

Apply DC Shift in GM-SYS Profile Modelling

A constant or DC shift usually must be applied to the calculated gravity and/or magnetic data to match the observed data. For gravity, this is necessary because the calculated value is an absolute gravity calculation for the model extending to 30,000 km in the $\pm X$ and $\pm Y$ directions, and to some arbitrary depth (50 km by default). Observed data are generally corrected for the reference geoid, or referenced to some local datum. For the magnetic response, the calculated value is the deviation from the ambient earth field value, whereas another datum may have been used for the observed data.

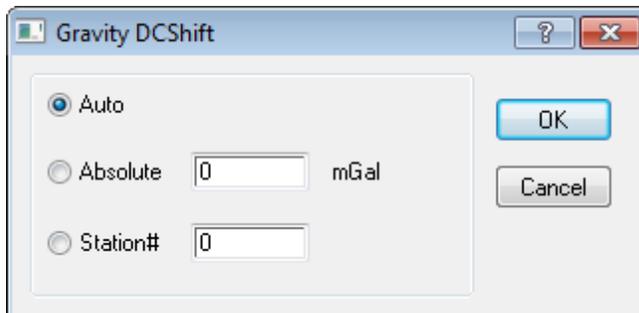
In GM-SYS Profile, a DC Shift can be applied to the calculated curve to force the calculated curve and the observed curve to match.

Applying a DC Shift

Use the *Profile* menu to apply a DC Shift to your calculated gravity and/or magnetic data.

To Apply a DC Shift

1. On the *Profile* menu, select **Magnetic DC Shift** or **Gravity DC Shift**. The *DC Shift* dialog appears. Both dialogs offer the same options.



2. Select **Auto** to automatically calculate the DC Shift to minimize the RMS error. This will continually adjust the DC Shift as you edit your model.

You may also select **Absolute** to enter the DC Shift explicitly.

Select **Station** to specify a point at which the calculated and observed curves will be forced to match.

 *In general, the fixed point should be near one end of the profile, in a section where you are not changing the geologic model. Editing the model near the fixed station may cause the DC Shift to change.*

3. Click **OK** to apply the changes. You are returned to the model.

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