

TM019 - Labelling and printing

WiRE™ 5

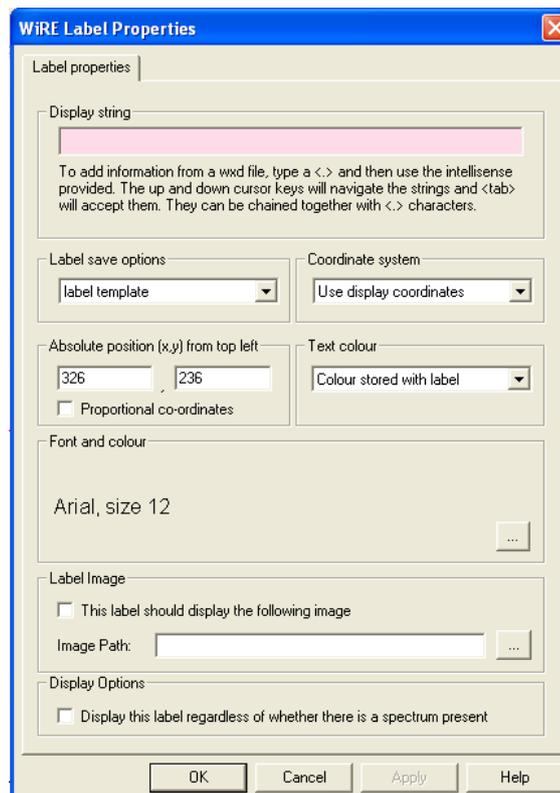
This document aims to show the WiRE™ 5 user how to use labelling functionality in windows and present measurement information in a print friendly form. It assumes that the WiRE™ 5 software has been installed correctly and the user is familiar with basic functions within the software.

Labelling Options:

- Plain text:
This option allows the user to define a label using plain text, for example the sample name.
- Extracted measurement conditions:
This option allows for extracted spectral conditions to be displayed in a label, with or without plain text, for example, the groove density of the grating.
- Images
This option allows for image files (.bmp, .gif, .jpg) to be imported into the spectrum view.

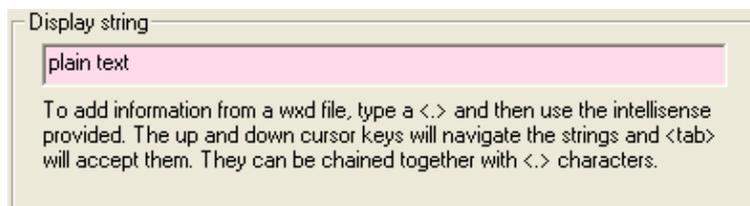
Adding Labels

1. Right Click on the spectral window and a menu will appear; **Labels...add labels**.
2. After selecting 'add labels', a Window will appear titled 'WiRE Label Properties'.

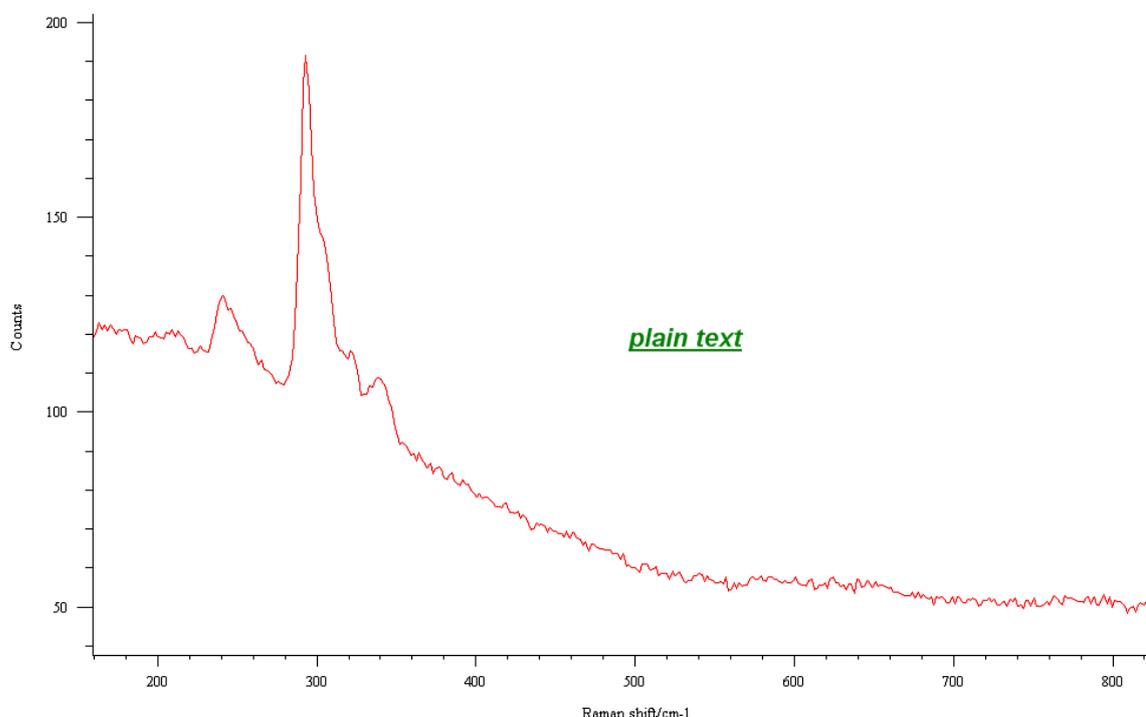


Adding a plain text label (user defined):

1. To add a plain text label, type the text required in the **Display String box**. For example “plain text”.



2. There are now other options that can be selected before final creation of the label. These options are all applicable to text based labels. These include:
 - **Label save options** allows the user to save the label as a **label template** or in **wxd file**. Saving templates will be covered in greater detail later.
 - **Absolute/Proportional Position**. This defines whether the label is positioned at a fixed distance relative to the top left hand corner of the spectrum viewer or fixed at a proportional distance between the horizontal and vertical sides of the viewer. Care should be taken when resizing the spectrum viewer; with absolute position it is possible to resize the window and leave labels beyond the boundaries of the window. Labels can be 'grabbed' and moved using the mouse.
 - **Text Colour** and **Font and Colour**, selecting **Colour taken from Associated Data** sets the colour of the text labels to default. However, font can be varied. Selecting **Colour stored with label** allows the user to vary font and colour.



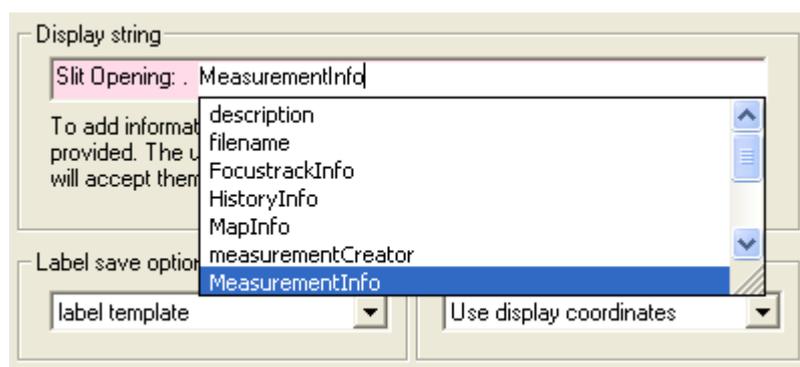
3. Select OK, a label will appear displaying the text on the spectrum.

Text extracted from .wdf measurement conditions:

This allows for more dynamic labelling as information about the parameters of the measurement can be extracted and displayed as plain text. The data mined from the spectrum is not presented with text explaining what it is, purely the result. However, it is easy to add plain text. This allows for more explicit labelling of the extracted information.

The following example uses information displayed automatically on the grating type used in the measurement, a list of all parameters available and how these are gained is in appendix 1. Refer to the 'View information' section (page 6) to see how all common measurement information can be viewed automatically, and the 'label template' section (page 6) for loading pre-defined label templates.

1. Initially it is useful to type in introductory plain text. This is useful if the user wants put detail about the parameter before the extracted data. For example **Slit Opening:**
2. To include information from a wxd file, leave a space between the last typed character and the start of the string, in this example the colon (:). Type a full stop (.), and a menu of strings will appear, select one by clicking on it.

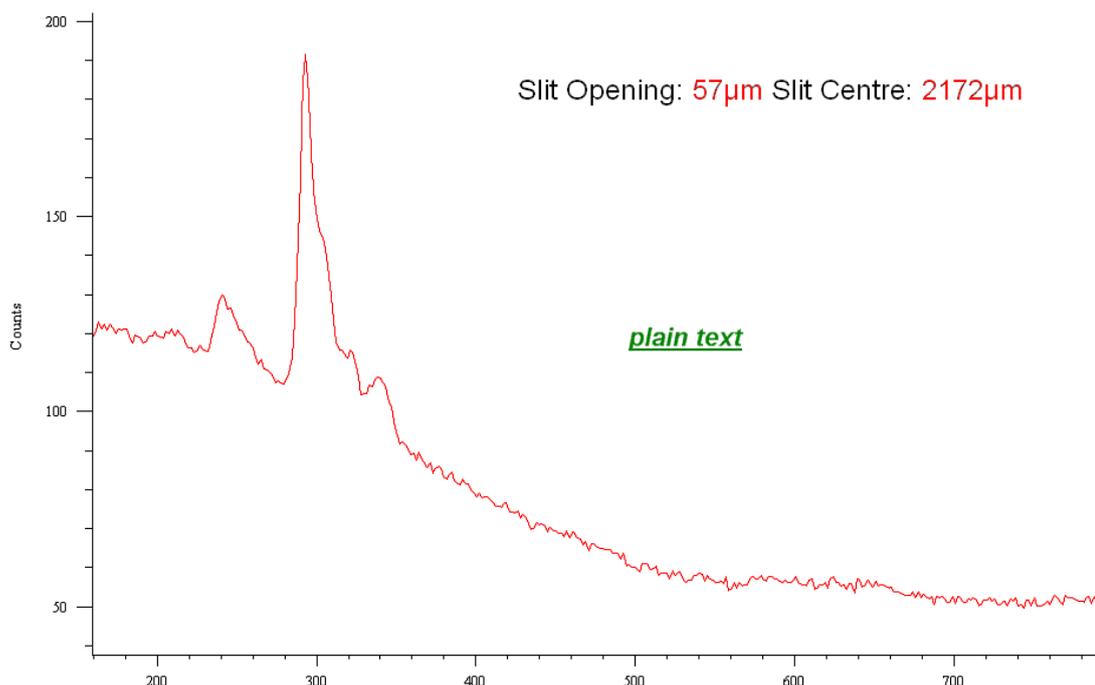


If the selection chosen has a capital letter, then there are further strings underneath it. Type a full stop (.) to open up the next menu of strings.

3. To continue with plain text type a **space** and then type any further text required. If further extracted data is intended to be shown then step 2 can be repeated. The string will read:

Slit Opening: .MeasurementInfo.SlitOpening Slit Centre: .MeasurementInfo.SlitCentre

4. Select OK and the label will appear. The text in red is extracted data from the spectrum.



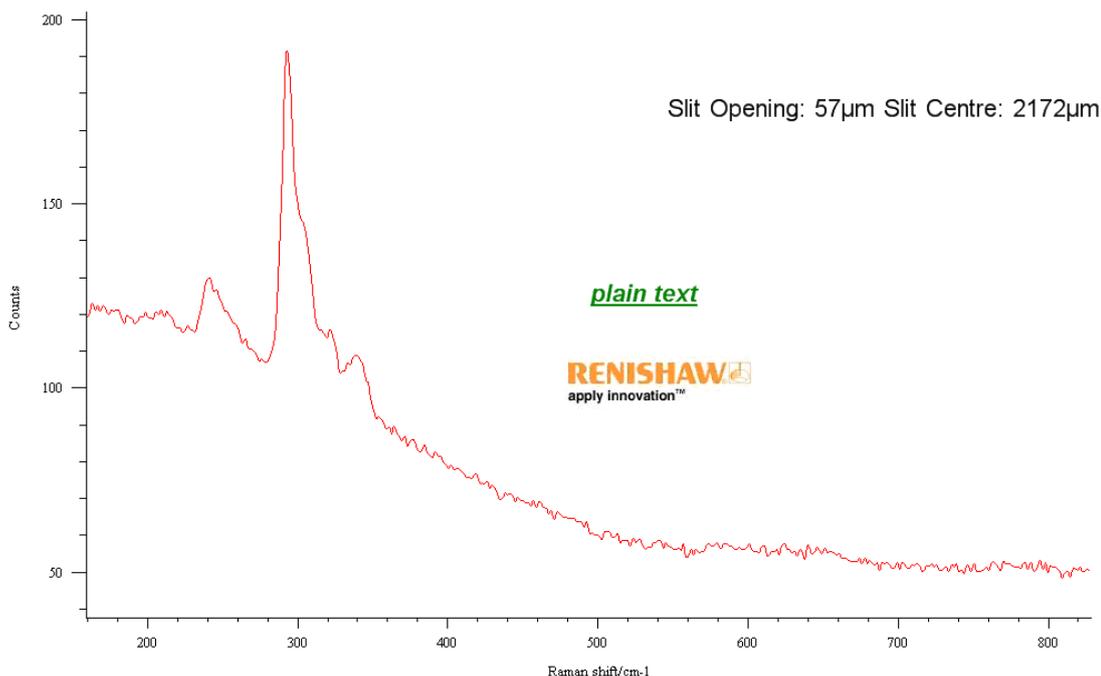
The user can also add white space at the top of the spectrum. This allows parameters to be displayed independent on where the Raman bands are located. This method is recommended and ensures labels do not overlap with spectral features. Use the 'Top margin' display option in the 'general' tab of the spectrum viewer properties. Use a minimum of 25 pixels for a single row of information.

Image label:

1. It is useful to title the image that you wish to use as a label. This makes it easier for the user to identify which label is which in the **Spectrum Viewer Properties Window**. To do this just type in the display string the associated text. For example **Company Logo**.
2. Tick the small box within the **Label properties window** that reads **This label should display the following image**. Once this box has been ticked the text typed into the **Display String** box will not be displayed.



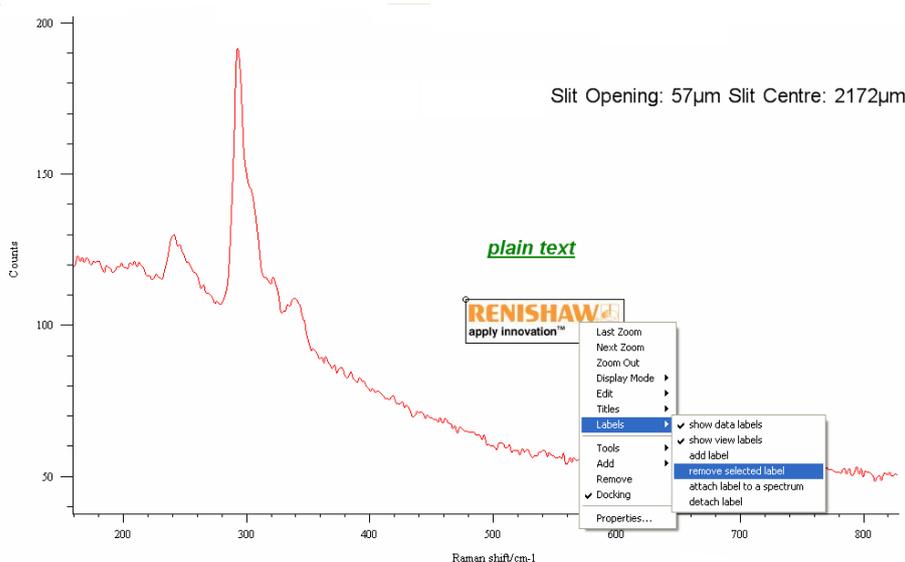
3. Use the  button to select a picture.
4. Select OK and the image label will appear.



Controlling Labels:

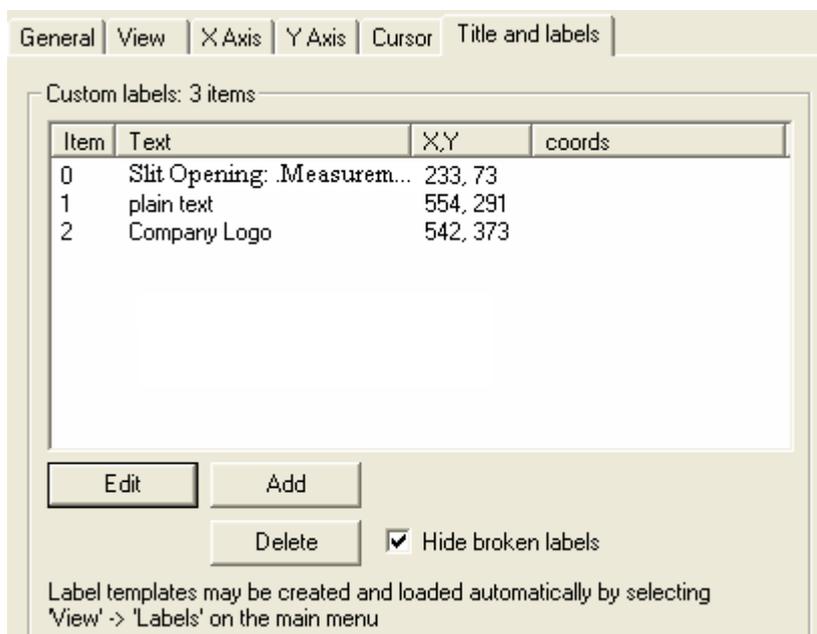
Individual labels can be selected using the left mouse button and control keyboard key. Click on multiple labels to select them together. Once selected labels can be moved using the mouse.

To remove or hide a label, select it and then press the right mouse button. Select **labels...remove selected label**, or **labels...untick show view labels**.



To edit a label at any point, double click on it; this will open up the **WiRE label properties** window. From here the label can be edited.

The **Spectrum Viewer Properties** Window offers a label management facility. This feature allows all of the labels to be accessed from a simple menu, enabling easy editing. To access this feature click on the **Titles and Labels** tab.



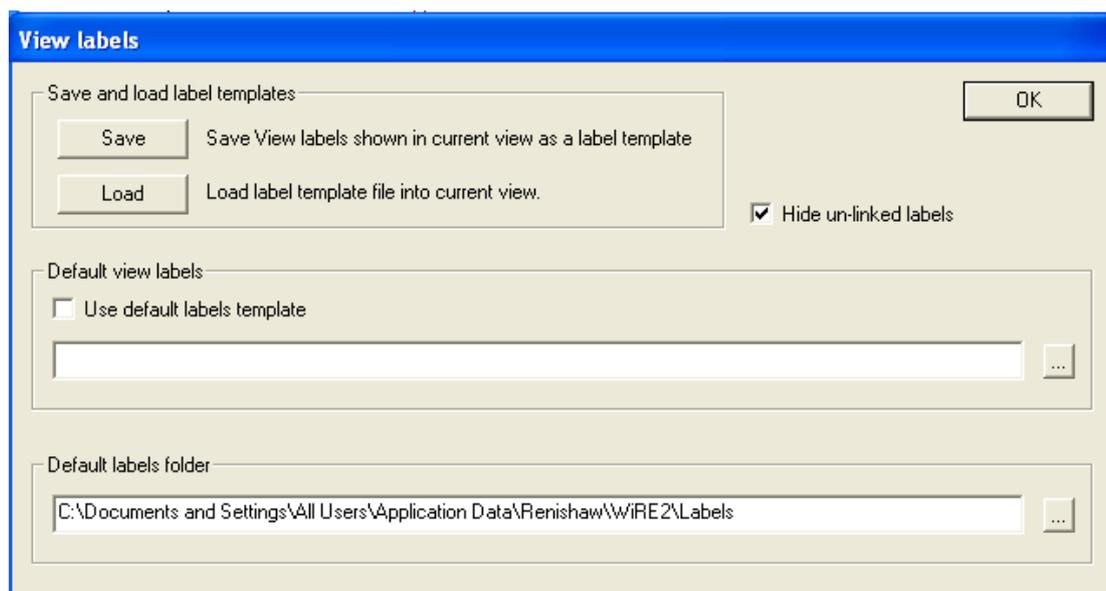
The **Spectrum Viewer Properties** window shows details of the three labels already added to the spectra. As can be seen there are three tabs on the above window, **Edit**, **Add** and **Delete**. These allow the manipulation of the labels added into the spectra, providing an alternative method to using the context menu.

- **Edit** – after selecting a label the **edit** button brings up the **Label Properties** window, allowing alterations to be made.
- **Add** – allows the addition of new labels by opening up the **Label Properties** window.
- **Delete** – after selecting a label, the **delete** button removes the label from the spectra. By selecting multiple labels, the user can delete more than one label at a time.

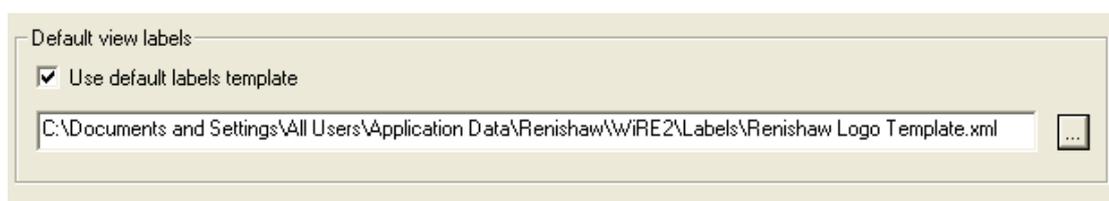
The advantage of using this method of editing the labels over double clicking on a label, is that multiple labels can be manipulated much more easily from the **Spectrum Viewer Properties** window.

Saving/Loading labels:

1. To save the labels created use **View... Labels**. A Window will appear titled **View Labels**.



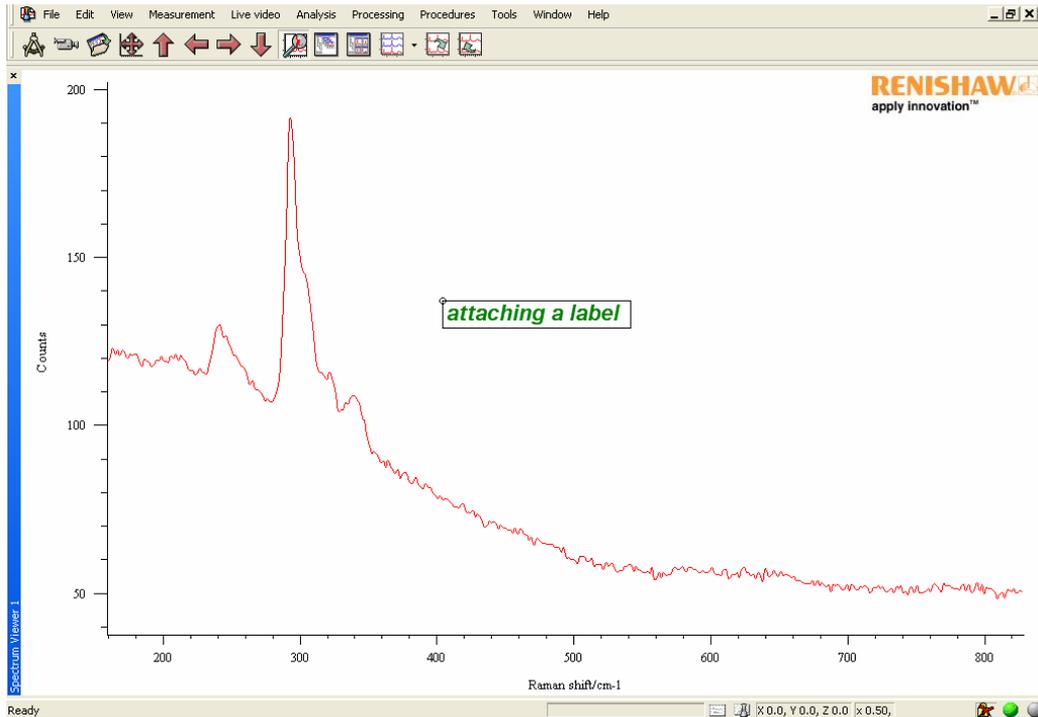
2. This Window provides the options to save the labels created in the current spectrum viewer. By saving the labels as a label template they can be used as labels for other spectra. However this does depend on how the labels were initially created.
 - **Label templates** – to enable a label to be used as a template it must be saved as a **label template** when it is created. The label will then use the data of the spectra it has been loaded into as the source.
 - **In wdf file** – attached labels are saved as **in wdf file**. They use the data from the file in which they were originally created and remain specific to that file only.
3. As can be seen from the **View Labels** Window from above, a default label template can be applied to the spectra. For instance the inclusion of a company logo.



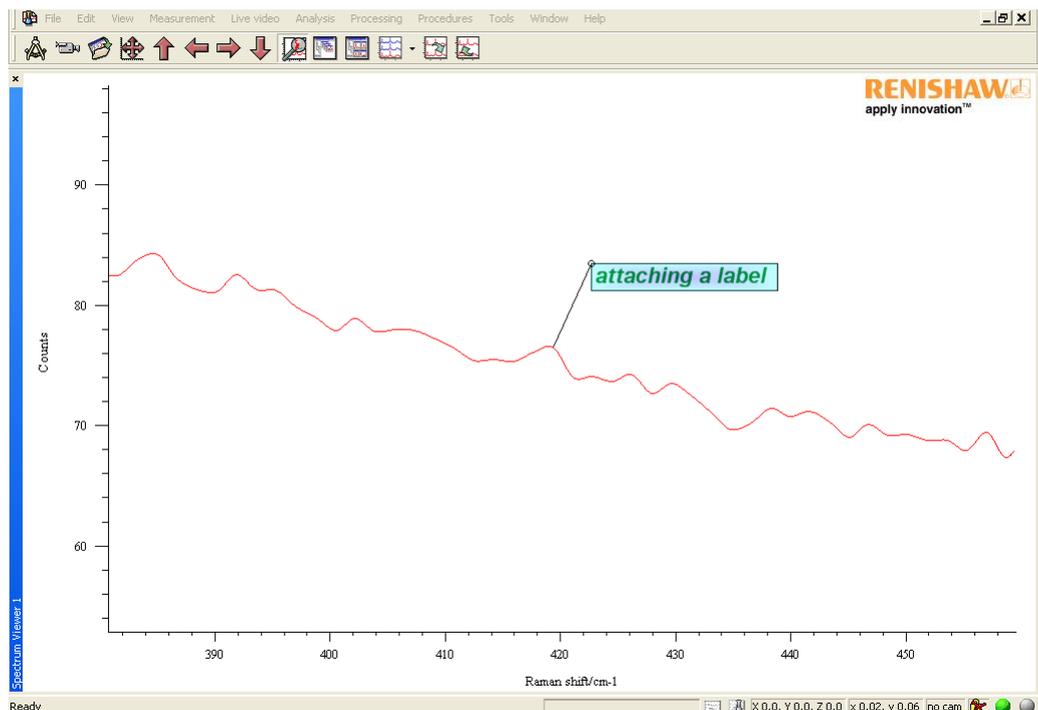
Attaching a label:

A useful feature of the labelling function in WiRE is the ability to attach labels to spectra. This allows for labels to be added to a spectrum such that the next time it is opened the labels are loaded up with it. Labels can also be added to specific points on the spectra, allowing the labelling of different chemical peaks.

1. Create a label

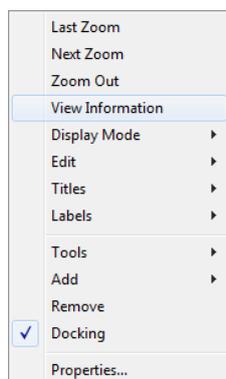


2. To attach a label, select the label you want to attach and right click to bring up the context menu again. From the list choose attach label to a spectrum.
3. The label is now attached to the spectrum and is now saved in the wxd file itself. The spectra can now be saved and the label will be saved internally within the file. The ramification of this is that if the the spectrum file is saved, the labels will be present when the file is next opened up. If the attached label is no longer wanted, it can be deleted from the file and will not be present the next time the spectrum is saved and reloaded.

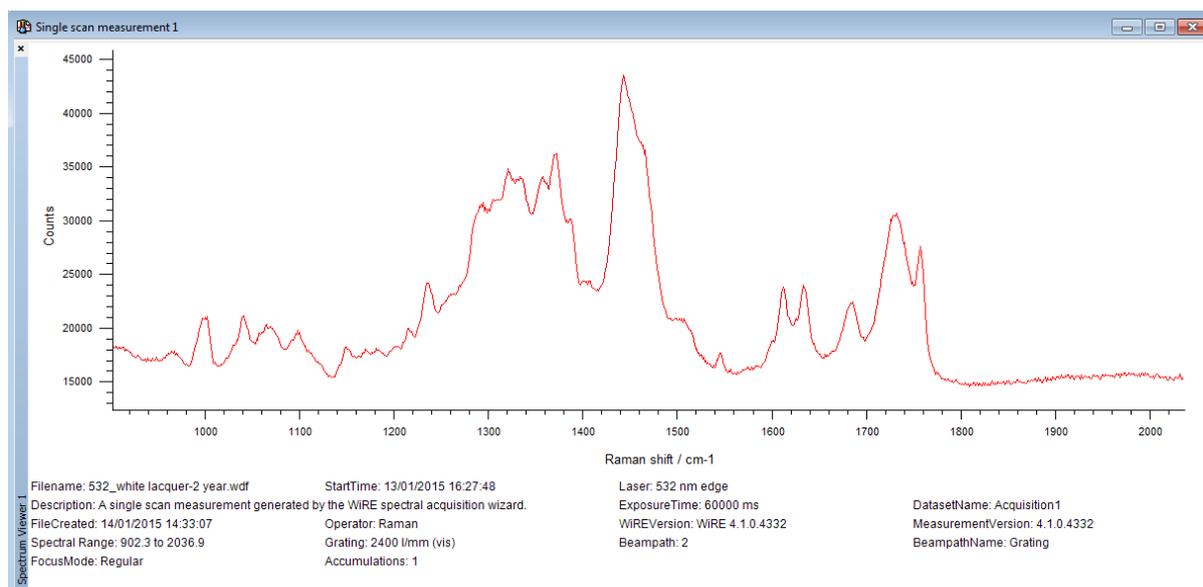


View information

When right clicking on the spectrum window the 'View information' option can be selected.



This produces a series of formatted labels presented below the spectrum. The displayed labels have been specifically chosen to mine the key information typically wanted by the user.



These labels can be 'grabbed' by using the left mouse button and the control keyboard key. Labels can be arranged by the user and if desired a new template saved (View....Labels.....Save).

Printing

WiRE uses a 'what you see is what you get' (WYSIWYG) methodology and is based on the screen resolution.

To get the best print results you may need to change the window aspect ratio and font sizes. This is primarily dependent on the paper aspect ratio (portrait or landscape). If printing to landscape then the wide view within the software can normally be used appropriately.

The print format can be defined in the print set-up option (File...Print set-up). Here the landscape / portrait options are available. The default aspect ratio is landscape. The Print preview option (also under File...) allows the user to see what they will get to allow font size and layout to be optimised. It is worth noting that this should only need to be set-up once and it is recommended that single spectra with condition information be printed in a landscape layout.

Appendix 1

List of commonly used parameters for single spectra and where they are mined from:

Initial string	Sub string	Parameter
.user		Operator
.filename		Filename
.Measurement.Info	.GratingName	Grating
	.LaserName	Laser
	.LaserPowerPercent	Laser power
	.ObjectiveName	Objective
.ScanInfo	.AccsCollected	Accumulations
	.ExposureTimeMS	Exposure time (ms)
	.Name	Scan type
.StatusInfo	.FileCreationTime	Time and date
.pathname		Data file location