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USER MANUAL

DataViewer® Professional

for

Windows® 98/2000/ME/XP

and Windows® NT 4.0 SP6

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CHAPTER 1: INTRODUCTION

1.1   DataViewer Introduction

DataViewer® performs two primary operations, instrument control and data display/ analysis.

Control and configuration of instruments is performed via the Control Panel dialog box.

Display and analysis of data is performed using frames placed on the page.

See Also

12.1   Establishing a Connection
1.3   Data Display

** Available in the professional version.

1.2 Quick Start dialog

The Quick Start dialog box provides quick access to the most common operations within DataViewer®. The Quick Start dialog box allows four main functions to be performed. These functions can also be performed from the main menu, however, this dialog box allows quick access to these same commands. The available operations include:

- **Open Instrument Control Panel -** selecting this dialog button opens the Control Panel, which allows direct control of an attached instrument. **

- **Create View from Template -** selecting this dialog button allows you to select a template file defining the view into a specified database.

- **Create View from Scratch -** selecting this dialog button loads a blank sheet onto which you can place frames for display and analysis of a recording database. **

- **Open Existing View -** this dialog button allows you to open a previously created view. This button is disabled until one of the entries in the list box is selected. Initially only More Files… is present in this list. However, as you open and save views in DataViewer® they will be added to this list. With the most recent view listed under the More Files… entry.

Selecting the Open Existing View button, while the More Files… entry is highlighted, will cause an Open File dialog box to be displayed. Use this dialog box to locate and select the view to be opened. Selecting the Open Existing View button, while another view file name is selected, will cause that view and any attached database files to be loaded into DataViewer ®.

The Quick Start dialog box is automatically displayed each time DataViewer® starts, as long as the **Show this dialog next time DataViewer® starts** option is checked. Removing the check from this option will prevent the dialog box from being displayed. When disabled, DataViewer® will start with a blank sheet onto which you can place frames. You can also use the main menu to perform the same tasks (and many more) available in the Quick Start dialog box.

In addition to being displayed when DataViewer® first starts (if enabled), this dialog box can be displayed by selecting the Quick Start command from the File menu.

See Also

1.1   DataViewer Introduction
1.3   Data Display
18.1   Templates

** Available in the professional version.

1.3   Data Display

One major function of DataViewer® is the analysis and display of recorded data. DataViewer® uses a desktop publishing approach to the display of information. This approach provides a View into the Data, hence the name DataViewer®. The view defines the type and placement of displayed frames on the printed page. Pages are displayed by DataViewer® using a, What You See Is What You Get (WYSIWYG) format.

You scroll through the displayed pages using the horizontal and vertical scroll bars. If the displayed page can fit entirely within the DataViewer® window, the scroll bars are not displayed. If the DataViewer® window is too narrow to display a page, then the horizontal scroll bar is displayed. If the DataViewer® window is not tall enough to display the page or pages, then the vertical scroll bar is displayed. The horizontal scroll bar is used to scroll left and right over the page. The vertical scroll bar is used to scroll up and down over the pages.

DataViewer® displays report pages. When DataViewer® is first run or the New view toolbar icon is selected, a blank page is displayed. Figure 1 illustrates DataViewer® with a blank page shown in layout mode.
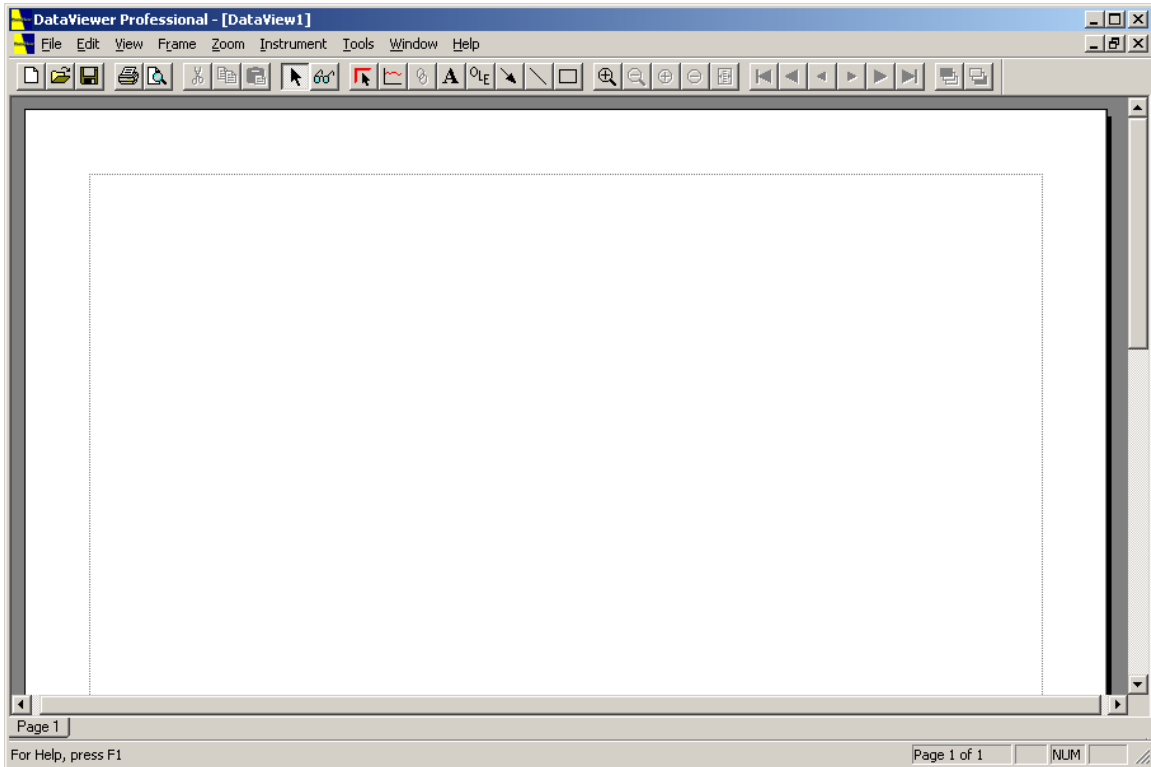
Pages are displayed in white with a gray border around them. If you prefer, the gray borders around the pages can be turned off by selecting the Draft display mode. This is accomplished by selecting the Draft option from the View menu. Figure 2 illustrates the display of a blank page in Draft mode.
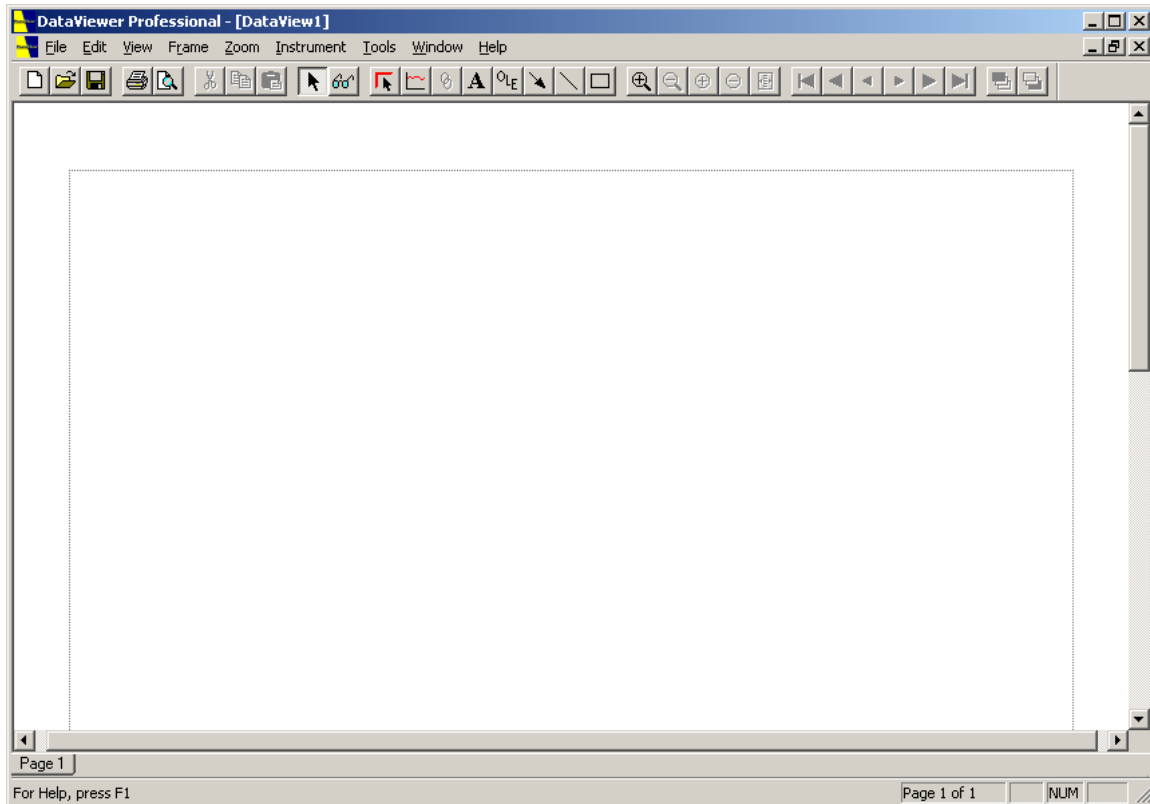
In either case, a dotted line is drawn on each page indicating the location of margins. The drawing or placement area for frames is within these margins. Frames cannot be placed, moved or resized outside the margins of the page.

1.4 Toolbar

The toolbar is displayed across the top of the application window, below the menu bar. The toolbar provides quick mouse access to many tools used in DataViewer®. Items on the toolbar fall into two categories: tools and buttons. A tool changes the mouse pointer to a corresponding DataViewer® tool and requires additional user action. A button performs the desired operation when the button is pressed (no other action is required).

To hide or display the Toolbar, choose Toolbar from the View menu (Alt, V, T).

Click	Name	Description
	New	Create and open a new view. **
	Open	Open an existing view. DataViewer displays the Open dialog box, in which you can locate and open the desired file.

	Save	Save the active view or template with its current name. If you have not named the view, DataViewer displays the Save As dialog box.
	Print	Print the active view.
	Print Preview	Display the active view, as it will look printed.
	Cut	Remove the selected frame from the view and stores it on the clipboard. **
	Copy	Copy the selected frame to the clipboard.
	Paste	Insert the contents of the clipboard into the active view. **
	Select Frame	Changes the mouse pointer to the selection tool.
	Watch Value	Enables the display of the Value at Cursor function.
	Create Frame	Changes the mouse pointer to the Create Frame tool. **
	Place Graph	Changes the mouse pointer to the Create Graph Frame tool. **
	Link Frame	Creates a new frame linked to the currently selected frame. The available types of frames will depend of the type of frame selected prior to issuing this command. **
	Place Text	Changes the mouse pointer to the Text Frame tool. **
	Place OLE	Changes the mouse pointer to the OLE Fame tool. **
	Draw Arrow	Changes the mouse pointer to the Arrow tool. **
	Draw Line	Changes the mouse pointer to the Line tool. **
	Draw Box	Changes the mouse pointer to the Box tool. **
	Zoom Selection	Changes the mouse pointer to the zoom selection tool.
	Zoom Previous	Resets the display duration and starting display offset of the selected graphical frame to the previous zoom extents.
	Zoom In	Increases the zoom magnification of the selected graphical frame.

⊖	Zoom Out	Decreases the zoom magnification of the selected graphical frame.
🔲	Zoom All	Resets the zoom magnification to display all of the channel measurements in the graph.
⏮	Pan To Start	Sets the display start time for the selected graphical frame to the start of the saved data. The display duration (zoom magnification) remains the same.
◀	Pan Left	Sets the displayed start time for the selected graphical frame to a time 90% less than the current time. Subtracting a percentage of the display duration from the start time does this. The display duration remains the same.
◀	Step Left	Sets the displayed start time for the selected graphical frame to a time 10% less than the current time. Subtracting a percentage of the display duration from the start time does this. The display duration remains the same.
▶	Step Right	Sets the displayed start time for the selected graphical frame to a time 10% greater than the current time. Adding a percentage of the display duration to the start time does this. The display duration remains the same.
▶	Pan Right	Sets the displayed start time for the selected graphical frame to a time 90% greater than the current time. Adding a percentage of the display duration to the start time does this. The display duration remains the same.
⏭	Pan To End	Sets the display start time for the selected graphical frame to the time of the last data point less the display duration. The display duration remains the same.
🗗	Bring To Front	Moves the selected frame to the beginning of the view's frame list. **
🗗	Send To Back	Moves the selected frame to the end of the view's frame list. **

*** Available in the professional version.*

1.5   Status Bar

| Displays the value of trace points at the cursor position | | Page 1 of 1 | | NUM | |

The Status bar is located at the very bottom of the DataViewer® window. To display or hide the status bar, use the Status Bar command in the View menu.

The status bar indicates information about various menu options and the program's operational state. On the left side of the status bar is a one line prompt about highlighted menu options. If no menu option is highlighted, it informs you that pressing the F1 function key will display the on-line

help. On the right side of the status bar are four panes. The first, indicates the current page and number of pages in the view. The last three panes indicate the state of the Caps lock, Num lock and Scroll lock keys.

1.6   Title Bar

The title bar is located along the top of the DataViewer® application window and contains the name of the application and active view.

To move the window, drag the title bar. Note: You can also move dialog boxes by dragging their title bars.

A title bar may contain the following elements:

- Application Control-menu button
- View Control-menu button
- Name of the application
- Name of the active view
- Minimize button
- Maximize button
- Restore button
- Close (Exit) application button

1.7   Scroll bars

Displayed at the right and bottom edges of the view window, the scroll boxes inside the scroll bars indicate your vertical and horizontal location in the view. You can use the mouse to scroll through the displayed pages using the horizontal and vertical scroll bars.

If the displayed page can fit entirely within the DataViewer® window, the scroll bars are not displayed. If the DataViewer® window is too narrow to display a page, then the horizontal scroll bar is displayed. If the DataViewer® window is not tall enough to display the page or pages, then the vertical scroll bar is displayed. The horizontal scroll bar is used to scroll left and right over the page. The vertical scroll bar is used to scroll up and down over the pages.

1.8   Page Bar

Displayed just above the Status Bar is the Page Bar. The Page Bar allows you to quickly move between pages. The Page Bar contains tabs, one for each page in the view. To move to any given page simply right click the mouse pointer on the associated page tab.

Selecting **Page Bar** from the **View** menu can disable the Page Bar. It can be re-enable by selecting **Page Bar** from the **View** menu again. While the Page Bar is enabled a check is displayed next to the **Page Bar** menu option.

1.9   Modifying the View

Another major function of DataViewer® is the analysis and display of recorded data. DataViewer® uses a desktop publishing approach to the display of information. This approach provides a View into the Data, hence the name DataViewer®. The view defines the type and placement of displayed frames on the printed page. Pages are displayed by DataViewer® using, What You See Is What You Get (WYSIWYG) format.

DataViewer® displays report pages. When DataViewer® is first run or the New view toolbar icon is selected, a blank page is displayed. Pages are displayed in white with a gray border around them. If you prefer, the gray borders around the pages can be turned off by selecting the Draft display mode. This is accomplished by selecting the Draft option from the View menu.

In either case a dotted line is drawn on each page indicating the location of margins. The drawing or placement area for frames is within these margins. Frames cannot be placed, moved or resized outside the margins of the page.

See Also

14.1	Creating and Placing Frames
15.3	Cutting, Copying, and Pasting Frames
17.7	Page Layout Operations
18.1	Templates

CHAPTER 2: FILE MENU

2.1   File menu commands

The File menu offers the following commands:

Quick Start	Opens the DataViewer Quick Start dialog box.
New	Creates a new view. **
New From Template	Opens the Create View from Template dialog box.
Open	Opens an existing view.
Close	Closes an opened view.
Save	Saves an opened view using the same file name.
Save As	Saves an opened view to a specified file name.
Save As Template	Saves the current view as a Template. **
Archive command	Copies the current view and all of the attached database files to a user specified location.
Database	Displays the Database Properties dialog box.
Page Setup	Displays the Page Setup dialog box.
Print	Prints a view.
Print Preview	Displays the view on the screen, as it would appear printed.
Send...	Sends the active view through electronic mail.
Exit	Exits DataViewer.

*** Available in the professional version.*

2.2   Quick Start command (File menu)

Use this command to display the Quick Start dialog box.

See Also

1.2   DataViewer Quick Start dialog

2.3   New command (File menu)

Professional Version

Use this command to create a new view.

You can open an existing view with the Open command.

Shortcuts

Toolbar:
Keys: Ctrl+N

2.4   New From Template command (File menu)

Use this command to create a new view of an existing database using a template.

You can open an existing view with the Open command.

See Also

> 18.2   Create View from Template dialog
> 18.1   Templates

2.5   Open command (File menu)

Use this command to open an existing view in a new window. You can open multiple views at once. Use the Window menu to switch among the multiple open views. See Window 1, 2, ... command.

Shortcuts

Toolbar:
Keys: Ctrl+O

2.6   File Open dialog box

The following options allow you to specify which file to open:

Look in:
> Select from the drop down list a directory, drive or network path in which to look for the file. Once selected, a list of directories and files (with the specified extension) are display in the window under the Look In drop down list.

File Name
> Type or select the filename you want to open. This box lists files with the extension you select in the List Files of Type box.

List Files of Type
> Select the type of file you want to open:
> > DataViewer View File (*.dvw)
> > DataViewer Template File (*.dvt)
> > DataViewer Database File (*.dvb)

2.7   Close command (File menu)

Use this command to close all windows containing the active view. DataViewer suggests that you save changes to your view before you close it. If you close a view without saving, you lose all changes made since the last time you saved it. Before closing an untitled view, DataViewer displays the Save As dialog box and suggests that you name and save the view.

You can also close a window by using the Close icon on the view's window, as shown below:

2.8   Save command (File menu)

Use this command to save the active view to its current name and directory. When you save a view for the first time, DataViewer displays the Save As dialog box so you can name your view. If you want to change the name and directory of an existing view before you save it, choose the Save As command.

Shortcuts

   Toolbar: 🖫

   Keys: Ctrl+S

2.9   Save As command (File menu)

Use this command to save and name the active view. DataViewer displays the Save As dialog box so you can name your view.

To save a view with its existing name and directory, use the Save command.

2.10   File Save As dialog box

The following options allow you to specify the name and location of the file you're about to save:

Save in:
> Select from the drop down list a directory, drive or network path in which to save the file. Once selected, a list of directories and files (with the specified extension) are display in the window, under the Save in drop down list.

File Name
> Type or select the filename you want to save to.

List Files of Type
> Select the type of file you want to open:
>> DataViewer View File (*.dvw)

2.11   Save As Template command (File menu)

Professional Version

Use this command to save the currently active view as a template. DataViewer displays the Save As dialog box so you can name your template.

2.12   Archive command (File menu)

The Archive command gathers the current view and all attached database files and copies them to a user specified location. This is convenient when the database files for a view are not located in the same directory as the view file. Using this command you can copy all the files to a given directory. You can then compress and send these files to another user.

To archive the current view perform the following steps:

1.   Select **Archive** from the **File** menu. The **Choose Directory** dialog will be displayed.

2.   Select the drive and directory to which you want the files copied.

3.   Select the **OK** button. The files will be copied to the specified location.

2.13   Database command (File menu)

The Database command displayed the Database dialog box. This dialog box allows you

- Edit the session information for a database.

- Export measurement values from a database.

- Load another database into the Database Inspector.

2.14   Database dialog box

The Database dialog box allows you to edit the session informat of a database and to export measurement values stored in a database. The Database dialog box consists of the following items:

Currently Loaded Databases:
This is a list of database files that have been loaded. When first displayed this list contains the names of all the databases currently loaded by all of the view currently open in DataViewer. Additional databases can be added to the list using the **Load another database** button.

Export measurements:
Selecting this dialog button begins the export operation for measurements contained within the currently selected database. When this option is selected the Export Step 1 dialog box is displayed.

Load another database:
Selecting this dialog button allows you to add another database file to the list of databases. Use this button to add a database which you want to modify or export to the Loaded Databases list.

2.15   Edit Session Information

At the time a database is created you are given the opportunity to specify various operator, site and comment information. This information is called the session properties. The session properties can be changed at a later date using the Database Inspector dialog box. To edit the session properties perform the following steps:

1. Select **Database** from the **File** menu. The Database dialog box will be displayed.
2. If the desired database is not listed then load it using the **Load another database** button.
3. Select the database whose session information is to be edited from the list of loaded databases.
4. Select the **Edit session information** dialog button. The **Session Properties** dialog box will be displayed.
5. Edit the session fields as needed.
6. Select the **OK** dialog button to save the changes into the database.

2.16   Exporting Measurement Values

Measurement value stored in a DataViewer database can be export to a comma separated file using the Export operation. To export measurement values from a database perform the following steps:

1. Select **Database** from the **File** menu. The Database dialog box will be displayed.
2. If the desired database is not listed then load it using the **Load another database** button.
3. Select the database whose session information is to be edited from the list of loaded databases.

4. Select the **Export measurements** dialog button. The **Export Step 1 – Specify Export File Name** dialog box will be displayed.

5. Specify the name of the export file in the supplied edit box (field).

6. Select the **Next >>** dialog button. The Export Step 2 – Select Channel dialog box will be displayed.

7. Select the channel from which the measurement values are to be exported.

8. Select the **Next >>** dialog button. The **Export Step 3 – Select Parameters** dialog box will be displayed.

9. Select the desired measurement parameters by adding them to the **Selected** list.

10. Select the **Finish >>** dialog button.

At this point the selected parameters, from the selected database will be exported to the specified file.

2.17 Export Step 1 - Specify Export File Name dialog box

The **Export Step 1 – Specify Export File Name** dialog box is the first step in the export operation. It allows you to specify the name of the file to export the measurement values to. When first displayed the export file name defaults to the name of the database with **.csv** given as the file extension.

The name of the database previously selected from which the measurement values will be extracted is displayed above the Export File name. This can not be changed here and shown for information only. To change the database selected you must cancel the export process and select a different database in the Database dialog box.

To continue to the next step in the export operation select the **Next >>** dialog button.

To cancel the export operation, select the **Cancel** dialog button.

2.18 Export Step 2 - Select Channel dialog box

The **Export Step 2 – Select Channel** dialog box displays a list of measurement channels contained within the associated database and allows you to select one of these channels to be exported.

In addition the name of the database containing the measurement data is displayed. The name of the export file specified in the previous step is also displayed.

To continue to the next step in the export operation select the **Next >>** dialog button.

To cancel the export operation, select the **Cancel** dialog button.

To go back top the previous step, select the **<< Previous** dialog button.

2.19 Export Step 3 - Select Parameters dialog box

The **Export Step 3 – Select Parameters** dialog box allows you to specify the parameters and order of the parameters to be exported.

To select a given parameter to export select it from the **Available** list and click on the **Add>>** dialog button. The parameter will be added at the bottom of the Select list.

Selecting the **Add All>>** dialog button will add all of the parameters to the export list.

Selecting the **<<Remove All** dialog button will remove all (clearing) the parameters in the Select list.

To remove a given parameter from the Selected list select it and click on the **<<Remove** dialog button.

The order in which parameters are exported can be changed by selecting each Selected parameter and moving it up and down in the list using the **Promote** and **Demote** dialog button. An item higher in the list is exported before an item lower in the list.

The parameters selected for export and the order of these parameters can be saved as the default by selecting the **Make Default** button. The next time a channel of this same type is selected for export the Selected list will default to the parameters selected when the **Make Default** button was selected.

To complete the export operation select the **Finish >>** dialog button.

To cancel the export operation, select the **Cancel** dialog button.

To go back top the previous step, select the **<< Previous** dialog button.

2.20 Exit command (File menu)

Use this command to end your DataViewer session. You can also use the Close command on the application Control menu. DataViewer prompts you to save views with unsaved changes.

Shortcuts
    Mouse: Double-click the application's Control menu button.

    Keys: Alt+F4

2.21 Recent file 1, 2, 3, 4 command (File menu)

Use the numbers and filenames listed at the bottom of the File menu to open the last four views you closed. Choose the number that corresponds with the view you want to open.

2.22 Send command (File menu)

Use this command to send the active view through electronic mail. This command presents a mail window with the active view attached to it. You may then fill out the To: field, Subject: field, etc., and add text to the body of the message if you wish. When you are finished you may click the "Send" button to send the message.

CHAPTER 3: EDIT MENU

3.1 Edit menu commands

The Edit menu offers the following commands:

Undo   Reverse previous editing operation. **

Cut   Deletes data from the view and moves it to the clipboard. **

Copy   Copies data from the view to the clipboard.

Paste   Pastes data from the application clipboard into the view. **

Paste Special   Pastes data from the Windows clipboard into the view. **

Add Page   Adds a page to the active view. **

Delete Page   Deletes a page from the active view. **

Duplicate Page   Duplicates the currently select page (including all frames on
                         that page).

Insert New Object   Inserts and embeds an object, such as a chart or an equation
                         in a view. **

Links   List and edit links to embedded objects. **

*** Available in the professional version.*

3.2 Undo/Can't Undo command (Edit menu)

Professional Version

Use this command to reverse the last editing action, if possible. The undo command is grayed on the menu if the undo command list is empty. The undo command list allows you to undo the last 10 undoable commands. If a non-undoable command is performed, it is not added to the list and the list is not modified. For this reason, the undo command list reflects the last 10 undoable commands even if non-undoable commands were given.

The following is a list of commands that can be undone:

- Move frame

- Resize frame

- Place frame

- Delete frame

- Change frame properties

- Delete page (provided the undo buffer can hold copies of all frames on page being deleted).

Each command that is undone is added to the list of redo commands. Commands such as zooming and panning are not added to the undo list and therefore cannot be undone with this command, although you can use the zoom previous command to undo a zoom or pan operation.

The Delete Page command will empty the undo command list prior to deleting the page. Each frame deleted from the page is then added to the undo command list. When the undo command is given for the delete page command, the page and all frames that were on it are restored. However, if there are more frames on the page being deleted than can fit in the undo list, the page deletion command cannot be undone. In which case, the undo command is left empty. If the page deletion command cannot be added to the undo command list, you will be warned prior to the page being deleted, at which time you can make the final decision if deletion of the page should continue.

Shortcuts

Keys: Ctrl+Z or
Alt-BackSpace

See Also

3.3 Redo command (Edit menu)

3.3 Redo command (Edit menu)

Professional Version

Use this command to reverse the last Undo action, if possible. The Redo command is grayed on the menu if you cannot reverse your last Undo action.

Each command undone is added to the list of redo commands. When the view is modified such that the new action is added to the undo command list, the redo command list is cleared. For this reason, the redo command is available only after an undo command is given and before any other command is given.

Shortcuts

Keys: Ctrl+Y

See Also

3.2 Undo/Can't Undo command (Edit menu)

3.4 Cut command (Edit menu)

Professional Version

Use this command to remove the currently selected frame from the view and put it on the clipboard. This command is unavailable if a frame is not currently selected.

Cutting a frame to the clipboard replaces the contents previously stored there.

Shortcuts

Toolbar:
Keys: Ctrl+X

See Also

15.3 Cutting, Copying, and Pasting Frames

3.5 Copy command (Edit menu)

Use this command to copy the selected frame onto the clipboard. This command is unavailable if a frame is not currently selected.

Copying a frame to the clipboard replaces the contents previously stored there.

Shortcuts

Toolbar:

Keys: Ctrl+C

3.6 Paste command (Edit menu)

Professional Version

Use this command to insert a copy of the clipboard contents into the active view. Once inserted it can be moved and resized as needed. This command is unavailable if the clipboard is empty.

Shortcuts

Toolbar:

Keys: Ctrl+V

See Also

15.3   Cutting, Copying, and Pasting Frames

3.7 Paste Special command (Edit menu)

Professional Version

Use this command to insert a copy of the Windows clipboard contents into the active view. This command is unavailable if the Windows clipboard is empty.

See Also

15.3   Cutting, Copying, and Pasting Frames

3.8 Add Page command (Edit menu)

Professional Version

Displays the Insert Page dialog box, which allows you to add a page to the view. To add a page to a view, you must specify a page number and whether the new page is to be added before or after that page.

See Also

17.9   Insert Page dialog box
3.9   Delete Page command (Edit menu)
17.13   Printing Operations

3.9 Delete Page command (Edit menu)

Professional Version

Displays the Delete Page dialog box, which allows you to specify the page to be deleted.

See Also

17.11   Delete Page dialog box
3.8   Add Page command (Edit menu)
17.7   Page Layout Operations

3.10   Duplicate Page command (Edit menu)

The Duplicate Page command inserts a new page into the view and copies the frames on the current page to the newly inserted page. If a parent and child frame (that are linked) are copied the new child frame is linked to the new parent frame.

CHAPTER 4: VIEW MENU

4.1   View menu commands

The View menu offers the following commands:

Draft   Shows the active view in draft mode.

Layout   Shows the active view in layout mode.

Links   Displays the child/parent links between frames.

Watch   Enables/disables the value at cursor display.

Grid   Enables/disables the display and snap to grid for frames.

Toolbar   Shows or hides the toolbar.

Status Bar   Shows or hides the status bar.

Page Bar   Shows or hides the page selection bar.

4.2   Draft command (View menu)

Displays pages in draft mode.

4.3   Layout command (View menu)

Displays pages in layout mode.

4.4   Links command (View menu)

Enables/disables the display of frame identification (FID) numbers and parent identification (PID) numbers for each frame. This allows you to identify associations between frames.

4.5   Watch command (View menu)

Use this command to enable/disable the display of the value at cursor for graph frames. The watch value can float (follow) the mouse pointer or can be locked in place. The Lock Watch and Unlock Watch options in the popup menu fix and release the watch text. To fix the watch text, position the mouse pointer at the desired location. Then click and release the right mouse button. The popup menu will be display. Select the Lock Watch menu option. To release the watch text, perform the same steps except select the Unlock Watch menu option.

The value displayed in the watch window can be pasted onto the graph at its current location. To paste the text value onto the graph right click the mouse at the desired location and select Paste Watch from the popup window.

In the normal mode of operation the watch text window follows the cursor around the screen. You can fix the location of the watch window my right clicking the mouse at the desired location and selecting **Lock Watch** from the popup window. To release the watch window right click the mouse and select **Unlock Watch** from the popup window.

4.6   Paste Watch command (Popup menu)

When the watch value box is enabled you have the option of pasting the value onto the view as a text box. Right clicking the mouse and selecting Paste Watch from the popup menu does this.

4.7   Grid command (View menu)

Use this command to turn on and off the layout grid. When enabled the menu option has a check next to it and a grid of points is displayed on the page. The grid forces frame placement to the nearest grid locations.

4.8   Toolbar command (View menu)

Use this command to display and hide the Toolbar, which includes buttons for some of the most common commands in DataViewer, such as File Open. A check mark appears next to the menu item when the Toolbar is displayed.

See Toolbar for help on using the toolbar.

4.9   Status Bar command (View menu)

Use this command to display and hide the Status Bar, which describes the action to be executed by the selected menu item or depressed toolbar button, currently displayed page and number of pages, and keyboard latch state. A check mark appears next to the menu item when the Status Bar is displayed.

See Status Bar for help on using the status bar.

CHAPTER 5: FRAME MENU

5.1   Frame menu commands

Select Frame	Enables the Select Frame tool, changing the mouse pointer to the Frame Selection tool.
Link Frame	Enables the Link Frame tool, for creating a new frame linked to the currently selected frame. **
Change Link	Allows you to assign another frame as the parent of a child frame.
Frame Properties	Displays the properties dialog box associated with the currently selected frame.
Send To Back	Moves the selected frame to the end of the views frame list.
Bring To Front	Moves the selected frame to the beginning of the views frame list.
Lock Frame	Locks down the frame at its current position and size in the view. **
Unlock Frame	Releases a previous lock placed on a frames placement in the view. **
New Frame	Enables the Create Frame tool, changing the mouse pointer to the Generic frame tool. **
Place Graph	Enables the Place Graph tool, changing the mouse pointer to the Graph frame tool. **
Place Text	Enables the Place Text tool, changing the mouse pointer to the Text frame tool. **
Place OLE	Enables the Place OLE tool, changing the mouse pointer to the OLE frame tool. **
Draw Arrow	Enables the Draw Arrow tool, changing the mouse pointer to the Arrow tool. **
Draw Line	Enables the Draw Line tool, changing the mouse pointer to the Line tool. **
Draw Box	Enables the Draw Box tool, changing the mouse pointer to the Box tool. **

*** Available in the professional version.*

5.2   Select Frame command (Frame menu)

Changes the mouse pointer to the Frame Selection tool, allowing a frame to be selected by clicking on it.

Shortcuts

Toolbar:

See Also

1.4   Toolbar
15.2   Selecting a Frame

5.3   New Frame command (Frame menu)

Professional Version

Changes the mouse pointer to the generic frame tool, allowing a frame to be created and placed in the view.

Shortcuts

Toolbar:

See Also

    1.4   Toolbar
    14.2   Creating a Generic Frame

5.4   Place Graph command (Frame menu)

Professional Version

Changes the mouse pointer to the Create Graph frame tool, allowing a graph frame to be created and placed in the view.

Shortcuts

Toolbar:

See Also

    1.4   Toolbar
    14.20 Creating a Graph Frame

5.5   Link Frame command (Frame menu)

Professional Version

Creates a new frame linked to the currently selected frame. The available types of frames will depend of the type of frame selected prior to issuing this command.

Shortcuts

Toolbar:

See Also

    1.4   Toolbar
    14.21 Creating a Linked Frame

5.6   Change Link command (Frame menu)

Professional Version

Assigns another frame as the parent of the currently selected child frame. To use this command you first select the child frame. Next select the **Change Link** command from the Frame menu. The mouse pointer will change to the Change Link tool. Then select the frame that is to become the new parent for the selected frame. The new parent must be of the same type as the current parent frame.

5.7 Place Text command (Frame menu)

Professional Version

Changes the mouse pointer to the Text frame tool, allowing a text box frame to be created and placed in the view.

Shortcuts

Toolbar: $\boxed{\text{A}}$

See Also

    1.4   Toolbar
    14.7   Creating a Text Frame

5.8 Place OLE command (Frame menu)

Professional Version

Changes the mouse pointer to the OLE frame tool, allowing an OLE item to be created and placed in the view.

Shortcuts

Toolbar: $\boxed{\text{OLE}}$

See Also

    1.4   Toolbar
    14.9   Creating a OLE Frame

5.9 Draw Arrow command (Frame menu)

Professional Version

Changes the mouse pointer to the Arrow tool, allowing an arrow to be drawn on the view.

Shortcuts

Toolbar: $\boxed{\searrow}$

See Also

    1.4   Toolbar
    14.12   Creating a Arrow Frame

5.10 Draw Line command (Frame menu)

Professional Version

Changes the mouse pointer to the Line tool, allowing a line to be drawn on the view.

Shortcuts

Toolbar: $\boxed{\diagdown}$

See Also

    1.4   Toolbar
    14.15   Creating a Line Frame

5.11   Draw Box command (Frame menu)

Changes the mouse pointer to the Box tool, allowing a box to be drawn on the view.

Shortcuts

Toolbar:

See Also

1.4   Toolbar
14.18   Creating a Box Frame

5.12   Bring To Front command (Frame menu)

Moves the selected frame to the beginning of the views frame list. This option allows you to change the frame selection order.

Shortcuts

Toolbar:

See Also

1.4   Toolbar
5.13   Send To Back command (Frame menu)
15.2   Selecting a Frame

5.13   Send To Back command (Frame menu)

Moves the selected frame to the end of the views frame list. This option allows you to change the frame selection order. For example, if two frames are placed on top of each other in a view the top frame will always get selected when using the frame selection tool. Using this command changes the frame selection order and allows the other frame to be selected.

Shortcuts

Toolbar:

See Also

1.4   Toolbar
15.2   Selecting a Frame

5.14   Lock Frame command (Frame menu)

Locks the selected frame at its current location and size. The frame will remain locked until it is unlocked via the Unlock Frame command. While a frame is locked, you will not be able to move it or change its size.

Frame locking is useful when you don't want to accidentally move or change the size of the frame. Selecting a frame via the selection tool can result in it inadvertently being moved if it is not locked in place.

This command is only available when a frame is selected and the selected frame is unlocked. Once the selected frame is locked, the Lock Frame command will be grayed and the Unlock Frame command will be enabled. Also, while a frame is locked, the cursor does not change to the frame resize or move cursor icons.

See Also

5.15   Unlock Frame command (Frame menu)

Professional Version

Unlocks the selected frame and allows it to be moved and resized. The frame will remain unlocked until it is locked via the Lock Frame command. While a frame is unlocked you will be able to move it and change its size.

Frame locking is useful when you don't want to accidentally move or change the size of the frame. Selecting a frame via the selection tool can result in it inadvertently being moved if it is not locked in place.

This command is only available when a frame is selected and the selected frame is locked in place. Once the selected frame is unlocked, the Unlock Frame command will be grayed and the Lock Frame command will be enabled.

See Also

5.15   Frame Properties

Opens the Properties dialog box associated with the selected frame. Each frame type has a unique properties dialog box.

CHAPTER 6: ZOOM MENU

6.1   Zoom menu commands

Zoom Tool	Enables the zoom selection tool.
Zoom In	Increases the zoom magnification.
Zoom Out	Decreases the zoom magnification.
Zoom Previous	Zooms to the previous display extents.
Zoom All	Sets the display extents to include all stored data.
Step Left	Pans the displayed graph to the left by 10%.
Step Right	Pans the displayed graph to the right by 10%.
Pan Left	Pans the displayed graph to the left by 90%.
Pan Right	Pans the displayed graph to the right by 90%.
Pan To Start	Pans the displayed graph to the start of the stored data.
Pan To End	Pans the displayed graph to the end of the stored data.

6.2   Zoom All command (Zoom menu)

Adjusts the starting display time and display duration such that all of the trend data is displayed in the selected graph frame.

Shortcuts

Toolbar:

See Also

19.4   Zoom All

6.3   Step Left command (Zoom menu)

Sets the display start time for the selected graphical frame to a time 10% less than the current time. Subtracting a percentage of the display duration from the start time does this. The display duration remains the same.

Shortcuts

Toolbar:

See Also

1.4   Toolbar
19.7   Panning

6.4   Step Right command (Zoom menu)

Sets the display start time for the selected graphical frame to a time 10% greater than the current time. Adding a percentage of the display duration to the start time does this.   The display duration remains the same.

Shortcuts

Toolbar: ▶

See Also

> 1.4   Toolbar
> 19.7   Panning

6.5   Zoom Tool command (Zoom menu)

Changes the mouse pointer to the zoom selection tool. This tool allows you to draw a box around the area of a graph to zoom in on.

Shortcuts

Toolbar: 🔍

See Also

> 1.4   Toolbar
> 19.2   Zoom To Selection

6.6   Zoom Previous command (Zoom menu)

Resets the display duration and starting display offset of the selected graphical frame to the previous zoom extents.

Shortcuts

Toolbar: 🔍

See Also

> 1.4   Toolbar
> 19.3   Zoom Previous

6.7   Zoom In command (Zoom menu)

Increases the zoom magnification of the selected graphical frame.

Shortcuts

Toolbar: ⊕

See Also

> 1.4   Toolbar
> 19.5   Zoom In

6.8 Zoom Out command (Zoom menu)

Decreases the zoom magnification of the selected graphical frame.

Shortcuts

Toolbar:

See Also

1.4   Toolbar
19.6   Zoom Out

6.9 Pan To Start command (Zoom menu)

Sets the display start time for the selected graphical frame to the start of the saved data. The display duration (zoom magnification) remains the same.

Shortcuts

Toolbar:

See Also

1.4   Toolbar
19.7   Panning

6.10 Pan Left command (Zoom menu)

Sets the display start time for the selected graphical frame to a time 90% less than the current time. Subtracting a percentage of the display duration from the start time does this. The display duration remains the same.

Shortcuts

Toolbar:

See Also

1.4   Toolbar
19.7   Panning

6.11 Pan Right command (Zoom menu)

Sets the display start time for the selected graphical frame to a time 90% greater than the current time. Adding a percentage of the display duration to the start time does this.   The display duration remains the same.

Shortcuts

Toolbar:

See Also

1.4   Toolbar
19.7   Panning

6.12   Pan To End command (Zoom menu)

Sets the display start time for the selected graphical frame to the time of the last data point less the display duration. The display duration remains the same.

Shortcuts

Toolbar: ▶|

See Also

1.4   Toolbar
19.7   Panning

CHAPTER 7: INSTRUMENT MENU

7.1   Instrument menu commands

Control Panel   Establishes a connection to an instrument and displays the Instrument Control Panel dialog box. **

Configure Instrument   Establishes a connection to an instrument and displays the Configure Instrument dialog box.

Download   Retrieves and stores previously recorded measurements stored in an instrument.

Decode Download   Decodes and stores previously downloaded instrument data.

*** Available in the professional version.*

7.2   Control Panel command (Instrument menu)

Professional Version

Use this command to open an Instrument Control Panel dialog box. Once this menu option is selected the Select Instrument dialog box will be displayed. This dialog box will attempt to identify the attached instrument. If it is able to identify the attached instrument, the selection for that instrument will be selected automatically. If the instrument can not be identified automatically the Select Instrument dialog box will remain displayed. If this dialog remains displayed you must selected the appropriate instrument followed by the OK button. Then the Control Panel dialog box specific to the instrument will be displayed.

See Also

12.2   Select Instrument Dialog box

7.3   Configure Instrument command (Instrument menu)

Use this command to open an Instrument Configuration dialog box. Once this menu option is selected the Select Instrument dialog box will be displayed. This dialog box will attempt to identify the attached instrument. If it is able to identify the attached instrument, the selection for that instrument will be selected automatically. If the instrument can not be identified automatically the Select Instrument dialog box will remain displayed. If this dialog remains displayed you must selected the appropriate instrument followed by the OK button. Then the Configure Instrument dialog box specific to the instrument will be displayed.

See Also

12.2   Select Instrument Dialog box

7.4   Download command (Instrument menu)

The Download menu option will initiate the transfer of recorded measurements stored in the connected instrument to a database on the PC.

For a detailed description of downloading recorded data see the help topic for the specific instrument you will be accessing.

See Also

12.1   Establishing a Connection

7.5   Decode Download command (Instrument menu)

Use this command to decode and save into a database the measurements contained in a previously downloaded raw recording from an instrument. This command operates in a similar

manner to the Download command except you are asked to specify the raw data file, instead of it being acquired from an attached instrument. This difference aside the operation is identical.

7.6   Date/Time dialog box

This dialog box allows you to change the date and time of the clock within the attached instrument. The date and time fields will be initialized to the current Date and Time. You can accept this default by select the OK button. You can also change the Date and Time as required prior to selecting OK. Upon selecting the OK button the date and time within the attached instrument will be set to the date and time specified in this dialog box. Selecting the Cancel button will close the dialog without sending a set date/time command to the instrument.

See Also

12.1   Establishing a Connection

7.7   Session Properties Dialog box

The Session Properties dialog box allows you to attach textual information to the recorded data. The Session Properties dialog box is illustrated below

This dialog allows you to specify information about the recorded session. This information falls into three categories:

- Operator information - information about the person performing the test.

- Site information - information about the place and facility the test was performed at.

- Comments - any additional information you wish to keep with the recorded data.

This information is saved along with the recorded data. Selecting the **Make Default** button will save the current field values making them the default for subsequent Session Properties dialog boxes. Selecting the **OK** button will accept the session information and save it and the recorded data to the database file previously specified.

See Also

7.8   Communications Port List

The Communications Port drop down list box allows you to specify the serial port to use when establishing a connection with an instrument.

7.9   Communication Rate List

The Communication Rate drop down list box allows you to specify the serial communication speed to use when establishing a connection with an instrument.

CHAPTER 8: TOOLS MENU

8.1   Tools menu commands

Control Panel Options   Displays the Control Panel Options dialog box.

Directories   Displays the Default Directories dialog box.

8.2   Control Panel Options command (Tools menu)

Use this command to display the Control Panel Options dialog box. This dialog box allows you to specify various defaults associated with the Control Panel.

See Also

8.3   Control Panel Options dialog box

8.3   Control Panel Options dialog box

The Control Panel Options dialog box allows you to change the default behavior of the Control Panel and set default parameters for communication with instruments. The following is a list of available options:

- Open previous real-time windows - placing a check next to this option will cause the Control Panel to open and position all real-time windows that were open when it was last closed. **

- Automatically connect - placing a check next to this option will cause the Control Panel to use the specified communication parameters and automatically establish communication with an instrument when opened. When this option is not checked, the communication port and rate drop down lists are disabled.

- Supported Instruments – is a list box containing entries for each of the instruments supported by DataViewer .

- Communication port - specifies the default communication port to be used when connecting to the selected instrument.

- Communication rate - specifies the default communication rate to be used when connecting to the selected instrument.

See Also

12.4   Automatically Establishing a Connection
12.5   Automatically Opening Real-Time windows

** Available in the professional version.

8.4   Default Directories command (Tools menu)

Use this command to change the default directories DataViewer$^®$ uses when storing and retrieving file.

See Also

8.5   Default Directories dialog box

8.5   Default Directories dialog box

The Default Directories dialog box allows you to change the default directories DataViewer® uses when storing and retrieving files. When DataViewer® displays File Open and File Save dialog boxes the default directory used is determined by the type of file being opened or saved and the directories specified in this dialog box. The following is a list of available options:

- Views: Default directory for view files.

- Templates: Default directory for template files.

- Layouts: Default directory for real-time layout files.

- Database: Default directory for database files.

- Inst. Config: Default directory for instrument configuration files.

The default directory is changed by either entering it into the associated edit box or by using the **Browse** button. Selecting the **Browse** button will display the **Choose Directory** dialog box. Use this dialog box to locate the desired directory. Once the directory has been located and selected click on the **OK** button.

See Also

8.6   Choose Directory dialog box

8.6   Choose Directory dialog box

The following options allow you to select a desired directory:

Directory name

Type or select the name of the desired directory. Double clicking on a upper level directory will close that list and display directories at the level of the selected directory. Double clicking on a lower level directory will open that directory and display the directories (if any) within it.

Drives

Is a drop down list of drives either local or network mapped that are currently available on the computer. Once another drive is selected the directory tree will be updated to reflect the directories on that drive.

OK

Closes the dialog and returning to the calling dialog changing the directory listed in that dialog.

Cancel

Closes the dialog box without changing the directory in the calling dialog.

8.7   Channel Trace Colors command (Tools menu)

This menu option allows you to specify the default colors to be assigned to graph traces associated with specific trend measurements. When this command is selected the Trace Colors dialog box will be displayed with the **Available measurements** list initialized to those available in the Configure Instrument dialog box.

See Also

8.9   Trace Colors dialog box

8.8   Input Trace Colors command (Tools menu)

This menu option allows you to specify the default colors to be assigned to graph traces associated with specific hardware input channels. When this command is selected the Trace Colors dialog box will be displayed with the **Available measurements** list initialized to those associated with various capture mechanisms within the instrument.

See Also

> 8.9   Trace Colors dialog box

8.9   Trace Colors dialog box

This dialog box allows you to specify the default color of traces associated with either channel measurements and hardware inputs. The type of association is determined by the command selected to display this dialog box.

This dialog displays a list of measurements with a rectangle filled with an associated color. These colors are the defaults used when displaying associated traces in the control panel and DataViewer frames.

To change the associated trace color, highlight the desired entry and select a color from the drop down list. If a desired color is not listed in the drop down list you can specify the color via the Red, Green and Blue fields. These three fields allow you to specify the intensity of each of the base colors for a composite color. You can also use the color picker to specify a color. The color picker is displayed by clicking on the color palette icon . A color picker dialog will be displayed.

Selecting the OK button will save the changes as the new default trace colors and close the dialog box. Selecting the Cancel button will close the dialog box without saving and changes you may have made.

See Also

> 8.7   Channel Trace Colors command (Tools menu)
> 8.8   Input Trace Colors command (Tools menu)

CHAPTER 9: WINDOW MENU

9.1   Window menu commands

The Window menu offers the following commands, which enable you to arrange multiple windows of multiple views in the application window:

New Window   Creates a new window that displays the same view.

Cascade   Arranges windows in an overlapped fashion.

Tile   Arranges windows in non-overlapped tiles.

Arrange Icons   Arranges icons of closed windows.

Window 1, 2, ...   Goes to specified window.

9.2   New command (Window menu)

Use this command to open a new window with the same contents as the active window. You can open multiple windows to display different parts of a view at the same time. If you change the contents in one window, all other windows containing the same view reflect those changes. When you open a new window, it becomes the active window and is displayed on top of all other open windows.

9.3   Cascade command (Window menu)

Use this command to arrange multiple opened windows in an overlapped fashion.

9.4   Tile command (Window menu)

Use this command to arrange multiple opened windows in a non-overlapped fashion.

9.5   Window Arrange Icons Command

Use this command to arrange the icons for minimized windows at the bottom of the main window. If there is an open view window at the bottom of the main window, then some or all of the icons may not be visible because they will be underneath this view window.

9.6   1,2, ... command (Window menu)

DataViewer$^®$ displays a list of currently open view windows at the bottom of the Window menu. A check mark appears in front of the name of the active window. Choose a view from this list to make its window active.

CHAPTER 10: HELP MENU

10.1 Help menu commands

The Help menu offers the following commands, which provide you assistance with this application:

Contents   Offers you an index to topics on which you can get help.

How To   Lists topics on how to perform various functions.

CA 6543 Megohmmeter   Displays the CA 6543 Megohmmeter PDF document.

CA 6547 Megohmmeter   Displays the CA 6547 Megohmmeter PDF document.

Qualistar   Displays the Qualistar PDF document.

User's Guide   Displays the User's Guide PDF document.

Tutorial   Displays the Tutorial PDF document.

Templates   Displays the Templates PDF document.

Register   Opens the on-line registration form.

About DataViewer   Displays the version number of the DataViewer application.

10.2 Contents command (Help menu)

This help option displays the main help index dialog box. From this starting point you can find help on all aspects of DataViewer.

10.3 How To command (Help menu)

Use this command to display the opening screen of Help. From the opening screen, you can jump to step-by-step instructions for using DataViewer and various types of reference information.

Once you open Help, you can click the Contents button whenever you want to return to the opening screen.

10.4 Model CA 6543 Megohmmeter (Help menu)

Opens the Adobe Acrobat PDF formatted document file for the Model CA 6543 Megohmmeter.

10.5 Model CA 6547 Megohmmeter (Help menu)

Opens the Adobe Acrobat PDF formatted document file for the Model CA 6547 Megohmmeter.

10.6 Qualistar (Help menu)

Opens the Adobe Acrobat PDF formatted document file for the Qualistar.

10.7 User's Guide (Help menu)

Opens the Adobe Acrobat PDF formatted DataViewer user's guide.

10.8 Tutorial (Help menu)

Opens the Adobe Acrobat PDF formatted DataViewer tutorial.

10.9 Templates (Help menu)

Opens the Adobe Acrobat PDF formatted user's guide for templates.

10.10 Register command (Help menu)

Use this command to open the on-line registration form. The form is opened using your default web (html) browser. You must have a web browser installed and a connection to the Internet available to use this feature.

10.11 About DataViewer command (Help menu)

Use this command to display the copyright notice and version number of your copy of DataViewer.

10.12 Help Using Help Command

Use the Context Help command to obtain help on some portion of DataViewer. When you choose the Toolbar's Context Help button, the mouse pointer will change to an arrow and question mark. Then click somewhere in the DataViewer window, such as another Toolbar button. The Help topic will be shown for the item you clicked.

Shortcut

Toolbar:
Keys: Shift+F1

CHAPTER 11: SYSTEM AND CONTROL MENUS

11.1 Size command (System menu)

Use this command to display a four-headed arrow so you can size the active window with the arrow keys.

After the pointer changes to the four-headed arrow:

1. Press one of the DIRECTION keys (left, right, up, or down arrow key) to move the pointer to the border you want to move.
2. Press a DIRECTION key to move the border.
3. Press ENTER when the window is the size you want.

Note: This command is unavailable if you maximize the window.

Shortcut
  Mouse: Drag the size bars at the corners or edges of the window.

11.2 Move command (Control menu)

Use this command to display a four-headed arrow so you can move the active window or dialog box with the arrow keys.

Note: This command is unavailable if you maximize the window.

Shortcut
  Keys: Ctrl+F7

11.3 Maximize command (System menu)

Use this command to enlarge the active window to fill the available space.

Shortcut
  Mouse: Click the maximize icon on the title bar; or double-click the title bar.
  Keys: Ctrl+F10 enlarges a view window.

11.4 System Minimize Command

Use this command to reduce the DataViewer window to an icon.

Shortcut
  Mouse: Click the minimize icon on the title bar.
  Keys: Alt+F9

11.5 Next Window command (view Control menu)

Use this command to switch to the next open view window. DataViewer determines which window is next according to the order in which you opened them.

Shortcut
  Keys: Ctrl+F6

11.6   Previous Window command (view Control menu)

Use this command to switch to the previous open view window. DataViewer determines which window is previous according to the order in which you opened them.

Shortcut
  Keys: Shift+Ctrl+F6

11.7   Close command (Control menus)

Use this command to close the active window or dialog box.

Double-clicking a Control-menu box is the same as choosing the Close command.

Note: If you have multiple windows open for a single view, the Close command on the view Control menu closes only one window at a time. You can close all windows at once with the Close command on the File menu.

Shortcuts
  Keys: Ctrl+F4 closes a view window
               Alt+F4 closes the view window or dialog box

11.8   Restore command (Control menu)

Use this command to return the active window to its size and position before you chose the Maximize or Minimize command.

11.9   Switch to command (application Control menu)

Use this command to display a list of all open applications. Use this "Task List" to switch to or close an application on the list.

Shortcut
  Keys: Ctrl+Esc

Dialog Box Options

When you choose the Switch To command, you will be presented with a dialog box with the following options:

Task List
  Select the application you want to switch to or close.

Switch To
  Makes the selected application active.

End Task
  Closes the selected application.

Cancel
  Closes the Task List box.

Cascade
  Arranges open applications so they overlap and you can see each title bar. This option does not affect applications reduced to icons.

Tile

Arranges open applications into windows that do not overlap. This option does not affect applications reduced to icons.

Arrange Icons

Arranges the icons of all minimized applications across the bottom of the screen.

CHAPTER 12: INSTRUMENTS

12.1   Establishing a Connection

To establish communication between DataViewer and a supported instrument select one of the options from the Instrument. At this point the Connection dialog box will be displayed (illustrated below).
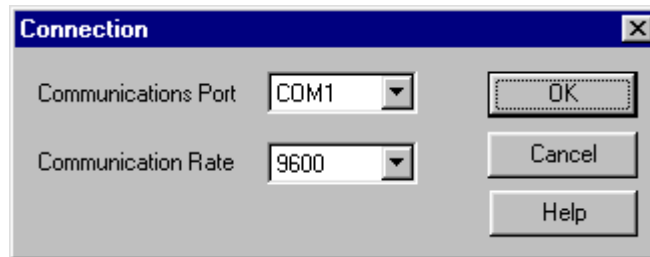
The Connection dialog box allows you to specify the communication port and data transfer rate to be used during this session. Select the communication port from the **Communication Port** drop down list. Then select the data transfer rate from the **Communication Rate** drop down list. Once the port and data rate has been specified, click on the **Start** button. Click the **Cancel** button if you decide not to establish a connection at this time.

When the **Start** button is selected the **Select Instrument** dialog box will be display (illustrated below).
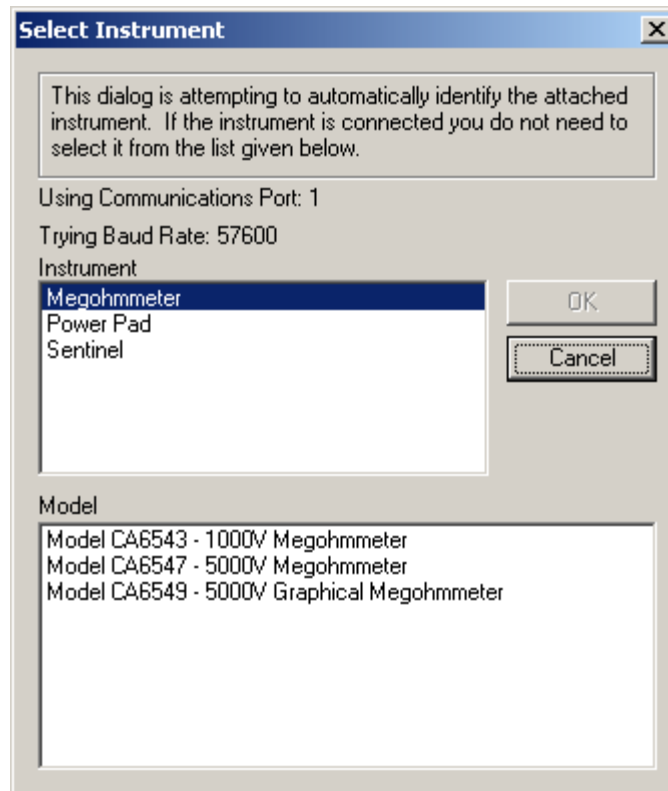
The Select Instrument dialog box is used to identify an attached instrument. When first displayed it attempts to automatically identify the instrument. If it is able to identify the attached instrument (using the previously specified communication parameters) it will automatically close and proceed with the appropriate operation.

While displayed the **Select Instrument** dialog box will continuously try to identify the attached instrument. Cycling between all know instrument types. The dialog box will remain displayed until the attached instrument is identified or until the **OK** button or **Cancel** button is selected.

If the **Select Instrument** dialog box is unable to identify the attached instrument it will remain displayed, in which case you must manually select the desired instrument.

See Also

12.2   Select Instrument Dialog box

The Select Instrument dialog box is used to identify an attached instrument. When first displayed it attempts to automatically identify the instrument. If it is unable to identify the instrument a list will be display from which you must select the desired instrument. If prompted, select the desired instrument followed by the **OK** button. At this point the Connection dialog box will be displayed (illustrated below).

See Also

12.3   Communication Port Connection Dialog box

The Connection dialog box allows you to specify the communication port and data transfer rate to be used during this session. Select the communication port from the **Communication Port** drop down list. Then select the data transfer rate from the **Communication Rate** drop down list. Once the port and data rate has been specified, click on the **OK** button. Click the **Cancel** button if you decide not to establish a connection at this time.

See Also

12.4   Automatically Establishing a Connection

Once you are confident in the communication parameters, you can instruct DataViewer® to automatically establish a connection with an instrument as needed. An automatic connection will use the communication port and rate specified in the Control Panel Options dialog box.

To enable automatic connection, select Control Panel Options from the main Tools menu. This will display the Control Panel Options dialog box. Placing a check next to Automatically Connect will cause the Control Panel to automatically establish a connection with an instrument using the specified communication port and rate.

See Also

12.5   Automatically Opening Real-Time windows

Professional Version

You can instruct DataViewer® to open all the windows that were open the last time the Control Panel was closed. This option allows you to customize the default layout of windows within the Control Panel.

To enable automatic connection, select Control Panel Options from the main Tools menu. This will display the Control Panel Options dialog box. Placing a check next to **Open previous real-time windows** will cause the Control Panel to automatically open the windows that were open the last time the Control Panel was closed.

See Also

    8.3   Control Panel Options dialog box

CHAPTER 13: INTRODUCTION TO FRAMES

13.1   What is a Frame

DataViewer® frames are a rectangular box in which graphical items such as: lines, text and graphs are drawn. All items displayed by DataViewer® are contained in frames.

13.2   Graph Frame

A Graph Frame provides a graphical look into the database to which it is attached. The database is attached to the frame when it is created.

A Graph Frame provides additional tools for viewing the underlying database. These tools provide zoom and pan operation. In addition, individual traces and waveform snapshots can be selected using the Select Frame tool.

Normally, the Select Frame tool is used to select a frame for modification. However, in this graph frame it can be used to select individual waveforms and trend traces. A trace is selected if any part of it is drawn within a few screen pixels of where the selection tool is when the left mouse button is pressed.

Notice, as a trace is selected, handles similar to those of the frame handles, are drawn over the trace. If more that one trace is drawn within the proximity of the selection tool, when clicked again the next trace will be selected. This will continue until all traces within the selection tools proximity have been selected, at which point clicking the left mouse button again will select the first trace and the process will repeat.

The Graph Frame can be the parent frame for child frames. The types of child frames that it can support are:

- Waveform Analysis Frame: When selecting a trace within the graph frame, the attached child frames will be updated to reflect the new selection. The types of Waveform Analysis include: Waveform Snapshot, Harmonic Bar Graph and Harmonic Text Summary.

- Graph Legend Frame: Displays the names of the traces displayed on the graph.

- Session Summary Frame: Displays user and instruments supplied information about the session that contains the recorded data.

- Micro-Graph Frame: Displays a sub-section of the parent frame.

- Meter Frame: Displays spot values of a parent frame.

- Exceedence Statistics Frame: Displays the statistics for an individually selected exceedence trace within the graph area.

- Exceedence List Frame: Displays a list of exceedences contained within the attached database.

- Channel List Frame: Displays a list of records for selected channels contained within the parent graph frame.

See Also

13.3   Linked Frame Overview

The linking of frames in a view allows you to define one frame by the contents of another frame. For example, an exception report frame can be linked to a graph frame which displays the trend data of a recording. The exception report frame can be set to list exceptions for the entire

recording or just the portion displayed in the graph frame, in which case, zooming in and out of the displayed graph will cause the exception report to automatically update based on the displayed data.

As another example, a Harmonic Text Summary frame can be linked to a graph displaying waveforms. When a waveform is selected, the Harmonic Text Summary frame will be updated based on the selected waveform.

In addition, multiple frames can be linked to a single frame. For example, we can link Waveform Snapshot, Harmonic Bar Graph and Harmonic Text Summary frames to a trend graph that contains waveforms. When we click on and select a waveform, all three of the attached frames will automatically be updated for the selected waveform.

In the previous example, the trend graph is referred to as the Parent frame. The Waveform Snapshot, Harmonic Bar Graph and Harmonic Text summary are Child frames. In DataViewer® a parent frame can have multiple child frames, although each child frame can only have one parent frame. This means, that a child frame cannot be attached to multiple parent frames.

Attaching a child frame to a parent creates a hierarchy of linked frames with the top most parent frame controlling the display of the lower level frames. Frames that have attached child frames cannot be deleted before all of the attached child frames are deleted. This is not something that you have to worry about doing accidentally, as the **Cut** command is disabled for parent frames with attached child frames.

The following is a list of parent frames and the type of child frames that can be linked to them:

Graph frame: Waveform Graph, Harmonic Bar Graph, Harmonic Text Summary, Graph Legend, Session Summary, Micro-Graph, Meter, Exceedence Statistics, Exceedence List and Channel List.

Micro-Graph frame: Waveform Graph, Harmonic Bar Graph, Harmonic Text Summary, Graph Legend, Meter, Exceedence Statistics, Exceedence List.

See Also

CHAPTER 14: CREATING FRAMES

14.1 Creating and Placing Frames

Professional Version

Display frames are placed on the page using a frame creation tool. The type of frame created depends on the tool selected from the toolbar. The following is a list of available toolbar tools and the type of frame they create:

Graph tool: creates a waveform or trend frame (depending on the data specified).

Link Frame tool: creates a new frame linked to the currently selected frame.

Text tool: creates a text frame.

OLE tool: creates an OLE (Object Linking and Embedding) frame.

Arrow tool: creates an arrow frame.

Line tool: creates a line frame.

Box tool: creates a box frame.

Each of these frame creation tools creates a specific type of frame.

In addition to these tools, the generic Create Frame tool can be used to create any of the previous types or one that is not covered by any of the specific tools. The generic frame tool will ask you to specify the type of frame via a dialog box. The specific tools operate in the same manner, except you are not asked to specify the type of frame (it is implied by the specific tool).

To create a frame, select one of the frame creation tools by left clicking the mouse pointer on it. The mouse pointer will change to that tool while it is over a valid area of the page. When the mouse pointer is outside the page margins it will be the normal (default) pointer.

The following detail the creation of frames:

14.2   Creating a Generic Frame   14.20   Creating a Graph Frame
14.21   Creating a Linked Frame   14.7   Creating a Text Frame
14.9   Creating a OLE Frame   14.12   Creating a Arrow Frame
14.15   Creating a Line Frame   14.18   Creating a Box Frame

14.2 Creating a Generic Frame

Professional Version

The other frame creation tools are used to place a specific type of frame on the page. The tools given on the toolbar provide a shorter path to creating these frames. You can use the generic Create Frame tool to place these and other frames on the page. To create a frame perform the following steps:

1.   Left click the mouse pointer on the Create Frame tool. The mouse pointer will become this tool while it is within the margins of the page.

2.   Move the frame tool to the location on the page where the upper left corner of the frame is to be placed.

3.   Click and hold the left mouse button.

4.   Drag the mouse to the location on the page where the lower right corner of frame is to be located. As you move the mouse pointer, a dotted box is displayed. This dotted box shows the size and location of the frame being created.

5.   Release the mouse button. The Frame Type dialog box will be displayed.

6.   Select the type of frame to be created from the displayed list.

7.   Once the frame type is specified, select the OK button to proceed with the creation of the frame. If you decide not to create the frame, select the **Cancel** button.

8.   Once the frame type is specified and the **OK** button is selected, the corresponding properties dialog box will be displayed. Refer to the previous sections for an explanation of each frame type's properties dialog box.

9.   Once the properties have been specified select the **OK** button.

See Also

14.1   Creating and Placing Frames

14.3   Frame Type Dialog

Professional Version

Specify the type of frame to be created and placed in the box you just created. Once the frame type is selected and the OK button pressed, the frame properties dialog box (specific to the specified frame type) will be displayed.

See Also

14.1   Creating and Placing Frames

14.4   Text Box Frame

A Text Box frame displays text within a given object frame. The text within the frame is static, in that, it does not change. It only changes when you change it.

See Also

14.7   Creating a Text Frame
14.5   Text Box Properties dialog box

14.5   Text Box Properties dialog box

This dialog box allows you to specify the text to be displayed in the associated frame.

Type the text you want displayed into the edit window. You can change the font used to display this text by clicking on the Font button and specifying the font attributes. As in any text editor, pressing the Enter key will create a new line. Pressing the Tab key will position the cursor to the next tab position. You can change the default tab positions by selecting the Tabs button to display the Tabs dialog box.

You can have DataViewer$^{®}$ wrap text within the associated frame rectangle by selecting the **Enable word wrap** option. Placing a check in the associated box does this.

You can specify if a box should be drawn around the frame, as well. Placing a check in the **Draw box around frame** option causes a box to be drawn around the object frame. Clearing the check box prevents a box from being drawn around the frame.

You can also have the frame grow with the text. Placing a check in the **Grow frame with text** option enables this feature. When the **Enable word wrap** and **Grow frame with text** options are both checked, the width of the frame is maintained and the height is adjusted to fit the displayed text. If the **Enable word wrap** option is disabled and the **Grow frame with text** is enabled, the width and height of the frame will be adjusted to meet the requirements of the displayed text.

See Also

14.6 Tabs dialog box

The Tabs dialog box allows you to specify the position of tab stops within a text frame.

You can specify the default tab position to be every multiple of a given measurement. Specifying a width in the Default tab stops field does this.

You can also force tab stops at given locations. To do this, enter a value into the Tab stop position field and select the Set button. Tabs positions will be placed starting with the entries in the list, with each subsequent tab being placed based on the default tab stops value.

You can remove an individually specified tab position by highlighting it and selecting the Clear button. You can also remove all tab positions in the list by clicking the Clear All button.

14.7 Creating a Text Frame

Professional Version

The following steps describe the process of creating a text frame. To place a text frame on the page, perform the following steps:

1.   Left click the mouse pointer on the Place Text ⬛ tool. The mouse pointer will become this tool while it is within the margins of the page.

2.   Move the frame tool to the location on the page where the upper left corner of the frame is to be placed.

3.   Click and hold the left mouse button.

4.   Drag the mouse to the location on the page where the lower right corner of frame is to be located. As you move the mouse pointer, a dotted box is displayed. This dotted box shows the size and location of the frame being created.

5.   Release the mouse button. The frame properties dialog will be displayed.

6.   Enter the text box text in the edit field of this dialog.

7.   Specify if word wrap is to be used with this text. Placing a check next to the **Enable word wrap** check box will enable word wrap. When enabled, the specified text will be drawn such that it does not extend beyond the right side of the frame. A new line will be started if a word to be displayed will extend beyond the right side of the frame. If word wrap is not enabled, the specified text will be drawn on a single line.

8.   Specify if a box is to be drawn around the frame. Placing a check next to the **draw box around frame** check box will cause lines to be drawn on each side of the frame.

9.   Specify if the frame should be enlarged to the size of the specified text. If word wrap is enabled, the text frame will grow down if it is not large enough to contain the text. If word wrap is not enabled, then the frame will grow in width to fit the size of the text. If this option is not checked, the frame size will not change to contain the text.

10. Specify the font to be used by clicking on the **Font** button. The font dialog box will be displayed. Specify the desired font name, style, size, effects and script. Once the font attributes are specified, click on the **OK** button to accept the font. Click on the **Cancel** button to cancel changing the font.

11. Once the desired properties for this new Text frame are specified, select the **OK** button. The frame will be created using the specified properties.

See Also

14.8 Object Linking and Embedding frame

Professional Version

An Object Linking and Embedding (OLE) frame is used to embed items from other applications into a view. The object is contained within the specified frame.

See Also

14.9 Creating a OLE Frame

Professional Version

The following steps describe the process of creating an OLE (Object Linking and Embedding) frame on the page:

1. Left click the mouse pointer on the Place OLE tool. The mouse pointer will become this tool while it is within the margins of the page.

2. Move the frame tool to the location on the page where the upper left corner of the frame is to be placed.

3. Click and hold the left mouse button.

4. Drag the mouse to the location on the page where the lower right corner of the frame is to be located. As you move the mouse pointer, a dotted box is displayed. This dotted box shows the size and location of the frame being created.

5. Release the mouse button. The frame properties dialog box will be displayed.

6. Specify if it is a new or existing object by clicking on **Create New** or **Create from File,** respectively. When creating a new object, select the **Object Type** from the displayed list. When embedding an existing object (Create from File), specify the file name. Once specified, select the **OK** button. If created from a file, the object will be embedded into the page and displayed. If creating a new object, the appropriate application will open allowing you to create the new object.

See Also

14.10 Arrow Frame

An Arrow Frame is used to draw an arrow on a view.

See Also

14.11 Arrow Properties dialog box

The Arrow Properties dialog box allows you to customize the display of the associated arrow.

This dialog box is displayed by right clicking on the arrow and selecting **Properties** from the pop up menu. The properties dialog box will be displayed.

From this properties dialog box you can specify the line thickness (in pixels), the line color and the size of the arrowhead.

See Also

14.12 Creating a Arrow Frame

Professional Version

Error! Reference source not found. The following steps describe the process of creating an Arrow frame:

1. Left click the mouse pointer on the Draw Arrow tool. The mouse pointer will become this tool while it is within the margins of the page.
2. Move the frame tool to the location on the page where the upper left corner of the frame is to be placed.
3. Click and hold the left mouse button.
4. Drag the mouse to the location on the page where the lower right corner of the frame is to be located. As you move the mouse pointer a dotted box is displayed. This dotted box shows the size and location of the frame being created.
5. Release the mouse button. The Arrow will be drawn from the point the mouse was pressed to the point it was released, with the arrowhead being placed at the point the button was released.
6. Change the arrow properties by right clicking on the arrow and selecting **Properties** from the pop up menu. The properties dialog box will be displayed. From this properties dialog box you can specify the line thickness (in pixels), the line color and the size of the arrowhead.
7. Once the arrow properties have been specified, select the **OK** button. To cancel the changes to the arrow select the **Cancel** button.

See Also

14.13 Line Frame

A Line frame is used to draw a line on a view.

See Also

14.14 Line Properties dialog box

The Line Properties dialog box allows you to customize the display of the associated line.

This dialog box is displayed by right clicking on the line and selecting **Properties** from the pop up menu. The properties dialog box will be displayed.

From this properties dialog box you can specify the line thickness (in pixels) and color of the line.

See Also

14.15 Creating a Line Frame

Professional Version

The following steps describe the process of creating a Line Frame:

1. Left click the mouse pointer on the Draw Line ⬚ tool. The mouse pointer will become this tool while it is within the margins of the page.
2. Move the frame tool to the location on the page where the upper left corner of the frame is to be placed.
3. Click and hold the left mouse button.
4. Drag the mouse to the location on the page where the lower right corner of the frame is to be located. Notice, as you move the mouse pointer, a dotted box is displayed. This dotted box shows the size and location of the frame being created.
5. Release the mouse button. The line will be drawn from the upper left to the lower right corners of the frame.
6. Change the line properties by right clicking on the line and selecting **Properties** from the pop up menu. The properties dialog box will be displayed. From this dialog box you can specify the line thickness (in pixels) and the line color.
7. Once the line properties have been specified, select the **OK** button. To cancel the changes to the line, select the **Cancel** button.

See Also

   14.14   Line Properties dialog box
   14.1   Creating and Placing Frames

14.16 Box Frame

A Box Frame is used to draw a rectangular box on a view.

See Also

   14.18   Creating a Box Frame
   14.17   Box Properties dialog box

14.17 Box Properties dialog box

The Box Properties dialog box allows you to customize the display of the associated box.

This dialog box is displayed by right clicking on the box and selecting **Properties** from the pop up menu. The properties dialog box will be displayed.

From the properties dialog box you can specify the line thickness (in pixels), color and fill style of the line.

See Also

   14.18   Creating a Box Frame

14.18 Creating a Box Frame

Professional Version

The following steps describe the process of creating a Box Frame:

1. Left click the mouse pointer on the Draw Box ⬚ tool. The mouse pointer will become this tool while it is within the margins of the page.
2. Move the frame tool to the location on the page where the upper left corner of the frame is to be placed.

3. Click and hold the left mouse button.

4. Drag the mouse to the location on the page where the lower right corner of the frame is to be located. As you move the mouse pointer a dotted box is displayed. This dotted box shows the size and location of the frame being created.

5. Release the mouse button. The box will be drawn from the upper left to the lower right corners of the frame.

6. Change the box properties by right clicking on the box and selecting **Properties** from the pop up menu. The properties dialog box will be displayed. From this properties dialog box you can specify the line thickness (in pixels), the line color and the fill style.

7. Once the box properties have been specified select the **OK** button. To cancel the changes to the box select the **Cancel** button.

See Also

14.17   Box Properties dialog box
14.1   Creating and Placing Frames

14.20 Creating a Graph Frame

Professional Version

The following steps describe the process of creating a Graph Frame. The creation of other frame types is identical to this procedure except for the properties dialog box. Each frame type will have its own unique properties dialog box. To place a graph on the page perform the following steps:

1. Left click the mouse pointer on the Place Graph ⬜ tool. The mouse pointer will become this tool while it is within the margins of the page.

2. Move the frame tool to the location on the page where the upper left corner of the frame is to be placed.

3. Click and hold the left mouse button.

4. Drag the mouse to the location on the page where the lower right corner of the frame is to be located. As you move the mouse pointer a dotted box is displayed. This dotted box shows the size and location of the frame being created.

5. Release the mouse button. The frame properties dialog box will be displayed.

6. Select a channel to be displayed by highlighting it (left clicking the mouse pointer) in the **Available channels** list, then click on the **Add>>** button. The selected channel will be added to the **Selected channels** list. You can remove channels from the selected channel list by highlighting it and clicking on the **<<Remove** button. You can add all of the available channels to the selected channels list by clicking on the **Add All>>** button. You can also remove all channels from the selected channel list by clicking on the **<<Remove All** button.

7. You can change the color used to draw each of the channels by highlighting its entry in the selected channel list and selecting an alternate color from the **Line color** drop down list. You can also specify a color, other than one in the color list, by specifying the amount of each color component in the Red, Green and Blue fields.

8. Once the desired properties for this new Graph frame are specified, select the **OK** button. The frame will be created using the specified properties.

See Also

14.19   Channel Graph Properties dialog box
14.1   Creating and Placing Frames
13.2   Graph Frame

14.21 Creating a Linked Frame

Professional Version

A linked frame is a frame that obtains its display data from a parent frame. Linking frames allows interaction between the linked frames. For more information about linked frames see Linked Frame Overview.

To link a frame to another, perform the following steps:

1. Select the frame to be linked using the frame selection tool [icon]. The selected frame will be displayed with resize handles. Both the Link Frame menu option and the Link Frame tool are enabled only when a frame capable of being a parent (able to support child frames) is selected. If the selected frame can not support child frames, the menu option and toolbar icon will be grayed.

2. Select **Link Frame** from the Edit menu or the Link Frame tool [icon] from the toolbar. The **Child Frame Type** dialog box will be displayed. The Child Frame Type dialog box allows you to specify the type of frame to be created and linked to the previously selected parent frame. The Type list contains only child frame types, which can be linked to the selected parent frame.

3. Select the type of child frame to be created and linked from the Type list.

4. Once the child frame type is specified, select the **OK** button to proceed with the creation and linking of the frames. If you decide not to create the frame, select the **Cancel** button. After selecting **OK** the cursor will change to the Linked frame creation tool.

5. Move the frame tool to the location on the page where the upper left corner of the frame is to be placed.

6. Click and hold the left mouse button.

7. Drag the mouse to the location on the page where the lower right corner of the frame is to be located. As you move the mouse pointer a dotted box is displayed. This dotted box shows the size and location of the frame being created.

8. Release the mouse button. The Properties dialog box specific to the type of linked frame previously specified will be displayed.

9. Once the properties have been specified, select the **OK** button. The child frame is created and linked to the parent frame selected in step 1 above.

This procedure creates a hierarchy of linked frames with the top most parent frame controlling the display of the lower level frames.

See Also

> 14.1   Creating and Placing Frames
> 13.3   Linked Frame Overview

14.22 Graph Legend Frame

The Graph Legend Frame is a child frame linked to the Graph Frame. The Graph Legend frame displays the names of the recorded channels displayed in its parent graph frame. The name of each displayed channel is preceded by a short line segment drawn in the same color as its associated trace.

See Also

> 13.2   Graph Frame
> 14.21   Creating a Linked Frame
> 14.23   Graph Legend Properties dialog box

14.23 Graph Legend Properties dialog box

The Graph Legend Properties dialog box is used to customize the way the Graph Legend frame is displayed. This dialog box is illustrated below:
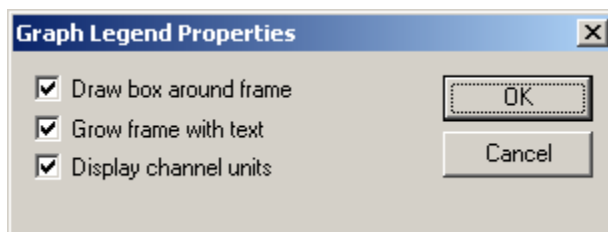
This dialog has two options:

- Draw box around frame; and

- Grow frame with text; and

- Display channel units

When the Draw box around frame option is checked, a box is drawn around the Graph Legend frame. To prevent a box from being drawn, remove the check mark.

When the Grow frame with text option is checked, the bottom right corner of the Graph Legend frame is automatically adjusted to enclose all lines in the legend. If traces are removed from the Graph parent frame, the height of the frame will decrease accordingly. Likewise, the height will increase if additional traces are displayed in the parent Graph frame. The width of the frame is also adjusted as needed.

See Also

14.22   Graph Legend Frame

14.24 Waveform Analysis Frame

The Waveform Analysis Frame is a child frame linked to either a Channel Graph or Micro-Graph frame. The Waveform Analysis frame displays the waveform selected in its parent frame. The waveform can be displayed in the following forms:

- Waveform Snapshot – displays the selected waveform.

- Harmonic Bar Graph – displays a harmonic bar graph of the selected waveform.

- Harmonic Text – displays a harmonic text summary of the selected waveform.

The type of waveform analysis is specified in the Waveform Analysis Properties dialog box. This dialog box is displayed either by double clicking the left mouse button while the frame selection tool is over the desired frame, or by selecting Properties from the popup menu. Right clicking the mouse button with the frame selection tool over the desired frame displays the popup menu.

In addition to the analysis type, you can specify if the harmonic text summary is to display values in RMS, peak amplitude or percent of fundamental. Selecting the appropriate radio button in the Individual Harmonics group box does this.

You can quickly move between captured waveforms (selected for display) using the pan commands. Selecting **Pan To Start** displays the first captured waveform. Selecting **Pan To End** displays the last captured waveform. Selecting the **Step Right** or **Step Left** displays the next or previously captured waveform. When stepping through the captured waveforms, the selection will move from each waveform for the channel associated with the currently displayed waveform. After the last waveform for the current channel, the first (or last depending on direction of stepping) waveform for the next (or previous) channel will be displayed.

Placing a check in the **Zoom parent frame when panning** will cause the parent graph to zoom to the time period associated with the newly selected waveform. If the parent frame is a Micro-Graph, then the auto zooming function will result in the Micro-Graphs frames parent being updated (gray area) to display the relative time and location of the selected waveform.

You can also freeze the data displayed by the analysis frame at its current state. Placing a check in the **Lock frame data** field of the Waveform Analysis Properties dialog box does this.

See Also

14.25 Waveform Analysis Properties dialog box

The Waveform Analysis Properties dialog box is used to specify the type of waveform analysis and to specify various display options. The options available are:

Analysis Type
Contains a group of radio buttons, which specifies the type of analysis to be performed on the associated waveform.

Individual Harmonics
Contains a group of radio buttons, which specifies how the individual harmonics are displayed in a Harmonic Text Summary. The values can be displayed as RMS, peak amplitude or percent of fundamental.

Zoom parent frame when panning
Is a check box, which when selected causes the parent frame to zoom to the time period associated with the displayed waveform. This occurs when issuing a pan command while the waveform analysis frame is selected.

Lock frame data
Is a check box, which freezes the data used to display the frame at their current values. When the frame data is locked selecting a waveform in the parent frame does not change the data displayed in this child frame.

OK button
Closes the dialog box and saves changes you have made.

Cancel button
Closes the dialog box without saving any changes you have made.

See Also

14.26 Session Summary Frame

The Session Summary Frame is a child frame linked to the Graph Frame. The Session Summary frame displays a textual summary of its parent frame. You can customize the summary text displayed using the Session Summary Properties Dialog box. This summary text is obtained from the Session Summary information entered at the time the recorded channel data was saved to the database.

The Session Summary frame contains static and dynamic text. Static text is displayed as it was typed into the Session Summary Properties dialog box. Dynamic text is generated through field substitution. The value of the parent frame of the specified field is substituted for the field name.

Surrounding the session summary field name with square brackets specifies dynamic text. For example, if the Operator Company Name field of the recorded data is **AEMC® Instruments**,

placing the text **[Operator Company Name]** in the Summary Text edit box will result in **AEMC®
Instruments** being displayed in its place on the page.

Dynamic text substitution is useful for templates that create a view when session data is attached.
The field name will reflect the name contained in the attached database (which may be different
from database to database).

See Also

14.27 Session Summary Properties Dialog

The Session Summary Properties dialog box allows you to specify what is displayed in its
associated Session Summary Frame (see Figure 11).
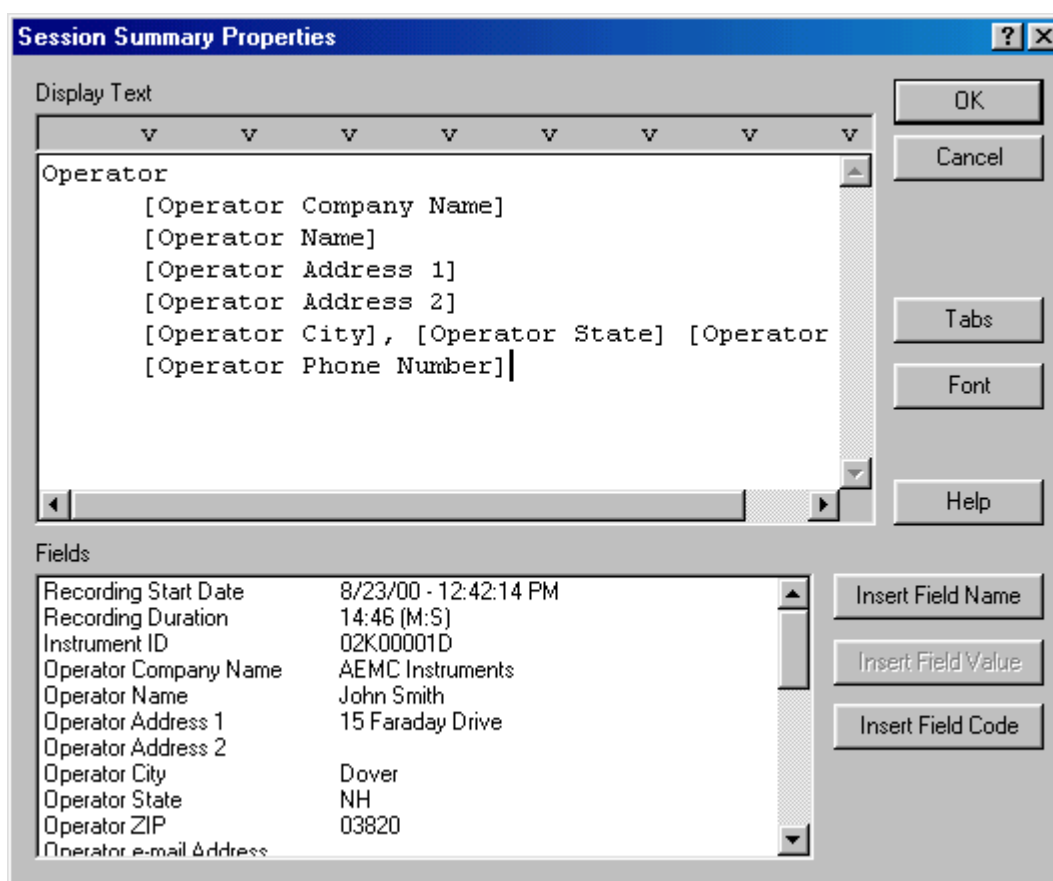
This dialog box contains an edit box into which you type the static and dynamic text to be
displayed in the Session Summary Frame. It also contains a list box from which you can select
field names, field values and field codes.

Static text is displayed as it is typed into the Summary Text edit box. Dynamic text is generated
through field substitution. The value of the specified field as obtained from the Session Summary
Frames parent is substituted for the field name.

Surrounding the Session Summary field name with square brackets specifies dynamic text. For
example, if the Operator Company Name field of the recorded data is **AEMC Instruments®**,
placing the text **[Operator Company Name]** in the Summary Text edit box will result in **AEMC
Instruments®** being displayed in its place on the page.

Dynamic text substitution is useful for templates that create a view when session data is attached. The field name will reflect the name contained in the attached database (which may be different from database to database).

Session Summary Fields can be added to the Summary Text in a number of ways. First, place the cursor in the Summary Text edit box where the Summary Field is to be inserted. Next, click on the Session Summary Field (in the list box) to be inserted. The next step depends on what you want inserted. To insert the field name as static text, click on the **Insert Field Name** button (notice brackets are not placed around the field name). To insert the field value as static text, click on the **Insert Field Value** button (notice that the value displayed in the list box is inserted). To insert the field value as dynamic text, click on the **Insert Field Code** button (notice that the name of the field surrounded by square brackets is inserted).

If the selected Field does not have a current value associated with it, the **Insert Field Value** button will be grayed and unavailable.

As in any text editor, pressing the Enter key will create a new line. Pressing the Tab key will position the cursor to the next tab position. You can change the default tab positions by selecting the Tabs button to display the Tabs dialog box.

You can also change the font used to display this text by clicking on the Font button and specifying the font attributes.

See Also

14.28 Micro-Graph Frame

A Micro-Graph Frame provides a graphical look into the database attached to its parent frame. As with the Channel Graph Frame, the Micro-Graph frame provides tools for viewing the underlying database. These tools provide zoom and pan operations. The parent Channel Graph frame will gray the area of its graph window to represent the time period being displayed by this child frame. As you zoom and pan the Micro-Graph frame, the parent Channel Graph will update the grayed area of its graph. This provides a quick reference into the Macro view (parent graph) of the graph that this Micro-Graph is displaying.

Normally, the Select Frame tool is used to select a frame for modification. However, in this graph frame it can be used to select individual waveforms and trend traces. A trace is selected if any part of it is drawn within a few screen pixels of where the selection tool is when the left mouse button is pressed.

Notice, as a trace is selected, handles similar to those of the frame handles, are drawn over the trace. If more than one trace is drawn within the proximity of the selection tool when clicked again, the next trace will be selected. This will continue until all traces within the selection tools proximity have been selected, at which point clicking the left mouse button again will select the first trace, and the process will repeat.

The Micro-Graph Frame can be the parent frame for child frames. The types of child frames that it can support are:

- Waveform Analysis Frame: When selecting a trace within the graph frame, the attached child frames will be updated to reflect the new selection. The types of Waveform Analysis include: Waveform Snapshot, Harmonic Bar Graph and Harmonic Text Summary.

- Graph Legend Frame: Displays the names of the traces displayed on the graph.

- Meter Frame: Displays spot values of a parent frame.

- Exceedence Statistics Frame: Displays the statistics for an individually selected exceedence trace within the graph area.

- Exceedence List Frame: Displays a list of exceedences contained within the attached database.

See Also

> 14.21   Creating a Linked Frame

14.29 Micro-Graph Properties dialog box

This dialog box consists of two pages. The first (**Channels**) page allows you to select the channels to be displayed in the trend graph frame.

Channels dialog page

Placing a check in the **Display channels selected in parent graph** option causes the Micro-Graph frame to automatically display the same channels selected in the parent graph frame. Removing the check from this option allows you to customize the display of channels in the frame. While this option is enabled the remaining options on this page of the dialog box are disabled. This option must be disabled to allow the customization of the associated frame using the fields on this page of the dialog box.

Select a channel to be displayed by highlighting it (left clicking the mouse pointer on it) in the **Available channels** list, then click on the **Add>>** button. The selected channel will be added to the **Selected channels** list. You can remove channels from the selected channel list by highlighting it and clicking on the **<<Remove** button. You can add all of the available channels to the selected channels list by clicking on the **Add All>>** button. You can also remove all channels from the selected channel list by clicking on the **<<Remove All** button.

You can change the color used to draw each of the channels by highlighting its entry in the selected channel list and selecting an alternate color from the **Line color** drop down list. You can also specify a color, other than one in the color list, by specifying the amount of each color component in the Red, Green and Blue fields. In addition, you can use the color picker to select from a wider range of colors.

The color picker is displayed by clicking on the color palette icon . A color picker dialog will be displayed.

Template Filter: Allows you to specify how channels should be included when this view is saved and used as a template to open other databases. The options available are

- **Channel Type Only**: when selected any channel of the same type (for example voltage waveforms) as those currently selected for display will be automatically included for display regardless of the channels code and modifier.

- **Channel Type and Code**: when selected any channel of the same type and with the same measurement code will be automatically included for display regardless of the channels modifier.

- **Channel Type, Code and Modifier**: when selected only channels with the same data type, same measurement code and same measurement modifier will be automatically included for display.

Delete frame if selected channel list is empty when opening via a template: this option allows you to mark the frame (and all of the attached child frames) for deletion if the **Selected channels** list is empty after opening a database when this view is used as a template. Placing a check next to this option marks the frame for deletion if empty. When not checked the frame will not be deleted even if the database does not contain and similar channels (as defined by the **Template Filter** option).

Scales dialog page

The second (**Scales)** page of this dialog box allows you to specify how the vertical scales of the associated graph are to be drawn. Two check boxes are provided with an associated edit box.

Placing a check next to **Automatically adjust vertical scale maximum** instructs DataViewer® to automatically adjust the upper end of the vertical scale to accommodate the displayed channels. Removing the check from this option causes the upper limit of the vertical scale to be fixed at the specified value.

Placing a check next to **Enable lower limit for vertical scale maximum** allows you to specify a value for which the upper end of the vertical scale is not allowed to go below.

Placing a check next to **Automatically adjust vertical scale minimum** instructs DataViewer® to automatically adjust the lower end of the vertical scale to accommodate the displayed channels. Removing the check from this option causes the lower limit of the vertical scale to be fixed at the specified value.

Placing a check next to **Display channel units on graph** causes the units for each channel selected for display to be displayed on the left side of the graph. When this option is selected you can also over-ride the default channel units and display other text as units.

When **Display channel units on graph** is selected you can check **Display channel units as**. Doing so allows you to enter any text you would like displayed for the vertical scale units in the edit box to the right.

Placing a check next to **Synchronize parent/child frame display period** cause all graph frames linked to this frame to zoom and pan along with this frame.

Placing a check next to **Highlight relative time period of child frames** causes this frame to gray the area of the frame relative to the child frames display period.

Once the desired properties for this new Graph frame are specified, select the **OK** button. The frame will be created using the specified properties.

See Also

14.1   Creating and Placing Frames
14.28   Micro-Graph Frame

14.30 Meter Frame

A Meter Frame provides a textual summary of the samples within one pixel of its parent frame. The finest resolution, which the parent frame can draw, is one screen (or printer) pixel. Depending on the display magnification, one pixel width can contain one or more sample points. In addition, the time associated with each pixel position is dependent on the zoom magnification and display offset.

A vertical line is displayed in the parent frame at the pixel position associated with the current meter time. As you pan left and right, this vertical line will move to reflect the new position of the meter. Selecting **Pan To Start** moves the meter to the first pixel position of the parents graph. Selecting **Pan To End** moves the meter to the last pixel position. **Pan Left** and **Pan Right** step the meter up to 10 pixels left and right, respectively. **Step Left** and **Step Right** moves the meter position 1 pixel left and right, respectively.

The information displayed in the Meter frame includes the time associated with the pixel position of the parent graph frame. It also displays the minimum, maximum and average values of the samples for each displayed channel for the associated single pixel time period. In addition, a short line of the same trace color and name of the associated parent frame trace is displayed along side the measurement values. Also, the number of samples within the single pixel time period are indicated at the end of each trace name.

See Also

14.21   Creating a Linked Frame

14.31 Meter Properties dialog box

The Meter Properties dialog box allows you to customize the display of the meter frame. Placing or removing the check next to each of the following options enables and disables the display of the associated parameter.

Start time – when checked the start time for the meter in the associated graph is displayed.

Duration – when checked the duration of the meter line in the associated graph is displayed.

Minimum value – when checked the minimum value in the sample set is displayed.

Maximum value – when checked the maximum value in the sample set is displayed.

Average value – when checked the average value in the sample set is displayed.

First sample value – when checked the value of the first sample in the sample set is displayed.

Number of samples – when checked the number of samples in the sample set is displayed.

14.32 Exceedence Statistics Frame

The Exceedence Statistics frame is a child frame linked to either a Channel Graph of Micro-Graph frame. The Exceedence Statistics frame displays a textual summary of the exceedence trace selected in its parent frame. You can customize the text displayed using the Exceedence Statistics Properties dialog box. The displayed text is obtained from the exceedence trace selected in the parent frame.

The Exceedence Statistics frame contains static and dynamic text. Static text is displayed as it was typed into the Exceedence Statistics Properties dialog box. Dynamic text is generated

through field substitution. The value obtained from the parent frame of the specified field is substituted for the field name.

Surrounding the exceedence statistics field name with square brackets, specifies dynamic text. For example, if the Exceedence Type field of the selected exceedence trace is **Sag**, placing the text **[Exceedence Type]** in the Exceedence Statistics Text edit box will result in **Sag** being displayed in its place on the page.

Dynamic text substitution is useful for templates that create a view when recorded data is attached to it. The field name will reflect the name contained in the attached database, which may be different from database to database.

You can pan quickly between exceedence captures selected for display. Selecting **Pan To Start** displays the first exceedence event. Selecting **Pan To End** displays the last captured exceedence event. Selecting the **Step Right** or **Step Left** displays the next or previously captured event.

When stepping through the captured exceedence events, the selection will move from each exceedence for the channel associated with the currently displayed event. After the last event for the current channel, the first (or last depending on direction of stepping) event for the next (or previous) channel will be displayed.

Enabling **Zoom parent frame when panning** (see Exceedence Statistics Properties dialog box) will cause the parent graph to zoom to the time period associated with the newly selected event. If the parent frame is a Micro-Graph then the auto zooming function will result in the Micro-Graphs frames parent being updated (gray area) to display the relative time and location of the selected waveform.

See Also

14.33 Exceedence Statistics Properties dialog box

The Exceedence Statistics Properties dialog box allows you to specify what is displayed in its associated Exceedence Statistics frame. The first page of the Exceedence Statistics Properties dialog box is illustrated in the following figure.
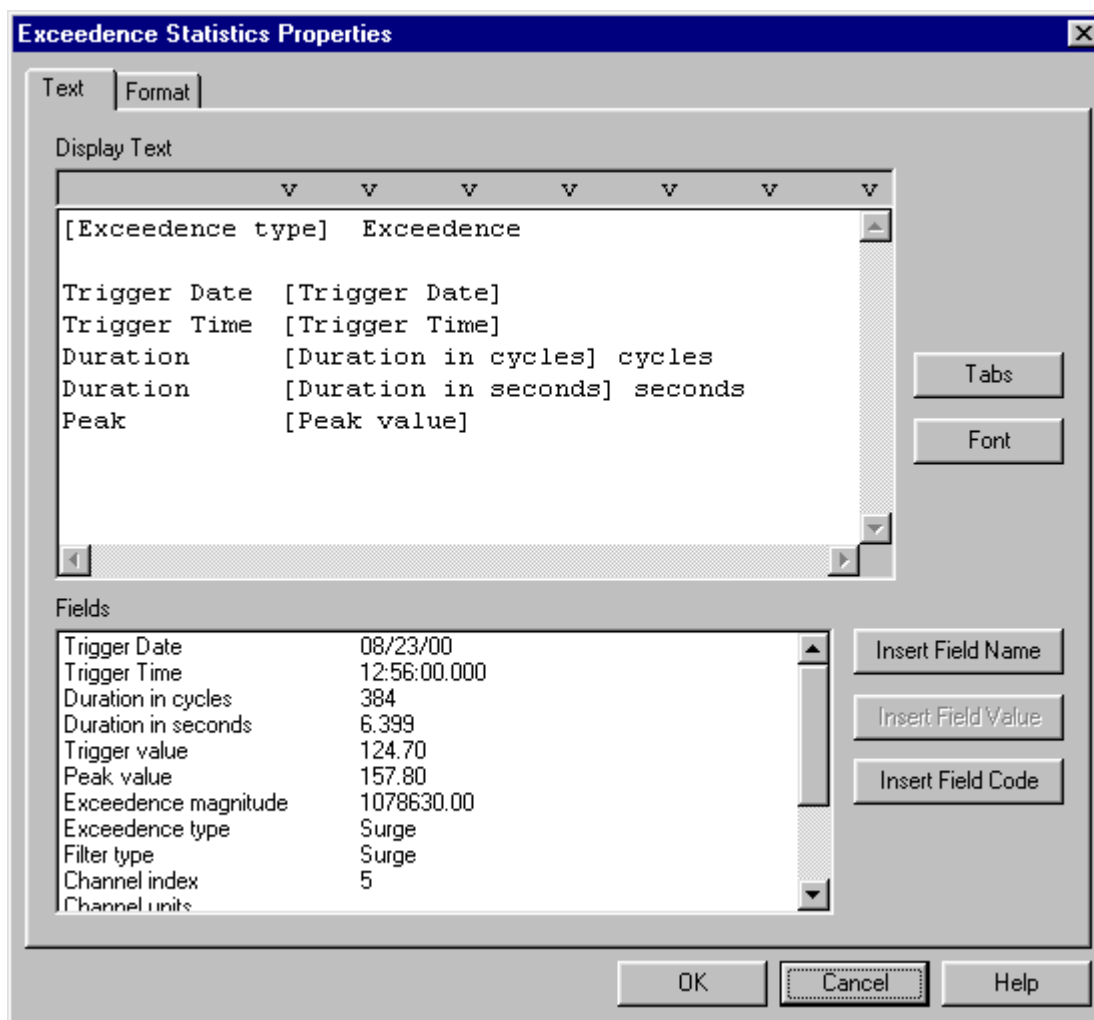
This page of the dialog box contains an edit box into which you type the static and dynamic text to be displayed in the Exceedence Statistics frame. It also contains a list box from which you can select field names, field values and field codes.

Static text is displayed as it is typed into the Text edit box. Dynamic text is generated through field substitution. The value of the specified field as obtained from the Exceedence Statistics frames parent is substituted for the field name.

Surrounding the exceedence statistics field name with square brackets, specifies dynamic text. For example, if the Exceedence Type field of the selected exceedence trace is **Sag**, placing the text **[Exceedence Type]** in the Exceedence Statistics Text edit box will result in **Sag** being displayed in its place on the page.

Dynamic text substitution is useful for templates, which create a view when session data is attached to it. The field name will reflect the name contained in the attached database, which may be different from database to database.

Exceedence Statistics fields can be added to the Text edit box in a number of ways. First, place the cursor in the Text edit box were the Exceedence Statistics field is to be inserted. Next, click

on the Exceedence Statistics field (in the list box) to be inserted. The next step depends on what you want inserted. To insert the field name as static text, click on the **Insert Field Name** button (notice brackets are not placed around the field name). To insert the field value as static text, click on the **Insert Field Value** button (notice that the value displayed in the list box is inserted). To insert the field value as dynamic text, click on the **Insert Field Code** button (notice that the name of the field surrounded by square brackets is inserted).

If the selected Field does not have a current value associated with it the **Insert Field Value** button will be grayed and unavailable.

As in any text editor, pressing the Enter key will create a new line. Pressing the Tab key will position the cursor to the next tab position. You can change the default tab positions by selecting the Tabs button. This will display the Tabs dialog box.

You can also change the font used to display this text by clicking on the **Font** button and specifying the font attributes.

Additional display attributes are selected on the dialogs second properties page. This page is illustrated in the following figure:
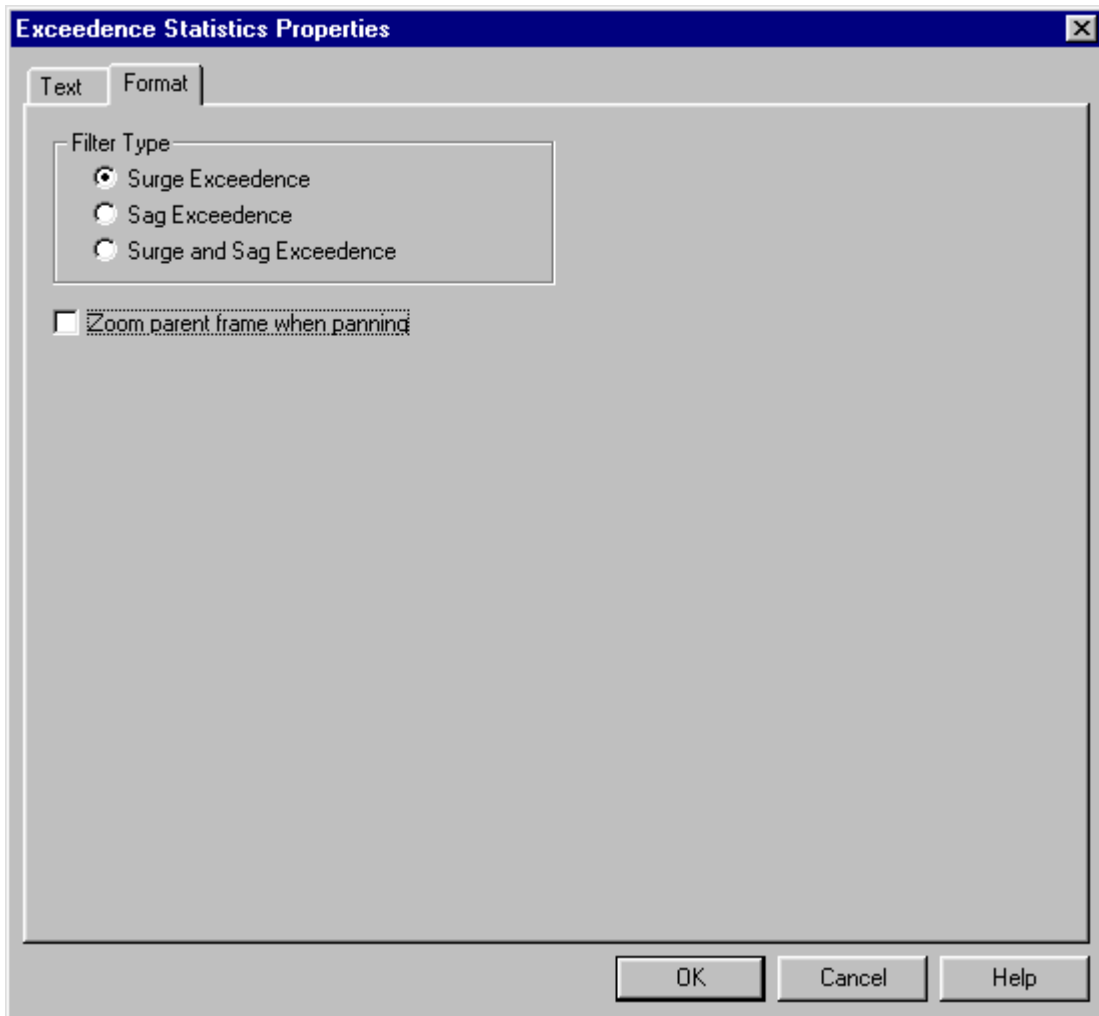
This page of the dialog box allows you to select the type of exceedence to select when performing panning operation. You can select Surge, Sag or both.

Placing a check in the **Zoom parent frame when panning** will enable automatic zooming of the parent graph when stepping through exceedence events.

See Also

14.31   Exceedence Statistics Frame
14.6   Tabs dialog box

14.34 Exceedence List Frame

The Exceedence List frame is a child frame linked to either a Channel Graph of Micro-Graph frame. The Exceedence List frame displays a textual list of the exceedence records in the database attached to its parent frame. You can customize the text displayed using the Exceedence List Properties dialog box. The displayed text is obtained from the exceedence records in the recorded data contained within the parent frame.

You can step between exceedence list entries. Selecting **Pan To Start** displays the first exceedence event. Selecting **Pan To End** displays the last captured exceedence event. Selecting the **Step Right** or **Step Left** displays the next or previously captured event.

When stepping through the captured exceedence events, the selection will move from each exceedence for the channel associated with the currently displayed event. After the last event for the current channel, the first (or last depending on direction of stepping) event for the next (or previous) channel will be displayed.

In addition to stepping through the list with the tool bar, you can select a specific event listed using the mouse pointer. The text for the selected event will be highlighted, indicating which event in the list is currently selected.

Enabling **Zoom parent frame on selection** (see Exceedence List Properties dialog box) will cause the parent graph to zoom to the time period associated with the newly selected event. If the parent frame is a Micro-Graph then the auto zooming function will result in the Micro-Graphs frames parent being updated (gray area) to display the relative time and location of the selected waveform.

See Also

13.2   Graph Frame
14.21   Creating a Linked Frame
14.34   Exceedence List Properties dialog box

14.35 Exceedence List Properties dialog box

Format Page

The Exceedence List Properties dialog box allows you to specify what is displayed in its associated Exceedence List Frame. This page of the dialog box allows you to select the type of exceedence to filter when building the exceedence list. You can select Surge, Sag or both.

You can also specify the sort order when displaying the exceedence events. To change the sort order, select an item in the Sort Order list and select the Prompt or Demote button. Entries higher in the list will have a higher priority. Entries lower in the list will have a lower priority.

The list can be displayed (sorted) in either descending or ascending order. This primary order is specified via the radio buttons in the Sort Type radio group.

You can also limit the number of entries displayed in the list by entering a value in the **List size limit** dialog field.

Scrolling

> **Enable scrolling**: placing a check next to this option causes the frame to only display the specified number of lines. Scroll bars are displayed along the right side of the frame to move through the list.

> **Window size**: specifies the **maximum** number of lines to be display in the frame for scrolling.

Placing a check in the **Zoom parent frame on selection** will enable automatic zooming of the parent graph when stepping through or selecting exceedence events.

Parameters Page

The actual parameters displayed are selected on the dialog's second properties page. This page of the dialog box contains a list of available parameters and a list of selected parameters. The entries in the Selected parameters list are the items displayed on each line of the list. A parameter is added to the Selected parameters list by highlighting the desired parameter in the Available parameter list and pressing the **Add>>** button. Parameters are removed from the Selected parameter list by selecting the desired entry and pressing the **<<Remove** button.

Parameters can be moved up or down in the Selected parameters list by selecting the desired entry and pressing the **Promote** or **Demote** buttons. Parameters higher in the list are displayed before entries lower in the list. Promoting an entry moves it closer to the start of the displayed line. Demoting and entry moves it closer to the end of the displayed line.

The width of each column (parameter entry) can be automatically adjusted or you can specify a fixed with. To have the width of all columns automatically adjusted place a check next to the **Auto Width** option. If you want to specify a fixed column width remove the check from the **Auto Width** option. Then select the each selected parameter and specify a width in the **Field Width** edit box. The Field Width edit box sets the width for the selected parameter. You must select each parameter in turn to set its associated column width.

Selecting a parameter and then specifying the desired alignment can specify the horizontal alignment of each parameter. Each parameter has its own associated alignment. You must select each parameter in turn to change their associated column alignment.

A box can be drawn around the resulting list table by placing a check next to the **Draw box around frame** option. Removing the check from this option prevents the box for being drawn.

A grid can be drawn between each column and row of the table by placing a check next to the **Draw grid** option. Removing the check from this option prevents the grid from being drawn.

You can disable the relative highlighting of a parent graph by placing a check next to the **Disable relative highlight of parent frame** option. When not checked the parent graph will highlight the region of the graph corresponding to the start time and duration of the selected list entry.

You can also change the font used to display this text by clicking on the **Font** button and specifying the font attributes.

The **Make Default** button allows you to save the currently selected parameter list for future recall. Selecting the **Make Default** button saves the currently selected parameters, tab positions and text font into the Windows registry.

The **Load Default** button allows you to recall a previously saved parameter list, tab positions and text font.

Only a single default configuration can be saved at one time. Selecting the **Make Default** button over writes the previous default configuration.

See Also

14.36 Exception List Frame

The Exception List frame is a child frame linked to either a Channel Graph of Micro-Graph frame. The Exception List frame displays a textual list summary of the sample points for a given channel, which exceed user-specified thresholds. You can customize the text displayed using the Exception List Properties dialog box. The displayed text is obtained from the exceedence records in the recorded data contained within the parent frame.

You can step between exception list entries. Selecting **Pan To Start** displays the first exception entry. Selecting **Pan To End** displays the last exception entry. Selecting the **Step Right** or **Step Left** displays the next or previous list entry.

When stepping through the captured exception entries the selection will move from each exception for the associated channel.

In addition to stepping through the list with the tool bar, you can select a specific entry listed using the mouse pointer. The text for the selected entry will be highlighted, indicating which entry in the list is currently selected.

Enabling **Zoom parent frame on selection** (see Exception List Properties dialog box) will cause the parent graph to zoom to the time period associated with the newly selected entry. If the parent frame is a Micro-Graph, then the auto zooming function will result in the Micro-Graphs frames parent being updated (gray area) to display the relative time and location of the selected waveform.

See Also

13.2   Graph Frame
14.21   Creating a Linked Frame
14.36   Exception List Properties dialog box

14.37 Exception List Properties dialog box

The Exception List Properties dialog box allows you to specify what is displayed in its associated Exception List frame.

Format Page

This page of the dialog box allows you to specify the channel and limits to be used in creating the exception report. The items in this dialog box are defined as follows:

Database: Indicates the name of the database containing the recorded channel data. It is available for information only and is obtained from the parent trend graph.

Selected trace: When selected, the exception report will be generated for the trace selected in the parent frame. When another trace is selected in the parent frame, the exception report will be updated to reflect the measurements of the newly selected trace.

Available channels: A list of the channels contained in the parent graphs database. Select the channel to be used in the exception report. Only a single channel can be selected at one time. While **Selected trace** is checked you will not be able to select an entry in this list.

Show all: A check box, which acts as a filter mechanism. When checked, all the recorded channels contained within the parents database are displayed. When not checked, only the channels, which have been selected for display in the parent graph are displayed. While **Selected trace** is checked, this option is disabled and you will not be able to select this item.

Lock frame data: When checked, the displayed exception report becomes static. Changes to the parent frame do not affect the exception report. When not checked, changes to the parent frame (as will be described shortly) affect the exception report.

Limit list to parent display frame: When checked, the exception report is limited to the zoomed section of the parent graph frame. When not checked, the entire time frame of the recorded channel is included in the exception report.

Zoom parent frame on selection: When checked, the parent graph is automatically zoomed to the time period associated with the newly selected entry. If the parent frame is a Micro-Graph, then the auto zooming function will result in the Micro-Graph frame's parent being updated (gray area) to display the relative time and location of the selected list entry.

Exception filter: A set of radio buttons that define how the specified limits are to be used. They are defined as follows:

- **Above upper limit**: When selected, only the upper limit is used. The lower limit edit box is disabled and grayed. If the Inclusive check box is selected, the exception report includes measurements equal to and above the upper limit. When the Inclusive check box is not selected, the exception report includes only values above the upper limit.

- **Below lower limit**: When selected, only the lower limit is used. The upper limit edit box is disabled and grayed. If the Inclusive check box is selected, the exception report includes measurements equal to and below the lower limit. When the Inclusive check box is not selected, the exception report includes only values below the lower limit.

- **Within upper and lower limits**: When selected, both the upper and lower limit edit boxes are enabled. If the Inclusive check box is selected, the exception report includes measurements that are equal to or greater than the lower limit and lower than or equal to the upper limit. When the Inclusive check box is not selected, only values that are greater than the lower limit and less than the upper limit are included.

- **Outside upper and lower limits**: When selected, both the upper and lower limit edit boxes are enabled. If the Inclusive check box is selected, the exception report includes measurements that are equal to the lower limit, or less than the lower limit, or equal to the upper limit, or greater than the upper limit. When the Inclusive check box is not selected, only values that are less than the lower limit or greater than the upper limit are included.

Inclusive: When checked, the exception report includes the specified limits. When not checked, the exception report does not include the limit values. See Exception type above for more.

Get limits from database: Some instruments (such as the PowerPad) specify upper and lower exception limits when the database is created. When this option is checked and the limits are specified in the database then those limits will be used. If the limits are not specified in the database then the limits specified here will be used. When not checked only the limits specified here will be used even if they are specified in the database.

Upper limit: Specifies the upper limit of the exception report. See Exception type above for more.

Lower limit: Specifies the lower limit of the exception report. See Exception type above for more.

Display limit bands: placing a check next to this option causes horizontal lines at the specified limit ranges to be displayed on the parent graph.

Limit color: specifies the color of the limit bars to be displayed on the parent graph.

Scrolling

> **Enable scrolling**: placing a check next to this option causes the frame to only display the specified number of lines. Scroll bars are displayed along the right side of the frame to move through the list.

> **Window size**: specifies the **maximum** number of lines to be display in the frame for scrolling.

When the **Limit list to parent display frame** check box is selected, any change to the zoomed state of the parent graph window will result in the exception report being updated for the selected time frame.

By combining the **Limit list to parent display frame** and **Selected trace** options, the exception report will become dynamic. The associated channel and time frame are updated as you interact with the parent frame graph.

Placing a check next to **Lock frame data,** results in the exception report becoming static. The dynamic nature of the report is disabled when the Lock frame data option is checked.

Parameters Page

The actual parameters displayed are selected on the dialog's second properties page. This page of the dialog box contains a list of available parameters and a list of selected parameters. The entries in the Selected parameters list are the items displayed on each line of the list. A parameter is added to the Selected parameters list by highlighting the desired parameter in the Available parameter list and pressing the **Add>>** button. Parameters are removed from the Selected parameter list by selecting the desired entry and pressing the **<<Remove** button.

Parameters can be moved up or down in the Selected parameters list by selecting the desired entry and pressing the **Promote** or **Demote** buttons. Parameters higher in the list are displayed before entries lower in the list. Promoting an entry moves it closer to the start of the displayed line. Demoting and entry moves it closer to the end of the displayed line.

The width of each column (parameter entry) can be automatically adjusted or you can specify a fixed with. To have the width of all columns automatically adjusted place a check next to the **Auto Width** option. If you want to specify a fixed column width remove the check from the **Auto Width** option. Then select the each selected parameter and specify a width in the **Field Width** edit box. The Field Width edit box sets the width for the selected parameter. You must select each parameter in turn to set its associated column width.

Selecting a parameter and then specifying the desired alignment can specify the horizontal alignment of each parameter. Each parameter has its own associated alignment. You must select each parameter in turn to change their associated column alignment.

A box can be drawn around the resulting list table by placing a check next to the **Draw box around frame** option. Removing the check from this option prevents the box for being drawn.

A grid can be drawn between each column and row of the table by placing a check next to the **Draw grid** option. Removing the check from this option prevents the grid from being drawn.

You can disable the relative highlighting of a parent graph by placing a check next to the **Disable relative highlight of parent frame** option. When not checked the parent graph will highlight the region of the graph corresponding to the start time and duration of the selected list entry.

You can also change the font used to display this text by clicking on the **Font** button and specifying the font attributes.

The **Make Default** button allows you to save the currently selected parameter list for future recall. Selecting the **Make Default** button saves the currently selected parameters, tab positions and text font into the Windows registry.

The **Load Default** button allows you to recall a previously saved parameter list, tab positions and text font.

Only a single default configuration can be saved at one time. Selecting the **Make Default** button over writes the previous default configuration.

See Also

14.35   Exception List Frame

14.38 Trend Summary List Frame

The Trend Summary List frame is a child frame linked to either a Channel Graph of Micro-Graph frame. The Trend Summary List frame displays a textual list summary of the sample points for a given channel. Each summary line contains the minimum, maximum and average values of a

group of sample points. You can specify the number of samples to be summarized, as well as, customize the text displayed using the Trend Summary List Properties dialog box. The displayed text is obtained from the combined sample points in the recorded data contained within the parent frame.

You can step between list entries. Selecting **Pan To Start** displays the first list entry. Selecting **Pan To End** displays the last list entry. Selecting the **Step Right** or **Step Left** displays the next or previous list entry.

When stepping through the captured list entries, the selection will move from each entry for the associated channel.

In addition to stepping through the list with the tool bar, you can select a specific entry listed using the mouse pointer. The text for the selected entry will be highlighted, indicating which entry in the list is currently selected.

Enabling **Zoom parent frame on selection** (see Trend Summary List Properties dialog box) will cause the parent graph to zoom to the time period associated with the newly selected entry. If the parent frame is a Micro-Graph, then the auto zooming function will result in the Micro-Graph frame's parent being updated (gray area) to display the relative time and location of the selected waveform.

See Also

14.39 Trend Summary List Properties dialog box

Format Page

The Trend Summary List Properties Dialog Box allows you to specify what is displayed in its associated Trend Summary List frame. This page of the dialog box allows you to specify the summary options available for the Trend Summary report. The items in this dialog box are defined as follows:

Database: Indicates the name of the database containing the recorded channel data. It is available for information only and is obtained from the parent trend graph.

Selected trace: When enabled, the trend summary report will be generated for the trace selected in the parent frame. When another trace is selected in the parent frame, the report will be updated to reflect the measurements of the newly selected trace.

Show all: A check box, which acts as a filter mechanism. When checked, all the recorded channels contained within the parent's database are displayed. When not checked, only the channels that have been selected for display in the parent graph are displayed. While **Selected trace** is checked, this option is disabled and you will not be able to select this item.

Available channels: A list of the channels contained in the parent graph's database. Select the channel to be used in the trend summary report. Only a single channel can be selected at one time. While **Selected trace** is checked, you will not be able to select an entry in this list.

Lock frame data: When checked, the displayed trend summary report becomes static. Changes to the parent frame do not affect the trend summary report. When not checked, changes to the parent frame (as will be described shortly) affect the trend summary report.

Zoom parent frame on selection: When checked, the parent graph is automatically zoomed to the time period associated with the newly selected entry. If the parent frame is a Micro-Graph, then the auto zooming function will result in the Micro-Graph frame's parent being updated (gray area) to display the relative time and location of the selected list entry.

Limit summary to parent window: When checked, the trend summary report is limited to the zoomed section of the parent graph frame. When not checked, the entire time frame of the recorded channel is included in the trend summary report.

Summary Type: A set of radio buttons, which define how the sample points are to be combined when generating the report. They are defined as follows:

- **Average by sample count:** When selected, the value contained in the associated edit box is used to indicate the number of samples that are combined for each list entry. For example, if this option is selected and the edit box contains 10, every 10 samples will be compared for the minimum and maximum values to display in a list entry. Also, the 10 samples will be averaged for each list entry.

- **Average by sample period**: When selected, the time period contained in the associated drop down list is used to indicate the number of samples that are combined for each list entry. The actual number of samples combined will depend on the storage rate of the recorded data. For example, if the recorded data were stored at 1-second intervals and a 1-minute averaging is selected, 60 samples will be combined for each summary list entry.

Scrolling

> **Enable scrolling**: placing a check next to this option causes the frame to only display the specified number of lines. Scroll bars are displayed along the right side of the frame to move through the list.

> **Window size**: specifies the **maximum** number of lines to be display in the frame for scrolling.

When the **Limit summary to parent window** check box is selected, any change to the zoomed state of the parent graph window will result in the trend summary report being updated for the selected time frame. By combining the **Limit summary to parent window** and **Selected trace** options, the trend summary report becomes dynamic. The associated channel and time frame of the summary list are updated as you interact with the parent frame graph. Placing a check next to **Lock frame data** results in the exception report becoming static. The dynamic nature of the report is disabled when the Lock frame data option is checked.

Parameters Page

The actual parameters displayed are selected on the dialog's second properties page. This page of the dialog box contains a list of available parameters and a list of selected parameters. The entries in the Selected parameters list are the items displayed on each line of the list. A parameter is added to the Selected parameters list by highlighting the desired parameter in the Available parameter list and pressing the **Add>>** button. Parameters are removed from the Selected parameter list by selecting the desired entry and pressing the **<<Remove** button.

Parameters can be moved up or down in the Selected parameters list by selecting the desired entry and pressing the **Promote** or **Demote** buttons. Parameters higher in the list are displayed before entries lower in the list. Promoting an entry moves it closer to the start of the displayed line. Demoting and entry moves it closer to the end of the displayed line.

The width of each column (parameter entry) can be automatically adjusted or you can specify a fixed with. To have the width of all columns automatically adjusted place a check next to the **Auto Width** option. If you want to specify a fixed column width remove the check from the **Auto Width** option. Then select the each selected parameter and specify a width in the **Field Width** edit box. The Field Width edit box sets the width for the selected parameter. You must select each parameter in turn to set its associated column width.

Selecting a parameter and then specifying the desired alignment can specify the horizontal alignment of each parameter. Each parameter has its own associated alignment. You must select each parameter in turn to change their associated column alignment.

A box can be drawn around the resulting list table by placing a check next to the **Draw box around frame** option. Removing the check from this option prevents the box for being drawn.

A grid can be drawn between each column and row of the table by placing a check next to the **Draw grid** option. Removing the check from this option prevents the grid from being drawn.

You can disable the relative highlighting of a parent graph by placing a check next to the **Disable relative highlight of parent frame** option. When not checked the parent graph will highlight the region of the graph corresponding to the start time and duration of the selected list entry.

You can also change the font used to display this text by clicking on the **Font** button and specifying the font attributes.

The **Make Default** button allows you to save the currently selected parameter list for future recall. Selecting the **Make Default** button saves the currently selected parameters, tab positions and text font into the Windows registry.

The **Load Default** button allows you to recall a previously saved parameter list, tab positions and text font.

Only a single default configuration can be saved at one time. Selecting the **Make Default** button over writes the previous default configuration.

See Also

14.37   Trend Summary List Frame

14.40 Channel List Frame

The Channel List frame can be used independently or as a child frame linked to a Channel Graph frame. The Channel List frame displays a textual list of records for a specified list of channels.

When used independently you specify the database to be loaded. When created independently you can link other frames to it just as if it were a Graph frame.

Enabling **Zoom parent frame on selection** will cause the parent graph to zoom to the time period associated with the newly selected channel record entry.

Enabling **Force display of trace** will cause the trace for the selected channel record to be enabled for display in the parent frame even if it was not already. This has the effect of forcing the display of a channel record even if previously disabled.

See Also

13.2   Graph Frame
14.21   Creating a Linked Frame
14.40   Channel List Properties dialog box

14.41 Channel List Properties dialog box

The Channel List Properties dialog box allows you to specify what is displayed in its associated list frame.

Channel List Page

The first page of the Channel List Properties dialog box is illustrated in the following figure.
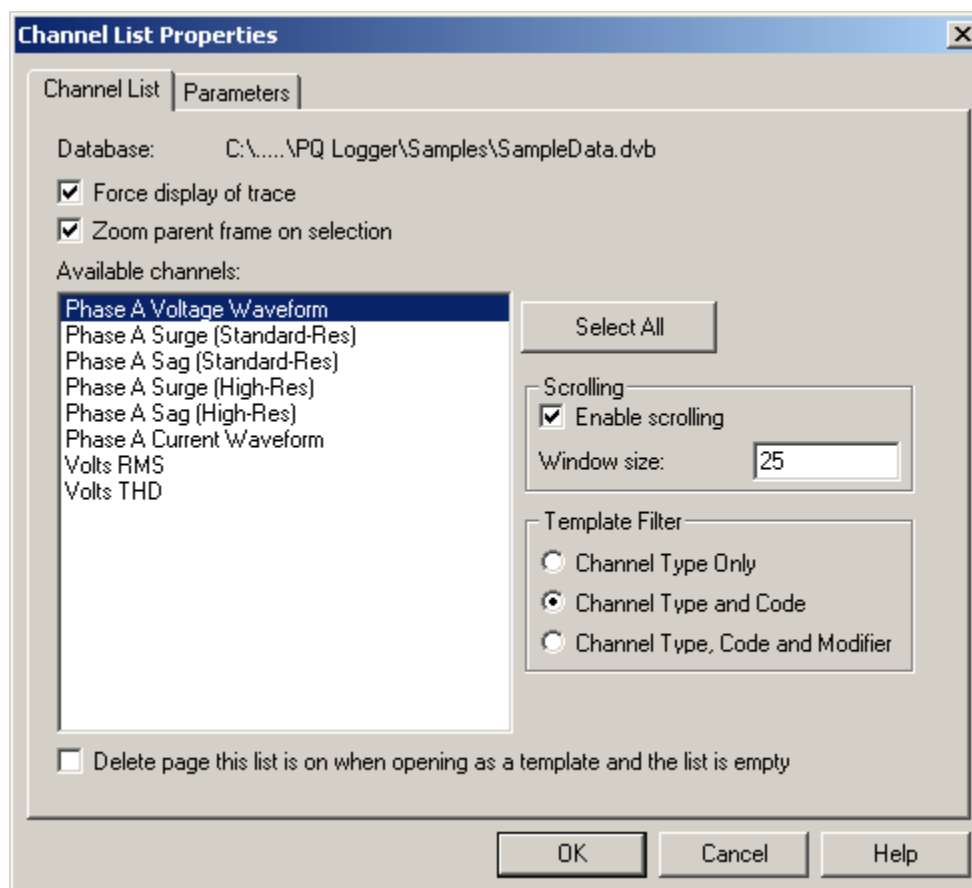
This page of the dialog box allows you to specify the summary options available for the Channel List report frame. The items in this dialog box are defined as follows:

Database: Indicates the name of the database containing the recorded channel data. It is available for information only and is obtained from the parent trend graph.

Force display of trace: When selected, the trace for the selected channel record will be enabled for display in the parent frame even if it was not already. This has the effect of forcing the display of a channel record even if previously disabled.

Zoom parent frame on selection: When checked, the parent graph is automatically zoomed to the time period associated with the newly selected entry.

Available channels: A list of the channels contained in the parent graph's database. Select the channel(s) to be used in the channel list report frame. One or more channels can be selected. To select more than one entry press and hold down the CTRL key while right clicking a list entry.

Select All: When selecting this button all entries in the Available channels list will be selected for inclusion in the list frame.

Deselect All: When selecting this button all entries in the Available channels list will be deselected for inclusion in the list frame.

Scrolling

> **Enable scrolling**: placing a check next to this option causes the frame to only display the specified number of lines. Scroll bars are displayed along the right side of the frame to move through the list.

> **Window size**: specifies the **maximum** number of lines to be display in the frame for scrolling.

Template Filter: Allows you to specify how channels should be included when this view is saved and used as a template to open other databases. The options available are

- **Channel Type Only**: when selected any channel of the same type (for example voltage waveforms) as those currently selected for display will be automatically included for display regardless of the channels code and modifier.

- **Channel Type and Code**: when selected any channel of the same type and with the same measurement code will be automatically included for display regardless of the channels modifier.

- **Channel Type, Code and Modifier**: when selected only channels with the same data type, same measurement code and same measurement modifier will be automatically included for display.

Delete page this list is on when opening as a template and the list is empty: this option allows empty pages to be deleted automatically when creating a view from a template. For example if we add a page that contains a channel list for a specific channel type we can have the page deleted automatically if a database that does not contain this channel type is opened using this template. The page become optional and only added to the view if the list is not empty.

Parameters Page

The actual parameters displayed are selected on the dialog's second properties page. This page is illustrated in the following figure.
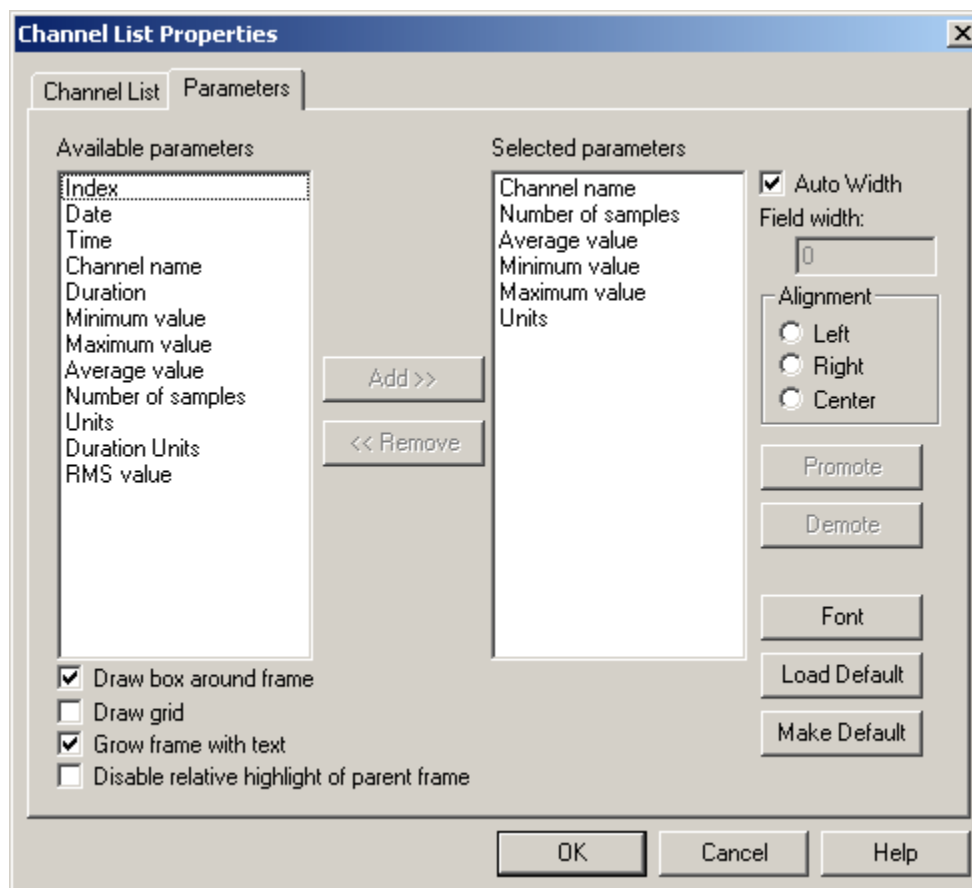
This page of the dialog box contains a list of available parameters and a list of selected parameters. The entries in the Selected parameter list are the items displayed on each line of the list. A parameter is added to the Selected parameters list by highlighting the desired parameter in the Available parameter list and pressing the **Add>>** button. Parameters are removed from the Selected parameter list by selecting the desired entry and pressing the **<<Remove** button.

Parameters can be moved up or down in the Selected parameters list by selecting the desired entry and pressing the **Promote** or **Demote** buttons. Parameters higher in the list are displayed before entries lower in the list. Promoting an entry moves it closer to the start of the displayed line. Demoting and entry moves it closer to the end of the displayed line.

The width of each column (parameter entry) can be automatically adjusted or you can specify a fixed with. To have the width of all columns automatically adjusted place a check next to the **Auto Width** option. If you want to specify a fixed column width remove the check from the **Auto Width** option. Then select the each selected parameter and specify a width in the **Field Width** edit box. The Field Width edit box sets the width for the selected parameter. You must select each parameter in turn to set its associated column width.

Selecting a parameter and then specifying the desired alignment can specify the horizontal alignment of each parameter. Each parameter has its own associated alignment. You must select each parameter in turn to change their associated column alignment.

A box can be drawn around the resulting list table by placing a check next to the **Draw box around frame** option. Removing the check from this option prevents the box for being drawn.

A grid can be drawn between each column and row of the table by placing a check next to the **Draw grid** option. Removing the check from this option prevents the grid from being drawn.

You can disable the relative highlighting of a parent graph by placing a check next to the **Disable relative highlight of parent frame** option. When not checked the parent graph will highlight the region of the graph corresponding to the start time and duration of the selected list entry.

You can also change the font used to display this text by clicking on the **Font** button and specifying the font attributes.

The **Make Default** button allows you to save the currently selected parameter list for future recall. Selecting the **Make Default** button saves the currently selected parameters, tab positions and text font into the Windows registry.

The **Load Default** button allows you to recall a previously saved parameter list, tab positions and text font.

Only a single default configuration can be saved at one time. Selecting the **Make Default** button over writes the previous default configuration.

See Also

14.42 Channel Summary Frame

The Channel Summary frame is a child frame linked to a Channel Graph frame. The Channel Information frame has replaced the Channel Summary frame. The Channel Summary frame is available for older templates and views that use it.

The Channel Summary frame displays a textual summary of the channel record trace selected in its parent frame. You can customize the text displayed using the Channel Summary Properties dialog box. The displayed text is obtained from the trace selected in the parent frame.

The Channel Summary frame contains static and dynamic text. Static text is displayed as it was typed into the Channel Summary Properties dialog box. Dynamic text is generated through field substitution. The value obtained from the parent frame of the specified field is substituted for the field name.

Surrounding the exceedence statistics field name with square brackets, specifies dynamic text. For example, if the Exceedence Type field of the selected exceedence trace is **Sag**, placing the text **[Exceedence Type]** in the Exceedence Statistics Text edit box will result in **Sag** being displayed in its place on the page.

Dynamic text substitution is useful for templates that create a view when recorded data is attached to it. The field name will reflect the name contained in the attached database, which may be different from database to database.

See Also

14.43 Channel Summary Properties dialog box

The Channel Summary Properties dialog box allows you to specify what type of channel record and what is displayed in its associated Channel Summary frame. The first page of the Channel Summary Properties dialog box is illustrated in the following figure.
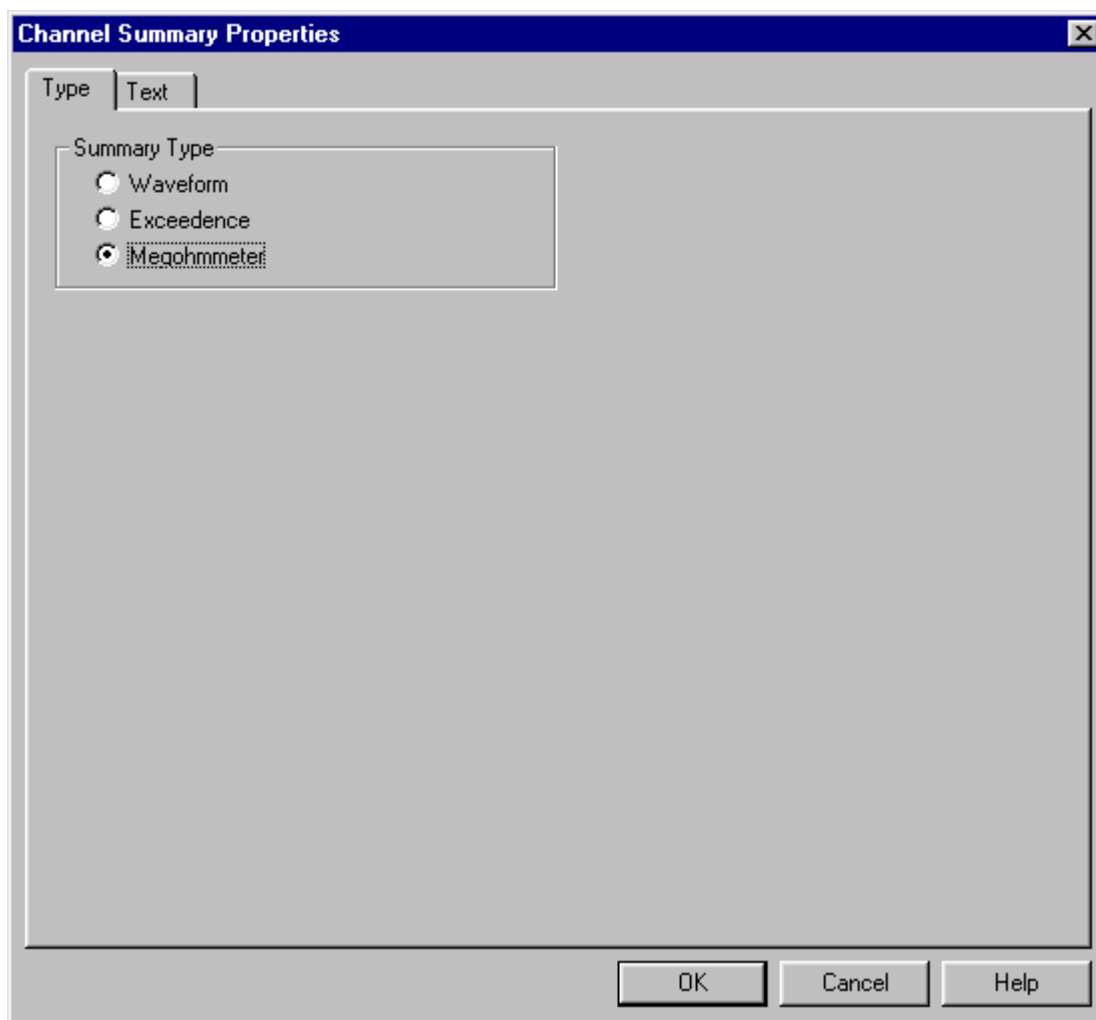
This page of the dialog box contains a set of radio buttons that allow you to define what type of channel records this frame should display a summary for.

The text to be displayed is specified in the second page of this dialog box. This page is illustrated in the following figure:

This page of the dialog box contains an edit box into which you type the static and dynamic text to be displayed in the Channel Summary frame. It also contains a list box from which you can select field names, field values and field codes.

Static text is displayed as it is typed into the Text edit box. Dynamic text is generated through field substitution. The value of the specified field as obtained from the Channel Summary frame's parent is substituted for the field name.

Surrounding the field name with square brackets, specifies dynamic text. For example, if the DAR field of the selected megohmmeter test measurement trace is **1.000**, placing the text **[DAR]** in the Channel Summary Text edit box will result in **1.000** being displayed in its place on the page.

Dynamic text substitution is useful for templates, which create a view when session data is attached to it. The field name will reflect the name contained in the attached database, which may be different from database to database.

Channel Summary fields can be added to the Text edit box in a number of ways. First, place the cursor in the Text edit box were the Channel Summary field is to be inserted. Next, click on the Channel Summary field (in the list box) to be inserted. The next step depends on what you want inserted. To insert the field name as static text, click on the **Insert Field Name** button (notice brackets are not placed around the field name). To insert the field value as static text, click on the **Insert Field Value** button (notice that the value displayed in the list box is inserted). To insert the

field value as dynamic text, click on the **Insert Field Code** button (notice that the name of the field surrounded by square brackets is inserted).

If the selected Field does not have a current value associated with it the **Insert Field Value** button will be grayed and unavailable.

As in any text editor, pressing the Enter key will create a new line. Pressing the Tab key will position the cursor to the next tab position. You can change the default tab positions by selecting the Tabs button. This will display the Tabs dialog box.

You can also change the font used to display this text by clicking on the **Font** button and specifying the font attributes.

See Also

14.44 Channel Information Frame

The Channel Information frame is a child frame linked to a Channel Graph frame. The Channel Information frame displays a textual summary of the channel record trace selected in its parent frame. You can customize the text displayed using the Channel Summary Properties dialog box. The displayed text is obtained from the trace selected in the parent frame.

The Channel Information frame contains static and dynamic text. Static text is displayed as it was typed into the Channel Summary Properties dialog box. Dynamic text is generated through field substitution. The value obtained from the parent frame of the specified field is substituted for the field name.

Surrounding the exceedence statistics field name with square brackets, specifies dynamic text. For example, if the Exceedence Type field of the selected exceedence trace is **Sag**, placing the text **[Exceedence Type]** in the Exceedence Statistics Text edit box will result in **Sag** being displayed in its place on the page.

Dynamic text substitution is useful for templates that create a view when recorded data is attached to it. The field name will reflect the name contained in the attached database, which may be different from database to database.

14.45 Channel Information Properties dialog box

The Channel Information Properties dialog box allows you to specify what type of channel record and what is displayed in its associated Channel Information frame. The first page of the Channel Information Properties dialog box is illustrated in the following figure.
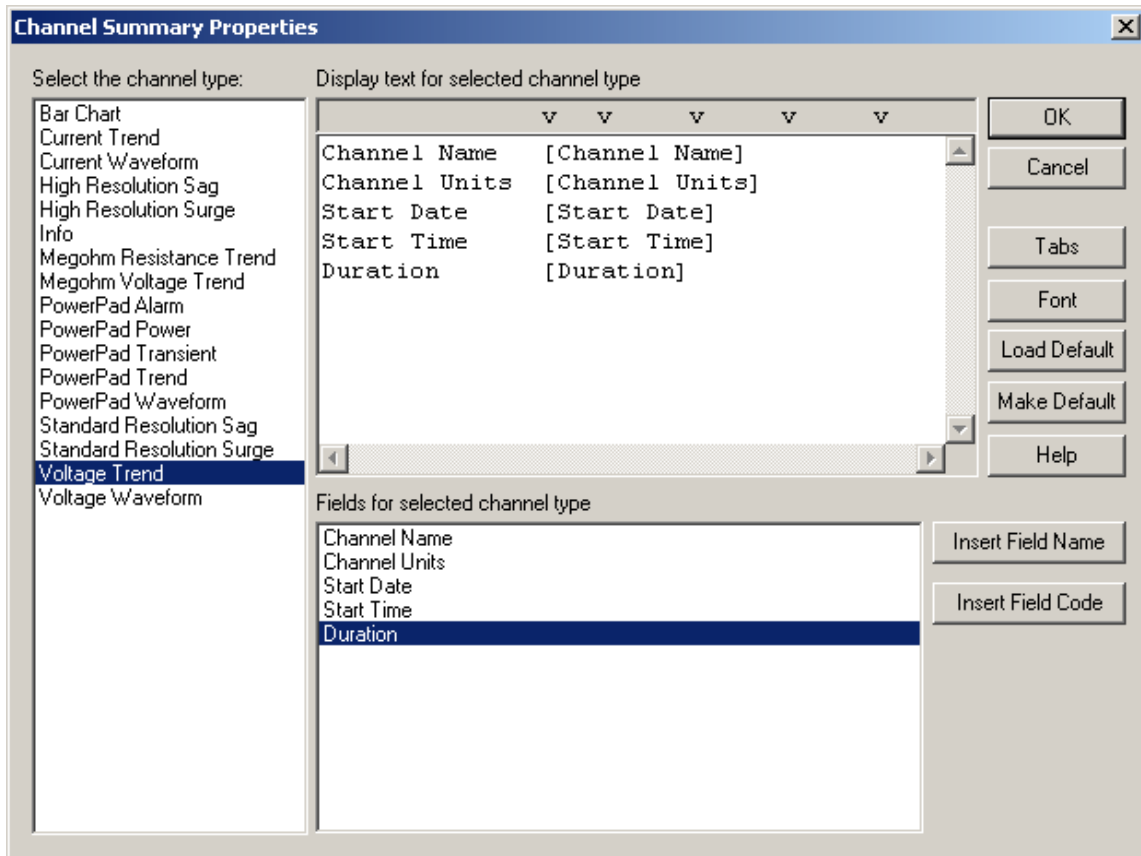
This page of the dialog box contains a list of channel measurement types. Each measurement type has its own substitution text. You first select the channel type then select the **Text** dialog tab and specify the associated text.

The text to be displayed for the selected channel type is specified in the second page of this dialog box. This page is illustrated in the following figure:

This page of the dialog box contains an edit box into which you type the static and dynamic text to be displayed in the Channel Summary frame. It also contains a list box from which you can select field names, field values and field codes.

Static text is displayed as it is typed into the Text edit box. Dynamic text is generated through field substitution. The value of the specified field as obtained from the Channel Summary frame's parent is substituted for the field name.

Surrounding the field name with square brackets, specifies dynamic text. For example, if the DAR field of the selected megohmmeter test measurement trace is **1.000**, placing the text **[DAR]** in the Channel Summary Text edit box will result in **1.000** being displayed in its place on the page.

Dynamic text substitution is useful for templates, which create a view when session data is attached to it. The field name will reflect the name contained in the attached database, which may be different from database to database.
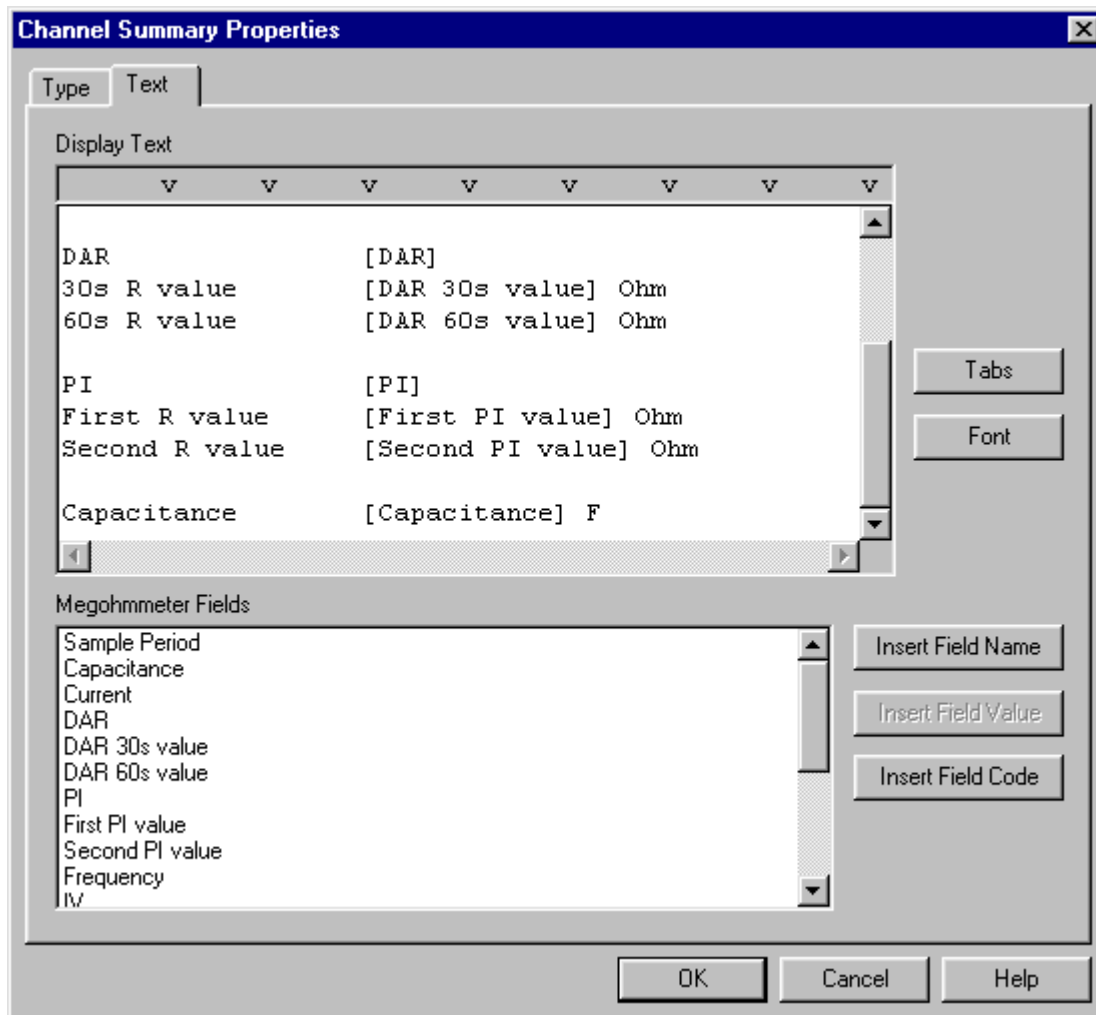
Channel fields can be added to the Text edit box in a number of ways. First, place the cursor in the Text edit box were the Channel field is to be inserted. Next, click on the Channel field (in the list box) to be inserted. The next step depends on what you want inserted. To insert the field name as static text, click on the **Insert Field Name** button (notice brackets are not placed around the field name). To insert the field value as static text, click on the **Insert Field Value** button (notice that the value displayed in the list box is inserted). To insert the field value as dynamic

text, click on the **Insert Field Code** button (notice that the name of the field surrounded by square brackets is inserted).

If the selected Field does not have a current value associated with it the **Insert Field Value** button will be grayed and unavailable.

As in any text editor, pressing the Enter key will create a new line. Pressing the Tab key will position the cursor to the next tab position. You can change the default tab positions by selecting the Tabs button. This will display the Tabs dialog box.

You can also change the font used to display this text by clicking on the **Font** button and specifying the font attributes.

14.46 Histogram Frame

A Histogram frame displays a bar chart of selected channels. As with graph frames you can customize the channels that are displayed and the colors of those channels. The channels are automatically grouped when displayed. The Histogram frame allows the following frames to be linked to it

- Channel Information: displays information about the selected bar

- Graph Legend: displays a legend for the bars being displayed.

- Session Summary: display summary information about the recording session.

A bar can be selected by positioning the mouse pointer over the desired bar and clicking the left mouse button. If a Channel Information frame is linked it will be updated to display information about the selected bar.

14.47 Histogram Properties dialog box

This dialog box consists of two pages. The first (**Channels**) page allows you to select the channels to be displayed in the trend graph frame.

Channels dialog page

Select a channel to be displayed by highlighting it (left clicking the mouse pointer on it) in the **Available channels** list, then click on the **Add>>** button. The selected channel will be added to the **Selected channels** list. You can remove channels from the selected channel list by highlighting it and clicking on the **<<Remove** button. You can add all of the available channels to the selected channels list by clicking on the **Add All>>** button. You can also remove all channels from the selected channel list by clicking on the **<<Remove All** button.

You can change the color used to draw each of the channels by highlighting its entry in the selected channel list and selecting an alternate color from the **Line color** drop down list. You can also specify a color, other than one in the color list, by specifying the amount of each color component in the Red, Green and Blue fields. In addition, you can use the color picker to select from a wider range of colors.

The color picker is displayed by clicking on the color palette icon . A color picker dialog will be displayed.

Template Filter: Allows you to specify how channels should be included when this view is saved and used as a template to open other databases. The options available are

- **Channel Type Only**: when selected any channel of the same type (for example voltage waveforms) as those currently selected for display will be automatically included for display regardless of the channels code and modifier.

- **Channel Type and Code**: when selected any channel of the same type and with the same measurement code will be automatically included for display regardless of the channels modifier.

- **Channel Type, Code and Modifier**: when selected only channels with the same data type, same measurement code and same measurement modifier will be automatically included for display.

Delete frame if selected channel list is empty when opening via a template: this option allows you to mark the frame (and all of the attached child frames) for deletion if the **Selected channels** list is empty after opening a database when this view is used as a template. Placing a check next to this option marks the frame for deletion if empty. When not checked the frame will not be deleted even if the database does not contain and similar channels (as defined by the **Template Filter** option).

Scales dialog page

The second (**Scales)** page of this dialog box allows you to specify how the vertical scales of the associated graph are to be drawn.

Placing a check next to **Automatically adjust vertical scale maximum** instructs DataViewer® to automatically adjust the upper end of the vertical scale to accommodate the displayed channels. Removing the check from this option causes the upper limit of the vertical scale to be fixed at the specified value.

Placing a check next to **Enable lower limit for vertical scale maximum** allows you to specify a value for which the upper end of the vertical scale is not allowed to go below.

Placing a check next to **Automatically adjust vertical scale minimum** instructs DataViewer® to automatically adjust the lower end of the vertical scale to accommodate the displayed channels. Removing the check from this option causes the lower limit of the vertical scale to be fixed at the specified value.

Placing a check next to **Display channel units on graph** causes the units for each channel selected for display to be displayed on the left side of the graph. When this option is selected you can also over-ride the default channel units and display other text as units.

When **Display channel units on graph** is selected you can check **Display channel units as**. Doing so allows you to enter any text you would like displayed for the vertical scale units in the edit box to the right.

Placing a check next to **Display upper threshold limit bar** allows you to draw a horizontal line at the specified limit level and color. The limit bar is drawn for reference only and is not used to analyze the selected channels.

Placing a check next to **Display lower threshold limit bar** allows you to draw a horizontal line at the specified limit level and color. The limit bar is drawn for reference only and is not used to analyze the selected channels.

Once the desired properties for this new Graph frame are specified, select the **OK** button. The frame will be created using the specified properties.

14.48 Bar Chart Meter

A Bar Chart Meter frame displays individual sample points for a selected point on a graph in bar chart format. As with graph frames you can customize the channels that are displayed and the colors of those channels. The channels are automatically grouped when displayed. The Bar Chart Meter frame allows the following frames to be linked to it

- Channel Information: displays information about the selected bar

- Graph Legend: displays a legend for the bars being displayed.

- Session Summary: display summary information about the recording session.

A bar can be selected by positioning the mouse pointer over the desired bar and clicking the left mouse button. If a Channel Information frame is linked it will be updated to display information about the selected bar.

14.49 Bar Chart Meter Properties dialog box

This dialog box consists of two pages. The first (**Channels**) page allows you to select the channels to be displayed in the trend graph frame.

Channels dialog page

Select a channel to be displayed by highlighting it (left clicking the mouse pointer on it) in the **Available channels** list, then click on the **Add>>** button. The selected channel will be added to the **Selected channels** list. You can remove channels from the selected channel list by highlighting it and clicking on the **<<Remove** button. You can add all of the available channels to the selected channels list by clicking on the **Add All>>** button. You can also remove all channels from the selected channel list by clicking on the **<<Remove All** button.

You can change the color used to draw each of the channels by highlighting its entry in the selected channel list and selecting an alternate color from the **Line color** drop down list. You can also specify a color, other than one in the color list, by specifying the amount of each color component in the Red, Green and Blue fields. In addition, you can use the color picker to select from a wider range of colors.

The color picker is displayed by clicking on the color palette icon ![icon]. A color picker dialog will be displayed.

Template Filter: Allows you to specify how channels should be included when this view is saved and used as a template to open other databases. The options available are

- **Channel Type Only**: when selected any channel of the same type (for example voltage waveforms) as those currently selected for display will be automatically included for display regardless of the channels code and modifier.

- **Channel Type and Code**: when selected any channel of the same type and with the same measurement code will be automatically included for display regardless of the channels modifier.

- **Channel Type, Code and Modifier**: when selected only channels with the same data type, same measurement code and same measurement modifier will be automatically included for display.

Delete frame if selected channel list is empty when opening via a template: this option allows you to mark the frame (and all of the attached child frames) for deletion if the **Selected channels** list is empty after opening a database when this view is used as a template. Placing a check next to this option marks the frame for deletion if empty. When not checked the frame will not be deleted even if the database does not contain and similar channels (as defined by the **Template Filter** option).

Scales dialog page

The second (**Scales)** page of this dialog box allows you to specify how the vertical scales of the associated graph are to be drawn.

Placing a check next to **Automatically adjust vertical scale maximum** instructs DataViewer® to automatically adjust the upper end of the vertical scale to accommodate the displayed channels. Removing the check from this option causes the upper limit of the vertical scale to be fixed at the specified value.

Placing a check next to **Enable lower limit for vertical scale maximum** allows you to specify a value for which the upper end of the vertical scale is not allowed to go below.

Placing a check next to **Automatically adjust vertical scale minimum** instructs DataViewer® to automatically adjust the lower end of the vertical scale to accommodate the displayed channels. Removing the check from this option causes the lower limit of the vertical scale to be fixed at the specified value.

Placing a check next to **Display upper threshold limit bar** allows you to draw a horizontal line at the specified limit level and color. The limit bar is drawn for reference only and is not used to analyze the selected channels.

Placing a check next to **Display lower threshold limit bar** allows you to draw a horizontal line at the specified limit level and color. The limit bar is drawn for reference only and is not used to analyze the selected channels.

Once the desired properties for this new Graph frame are specified, select the **OK** button. The frame will be created using the specified properties.

CHAPTER 15: WORKING WITH FRAMES

15.1   Modifying a Frame

Professional Version

Once a frame is created it can be moved, resized, cut, copied and pasted on the page. In addition, its associated properties can be modified.

See Also

15.2   Selecting a Frame

To select a frame for modification, use the Select Frame [ ] tool, then select the desired frame by placing the mouse pointer over it and clicking the left mouse button. Resize handles will be displayed around the selected frame. Figure 20 shows a Graph frame that has been selected.
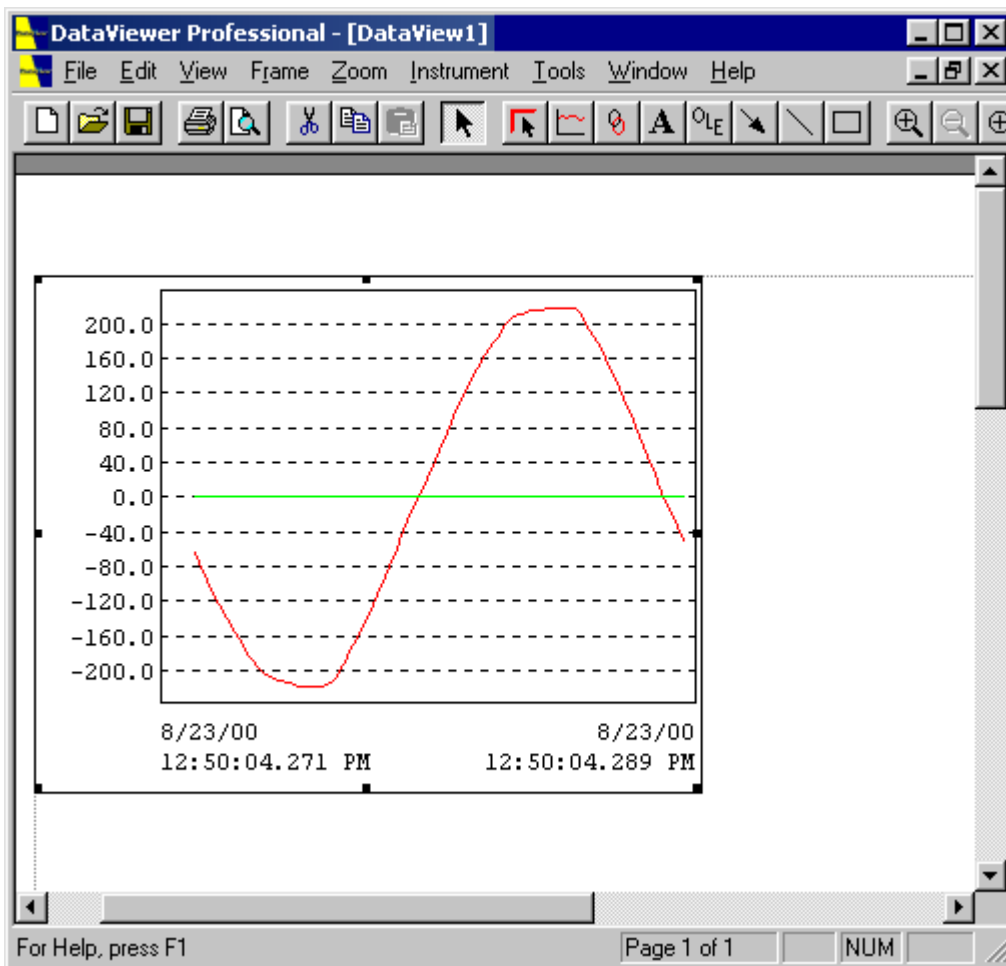

The graph frame has been selected and has the resize handles displayed. The resize handles are located in each of the four corners and at the middle of each of the four sides. When the mouse pointer is over a resize handle, the pointer changes to a resize arrow indicating the direction that handle will resize the frame in. To resize the frame, click on and drag the resize

handle in the required direction. Dragging the upper left handle leaves the lower right corner of the frame anchored and allows you to move the upper left corner of the frame. Each of the remaining corners allow you to move it leaving the corner diagonal to it fixed. Dragging one of the resize handles located in the middle of a side moves the corresponding side only, leaving the corners for the other side fixed.

Clicking and dragging in the center of the frame will move the frame (unless the frame is locked down). Notice the mouse pointer changes to four arrows when it is over the frame. When the mouse pointer is not over the selected frame, it is the default selection tool and does not allow the frame to be resized. In all cases, the displayed pointer indicates where and how the frame can be changed.

When a frame is placed within another frame you may not be able to select it. Figure 21 shows a text box within a graph frame.
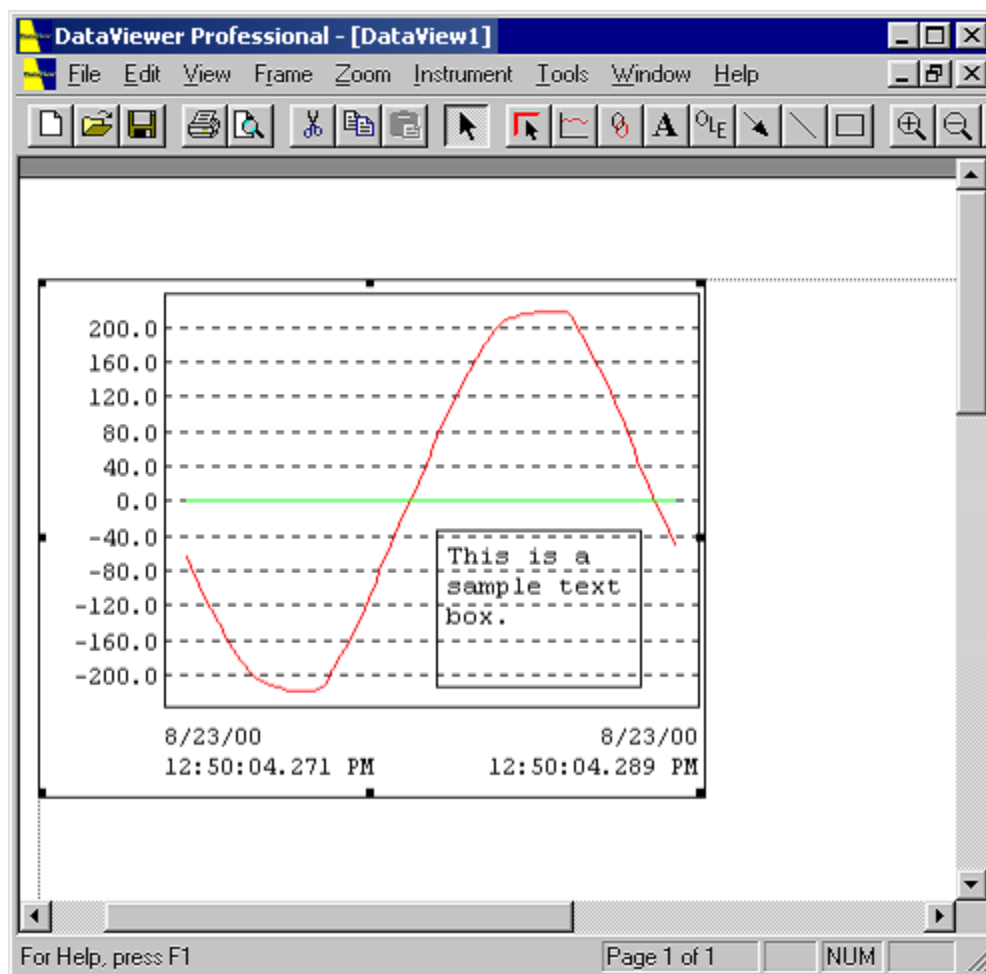
If the graph was placed on the page before the text box, the graph will be selected instead of the text. This is because it is first in the View's list of frames. When DataViewer® searches the list of frames for a possible selection, it will find the graph first and stop. To resolve this, you must send the graph frame to the end of the list. This is done by selecting the graph with the Select Frame tool and clicking on the Send To Back [icon] toolbar icon. This will move the selected frame to the end of the list. The next time you click on the text box, it will be found in the list before the graph frame and will be selected instead of the Graph frame.

Alternatively, you can bring a frame to the beginning of the list by selecting it and clicking on the Bring To Front [icon] toolbar icon. This will bring the selected frame to the beginning of the frame list.

The properties of a frame can be modified at any time by right clicking the mouse with the Select Frame tool over it. This will display a context sensitive menu giving options relevant to the type of frame the mouse pointer is over. All frames will have a Properties menu option. Selecting the Properties menu option will display the frame's corresponding properties dialog box. Change the properties as desired and select the **OK** button.

15.3   Cutting, Copying, and Pasting Frames

Professional Version

DataViewer® allows you to move (cut) and copy frames from a page to a temporary holding place called the clipboard. You can then paste the frame and its contents to the same page, another page within the same view or another page in another view. In addition to the Windows® clipboard, DataViewer® maintains its own application clipboard for cutting and pasting frames. The application clipboard is used to cut and past frames within the DataViewer® application. When frames are cut, their contents are also copied to the Windows® clipboard. The Windows® clipboard is used for copying data between application. Items copied to the Windows® clipboard can be pasted into other applications that support this function.

Use the Paste command to paste data in the application clipboard and the Paste Special command to paste from the Windows® Clipboard. The Paste Special command will paste the Windows® Clipboard data as an OLE frame. For more information on Paste Special see the Paste Special dialog box.

For specific operations see

15.4	Cutting a Frame	15.5	Copying a Frame
15.6	Pasting a Frame	15.8	Copying a Frame to Another Page
15.7	Moving a Frame to Another Page		

15.4   Cutting a Frame

Professional Version

Frames can be removed from a page at any time. To remove a frame and its contents from a page, perform the following steps:

1. Select the frame to be removed with the selection tool. The selected frame will display the resize handles.

2. Select the **Cut** command from the Edit menu or click on the Cut [icon] toolbar icon. The frame will be removed from the page.

The Cut menu command and the Cut toolbar icon are enabled only while a frame is selected.

Note: A frame with attached child frames can not be removed from the page before all the attached child frames.

See Also

15.1	Modifying a Frame	15.2	Selecting a Frame
15.3	Cutting, Copying, and Pasting Frames	15.4	Cutting a Frame
15.5	Copying a Frame	15.6	Pasting a Frame
15.8	Copying a Frame to Another Page	15.7	Moving a Frame to Another Page

15.5   Copying a Frame

Frames can be copied into the application and Windows® clipboards. Like the Cut Frame command, the contents of a frame is copied to the application and Windows® clipboard. Unlike the Cut command, the frame is not removed from the page, only copied to the clipboards. To copy a frame to the application and Windows® clipboards, perform the following steps:

1.   Select the frame to be copied with the selection tool. The selected frame will display the resize handles.

2.   Select the **Copy** command from the Edit menu or click on the Copy ![icon] toolbar icon. The frame and its contents will be copied to the application clipboard. The contents of the frame will also be copied to the Windows® clipboard. The frame will not be removed from the page.

The Copy menu command and the Copy toolbar icon are enabled only while a frame is selected.

See Also

15.1	Modifying a Frame	15.2	Selecting a Frame
15.3	Cutting, Copying, and Pasting Frames	15.4	Cutting a Frame
15.6	Pasting a Frame	15.8	Copying a Frame to Another Page
15.7	Moving a Frame to Another Page		

15.6   Pasting a Frame

Professional Version

Frames previously cut or copied to the application clipboard can be pasted onto the same page they were copied (or cut) from. They can also be pasted onto another page within the same view or a page within another view. To paste a frame onto a page, perform the following steps:

1.   Scroll to the page that the frame is to be pasted on.

2.   Select the **Paste** command from the Edit menu or click on the Paste ![icon] toolbar icon. The frame and its contents currently in the application clipboard will be placed on the currently displayed page.

The page the frame will be pasted onto is the current page. The current page is indicated in the page number pane on the status bar. For example, if the current page is number one of a two-page view, the page number status pane will contain **Page 1 of 2**.

The Paste command and the Paste toolbar icon are enabled only when a frame is in the application clipboard.

See Also

15.1	Modifying a Frame	15.2	Selecting a Frame
15.3	Cutting, Copying, and Pasting Frames	15.4	Cutting a Frame
15.5	Copying a Frame	15.8	Copying a Frame to Another Page
15.7	Moving a Frame to Another Page		

15.7   Moving a Frame to Another Page

Professional Version

When dragging a frame around in a view, you can only move it to another location on the same page. You can not drag it from one page to another. To move frames from one page to another, use the application clipboard as a temporary holding place. To move a frame from one page to another, perform the following steps:

1.   Select the frame to be removed with the selection tool. The selected frame will display the resize handles.

2. Select the **Cut** command from the Edit menu or click on the Cut [icon] toolbar icon. The frame will be removed from the page.

3. Scroll to the page the frame is to be pasted on, making sure that only the desired page is displayed. If part of the preceding page is displayed when the mouse is moved up to the toolbar or menu bar, the current page will change to that page as the mouse pointer passes over it. When the frame is pasted, it is pasted to the current page.

4. Select the **Paste** command from the Edit menu or click on the Paste [icon] toolbar icon. The frame will be pasted onto the current page.

Once the frame is pasted onto the desired page, you can move it to anywhere on that page.

See Also

15.1 Modifying a Frame	15.6 Pasting a Frame
15.2 Selecting a Frame	15.8 Copying a Frame to Another Page
15.3 Cutting, Copying, and Pasting Frames	15.4 Cutting a Frame
15.5 Copying a Frame	

15.8 Copying a Frame to Another Page

Professional Version

When copying a frame within DataViewer®, it is copied to the current page. To copy a frame from one page to another, copy the frame from the page it is on, then scroll to the desired page and paste it. To copy a frame from one page to another, perform the following steps:

1. Select the frame to be removed with the selection tool. The selected frame will display the resize handles.

2. Select the **Copy** command from the Edit menu or click on the Copy [icon] toolbar icon. The frame will be copied to the application and Windows® clipboard.

3. Scroll to the page the frame is to be pasted on. Make sure that only the desired page is displayed. If part of the preceding page is displayed when the mouse is moved up to the toolbar or menu bar, the current page will change to that page as the mouse pointer passes over it. When the frame is pasted, it is pasted to the current page.

4. Select the **Paste** command from the Edit menu or click on the Paste [icon] toolbar icon. The frame will be pasted onto the current page.

Once the frame is pasted onto the desired page, you can move it to anywhere on that page.

See Also

15.1 Modifying a Frame	15.2 Selecting a Frame
15.3 Cutting, Copying, and Pasting Frames	15.4 Cutting a Frame
15.5 Copying a Frame	15.6 Pasting a Frame
15.7 Moving a Frame to Another Page	

15.9 Locking a Frame in Place

Professional Version

When a frame is placed on a view, you are free to move it around and change its size. This also allows you to accidentally move or change its size. You can prevent this from occurring by locking the frame's position and size. This is accomplished using the Lock Frame command. This command is accessible via the Frame menu and the popup menu. The popup menu is displayed by clicking the right mouse button, while the mouse cursor is over the desired frame.

When a frame is locked, it will remain at a fixed location and size. Once a frame is locked, it will remain locked until it is unlocked via the Unlock Frame command.

The Lock Frame command is only available when a frame is selected and the selected frame is unlocked. Once the selected frame is locked, the Lock Frame command will be grayed and the Unlock Frame command will be enabled. Also, while a frame is locked, the cursor does not change to the frame resize or move cursor.

See Also

15.10 Unlocking a Locked Frame

Professional Version

When a frame is placed on a view and locked in place (via the Lock Frame command), you can not move it around or change its size. This prevents you from accidentally moving or changing its size once placed at the location you want it to stay. If you later want to move or resize the frame, it must be unlocked first. This is accomplished using the Unlock Frame command. This command is accessible via the Frame menu and the popup menu. The popup menu is displayed by clicking the right mouse button while the mouse cursor is over the desired frame.

While a frame is unlocked, it can be moved or resized. Once a frame is unlocked, it will remain unlocked until it is locked via the Lock Frame command.

This command is only available when a frame is selected and the selected frame is locked in place. Once the selected frame is unlocked, the Unlock Frame command will be grayed and the Lock Frame command will be enabled.

See Also

CHAPTER 16: OLE

16.1   Links command

Professional Version

When an OLE item is placed in the view, it can be copied into or linked to the original file. When copied into the view, changing the original file will have no effect on the object in the view. When linked to the file, it is not copied into the view and changes made to the original result in the embedded object changing, as well.

Use this command to display a Links dialog box that lets you edit links between your document and other documents.

This command is unavailable if you have no links in your document.

16.2   Links dialog box

Professional Version

The Links dialog box displays the current links used in this document, their type, and update status. If the source file for the link can not be found, the update column will read Unavailable. This typically happens if the source file is on an unavailable network drive, or if the source file has been moved.

When an entry in the Links list is selected, the Source and Type fields will be updated to reflect the selected link. In addition, the Update radio button, Update Now, Open Source, Change Source and Break Link buttons will become active for the selected link.

The Update field specifies whether you want the selected link to be updated automatically or manually. If you select Automatic, whenever you change the linked information in the original document, the frame in the view will be updated automatically. If you select Manual, you need to click on the Update Now button when you want the frame to be updated. To change the update status of a link, click the link, and then Automatic or Manual.

- Click the **Cancel** button to close the Links dialog before any changes are made. Once a link is modified, the Cancel button is replaced with the Close button. This indicates that changes have been made and applied to the selected link(s).

- Click the **Update Now** button to update the corresponding frame with the selected link.

- Click on the **Open Source** button to open the source file for the selected link.

- Click on the **Change Source** button to change the source file for the selected link.

- Click on the **Break Link** button to remove the connection between the selected link and the source file. When the link to the external file is broken, the frame becomes a static object and can no longer be edited. It will be fixed at the state when the link was broken.

16.3   Object verb

Professional Version

The Object option in the Edit menu will change to reflect the type of OLE frame selected. For example, when selecting a bitmap linked object, it will be replaced with the text **Linked Bitmap Image Object**. This new entry can have up to three submenu commands: Edit, Open and Convert.

The Edit option will open the object for editing. If it is a linked object, then the application will be started and the corresponding link file loaded into it. If the object was copied into the view (not linked), then it will be opened for in-place editing.

Selecting Open will start the corresponding application to edit the object regardless of whether it is a link or copy.

Selecting Convert will display the Convert dialog box. This dialog box lists the types of format conversions available, and allows you to perform the conversion.

16.4   Insert Object command

Professional Version

Inserts a new frame into onto the current page in the current view. The Frame Type dialog box will be displayed, allowing you to specify the type of frame to create. Select the type of frame you want to insert into your document using the Frame Type dialog box.

16.5   Insert new object dialog box

Professional Version

This dialog box allows you to specify the object and how it is to be attached to the view. Click on **Create New** to create a new object to be insert into the view. The new object will be of the type you specify. Click on **Create from File** to insert an entire file into the view. The file will be inserted as an object that can be edited with the application that created it.

- **Create New:** When creating new objects, select the **Create New** radio button. The Object Type list will be displayed. From this list, select the type of application specific object that is to be created. Use the scroll bar to view additional types. The Display As Icon check box specifies whether the embedded object will appear in the view as an icon or the actual contents of the object will be visible. While the Display As Icon item is checked, a Change Icon button will be available. Click this button to specify the icon to be displayed for the object. Once these items are specified, select the OK button. The OLE frame will be created and the corresponding application started for in place editing (if supported).

- **Create from File:** When creating a new object, select the **Create from File** radio button. The File entry field will be displayed, which provides a space to type the name of the file you want to insert into the view. You can also use the Browse button to locate the file. Next, specify how the object is to be inserted into the view (Linked or Copied). This is done by placing (or not placing) a check beside the Link option. Checking the Link option will cause a link to the original file to be maintained. If this option is not checked, then the object will be embedded (copied) into the view. If the file is linked, changes made to the object in the view will appear in the original file, and changes made to the original file (via its corresponding application) will appear in the view. Once the options are specified, select the **OK** button. The object will be added to the view in the specified manner.

16.6   Change icon dialog box

Professional Version

This dialog box allows you to specify the icon and its type to be displayed for the embedded object.

- **Current:** Displays the icon that will appear in the current document.

- **Default:** Specifies that the icon representing the embedded or linked information in your document is the default icon for the program that was used to create it.

- **From File:** Specifies that the icon is from a file. A list of icons from the specified file will be displayed under the From File edit box. Select the icon to be used from the displayed list. If no icons are shown, then the specified file does not contain any or it cannot be found.

Use the Browse button to search for a file containing icons.

The Label field provides a space for you to type a label for the icon as it will appear in your document. A default label is used unless you change it.

16.7 Convert dialog box

The Convert dialog box allows you to convert the selected OLE frame from its current format to another format. The available types to convert to will depend on the type of OLE object the frame contains. The following is a list of each item in this dialog box and a description of its function:

- **Current Type:** Lists the available file types that you can use to open the embedded or linked information.

- **Convert to:** Radio button, which when selected, specifies that the object is to be converted to a different type. This is useful if you no longer have the program that was used to create the object, or if you want to display the object in a different format than the original type allows.

- **Activate as:** Radio button, which when selected, specifies that the object is to be opened using a different program that is compatible with the original object type.

- **Object Type:** Lists the available file types that you can use to open the embedded or linked object.

- **Results:** Describes the operation that will be performed for the currently selected options. Notice, the text displayed, changes as options are changed. The displayed text describes whether the object will be converted to a different file type, what that file type will be, and how the object will appear in the frame. This is useful for experimenting with different conversions without actually implementing them. To implement the conversion, click the OK button.

- **Display As Icon:** Specifies whether the embedded object will appear in the view as an icon, or the actual contents of the object will be displayed. If you select Display As Icon, you can open the object in the view by double-clicking its icon. When this option is checked, the Change Icon button is displayed, allowing you to select an alternate icon. Clicking on the Change Icon button will display the Change icon dialog box.

- **OK button:** Closes the dialog box and saves changes you have made.

- **Cancel button:** Closes the dialog box without saving any changes you have made.

CHAPTER 17: PRINTING

17.1 Print command (File menu)

Use this command to print a view. This command presents a Print dialog box, where you may specify the range of pages to be printed, the number of copies, the destination printer, and other printer setup options.

Shortcuts

Toolbar:
Keys: Ctrl+P

17.2 Print dialog box

The following options allow you to specify how the view should be printed:

Printer

This is the active printer and printer connection. Choose the Setup option to change the printer and printer connection.

Print to file

Prints the view to a file instead of routing it directly to a printer.

Properties

Displays a Printer Setup dialog box specific to the selected printer, so you can select various printer options.

Print Range

Specify the pages you want to print:

All	Prints the entire view.
Pages	Prints the range of pages you specify in the From and To boxes. If the view contains only one page then this option is grayed.
Selection	Prints the currently selected frame.

Copies

Specify the number of copies you want to print for the above page range.

17.3 Print Progress Dialog

The Printing dialog box is shown during the time that DataViewer® is sending output to the printer. The page number indicates the progress of the printing.

To abort printing, choose Cancel.

17.4 File Print Preview command

Use this command to display the active view as it would appear when printed. When you choose this command, the main window will be replaced with a print preview window, in which one or two pages will be displayed in their printed format. The Print Preview Toolbar offers you options to view either one or two pages at a time; move back and forth through the view; zoom in and out of pages; or, initiate a print job.

Shortcuts

Toolbar:

See Also

> 17.12   Changing the Page Layout
> 17.14   Print Preview
> 17.15   Printing the View

17.5 Print Preview Toolbar

The print preview toolbar offers you the following options:

Print
> Bring up the print dialog box, to start a print job.

Next Page
> Preview the next printed page.

Prev Page
> Preview the previous printed page.

One Page / Two Page
> Preview one or two printed pages at a time.

Zoom In
> Take a closer look at the printed page.

Zoom Out
> Take a larger look at the printed page.

Close
> Return from print preview to the editing window.

17.6 File Page Setup Command

Use this command to display the Page Setup dialog box. This dialog box allows you to change the layout of the page used in displaying and printing the view.

See Also

> 17.12   Changing the Page Layout
> 17.7   Page Layout Operations
> 17.13   Printing Operations

17.7   Page Layout Operations

As mentioned previously, DataViewer® uses a page publishing style of report generation. The report is presented in the view, which can contain any number of pages. Pages can be added and removed as needed. The next few sections describe the process of adding and removing pages, as well as, setting the page size, margins and orientation used in the view.

The following are specific page operation topics:

17.8   Adding a Page to the View

Professional Version

To add a page to the currently active view, perform the following steps:

1. Select the **Add Page** command from the Edit menu. The Insert Page dialog box will be displayed. This dialog box allows you to insert a page before or after a specified page. The page number defaults to the currently displayed page. The number of the current page is given on the status bar and reflects the last page the mouse pointer was over before selecting the Add Page command.

2. Change the page number, if needed, and specify if the new page is to go before or after the specified page. For example, to insert a page before the first page in the view, set the page number to 1 and select **Before specified page**.

3. Once the page number and insertion mode are specified, click the **OK** button. The new page will be inserted into the view at the specified location. All pages in the view will be renumbered as needed and the frames on those pages will be moved along with them.

See Also

17.9   Insert Page dialog box

Professional Version

The Insert Page dialog box allows you to specify where and how a new page is to be added to the view. Specify a page number and whether the new page should be inserted before or after this specified page.

For example to add a page to the start of the view (before page 1), specify the page number as 1 and select the **Before specified page** option. To add a page between pages 2 and 3, specify the page number as 2 and select **After specified page**.

See Also

17.10 Removing a Page from the View

Professional Version

In addition to adding pages to a view, they can be deleted, as well. When deleting a page from a view, all the frames contained on that page will be deleted, as well. Unlike the Cut command, frames deleted in this manner will not be copied to the application and Windows® clipboards. For this reason, be very careful not to delete the wrong page. To remove a page from the currently active view, perform the following steps:

1. Select the **Delete Page** command from the Edit menu. The Delete Page dialog box will be displayed. This dialog box allows you to specify which page is to be deleted. The page number defaults to the currently displayed page. The number of the current page is given on the status bar, and reflects the last page the mouse pointer was over before selecting the Delete Page command.

2. Change the page number, if needed, to the number of the page you want deleted.

3. Once the page number is specified, click the **OK** button. If any frames are currently on the specified page, a dialog box asking for confirmation to delete the page will be displayed. This dialog box is displayed only when the page to be deleted contains frames. Continuing with the deletion of the specified page will also delete all the frames contained on that page. If you still want to delete the page, then click on the **Yes** button. Otherwise, click on the **No** button and the delete page process will be canceled. If the specified page does not contain any frames, then this dialog box is not displayed and the page is simply deleted.

See Also

17.11 Delete Page dialog box

Professional Version

The Delete Page dialog box allows you to specify the page to be removed from the view. The page number is initialized to the currently viewed page.

Specify the page to be deleted and press the **OK** button. If the page being deleted contains frames, a dialog box will be displayed asking for confirmation to continue with the operation. Selecting **Yes** will continue and selecting **No** will cancel the operation.

As previously mentioned, when a page is deleted all the frames contained on that page are deleted, as well. If there are more frames on the page than can be added to the undo buffer, a warning dialog will be displayed. In which case, you will not be able to undo the delete page operation, if you proceed. If the frames will fit on the undo buffer, no warning is displayed and the delete page operation can be undone (up until the point another operation pushes it out of the undo buffer).

To close this dialog without deleting a page, press the **Cancel** button.

See Also

17.12 Changing the Page Layout

The layout and size of the pages used in a view are by default, 8.5" x 11" in size with a 0.5" margin around all sides. To change the page layout, perform the following steps:

1. Select the **Page Setup** option from the **File** menu. The page setup dialog box will be displayed. This dialog box allows you to select the paper size and source. The selected

printer determines both of which. New views will use the default printer and will therefore present that printer's available options.

2. Select an alternate printer by clicking on the Printer button. The Page Setup Printer dialog box will be displayed.

3. Select an alternate printer from the drop down list.

4. You can also change the printer's specific setup by clicking on the Properties button. The dialog box displayed will be specific to the printer selected in the Page Setup Printer drop down list. Please refer to your printer documentation for specifics on this printer. Once the printer setup is set, click on the OK button to return to the Page Setup Printer dialog box.

5. Next, click on the OK button to accept the selected printer and return to the Page Setup dialog box.

6. Select the size of the paper from the Size drop down list.

7. Select the paper source from the Source drop down list.

8. Select the page orientation (portrait or landscape) by clicking on the corresponding radio button.

9. Specify the left, right, top and bottom margins by clicking on the corresponding field and editing the value. The margins are relative to the corresponding side of the page. For example, the right margin specifies the amount to come in from the right side of the page.

10. Select the OK button to change the page layout for the active view to the specified settings. Select the **Cancel** button to leave the views page layout as it was.

When the view is saved, the page layout, printer and printer setup used to display it are also saved. This helps insure that the WYSIWYG aspect of a view is maintained, even if the default Windows® printer is changed after the view is created.

See Also

> 17.13   Printing Operations
> 15.1   Modifying a Frame
> 17.7   Page Layout Operations

17.13 Printing Operations

Once the view has been created, it can be printed to produce a hardcopy report. You can print views to any of the installed Windows® printers and page sizes. Different printers and page sizes are selected through the Page Setup and Print Setup dialog boxes. Refer to the previous section on Page Layout for instructions on changing the page setup.

The following a specific printing operation topics:

> 17.12   Changing the Page Layout
> 17.14   Print Preview
> 17.15   Printing the View

17.14 Print Preview

Although DataViewer® uses a WYSIWYG display of frames, it is not always exactly as it would be when printed. To get a closer view of what the printed pages will look like, you can preview them. To preview the printed pages, perform the following steps:

1. Select the **Print Preview** command from the File menu or click on the **Print Preview** toolbar icon. DataViewer® will enter the print preview mode. This screen displays the first page in the view in its entirety. You can quickly see how the frames will appear on the printed page.

2. If the view contains more than one page, the **Next Page** button will be enabled. Clicking on this button will display the page following the one currently displayed. If this is the only page or last page in the view, the Next Page button will be grayed and disabled.

3. If the displayed page is not the first, then the **Prev Page** button will be enabled. Clicking on this button will display the page preceding the one currently displayed. If this is the only page or the first page in the view, then the Prev Page button will be grayed and disabled.

4. If the view contains more than one page and the pages are displayed at the lowest magnification (full-page display), the Two-Page button will be enabled. Clicking on this button will display two pages, side by side, and the Two-Page button will be renamed to One-Page. Clicking on this button again will return DataViewer® to displaying a single page at a time.

5. When the entire page is displayed (lowest magnification), the mouse pointer becomes a magnifying glass. Clicking the left mouse button, while the pointer is over the page, will increase the magnification of the selected area. Clicking the left mouse button again will further increase the magnification. This time, the mouse pointer will become a selection arrow, indicating that you are at the maximum magnification. Clicking the left mouse button over the page will reset the magnification, such that the entire page is displayed (reset to lowest magnification). Also, notice that while you are viewing at increased magnification, the Two-Page button is disabled. You can only view two pages while at the lowest magnification. In addition, if you are viewing two pages prior to increasing the magnification, the selected page will be displayed at the higher magnification.

6. As with the magnifying glass mouse pointer, clicking the Zoom In button will increase the display magnification. Clicking on the Zoom In button a second time will display the page at the maximum magnification. When viewing at maximum magnification, the Zoom In button is disabled.

7. When viewing a page at an increased magnification, the Zoom Out button is enabled. Clicking on the Zoom **Out** button will decrease the display magnification. When viewing the page at the lowest magnification, the Zoom Out button is disabled.

8. Clicking on the **Print** button will close the preview window and automatically bring up the print dialog box, at which point you can print all or selected pages of the view. Refer to the following section on printing the view.

9. Clicking on the Close button will close the preview window and return you to normal operation of DataViewer®.

When selecting print preview, the active view enters the preview mode. Any other open views can be selected and operated while this view is still in preview mode. Preview mode is a special display mode that emulates the printed page. While in preview mode, the pages can only be viewed but not modified.

See Also

17.15 Printing the View

Once the data has been viewed and analyzed, a hard copy report of the view may be desired. All views displayed by DataViewer® can be printed, as well. To print the active view, perform the following steps:

1. Select the **Print** command from the File menu, or click on the **Print** toolbar icon. The Print dialog box will be displayed. This dialog box allows you to select an alternate printer and change its properties. If you change the printer here and continue with the print operation, you will not be able to preview the pages before they are printed. The printed pages may not appear as they did while viewing because they were printed using a different driver. For this reason, it is suggested that you first change the printer using the Print Setup command,

preview the pages with the new printer, then print the pages. This will help ensure that the printed pages are what you wanted.

2. If the view to be printed has more than one page, you will be able to specify the Print range. You can select all pages or a range of pages. If the view only has one page, then All is the only Print range selection available.

3. If the selected printer supports making copies, you will be able to specify the number of copies of the specified pages to print. If the printer does not support making copies, then the Number of copies option will be grayed.

4. Once all the desired selections are made, click on the **OK** button to start printing. If you decide not to print the view, click on the **Cancel** button and the dialog box will close without printing.

See Also

CHAPTER 18: TEMPLATES

18.1   Templates

A template is a file that defines the type, placement and properties of frames in a view. Unlike a view, a template does not have a database attached to it. That is, any frames in the template that display the contents of a database, do not contain the name of a database. Alternatively, a view is a template that has the name(s) of the database(s) specified in it.

The main difference between a view and a template is the file name extension. When a view is opened, the specified databases are opened and loaded, as well. When a template is opened, the user is asked to specify the name(s) of the database file(s) needed, at which point the template is attached to the database and becomes a view.

DataViewer® comes with a set of templates, each for a specific type of instrument and configuration.

A template is attached to a database by any of the following methods:

- Downloading instrument data.

- Opening a template.

- Opening a database.

See the following for specific template operations:

18.2   Create View from Template dialog

The **Create View from Template** dialog box allows you to select, in one-place, template and database files to be joined to create a view.

This dialog box contains the following items:

- **Template Name Field:** Specifies the template to be used in the creation of a view. This field is specified via the **Browse** button or by selecting a template from the **Templates List Box**.

- **Template Browse Button:** This button (located next to the Template Name field) allows you to select (via an open file dialog) a desired template file.

- **Template Groups List Box:** Lists the groups (directories) found in the Templates directory.

- **Templates List Box:** Lists the templates within the selected group.

- **Database List Box:** Indicates the number of databases needed to fulfill the requirements of the specified template.

- **Database Browse Button:** This button (located next to the Database list box) allows you to select (via an open file dialog) desired database files.

The process of creating a view is performed in the following steps:

1. Specify the template to use.
2. Specify database (or databases) to be viewed.
3. Select the **OK** button.

Each step must be completed in order. The template must be selected before a database can be selected. The database list must be completed before the **OK** button can be selected. The controls for each step are disabled until the preceding step is completed.

Depending on how this dialog box was invoked, the template or database entries may already be specified. For example, when invoked from the **Quick Start** dialog box by selecting the **Create New View From Template** button, neither of the two steps are completed. When invoked by selecting a database to open, or after downloading data from an instrument, **Step 2: Specify Database** will contain the name of the database previously specified. When invoked by selecting a template to open, **Step 1: Specify Template** will contain the name of the template previously specified.

A template is specified by, either selecting one via the **Browse** button, or by selecting one from the Templates list. When using the **Browse** button, an Open file dialog box is displayed. Use this dialog box to locate and select a template not in one of the groups. To select a template from a group, first select the corresponding entry in the Groups list box. The Templates list will be updated to reflect the templates within the selected group. Then select a template from the Templates list box.

When a template is selected, it is scanned to identify the number of databases it requires. The number of databases is indicated in the Specify Database list box. For example, selecting a template that calls for two different databases, results with **1:** and **2:** entries appearing in the database list box.

If the **Create View for Template** dialog box was invoked by selecting a database to be opened, the Specify Database list will be initialized with **1: DatabaseName** (where DatabaseName is the name of the previously selected database) as the first and only entry. Subsequent selection of a template will use this database name as the first, and add empty entries for any additionally required databases.

Once the template has been specified, the database can be selected using the **Browse** button located next to the Database list. If the database(s) have already been specified (either prior to invoking this dialog or by selecting the **Browse** button), and none of these database entries are selected, the **Browse** database button is disabled.

A listed database entry can be changed by, first selecting the database entry, then selecting the **Browse** button. When specifying a database, the highlighted database entry is modified. If no database entry is selected and entries remain to be specified, selecting the **Browse** button sets the first unspecified database entry. If all database entries are specified, and none of these entries are selected, the **Browse** database button is disabled.

See the following for specific template operations

> 18.3   Attach Template when Downloading Data
> 18.5   Attach Template when Opening a Database
> 18.4   Attach Database when Opening a Template
> 18.6   Creating a Template
> 18.7   Modifying a Template

18.3   Attach Template when Downloading Data

A template can be attached to a database at the time the database is created. The process of downloading, saving and viewing data from an instrument takes the following steps:

1. Select **Download** from the **Instrument** menu. The **Connection** dialog box is displayed.

2. Select the communications port and rate from the drop down list boxes.

3. Select the **OK** dialog button. A connection with the instrument will be established and any data currently stored in it will be downloaded.

4. Once the download is complete, the **Save As** dialog will be displayed. Specify the name to save the database under.

5. Specify the Session Properties.
6. A dialog box will be displayed, indicating the success or failure of the data decode process. Assuming the data decode was successful, select the **OK** button and continue. If an error was reported, resolve the error before proceeding.
7. Answer yes to the question, "Do you want to open database just downloaded?" The Create View from Template dialog will be displayed.
8. Select the template to use for the initial display of the database. See Create View from Template dialog for more information about this dialog box.
9. Select the **OK** button in the **Create View from Template** dialog box.
10. Customize each object frame as desired.

Once the **Create View from Template** dialog box is closed and the transformation is specified, the resulting view will be displayed, at which point you can view and manipulate it as desired.

See Also

18.2   Create View from Template dialog
18.1   Templates

18.4   Attach Database when Opening a Template

When a template is opened, the user is asked to supply the name(s) of the database(s) needed to complete its display. When the database(s) are specified, they are attached to the template and it becomes a view.

The following steps illustrate the procedure of opening a template and creating a view:

1. Select the **Open** option from the File menu.
2. Select **DataViewer Template Files (*.dvt)** from the Files of type: drop down list.
3. Select or specify the name of the template file.
4. Select the Open button. The **Create View from Template** dialog will be displayed.
5. Specify the name of each database file needed to complete the transformation of the template to a view. See **Create View from Template** dialog box for more information.
6. Select the **OK** button in the **Create View from Template** dialog box.
7. Customize each object frame as desired.

Once the **Create View from Template** dialog box is closed and the transformation is specified, the resulting view will be displayed, at which point you can view and manipulate it as desired.

See Also

18.2   Create View from Template dialog
18.1   Templates

18.5   Attach Template when Opening a Database

When a database is opened, the user is asked to supply the name of the template to define its display. When the template is specified, it is attached to the database resulting in a view.

The following steps illustrate the procedure of opening a database and creating a view:

1. Select the **Open** option from the File menu.
2. Select **DataViewer Database Files (*.dvb)** from the Files of type: drop down list.
3. Select or specify the name of the database file.
4. Select the **Open** button. The **Create View from Template** dialog will be displayed.
5. Select the template to use for the initial display of the database. See Create View from Template dialog for more information.

6. Specify any additional databases (if any) required by the selected template.

7. Select the **OK** button in the **Create View from Template** dialog box.

8. Customize each object frame as desired.

9. Once the **Create View from Template** dialog box is closed and the transformation is specified, the resulting view will be displayed, at which point you can view and manipulate it as desired.

See Also

18.6   Creating a Template

Professional Version

A template is created when a view is saved with the database detached. The following steps illustrate the procedure of creating a new template:

1. Open an existing view or create a new one.

2. Modify the view as desired.

3. Select the **Save As Template** option from the File menu.

4. Specify the name of the template in the File name: field.

5. Select the **Save** button.

That's all it takes to create a template.

See Also

18.7   Modifying a Template

Professional Version

A template can only be modified when it is a view. Templates are not modified in their native format and only when the data to be displayed is attached. The following steps illustrate the procedure of modifying a template:

1. Select the **Open** option from the File menu.

2. Select **DataViewer Template Files (*.dvt)** from the Files of type: drop down list.

3. Select or specify the name of the template file.

4. Select the **Open** button. The **Create View from Template** dialog will be displayed.

5. Specify the name of each database file needed to complete the transformation of the template to a view. See Create View from Template dialog for more information about this dialog box.

6. Select the **OK** button in the **Create View from Template** dialog box.

7. Customize each object frame, as desired.

8. Save the view as a template using the name specified in step 3. See Creating a Template for steps to complete this process.

A new template, based on an existing template, can be created using the previous procedure, except specify a different name in step 7. The original template will be left as is and a new one with the specified name created.

See Also

CHAPTER 19: ZOOMING

19.1 Zooming

Frames displaying graphs of trend and waveform measurement data allow for a number of display extent commands. These commands allow you to indicate the starting and ending times of the displayed data. By changing the start and ending display times, you can zoom in, zoom out, pan left and right, pan to start and pan to end of measurement data. Each of these commands can be selected from the Zoom menu or from the toolbar. Each of these commands and their associated operation is discussed in the following sections.

For specific operations see

Zoom Operations

19.5	Zoom In
19.6	Zoom Out
19.3	Zoom Previous
19.4	Zoom All

Panning Operations

19.7	Panning
19.10	Pan Left
19.11	Pan Right
19.12	Pan To Start
19.13	Pan To End

19.2 Zoom To Selection

When a graph frame is first created, the displayed channels are shown in the full time extents of the stored data. You can zoom in on a selected area using the Zoom Tool. To zoom to a selected area of a graph, perform the following steps:

1. Select the **Zoom Tool** command from the Zoom menu or click on the **Zoom Tool** toolbar icon. This will enable the zoom selection tool. The mouse pointer will change to this tool while it is over a graph that supports zooming. When the mouse pointer is not over a frame or area of a frame that supports zooming, the mouse pointer becomes the default selection tool.

2. Move the zoom selection tool to the location of the graph that will become the upper left corner of the displayed extents.

3. Click and hold the left mouse button.

4. Drag the mouse to the location on the graph where the lower right corner of the display extents is to be located. Notice as you move the mouse pointer, a dotted box is displayed. This dotted box shows the area of the graph that will become the displayed extents.

5. Release the mouse button. The graph will be redrawn to the new extents indicated by the zoom selection box.

This tool performs a "zoom to selected area" operation, hence the name Zoom Selection tool. This process can be repeated, as needed.

See Also

19.1	Zooming
19.7	Panning

19.3   Zoom Previous

When zoom operations are performed, the display extents prior to zooming are saved. This allows you to undo any zoom operation and return to the previously displayed extents. To undo a zoom operation and return to the previous display extents perform the following steps:

1. Select the graph frame you wish to zoom to previous extents, using the Select Frame

   or the Zoom Selection ⊕ tool. The selected frame will be displayed with resize handles. If the selected graph has previously been zoomed, the Zoom Previous menu command and

   Zoom Previous ⊖ toolbar icon will be enabled. If a previous zoom extent is not available, the menu option and toolbar icon will be grayed.
2. Select the **Zoom Previous** command from the Zoom menu or click on the **Zoom Previous**

   ⊖ toolbar icon. The graphs display extents will be reset to the extents prior to the last zoom operation.

The Zoom Previous operation can be repeated until no previous display extents are available. For example, if you zoom into the graph twice you will be able to select the Zoom Previous command twice. If you zoom in twice, zoom previous once and zoom in again you will be able to zoom out twice. The zoom previous operates like a stack of plates. Each time a zoom in operation is performed, a previous zoom operation is placed on the stack. If five zoom previous operations are available and you zoom previous once, four more are still available. Zooming in with those four still on the stack gives you a total of five available, four from the original set and one new one. You can zoom in and back out as you wish.

Each graph frame has its own Zoom Previous extents stack and is independent of all others.

See Also

19.1   Zooming
19.7   Panning

19.4   Zoom All

To display the graph in the full extents to the stored data, perform the following steps:

1. Select the graph frame you wish to zoom all extents, using the Select Frame   or the

   Zoom Selection ⊕ tool. Selecting the tool and clicking on the graph does this. The selected frame will be displayed with resize handles.
2. Select the **Zoom All** command from the Zoom menu. The graphs display extents will be reset to the full extents of the stored data.

See Also

19.1   Zooming
19.7   Panning

19.5   Zoom In

The Zoom Selection tool allows you to zoom into a selected area of a graph. Another zoom option is to zoom in by a defined amount. The Zoom In command allows you to increase the magnification of a displayed graph by some amount. By default, this amount is 200% but can be change to any amount you wish. When the zoom operation is selected, the new display extents will be centered on the display extents. To zoom in on the center of the display extents, perform the following steps:

1. Select the graph frame you wish to zoom in on, using the Select Frame [icon] or the Zoom Selection [icon] tool. The selected frame will be displayed with resize handles. If the selected frame supports zooming, the Zoom In menu command and Zoom In [icon] toolbar icon will be enabled. If the frame does not support zooming, the menu option and toolbar icon will be grayed.

2. Select the **Zoom In** command from the Zoom menu or click on the **Zoom In** [icon] toolbar icon. The graph's display extents will be reset to increase the magnification by the set amount. This amount is 200% by default but can be changed under User Options.

This zoom operation will place the previous display extents on the Zoom Previous extents stack allowing it to be undone. Refer to the Zoom Previous command for a detailed explanation of this feature.

This zoom operation always zooms to the center of the displayed graph. You can zoom to a selected point on the graph using the Zoom Selection tool. This is done by double clicking on the point on the graph to zoom into. This has the same effect as drawing a zoom selection box half the size of the displayed graph centered around the chosen point. This is a fast way of drilling down into the displayed data. This method of zoom also places a display extents entry on the Zoom Previous stack and can be undone.

See Also

> 19.1   Zooming
> 19.7   Panning

19.6   Zoom Out

All the previous zoom commands (with the exception of the Zoom Previous command) provide a mechanism to zoom in on a graph. Another zoom option, which allows you to zoom out or step back on a graph, is the Zoom Out command. The Zoom Out command allows you to decrease the magnification of a displayed graph by some amount. By default, this amount is 200% but can be change to any amount you wish. When the Zoom Out operation is selected, the new display extents will be centered on the current display extents. To zoom out on the center of the display extents, perform the following steps:

1. Select the graph frame you wish to zoom out on using the Select Frame [icon] or the Zoom Selection [icon] tool. The selected frame will be displayed with resize handles. If the selected frame supports zooming, the Zoom Out menu command and Zoom Out [icon] toolbar icon will be enabled. If the frame does not support zooming, the menu option and toolbar icon will be grayed.

2. Select the **Zoom Out** command from the Zoom menu or click on the **Zoom Out** [icon] toolbar icon. The graph's display extents will be reset to decrease the magnification by the set amount. This amount is 200% by default but can be changed under User Options.

This zoom operation will place the previous display extents on the Zoom Previous extents stack allowing it to be undone. Refer to the Zoom Previous command for a detailed explanation of this feature.

See Also

> 19.1   Zooming
> 19.7   Panning

19.7   Panning

All of the previous zoom operations change the start time and duration of the data to be displayed. This has the effect of zooming in or out of an area of the graph. Another method of changing the display extents is called panning. Unlike zooming, panning only changes the start time and not the magnification of the displayed graph. Panning is like looking at a picture through a small box. The box is smaller than the picture in your view. Sliding the box left and right lets you look at the rest of the picture, a portion at a time. The following section shows how you can pan left, right, to the start and to the end of the graph data.

See Also

19.8   Step Left

Stepping left, slides the viewing area to display the graph to the left (lower in time) of the currently displayed graph extents. To step a graph to the left, perform the following steps:

1.   Select the graph frame you wish to step left on, using the Select Frame [icon] or the Zoom Selection [icon] tool. The selected frame will be displayed with resize handles. If the selected frame supports panning, the Step Left menu command and Step Left [icon] toolbar icon will be enabled. If the frame does not support panning, the menu option and toolbar icon will be grayed. In addition, this command is disabled if the starting channel data is already displayed.

2.   Select the **Step Left** command from the Zoom menu or click on the **Step Left** [icon] toolbar icon. The graph's starting display time will be decreased by 10% of the display duration. This has the effect of sliding the graph window to the left, leaving 90% of the previous extents displayed. This default of 10% can be changed under User Options.

This pan operation will place the previous display extents on the Zoom Previous extents stack, allowing it to be undone. Refer to the Zoom Previous command for a detailed explanation of this feature.

The Step Left command performs the same basic operation as the Pan Left command. The difference being, each has their own customizable default shift rates. By default, the step operation shifts the displayed graph by 10%, while the pan operation shifts the displayed graph by 90%.

See Also

19.9   Step Right

Stepping right, slides the viewing area to display the graph to the left (higher in time) of the currently displayed graph extents. To pan a graph to the right, perform the following steps:

1.   Select the graph frame you wish to step right on, using the Select Frame [icon] or the Zoom Selection [icon] tool. The selected frame will be displayed with resize handles. If the selected frame supports panning, the Step Right menu command and Step Right [icon] toolbar icon will be enabled. If the frame does not support panning, the menu option and toolbar icon will

be grayed. In addition, this command is disabled if the ending channel data is already displayed.

2. Select the Step Right command from the Zoom menu or click on the Step Right ▶ toolbar icon. The graph's starting display time will be increased by 10% of the display duration. This has the effect of sliding the graph window to the right, leaving 90% of the previous extents displayed. This default of 10% can be changed under User Options.

This pan operation will place the previous display extents on the Zoom Previous extents stack, allowing it to be undone. Refer to the Zoom Previous command for a detailed explanation of this feature.

The Step Right command performs the same basic operation as the Pan Right command. The difference being, each has their own customizable default shift rates. By default, the step operation shifts the displayed graph by 10%, while the pan operation shifts the displayed graph by 90%.

See Also

19.1   Zooming
19.7   Panning

19.10 Pan Left

Panning left slides the viewing area to display the graph to the left (lower in time) of the currently displayed graph extents. To pan a graph to the left, perform the following steps:

1. Select the graph frame you wish to pan left on using the Select Frame ▶ or the Zoom Selection 🔍 tool. The selected frame will be displayed with resize handles. If the selected frame supports panning, the Pan Left menu command and Pan Left ◀ toolbar icon will be enabled. If the frame does not support panning, the menu option and toolbar icon will be grayed. In addition, this command is disabled if the starting channel data is already displayed.

2. Select the **Pan Left** command from the Zoom menu or click on the **Pan Left** ◀ toolbar icon. The graph's starting display time will be decreased by 90% of the display duration. This has the effect of sliding the graph window to the left, leaving 10% of the previous extents displayed. This default of 90% can be changed under User Options.

This pan operation will place the previous display extents on the Zoom Previous extents stack allowing it to be undone. Refer to the Zoom Previous command for a detailed explanation of this feature.

The Pan Left command performs the same basic operation as the Step Left command. The difference being, each has their own customizable default shift rates. By default, the step operation shifts the displayed graph by 10%, while the pan operation shifts the displayed graph by 90%.

See Also

19.1   Zooming
19.7   Panning

19.11 Pan Right

Panning right slides the viewing area to display the graph to the left (higher in time) of the currently displayed graph extents. To pan a graph to the right perform the following steps:

1. Select the graph frame you wish to pan right on, using the Select Frame [icon] or the Zoom Selection [icon] tool. The selected frame will be displayed with resize handles. If the selected frame supports panning, the Pan Right menu command and Pan Right [icon] toolbar icon will be enabled. If the frame does not support panning, the menu option and toolbar icon will be grayed. In addition, this command is disabled if the ending channel data is already displayed.

2. Select the Pan Right command from the Zoom menu or click on the Pan Right [icon] toolbar icon. The graph's starting display time will be increased by 90% of the display duration. This has the effect of sliding the graph window to the right, leaving 10% of the previous extents displayed. This default of 90% can be changed under User Options.

This pan operation will place the previous display extents on the Zoom Previous extents stack, allowing it to be undone. Refer to the Zoom Previous command for a detailed explanation of this feature.

The Pan Right command performs the same basic operation as the Step Right command. The difference being, each has their own customizable default shift rates. By default, the step operation shifts the displayed graph by 10%, while the pan operation shifts the displayed graph by 90%.

See Also

> 19.1   Zooming
> 19.7   Panning

19.12 Pan To Start

The Pan Left and Pan Right commands slide the displayed graph by an amount determined by the display duration. You can repeatedly pan left or right until the start or end of the channel data is reached. You can jump to the beginning of the channel data using the Pan To Start command. To pan to the start of the channel data, perform the following steps:

1. Select the graph frame you wish to pan to the start of, using the Select Frame [icon] or the Zoom Selection [icon] tool. The selected frame will be displayed with resize handles. If the selected frame supports panning, the Pan To Start menu command and Pan To Start [icon] toolbar icon will be enabled. If the frame does not support panning, the menu option and toolbar icon will be grayed. In addition, this command is disabled if the starting channel data is already displayed.

2. Select the **Pan To Start** command from the Zoom menu or click on the **Pan To Start** [icon] toolbar icon. The graph will be displayed, starting with the beginning of the channel data using the same magnification.

This pan operation will place the previous display extents on the Zoom Previous extents stack, allowing it to be undone. Refer to the Zoom Previous command for a detailed explanation of this feature.

See Also

> 19.1   Zooming
> 19.7   Panning

19.13 Pan To End

As with the Pan To Start command, you can pan all the way to the end of the channel data. To pan to the end of the channel data, perform the following steps:

1. Select the graph frame you wish to pan to the end of, using the Select Frame [icon] or the Zoom Selection [icon] tool. The selected frame will be displayed with resize handles. If the selected frame supports panning, the Pan To End menu command and Pan To End [icon] toolbar icon will be enabled. If the frame does not support panning, the menu option and toolbar icon will be grayed. In addition, this command is disabled if the ending channel data is already displayed.

2. Select the **Pan To End** command from the Zoom menu or click on the **Pan To End** [icon] toolbar icon. The graph will be displayed, such that, it ends with the last sample for the recorded channels.

This pan operation will place the previous display extents on the Zoom Previous extents stack, allowing it to be undone. Refer to the Zoom Previous command for a detailed explanation of this feature.

See Also

19.1   Zooming
19.7   Panning