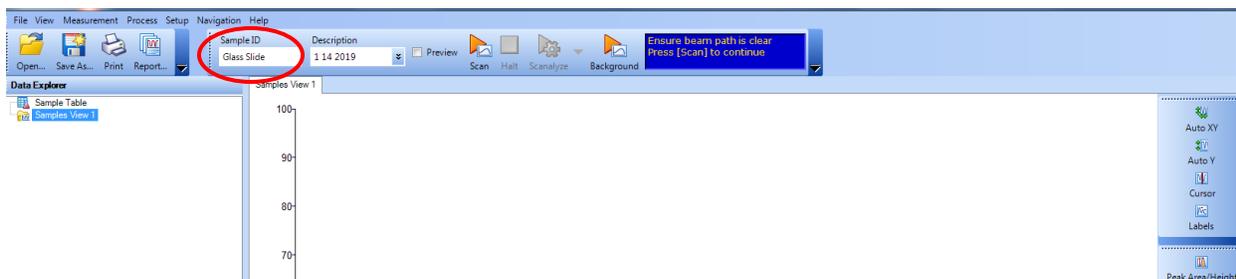
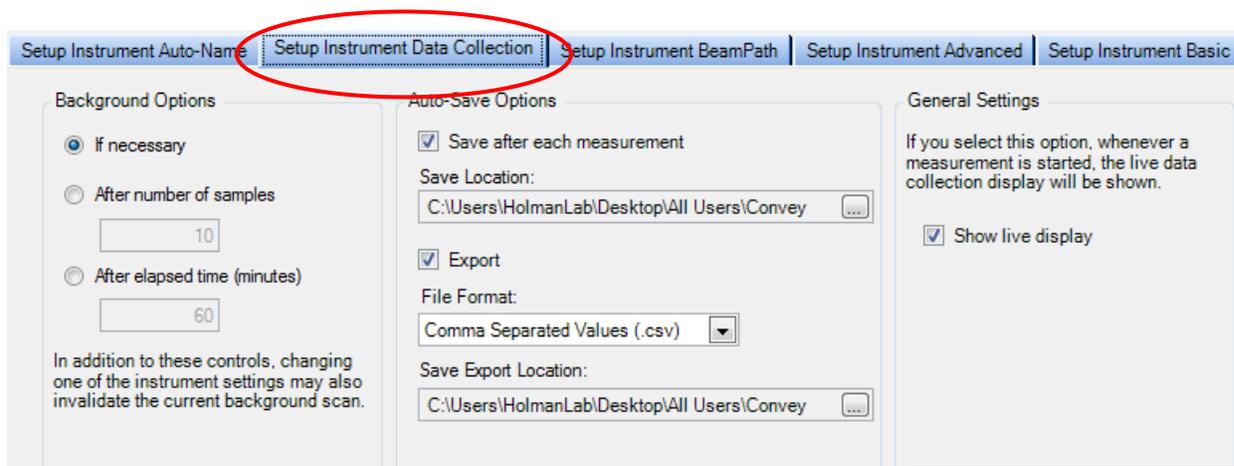


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1. Log into your kiosk session remotely to gain access to the computer.
2. Create a folder for yourself in the *All Users* folder located on the desktop.
3. Launch Perkin Elmer Spectrum application located on the lower task bar. 
4. Select OK for default administrator log in.
5. Along the top menu items, enter a Sample ID for the measurement.



6. Select *Setup Instrument Data Collection* tab to select your folder (in All Users folder) for saving/exporting files.



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7. Select *Setup Instrument Basics* tab and enter the following generic values or customize as necessary for your measurements:

The screenshot shows the 'Setup Instrument Basics' tab selected. The interface is divided into several sections:

- Actions:** Contains 'Restore Defaults' and 'Load and Save...' buttons.
- Settings:**
 - Abscissa Units: Wavenumber (dropdown)
 - Start (cm-1): 4000 (input field)
 - Ordinate Units: %T (dropdown)
 - End (cm-1): 500 (input field)
- Scan Settings:**
 - Resolution (cm-1): 4 (dropdown)
 - Scan Type: Sample (dropdown)
 - Data Interval (cm-1): 1 (input field)
 - Accumulations: 4 Scans (dropdown)
- Accessory:** A table titled 'Slide Holder' with columns 'Item' and 'Value'. The 'Sampling' item is highlighted, and its value is 'Transmission' (dropdown).

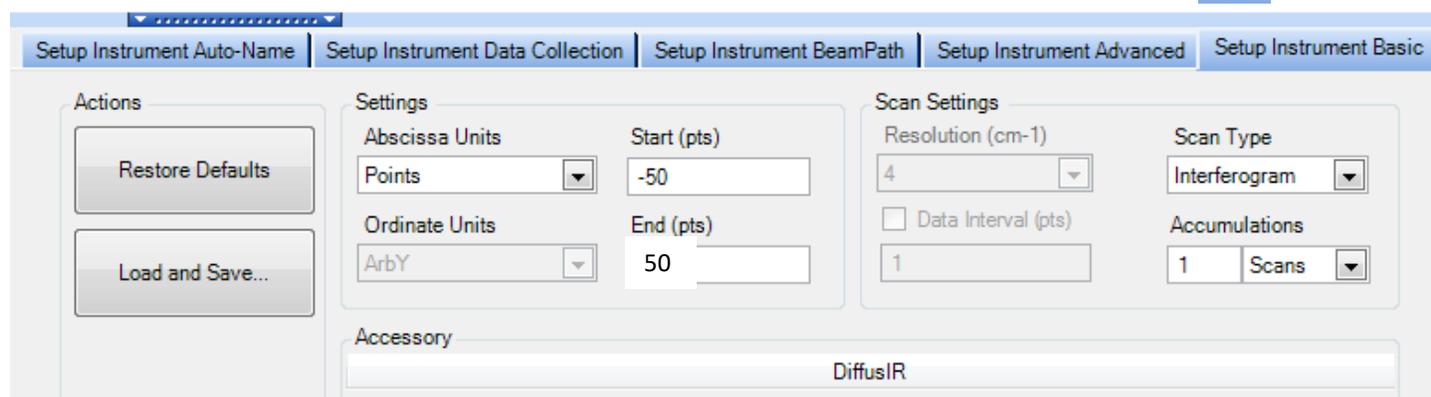
8. Clear the instrument beam path or insert a suitable background material and click  to collect a background spectrum.
9. Place your sample in the instrument beam path and begin scanning your sample. 
10. The status of the measurement will be displayed and automatically saved when finished.
11. To continue measuring samples, enter appropriate Sample ID for each and press Scan. 
12. Transfer your files to a virus-free USB storage device.
13. When sample measurement is complete, close all programs and END your kiosk session remotely.

For any instrument issues or maintenance, requirements contact:

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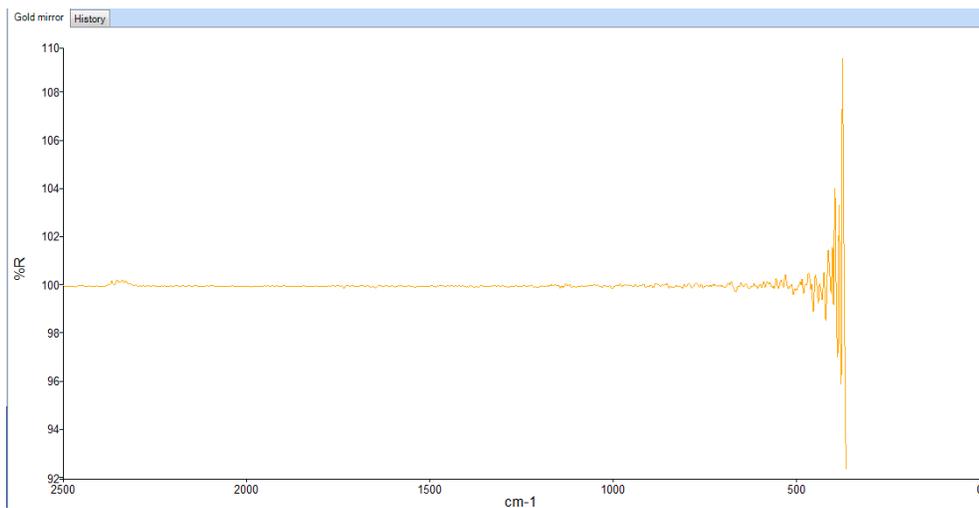
DiffusIR Accessory

1. Remove the standard sample compartment and carefully install the DiffusIR accessory. The software will automatically recognize the new hardware.
2. Place the alignment mirror into the front cup position on the slide. Place your sample into the second position.
3. Insert and move the mirror into position (should feel click stop).
4. Set *Scan Type* to *Interferogram* as shown below. Preview should be checked, then select 



5. Adjust the vertical height of the mirror using the micrometer on top of the accessory until you reach maximum signal. Then click Halt. 
6. Set the scan range to $400\text{ cm}^{-1} - 5000\text{ cm}^{-1}$.
7. Change *Scan Type* to *Background* and uncheck *preview*.
8. Collect Background. 
9. Change *Scan Type* to *Sample* and collect spectrum to compare mirror to background. Should produce the following spectrum:

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10. Slide your sample into position and repeat alignment steps 4 and 5.

11. Change *Scan Type* to *Sample* and uncheck *preview*.

12. Scan sample. Typical set up shown below:

The screenshot shows the 'Setup Instrument Basic' tab of the Perkin Elmer Frontier FTIR software. The interface is divided into several sections:

- Actions:** Contains two buttons: 'Restore Defaults' and 'Load and Save...'
- Settings:** Contains two columns of controls:
 - Column 1: 'Abscissa Units' (Wavenumber) and 'Ordinate Units' (%T).
 - Column 2: 'Start (cm-1)' (5000) and 'End (cm-1)' (400).
- Scan Settings:** Contains two columns of controls:
 - Column 1: 'Resolution (cm-1)' (4) and 'Data Interval (cm-1)' (1).
 - Column 2: 'Scan Type' (Sample) and 'Accumulations' (4 Scans).
- Accessory:** A table titled 'Slide Holder' with two columns: 'Item' and 'Value'. The 'Sampling' item is selected, and its value is 'Transmission'.

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13. When measurements are complete, replace DiffusIR accessory with standard sample compartment.
14. Close program(s).
15. Transfer your data using a virus-free, USB storage device.
16. END your kiosk session remotely.

Spec10 Specular Reflectance Accessory

1. Remove the standard sample compartment.
2. Carefully install the Spec10 accessory. The software automatically recognizes the hardware.
3. Select %T ordinate and scan range (8300 cm^{-1} — 350 cm^{-1}). Collect background.
4. Using the large mask (2 inch) place the gold mirror over the mask opening.
5. Select %R ordinate and same scan range. Collect scan on gold mirror to verify 100% R.
6. Remove gold mirror and place unknown sample on mask.
7. Collect spectrum.