



Thermo Scientific

GRAMS Envision

Version 2.0

User Guide

Revision A

DOCUMENTATION
SURVEY

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1. Welcome to GRAMS Envision

GRAMS Envision is a multi-format instrument data viewer with the capacity to host plug-in processing and reporting modules.

GRAMS Envision (hereafter referred to as 'Envision'), enhances GRAMS Smart Convert technology to support the GAML (Generalized Analytical Markup Language) open standard XML instrument data format. This allows capture of comprehensive meta-data and simplifies communication with an increasing number of third party products. For more details on GAML, see the GAML website:

<http://www.gaml.org>

Designed from the outset to provide simple integration with external systems, Envision benefits from the Microsoft .NET development environment, with easily configurable menus, flexible screen architecture and an extensible modular design.

Posting of appropriate data to the other products of the GRAMS Suite is achieved through simple mouse and menu options.

The integral web browser allows seamless connectivity with enterprise data management portals and web based search tools. A comprehensive command line interface and enhanced 'paste special' function ensures simple interaction with desktop applications and electronic lab notebooks.

Envision can invoke report methods created using the XML-based Blaise Inform design tool. Inform provides a comprehensive visual reporting tool for GRAMS Suite data and allows users to apply standardized reports to data originating from multiple instrument vendors.

This manual guides you through the use of Envision.

Instrument Data File Converters

Envision is supplied with a comprehensive set of instrument data file converters (the 'GRAMS converters'), capable of translating a wide range of 'foreign' instrument data into the standard GAML format. This data can include industry standard formats (such as ASCII and AnDI/netCDF) as well as vendor-specific formats (for example, Thermo Scientific Atlas CDS and Agilent ChemStation).

Conversion is triggered simply by opening a foreign data file in Envision. The Smart Convert logic is then responsible for identifying the file format and selecting the correct file converter.

The file converters are supplied as a package that needs to be installed separately from the Envision application itself. For more details, see the *Installing the GRAMS Converters* chapter in the *GRAMS Envision Installation Guide*.

Once installed, more details on the file converters can be found in the *Instrument Data File Converters* help system. To access this help system, select the 'Instrument Help' option from the Envision main menu's Help sub-menu.

Note The list of file converters that can be enabled on your system depends on the type of license that you have purchased. ▲

Agilent AnIML

In addition to the formats handled by the file converters, Envision can read data in Agilent's Analytical Instrument Markup Language (AnIML) format.


Starting Envision

On a typical system, you can start the Envision application as follows:

1. Either:

- From the Windows Start menu, select All Programs/Thermo GRAMS Suite/Envision,

OR

- Double click on the Envision shortcut  on your Windows desktop or Quick Launch bar (if these shortcuts have been created).

2. The next step depends on whether Envision has been set up with a valid license:

- **A valid license has been installed**

The Envision application starts up. See the *Envision User Interface* chapter for details on how to use Envision.

- **A valid license cannot be found**

A License Failure message is displayed:

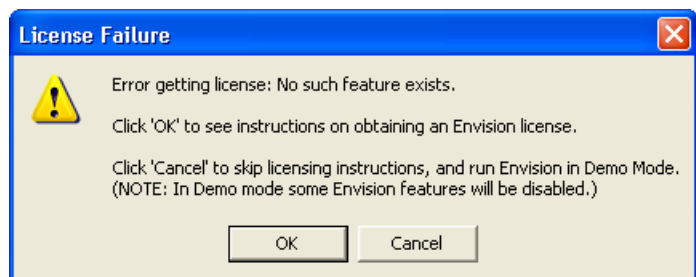


Figure 1-1. License Failure Message

- Click OK to try and obtain an Envision license.

The Request License window is displayed, allowing you to request a license. For more details on

requesting a license, see the *Licensing Envision* chapter of the *GRAMS Envision Installation Guide*.

The Envision application also starts up, in Demo Mode.

- Click Cancel to skip licensing instructions.

The Envision application starts up, in Demo Mode.

Demo Mode When Envision cannot find a valid license, it starts in Demo Mode. The HTML Viewer opens (as the default module) with the GAML website's 'Example GAML Files' page loaded:

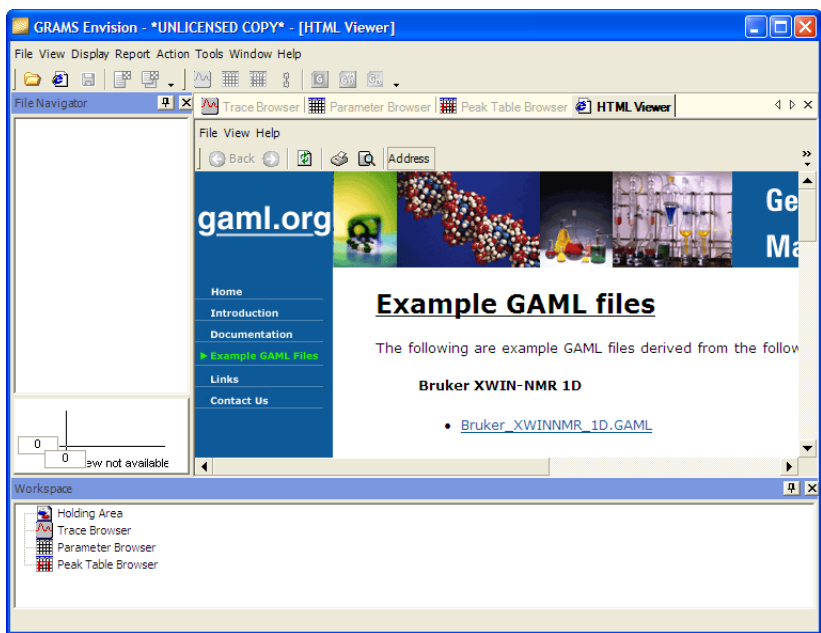


Figure 1-2. Envision in Demo Mode

This web page allows you to download example GAML files derived from a range of common instruments, which can then be viewed in Envision.

When operating in Demo Mode, Envision only opens GAML, SPC and AnIML data files, and it will not save GAML data files. All the standard display capabilities remain available.

Licensing Envision

Envision is protected by the Macrovision FLEXnet security system. This encodes a license to a specific machine using a unique MAC address from one of its network adapters.

Envision can use two types of licensing:

- File-based — Envision checks a specified license file for valid license details.
- Server-based — Envision queries a license server for valid license details.

Server-based licensing requires a Thermo Licensing Server installation, either on your local PC or on a network PC. Refer to the Thermo Licensing Server user documentation.

For more details on requesting an Envision license, see the *Licensing Envision* chapter of the *GRAMS Envision Installation Guide*.

Selecting an Envision License

When you receive a new license (for example, if the previous one expires or you change your network adapter), you need to select it for use with Envision.

To select a license:

1. Start the Envision application, and select Help / About GRAMS Envision from the main menu.

The About GRAMS Envision dialog box is displayed:

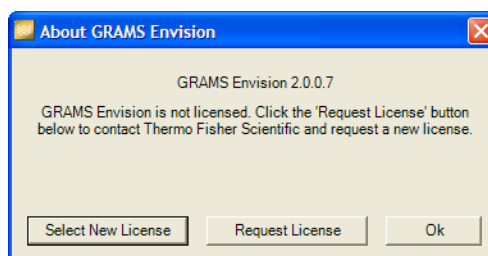


Figure 1-3. About GRAMS Envision Dialog Box

2. Click on the Select New License button.

The Select License dialog box is displayed:

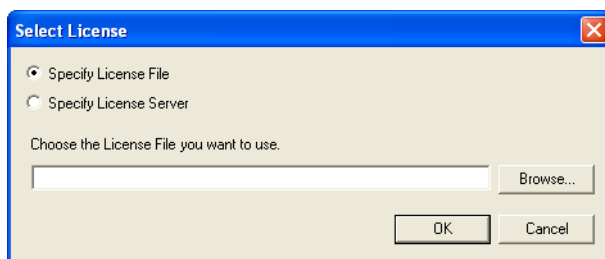


Figure 1-4. Select License Dialog Box

Note If you have *never* selected a valid Envision license, this dialog box is also displayed when you start the Envision application. ▲

3. Specify either a valid license file, or a license server that has been set up with to use your Envision license.

See the [Specifying a License File](#) and [Specifying a License Server](#) sections.

4. Once you have specified your license file or server, click on the Select License dialog box's OK button.

Envision sets up the new license, and a 'Successfully updated license file' message is displayed.

5. Click on the message's OK button to return to the Envision application.

The next time you start Envision, it will attempt to use the specified license file or server.

Specifying a License File To specify a license *file*:

1. In the Select License dialog box, select the 'Specify License File' option.
2. If you have not already done so, save your license file to a suitable location, e.g. your Envision program folder.

The license file will have the extension '.lic', and will typically be named 'Envision.lic'.

3. Use the Browse button to specify the required license file.

The file's path and name are displayed in the 'Choose the License File...' field.

4. Click on the Select License dialog box's OK button.

Specifying a License Server To specify a license *server*:

1. In the Select License dialog box, select the 'Specify License Server' option.
2. If you have not already done so, set up your license server to use your Envision license.

You will typically need to copy a server-based Envision license file to your license server PC, and then set up its instance of the Thermo Licensing Server to use it. Refer to the Thermo Licensing Server user documentation.

3. In the 'Enter the Computer Name...' field, enter the network name of your license server, e.g. 'licenseserver01'.
4. Click on the Select License dialog box's OK button.

Notes

2. The Envision User Interface

The Envision application's user interface includes the following features:

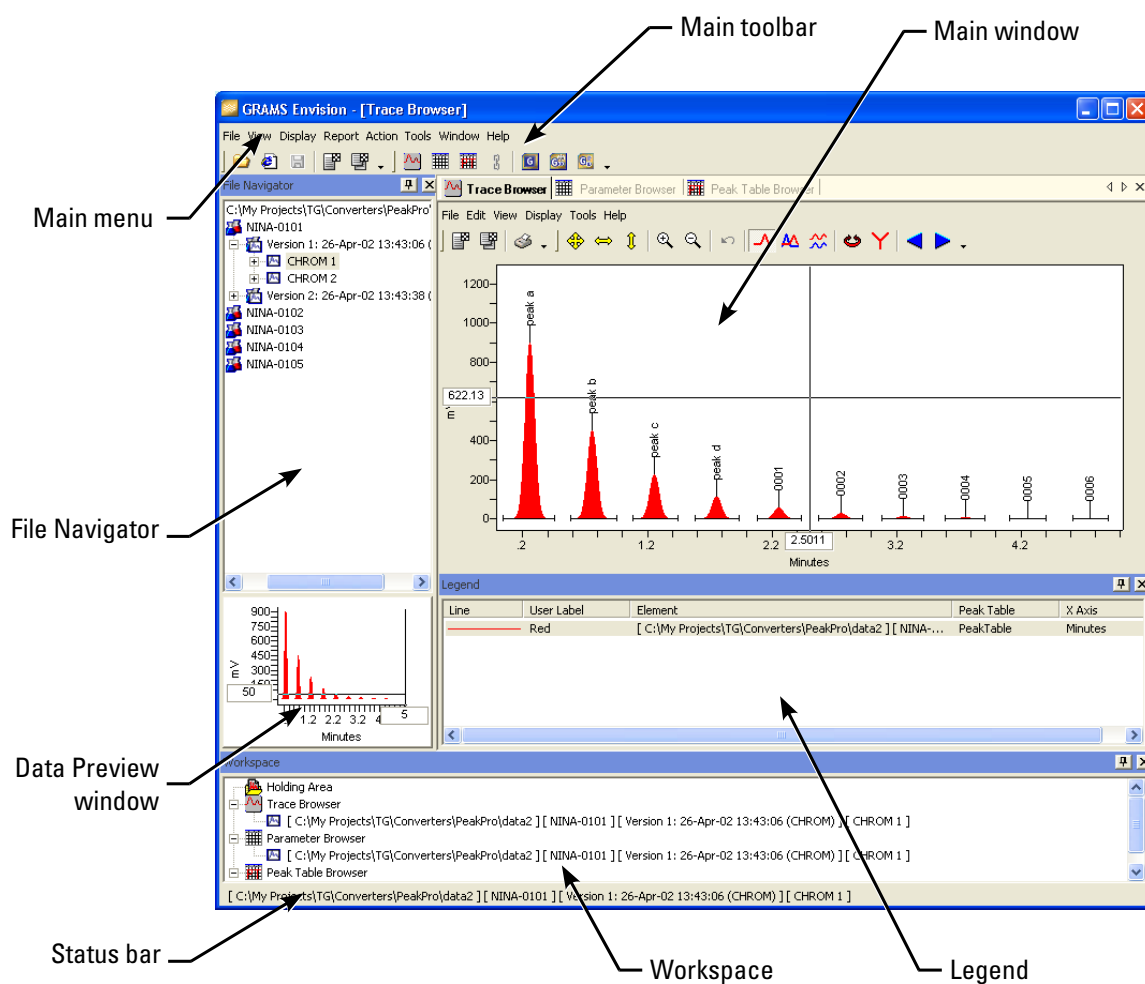


Figure 2-1. Envision User Interface

| Feature | Description |
|---------------------|--|
| Main menu | <p>Drop down menus allow access to the Envision functions. They can also be used to change the way in which items are displayed in the interface or to access the Envision help.</p> <p>See the Menus section for more details.</p> |
| Toolbars | <p>The toolbars provide quick access to Envision functions.</p> <p>See the Toolbars section for more details.</p> |
| File Navigator | <p>The File Navigator can be used to navigate through all open GAML files. Items are displayed in a tree hierarchy format.</p> <p>See the File Navigator section for more details.</p> |
| Data Preview window | <p>The integral Data Preview window, displayed below the File Navigator, provides a thumbnail view of the selected data element. This pane is displayed upon startup by default.</p> <p>See the Data Preview Window section for more details.</p> |
| Main window | <p>The Main window is displayed to the right hand side of the Envision interface.</p> <p>At startup, the Trace Browser, Parameter Browser and Peak Table Browser modules are loaded into the Main window. Each of these three modules is updated when the selection in the File Navigator changes.</p> <p>Additional modules such as the HTML Viewer, Linked Data Viewer and Report Viewer are opened as appropriate.</p> <p>See the Main Window section for more details.</p> |

| Feature | Description |
|------------|--|
| Legend | <p>The Legend is an integral part of the Trace Browser defining the spectra currently on display.</p> <p>See the Trace Browser section for more details.</p> |
| Workspace | <p>The Workspace displays a listing of all working data and data held for future use in the Holding Area.</p> <p>See the Workspace Pane section for more details.</p> |
| Status bar | <p>The status bar describes the currently active data item with text matching that used in the Workspace window.</p> <p>See the Status Bar section for more details.</p> |

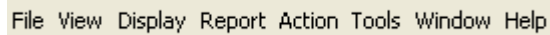
Menus The Envision interface displays two different menu types:

- Main menu
- Main Window menu.

A description of the main menu follows. The Main Window menu options are described in the [Main Window Menu](#) section, later in this chapter.

Main Menu The Envision main menu is displayed at the top of the Envision interface. This menu can be used to open files, open additional tabbed pages, hide tabbed pages, manipulate toolbars and display options, and forward data to other GRAMS Suite applications.

The main menu displays the following options:



File View Display Report Action Tools Window Help

Figure 2-2. Envision Main Menu

Each menu option accesses a sub-menu of related options. A description of each of these menu options follows.

File Menu The File menu displays the following options:

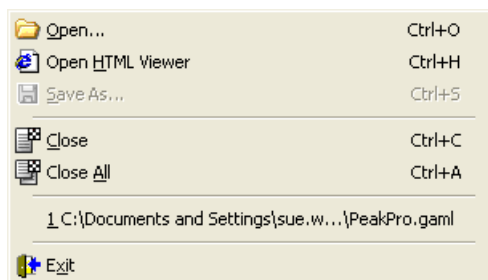


Figure 2-3. File Menu

| Option | Description |
|------------------|--|
| Open | Displays a standard Open dialog box, from which you can select the file that you want to open. |
| Open HTML Viewer | Opens a new HTML Viewer in the Main window. For more information about the HTML Viewer, refer to the HTML Viewer section of this chapter. |
| Save As | Select this option to save a GAML file. This option is only enabled if you have first selected a top level or parent node in the File Navigator or Workspace. Refer to the Using the Save As Option section in the File Navigator section of this chapter for more information. |
| Close | Closes the currently active GAML file. |
| Close All | Closes all open GAML files. |
| Exit | Exits and closes the Envision application. |

View Menu The View menu displays the following options:

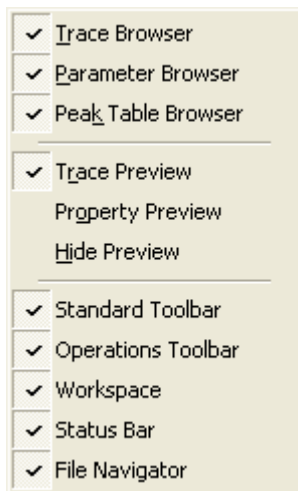


Figure 2-4. View Menu

| Option | Description |
|--------------------|--|
| Trace Browser | Shows / hides the Trace Browser. Refer to the Trace Browser section of this chapter for more information. |
| Parameter Browser | Shows / hides the Parameter Browser. Refer to the Parameter Browser section of this chapter for more information. |
| Peak Table Browser | Shows / hides the Peak Table Browser. Refer to the Peak Table Browser section of this chapter for more information. |
| Trace Preview | If this option is selected, the Data Preview window displays a data preview of the active element in the File Navigator in Trace Preview mode. Refer to the Data Preview Window section of this chapter for more information. |

| Option | Description |
|--------------------|--|
| Property Preview | <p>If this option is selected, the Data Preview window displays a data preview of the active element in the File Navigator in Property Preview mode.</p> <p>Refer to the Data Preview Window section of this chapter for more information.</p> |
| Hide Preview | <p>Hides the Data Preview window. A check mark appears beside the menu option if the Data Preview window is currently hidden.</p> <p>Refer to the Data Preview Window section of this chapter for more information.</p> |
| Standard Toolbar | <p>Shows / hides the Standard toolbar. A check mark appears beside the toolbar name in the menu if it is currently displayed.</p> |
| Operations Toolbar | <p>Shows / hides the Operations toolbar. A check mark appears beside the toolbar name in the menu if it is currently displayed.</p> |
| Workspace | <p>Shows / hides the Workspace pane.</p> |
| Status Bar | <p>Shows / hides the status bar. A check mark appears beside the menu item if the status bar is currently displayed</p> |
| File Navigator | <p>Shows / hides the File Navigator.</p> |

Display Menu The Display menu displays the following options:



Figure 2-5. Display Menu

| Option | Description |
|-----------------------|--|
| New Trace Viewer | Opens a new instance of the Trace Viewer in the Main window. |
| New Parameter Viewer | Opens a new instance of the Parameter Viewer in the Main window. |
| New Peak Table Viewer | Opens a new instance of the Peak Table Viewer in the Main window. |
| New Link Viewer | Opens a new instance of the Linked Data Viewer in the Main window. |
| GAML 3D Viewer | Opens a new instance of the GAML 3D Viewer in the Main window. |

Report Menu The Report menu displays a single Browse Report Method menu option.

This option accesses the Report Viewer for creating reports from GAML data. For more information refer to the [Report Viewer](#) section of this chapter.

Action Menu The Action menu displays the following options:

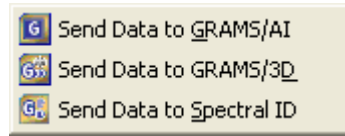


Figure 2-6. Action Menu

The options on this menu can be used to send the active trace array or entire trace to the following applications:

- GRAMS/AI
- GRAMS/3D
- Spectral ID.

Note If a product is not installed, the related menu option will not be available. ▲

The data is sent as a temporary SPC file that is stored on disk and can then be opened with the appropriate application.

If the active element is a trace with multiple trace arrays, a multiframe is sent to GRAMS/AI or Spectral ID. If the active element is a trace array, the single trace array is sent to GRAMS/AI or Spectral ID.

When sending data to GRAMS/3D, the entire trace (multiframe) is sent regardless of whether the current element is a trace or trace array.

Tools Menu The Tools menu displays the following options:

| Option | Description |
|-------------------------|---|
| Options | Displays the Options dialog box, which allows to you to set a number of program options. Refer to the Setting the Envision Application Options section for more information. |
| Save setting as default | Saves all the current settings so that they are applied to each new Linked Data Viewer window. |

Window Menu The options on this menu enable you to choose the way in which items are displayed in the Main window:

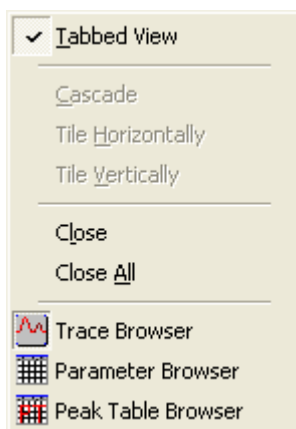


Figure 2-7. Window Menu

| Option | Description |
|-------------|---|
| Tabbed View | Toggles the view in the Main window between tabbed and untabbed views. A check mark appears beside the menu item if Tabbed View is enabled. |

| Option | Description |
|----------------------|---|
| Cascade | Displays open windows in the Main window in Cascade view. This option is only available if Tabbed View is disabled. |
| Tile Horizontally | Tiles all open windows in the Main window horizontally. This option is only available if Tabbed View is disabled. |
| Tile Vertically | Tiles all open windows in the Main window vertically. This option is only available if Tabbed View is disabled. |
| Close Current Window | Closes the window that currently displayed in the Main window. |
| Close All Windows | Closes all windows that are currently displayed in the Main window. |

The bottom of the Window menu displays a list of the windows that are currently open. For more information, refer to the Main Window section of this chapter.

Help Menu The options on the Help menu enable you to access the Envision help file or view details of the version of Envision that you are using:

| Option | Description |
|------------------------|---|
| GRAMS Envision Help | Accesses the Envision help file. |
| Instrument Help | Accesses the Instrument Data File Converters help file. This help file can only be accessed if the GRAMS Converters have been installed. |






| Option | Description |
|-------------------------|--|
| About GRAMS Envision | Accesses version and licensing details for your Envision application. This option also allows you to select another license, or request a new license. See this manual's <i>Welcome to GRAMS Envision</i> chapter. |

Toolbars The Envision user interface displays the following toolbars by default:

- Standard toolbar
- Operations toolbar
- Browser toolbars.









Descriptions of the individual Browser toolbars can be found in the Trace Browser, Parameter Browser and Peak Table Browser sections of this chapter.


Standard Toolbar The Standard toolbar displays the following buttons by default:

| Button | Description |
|--|--|
|  Open File | Allows the user to open a GAML or SPC file from disk. |
|  Open New HTML Viewer | Opens a new HTML Viewer window. Refer to the HTML Viewer section of this chapter for more information. |
|  Save As | Click on this button to save a selected GAML file. This button is only enabled if you have first selected a top level or parent node in the File Navigator or Workspace. Refer to the Using the Save As Option section in the File Navigator section of this chapter for more information. |
|  Close Current File | Closes the currently active GAML. |
|  Close All Files | Closes all open GAML files. |

Operations Toolbar

The Operations toolbar displays the following buttons by default:

| Button | Description |
|---|--|
|  | <p>Open in new Trace Viewer window</p> <p>Opens a new instance of the Trace Viewer.</p> <p>Refer to the Trace Browser section for more information.</p> |
|  | <p>Open in new Parameter viewer window</p> <p>Opens a new instance of the Parameter Viewer.</p> <p>Refer to the Parameter Browser section for more information.</p> |
|  | <p>Open in new Peak Table viewer window</p> <p>Opens a new instance of the Peak Table Viewer.</p> <p>Refer to the Peak Table Browser section for more information.</p> |
|  | <p>Open in new Link viewer window</p> <p>Opens a new instance of the Linked Data Viewer.</p> <p>Refer to the Linked Data Viewer section for more information.</p> |
|  | <p>Send Data to GRAMS/AI</p> <p>Sends the current trace / trace array to GRAMS/AI (as SPC).</p> |
|  | <p>Send Data to GRAMS/3D</p> <p>Sends the current trace to GRAMS/3D (as SPC).</p> |
|  | <p>Send Data to Spectral ID</p> <p>Sends the current trace / trace array to Spectral ID (as SPC).</p> |
|  | <p>Options</p> <p>Displays the Options dialog box, which allows you to set a number of program options.</p> <p>Refer to the Customizing the User Interface section for more information.</p> |


| Button | Description |
|---|----------------------------------|
|  GRAMS Envision Help | Accesses the Envision help file. |

Adding/Removing Toolbar Buttons

You can customize the Envision toolbars by adding or removing toolbar buttons as required.

Adding Toolbar Buttons

To add a button to a toolbar:

1. Click on the  icon on the appropriate toolbar.
2. Select Add or Remove Buttons from the pop-up menu that is displayed.

A list of toolbar buttons is displayed:

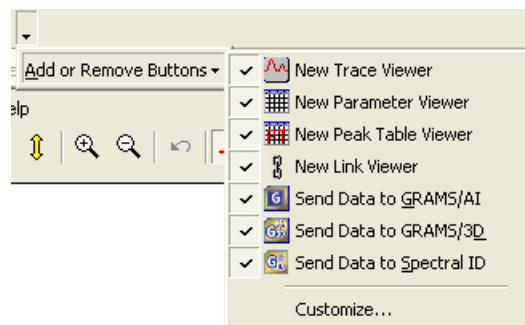


Figure 2-8. Add/Remove Buttons Options

A check mark appears beside each of the buttons that is currently displayed.

3. Select a button, or click on the Customize... option to open the Customize window:

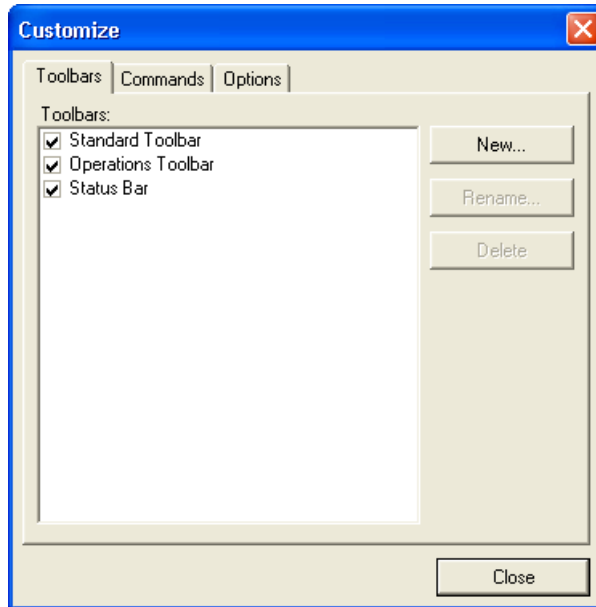



Figure 2-9. Customize Window

The Customize window can be used to add new toolbars and menu options (commands), or specify toolbar and menu options for the Envision user interface.

Removing Toolbar Buttons To remove a button from a toolbar:


1. Click on the  icon on the appropriate toolbar.
2. Select Add or Remove Buttons from the pop-up menu that is displayed.

A list of buttons is displayed.

3. Select the button that you want to remove from the toolbar.

Status Bar The status bar is displayed at the bottom of the Envision interface. It can be displayed or hidden by selecting View/Status Bar from the main menu.

The status bar describes the currently active data item with text matching that used in the Workspace window.



[SUM] [sum_001] [Channel A Chromatogram (CHROM)] [CHROM 1] [Peak Table 1]

Figure 2-10. Status Bar

The status bar will also indicate whether the Parameter Viewer is in “Filter” or “Browse” mode by listing the number of parameters displayed as “X of Y rows”.

File Navigator

The File Navigator pane is displayed to the left of the Envision user interface by default. It enables to you navigate through all open GAML files and preview the data in the browser modules.

The File Navigator can be pinned/unpinned, resized, and closed as required. Refer to the [Customizing the User Interface](#) section for more information.

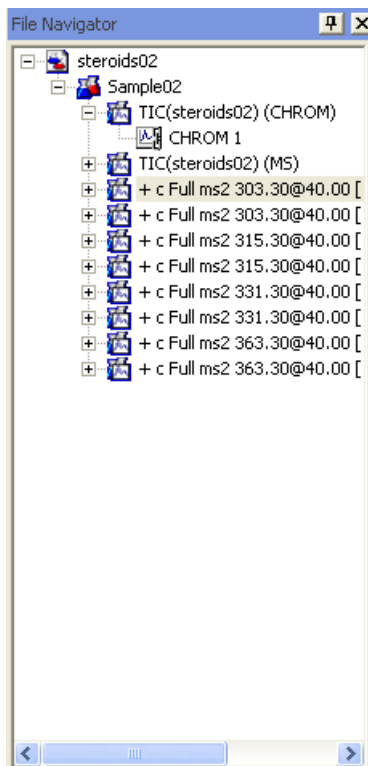




Figure 2-11. File Navigator

The File Navigator enables you to navigate through all open GAML files, view the elements in the browser panes and send data to Envision modules.





The tree-view represents each level of the GAML hierarchy as branch of the tree. Each level has a unique icon associated with it (the icon will also indicate if the data is linked).




Clicking on the  or  buttons at each level expands or collapses the tree. Double-clicking on an element that has child elements toggles the expansion and collapsing of the element. The cursor keys may also be used to navigate the tree.

Clicking on an element in the tree makes that element the active element. As each element is clicked the browser panes in the Main window are updated to reflect the relevant data for the element, and the element will be described in the status bar. Refer to the [Main Window](#) section for information about the browser panes. The Status Bar section describes the features of the status bar.

Viewing the File Navigator Hierarchy

The following icons are used to represent elements in the File Navigator pane:

| Icon | Description |
|---|--|
|  | Root node of GAML file This node will always be present. The Parameter Browser will display details associated with the entire file. Always contains at least one experiment node. |
|  | Experiment node A single analyzed item and contains at least one trace node. The Parameter Browser will display details associated with the item. |
|  | Trace node Data taken from a single detector or data from several sources will be indicated by a single or multiple traces for the experiment. The Parameter Browser will display details associated with the data. |
|  | Trace array node Represents a single 2D X,Y profile. |

| Icon | | Description |
|---|------------------|---|
|  | Peak table node | Acts as the parent for the individual peaks in a trace array. Displays as a child to the trace array and can contain more than one peak. The Peak Table Browser will display information about each identifiable peak in the trace array. |
|  | Peak node | The Parameter Browser will display details associated with the peak. |
|  | Linked view node | A 3D display available when data produced by an instrument and the converter create a link between the two trace array types. |

File Navigator Pop-up Menu

Right clicking on an element in the File Navigator pane displays the following pop-up menu:

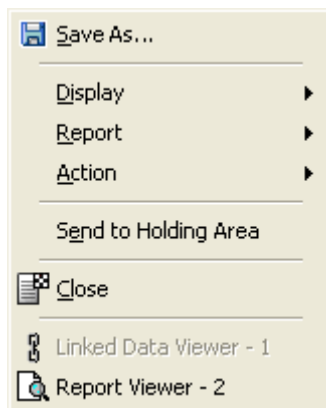


Figure 2-12. File Navigator RMB Menu

| Option | Description |
|----------------------|--|
| Save As | <p>Select this option to save an appropriate node of a GAML file.</p> <p>Refer to the Using the Save As Option section for more information about using this option.</p> |
| Display | <p>Accesses the Display menu options.</p> <p>For more information, refer to the Main Menu section of this chapter.</p> |
| Report | <p>Accesses the Report menu options.</p> <p>For more information, refer to the Main Menu section of this chapter.</p> |
| Action | <p>Accesses the Action menu options.</p> <p>For more information, refer to the Main Menu section of this chapter.</p> |
| Send to Holding Area | <p>This option can be used to send data to the Holding Area. The Holding Area is described in the Workspace Pane section of this chapter.</p> |
| Close | <p>Closes the File Navigator pane.</p> |

Items at the bottom of the menu indicate which Viewers are currently open.

Note Some menu options may be grayed-out if they are not applicable to the item that is currently selected in the File Navigator. ▲

Using the Save As Option

The Save As menu option can be used to save any appropriate sub-node of a GAML file (i.e. one containing traces or trace arrays), as an SPC format binary file.

When you select this option, a standard file Save As window is displayed for you to enter the file name and location.

The Save As function may optionally be used to save GAML format XML files.

Important The ability to save GAML format XML files is a separately licensed feature of Envision, which can be obtained by contacting Thermo Fisher Scientific Sales at:

www.thermo.com/grams

If the Save As feature is enabled for GAML format XML files on your system, the Save As menu option will be enabled when you select the top level (GAML file) node in the File Navigator or Workspace pane.

Data Preview Window

The Data Preview window is displayed by default below the File Navigator:

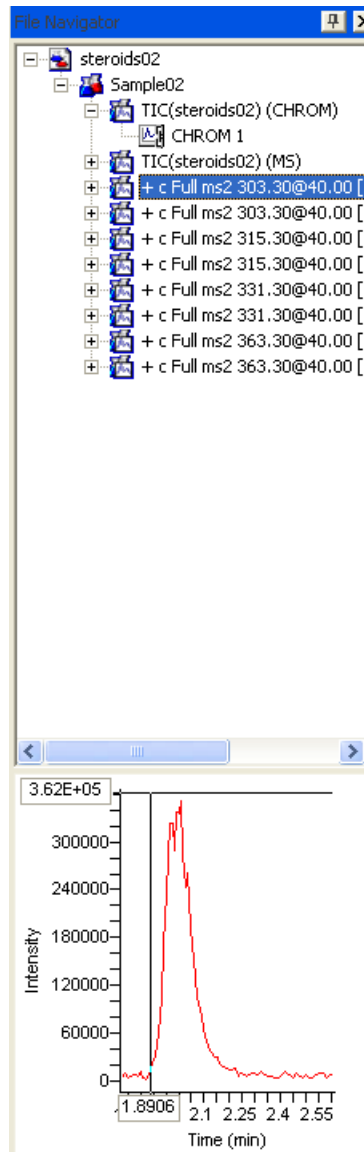


Figure 2-13. File Navigator with Data Preview Window

The Data Preview window allows you to preview the information for the item that is currently selected in the File Navigator pane.

Information can be viewed in two different ways:

- Trace Preview
- Property Preview

To change the display mode, either:

- Right click on the Data Preview window and select the required option from the pop-up menu, OR
- Select the View option from the main menu then select the required viewing option. A check mark beside an item in the View menu indicates the current mode.

Note When you start the Envision application the default view is Trace Preview. ▲

Trace Preview Display

The Trace Preview display option shows the active element:

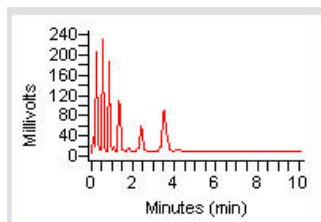


Figure 2-14. Trace Preview Mode

The information that is displayed depends on the item that is currently selected in the File Navigator:

- When a GAML or Experiment is selected, the Data Preview window will display the message “<Preview not available>”.
- When a trace is selected, the Data Preview window shows the first trace array of the trace.

- When a trace array is selected, the Data Preview window shows the trace array data as a 2D trace (either continuous or discrete pulses).
- When a peak table is selected, the display window shows the peak table's trace array data as a 2D trace. The peak will be labeled as indicated in the File Navigator.
- When a peak is selected, the display window shows the peak's trace array data as a 2D trace. Only that peak is displayed and will be labeled as indicated in the File Navigator.
- When a linked view is selected, the display window shows the parent trace data as a 2D trace (either continuous or discrete pulses).

Property Preview Display

The Property Preview display option shows the properties of the item that is currently selected in the File Navigator. Information can include the specific values of elements and attributes as well as some derived properties. The information displayed differs according to the element type. If an element, attribute, or other property does not apply, it will not be displayed.

Note You can also view this information when viewing the Parameter Browser by selecting the File/Element Properties option from the Main Window menu. For more information refer to the [Parameter Browser](#) section. ▲

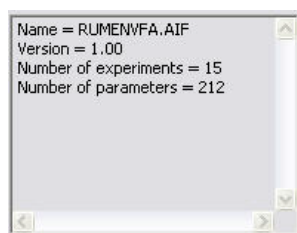


Figure 2-15. Property Preview Mode

Hiding the Data Preview Window

To hide the Data Preview window either:

- Click the right mouse button in the appropriate window and select Hide Preview from the pop-up menu that is displayed, OR
- Select View/Hide Preview from the main menu.

To redisplay the Data/Property Preview window, select a preview mode from the View menu.


Main Window The Main window displays the pages used for viewing, processing and reporting data. These pages fall into two specific categories:

- Browsers
- Viewers

The difference between the two page types is that the Browser pages are updated each time you highlight a new GAML file in the Navigator; whereas a Viewer page will keep the image of the GAML file that you sent to it.

When the Envision application starts, the Main window displays three Browser pages:

- Trace Browser — this is a modified version of the Trace Viewer that displays the trace of the selected item in the File Navigator pane. This window will never contain more than one trace. Refer to the [Trace Browser](#) section for more information.
- Parameter Browser — this is a modified version of the Parameter Viewer that displays the parameters, derived properties, and element and attribute values of the selected item in the File Navigator. Refer to the [Parameter Browser](#) section for more information.
- Peak Table Browser — a modified version of the Peak Table Viewer that displays peak table elements and attributes as well as peak parameters of the selected item in the File Navigator. Refer to the [Peak Table Browser](#) section for more information.

You can use the navigation icons  in the upper right corner of the Main window to navigate through the tabbed pages and/or close unnecessary views.

You can view a list of all windows that are currently open in the Main window by selecting the Window option from the main menu. Open windows are displayed at the bottom of the Window menu, as shown in the following example:

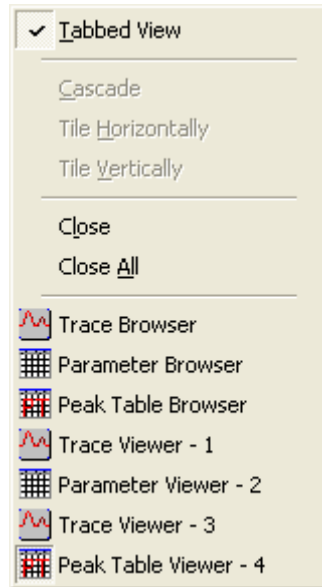


Figure 2-16. Window Menu with Example List of Open Windows

All open browsers are shown at the top of the list. All open views are suffixed with a number indicating the order in which the view was opened.

Note The exception to this is the HTML Viewer, where the initial view opens without a numeric prefix. Any subsequent HTML views that are opened will show a numeric prefix. ▲


Selecting an item from this list will switch the display in the Main window to the selected view.

The individual tabbed pages can be closed or redisplayed by selecting View from the main menu then selecting or deselecting the appropriate option.

Viewing Modes There are several viewing modes for the Main window:

- Tabbed View — this is the default view for the Main window. Clicking on a tab makes the corresponding module active and brings it into focus.
- Cascade — this viewing mode arranges the windows in a cascading, stacked view
- Tile Horizontally — this viewing mode arranges the windows in a horizontal array.
- Tile Vertically — this viewing mode arranges the windows in a vertical array.

Note If Tabbed View is enabled, all other viewing options are disabled. ▲

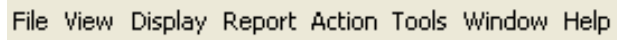
When in Tabbed View mode, clicking on one of the tabs in the Main window will bring the selected item to the foreground. To close a window in Tabbed View mode, click on a window's tab to make sure it is the current window, then click on the  in the top right-hand corner of the Main window.

Changing the Display Mode To change the display mode:

1. Select the Window option from the main menu.
2. Select the required display mode from the Window menu.

Main Window Menu

The Main Window menu displays across the top of the Main window:



File View Display Report Action Tools Window Help

Figure 2-17. Main Window Menu

The functions that are performed by the options on the Main Window menu differ according to the currently selected view. For a description of the functions that are available, refer to the individual sections of this chapter that describe the view options.

Main Window Toolbar

The toolbar at the top of the Main window is used to access functions for the currently selected view. For a description of the functions that are available, refer to the sections of this chapter that describe the individual view options.

Trace Browser The Trace Browser is a viewing window which displays 2D views of a trace. Opening a new GAML file or right-clicking on a Trace or Trace Array element in the File Navigator pane will open the Trace Browser.

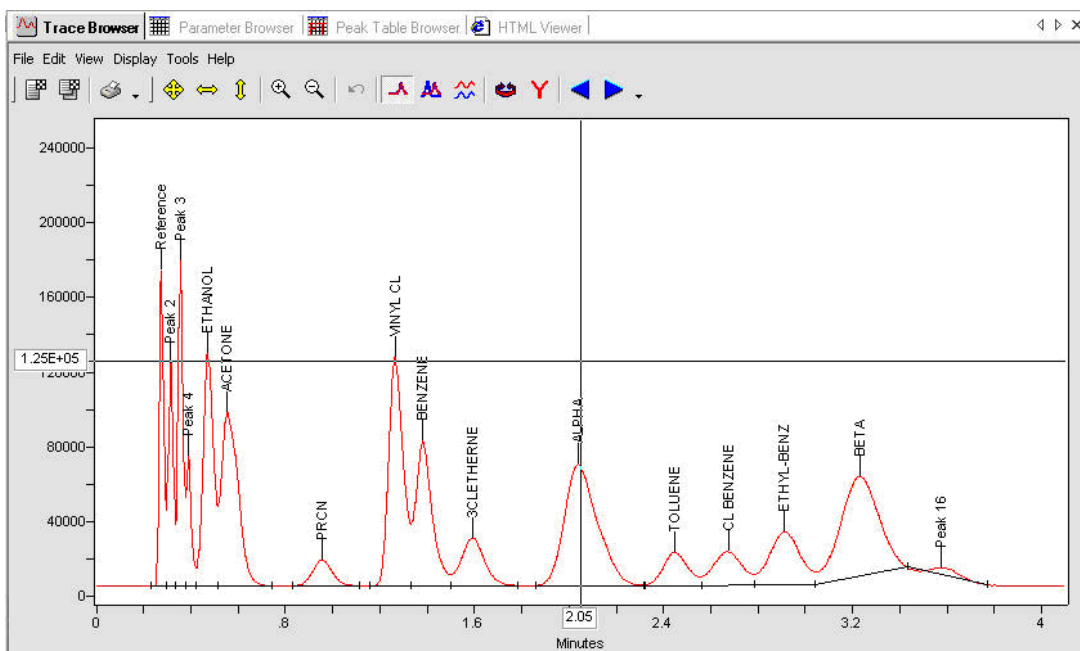


Figure 2-18. Trace Browser

The features of the Trace Browser are the same as those for the Trace Viewer, so they will only be described once in this chapter.

Trace Browser Menus

This section describes the menu options at the top of the Trace Browser pane.

File Menu The File menu for the Trace Browser displays the following options:

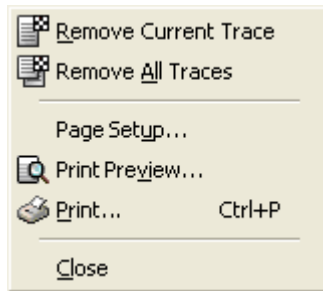


Figure 2-19. Trace Browser — File Menu

| Option | Description |
|----------------------|--|
| Remove Current Trace | Removes the selected trace from the Trace Browser pane and the Legend. |
| Remove All Traces | Removes all traces from the Trace Browser pane and the Legend. |
| Page Setup | Displays a standard Page Setup dialog box, which can be used to adjust the page settings prior to printing. |
| Print Preview | Displays a standard Print Preview pane, which enables you to view a preview of a trace prior to printing. |
| Print | Sends the current trace to the printer. A standard Print dialog box is displayed, from which you can select the printer. |
| Close | Closes the Trace Browser |

Edit Menu The Edit menu for the Trace Browser displays the following options:

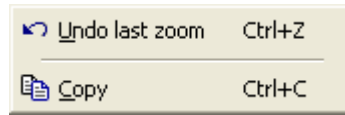


Figure 2-20. Trace Browser — Edit Menu

| Option | Description |
|----------------|---|
| Undo Last Zoom | This option can be used to undo the last zoom or autoscale operation. |
| Copy | Copies the currently selected data to the clipboard. |

View Menu The View Menu for the Trace Browser displays standard options for hiding or displaying toolbars and the Legend:

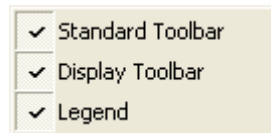


Figure 2-21. Trace Browser — View Menu

Display Menu The Display menu for the Trace Browser displays the following options:

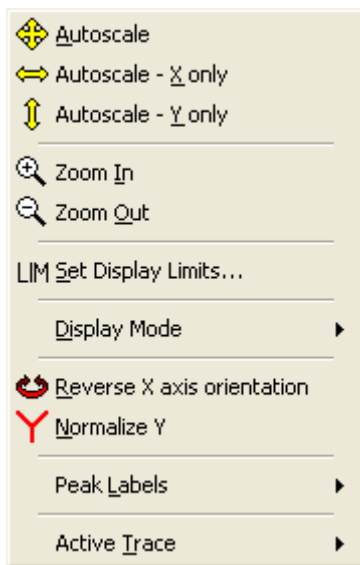


Figure 2-22. Trace Browser — Display Menu

Note The Zoom and Autoscale features will affect the display of all loaded data if the display is set to either the Stacked or Overlaid mode. ▲

| Option | Description |
|--------------------|---|
| Autoscale | Rescales the display such that the data points and peak labels fit into the display completely. |
| Autoscale – X only | Rescales the display such that the x axis fits into the display completely. |
| Autoscale – Y only | Rescales the display such that the y axis and peak labels fit into the display completely. |
| Zoom In | Rescales the display to zoom in 10% around the current cursor position (whether or not the cursor is actually displayed). |

| Option | Description |
|----------------------------|---|
| Zoom Out | Rescales the display to zoom out 10% around the current cursor position (whether or not the cursor is actually displayed). |
| Set Display Limits | <p>Opens the Set Limits dialog box, which enables you to specify the displays limits for the X and Y axes.</p> <p>Refer to the Setting the Trace Display Limits section for more information.</p> |
| Display Mode | <p>Used to select the display mode. The following options are available:</p> <ul style="list-style-type: none"> • Paged — shows only one trace array in the Trace Browser. • Overlaid — overlays all open trace arrays in the Trace Browser. • Stacked — shows all open trace arrays stacked in the Trace Browser. <p>Refer to the Viewing Multiple Traces in a Window section for more information.</p> |
| Reverse X axis orientation | Flips (reverses) the X axis orientation. By default all low values are displayed to the left, with high values to the right. This orientation can be saved as the default if required. |
| Normalize Y | <p>Normalizes the Y data points from 0 to 1.</p> <p>When you select this option a warning message is displayed to advise you that peak label information cannot be shown in normalized displayed. If you choose to continue, peak labeling will be turned off.</p> |

| Option | Description |
|--------|-------------|
|--------|-------------|

Peak Labels Displays a sub-menu with the following options:

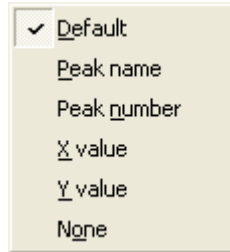


Figure 2-23. Peak Labels Sub-menu

Select the required option to change the peak labels. The default option is “Default”.

Refer to the [Trace View Peak Labeling](#) section for more information.

Active Trace Displays a sub-menu with the following options:

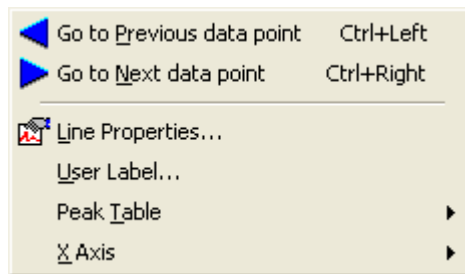


Figure 2-24. Active Trace Sub-menu

Options on this menu can be used to navigate to another data point, change the properties of the active trace or add user-defined labels to the active trace.

Tools Menu The Tools menu for the Trace Browser displays the following options:



Figure 2-25. Trace Browser — Tools Menu

| Option | Description |
|----------------------------------|---|
| Options | Opens the Trace Viewer Options window. Refer to the Setting the Trace Display Options section for more information. |
| Save Current Settings as Default | Saves the current settings so that they are applied to each new Linked Data Viewer window. |

Help Menu The Help menu for the Trace Browser displays the following options:

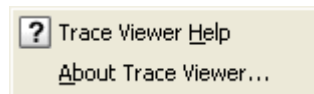


Figure 2-26. Trace Browser — Help Menu

| Option | Description |
|--------------------|--|
| Trace Viewer Help | Accesses the Trace Viewer section of the Envision help. |
| About Trace Viewer | Displays the licensing information for the Trace Viewer. |

Trace Browser Toolbars

The Trace Browser pane displays two toolbars:




- Standard Toolbar
- Display Toolbar

The buttons on these toolbars provide standard navigation features and easy access to Trace Browser/Trace Viewer menu options.









These toolbars can be hidden by right mouse clicking in the toolbar area at the top of the Trace Browser pane and selecting the required option from the pop-up menu that is displayed.






Standard Toolbar

The Standard toolbar contains the following buttons by default:

| Button | Description |
|--|---|
|  Remove Current Trace | Removes the selected trace from the display and the Legend. |
|  Remove All Traces | Removes all traces from the Trace Browser pane and the Legend. |
|  Print | Opens a standard Print dialog box, which can be used to select the printer to which the trace will be sent. |

Display Toolbar The Display toolbar contains the following buttons by default:

| Button | Description |
|---|--|
|  Autoscale | Rescales the display so that the data points and peak labels fit into the display completely. |
|  Autoscale – X only | Rescales the display such that the x axis fits into the display completely. |
|  Autoscale – Y only | Rescales the display such that the y axis and peak labels fit into the display completely. |
|  Zoom In | Rescales the display to zoom in 10% around the current cursor position (whether or not the cursor is actually displayed). |
|  Zoom Out | Rescales the display to zoom out 10% around the current cursor position (whether or not the cursor is actually displayed). |
|  Undo last zoom | Returns to the previous screen. This action may be repeated to go back several screens. |
|  Paged (display mode) | Shows only one trace array in the Trace Browser. Refer to the Viewing Multiple Traces in a Window section for more information. |
|  Overlaid (display mode) | Overlays all open trace arrays in the Trace Browser. Refer to the Viewing Multiple Traces in a Window section for more information. |

| Button | | Description |
|---|-------------------------------|---|
|  | Stacked (display mode) | Shows all open trace arrays stacked in the Trace Browser. Refer to the Viewing Multiple Traces in a Window section for more information. |
|  | Reverse X axis orientation | Flips (reverses) the X axis orientation. By default all low values are displayed to the left, with high values to the right. This orientation can be saved as the default if required. |
|  | Normalize Y | Normalizes the Y data points from 0 to 1. When you select this option a warning message is displayed to advise you that peak label information cannot be shown in normalized displayed. If you choose to continue, peak labeling will be turned off. |
|  | Go to the next data point | Navigates to the next data point, to the right of the current cursor position. |
|  | Go to the Previous data point | Navigates to the previous data point, to the left of the current cursor position. |

Note The Zoom and Autoscale features will affect the display of all loaded data if the display is set to either the stacked or overlaid mode. ▲

Trace Browser Pop-up Menu

Clicking with the right mouse button in the Trace Browser pane displays a pop-up menu with the following options:

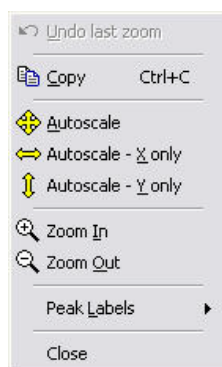


Figure 2-27. Trace Browser Pop-up Menu

The options on this menu have already been described in the [Trace Browser Menus](#) and [Trace Browser Toolbars](#) sections of this chapter.

Setting the Trace Display Limits

The trace display limits can be set manually if required.

To set the trace display limits manually:

1. Select Display/Set Display Limits from the Trace Browser menu.

The Set Limits dialog box is displayed:

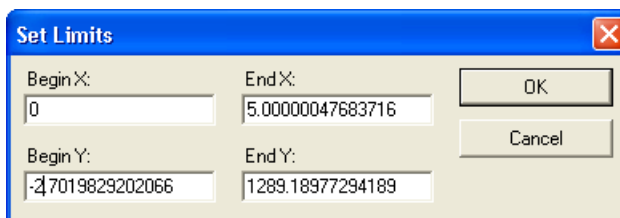





Figure 2-28. Set Limits Dialog Box

2. Enter the beginning and ending X and Y display limits then click on the OK button to save the changes.

Viewing Multiple Traces in a Window

Selecting a display mode from the Display sub-menu allows you to view multiple traces from one trace window. The Envision application will automatically assign a line color to each trace in the display.

The following display options are available:

- Paged display mode () shows only one trace array in the trace display at a time, even if multiple traces are open. You can page through all traces sequentially by using the arrow keys.
- Overlaid display mode () overlays all open trace arrays in the trace box. Some traces may not be seen if they are outside the currently set X and Y limits.
- Stacked display mode () shows all open trace arrays stacked in the trace box. The trace box is divided vertically into equally sized regions with each trace array in a separate region.

Trace View Peak Labeling

By default, peak labels are set to “Default” - meaning that the display is consistent with the text displayed in the File Navigator. The Display/Peak Labels menu option allows you to select the text type to define the peak labels by placing a checkmark to indicate selection.

Note If no peak table and peaks have been defined in the trace array, the Peak Tables sub-menu will show [Empty]. ▲

Peaks are marked with a label and indicator line connecting the label to the peak position.

- Peak labels are displayed with vertical orientation.
- Peak baselines are displayed as black lines with small vertical bars at each endpoint

If there are multiple traces for a single trace array, the first trace will be used to mark peaks, by default. You can change the trace by selecting a new table definition from the Display/Peak Labels sub-menu, or from the Trace Browser's right mouse button pop-up menu. There is one entry per peak table with a check mark beside the one used.

Note This menu item will change for each active trace array. It will be dimmed out when no peak tables are associated with the active trace array. ▲

Setting the Trace Display Options

You can set trace display options, such as showing crosshairs and partition lines, and active trace settings such as line properties.

To change the trace display options select Tools/Options from the Trace Browser menu. The Trace Viewer Options window is displayed:

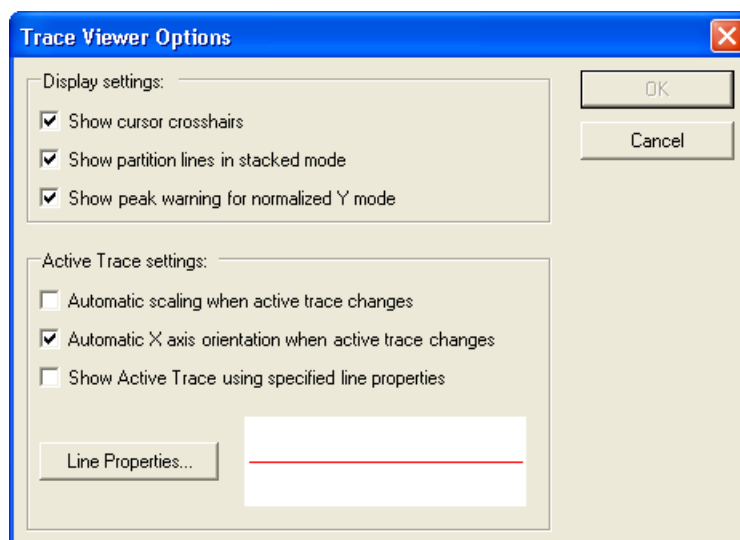


Figure 2-29. Trace Viewer Options Window

The Display Settings section displays the following options:

| Option | Description |
|---|--|
| Show cursor crosshairs | When this option is selected, the cursor crosshairs are displayed on the trace display at the position of the last mouse click. The X and Y values of the mouse click position are indicated by the intersection of the crosshairs, and are labeled on the appropriate axis. Double-clicking on any point in the trace display makes the cursor crosshairs move to the data point closest to the mouse click. |
| Show partition lines in stacked mode | When this option is selected, a black partition line appears at the lowest Y value in each trace array's section in the stack. |
| Show peak warning for normalized Y mode | When this option is selected, a warning dialog is displayed that indicates that peak labels and indicators will not be displayed in normalized mode. |

Note The Display Settings options are selected by default. Deselect the check boxes to turn the settings OFF. ▲

The Active Trace Settings section displays the following options:

| Option | Description |
|---|--|
| Automatic scaling when the active trace changes | If this option is selected, the display autoscales in the X and Y directions each time the active trace changes. This option is deselected by default. |

| Option | Description |
|--|--|
| Automatic X axis orientation when the active trace changes | Selecting this option causes the display to automatically orient the trace based upon the axis unit of the active trace. This option is deselected by default. |
| Show Active Trace using specified line properties | Selecting this option causes the active trace array to be displayed with a specific line color/style/width. Clicking on the Line Properties button opens the Line Properties dialog box: |

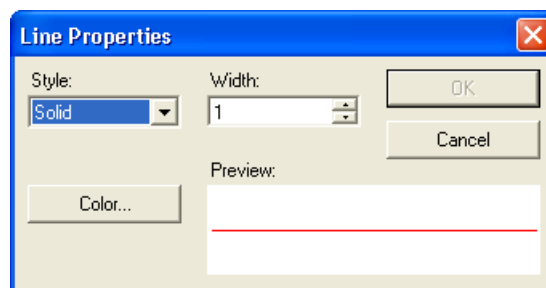


Figure 2-30. Line Properties Dialog Box

From here you can change the line color, style, and width of the active trace. The Preview section displays a preview of the line style for the current trace. Click on the OK button to save the changes.

The Line Properties window can also be opened from the Display/Active Trace/Line Properties menu option.

Note For the active trace display to use your defined line properties, the Show Active Trace using specified line properties check box must be selected in the Trace Viewer Options window. ▲

Changing the Trace Display Labels

The label applied to a trace can be changed using the Edit User Label dialog box.

To change the trace display labels:

1. Select the Display/Active Trace option from the Trace Browser menu.

The Edit User Label dialog box is displayed:

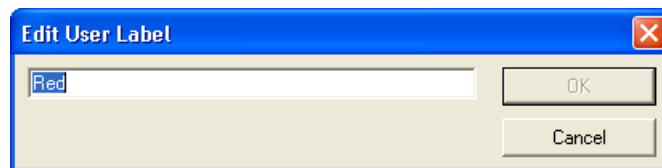


Figure 2-31. Edit User Label dialog

2. Enter the name that will appear in the Legend for the active trace.
3. Click on the OK button to save the changes.

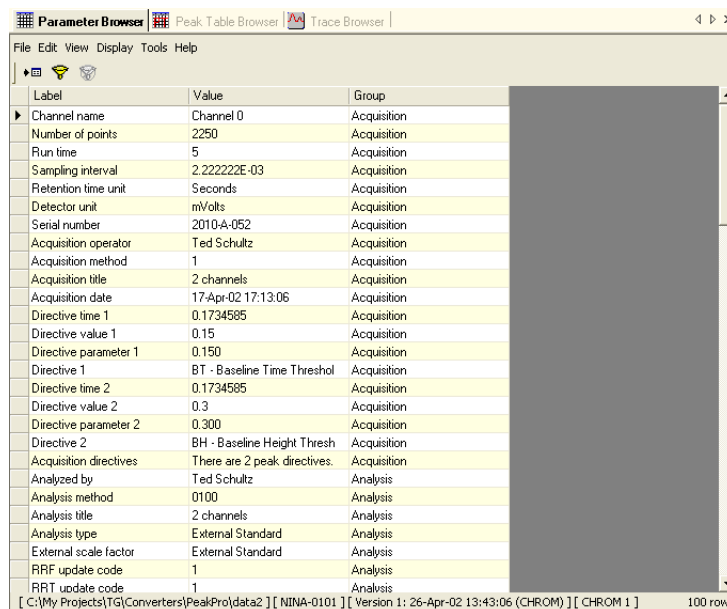
Legend

The Legend displays below the Trace Browser pane. It describes all trace arrays that are currently loaded. As long as there is a trace array in use, there will always be one and only one active trace array. Right-clicking on an element in the Legend will open a pop-up menu accessing select trace functions.

Note The Legend can be pinned/unpinned, resized, or closed as required. Refer to the section, [Customizing the User Interface](#) for detail. ▲

Parameter Browser

The Parameter Browser displays parameters, derived properties, and element and attribute values for any element in the GAML hierarchy. When there are no parameters for that element, the Parameter Browser will appear blank (any previously displayed data is cleared when new data is loaded).



The screenshot shows the 'Parameter Browser' window with a menu bar (File, Edit, View, Display, Tools, Help) and a toolbar. The main area contains a table with three columns: Label, Value, and Group. The table lists various parameters such as Channel name, Number of points, Run time, Sampling interval, Retention time unit, Detector unit, Serial number, Acquisition operator, Acquisition method, Acquisition title, Acquisition date, Directive time 1, Directive value 1, Directive parameter 1, Directive 1, Directive time 2, Directive value 2, Directive parameter 2, Directive 2, Acquisition directives, Analyzed by, Analysis method, Analysis title, Analysis type, External scale factor, RRF update code, and RRT update code. The status bar at the bottom indicates the file path, version, and the number of rows (100 rows).

| Label | Value | Group |
|------------------------|------------------------------|-------------|
| Channel name | Channel 0 | Acquisition |
| Number of points | 2250 | Acquisition |
| Run time | 5 | Acquisition |
| Sampling interval | 2.222222E-03 | Acquisition |
| Retention time unit | Seconds | Acquisition |
| Detector unit | mVolts | Acquisition |
| Serial number | 2010-A-052 | Acquisition |
| Acquisition operator | Ted Schultz | Acquisition |
| Acquisition method | 1 | Acquisition |
| Acquisition title | 2 channels | Acquisition |
| Acquisition date | 17-Apr-02 17:13:06 | Acquisition |
| Directive time 1 | 0.1734585 | Acquisition |
| Directive value 1 | 0.15 | Acquisition |
| Directive parameter 1 | 0.150 | Acquisition |
| Directive 1 | BT - Baseline Time Threshol | Acquisition |
| Directive time 2 | 0.1734585 | Acquisition |
| Directive value 2 | 0.3 | Acquisition |
| Directive parameter 2 | 0.300 | Acquisition |
| Directive 2 | BH - Baseline Height Thresh | Acquisition |
| Acquisition directives | There are 2 peak directives. | Acquisition |
| Analyzed by | Ted Schultz | Analysis |
| Analysis method | 0100 | Analysis |
| Analysis title | 2 channels | Analysis |
| Analysis type | External Standard | Analysis |
| External scale factor | External Standard | Analysis |
| RRF update code | 1 | Analysis |
| RRT update code | 1 | Analysis |

Figure 2-32. Parameter Browser

The data grid displays data in the following columns:

- Name (hidden by default)
- Alias (hidden by default)
- Label
- Value
- Group

Each column in the grid can be toggled on or off by selecting the corresponding item in the Parameter Browser's View sub-menu.

You can also toggle columns from the Parameter Browser's pop-up menu, which is shown when you right-click on the data grid.

The pop-up menu also includes a Close option, which closes the Parameter Browser.

The features of the Parameter Browser are the same as those for the Parameter Viewer, so they will only be described once in this chapter.

Parameter Browser Menu

This section describes the menu options at the top of the Parameter Browser pane.

File Menu

The File menu for the Parameter Browser displays the following options:

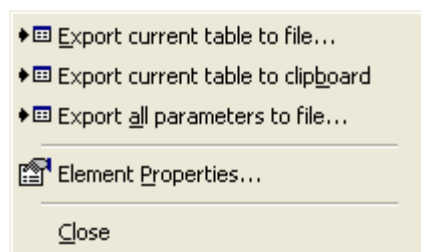


Figure 2-33. Parameter Browser — File Menu

| Option | Description |
|-----------------------------------|--|
| Export current table to file | Exports the currently displayed table (including hidden columns) to a tab delimited text file. A standard file Save dialog box is displayed. |
| Export current table to clipboard | Exports the currently displayed table (including hidden columns) to a tab delimited text file. A standard file Save dialog box is displayed. |
| Export all parameters to file | Exports all parameters (including hidden columns) to a tab delimited text file. A standard file Save dialog box is displayed. |

| Option | Description |
|--------------------|--|
| Element Properties | Displays the properties of the current elements. These properties include the specific values of elements and attributes as well as some derived properties. |
| Close | Closes the Parameter Browser |

Edit Menu The Edit menu for the Parameter Browser displays the following option:

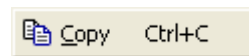


Figure 2-34. Parameter Browser — Edit Menu

| Option | Description |
|--------|--|
| Copy | Copies the currently selected data to the clipboard. |

View Menu The View Menu for the Parameter Browser displays standard options for hiding or displaying columns and toolbars:

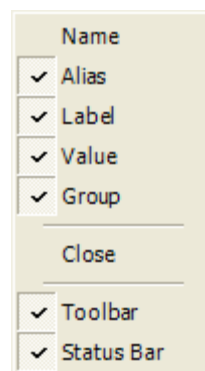


Figure 2-35. Parameter Browser — View Menu

Display Menu The Display menu for the Parameter Browser displays the following options:

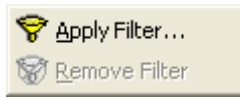


Figure 2-36. Parameter Browser — Display Menu

| Option | Description |
|---------------|---|
| Apply Filter | Used to set parameter filters to display specified data points. Refer to the Filtering Parameters section for more information. |
| Remove Filter | Removes the applied filter. |

Tools Menu The Tools menu for the Parameter Browser displays the following option:



Figure 2-37. Parameter Browser — Tools Menu

| Option | Description |
|----------------------------------|--|
| Save Current Settings as Default | Saves the current settings so that they are applied to each new Linked Data Viewer window. |

Help Menu The Help menu for the Parameter Browser displays the following options:

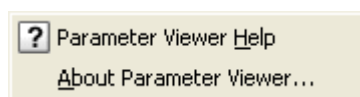





Figure 2-38. Parameter Browser — Help Menu

| Option | Description |
|------------------------|---|
| Parameter Viewer Help | Accesses the Parameter Viewer section of the Envision help. |
| About Parameter Viewer | Displays the current version of the Parameter Viewer. |

Parameter Browser Toolbar


The Parameter Browser toolbar contains the following buttons by default:

| Button | Description |
|--|---|
|  Export current table to specified file | Exports the currently displayed table (including hidden columns) to a tab delimited text file. A standard file Save As dialog box is displayed. |
|  Apply Filter... | Used to set parameter filters to display specified data points. Refer to the Filtering Data section for more information. |
|  Remove Filter | Removes the applied filter. |

Filtering Data

When viewing items in the Parameter and Peak Table Browsers you can apply filters to display specific data points.

To apply a filter:

1. Click on the Apply Filter button  on the Parameter Browser toolbar, or select Display/Apply Filter from the Parameter Browser menu.

The Filter dialog box is displayed:

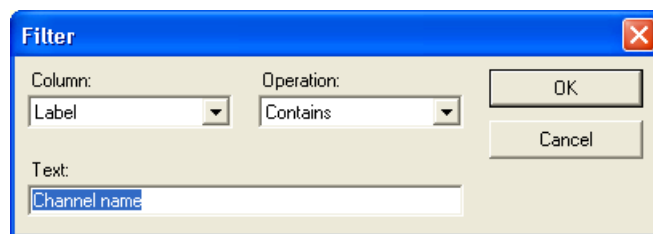


Figure 2-39. Filter Dialog Box

By default, the Filter dialog box displays information about the currently active cell.

2. Select a column from the Column drop down list.

This is the column to which the filter will be applied. The list displays all the current display columns.


3. Select the required operator from the Operation drop down list.

The list displays the following options:

- Contains (default)
- Equals
- Does not contain
- Does not equal.

4. Enter a value in the Text field. Any valid text string can be entered in this field.
5. Click on the OK button to apply the filter to the displayed data.

Removing a Filter

When you apply a filter to the data, the Display/Remove Filter menu item is enabled and the Remove Filter button  is activated. Selecting either the Remove Filter menu option or clicking on the Remove Filter button removes the filter and returns the display to browse mode.

Sorting Data

You can sort the data in the Parameter Browser grid into ascending or descending order by clicking on the column headings. An arrow displayed to the right of a column heading indicates the column used for the sort, and the order of the sort.

| Label | Value | Group |
|-------|-------|-------|
|-------|-------|-------|

Figure 2-40. Sorted Column Example

Peak Table Browser


The Peak Table Browser displays information about the Peak Table element of a GAML file. Opening a new GAML file or right-clicking on an element in the File Navigator will open a Peak Table Browser.

| Peak Number | Peak Name | Peak X Value | Peak Y Value | Group | Baseline Start X | Baseline Start Y | Baseline End X | 8 |
|-------------|----------------|-----------------|-----------------|-------|------------------|------------------|-----------------|---|
| 1 | | 0.1173333451151 | 29.342655181884 | | 0.0533333383500 | 8.0747613906860 | 0.1306666880846 | 8 |
| 2 | solvent | 0.1866666823625 | 202.49942016601 | | 0.1306666880846 | 8.1099748611450 | 0.4720000624656 | 8 |
| 3 | peak 2 of 9 | 0.5520000457763 | 230.81973266601 | | 0.4720000624656 | 8.2653989791870 | 0.7680000662803 | 8 |
| 4 | Propanoic acid | 0.8533334732055 | 187.83570861816 | | 0.7680000662803 | 8.4001817703247 | 1.0133334398269 | 8 |
| 5 | I Butanoic | 1.0826667547226 | 19.432069778442 | | 1.0133334398269 | 8.5118923187255 | 1.2373335361480 | 8 |
| 6 | N Butanoic | 1.3706667423248 | 108.32215881347 | | 1.2373335361480 | 8.6138887405395 | 1.7013335227966 | 8 |
| 7 | I Valeric | 1.8293335437774 | 15.541078567504 | | 1.7013335227966 | 8.8251686096191 | 2.0560002326965 | 8 |
| 8 | N Valeric | 2.4213335514068 | 59.780128479003 | | 2.2053337097168 | 9.0700159072876 | 2.8773336410522 | 9 |
| 9 | Iso Caproic | 3.5600004196167 | 89.401252746582 | | 3.2026669979095 | 9.0908069610595 | 4.0373339653015 | 8 |
| 10 | N Caproic | 4.2586669921875 | 13.717653274536 | | 4.0373339653015 | 8.7952909469604 | 4.5760006904602 | 8 |
| 11 | | 4.6106672286987 | 9.1304788589477 | | 4.5760006904602 | 8.6045751571655 | 4.7493338584899 | 8 |
| 12 | | 4.8000006675720 | 8.9187631607055 | | 4.7520003318786 | 8.5424432754516 | 4.8906674385070 | 8 |
| 13 | | 4.9733338356018 | 8.8758478164672 | | 4.8933339118957 | 8.4650049209594 | 5.0586671829223 | 8 |
| 14 | | 5.1333336830139 | 8.9139947891235 | | 5.0826673507690 | 8.4907541275024 | 5.2090006599426 | 8 |
| 15 | | 5.4506673812866 | 8.9578638076782 | | 5.4106674194335 | 8.5681924819946 | 5.5306673049926 | 8 |
| 16 | | 5.6186671257019 | 8.8729867935180 | | 5.5306673049926 | 8.5049123764038 | 5.7040004730224 | 8 |

Figure 2-41. Peak Table Browser — Peak Table View

The data grid can be displayed in the following ways:

- Peak Table View (default)
- Peak Parameters View
- Peak Table Parameters View.

The  icon can be used to track a row through the 3 views of the Peak Table Module.

Note Refer to the [Peak Table Browser Display Options](#) section for more information. ▲

Columns in the Peak Table Browser grid can be hidden or displayed by selecting/deselecting the appropriate column names in the View sub-menu. Refer to the [View Menu](#) section for more information.

Alternatively, you can right click on the grid to show/hide columns. A check mark appears beside the displayed columns.

Note The default setting is all columns displayed in Peak Table View and all columns, except Name, shown in the Peak Parameter and Peak Table Parameter Views. It will also list the number of peaks (or parameters) displayed as “X of Y peaks displayed” (“X of Y parameters displayed”). ▲

The features of the Peak Table Browser are the same as those for the Peak Table Viewer, so they will only be described once in this chapter.

Peak Table Browser Menu

This section describes the menu options at the top of the Peak Table Browser pane.

File Menu The File menu for the Peak Table Browser displays the following options:

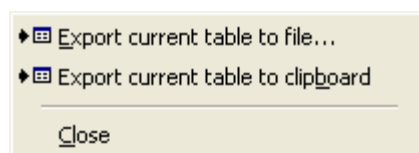


Figure 2-42. Peak Table Browser — File Menu

| Option | Description |
|------------------------------|--|
| Export current table to file | Exports the currently displayed table (including hidden columns) to a tab delimited text file. A standard file Save dialog box is displayed. |

| Option | Description |
|-----------------------------------|--|
| Export current table to clipboard | Exports the currently displayed table (including hidden columns) to a tab delimited text file. A standard file Save dialog box is displayed. |
| Close | Closes the Peak Table Browser. |

Edit Menu The Edit menu for the Peak Table Browser displays the following option:

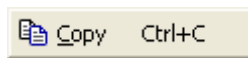


Figure 2-43. Peak Table Browser — Edit Menu

| Option | Description |
|--------|--|
| Copy | Copies the active trace box, together with the trace array data, to the clipboard. |

View Menu The View Menu for the Peak Table Browser displays the following options:

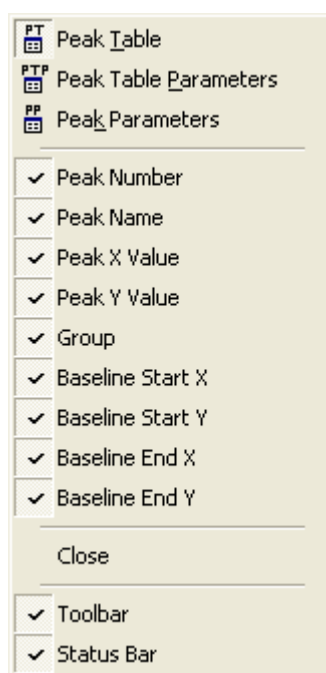


Figure 2-44. Peak Table Browser — View Menu

| Option | Description |
|------------|---|
| Peak Table | This is the default mode for the Peak Table Browser. The grid displays element and attribute values for each peak in the peak table. All available columns will display. Refer to the Peak Table Browser Display Options section for more information. |

| Option | Description |
|-----------------------|--|
| Peak Table Parameters | <p>In Peak Table Parameter view, the grid displays the following columns:</p> <ul style="list-style-type: none"> • Name (hidden by default) • Label • Value • Group <p>Parameters from the peak table element are displayed.</p> <p>Refer to the Peak Table Browser Display Options section for more information.</p> |
| Peak Parameters | <p>In Peak Parameter view, the grid can show peak parameters from a single peak or all peaks. The grid contains the following columns:</p> <ul style="list-style-type: none"> • Peak Number • Name (hidden by default) • Label • Value • Group <p>Refer to the Peak Table Browser Display Options section for more information.</p> |

Display Menu The Display menu for the Peak Table Browser displays the following options:

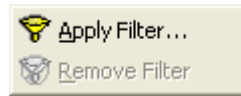


Figure 2-45. Peak Table Browser — Display Menu

| Option | Description |
|---------------|---|
| Apply Filter | Used to set parameter filters to display specified data points. Refer to the Filtering Data section for more information. |
| Remove Filter | Removes the applied filter. |

Tools Menu The Tools menu for the Peak Table Browser displays the following option:

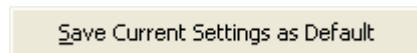


Figure 2-46. Peak Table Browser — Tools Menu

| Option | Description |
|----------------------------------|--|
| Save Current Settings as Default | Saves the current settings so that they are applied to each new Linked Data Viewer window. |

Help Menu The Help menu for the Peak Table Browser displays the following options:

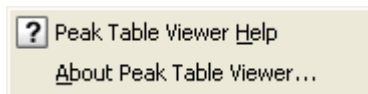








Figure 2-47. Peak Table Browser — Help Menu

| Option | Description |
|-------------------------|--|
| Peak Table Viewer Help | Accesses the Peak Table Viewer section of the Envision help. |
| About Peak Table Viewer | Displays the current version of the Peak Table Viewer. |

**Peak Table Browser
Toolbar**

The Peak Table Browser toolbar contains the following buttons by default:

| Button | Description |
|--|---|
|  Export current table to specified file | Exports the currently displayed table (including hidden columns) to a tab delimited text file. A standard file Save As dialog box is displayed. |
|  Apply Filter... | Used to set parameter filters to display specified data points. Refer to the Filtering Data section for more information. |
|  Remove Filter | Removes the applied filter. |
|  Peak Table | Displays the Peak Table view. Refer to the Peak Table View section for more information. |

| Button | Description |
|---|--|
|  Peak Table Parameters | Displays the Peak Table Parameters view. Refer to the Peak Table Parameters View section for more information. |
|  Peak Parameters | Displays the Peak Parameters view. Refer to the Peak Parameters View section for more information. |

Peak Table Browser Display Options

The Peak Table Browser has three different display modes:

- Peak Table
- Peak Table Parameters
- Peak Parameters

A description of each of these options follows.

Peak Table View

Peak Table view is the default mode for the Peak Table Browser. The grid displays element and attribute values for each peak in the peak table. All available columns will display:

- Peak Number
- Peak Name
- Peak X Value
- Peak Y Value
- Group
- Baseline Start X
- Baseline Start Y
- Baseline End X

- Baseline End Y

| Peak Number | Peak Name | Peak X Value | Peak Y Value | Group | Baseline Start X | Baseline Start Y | Baseline End X | Baseline End Y |
|-------------|-------------|-----------------|-----------------|-------|------------------|------------------|-----------------|-----------------|
| 1 | Unknown1 | 6.5599999427795 | 31.223304748535 | 1 | 4 | 8.2815189361572 | 7.3600001335144 | 8.3429632186889 |
| 2 | Solvent | 10.720000267028 | 187.37797546386 | 1 | 7.3600001335144 | 8.3429632186889 | 27.840000152587 | 8.7174787521362 |
| 3 | Acetic acid | 32.639999389648 | 252.74664306640 | 1 | 27.840000152587 | 8.7174787521362 | 44.319999694824 | 9.0188474655151 |
| 4 | Propanoic | 50.720001220703 | 110.06166839599 | 1 | 44.319999694824 | 9.0188474655151 | 60 | 9.3055868148803 |
| 5 | Butanoic | 64.480003358933 | 16.731266021728 | 1 | 60 | 9.3055868148803 | 74.080001831054 | 9.5630664825439 |
| 6 | I Valeric | 81.919998168945 | 67.230239868164 | 2 | 74.080001831054 | 9.5630664825439 | 101.12000274658 | 9.2605609893798 |
| 7 | N Valeric | 110.08000183105 | 18.939975738525 | 3 | 101.12000274658 | 9.2729587554931 | 123.68000030517 | 9.1368833282470 |
| 8 | N Caproic | 144.96000671386 | 14.422420501709 | 4 | 135.19999694824 | 9.2163105010986 | 159.83999633789 | 8.6883563995361 |
| 9 | Iso Caproic | 213.27999877929 | 96.908592224121 | 5 | 195.52000427246 | 9.4873447418212 | 244.96000671386 | 9.7513217926025 |

Figure 2-48. Peak Table Browser — Peak Table View

Clicking on the / icon to the left of each row expands/collapses the peak providing a hyperlink to its parameters.

| Peak Number | Peak Name |
|---------------------------------|-----------|
| 1 | Unknown1 |
| Peak Parameters | |
| 2 | Solvent |

Figure 2-49. Expanded Peak

Clicking on the hyperlink opens the Peak Parameters view for the peak and displays the associated parameters. The parent row will display the information from that peak’s row in the peak table, with the column heading appended with a colon, followed by the value from the cell for that column. Clicking on the Back button will return the display to Peak Table view.

Peak Table Parameters View In Peak Table Parameters view, the grid displays the following columns:

- Name (hidden by default)
- Label
- Value
- Group

| Label | Value | Group |
|--------------|----------|-----------------|
| GP_LEFT_X | 4 | Peak Groupings: |
| GP_LEFT_Y | 8.281519 | Peak Groupings: |
| GP_RIGHT_X | 74.08 | Peak Groupings: |
| GP_RIGHT_Y | 9.563066 | Peak Groupings: |
| PK_GP_CURV | 0 | Peak Groupings: |
| FEATURES | 0 | Peak Groupings: |
| START_PK | 1 | Peak Groupings: |
| END_PK | 5 | Peak Groupings: |
| CURV_LEFT_X | 4 | Peak Groupings: |
| CURV_LEFT_Y | 8.281519 | Peak Groupings: |
| CURV_RIGHT_X | 74.08 | Peak Groupings: |
| CURV_RIGHT_Y | 9.563066 | Peak Groupings: |
| GP_LEFT_X | 74.08 | Peak Groupings: |
| GP_LEFT_Y | 9.563066 | Peak Groupings: |
| GP_RIGHT_X | 101.12 | Peak Groupings: |
| GP_RIGHT_Y | 9.260561 | Peak Groupings: |
| PK_GP_CURV | 0 | Peak Groupings: |

Figure 2-50. Peak Table Viewer — Peak Table Parameters View

Parameters from the peak table element are displayed.

Peak Parameters View

In Peak Parameters view, the grid can show peak parameters from a single peak or all peaks. The grid contains the following columns:

- Peak Number
- Name (hidden by default)
- Label
- Value
- Group

| Peak Number | Label | Value | Group |
|-------------|------------------|-------------------|-------|
| 1 | Peak Start Ht. | 8.286478 mV | Peaks |
| 1 | Peak End Ht. | 14.25267 mV | Peaks |
| 1 | Uncorrected RT | 6.56 s | Peaks |
| 1 | Raw Height | 22.89497 mV | Peaks |
| 1 | Features | 18 | Peaks |
| 1 | Stats. | Area, Width, Raw | Peaks |
| 1 | Stats. Warning | Genuine data (not | Peaks |
| 1 | Corrected Ht. | 22.89497 mV | Peaks |
| 1 | Width Half | 1.561405 s | Peaks |
| 1 | Width Base | 3.36 s | Peaks |
| 1 | Area | 21.31088 mVs | Peaks |
| 1 | Column Cap. | 0.64 | Peaks |
| 1 | Col. Eff. Half | 97.7882 | Peaks |
| 1 | Col. Eff. Base | 60.98866 | Peaks |
| 1 | Expected RT | 0 s | Peaks |
| 1 | Corrected RT | 6.56 s | Peaks |
| 1 | Amt. Abs. Height | 0.2621769 mg | Peaks |

Figure 2-51. Peak Table Viewer — Peak Parameters View

When the Peak Parameter view is opened from the View menu or the toolbar button, parameter information for all peaks is displayed. This allows data comparison from multiple peaks. When opened via the Peak Parameters hyperlink, see [Figure 2-49](#), only parameters from that single peak are displayed.

You can sort the data in the grid into ascending or descending order. For more information refer to the [Sorting Data](#) section.

Opening Additional Views

As mentioned previously, the Main window opens with three default Browser windows. All additional views are labeled “Viewer” and are suffixed with a number indicating the order in which the view was opened.

Note The exception to this is the HTML Viewer, where the initial view opens without a numeric prefix. Any subsequent HTML views that are opened will show a numeric prefix. ▲

To open a new view:


1. Select an element in the File Navigator.
2. Click the right mouse button.
3. Select the Display option from the pop-up menu that is displayed.
4. Select the required viewer from the Display menu

Alternatively, select the Display option from the main menu then select a view from the Display menu options.

Note Some of the menu options may be grayed out if the selected element does not contain data that corresponds with the selected display type. ▲

HTML Viewer The HTML Viewer allows you to open URLs and retrieve files from a web-based application or search tool.

To display the HTML Viewer either:

- Click on the HTML Viewer button, , on the Main toolbar at the top of the Envision interface, OR
- Select File/Open HTML Viewer from the Main menu.

The default home page is opened in a new HTML viewer window:

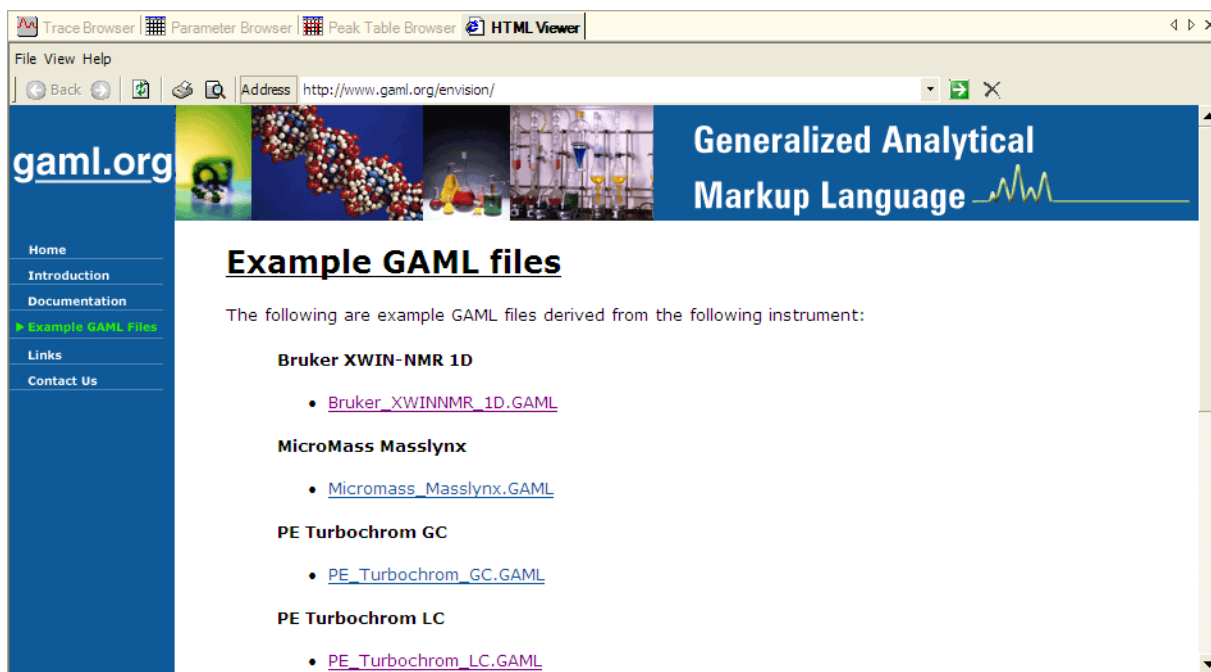


Figure 2-52. HTML Viewer

The HTML Viewer’s Address field allows you to enter URLs directly:



Figure 2-53. HTML Viewer — Address Field

Opening URLs in the HTML Viewer can be automated using the command line of Envision (see Appendix A). This facility can be used to allow a program, such as a LIMS system, to open a URL and pass parameters to a web application. The web application can then provide links to a file which can be selected, downloaded and viewed directly in Envision.

For information about specifying the default home page, refer to the [Setting the Envision Application Options](#) section.

Note The HTML Viewer is also shown when Envision starts in Demo Mode. ▲

HTML Viewer Menu This section describes the menu options at the top of the HTML Viewer.

File Menu The File menu for the HTML Viewer displays the following options:

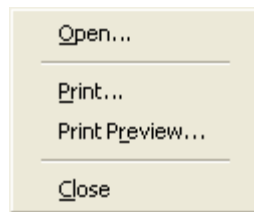


Figure 2-54. HTML Viewer — File Menu

| Option | Description |
|--------|---|
| Open | Displays the Enter URL dialog box, in which you can enter or browse for a URL. |
| Print | Sends the web page to the printer. A standard Print dialog box is displayed, from which you can select the printer. |

| Option | Description |
|---------------|--|
| Print Preview | Displays a standard Print Preview pane, which enables you to view a preview of a web page prior to printing. |
| Close | Closes the HTML Viewer. |

View Menu The View menu for the HTML Viewer displays a single Toolbar menu option. This option can be used to hide or redisplay the HTML Viewer toolbar.

Help Menu The Help menu for the HTML Viewer displays the following options:

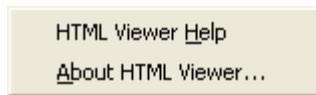









Figure 2-55. HTML Viewer — Help Menu

| Option | Description |
|-------------------|--|
| HTML Viewer Help | Accesses the HTML Viewer section of the Envision help. |
| About HTML Viewer | Displays the current version of the HTML Viewer. |

HTML Viewer Toolbar

The HTML Viewer toolbar contains the following buttons by default:

| Button | Description |
|---|---|
|  | <p>Back</p> <p>Click on this button to navigate to the previous web page.</p> |
|  | <p>Forward</p> <p>Click on this button to return to the next web page.</p> |
|  | <p>Refresh</p> <p>Refreshes the current page.</p> |
|  | <p>Print</p> <p>Opens a standard Print dialog box, which can be used to select the printer to which the web page will be sent.</p> |
|  | <p>Print preview document</p> <p>Displays a standard Print Preview pane, which enables you to view a preview of the web page prior to printing.</p> |
| | <p>Address</p> <p>Shows the address of the current URL.</p> |
|  | <p>Go</p> <p>Navigates to the specified URL address.</p> |
|  | <p>Close</p> <p>Closes the HTML Viewer.</p> |

Linked Data Viewer

This module utilizes the “link” element within a GAML file to show related (linked) traces in meaningful way. The viewer supports data such as GC-MS, LC-MS, and GC-IR:

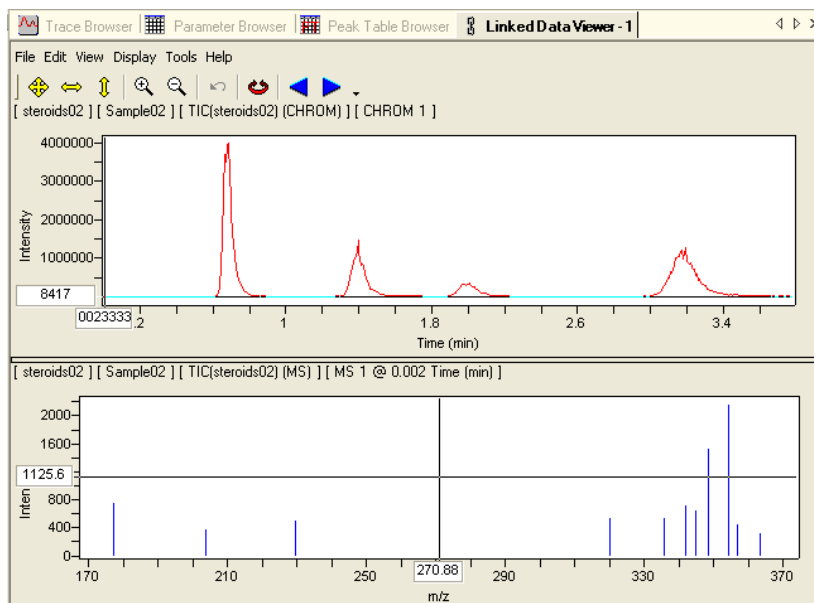


Figure 2-56. Linked Data Viewer

To display the Linked Data Viewer select Display/New Link Viewer from the main menu.

The linked data module receives a “parent” trace and then looks for a “child” trace with a corresponding link indicator. This data is displayed in two trace boxes:

- The parent trace is displayed in the top trace box.
- The child trace is displayed in the lower trace box.

Only one trace box can be considered the “active” trace box at any given time. Any actions performed apply to this trace box.

Note The child trace must be within the same experiment as the parent. ▲

Each trace box is labeled with text indicating the trace array that is displayed, and matches the text from the Workspace. The traces are autoscaled independently when loaded.

The trace boxes can be resized in the vertical direction to change the proportion of window space that each occupies by manipulating the splitter (±) between them.

Double clicking on any part of the trace box of the parent trace will also display the appropriate trace array of the child trace. The axis labels will correspond to the X and Y data Label attributes for the displayed traces. If a label does not exist, the unit attribute will be used.

Linked Data Viewer Menu

This section describes the menu options at the top of the Linked Data Viewer.

File Menu

The File menu for the Linked Data Viewer displays the following options:

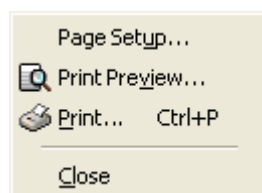


Figure 2-57. Linked Data Viewer — File Menu

| Option | Description |
|---------------|---|
| Page Setup | Displays a standard Page Setup dialog box, which can be used to adjust the page settings prior to printing. |
| Print Preview | Displays a standard Print Preview pane, which enables you to view a preview of a data prior to printing. |

| Option | Description |
|--------|---|
| Print | Sends the current data to the printer. A standard Print dialog box is displayed, from which you can select the printer. |
| Close | Closes the Linked Data Viewer. |

Edit Menu The Edit menu for the Linked Data Viewer displays the following options:



Figure 2-58. Linked Data Viewer — Edit Menu

| Option | Description |
|----------------|---|
| Undo Last Zoom | This option can be used to undo the last zoom or autoscale operation. |
| Copy | Copies the currently selected data to the clipboard. |

View Menu The View menu for the Linked Data Viewer displays a single Toolbar option which can be used to hide or display the Linked Data Viewer toolbar.

Display Menu The Display menu for the Linked Data Viewer displays the following options:

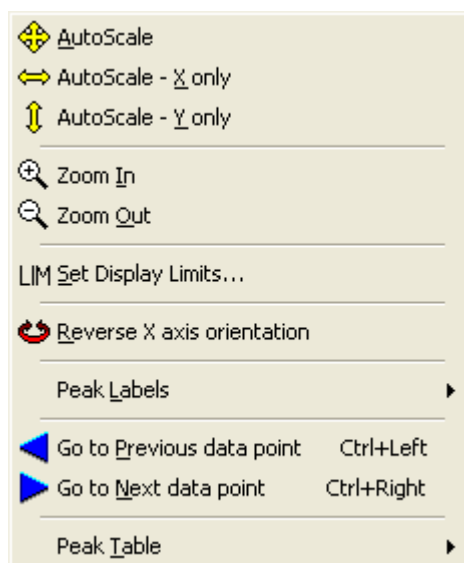


Figure 2-59. Linked Data Viewer — Display Menu

| Option | Description |
|--------------------|--|
| Autoscale | Rescales the display such that the data points and peak labels fit into the display completely. |
| Autoscale – X only | Rescales the display such that the x axis fits into the display completely. |
| Autoscale – Y only | Rescales the display such that the y axis and peak labels fit into the display completely. |
| Zoom In | Rescales the display to zoom in 10% around the current cursor position (whether or not the cursor is actually displayed). |
| Zoom Out | Rescales the display to zoom out 10% around the current cursor position (whether or not the cursor is actually displayed). |

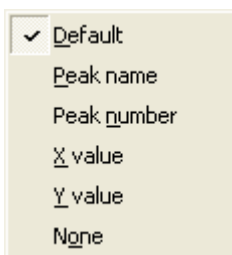
| Option | Description |
|----------------------------|--|
| Set Display Limits | <p>Opens the Set Limits dialog box, which enables you to specify the displays limits for the X and Y axes.</p> <p>Refer to the Setting the Trace Display Limits section for more information.</p> |
| Reverse X axis orientation | <p>Flips (reverses) the X axis orientation. By default all low values are displayed to the left, with high values to the right. This orientation can be saved as the default if required.</p> |
| Peak Labels | <p>Displays a sub-menu with the following options:</p>  |
| Go to Previous data point | <p>Navigates to the previous data point. This option enables you to navigate through the data points of the active trace.</p> <p>The function is the same as if you double clicked near the data point to the immediate left of the current cursor position.</p> |

Figure 2-60. Peak Labels Sub-menu

Select the required option to change the peak labels. The default option is “Default”.

Refer to the [Trace View Peak Labeling](#) section for more information.

| Option | Description |
|-----------------------|--|
| Go to Next data point | <p>Navigates to the next data point. This option enables you to navigate through the data points of the active trace.</p> <p>The function is the same as if you double clicked near the data point to the immediate right of the current cursor position.</p> |
| Peak Table | <p>Selecting this menu option allows you to choose from available peak tables for a trace array. Each peak table is listed with its name attribute (or the default string used in the File Navigator). A check mark indicates the selection made. By default, the first peak table is selected. This menu item will change for each active trace array and may be grayed out if there are no peak tables associated with the active trace array.</p> |

Tools Menu The Tools menu for the Linked Data Viewer displays the following options:



Figure 2-61. Linked Data Viewer — Tools Menu

| Option | Description |
|----------------------------------|---|
| Options | <p>Opens the Linked Data Viewer Options window. Refer to the Setting the Linked Data Viewer Options section for more information.</p> |
| Save Current Settings as Default | <p>Saves the current settings so that they are applied to each new Linked Data Viewer window.</p> |

Help Menu The Help menu for the Linked Data Viewer displays the following options:

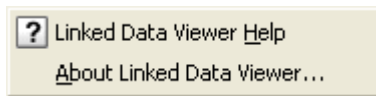











Figure 2-62. Linked Data Viewer — Help Menu

| Option | Description |
|--------------------------|---|
| Linked Data Viewer Help | Accesses the Linked Data Viewer section of the Envision help. |
| About Linked Data Viewer | Displays the current version of the Linked Data Viewer. |

Linked Data Viewer Toolbar

The Linked Data Viewer toolbar contains the following buttons by default:

| Button | Description |
|---|--|
|  | Autoscale Rescales the display such that the data points and peak labels fit into the display completely. |
|  | Autoscale – X only Rescales the display such that the x axis fits into the display completely. |
|  | Autoscale – Y only Rescales the display such that the y axis and peak labels fit into the display completely. |
|  | Zoom In Rescales the display to zoom in 10% around the current cursor position (whether or not the cursor is actually displayed). |
|  | Zoom Out Rescales the display to zoom out 10% around the current cursor position (whether or not the cursor is actually displayed). |

| Button | Description | |
|---|-------------------------------|--|
|  | Undo last zoom | Returns to the previous screen. This action may be repeated to go back several screens. |
|  | Reverse X axis orientation | Flips (reverses) the X axis orientation. By default all low values are displayed to the left, with high values to the right. This orientation can be saved as the default if required. |
|  | Go to the next data point | Navigates to the next data point, to the right of the current cursor position. |
|  | Go to the Previous data point | Navigates to the previous data point, to the left of the current cursor position. |

Linked Data View Peak Labeling

By default, peak labels are set to “Default” - meaning that the display is consistent with the text displayed in the File Navigator. The Display/Peak Labels menu option allows you to select the text type to define the peak labels by placing a checkmark to indicate selection.

Note If no peak table and peaks have been defined in the trace array, the Peak Tables sub-menu will show [Empty]. ▲

Peaks are marked with a label and indicator line connecting the label to the peak position.

- Peak labels are displayed with vertical orientation.
- Peak baselines are displayed as black lines with small vertical bars at each endpoint

If there are multiple traces for a single trace array, the first trace will be used to mark peaks, by default. You can change the trace by selecting a new table definition from the Display/Peak Labels sub-menu, or from the Linked Data Viewer's right mouse button pop-up menu. There is one entry per peak table with a check mark beside the one used.

Note This menu item will change for each active trace array. It will be dimmed out when no peak tables are associated with the active trace array. ▲

Setting the Linked Data Viewer Options

The display options for the Linked Data Viewer can be changed if required.

To set the display options select Tools/Options from the Linked Data Viewer menu. The Linked Data Viewer Options dialog box is displayed:

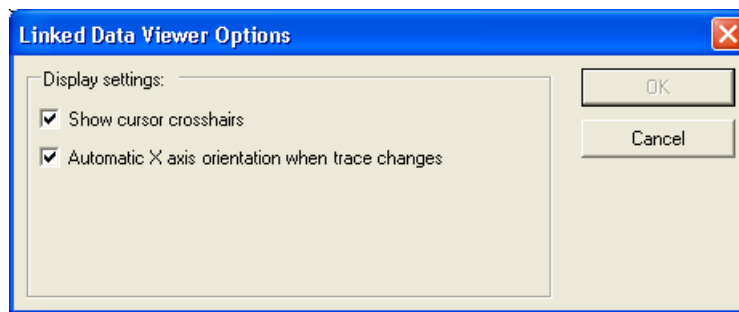


Figure 2-63. Linked Data Viewer Options Dialog

The following options are selected by default:

- Show cursor crosshairs — when this option is selected, the crosshairs will display at the position of the last mouse click for the trace. The X and Y values will label the appropriate axis. Double-clicking on any point in the trace causes the crosshairs to move to the data point closest to the mouse click.

- Automatic X axis orientation when trace changes — when this option is selected, the trace box will automatically orient the X axis based upon the default orientation of the axis unit of the active trace.

Report Viewer

The Report Viewer can invoke report methods created using the XML-based Blaise Inform reporting system.

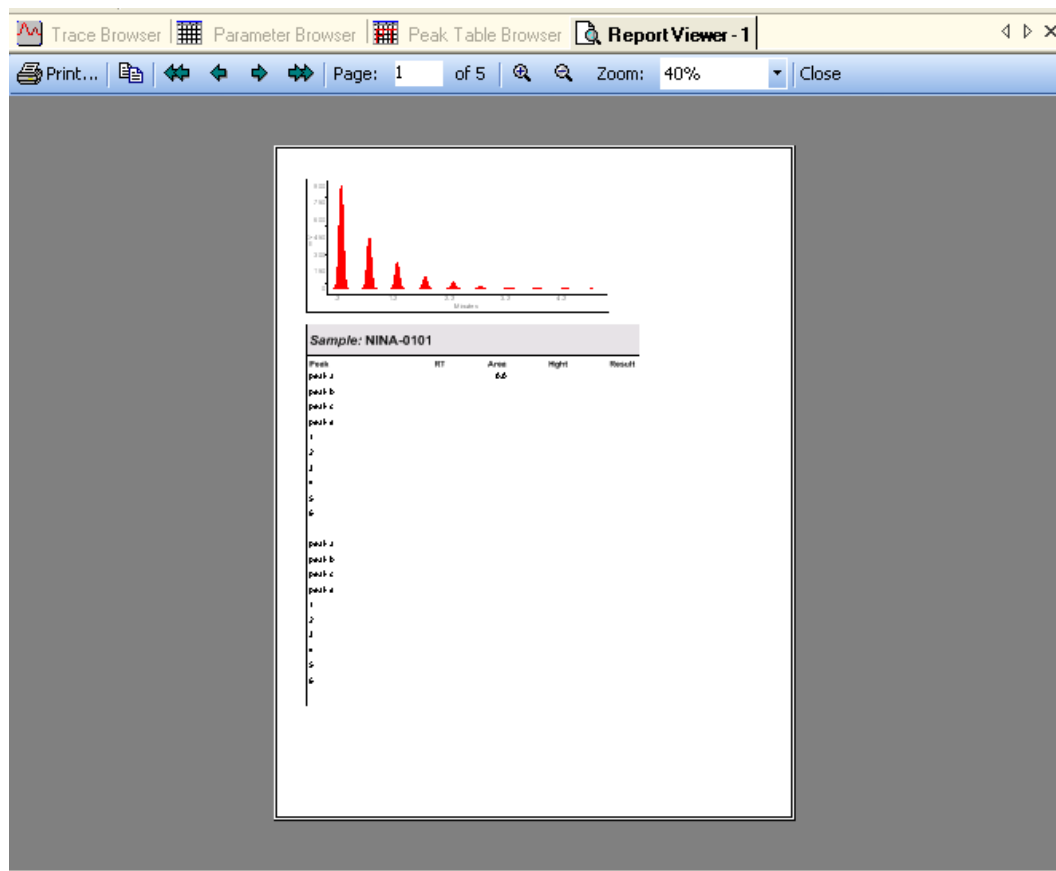


Figure 2-64. Report Viewer

Blaise Inform is a drag and drop reporting system that can be used with GRAMS Suite data. Coupled with the Smart Convert facility of Envision, it allows you to apply standardized reports to data originating from multiple instrument vendors.

Blaise Inform Report Designer is a visual tool for setting up these reports, which can be purchased on-line. For details see:

<http://www.thermoscientific.com/grams>

To access the Report Viewer:

1. Do one of the following:
 - Select Report/Browse Report Method from the main menu.
 - Click the right mouse button in the File Navigator pane and select Report/Browse Report Method from the File Navigator's right mouse button menu.
 - Click the right mouse button on the Holding Area icon or on an individual item in the Holding Area and select Browse Report Method from the pop-up menu. This option can be used to send multiple GAML files to a single report template. The Holding Area is described in detail in the [Holding Area](#) section of this chapter.
2. A standard Open dialog box is displayed:

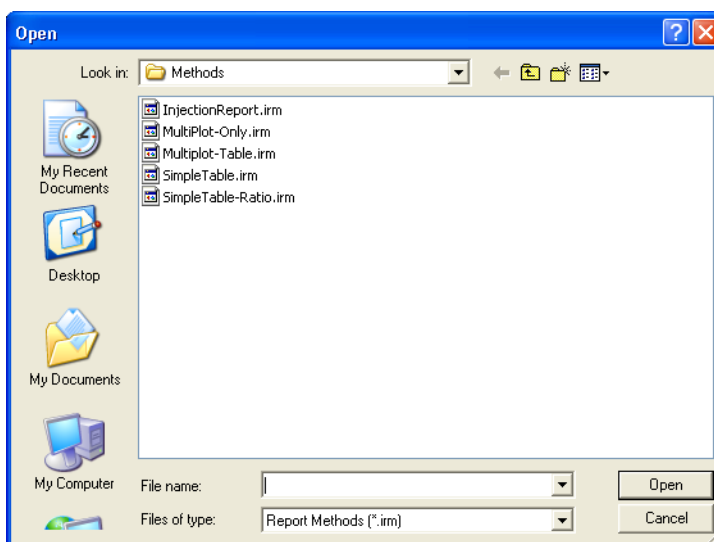


Figure 2-65. Open Dialog Box

The Open dialog box displays a list of available template '.irm' (Inform Report Method) files.

3. Select the report method and click on the Open button.

You can also select method files from the Most Recently Used list, which is displayed when you select the Report option from the main menu. To add a report to this list you must open it once.

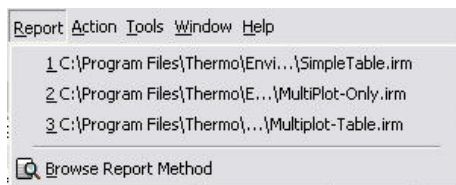









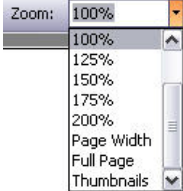



Figure 2-66. Report Menu — Most Recently Used List

Report Viewer Toolbar

The Report Viewer toolbar displays the following buttons and features by default:

| Button | Description |
|---|--|
|  Print... | Opens a standard Print dialog box. |
|  Copy | Copies the current page of the report to the Windows clipboard. |
|  First page | Navigates to the first page of the report. |
|  Previous page | Navigates to the previous page of the report. |
|  Next page | Navigates to the next page of the report. |
|  Last page | Navigates to the last page of the report. |
|  Page: 1 of 17 | Shows the current page number and the total number of pages in the report. |

| Button | Description |
|---|---|
|  | Zoom In Increases the size of the display. You can also zoom in by double-clicking the left mouse button when the cursor is positioned in the Report Viewer. |
|  | Zoom Out Reduces the size of the display. |
|  | Zoom: Drop down list, used to select the display size. |
|  | Close Closes the Report Viewer. |

Viewing New Data

You can drag a new GAML file onto the Report Viewer window to re-execute the report method with new data.

The following images show examples of different Report Viewer displays:

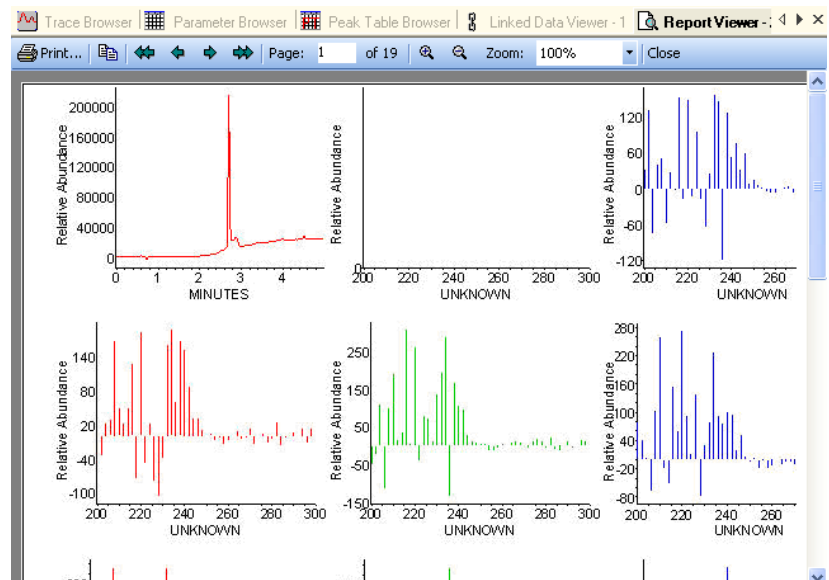


Figure 2-67. Report Viewer — Example Multiplot

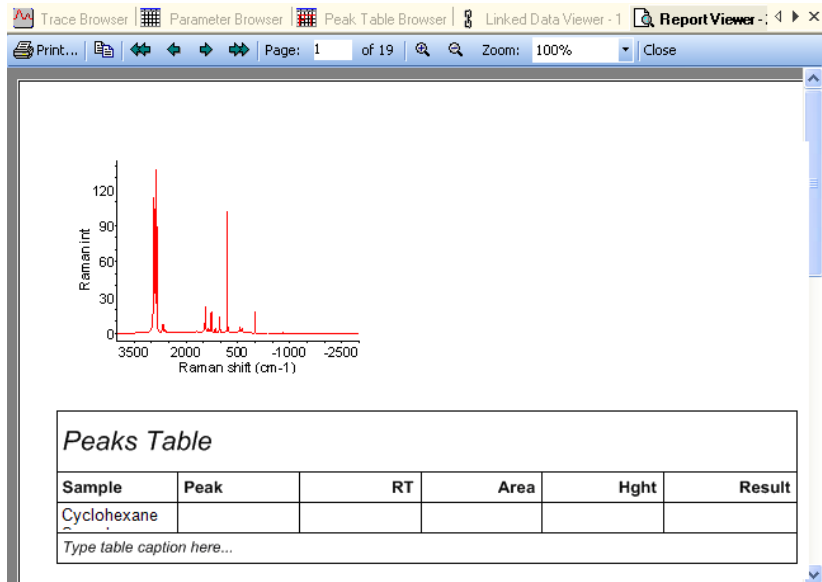


Figure 2-68. Report Window — Example Raman

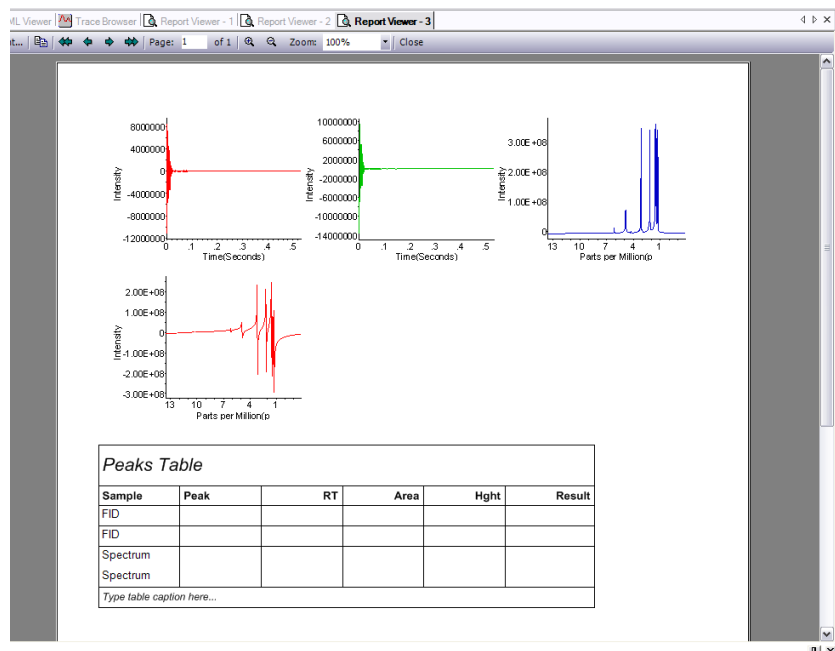


Figure 2-69. Report Window — NMR Data

GAML 3D Viewer

The GAML 3D Viewer provides a 3-dimensional view of a 3D trace. You can choose different display and surface styles,

To open the GAML 3D Viewer, select the Display/GAML 3D Viewer option from the main menu. In the File Navigator, you must have a trace node selected that contains 3D data.

By default, the GAML 3D Viewer shows a surface plot of the selected data:

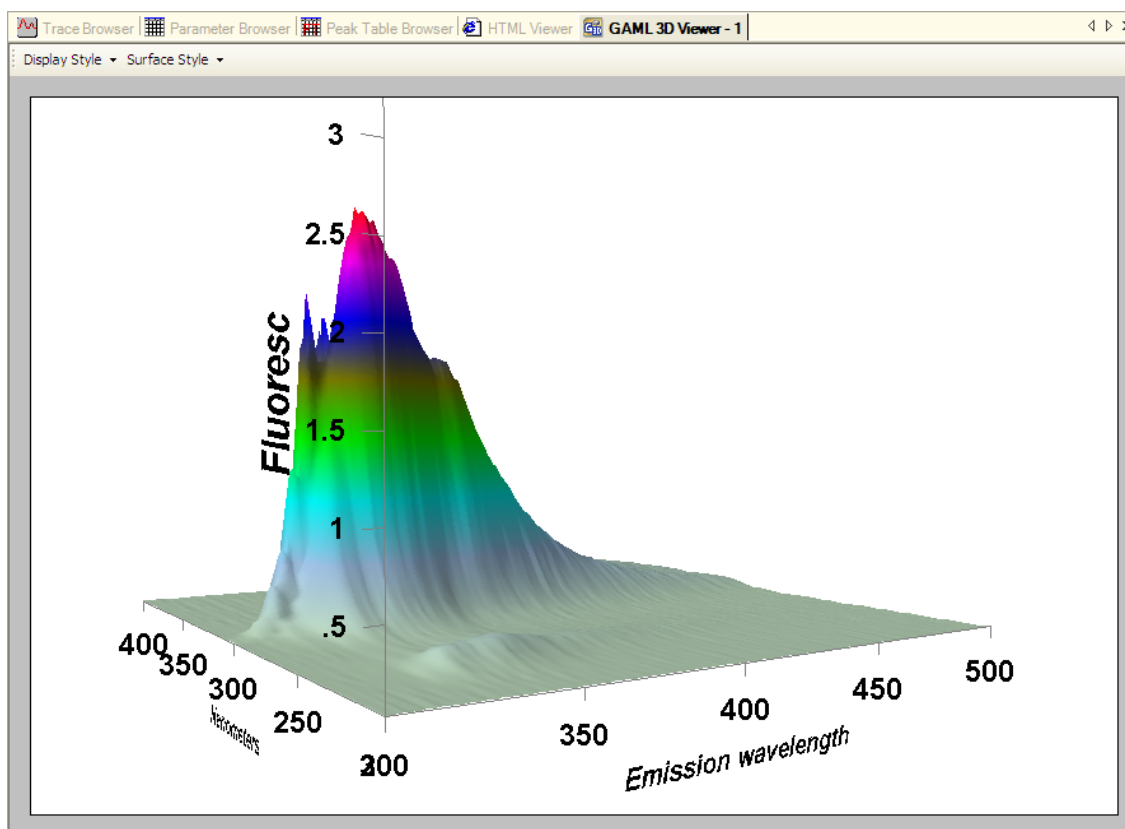


Figure 2-70. GAML 3D Viewer

Note This viewer is an example of Envision's extensibility. It is a plug-in that hosts a simple OCX control, which is capable of receiving data as defined in \plugins\plugins.xml (under the Envision installation folder). A Software Developer's Kit for the definition of Envision plug-ins is available on application to Thermo Fisher Scientific. ▲

GAML 3D Viewer Menu

You can select the following display styles from the GAML 3D Viewer's Display Style menu:

- Contour map as lines
- Contour map filled colors
- 3D surface plot (default)

When in 3D surface plot mode, you can change the style of the plot using the Surface Style menu.

Contour Map as Lines

This display style shows the trace as an X-Y 'contour map', with boundaries between values represented using colored lines:

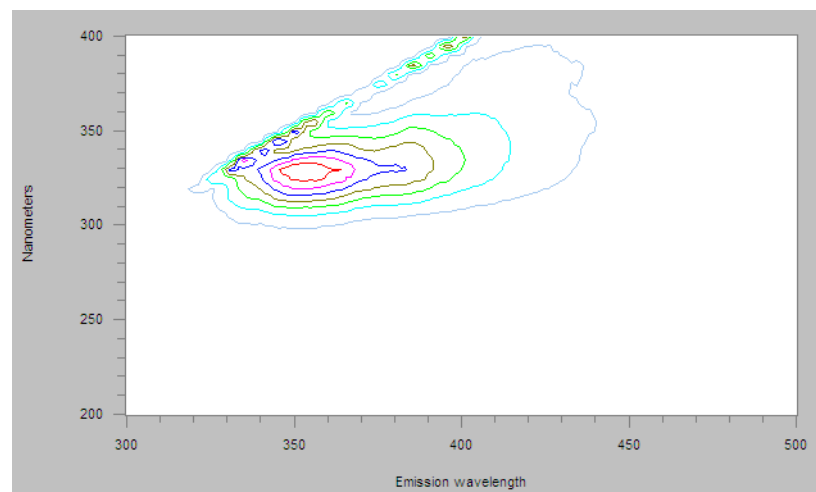


Figure 2-71. GAML 3D Viewer — Contour Map as Lines

Clicking on a point in the viewer displays 'cross-hairs', highlighting the exact X and Y values for that point.

You can also click-and-drag on an area of interest to create a rectangular selection. Clicking within this selection zooms into it.

Contour Map Filled Colors

This display style is similar to ‘Contour map as lines’, but with colored fills rather than just lines:

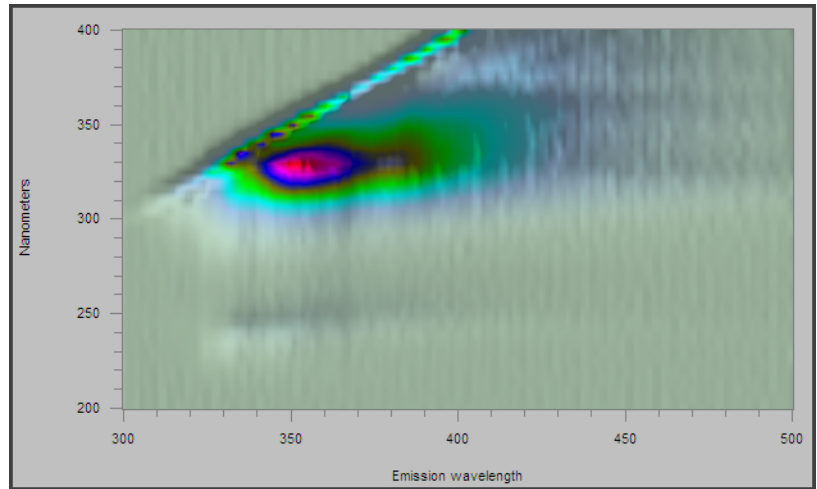


Figure 2-72. GAML 3D Viewer — Contour Map Filled Colors

Clicking on a point in the viewer displays ‘cross-hairs’, highlighting the exact X and Y values for that point.

You can also click-and-drag on an area of interest to create a rectangular selection. Clicking within this selection zooms into it.

3D Surface Plot This display style shows a 3-dimensional rendering of the trace, with X, Y and Z axes included:

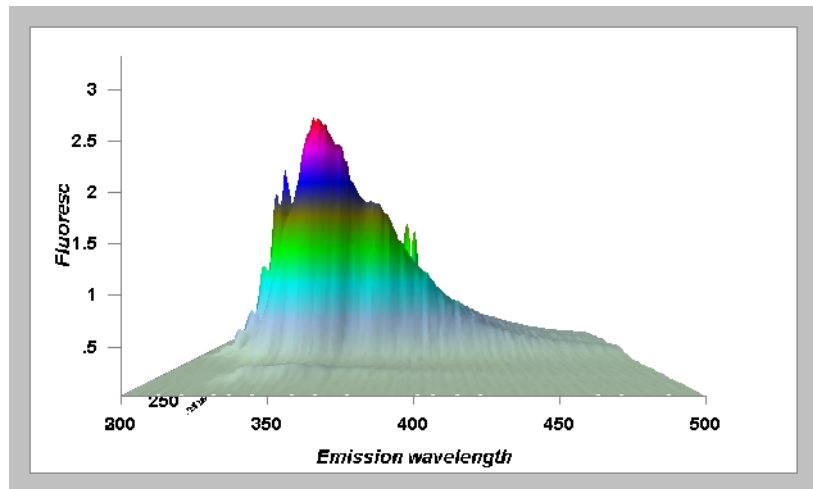


Figure 2-73. GAML 3D Viewer — 3D Surface Plot

With the mouse pointer over the central area of the viewer, it changes to a cross, \oplus . You can click-and-drag to zoom and/or rotate the plot (moving the mouse up/down zooms in/out, while moving it left/right will rotate left/right). Axes will be updated accordingly.

With the mouse pointer near the edges of the viewer, it changes to an arrow, $\triangleleft / \triangleright / \triangleup / \triangledown$. If you click near an edge, the display scrolls towards that edge.

Surface Styles You can change the style of the 3D surface plot using the Surface Style menu, which contains several different ways of displaying its data.

For example, using ‘Show contour-level color bands’ makes it easier to see transitions between data ranges, while ‘Draws only vertex points’ shows only the actual data points recorded in the trace.

Workspace Pane

The Workspace pane is displayed by default at the bottom of the Envision user interface. It displays the currently “active” data. Elements or sub-elements may be displayed in the Workspace pane; depending on the Browser or Viewer to which the data has been sent.

Each open Browser or Viewer has a separate entry in the Workspace list. When new data is added, the list expands to reflect any changes.

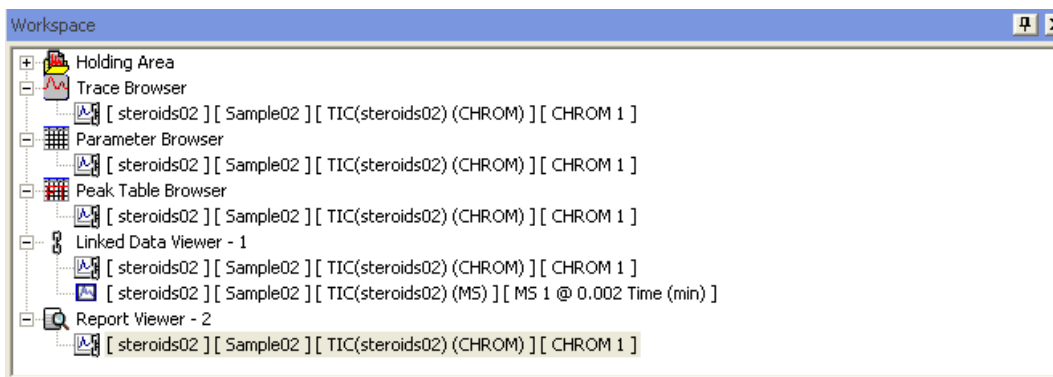


Figure 2-74. Workspace Pane

The icon preceding an element’s description indicates the element type. The textual description matches the text displayed in the File Navigator for that element.


Data is displayed in the Workspace pane after it has been opened in a viewer, processor, reporting tool, or dragged to the [Holding Area](#).

Holding Area The Holding Area is a reservoir of data for future use and always appears as the first entry in the Workspace list. The Holding Area can be populated by:

- Dragging items from the File Navigator pane; by highlighting the item and holding the left mouse button.
- By right mouse clicking on an item in the File Navigator pane and selecting Send to Holding Area from the pop-up menu that is displayed.
- Closing a window, such as a Parameter Viewer; in which case the contained node is moved to the Holding Area. This behavior is controlled via the Workspace Settings on the Options window. For more information about the Options window refer to the [Setting the Envision Application Options](#) section of this chapter.

The Holding Area can be used to group items together for reporting purposes. This enables you to send multiple GAML files to a single report template.

To send multiple items to a report template:

1. Move the items to the Holding Area, using one of the methods detailed previously.
2. Click the right mouse button on the Holding Area icon in the Workspace pane, .
3. Select Report\Browse Report Method from the pop-up menu that is displayed.
4. Select the report method from the list displayed.

For more information about reporting, refer to the [Report Viewer](#) section of this chapter.

Workspace Menu Options Right-clicking on an element in the Workspace displays a pop-up menu with the following options:

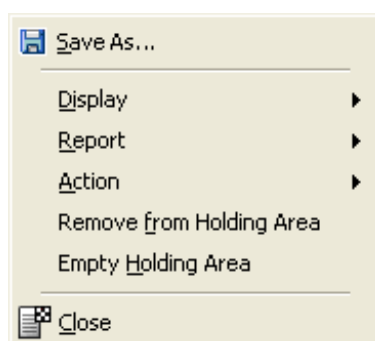


Figure 2-75. Workspace RMB Menu

The options that can be accessed from this menu will vary according to the item that is currently selected in the Workspace pane.

| Option | Description |
|---------|---|
| Save As | Select this option to save an appropriate node of a GAML file. Refer to the Using the Save As Option section in the File Navigator section of this chapter for more information. |
| Display | Accesses the Display menu options. For more information, refer to the Main Menu section of this chapter. |
| Report | Accesses the Report menu options. For more information, refer to the Main Menu section of this chapter. |
| Action | Accesses the Action menu options. For more information, refer to the Main Menu section of this chapter. |

| Option | Description |
|--------------------------|---|
| Remove from Holding Area | This option can be used to remove a single item from the Holding Area. |
| | <p>Note Closing a GAML file will also automatically remove it from the Holding Area. ▲</p> |
| Empty Holding Area | This option can be used to empty the Holding Area. This removes all items that are currently displayed in the Holding Area. |
| Close | Closes the file that is currently selected in the Workspace pane. |

Options on this menu can be used to access the Display, Report and Action menus. The Empty Holding Area menu option removes any unused items from the Holding Area.


The Workspace pane can be pinned/unpinned, resized, and closed as required. Refer to the [Customizing the User Interface](#) section for more information.

Customizing the User Interface



This section describes how the appearance of the Envision user interface can be customized to suit your individual needs.

Hiding/Displaying Features

You can show or hide any of the features that are currently displayed by:

- Selecting or deselecting an item from the View option on the main menu. For any feature currently in view, a check mark will display next to the menu item. If a feature is currently hidden, no check mark will be displayed.
- Elements can also be closed by clicking the  icon displayed in the upper right corner of each pane.


The elements of the Envision interface can also be resized, by clicking on the upper and lower, and/or left and right edges of the window.

To resize a pane, drag the  and  resizing buttons to move the borders to the desired position.

Maximizing the Viewing Area

The following elements of the Envision application may be floating, docked, or unpinned:

- File Navigator
- Data Preview pane
- Workspace
- Legend

Click on the  icon to “unpin” a window or pane. The unpinned item is replaced by a tab on the application window, as shown in the following example:

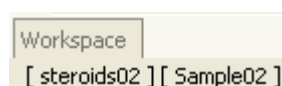



Figure 2-76. Workspace — Unpinned

Clicking the mouse pointer on the tab will open the pane for viewing. Clicking the  icon will re-pin the element to its original location in the Envision application window.

Dragging the title bar of a window causes it to 'float' above the main window. The window can remain floating or be dragged to a new position indicated by the blue and white docking icons, as shown in the following example:

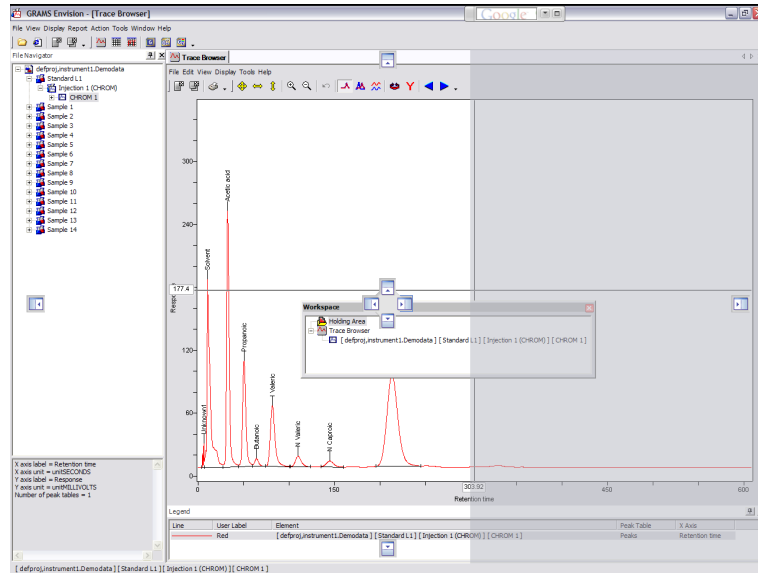


Figure 2-77. Envision Windows — Docking Icons

Setting the Envision Application Options

You can set a number of different options for the Envision application. These options are accessed from the Options window.

To open the Options window, select Tools/Options from the main menu.

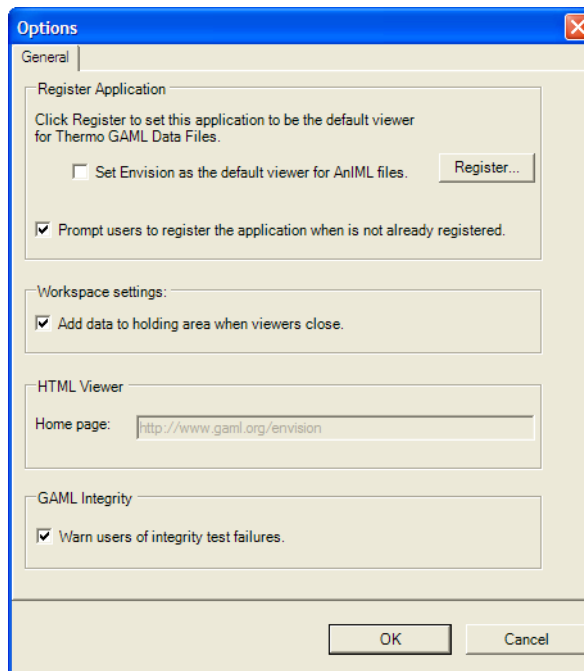


Figure 2-78. Options Window

The Options window is divided into four areas.

Register Application

The options in this area control whether Envision will be the default viewer for its supported file types:

- ‘Set Envision as the default viewer for AnIML files’ check box.

Select this check box if you want to make Envision your default viewer for AnIML data files, when you click on the Register... button.

- Register... button.

Click on this button to register Envision as the default viewer for GAML files and, if the 'Set Envision...' check box is selected, AnIML files.

- 'Prompt users to register the application when it is not already registered' check box.

If selected, and if Envision is not currently registered as the default viewer for GAML files, the user will be prompted at startup to register Envision as the default viewer for GAML files.

Workspace Settings

This area contains an 'Add data to holding area when viewers close' check box. If selected, a reference to a GAML entity will be retained in the Workspace's 'Holding Area' when a window containing the GAML entity is closed.

Note Closing the GAML entity entirely removes it from the Holding Area. ▲

HTML Viewer

This area contains a Home page field, which specifies the default URL to be opened each time the HTML Viewer is invoked.

Note When Envision is running in Demo Mode, the home page is restricted to the GAML website's 'Example GAML Files' page. ▲

GAML Integrity

This area contains a 'Warn users of integrity test failures' check box. If selected, users will be warned when a file does not match its internal checksum. This can indicate unauthorized alteration of a file.

A. Command Line Syntax

The following commands are designed to provide a basic automation interface to enable Envision to interact with external programs and web services. A more comprehensive plug-in SDK (Software Developer's Kit) is available from Thermo Fisher Scientific.

Note The syntax used for subsequent versions of Envision may be subject to change based upon client feedback. ▲

| Command Line Arguments | Description |
|------------------------|---|
| -wType <windowtype> | The window to open. Valid window types are: <ul style="list-style-type: none">• GamlView2D• GamlParam• GamlPeakParm• GamlViewLink• GamlReportViewer• GRAMS• GRAMS3D• HtmlViewer• SPECID |

| Command Line Arguments | Description |
|--|--|
| <code>-wNew</code> | <p>Flag that indicates to create a new window.</p> <p>If flag is absent, Envision will attempt to use an existing window. If a window of the appropriate window type is not already open, Envision will open a new window.</p> |
| <code>-wName <window name></code> | <p>The window name that will be used to identify the window. It cannot be used to change the names of the three Browser windows.</p> |
| <code>-r <report method list></code> | <p>For the GamlReportViewer window type option only. This flag indicates the Inform method report to use. One or more report methods are accepted when surrounded by quotes and files separated by a comma.</p> <p>Example:</p> <pre data-bbox="847 1234 1318 1262">-r "c:\report1.irm, c:\report2.irm"</pre> <p>The <code>-r</code> command argument is required option for the GamlReportViewer window type. It will be ignored by any other window type.</p> <p>When generating reports, if multiple GAML files (or RAW files) and multiple Report Methods are provided, each report method will be executed on each of the provided GAML files. Each of these reports will be displayed in its own Report Viewer window.</p> |

| Command Line Arguments | Description |
|------------------------|---|
| -f <file list> | <p>The GAML or RAW file to open. One or more files are accepted when surrounded by quotes and separated by commas.</p> <p>Example:</p> <pre data-bbox="922 558 1326 585">-f "c:\data1.gaml, data2.gaml"</pre> |
| -u <URL> | <p>URL to open. One or more URLs are accepted when surrounded by quotes and separated by commas.</p> <p>Example:</p> <pre data-bbox="922 900 1246 959">-u "http://www.gaml.org, http://www.gaml2.org"</pre> <p>The -u command argument is required for the HTMLViewer window type.</p> <p>Multiple URLs, when supplied, will open sequentially in a single HTML Viewer window with the most recent URL visible. You can view all the URLs using the 'Back' button.</p> |

Examples Following are some command-line syntax examples:

To open a single GAML file in the 2D viewer:

```
Envision.exe -wType GamlView2D -wNew -wName "My Trace" -f  
"C:\data1.gaml"
```

To create a report in a new window:

```
Envision.exe -wType GamlReportViewer -wNew -wName "My Report"  
-r "c:\methods\mymethod.irm", -f "c:\data\file1.gaml,  
c:\data\file2.gaml"
```

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