

## Work with Blocks in GM-SYS Profile Modelling

In GM-SYS Profile, a block is an area of constant physical properties and strike (Y) extent. The block boundary is composed of a group of surfaces that completely enclose it. Blocks also may be assigned a fill pattern with foreground and/or background colour for display and plotting purposes.

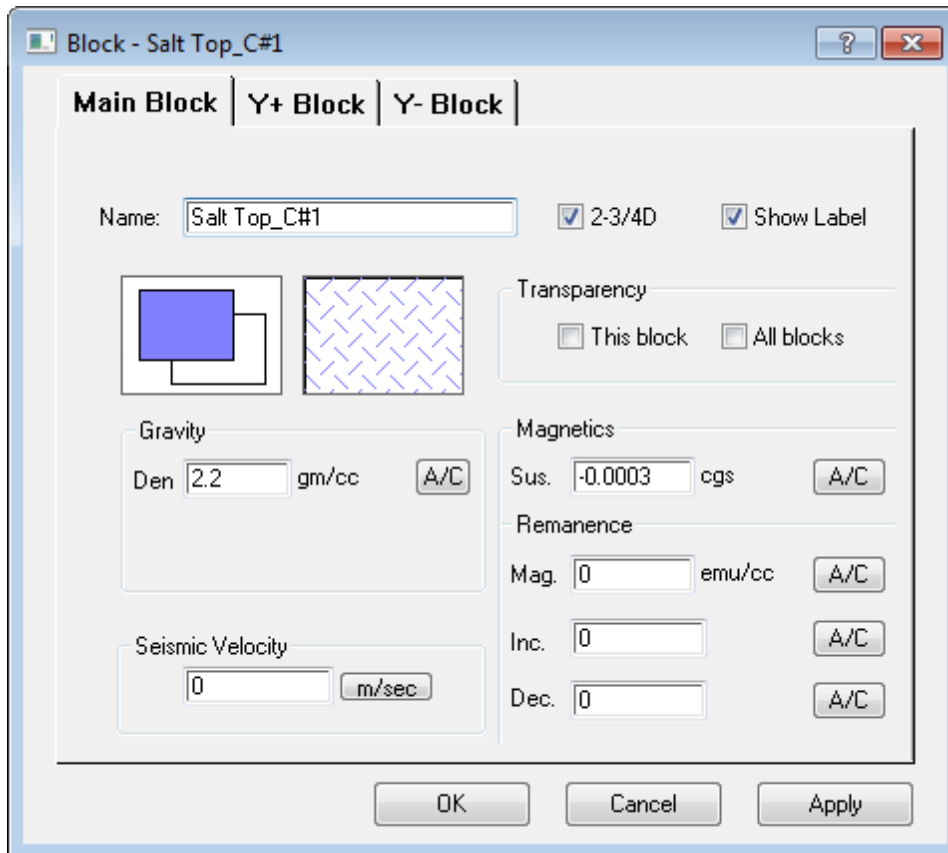
If the block is 2-D, these properties extend to infinity in the +Y and -Y directions (perpendicular to the profile direction; into and out of the screen). If the block is 2<sup>3</sup>/<sub>4</sub>-D, the main block is truncated at a +Y and/or -Y limit and the block extending from this limit to infinity may be assigned physical properties that differ from the main block. You may elect to assign separate fill pattern and/or colour to the +Y and -Y blocks, which will only be displayed in the Plan View.

### Editing Block Parameters Using Examine Block

Examine a block to display the *Block Attributes* dialog. Here you may set the block parameters, including name, 2<sup>3</sup>/<sub>4</sub>-D length, density, susceptibility, remanent magnetization, velocity, and display color and pattern. The surfaces surrounding the selected block will be highlighted in the cross-section.

#### To Set Block Parameters

1. On the *Action* menu, select **Examine**.
2. **Click** within the block you wish to modify. The *Block Attributes* dialog appears.



3. In the *Name* field, you can change the name of the block.
4. The color blocks allow you to change the block foreground color or block background color.
5. **Click** within the pattern area to change the block pattern. A foreground color (non-white) must be selected before you can select a pattern.
6. Check **2<sup>3</sup>/<sub>4</sub>-D** to activate the Y tabs for editing.
7. Check or un-check **Show Label** to make the label visible or hidden.
8. Set the *Transparency* if you wish to make this block or all blocks transparent.
9. You can change the *Density* of the block.
10. You can change the *Seismic Velocity* of the block.
11. You can change Magnetic Susceptibility and Remanent Magnetization in the *Magnetism* and *Remanence* fields.
12. When all desired changes have been made, click **Apply**.
13. Click **OK**. Depending upon the changes made, the appearance of the block may change in the Plan View or Cross-section pane and the model response may be updated.

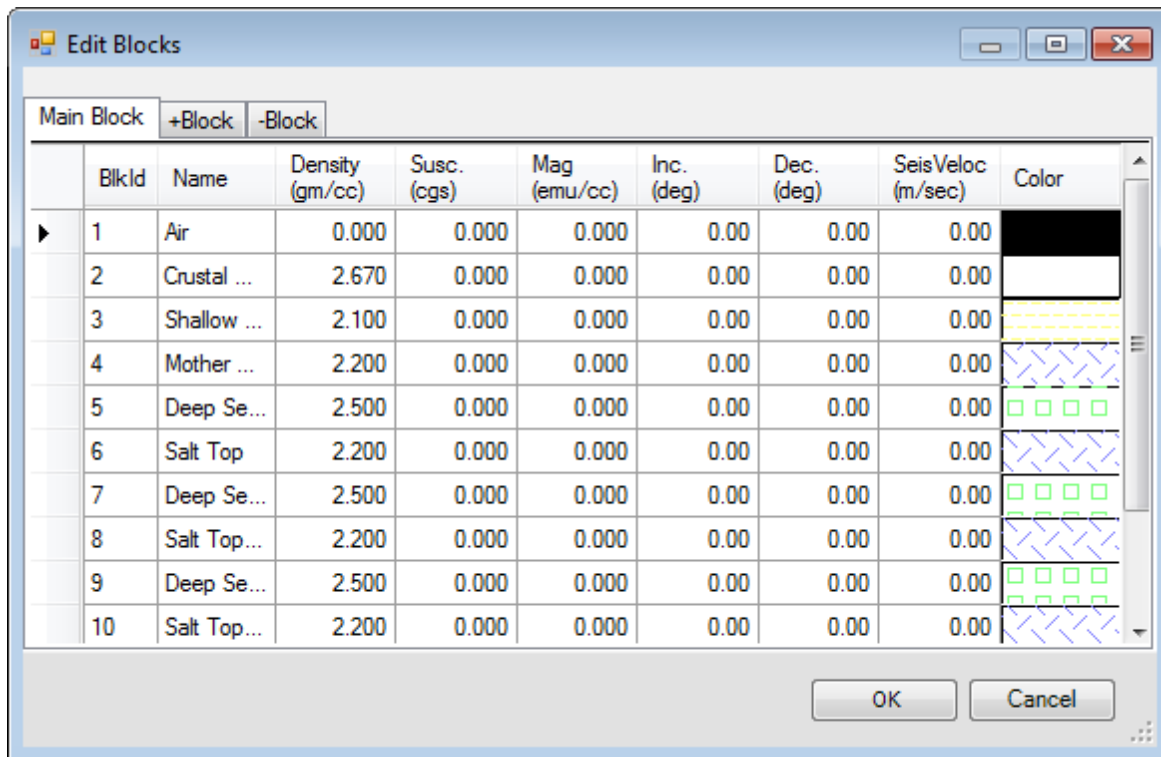
## Editing Blocks Using Block Spreadsheet

The *Edit Blocks* spreadsheet displays the name and other parameters of each block as a separate row in the spreadsheet. You may sort the spreadsheet by clicking on the header of any column. Parameters of the +Y and -Y extensions for 2<sup>3</sup>/<sub>4</sub>-D blocks are displayed in separate tabs. In the spreadsheet, you may view and edit block parameters. You may also copy & paste block names and parameters from one block to another. You may copy all or part of a row or several rows.

- ⚠ *Blocks can't be added or deleted in this spreadsheet. You may only edit the block parameters.*
- ⚠ *<Shift>-Click or <Ctrl>-Click to select a subset of a block's parameters to copy from one block to another.*
- ⚠ *You cannot edit block color or pattern in this spreadsheet.*

### To Edit Blocks

1. On the *Profile* menu, select **Edit Blocks**. The *Edit Blocks* spreadsheet opens.



2. Make the desired block changes.
3. Click **OK**. The changes appear in the model.


## Mapping Block Properties to Colours

The *Block Foreground Colour* option displays a submenu that enables the user to select one of four choices for setting the foreground colour. The first option *User-Selected* uses the block-fill colour and pattern as set via the **Examine Block** function or via the Block spreadsheet.

*Map to* options map block properties to colour tables:

- > Map to Density
- > Map to Susceptibility
- > Map to Remanent Mag.
- > Map to Velocity

The relationships are defined via the Colour Tool. Using the Colour Tool, you can map a range of values for each block parameter to a different colour table.

 *Default mappings exist for each parameter, so you don't need to access the Colour Tool in order to use "Map to" options.*

### To Set Foreground Colour

1. On the *Overlay* menu, select **Block Foreground Colour**. The submenu opens.
2. Select the required block foreground option. The change appears in the model if one of the *Map to* options is selected.

 *If you select **Colour Tool**, the Colour Tool dialog appears.*

## Block Background Colour

The *Block Background Colour* option displays a submenu that enables the user to modify the way background colours are displayed. 'User-Selected' uses the background settings from the **Examine Block** function for each block. 'All Transparent (none)' forces the background colour to transparent white regardless of the settings from the **Examine Block** function. 'All Solid (forecolor)' fills the background in with the foreground colour.

### To Set Block Background Colour

1. On the *Overlay* menu, select **Block Background Colour**. The submenu opens.
2. Select the required block background option. The change appears in the model.

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