



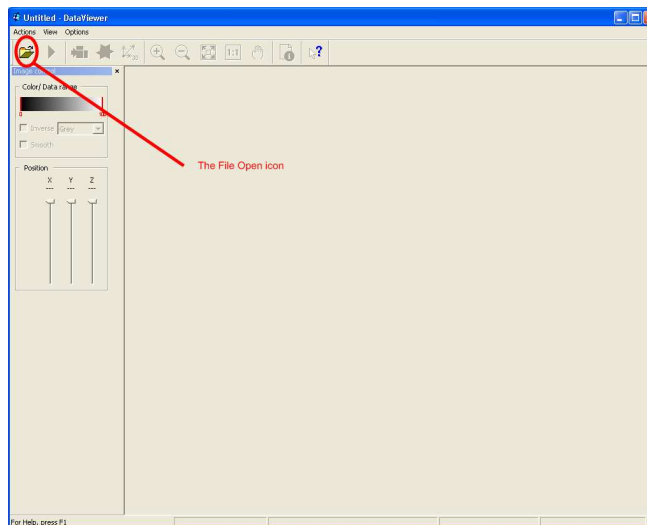
DataViewer

How to get started with the SkyScan DataViewer program

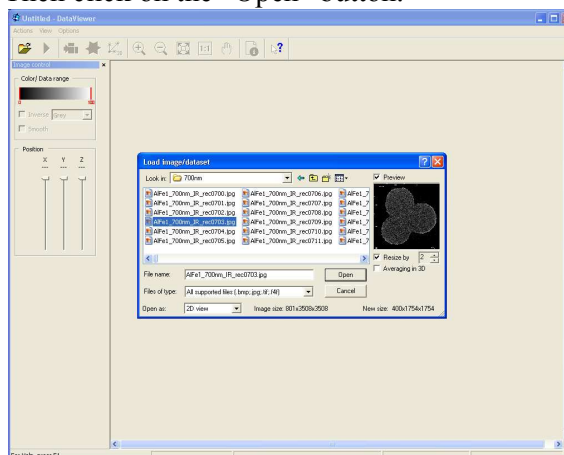
DataViewer forms part of the SkyScan software suite delivered with each system. The SkyScan software suite carries a site licence for installation on as many PC's as required to view and analyse data from the system. There is no installation routine for the DataViewer package, it can be run directly from any location including read-only devices such as CD ROMs and DVD's. You may distribute onwards the DataViewer program so long as it is used for the purpose of visualizing data from SkyScan systems.

For optimum responsiveness whilst viewing datasets, it is recommended that the folder and files of scan data be copied to the hard drive of your computer.

- 1) Open the program by double-clicking on the DataViewer icon or by double-clicking the Dataviewer.exe file. A copy of the DataViewer.exe program file is generally supplied on each Data DVD
- 2) Click the “File Open” icon in the top left of the program window.

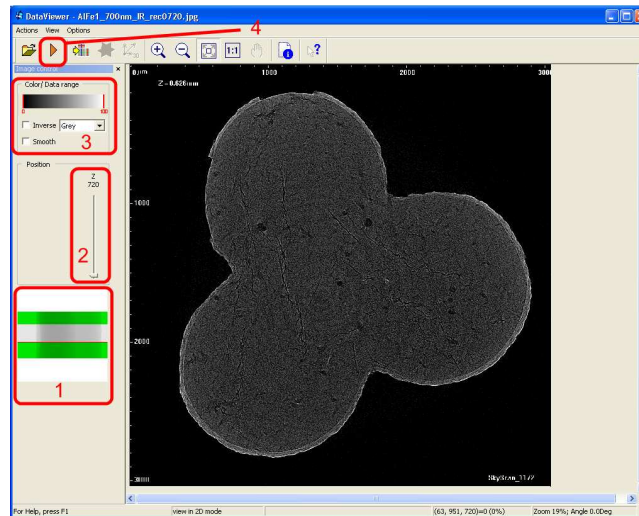


- 3) Browse to the directory containing the reconstructed cross-section files and single-click on any one of the filenames displayed to highlight it. A scale version of the image will be displayed in the pane to the right of the dialog box. Then click on the “Open” button.

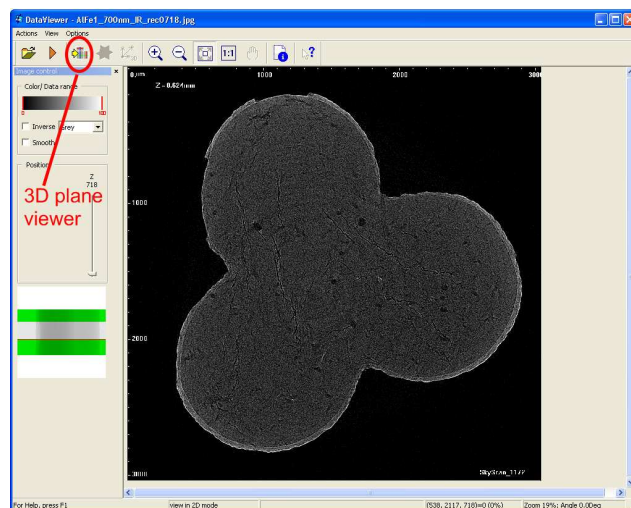


4) The dataset is then loaded and each individual cross-sectional slice is displayed in turn.

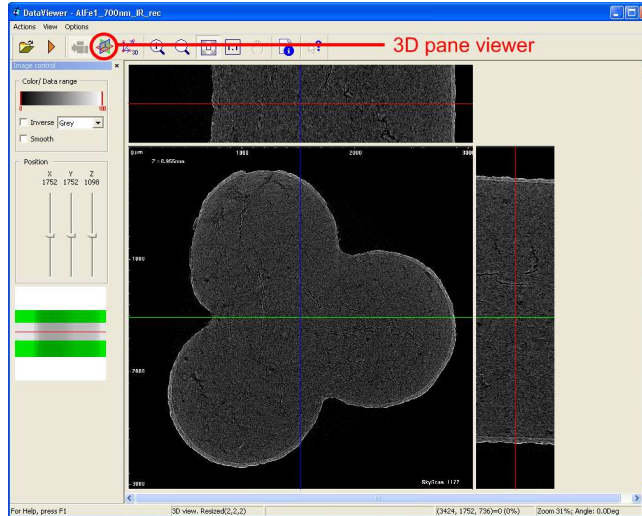
- 1) An original x-ray (transmission) image is shown of the sample as originally mounted in the scanner. The red line across the transmission image shows where on the specimen the current cross-section is taken from. Double clicking at any point between the green bands will jump to the corresponding cross-section and display it.
- 2) The stack of cross-sections making up the dataset (stack of cross-sectional slices) is numbered sequentially from the bottom up.
- 3) The colour scale and grey-scale thresholds can be manipulated to artificially enhance density contrasts.
- 4) The program can display each slice in sequence by toggling the play button on and off.



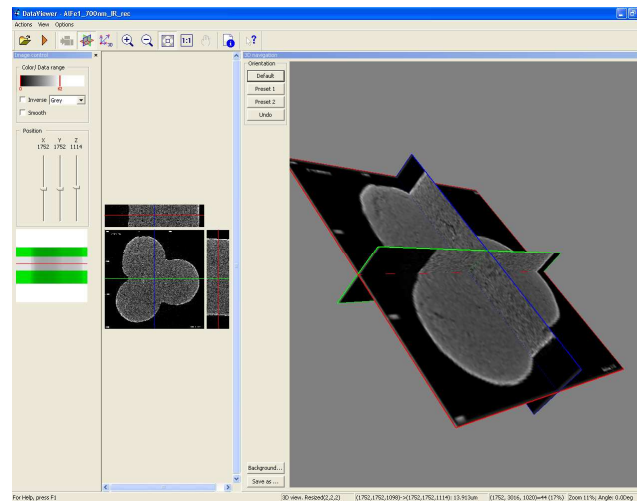
5) The DataViewer program can display the Dataset in each of the three orthogonal planes. Click the 3D icon to load the data in this format – a progress dialogue box will be displayed whilst the program reloads the data.



6) The three orthogonal planes through the sample are now shown, the original axial view to the bottom left and the coronal and sagittal views are shown above and to the right. Individual cross-sectional images can be saved using the Actions, Save menu.



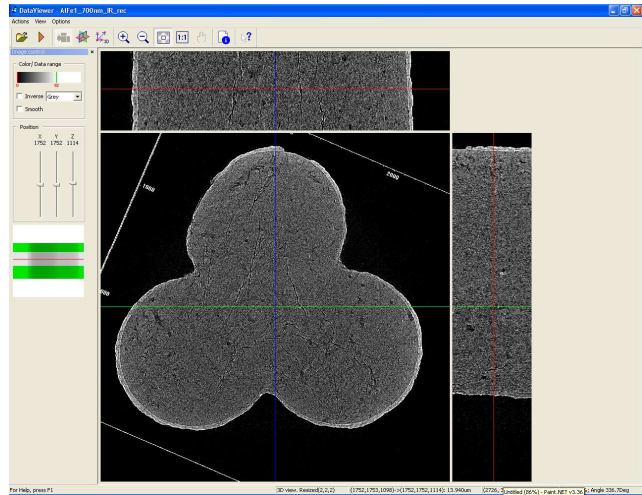
The 3D pane can now be displayed by clicking on the “3axes” icon



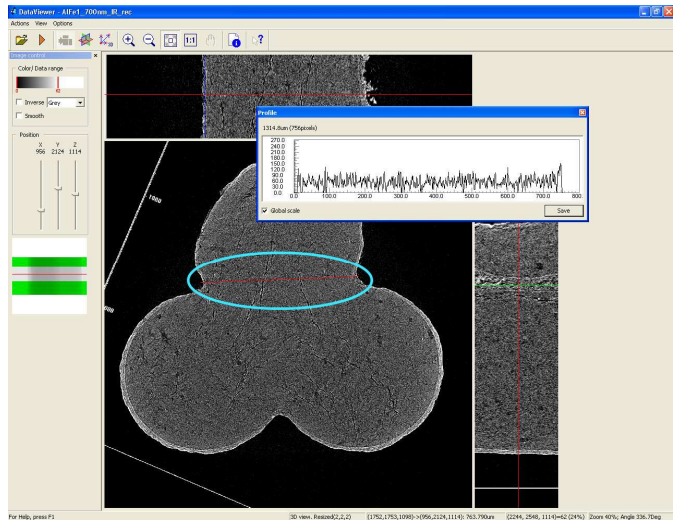
The bounding boxes for each pane within the program window can be dragged to resize each one in order to best display the element of interest.

SKYSCAN

7) To rotate the images, hold down the CTRL key on the keyboard down whilst dragging the mouse with the left mouse button held down. This can be useful if it is desired to compare a number of specimens in the same orientation. The coronal and saggital plane views will be updated to correspond to these changes. The entire dataset can be resampled and saved in this new orientation using the Actions, Save....as dataset menu option.



8) 2D measurements in any plane are accomplished by holding down the right mouse key and dragging the resulting line to the desired end position. A histogram of grayscale intensity along the profile line is displayed, at the top left the number of pixels and the length of the line is displayed.



More advanced measurements such as volume measurements, orientation, porosity etc can be obtained with the SkyScan CTAn image processing and 3D model building program.