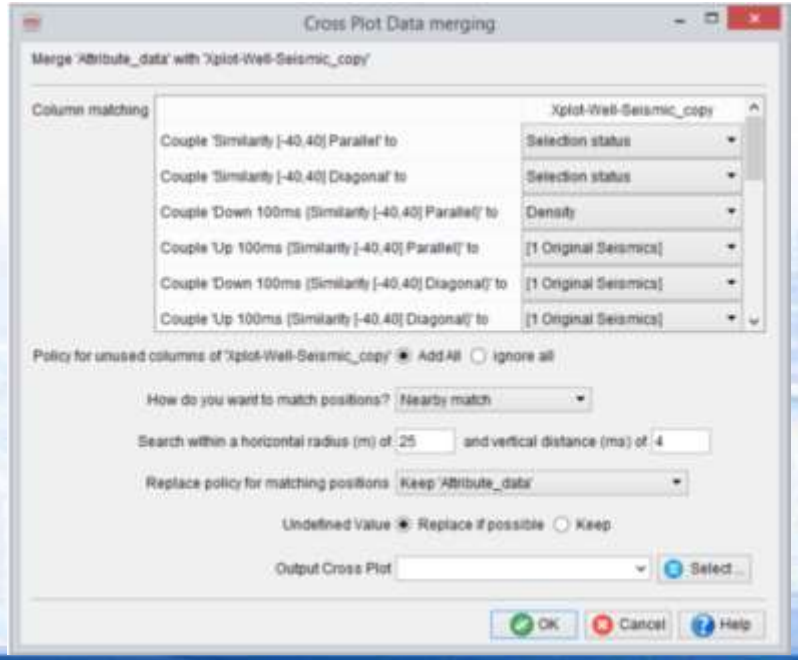
. When pressing *Ok*, opens the window where you have to provide different information. If some columns have similar quantity in the two crossplots, it is possible to specify for each column, which column from the crossplot2 matches a column from crossplot1, even if they do not have the same name. If there is no match, just select None, then you can decide to either add the unmatched columns or to ignore them.

Then select the matching method:

- Exact match: same X,Y,Z
- Nearby match: almost same position or same depth.A horizontal and a vertical search radius have to be provided
- Never match, add all new : add all positions, even with same or almost same (X,Y,Z).

For all of them, the *replacement policy* for matching positions has to be specified : take value from crossplot1, take value from crossplot2 or take the average of the two. Undefined value can be kept or replace if possible.

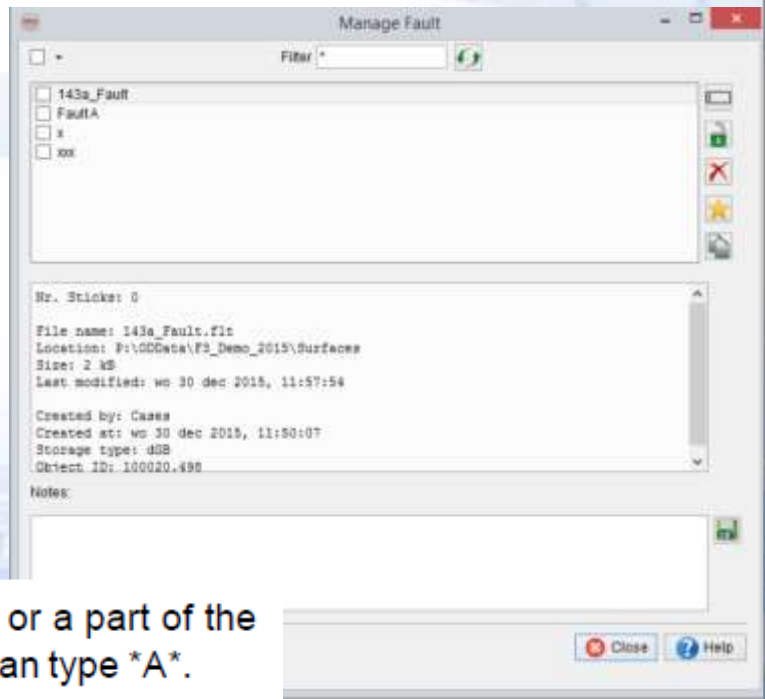
Once the merging parameters have been defined, you can give an appropriate name and save it in clicking on Ok.



4.5.5 Manage Faults

The faults interpreted/imported in the OpendTect project are listed in the Fault Manager with the possibility to perform some basic actions: rename, remove, copy …etc. The icons are similar to the one from the general selection window.

The manager can be accessed either following Survey > Manage > Faults… or from the quick launch icon > Faults.



Rename, remove, copy, etc.

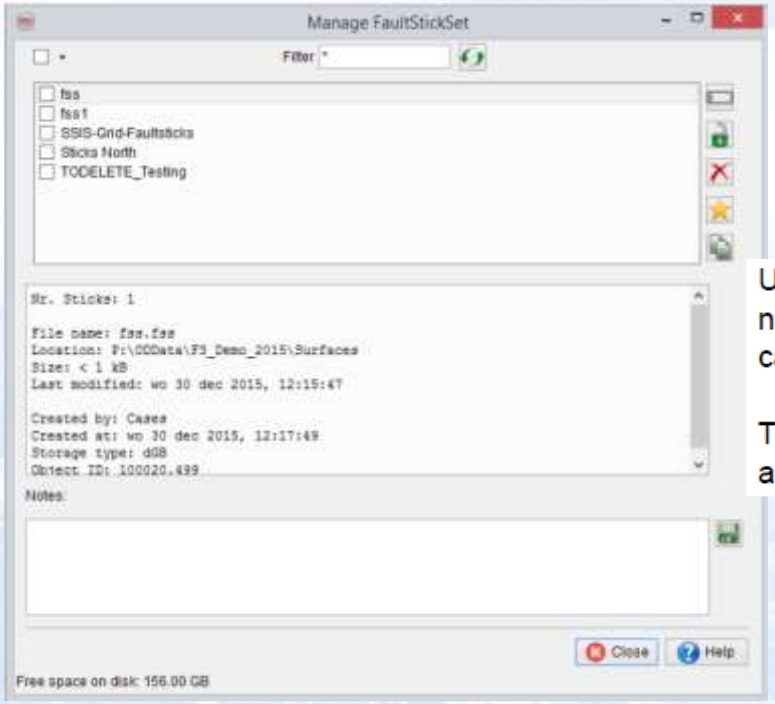
Use the top filter to find the wanted element(s) by typing the name or a part of the name (complete the name with *): for example, to find 'FaultA', you can type *A*.

To save or restore a selection, right-click on a listed item and select the wanted action in the pop up menu.

4.5.6 Manage FaultStickSets

The faultsticks interpreted/imported in the OpendTect project are listed in the FaultStickSets Manager (see below) with the possibility to perform some basic actions: change disk location, rename, remove, copy …etc. The icons are similar to the one from the general selection window.

The manager can be accessed either following Survey > Manage > FaultStick-Sets… or from the quick launch icon > FaultStickSets.



Use the top filter to find the wanted element(s) by typing the name or a part of the name (complete the name with *): for example, to find 'SSIS-Grid-Faultsticks', you can type *Grid*.

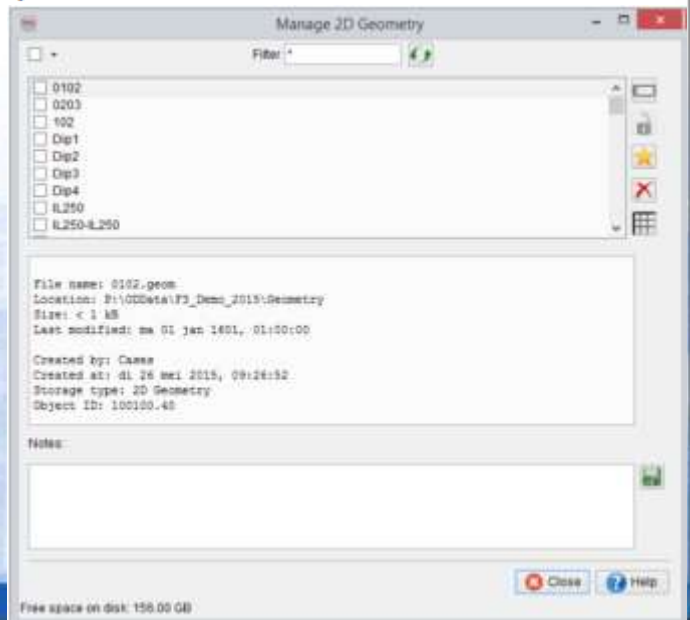
To save or restore a selection, right-click on a listed item and select the wanted action in the pop up menu.

4.5.7 Manage Geometry 2D

2D Geometry manager is launched from *Survey* > *Manage* > *2D Geometry...*

This window is used to manipulate the geometry of 2D seismic lines. The geometry consists of X-Y coordinate pairs for each trace of the 2D seismic, identified with a unique trace number (CDP most often). They are generally extracted from the SEG-Y trace headers or from an auxiliary file during import.

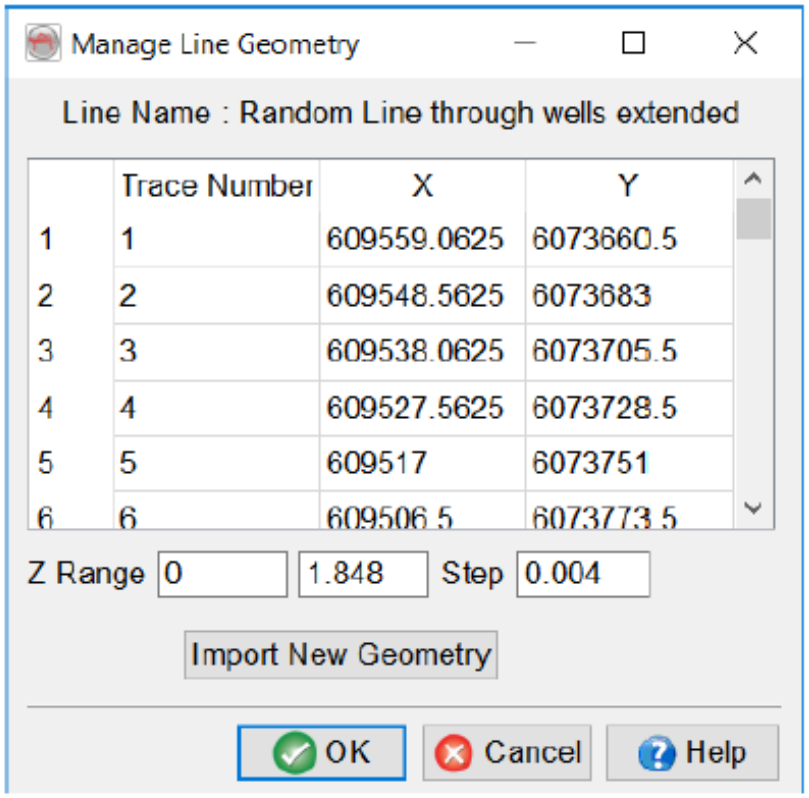
From this manager, the coordinates of already imported 2D data can be altered. The geometry is separated from the actual 2D seismic data and 2D horizon that are solely referenced with respect to the trace number (CDP number). As a result the coordinates of the geometry can safely be edited without having to re-import the 2D seismic data and corresponding horizons.



The icons are similar to the one from the general selection window.

Manage Line Geometry

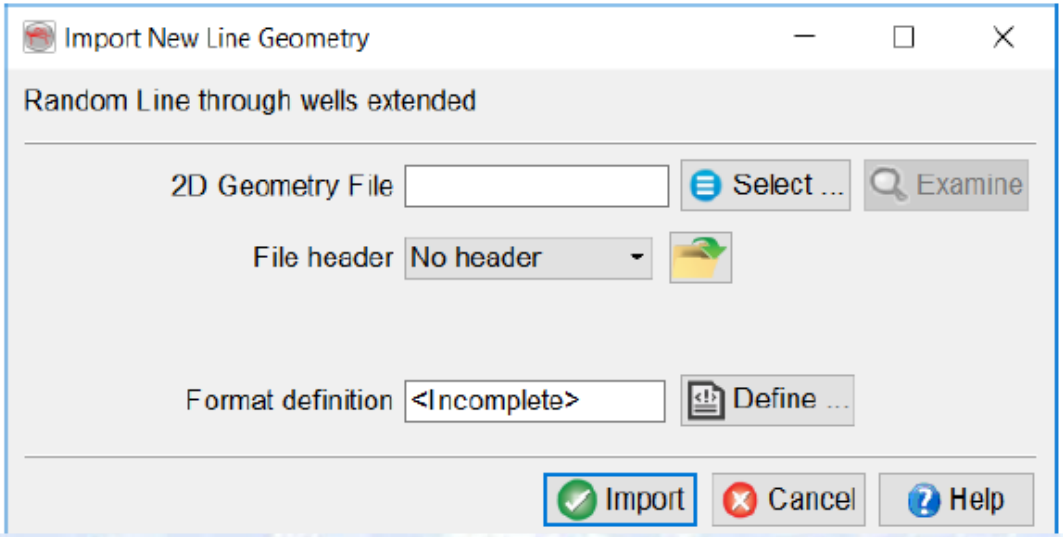
The Line geometry manager is access by selecting a 2D line in the Manage 2D geometry window (see above) and clicking on the icon. In this window (see below), you can alter any trace number, X, Y values.



The name of the selected line is specified on top of the window. To edit a field, click on it and type the new value. Changes will be saved on disk only after pressing *OK*. Optionally, the entire geometry of the selected 2D line can be updated by reading a text file by clicking on *Import New Geometry* (see section below).

Line geometry import 导入line几何体

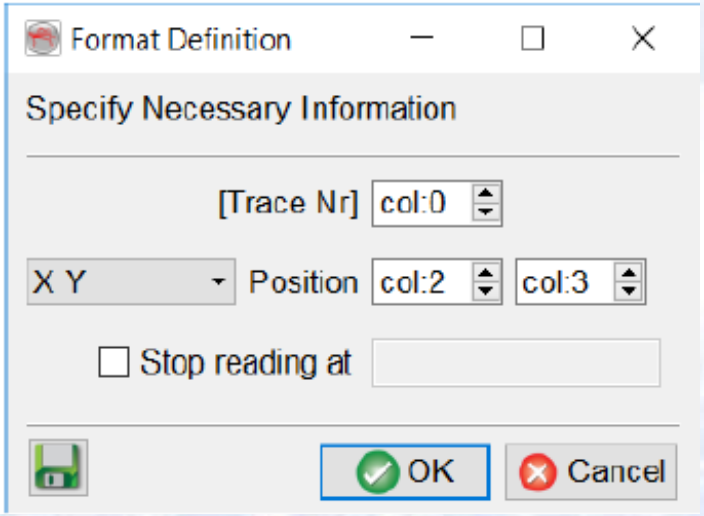
In the selection window (see below), select the input Ascii file. The input file should be column sorted with one point per record (line).Optionally, you can display the input file by clicking on *Examine*: you will be able to check the values and it will help you filling it the remaining information.



导入line几何体

You need to specify the presence/absence of a header and its size if present. The header, if present, can be of fixed length (number of lines), or delimited on its last line by a keyword.

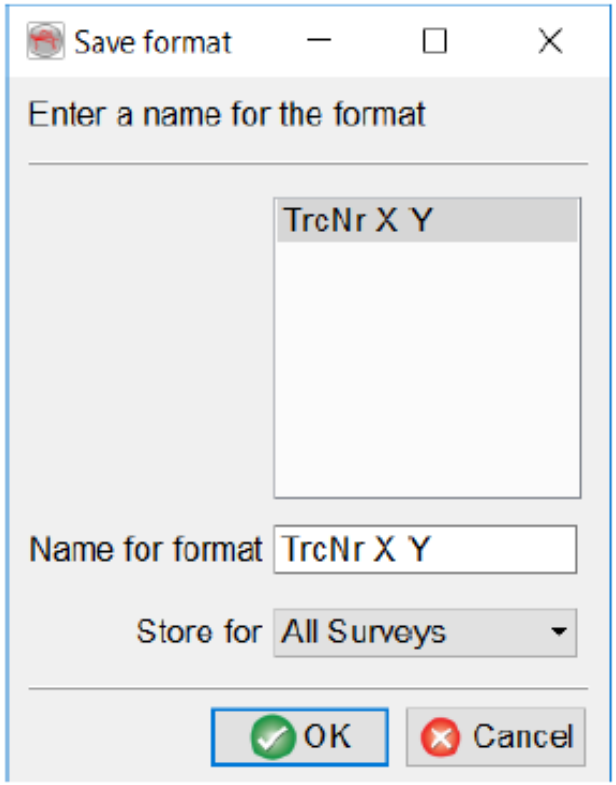
The file definition needs to be filed in to know which data corresponds to which column.



The Define button gives access to the format definition window (see above). You must specify in the format definition window:

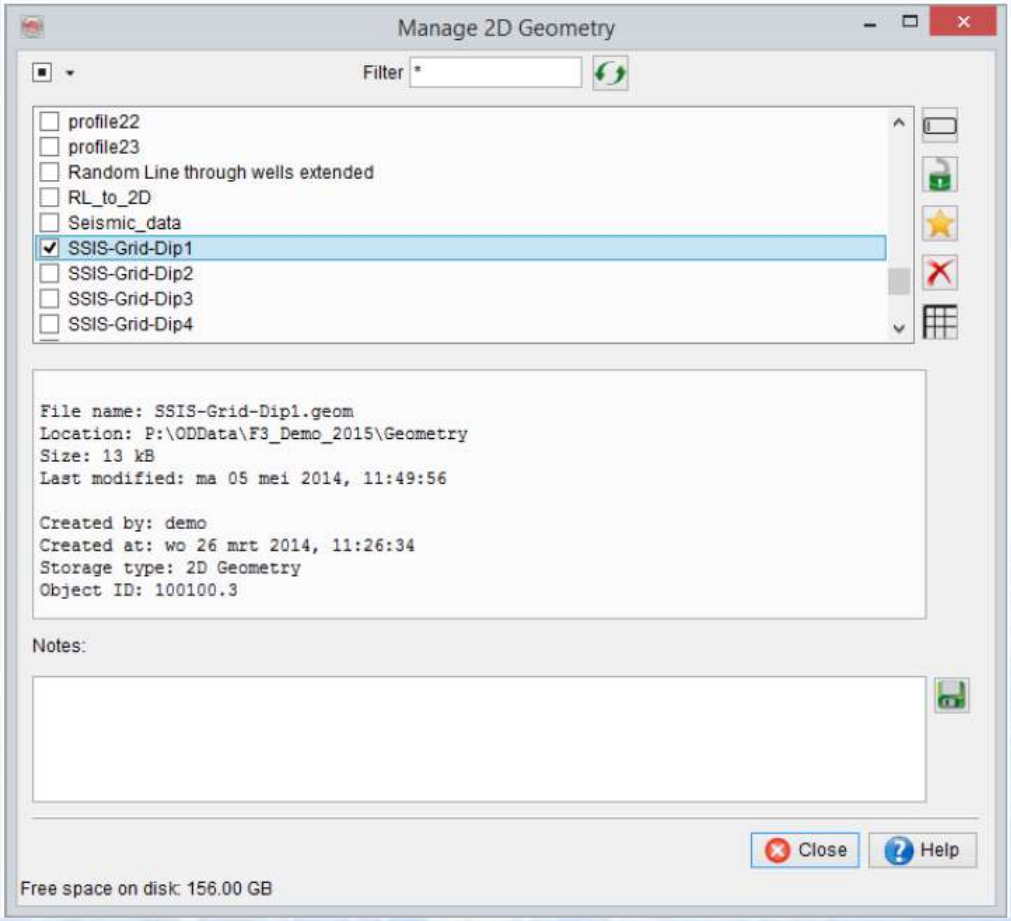
- the column numbers for the position: as X/Y coordinates or Inline/Crossline. The coordinate units must be in the same units as the coordinates of the survey corner points. Inline/crossline can be used but it is not recommended because of the grid spacing.
- Optionally the trace number column. It is not recommended to alter (re-specify) the trace numbers since it may corrupt the already loaded data.
- Optionally, the reading can be stopped at a specific line by providing the adequate keyword: the reading will stop at the first occurrence of that word.

It is recommended to save the format definition for a later use and QC, by clicking on the icon. Predefined and saved file formats can be restored by clicking on the icon.



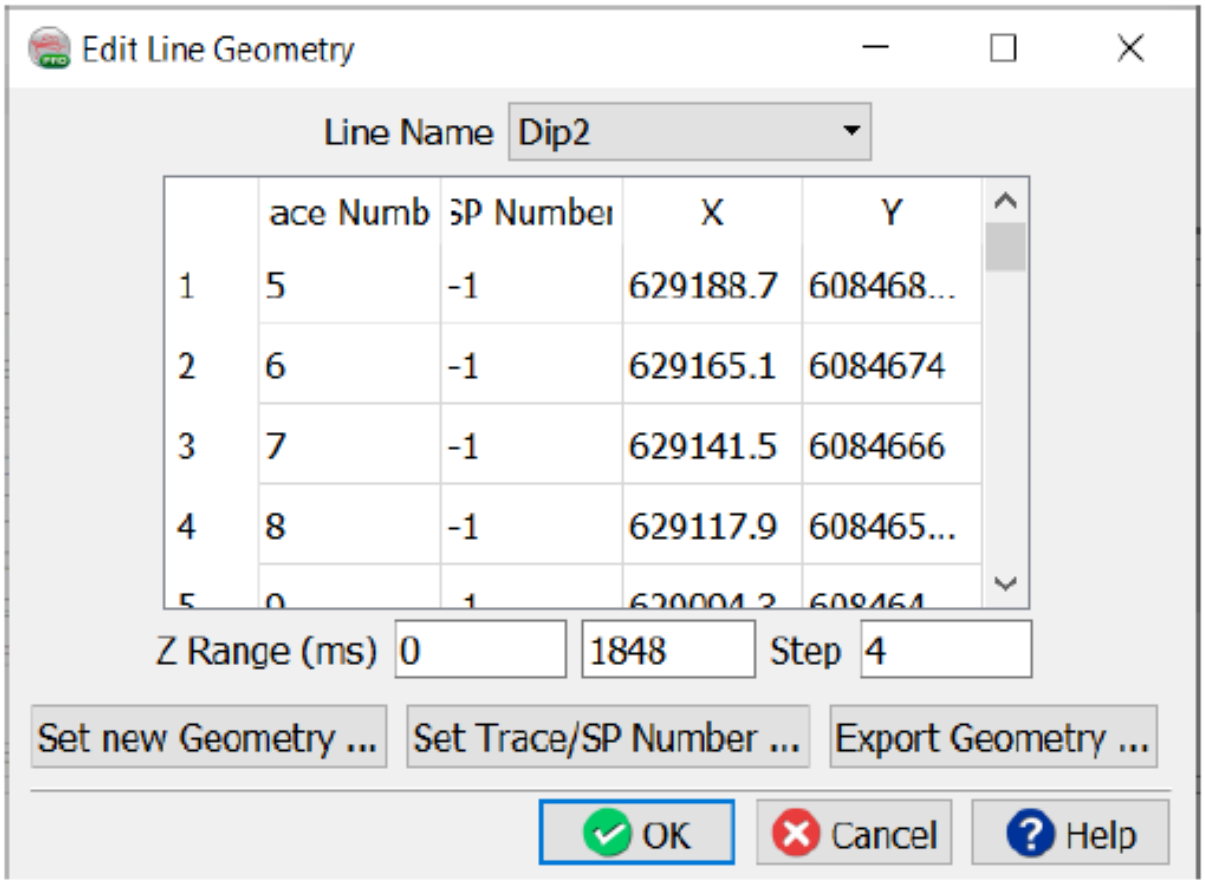
4.5.7.1 Manage 2D Geometry

This window allows for selection and removal of geometry of data sets. The icon , opens a further window to Manage Line Geometry.



4.5.7.2 Manage Line Geometry

In this window, line geometry can be edited on a per-trace, coordinate level.



The editing can be done manually, or you may make use of the option '*Set New Geometry*':