Gravity inversion (C11)

The INTREPID Line Filter tool has a Gravity Inversion filter. It can estimate the depth to the simple Bouguer anomaly or complete Bouguer anomaly.

In this worked example we estimate depth to the simple Bouguer anomaly

Location of sample data for Cookbooks

Where ***install_path*** is the path of your INTREPID installation, the project directory for the *Cookbooks* sample data is
install_path**\sample_data\cookbooks**.

For example, if INTREPID is installed in
C:\Program Files\Intrepid\Intrepid4.5,
then you can find the sample data at
**C:\Program Files\Intrepid\Intrepid4.5\sample_data\cookbooks**

For information about installing or reinstalling the sample data, see "Sample data for the INTREPID Cookbooks" in Using INTREPID Cookbooks (R19).

For a description of INTREPID datasets, see Introduction to the INTREPID database (G20). For more detail, see INTREPID database, file and data structures (R05).

Steps to follow

Start the INTREPID Line Filter tool

Choose **Load Line Dataset** from the **File** menu
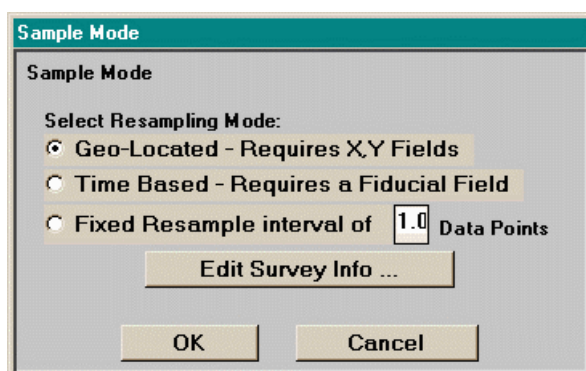
Specify the following dataset and fields.

| Data	Specification
Dataset	**marine1..DIR**
Z Field	**Bouguer..LINE**
Line Type	Cancel
Line Number	Cancel
FID	**Time..LINE**
Clearance	**Depth..LINE**

> *Tip: Note: Do not confuse the* **Depth** *field from this marine gravity survey with the estimated depth to simple Bouguer anomaly that we calculate.*

Choose **Gravity Inversion** from **Standard** in **New Filter** in the **Filter** menu
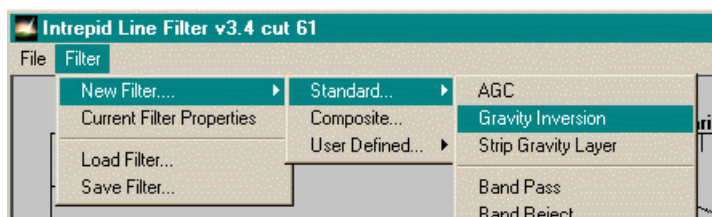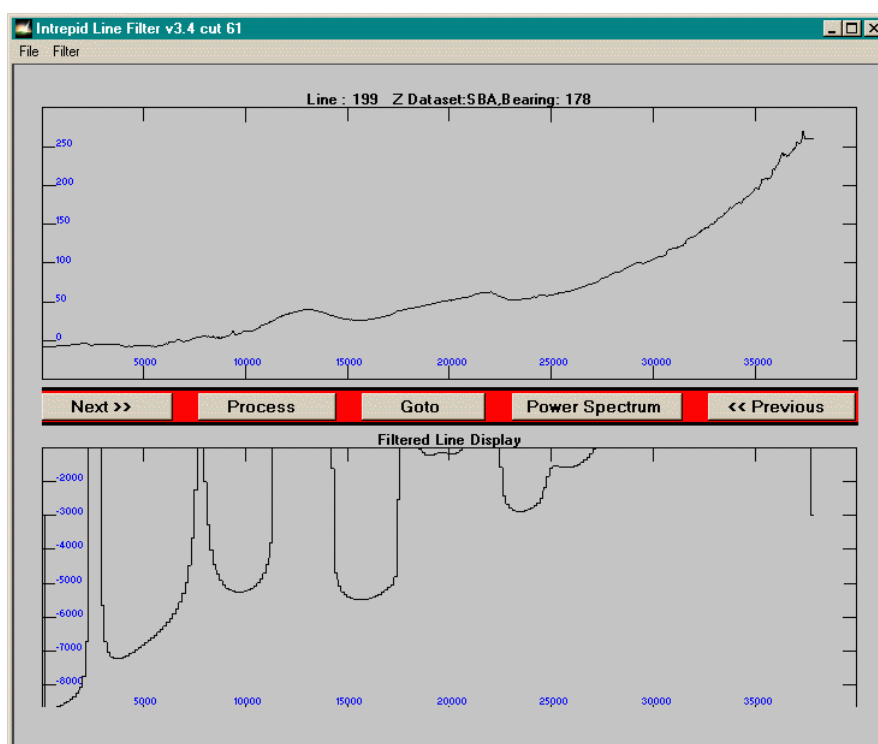

INTREPID displays the Gravity Inversion filter properties dialog box.

Set the values as shown in the illustration.
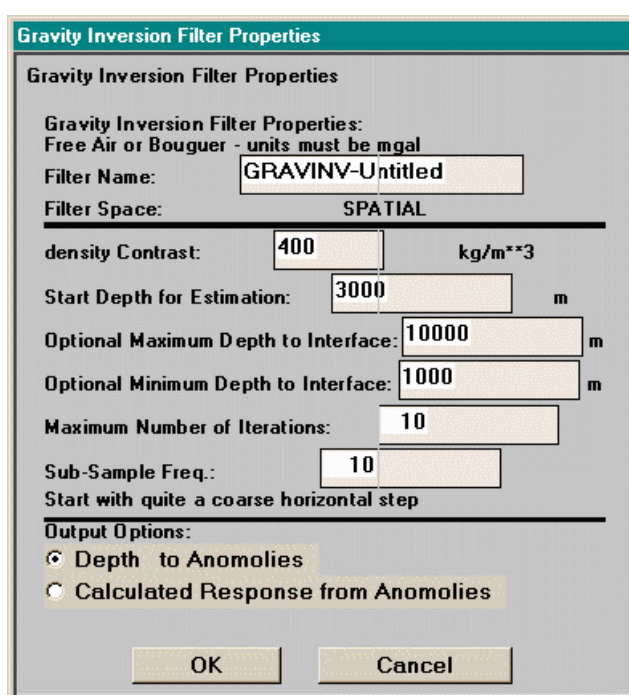
Choose **OK**.

INTREPID displays the original and filtered data profiles in the Line Filter window.

Click **Process**. Specify `bouguer_depth` as the output field

INTREPID calculates the estimated depth to the simple Bouguer anomaly.