


Visualisation in Geochemistry for ArcGIS

This *Visualisation in Geochemistry for ArcGIS* How-To Guide will demonstrate the key steps required to create a feature class and symbolise your data this includes, creating a feature class from the merged data. setting assay colours and creating map layers.

Geosoft provides sample data for you to use when working through these How-To Guides. These data files can be found in your "...\Geosoft\Oasis montaj\resourcefiles\data\geochemistry" folder.

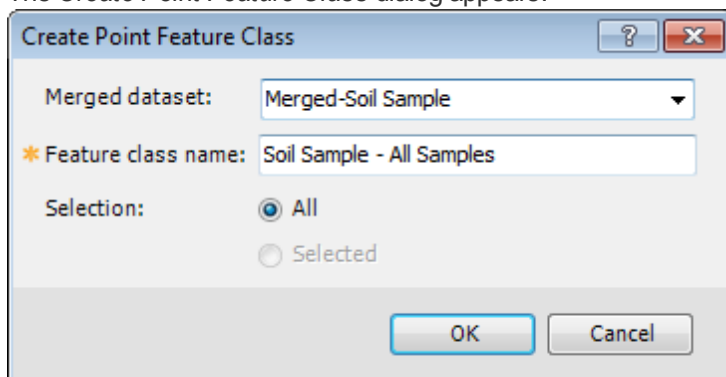
Creating a Feature Class from Merged Data

Use the *Create Feature Class* option to create a point feature class from your merged geochemistry location and assay data.


 *Only merged datasets can be used to create feature classes since both the location information and the assay results are required.*

To Create a Feature Class


1. On the *Geosoft Geochemistry* toolbar, from the *Visualisation* menu, select **Create Feature Class**. The *Create Point Feature Class* dialog appears.



2. By default, the current *Merged dataset* (in this case, Merged-Soil Sample) should be displayed. If it is not, use the dropdown list to select your merged dataset.
3. In the *Feature class name* text box select a name for the new feature class.

 *The default name can be changed to provide a more meaningful description of what is being displayed in the feature class. For example, if you have selected a subset of the data points and create a feature class using that selection, you might name the feature class based on the selection criteria used.*

4. You can accept the *Selection* default (All).

 *If a subset of the Merged dataset is selected then a feature class can be created of this subset by selecting the (Selected) option.*

6. Select the **OK** button to create the Feature Class.
Once the Feature Class has been created, the TOC will switch to List by Drawing Order mode. At this point, you can use the default Esri Symbology tools to symbolize the data or use the tools on the Geochemistry Visualisation menu.

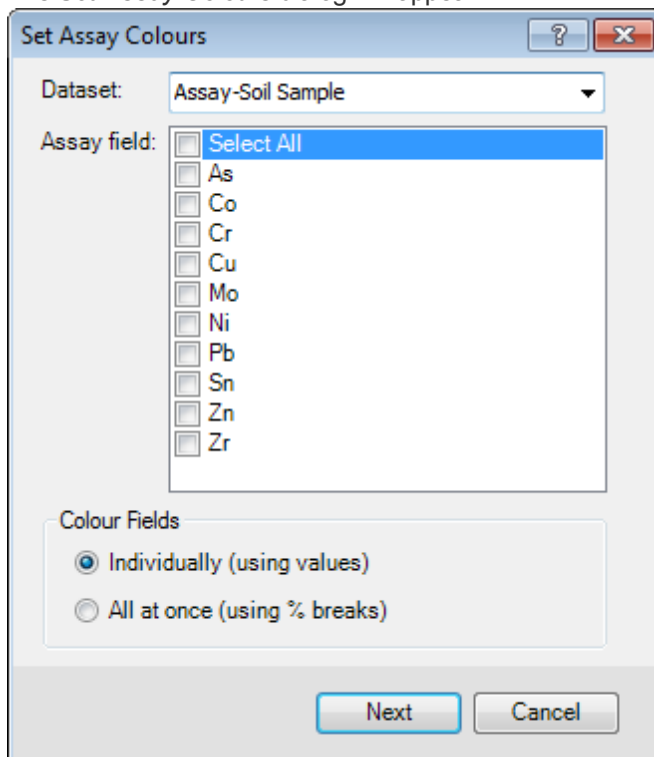
Set Assay Colours

When a feature class is first created it is coloured using the Esri default renderer so all the points are displayed in one colour. In order to give the points more meaning the assay values can be used to set the display colours.

The *Geochemistry Visualisation* menu provides the tools to set assay colours and create map layers. These tools can also be accessed from the *Geochemistry Data Source* tab by right-clicking the *Feature Class* in the Table of Contents and selecting those options from the pop-up menu.

To Set Assay Colours

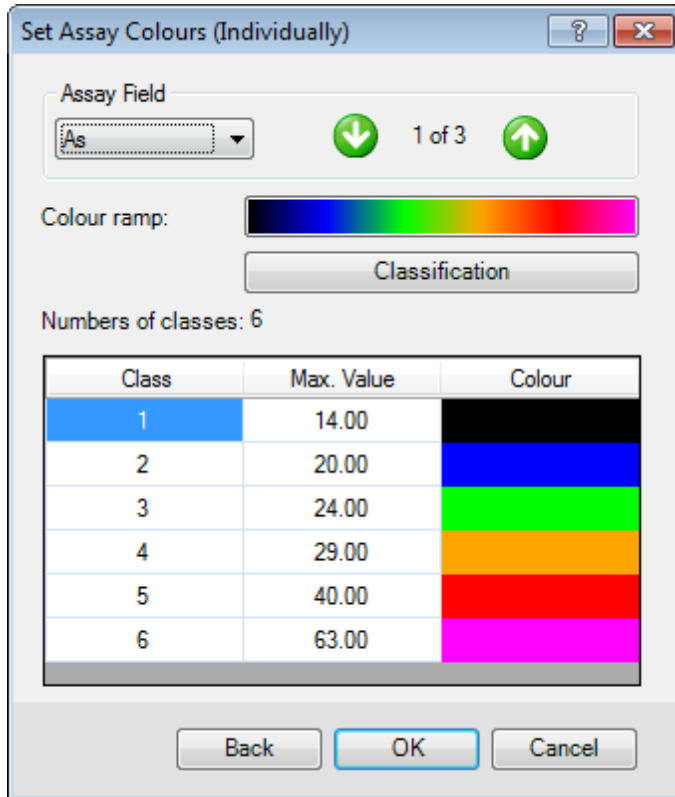
1. On the *Geosoft Geochemistry* toolbar, from the *Visualisation* menu, select **Set Assay Colours**. The *Set Assay Colours* dialog will appear.



2. Using the *Dataset* dropdown list select the dataset to edit.
3. The *Assay field* enables you to select any number of assay fields. Choosing the 'Select All' option selects all the available assays fields, or you can select each one individually.
4. The *Colour Fields* radio buttons enable you to set them *All at once*, as a batch process applied to all selected assays or *Individually*, with different colour ranges for each assay. Both methods are illustrated below, as their workflows are slightly different.

To Set Assay Colour Fields – Individually (using values)

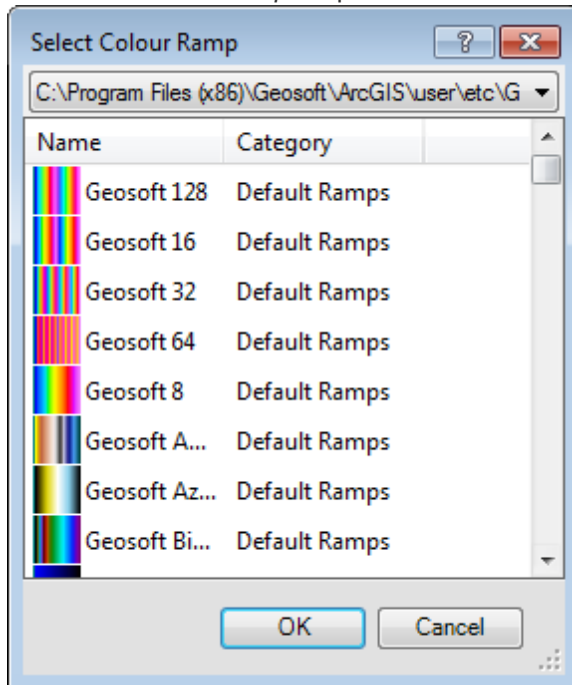
1. After selecting some Assay field parameters, select the **Individually (using values)** radio button.
2. Select **Next** and the *Set Assay Colours (Individually)* dialog will appear.



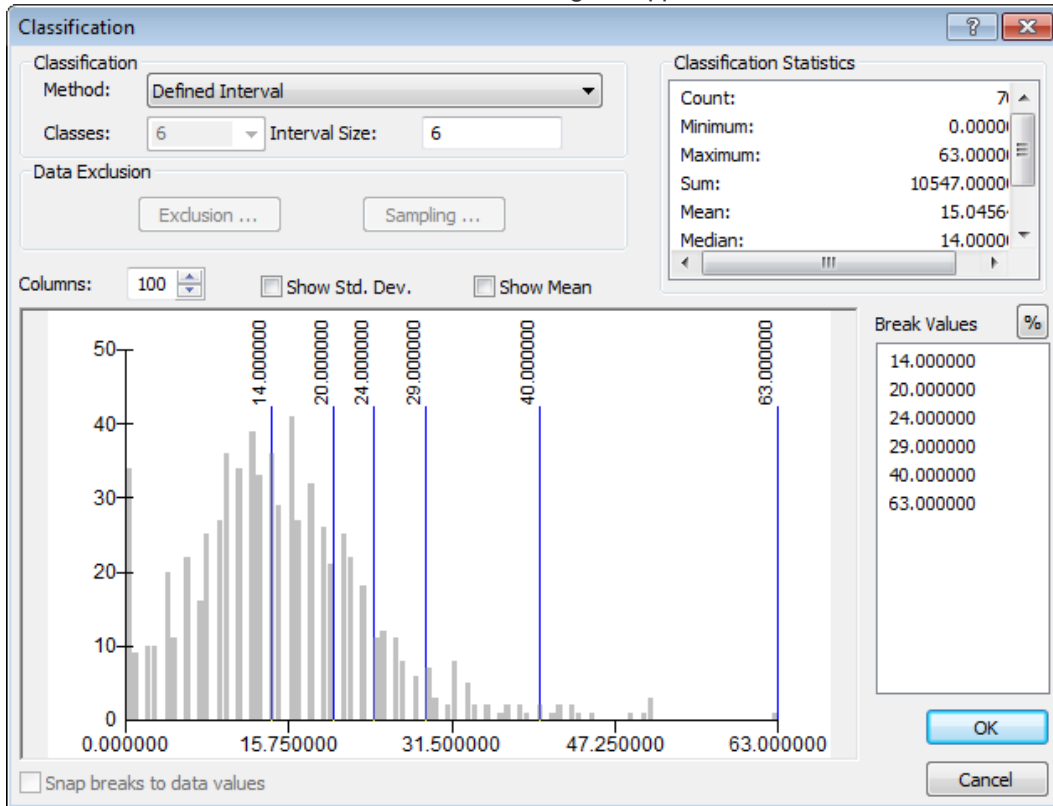
3. Using the *Assay Field* dropdown list, select the field to edit.

⚠ *The up and down arrows can be used to switch between different assay fields.*


4. Click on the *Colour ramp* to open the *Select Colour Ramp* dialog.



5. The dropdown list at the top of this dialog enables you to access Colour Ramps from Geosoft or Esri. Select the desired *Colour Ramp*.
6. Select the **OK** button to return to the *Set Assay Colours (Individually)* dialog.
7. Select **Classification** and the *Classification* dialog will appear.



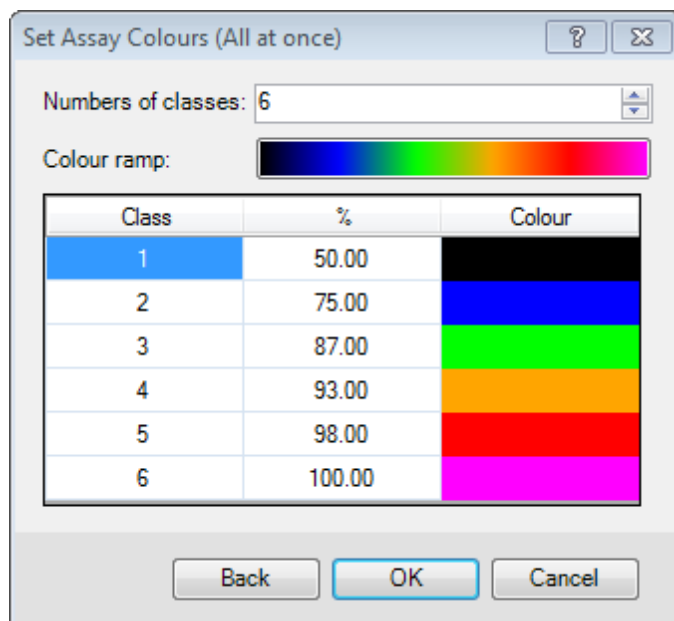
8. From the *Method* dropdown list, select the method for classification.
9. Depending on the classification selected above, you may need to set the number of *Classes* or *Interval Size*.

 *The Classification dialog enables you to set the number of columns the data is binned in, exclude certain samples, assign break values, and set many other classifications.*

10. Select **OK** to save and display the changes in the *Set Assay Colours (Individually)* dialog.
11. Select **OK** to save the colour ramp(s) to the assay field.
12. Repeat this process for the remaining selected Assay fields.

To Set Colour Fields – All at once (using % breaks)

1. On the *Set Assay Colours* dialog, select the desired *Dataset* from the dropdown list.
2. For the *Assay field* select the **Select All** checkbox and all of the Assay fields will be selected.
3. For the *Colour Fields* select the **All at once (using % breaks)** radio button.
4. Select **Next** and the *Set Assay Colours (All at once)* dialog will be displayed.



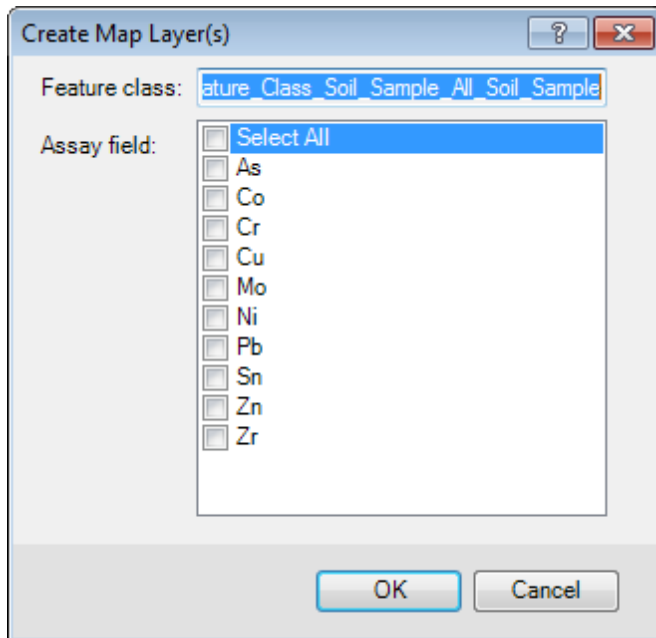
5. From the dropdown list, select the *Numbers of classes* to apply for each file.
6. Click on the *Colour ramp* to open the *Select Colour Ramp* dialog.
7. The dropdown list at the top of this dialog enables you to access Colour Ramps from Geosoft or Esri. Select the desired *Colour Ramp*.
8. Select the **OK** button to return to the *Set Assay Colours (All at once)* dialog.
9. Select **OK** to save the colour ramp(s) to the Assay fields.

Create Map Layers

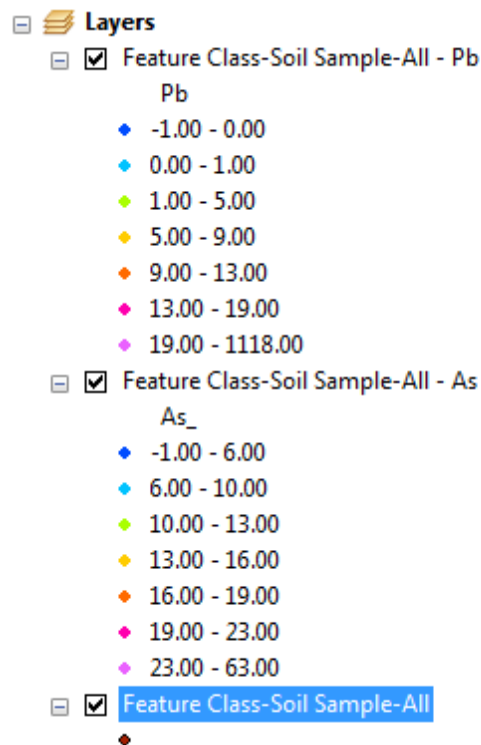
You can create Map Layers to symbolize the point feature class by assay type.

To Create a Map Layer

1. On the *Table of Contents* toolbar, select the **Geochemistry Data Source** icon to display your Geochemistry Data Source project data.
2. Select (highlight) the desired *Feature Class*.
3. On the *Geosoft Geochemistry* toolbar, from the *Visualisation* menu, select **Create Map Layer(s)**. The *Create Map Layer(s)* dialog will appear.



4. Select the desired *Assay field(s)* or 'Select All' to select all fields.
5. Select the **OK** button.
6. When the Map Layers have been created, the *Table of Contents* will switch to the **List by Drawing Order** mode, and the map layers will be added. The name of the originating feature class will be used and the name of the assay being coloured will be added to this name. An example is shown below. The map layers point to the original data and are saved in the MXD.



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