
Tutorial 2 – Collecting Data

Once a project, well and samples have been defined within **PETROG**, it is possible to enter data. Petrographic data within **PETROG** comes in two forms, textural and compositional. It is up to the petrographer what data is collected and in which order.

For more information about entering data in **PETROG** see the manual section on [Data Entry](#). For the purposes of this tutorial it will be assumed that a full **PETROG** installation is present, that system default settings are used and that a microscope mounted video camera is present.

Entering Textural Data

Within **PETROG** textural data consists of three broad categories, grain size/sorting, grain morphology and rock fabric. These data types are entered through the Data Entry – Texture window. At the present time only visual estimated data can be entered into **PETROG**.

To enter textural data in **PETROG**:

Select Data Entry | Texture – Estimation (see [Entering Texture - Estimation Data](#) for further details). This will open the Data Entry – Texture - Estimation window;

To enter grain size/sorting data:

First make sure that the microscope objective selected in the Objective drop-down list is the one that you are using. Then on the video image, select a grain with a representative size and click at the apices of the chosen grain's long axis. The grain size value will be displayed in the Grain Size text box in the units specified;

Note: If you are using a MicroStepper supplied by CVS you can move around the slide using the stepper control buttons at the margins of the video image.

Then click the button below the label Grain Size Spread (Sorting) and click on the appropriate comparable image from the visual comparator to enter the grain size sorting value;

Grain morphology (roundness & sphericity) data consists of size shape information about the grains:

In turn click the buttons below the Roundness and Sphericity labels and click on the appropriate comparable image from the visual comparator to enter these values;

Rock fabric (grain contacts, structure & pressure solution features) data consists of information on grain to grain relationships resulting from depositional and compactional processes:

In turn click the buttons below the Grain Contacts, Structure and Pressure Solution labels and click on the appropriate comparable image from the visual comparator to enter these values;

Note: The button for Pressure Solution will only become active if Structure is set as 'Stylolitic'.

If you wish to save a copy of the image from which you collected the data, click the Save Image button.

Click **OK**. You have now completed Textural Data entry for the sample.

Entering Compositional Data

Within **PETROG** compositional data can be collected in two ways, either by point counting (quantitative) or by using abundance comparators (estimation).

Mineralogical and porosity components of the sample are referred to as **Items**. Each **Item** can be assigned a **Qualifier** describing it in terms of its growth form (e.g. twinning of feldspars) or fabric modification (e.g. biodegradation of carbonate particles). In addition, the post-depositional sequence of events that resulted in the presence of the **Item** can be described in up to three stages (**Levels**) related to each other by a **Relationship** (e.g. cementing) (see [Composition Data Entry](#) for more details).

For the purposes of this tutorial the process of entering quantitative data will be followed (see [Entering Composition - Estimation Data](#) for entering data by visual estimation).

To enter quantitative compositional data in **PETROG**:

Select Data Entry | Composition - Quantitative (see [Entering Composition - Quantitative Data](#)). This will open the Composition - Quantitative; Data Entry window with a video image with cross hairs at the top left and the data entry area to the right;

In the right hand area click on the radio button appropriate for the **Item** under the cross hairs;

You will then be presented with a Qualifiers & Relationships window, select the appropriate **Qualifier** for the item and, where appropriate, its diagenetic **Relationship**;

Note: If you do not wish to enter **Qualifiers** and/or **Relationships** then click the **Close** button.

If a **Relationship** is entered, it will be necessary to select another **Item** from the radio button lists to complete the relationship. In some cases a further Qualifiers & Relationships window will open, if so repeat step 3;

When all selections appropriate for the first point are entered, the stepper will move onto the next point. Keep repeating steps 2 to 4 until you have reached the count target;

Note: You will not be allowed to select an **Item** which is inappropriate for the specified **Relationship**.

When entries for all points have been completed, the software will inform you. Click **OK** on the Composition - Quantitative window to complete data entry. You have now completed compositional data entry for the sample.

Compositional Data: Additional tips and tricks

If an item is not visible on one of the ticklists, it can still be logged. Click the button “Select from full list” in the section (Detrital grains, Bioclastic grains, etc.) for the observed item, find the item by following the appropriate hierarchy, click this item and then proceed as normal. All of the qualifiers options will appear as if the item had been selected from a ticklist.

Any of the previously-logged points can be copied for the current point by double-clicking on the point in the summary listing (although you may need to scroll through the list to find it).