# Version 3.1.9.4: Functionality Addendum

This document details updates which have been introduced in this and other recent versions of the programme and the functional changes which have been introduced to aspects of the software as a result.

License Key

From version 3.1.9.3 onwards, **PETROG** will require a licence key to operate. Each licence key is unique to the ID of the SteppingStage with which the copy of **PETROG** is related. As such, each licence key will either be sent out with the download link to the latest version, or on request by emailing support@petrog.com.

Once the licence has been received it will need to be entered into the **PETROG** software to continue its use. In order to do this, please run the latest version of **PETROG** by right-clicking the desktop shortcut and selecting 'Run as administrator'. Once **PETROG** has started up, follow the menu path:

```
Help | About PETROG
```
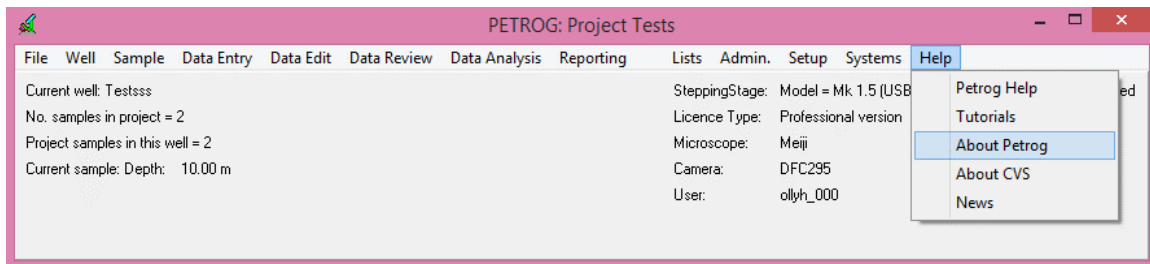

This will open the About Petrog window:
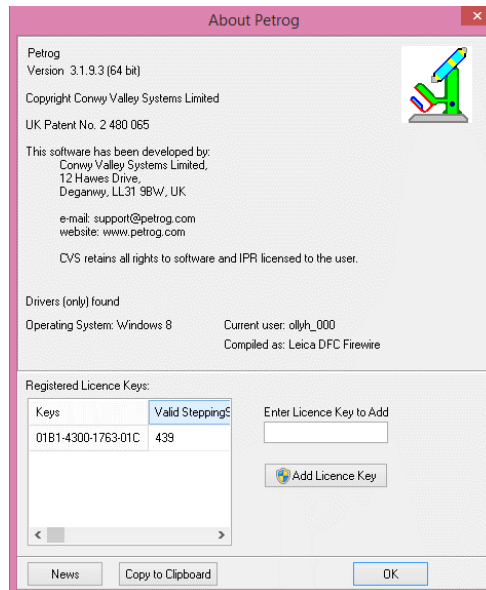
Within this window, the licence key provided should be inserted into the box labeled **Enter Licence Key to Add** and the **Add Licence Key** button should be pressed. Once the licence key is added successfully, the software should be restarted as prompted and then **PETROG** is ready to use.

Quantitative Textural Data Entry and Edit

Auto Move textural data collection has been updated, so that the stage will automatically move on to the next point of a count after each grain measurement. An additional data collection method, Grid Move, has been added to replace the original Auto Move method, with the point distribution and stage movement predefined by the AoI, with movement controlled by a single button press to move on to the next field of view. In v3.1.9.4, the Back and Undo Line buttons have been improved so that they behave as would be expected for each different data collection method (Auto / Grid / Manual).

Estimated Compositional Data Entry

This mode was disabled while all the windows that display an image were made modular, to take advantage of multiple monitors. This has now been re-instated and is modular, along with the other data entry windows.

Concurrent Quantitative Compositional and Textural Logging

Alterations have been made to the order in which data can be collected in this mode. It is now possible to collect either textural or compositional data first, therefore providing the user with increased flexibility, whilst maintaining the same mechanism for the actual data collection. The default objective value is now set to be the value specified for compositional data collection, and it is now your imperative to change this value should you need to use a different objective for a particular textural measurement (if the zoom option is still not sufficient to allow the measurement to be performed with the current objective). You will be reminded by the software to switch back to the default (compositional) objective once the textural measurement has been completed.

**Porosity and Mineralogical Summary**

Porosity Summary and Mineralogical Summary (from the Data Analysis menu) now have options to provide a summary of their information, in a table, for the whole project.

We intend to expand the range of 'whole project' analysis and report options available, so these new features may move to a different menu tree.

Image Stitching

Both image collection and stitching have been improved in response to feedback.

During image collection, the delay times between stage movement – image capture – stage movement can be adjusted manually using the SteppingStage Wait time and Live Image Wait time in order to improve the quality control of the images at each point , reducing the possibility of blur and exposure differences.
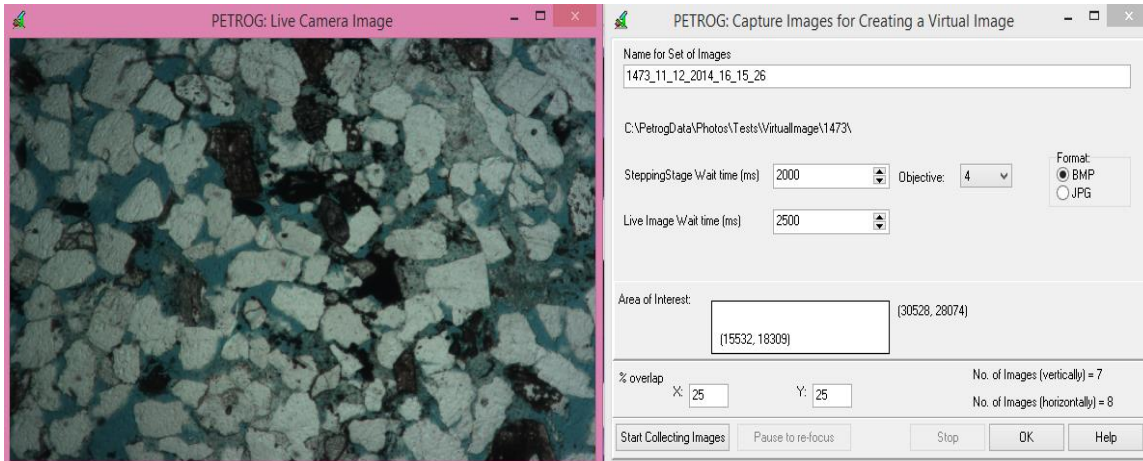
There is a more intuitive viewer for the stitched image and the stitched image can be exported as a bitmap, at full resolution if it is small enough, or at reduced resolution. There may still be some combinations which cannot be stitched and there will be more changes as we implement alternative stitching algorithms and more user control. In the meantime, please keep letting us know what you want it to do.
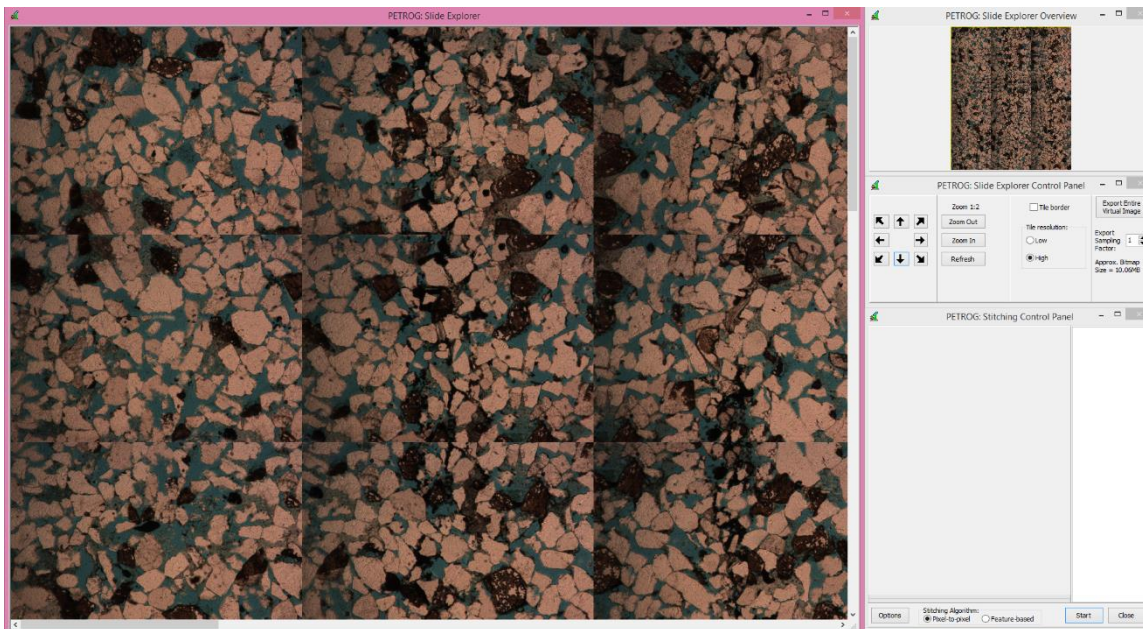
Response Times

There are some places where **PETROG** waits a long time before responding:

1.1 Data Edit | Composition - Quantitative was slow to display.

1.2 **PETROG** is taking slightly longer to fire up: this should improve when all database modifications are consolidated in v3.2

1.3 "During textural analysis, after you hit the next (arrow) button it takes around 2-3 seconds to go to the next point." – This should now be much faster. It was previously making more saves than are necessary for data safety.

1.4 Listing the samples in 'Sample | Set Current Sample' can still take a long time for large projects or for the whole database, because the database is queried to find out how much data there is for each sample. If you just want to list the samples in the database, use option Sample | List Samples in Database

We have tried to improve these reported issues and will continue to make improvements. If you notice any slowness in any part of **PETROG**, please let us know and we'll see what we can do to improve it.