

67 Series Spectrophotometers Operating Manual



670 005/REV C/03-10

IMPORTANT

Please ensure the SD Card is fitted into the socket as detailed in the image below.



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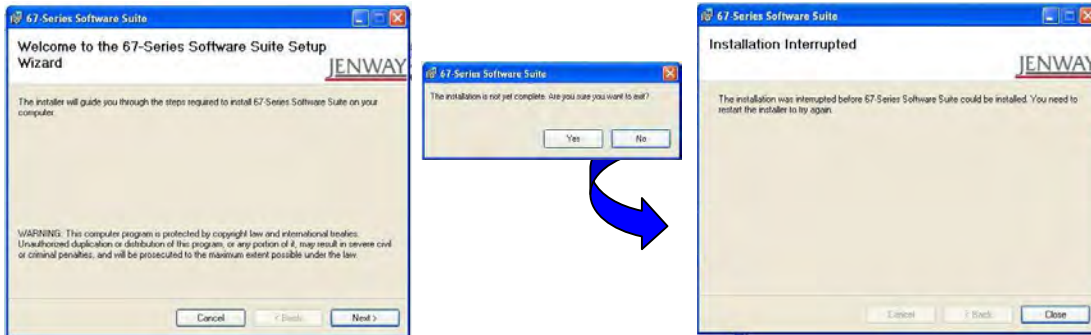
67 Series Spectrophotometer

PC Software

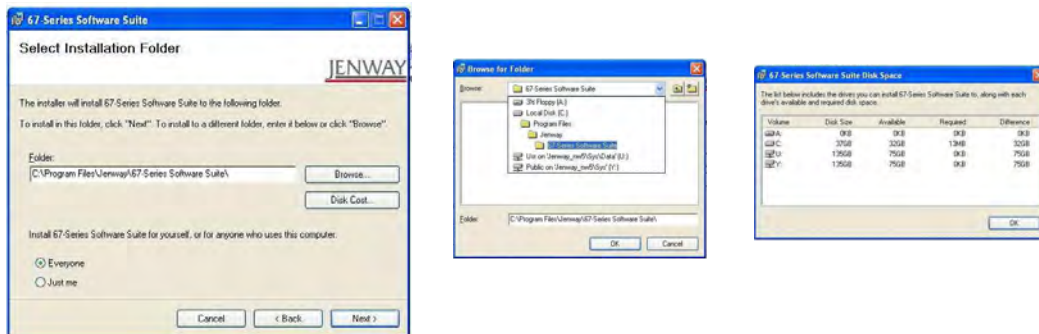
Installation



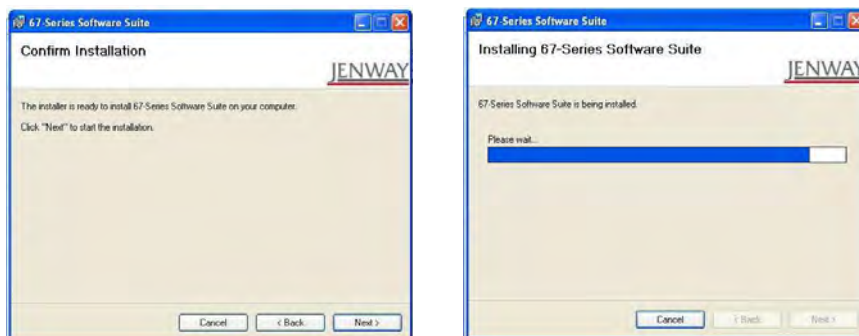
Insert the **67-Series Software Suite** installation CD and select the **67-Series Software Suite** icon to open the following screen. Selecting **Next** commences the installation. The installation can be aborted by selecting **Cancel**.



The default installation destination is C:\Program Files\Jenway\67-Series Software Suite\. To select the default destination select **Next**, to alter the destination select **Browse**. To review the disk space requirements select **Disk Cost**. The **67-Series Software Suite** can be set up to be used by all users or a single user by checking the appropriate box. To progress the installation select **Next**, to return to the previous screen select **Back**, to exit the installation select **Exit**.



Select **Next to** commence the installation. To review or change any of the installation parameters select **Back**. To exit the installation at this stage select **Cancel**, the software will not be installed if you choose to exit.



When the installation is complete select **Close**.

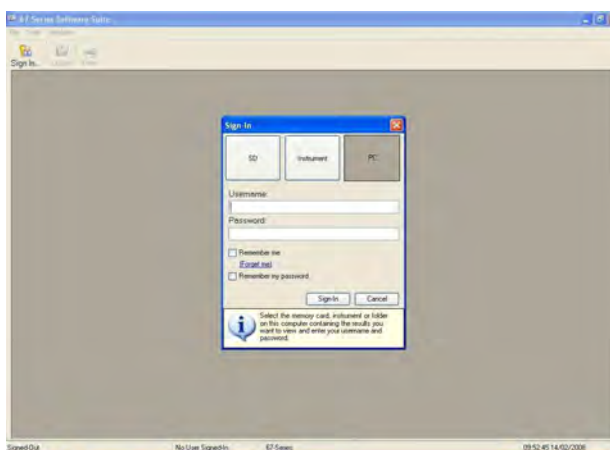


The **67-Series Software Suite** icon is displayed on desktop

Getting Started



Ensure the PC and spectrophotometer are connected via the USB cable and select the **67-Series Software Suite** desktop icon to open the **67-Series Software Suite** main screen.



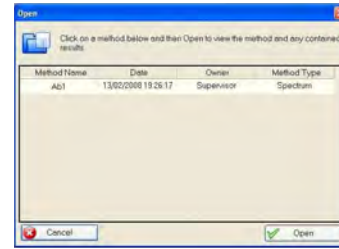
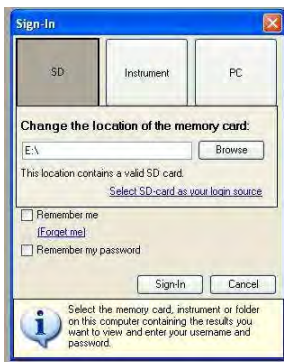
There are three options for accessing saved methods and data: **SD**, **Instrument** and **PC**.



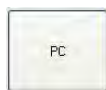
SD allows the user to access methods and data saved on an SD or SD/USB card inserted in the PC.

Selecting **SD** allows the user to browse through the PC directory for the inserted SD or SD/USB card. Select the required folder, **OK** and **Select SD card as your login source**. Entering the **Username**, **Password** and selecting **Sign-In** accesses that specific users methods and data (the Username and Password that are required are the same as when logging into the instrument), the user or password can be saved by ticking the appropriate boxes. Highlighting the required method and selecting **Open** accesses the saved method.

Data processing for **SD** is detailed in the **Data Processing** section.



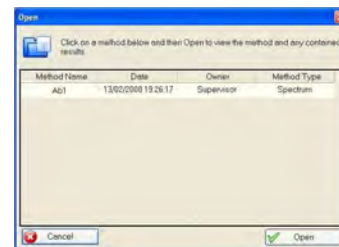
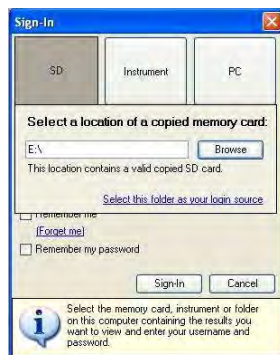
Note: If the selected location does not contain a valid SD card the error message ***This location does not contain a valid SD card*** will be displayed.



PC allows the user to access methods and data saved to a PC.

Selecting **PC** allows the user to browse through the PC directory for the desired folder. Select the required folder, **OK** and **Select this folder as your login source**. Entering the **Username, Password** and selecting **Sign-In** accesses that specific users methods and data (the Username and Password that are required are the same as when logging into the instrument), the user or password can be saved by ticking the appropriate boxes. Highlighting the required method and selecting **Open** accesses the saved method.

Data processing for **PC** is detailed in the **Data Processing** section.



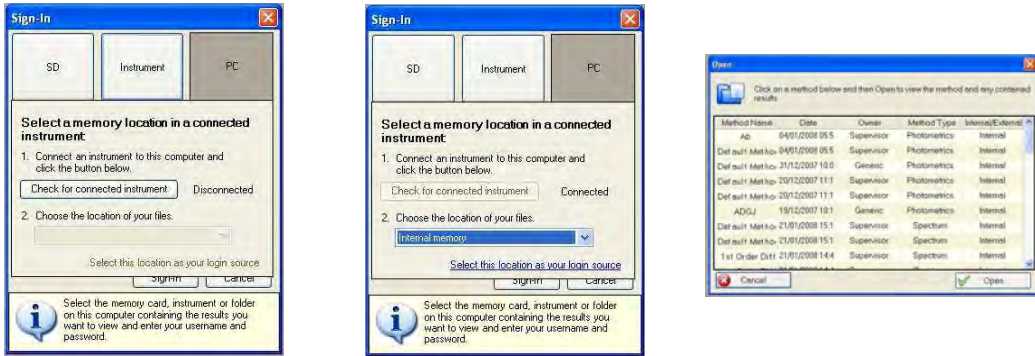
Note: If the selected location does not contain a valid SD card the error message ***This location does not contain a valid copied SD card*** will be displayed.



Instrument allows the user to access data saved to either the internal memory of the spectrophotometer or a memory card inserted in the spectrophotometer.

Selecting **Instrument** allows the user to browse through data saved to either the internal memory of the spectrophotometer or a memory card inserted in the spectrophotometer. Select the **Check for connected instrument** (the default status is **Disconnected**), whilst searching the **Check for connected instrument** button updates to read **Cancel** and the status updates to **Searching...** when connected the status reads **Connected**. Choose the desired location of the files from the dropdown bar (the option for **Inserted Memory Card** is only available if an SD or SD/USB card is inserted in the spectrophotometer) and **Select this location as your login source**. Entering the **Username** and **Password** and **Sign-In** accesses that specific users methods and data (the Username and Password that are

required are the same as when logging into the instrument), the user or password can be saved by ticking the appropriate boxes. To access the required method highlight that line and select **Open**. Data processing for **Instrument** is detailed in the **Data Processing** section.



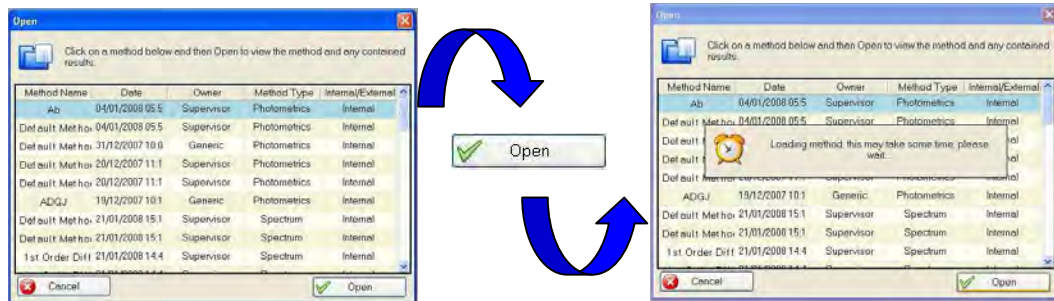
Note: Whenever the PC and spectrophotometer are communicating the spectrophotometer's screen updates to show:



Data Processing

Data processing is the same for the **SD**, **PC** and **Instrument** options.

All available methods are displayed in the **Open** box. Highlighting the required method and selecting **Open** opens the method.



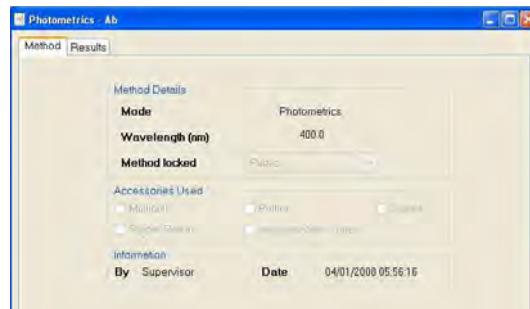
Once a method is opened further methods can be opened by selecting the open icon.

Note: Clicking on the column titles alters the order in which the methods are displayed. **Method Name** orders the methods alphabetically, **Date** orders the results in date order, **Owner** orders the methods by owner type, **Method Type** orders the methods alphabetically and **Internal/Ext** orders the methods by the order they appear on the spectrophotometer's screen.

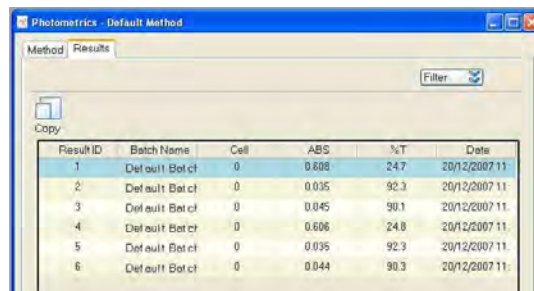
Photometrics

The photometrics screen displays two tabs **Method** and **Results**

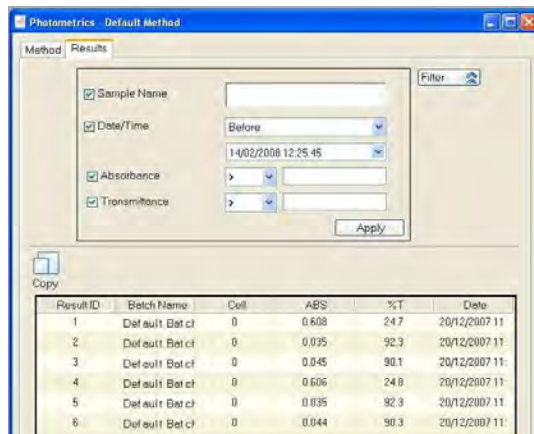
The **Method** tab displays the **Method Details**, **Accessories Used** (if any) and **Information** of the photometric measurement (this information cannot be edited).



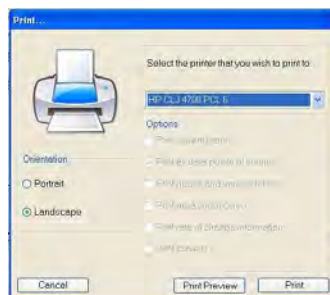
The **Results** tab displays a table of the all the results in the chosen method.



Selecting **Filter** displays a drop down allowing the results to be filtered by **Sample Name**, **Date/Time**, **Absorbance** or **Transmittance** values. After inputting the required filter parameters select **Apply** and the results table will be updated to include the filtered results.



Selecting the print icon opens the **Print** box. This allows the user to choose the printer, the orientation of the printout and gives the option of printing directly or viewing a **Print Preview**.





Selecting the copy icon allows the results to be pasted directly into other programmes (e.g. a spreadsheet) for further data manipulation or editing.

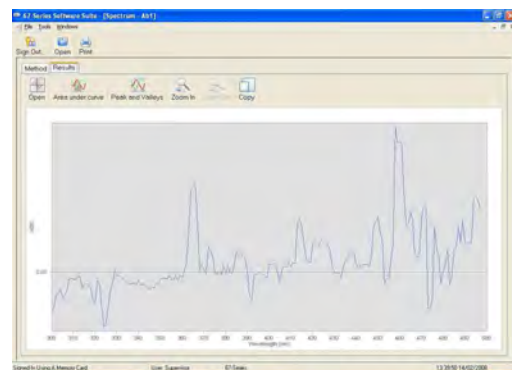
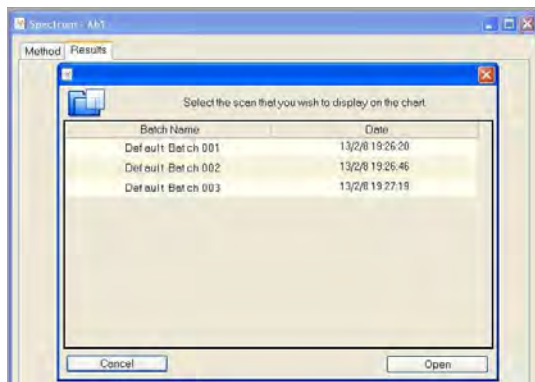
Spectrum Scanning

The spectrum screen displays two tabs **Methods** and **Results**.

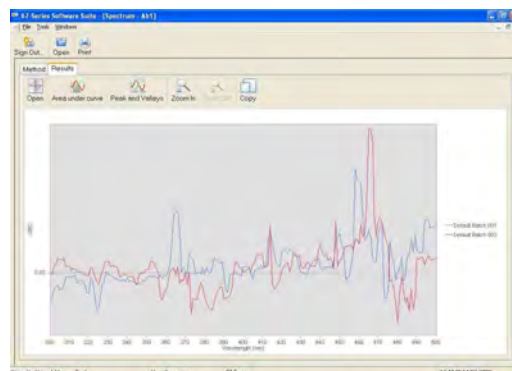
The **Method** tab displays the **Method Details**, **Accessories Used** (if any) and **Information** of the spectrum scan (this information cannot be edited).



The **Results** tab displays a table of all the results in the chosen method. The desired results can be opened by highlighting the required data line and selecting **Open**, the chosen spectrum is displayed.



Selecting the open icon displays a table of all of the results. Highlighting the desired result and selecting **Open** will overlay the chosen spectrum.



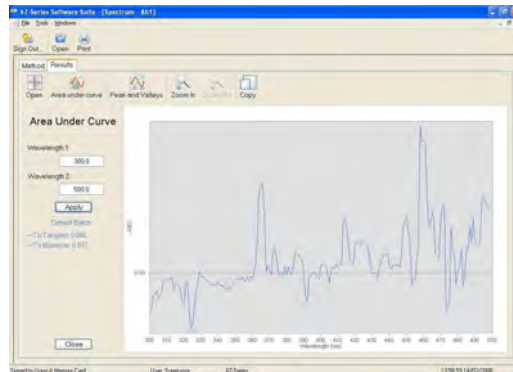
Holding the cursor over the spectrum trace or the data name will highlight the chosen spectrum and fade any other spectra.



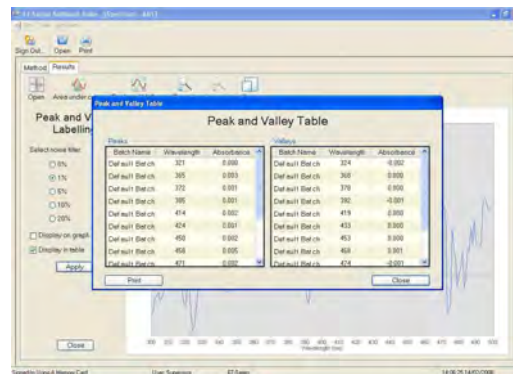
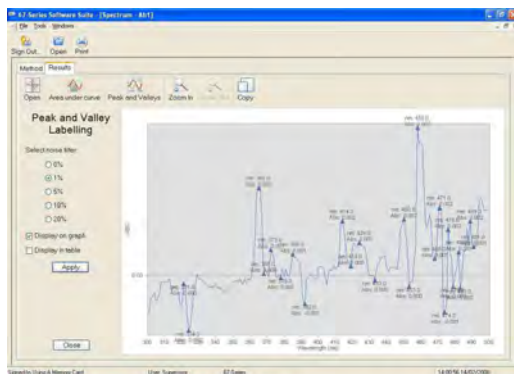
To return to the original spectrum select the open icon and reselect the original data set.



Selecting the area under curve icon displays the following screen. Inputting the required wavelength limits and selecting **Apply** will calculate the area under the curve to both the tangent and the baseline.



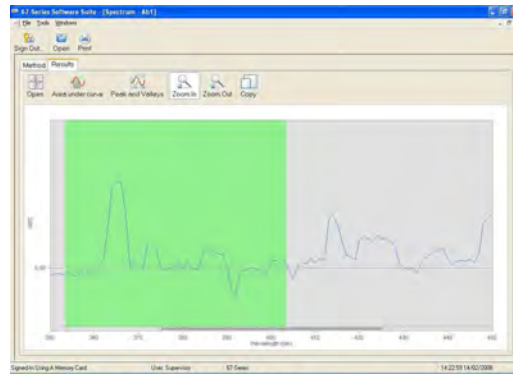
Selecting the peaks and valleys icon displays the following screen. Selecting the required noise filter and **Apply** will display the both the wavelength values and the absorbances. These values can be displayed on the spectrum, in a table or both by selecting the appropriate boxes. Alternatively selecting a peak or valley with the cursor will manually label the wavelength and absorbance value.



To exit from the Peaks and Valleys screen select **Close**.



Selecting the zoom in icon displays the green 'zoom area' on the spectrum. Placing this over the desired area and clicking the left mouse button will zoom in to the green highlighted area. This process can be repeated up to four times. Once zoomed in it is possible to return to the previous zoom level by selecting the zoom out icon.



Selecting the print icon opens the **Print** box. This allows the user to choose the printer, the orientation of the printout, what data is displayed on the printout and gives the option of printing directly or viewing a **Print Preview**.



Selecting the copy icon allows the results to be pasted directly into other programmes (e.g. a spreadsheet) for further data manipulation or editing.

Multi-Wavelength

The multi-wavelength screen displays two tabs **Methods** and **Results**.

The **Method** tab displays the **Method Details**, **Wavelengths**, **Accessories Used** (if any) and **Information** of the multi-wavelength measurement.



Selecting the edit sum icon allow the **Measurement Mode**, **Method Security**, **Sum**, **Primary** and **Secondary wavelengths** to be edited.



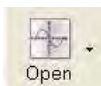
Measurement Mode can be set as either %T or Absorbance. The **Method Security** can be set to **Private**, **Public** or **Read-Only**. **Sum** can be altered to select one of the three available multi-wavelength equations and the **Primary** and **Secondary Wavelengths** can be altered to any recorded wavelength.



After inputting the required parameters select the tick icon to save the changes or the cross icon to cancel

The **Results** tab displays the data of the multi-wavelength measurement alongside the results of the **Sum** calculation.

| Batch: Default Batch, Sample ID = 1 | | |
|-------------------------------------|-------|---------------|
| | 0.000 | ABS 400.00 nm |
| A1 | 0.000 | ABS 450.00 nm |
| A2 | 0.000 | ABS 500.00 nm |
| | 0.000 | ABS 550.00 nm |
| (A1/A2) & (A1-A2) | | |
| | 0.393 | & 0.000 |



Selecting the open icon allows access to the other results saved in the method.



Selecting the print icon opens the **Print** box. This allows the user to choose the printer, the orientation of the printout and gives the option of printing directly or viewing a **Print Preview**.



Selecting the copy icon allows the results to be pasted directly into other programmes (e.g. a spreadsheet) for further data manipulation or editing.

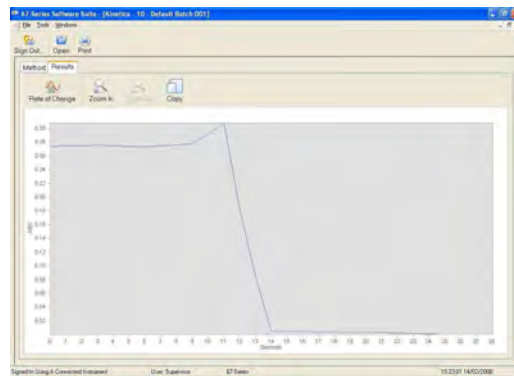
Kinetics

The kinetics screen displays two tabs **Methods** and **Results**.

The **Method** tab displays the **Method Details**, **Y-Axis Set-up**, **Concentration Settings**, **Run Settings**, **Accessories Used** (if any) and **Information** of the kinetics measurement.

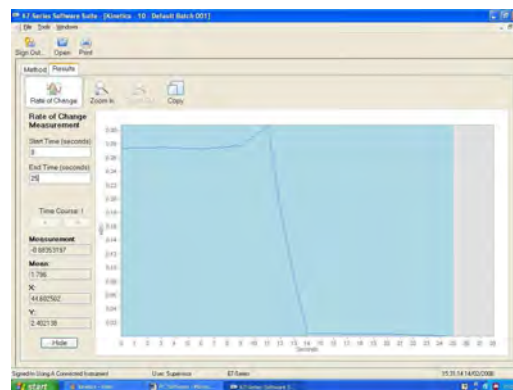


The **Results** tab displays the chosen result.



Selecting the rate of change icon displays the following screen. Entering the required **Start Time** and **End Time** automatically updates the **Measurement**, **Mean**, **X** and **Y** calculations.

Alternatively holding down the left mouse button and dragging over the desired area edits the **Start Time** and **End Time**. To return to the original **Result** tab screen select **Hide**.



Selecting the zoom in icon displays the green 'zoom area' on the spectrum. Placing this over the desired area and clicking the left mouse button will zoom in to the green highlighted area. This process can be repeated up to four times. Once zoomed in it is possible to return to the previous zoom level by selecting the zoom out icon.



Selecting the print icon opens the **Print** box. This allows the user to choose the printer, the orientation of the printout, what data is displayed on the printout and gives the option of printing directly or viewing a **Print Preview**.



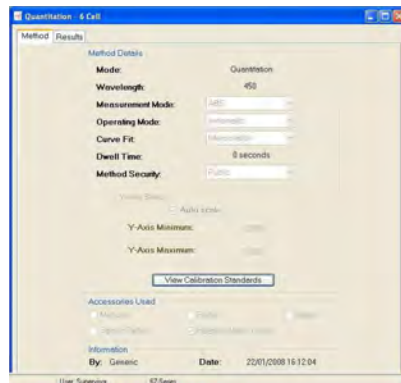


Selecting the copy icon allows the results to be pasted directly into other programmes (e.g. a spreadsheet) for further data manipulation or editing.

Quantitation

The quantitation screen displays two tabs **Methods** and **Results**.

The **Method** tab displays the **Method Details**, **Y-Axis Set-up**, **Accessories Used** (if any) and **Information** of the kinetics measurement. By clicking on **View Calibration Standards** the calibration standards used in the result are displayed.



The **Results** tab displays the calculated concentrations in a table or displays the curve fit.



Selecting the view table icon displays the calculated concentrations in a table



Selecting the view curve fit icon displays the curve fit.



Selecting the print icon opens the **Print** box. This allows the user to choose the printer, the orientation of the printout, what data is displayed on the printout and gives the option of printing directly or viewing a **Print Preview**.



Selecting the copy icon allows the results to be pasted directly into other programmes (e.g. a spreadsheet) for further data manipulation or editing.

Signing Out & Logging In As A Different User



Once all of the required data processing has been completed select the sign out icon to return to the main **67-Series Software Suite** screen.



Selecting the sign in icon opens the sign in dialogue box and allows other users to process their data (refer to the **Getting Started** section for sign in dialogue box details).

Exiting 67-Series Software Suite



Once all of the data has been processed select **Exit** from the **File** menu to exit the **67-Series Software Suite**.