

Tutorial: Compound Items

What are Compound Items?

Compound Items are groupings which cannot be easily constructed from PETROG's hierarchies, such as groups from more than one Item or Class.

PETROG's hierarchies make it easy to report on, search for and otherwise work with data, regardless of how it was logged. For example, if you want to refer to all of Illite Group, Kaolinite Group, Palygorskite Group, Smectite Group, Vermiculite and Mixed Layer Clay Minerals, then you need only say "Clay Minerals" and PETROG will find any or every occurrence of any of these specific clay minerals, including specialisations thereof: Brammallite, Celadonite, Hydrous-micas, Illite and Phengite will be included, because they are all Illite Group, and so will Allophane, Dickite, Halloysite, Imogolite, Kaolinite and Nacrite, because they are all Kaolinite Group, etc.

However, what if you wanted to refer to all Illite Group and Kaolinite Group, but no other clay minerals? Or if you wanted to find all clay minerals except Smectite Group? Compound Items can be created using simple logic to include and exclude items and/or classes, to provide a convenient descriptor for any such combination.

Compound Items can be used for:

- plotting triangular diagrams by defining vertex end member composition (see Triangular Diagrams in the PETROG manual);
- the mapping of imported data to their PETROG equivalents;
- searching the database;
- reporting (see tutorial: Reporting)

Both whole Classes and individual Items can be either included or excluded from Compound Items.

Creating Compound Items

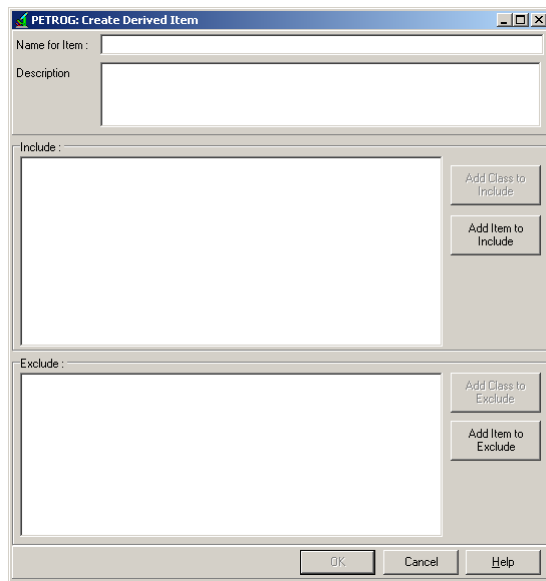
Compound Items are constructed from the hierarchical reference lists of the various rock sample and pore type components held within the **PETROG** database. As with other functions within **PETROG**, selecting any Class or Item selects all of its children. Compound Items can be created from any combination of Classes and Items within **PETROG**. To create a Compound Item:

To create a Compound Item:

1. use the **PETROG** main menu

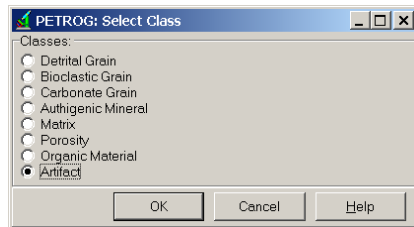
Lists | Compound Items | Create Compound Items.

to show the window:



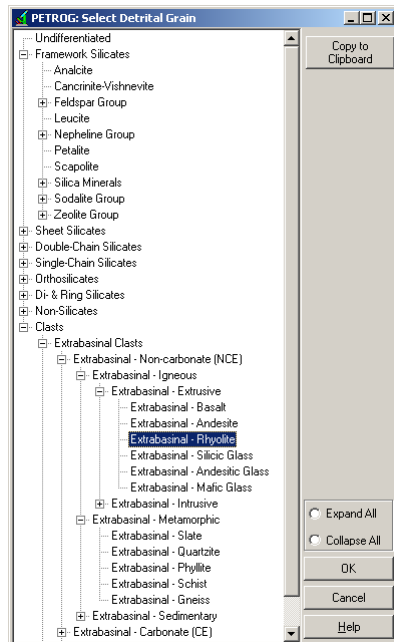
Create Compound Item window.

2. Enter a unique name for the Compound Item in the Name for Item box;
3. Provide a brief description of the Item (this is not compulsory, but is highly recommended);
4. Click on one of the **Include Item** or **Include Class** buttons;



Select Class window.

5. In the Select Class window click the radio button for the Class required and then **OK**;



Select [item] window.

- From the Select [item] window click on the Item required and then **OK**;
- The item will then be placed in the Include box in the Create Compound Item window.

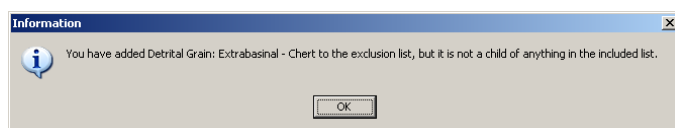
Repeat steps 3 to 7 as many times as required.

To exclude an item that has been included from a larger group (e.g. Detrital Grain Polycrystalline Quartz from Detrital Grain Quartz):

- Click on the **Exclude Item** button;
- In the Select Class window click the radio button for the Class required and then **OK**;
- From the Select [item] window click on the Item required and then **OK**;
- The item will then be placed in the Exclude box in the Create Compound Item window.

Repeat steps 1 to 3 as many times as required.

If you try to exclude an item that has not been included in a higher category the following error message will appear.



If the item appears in the Exclude box it is advisable to delete it immediately.

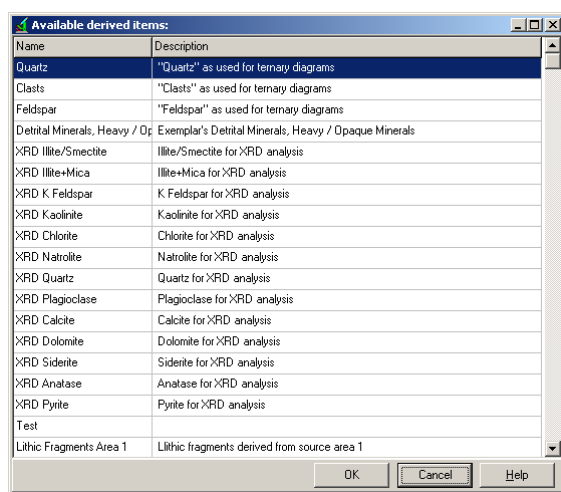
To Delete an item from the Include or Exclude boxes, use the **LMB** to select the item and then click the **Delete Item** button.

To Clear all items from both the Include and Exclude boxes click the **Clear** button at the base of the window.

Editing Compound Items

To edit an existing Compound Item:

- Select from the **PETROG** window, Lists | Compound Items | Edit Compound Item.



Compound Items Available window.

A list of all the Compound Items contained within the **PETROG** database is presented. Select the Compound Items you wish to edit followed by the **Edit List** button. This presents you with the Edit Compound Item window (see [Creating Compound Items](#) for

functionality). Any unwanted items may be deleted as long as they belong to the current petrographer (see [Edit Petrographer Details](#)).

Listing Compound Items

This facility is not available in this version of **PETROG**.

Using Compound Items

Compound Items can be used for:

1. plotting triangular diagrams by defining vertex end member composition;
2. the mapping of imported data to their **PETROG** equivalents;
3. searching the database;
4. reporting

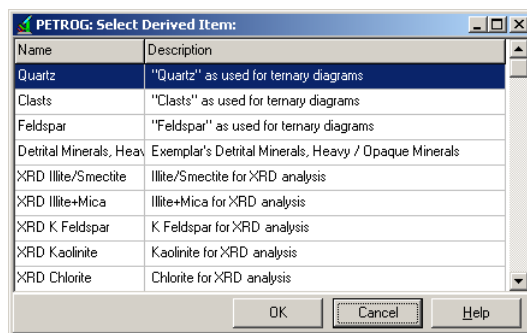
1 & 3 are described below. For (2), see tutorial: Importing Data; for (4), see tutorial: Reporting.

Selecting End-Point Components for a Triangular Diagram

To select the data to be plotted on the triangular diagram:

Select from the Triangular Diagram window, View | Specify Component | [vertex to be defined].

This will open the Select Derived Item window.



Select Compound Item window.

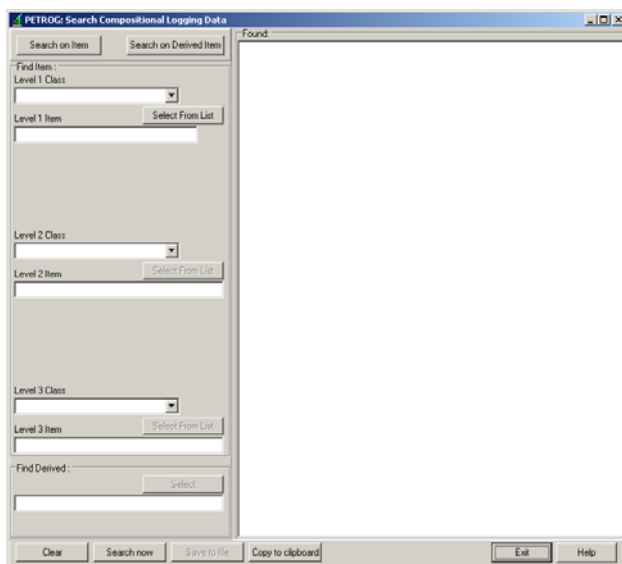
From this window select the Compound Item that is required as the end member for plotting at the chosen triangular diagram vertex. This selection should be repeated for each vertex as appropriate.

See also Triangular Diagrams in the **PETROG** manual

Search for Compound Item

To search for a Compound Item created for triangular diagram plotting:

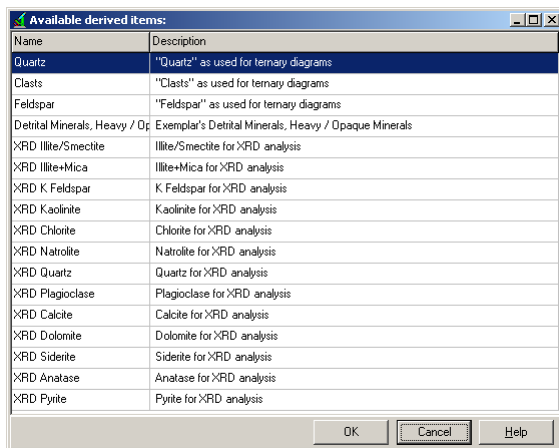
1. Select from the **PETROG** window, Data Analysis | Search | Search for Compound Item.



Search for Compound Item window.

This opens the Search for Compound Item window. To select the item you wish to search for:

2. Click the **Select from List** button which opens the Compound Items window;



Compound Items window.

3. From the Compound Items window select the item that is required, then click **OK** button;
4. Click the **Search** button at the base of the window;

The results can be saved to a txt file by selecting the **Save to File** button or to the clipboard by selecting the **Copy to Clipboard** button.

Click the **Clear** button to clear all settings and results.