

Work with Horizons in GM-SYS Profile Modelling

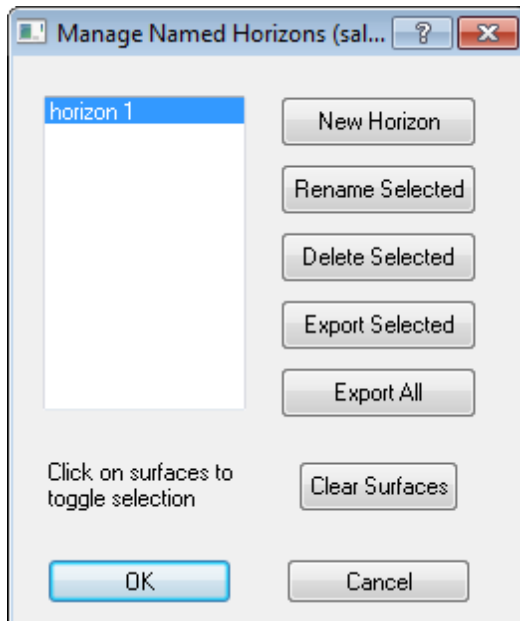
In GM-SYS Profile, a Horizon consists of one or more contiguous surfaces, connected end-to-end (no "branching"). Horizons may extend across the entire model, representing a geologic or structural boundary (e.g. an interpreted seismic horizon), and have relevance outside the model. When a horizon is imported and merged into the model, it is divided into the contiguous surfaces that represent individual block boundaries. If you elect to name the horizon and save it with the model, it may be retrieved later for export.

Creating a Named Horizon

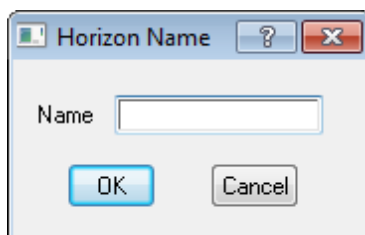
The *Manage Named Horizons* dialog allows you to create a Named Horizon from existing surfaces within the model.

To Create a Named Horizon

1. On the *Profile* menu, select **Managed Named Horizons**. The *Managed Named Horizons* dialog appears.



2. Click **New Horizon**. The *Horizon Name* dialog appears. You are prompted to enter a horizon name.



3. Click **OK**. You are returned to the *Manage Named Horizons* dialog.

4. While the horizon name is selected in the list, click on the contiguous surface segments that make up the horizon in consecutive order, starting from one end. Each selected surface is highlighted.



You may need to use the scroll bars so that you can start from one end and work to the other.

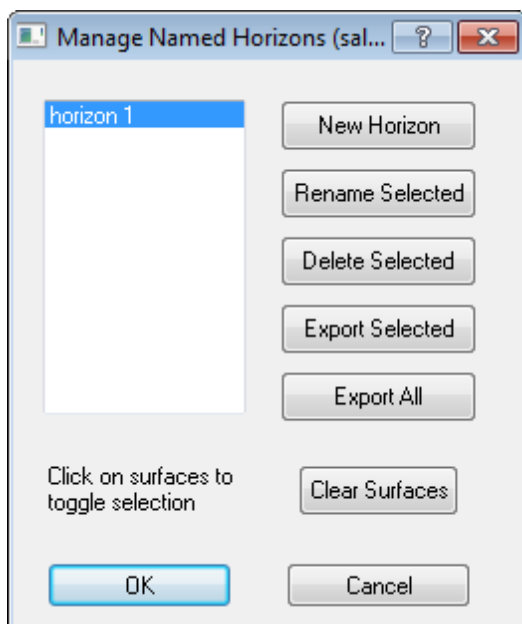
5. Click **OK** on the *Manage Named Horizons* dialog to close the dialog or click **New Horizon** to create another.

Editing a Named Horizon

The *Manage Named Horizons* dialog allows you to edit a Named Horizon.

To Edit a Named Horizon

1. On the *Profile* menu, select **Managed Named Horizons**. The *Managed Named Horizons* dialog appears.



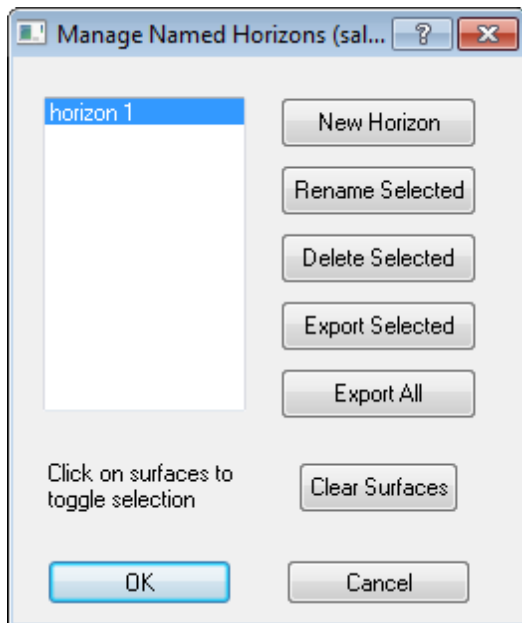
2. Select an existing Named Horizon from the list. The surfaces that make up the horizon are highlighted in the Cross-Section Pane.
3. Select additional contiguous surfaces to extend the horizon or select highlighted surfaces to remove them from the horizon.
4. Click **OK** to close the dialog or select another horizon to edit from the list.

Deleting a Named Horizon

The *Manage Named Horizons* dialog allows you to delete a Named Horizon.

To Delete a Named Horizon

1. On the *Profile* menu, select **Managed Named Horizons**. The *Managed Named Horizons* dialog appears.




2. Select an existing Named Horizon from the list.
3. Click **Delete Selected** to remove the horizon from the list.
4. Click **OK** to close the dialog or select another horizon to delete from the list.

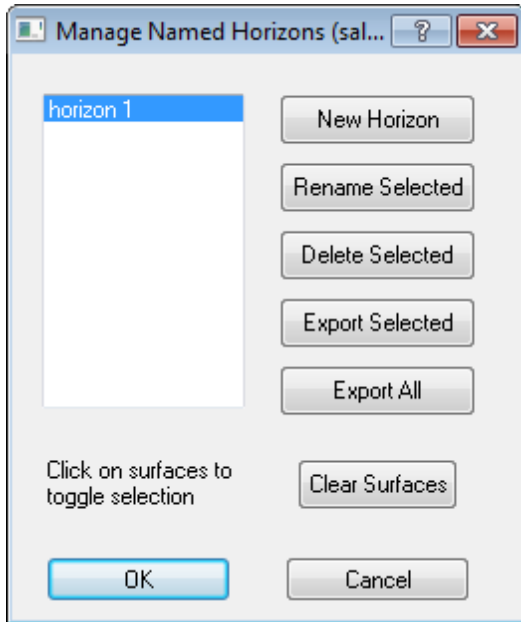
Exporting Named Horizons

The *Manage Named Horizons* dialog allows you to export the selected Named Horizon or all Named Horizons. When a horizon is active, you can click on a surface to make edits. Clicking **Clear Selections** de-selects all surfaces in the selected Horizon.

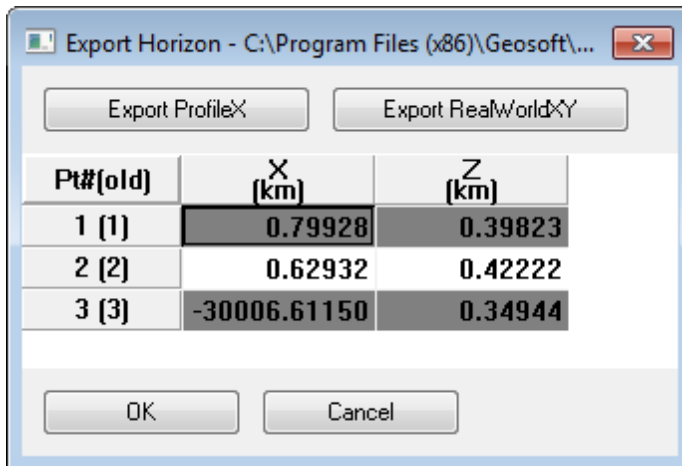
To Export a Selected Named Horizon

-  *Named Horizons that are no longer contiguous due to model changes will be identified in the list by prepending <broken> to the name.*

1. On the *Profile* menu, select **Manage Named Horizons**. The *Manage Named Horizons* dialog appears.



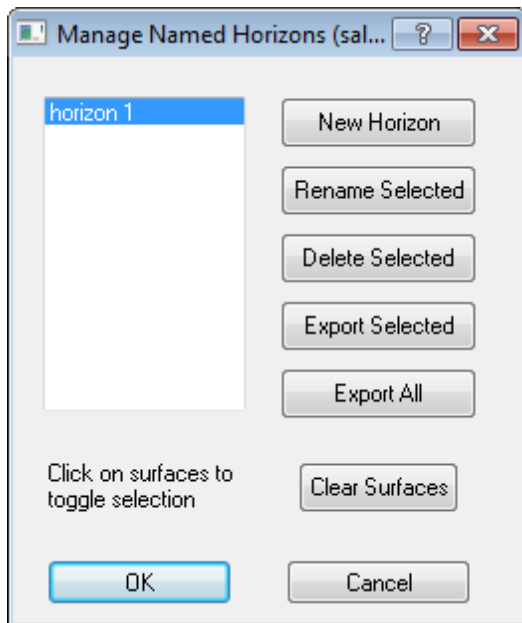
2. Select the horizon to Export and click **Export Selected**. The *Export Horizon* dialog appears with a spreadsheet displaying all of the points in your horizon.



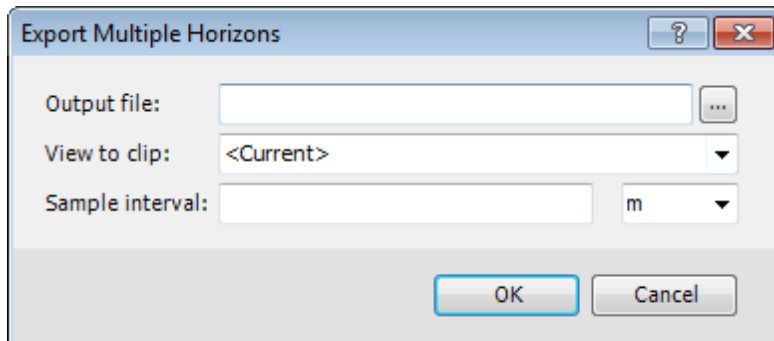
3. Click **Export ProfileX** to export in model (X,Z) coordinates, or **Export RealWorldXY** to export in external (X,Y,Z) coordinates.
4. Specify the name and location of the output file. Click **Save**. You are returned to the *Export Horizon* dialog.
5. Click **OK**. The file is created and you are returned to the *Manage Named Horizons* dialog.
6. Click **OK**. The dialog closes

To Export All Named Horizons

1. On the *Profile* menu, select **Manage Named Horizons**. The *Manage Named Horizons* dialog appears.



2. Click **Export All**. The *Export Multiple Horizons* dialog appears.



3. Specify the name and location of the *Output file*.
4. Specify the *View to clip*. You may select any view saved in the model or the "current" view in the model. The limits will be used to mask (remove) any horizon points that fall outside of the view limits.
5. Specify the *Sample interval* and units to resample all horizons in the model that fall within the selected view.
6. Click **OK**. The file is created and you are returned to the *Manage Named Horizons* dialog.
7. Click **OK**. The dialog closes.

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