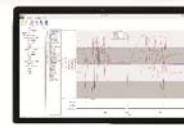




PARAMETERS



EVENT HISTORY



TRENDS

Magnetek Material Handling IMPULSE[®]•Link 5

Instruction Manual



MAGNETEK
MATERIAL HANDLING

Part Number: 144-18171 R0.7

March 2014

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Preface and Safety

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Product Safety Information

Magnetek, Inc. (Magnetek) offers a broad range of radio remote control products, control products and adjustable frequency drives, industrial braking systems, and power delivery products for material handling applications. This manual has been prepared by Magnetek to provide information and recommendations for the installation, use, operation and service of Magnetek's material handling products and systems (Magnetek Products). Anyone who uses, operates, maintains, services, installs or owns Magnetek Products should know, understand and follow the instructions and safety recommendations in this manual for Magnetek Products.

The recommendations in this manual do not take precedence over any of the following requirements relating to cranes, hoists, lifting devices or other equipment which use or include Magnetek Products:

- Instructions, manuals, and safety warnings of the manufacturers of the equipment where the Magnetek Products are used,
- Plant safety rules and procedures of the employers and the owners of the facilities where the Magnetek Products are being used,
- Regulations issued by the Occupational Health and Safety Administration (OSHA),
- Applicable local, state, provincial, or federal codes, ordinances, standards and requirements, or
- Safety standards and practices for the industries in which Magnetek Products are used.

This manual does not include or address the specific instructions and safety warnings of these manufacturers or any of the other requirements listed above. It is the responsibility of the owners, users and operators of the Magnetek Products to know, understand and follow all of these requirements. It is the responsibility of the employer to make its employees aware of all of the above listed requirements and to make certain that all operators are properly trained.

No one should use Magnetek Products prior to becoming familiar with and being trained in these requirements and the instructions and safety recommendations for this manual.

Product Warranty Information

Magnetek, hereafter referred to as Company, assumes no responsibility for improper programming of a device (such as a drive or radio) by untrained personnel. A device should only be programmed by a trained technician who has read and understands the contents of the relevant manual(s). Improper programming of a device can lead to unexpected, undesirable, or unsafe operation or performance of the device. This may result in damage to equipment or personal injury. Company shall not be liable for economic loss, property damage, or other consequential damages or physical injury sustained by the purchaser or by any third party as a result of such programming. Company neither assumes nor authorizes any other person to assume for Company any other liability in connection with the sale or use of this product.

For information on Magnetek's product warranties by product type, please visit www.magnetek.com.

DANGER, WARNING, CAUTION, and NOTE Statements

Read and understand this manual before installing, operating, or servicing this product. Install the product according to this manual and local codes.

The following conventions indicate safety messages in this manual. Failure to heed these messages could cause fatal injury or damage products and related equipment and systems.



DANGER

DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations.



WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTE: A NOTE statement is used to notify people of installation, operation, programming, or maintenance information that is important, but not hazard-related.



WARNING

1. Read this user manual in its entirety before installing IMPULSE®•LINK 5 Software or operating the IMPULSE®•G+/VG+ Series 4, IMPULSE®•G+/VG+ Series 3, and/or the IMPULSE®•G+ Mini.
2. DO NOT connect or disconnect wiring, or perform signal checks while the electrical power is turned ON.
3. Improper programming of a drive through the use of this software can lead to unexpected, undesirable, or unsafe operation or performance of the drive.

Failure to observe these and other precautions indicated in this manual will expose the user to high voltages, resulting in serious injury or death. Damage to equipment may also occur.



CAUTION

No patent liability is assumed with respect to the use of the information contained herein. Moreover, Magnetek is constantly improving its high quality product; therefore, the information contained in this manual is subject to change without notice. Every precaution has been taken in the preparation of this document. Nevertheless, Magnetek assumes no responsibility for errors or omissions. Neither is any liability assumed for damages resulting from the use of the information contained in this publication.

1. Introduction

1.1. Overview

The IMPULSE®•Link 5 program is a user-friendly, interactive software designed for use with the DataLogger Series 4 (DLS4) to view parameters, drive events, and review analog and digital inputs.

1.1.1. Supported Drives:

IMPULSE®•Link 5 supports the following Magnetek drives when used with the DataLogger Series 4:

- IMPULSE®•G+/VG+ Series 4
- IMPULSE®•G+/VG+ Series 3
- IMPULSE®•G+ Mini

1.2. System Requirements

The following are the minimum system requirements for a PC using the IMPULSE®•Link 5 software:

1. 1.5 GHz processor or better
2. 2 GB RAM (minimum); 4 GB (recommended)
3. Minimum of 300 MB free hard-disk space available
4. Vista, Windows 7, or Windows 8 operating system.
5. 32 bit or 64 bit
6. Available USB port

2. Installation

The IMPULSE®•Link 5 installer is located on the USB flash drive with the DataLogger Series 4 kit. The IMPULSE®•Link 5 viewer is also available for download on the Magnetek Material Handling website: <http://www.magnetek.com/en/Material%20Handling/Downloads.aspx>

NOTE: Administrative privileges are required to install and/or update the IMPULSE®•Link 5 software. Please make sure to log onto an administrator account before installation.

To install IMPULSE®•Link 5 on a PC, do the following:

- Connect the USB flash drive to an available USB port on the PC.
- Run the ImpulseLink5_Install.exe.
- Select the default choices during installation.

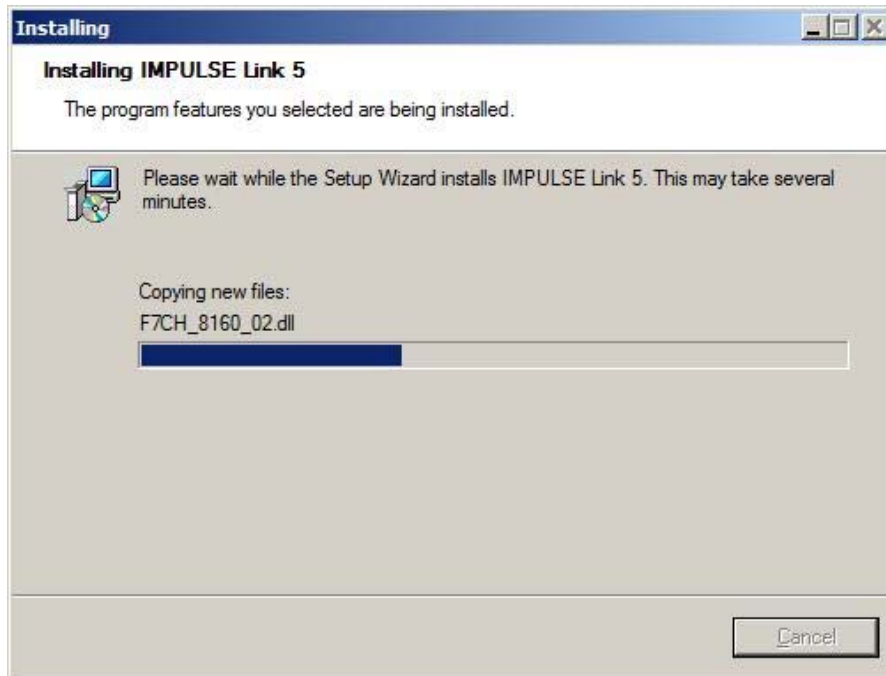


Figure 1: Setup Status

A Windows Security warning will pop up during the initial installation, with the message that IMPULSE®•Link 5 would like to install device drivers from Texas Instruments, Inc.

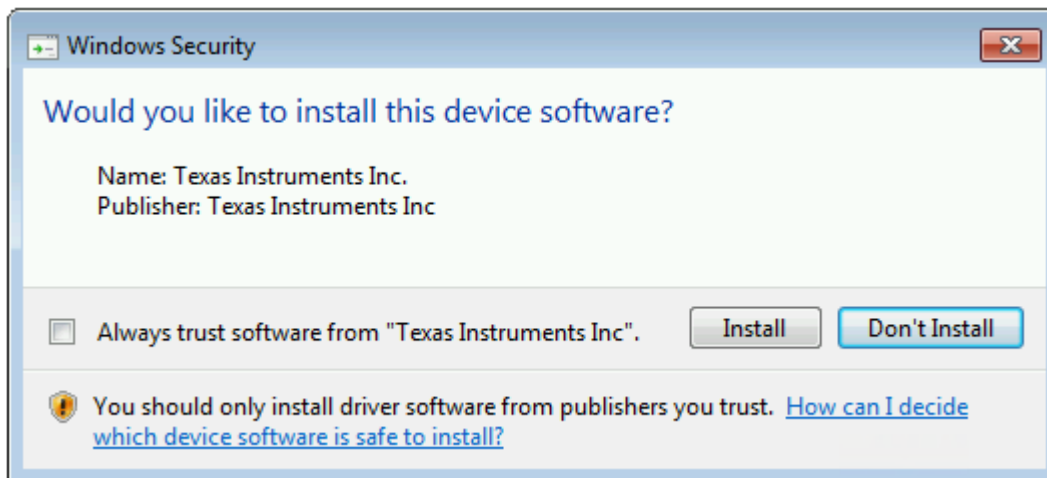


Figure 2: Windows Security Warning

The driver software is for the DataLogger Series 4. It is not required for installing or running IMPULSE®•Link 5; however, failure to install the driver will result in not being able to update the DataLogger firmware.

NOTE: To ensure full functionality, select "Install" and proceed with the installation.

3. Navigation

The navigation toolbar allows access to features and functions for uploading parameter files, viewing drive events, and/or viewing trend data. The following is a brief summary of the functions that can be accessed from the navigation toolbar.

NOTE: IMPULSE®•Link 5 will default to the Parameters tab on startup if a DataLogger is not connected to the PC. Once a DataLogger is connected, the IMPULSE®•Link 5 will automatically switch to the DataLogger tab, and the Workspace will populate with the files currently loaded on the DLS4.

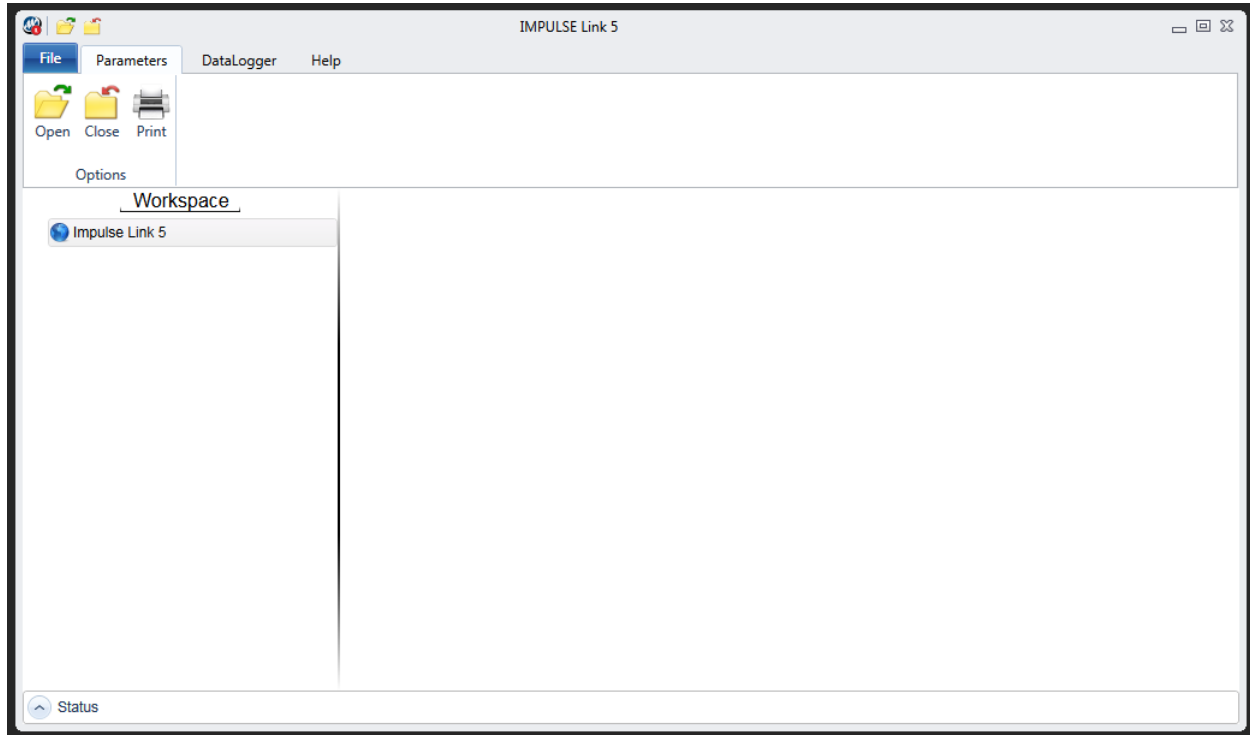


Figure 3: The IMPULSE®•Link 5 on startup (DataLogger not connected)

3.1. File Tab

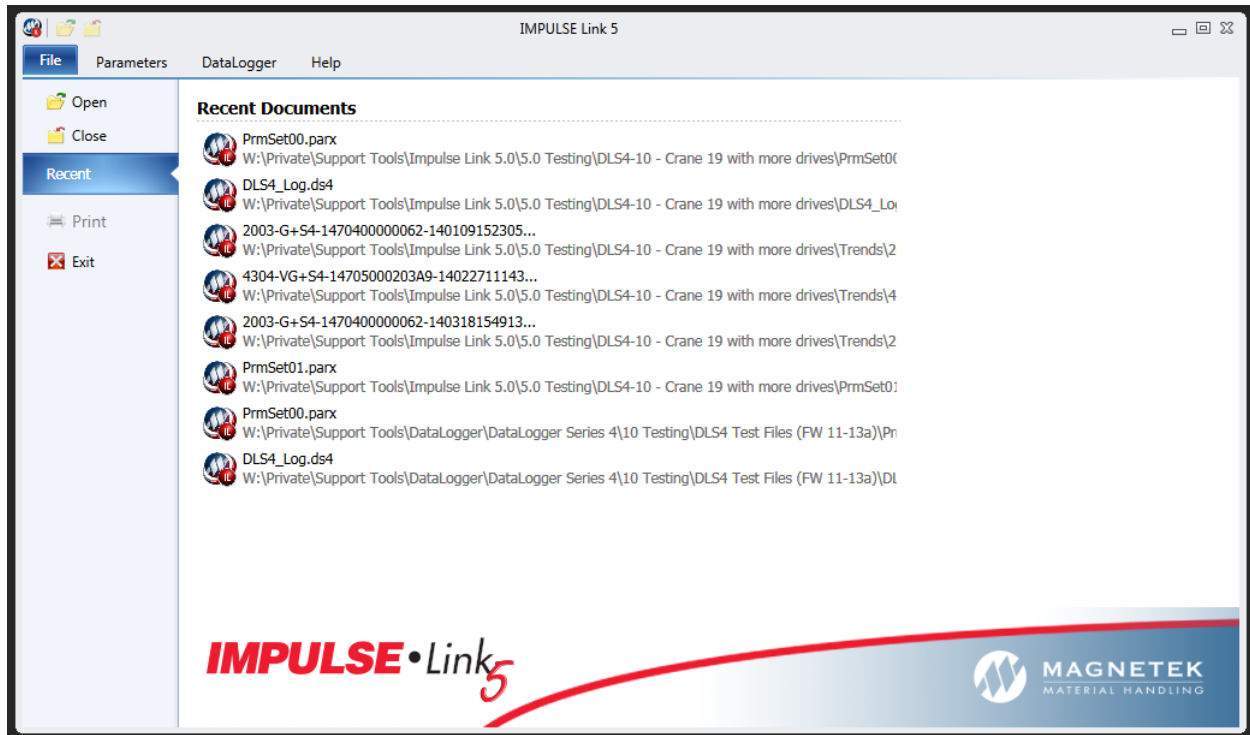


Figure 4: The File Tab

Open – Opens parameter, DataLogger, or Trend files (Alt-F-O).

Close – Closes the active parameter, DataLogger, or Trend file (Alt-F-C).

Recent – Displays files that have been recently accessed (Alt-F-R). This is shown by default.

Print – Prints the active parameter, Events, or Trend file selected (Alt-F-P).

Exit – Closes this program (Alt-F-E).

NOTE: The following icons can be used to open and close files when the File tab is not active:

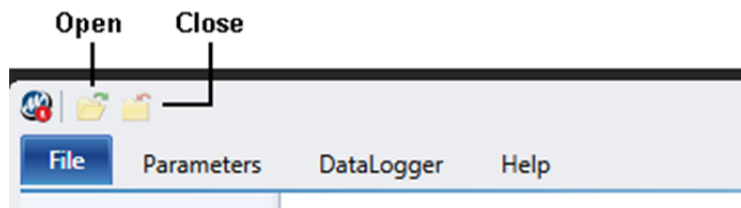


Figure 5: Open and Close Icons

Open – Opens parameter, DataLogger, or Trend files (Alt-1).

Close – Closes the active parameter, DataLogger, or Trend file (Alt-2).

3.2. Parameters/DataLogger Tab

The Parameter and DataLogger tabs allow the opening, closing, and printing of parameters, DataLogger files, or Trend files. The DataLogger Tab is the default tab when a DataLogger is connected.

3.2.1. Parameter Tab

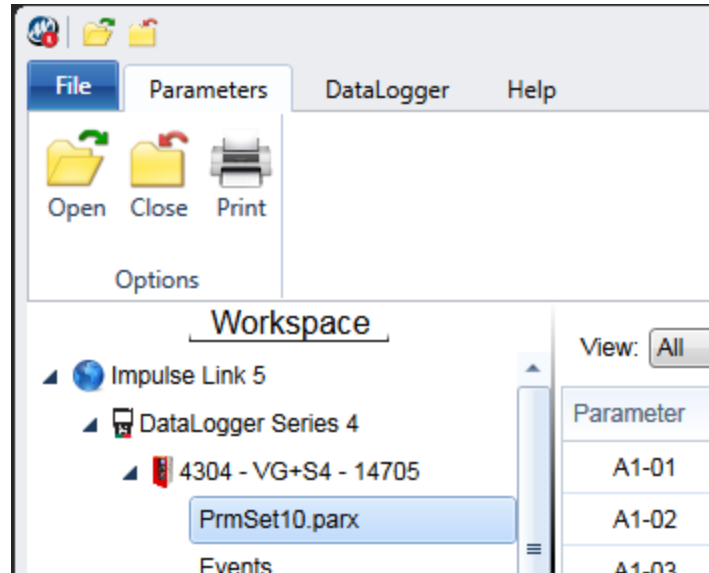


Figure 6: The Parameter Tab

Open – Opens parameter, DataLogger, or Trend files (Alt-P-O).

Close – Closes an active parameter, DataLogger, or Trend file (Alt-P-C).

Print – Prints the active parameter set (Alt-P-P or Ctrl-P).

3.2.2. DataLogger Tab

The DataLogger tab is used to manage DataLogger drive events and trend files as well as update DataLogger firmware. These events and trends can be viewed when the Parameters or DataLogger tab is selected.

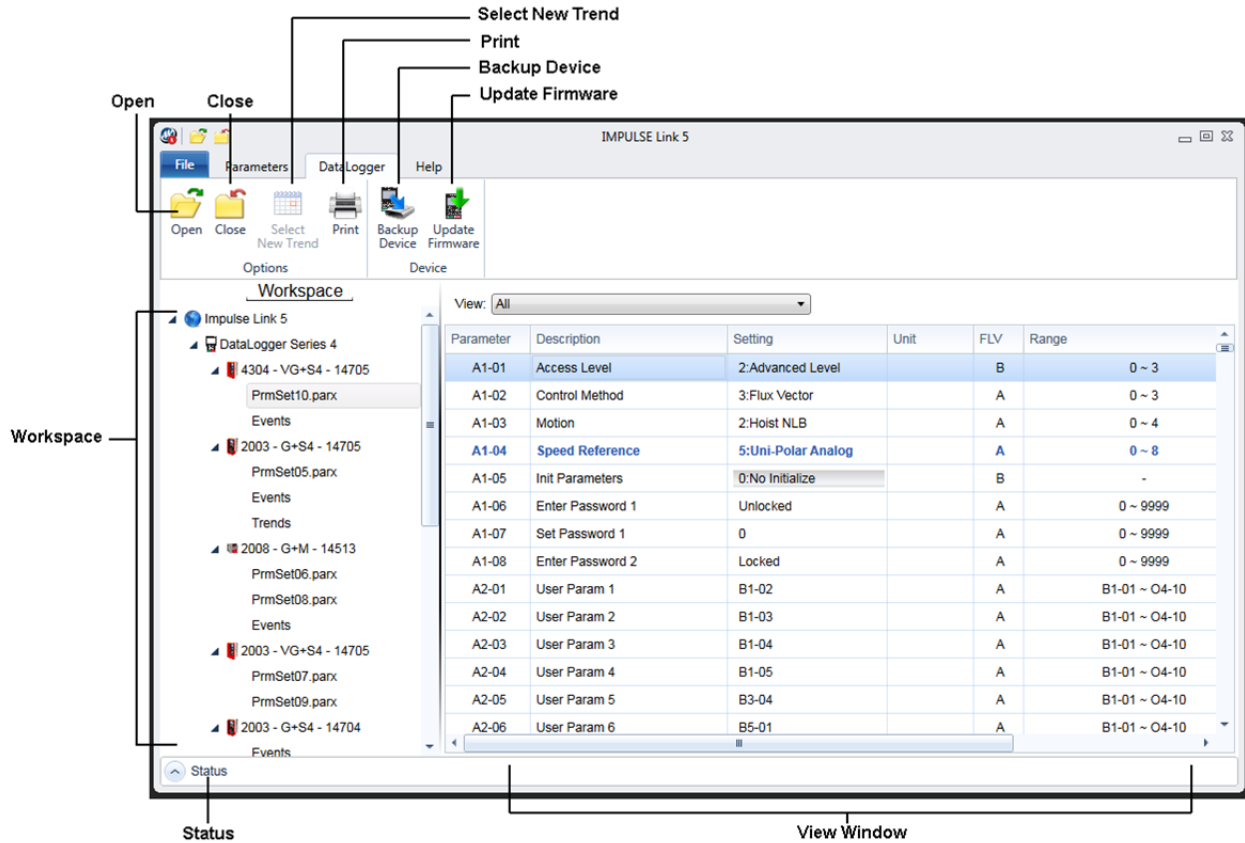


Figure 7: The DataLogger Tab and Workspace

Open – Opens a parameter, Drive Event, or Trend file (Alt-D-O).

Close – Closes an active parameter, Drive Events, or Trend file (Alt-D-C).

Select New Trend – Opens window to select a different trend file (Alt-D-S).

Print – Print the active data shown in the View Window when a trend is selected (Alt-D-P).

Backup Device – Backs up data from the DLS4 to a location on the PC (determined by the user) (Alt-D-B).

Update Firmware – Used to update the DataLogger Series 4 firmware (Alt-D-U).

Workspace – Displays data loaded when the DataLogger is connected to the PC's USB port.

Status – Displays the IMPULSE®•Link 5 status.

View Window – Displays a list of parameters (shown), Drive Events, or Trend files.

3.3. Parameter File Display

Parameter files (PrmSetxx.parx) can be viewed by choosing a file from the workspace tree or browsing for a parameter file stored on a PC.

3.3.1. Parameter Value Text Color

Parameters may be displayed with color coding. Various colors are used to identify a condition that may require further action. The table below displays the colors used, their meanings, and their descriptions.

Table 1: Parameter Value Text Color

Color	Meaning	Description
Blue	Modified Constant	A parameter with blue text indicates the value is different than its default setting.
Gray	Read-Only	A parameter that is grayed-out is a parameter that cannot be modified, or the Access Level of the current parameter set is lower than what is needed for that specific parameter (i.e. changing the parameter from the drive keypad would not be allowed with the current access level).

3.4. DataLogger Parameter Files Sets

The DataLogger Series 4 can store up to 11 parameter sets. These sets are stored in “slots” numbered from 0 to 10 and are located in the internal memory with the files names PrmSet00.parx to PrmSet10.parx.

When the DLS4 is connected to the PC, the software will associate these parameter files with the model of drive in the Workspace. Parameter Set 00 contains the parameter file from the most recent drive the DataLogger was connected to. The name of these files can be changed in the DLS4 (see **Section 10.4: Rename Parameter Data** in the *DataLogger Series 4 Instruction Manual*) and will appear in the Workspace shown in Figure 8.

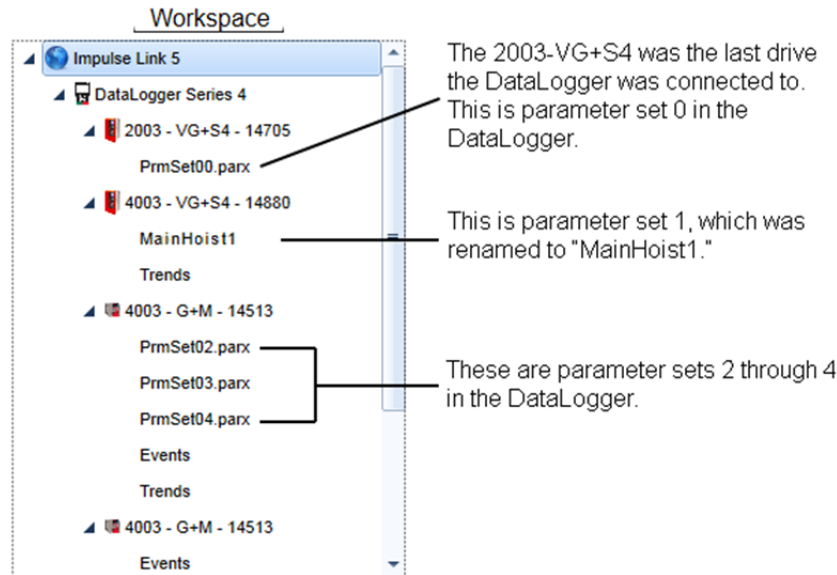


Figure 8: DataLogger Parameter File Sets

3.5. Events

Events are used to view Run History, Fault History, and Alarm History for a particular drive. When an event is recorded, the DLS4 will gather information about the state of the drive at the time the event was recorded.

The DataLogger Series 4 can log:

- 5000 Run Events
- 400 Alarm Events
- 400 Fault Events
- Approximately 300 hours of monitor data (U01-01 – U01-12, plus up to 10 selectable monitors)
- 11 parameter sets

The information for Runs, Alarms, and Faults can be viewed by selecting Events under the drive in the Workspace tree, as shown in Figure 9.

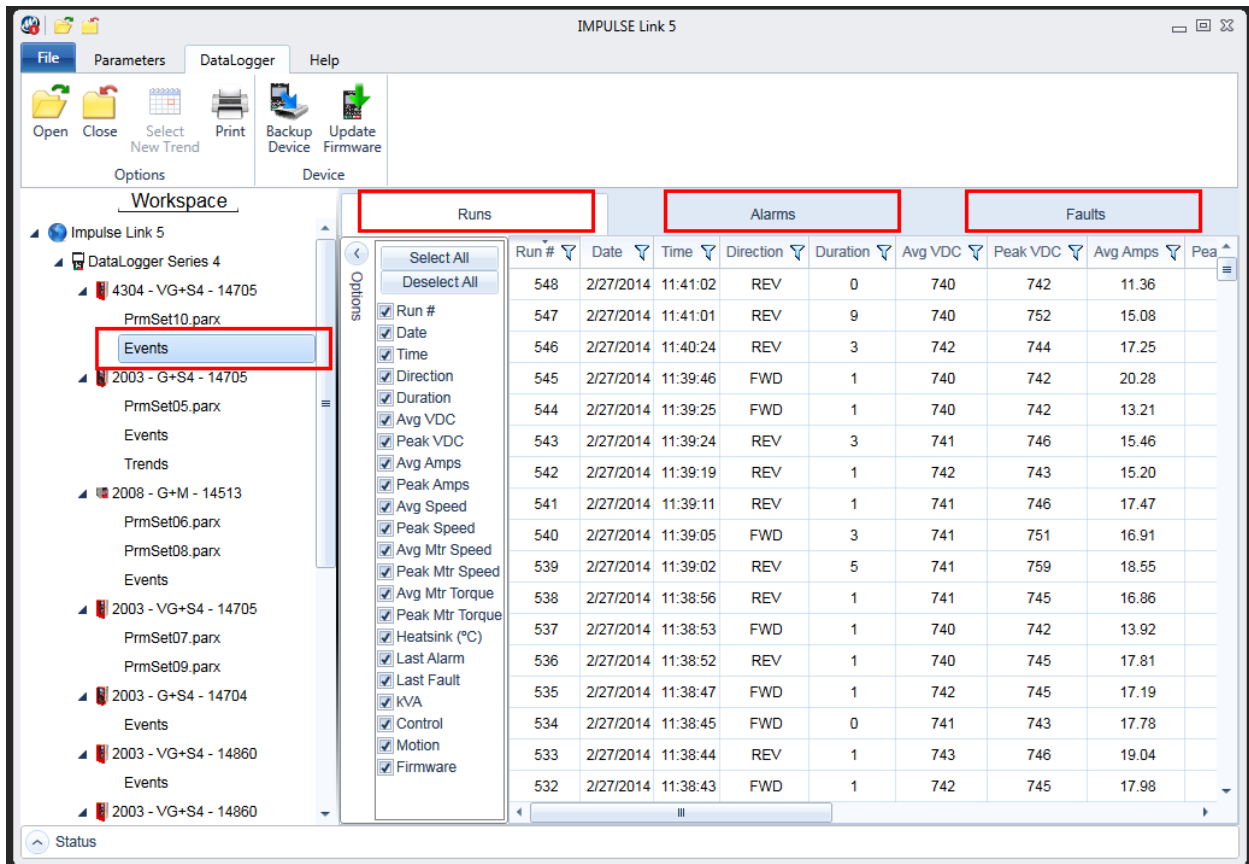


Figure 9: Events

3.6. Runs

When the DLS4 detects a run, it increments the run counter and begins to take average and peak values of the Monitors being logged. It also logs how long the run remains active. When the run has ended, this information is written to the internal memory. If the run ended due to a fault, the reference to that fault gets linked with the particular run. A reference to the last alarm (if any) that occurred during the run is also stored. The DLS4 records numerous pieces of data at the end of the run event. Each of these can be turned ON or OFF for viewing purposes. For example, when "Model" is deselected, it will not be displayed in the Events window. Table 2 shows the various data that is collected.

Table 2: Run Data

Name	Description
Run #	Displays the number of runs recorded by the DLS4.
Date	Displays the date the run event ended [Day/Month/Year].
Time	Displays the time the run event ended [Hour:Minute:Second].
Direction	Displays "FWD" or "REV".
Duration (sec)	Displays the amount of time the run command was active.
Avg VDC	Displays the average DC Bus Voltage during the run.
Peak VDC	Displays the peak DC Bus Voltage during the run.
Avg Amps	Displays the average output current to the motor.
Peak Amps	Displays the peak output current to the motor.
Avg Speed	Displays the average output frequency of the drive.
Peak Speed	Displays the peak output frequency of the drive.
Peak Mtr Speed ¹	Displays the peak speed of the motor.
Avg Mtr Speed ¹	Displays the average speed of the motor.
Avg Mtr Torque ¹	Displays the average torque applied to the motor during the run.
Peak Mtr Torque ¹	Displays the peak torque in the motor.
Heatsink (°C)	Displays the heat sink temperature when the run event ended.
Last Alarm	Displays the last Alarm recorded.
Last Fault	Displays the last Fault recorded.
Model	Displays the model number of the drive.
Control	Displays the Control Method (A1-02) of the drive.
Motion	Displays the Motion (A1-03) of the drive.
Firmware	Displays the firmware (U1-14) of the drive.

¹ Only valid when the control method is Open Loop Vector for the G+ Mini, Series 4, and Series 3, or Flux Vector for the Series 4 and Series 3 drives.

3.7. Alarms

If an Alarm is detected during a run, it will be logged under the Alarms tab. Each data point can be turned ON or OFF for viewing purposes. For example, when "Model" is deselected, it will not be displayed in the Events window. Table 3 shows the various data that is collected.

Table 3: Alarm Data

Name	Description
Alarm #	Displays the alarm number in the DLS4.
Alarm	Displays the name of the alarm posted at the end of the run event.
Date	Displays the date the alarm occurred [Day/Month/Year].
Time	Displays the time the alarm occurred [Hour:Minute:Second].
Assoc. Run #	Displays the associated run number that the alarm occurred in.
Model	Displays the model number of the drive.
Control	Displays the Control Method (A1-02) of the drive.
Motion	Displays the Motion (A1-03) of the drive.
Firmware	Displays the firmware (U1-14) of the drive.

3.8. Faults

If a Fault is detected during a run, it will be logged under the Faults tab. Each data point can be turned ON or OFF for viewing purposes. For example, when "Model" is deselected, it will not be displayed in the Events window. Table 4 shows the various data that is collected.

Table 4: Fault Data

Name	Description
Fault #	Displays the number of the fault stored in the DLS4.
Date	Displays the date the fault occurred [Day/Month/Year].
Time	Displays the time the fault occurred [Hour:Minute:Second].
Assoc. Run #	Displays the associated run number that the fault occurred in.
Fault	Displays the name of the fault.
Fref (Hz)	Displays the frequency reference (U1-01) at the time of the fault.
Fout (Hz)	Displays the output frequency (U1-02) at the time of the fault.
Iout (A)	Displays the output current (U1-03) at the time of the fault.
Motor Speed (Hz)	Displays the motor speed at the time of the fault.
Vout (VAC)	Displays the output voltage (U1-04) at the time of the fault.
DCBus (VDC)	Displays the voltage on the DC Bus at the time of the fault.
Power Out (HP) ¹	Displays the output power (U1-05) at the time of the fault.
T-ref (%) ¹	Displays the torque reference (U1-09) at the time of the fault.
Input Terminal sts	Displays the status of the input terminals (U1-10) at the time of the fault.
Output Terminal sts	Displays the status of the output terminals (U1-11) at the time of the fault.
Inverter sts	Displays the status of the drive (U1-12) at the time of the fault.
Elapsed Time (Hr)	Displays the time since the last fault was recorded.
Heatsink (°C)	Displays the heat sink temperature at the time of the fault.
Model	Displays the model number of the drive.
Control	Displays the Control Method (A1-02) of the drive.
Motion	Displays the Motion (A1-03) of the drive.
Firmware	Displays the firmware (U1-14) of the drive.

¹ Only valid when the control method is Open Loop Vector for the G+ Mini, Series 4, and Series 3, or Flux Vector for the Series 4 and Series 3 drives.

3.9. Trend Data

Drive status information can be charted using the Trend feature of IMPULSE®•Link 5. This data can be quickly viewed and used to analyze drive issues during operation (such as motor overload).

Trend files are automatically generated on power-up, and at the start of every hour. To view a trend, left-click on the Trend folder under the drive in question, which will open the Date dialog box.

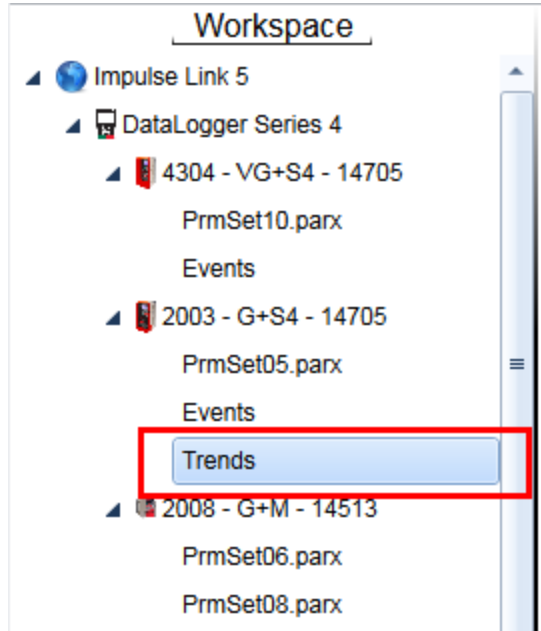


Figure 10: Trends

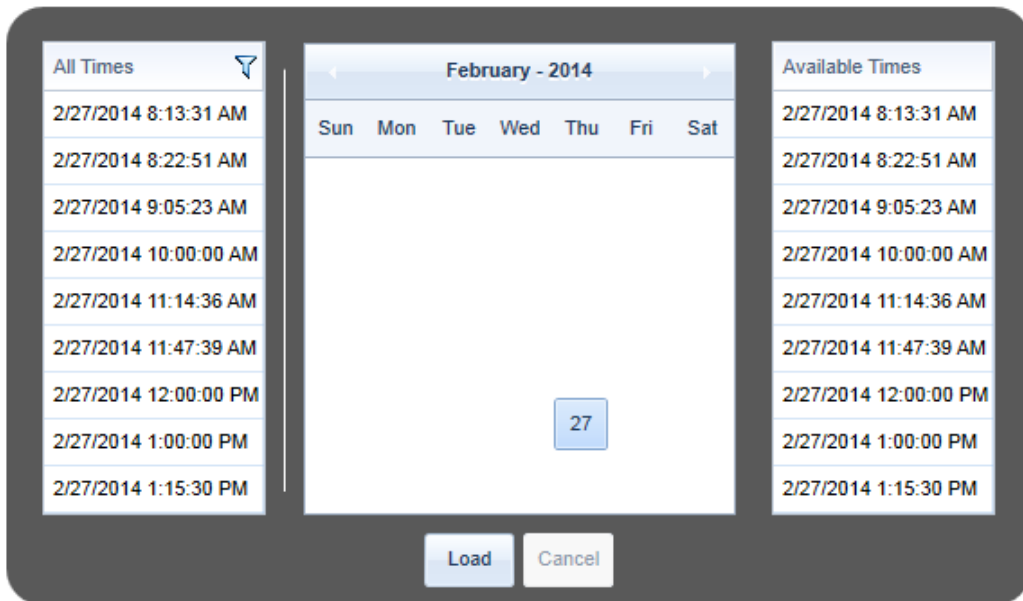


Figure 11: Date Dialog Box

The Date dialog box is used to navigate to the time of the trend to view. Click on a date to show all trends for that day.

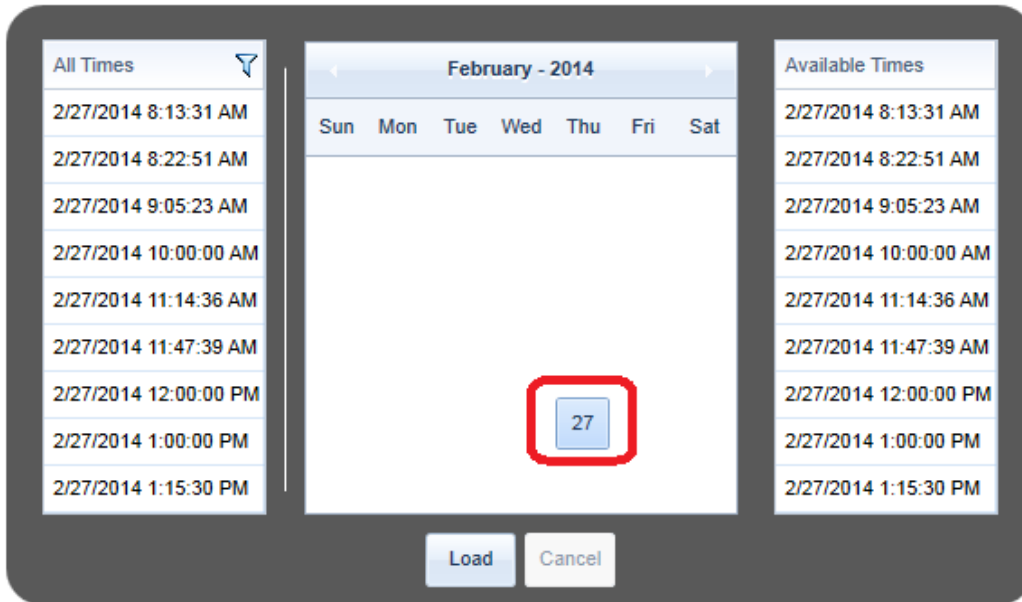


Figure 12: Selecting the Date

All the trends for this date will be shown under "Available Times" on the right. Click on the date/time to highlight the trend to view and then choose "Load".

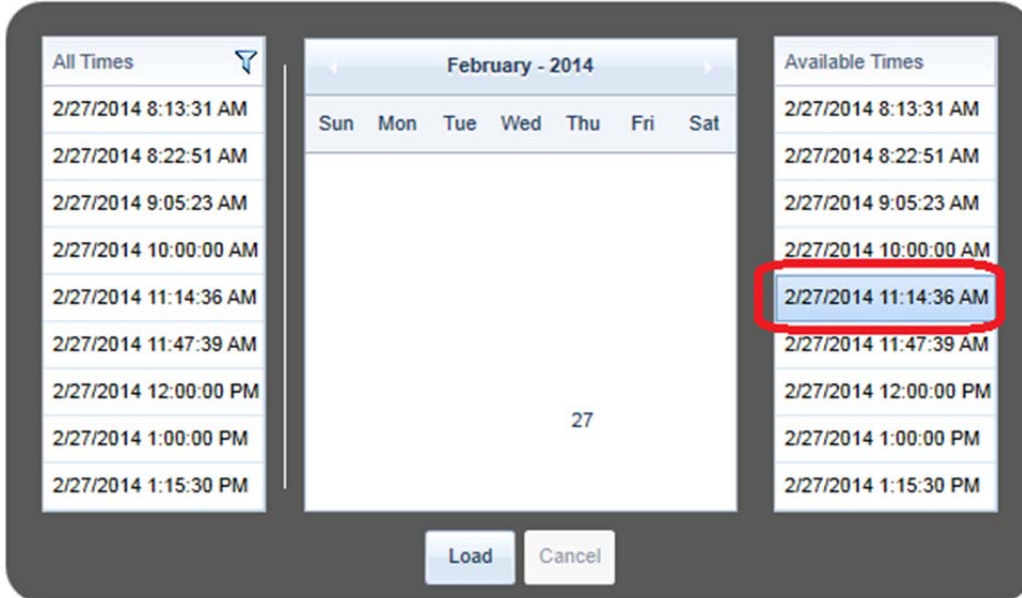


Figure 13: Selecting the Desired Trend

NOTE: This may take several seconds to open depending on the trend length.

NOTE: Trends can also be found in the "Trend" folder in the DataLogger Series 4 internal memory. See the DataLogger Series 4 manual Section 4 for file format.

3.10. Trend Navigation

Trend view will display both analog and digital signals, from the drive as well as signal names and ranges. These signals can be selected in the Signal Selection pane.

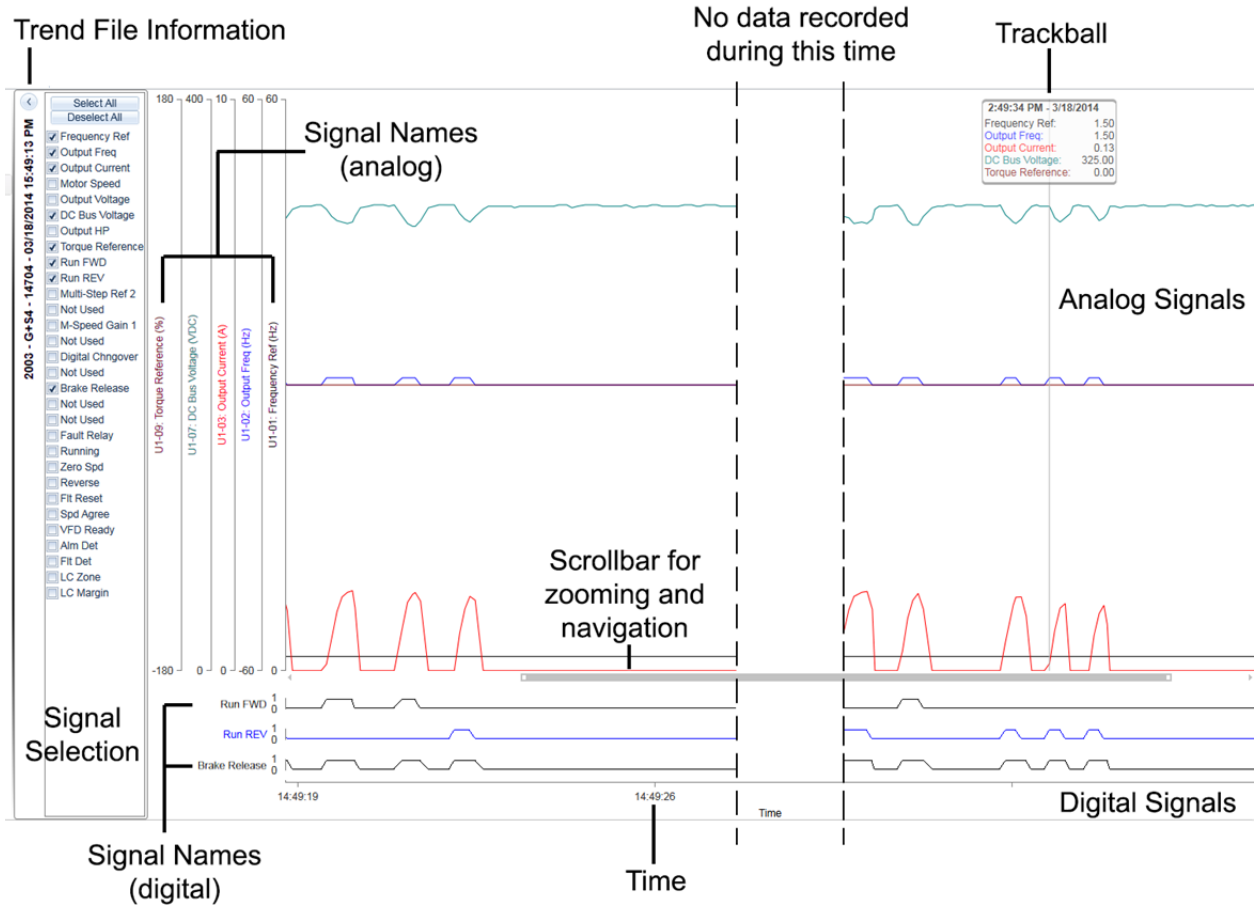


Figure 14: Trend Navigation Overview

The following sections explain the various areas of the Trend display in greater detail.

3.10.1. Trend File Information

The trend file data displays information about the trend file being viewed.

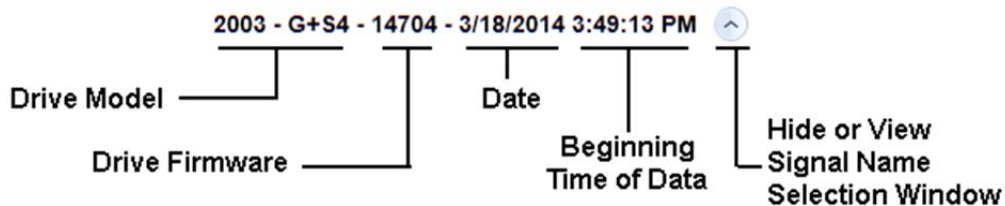


Figure 15: Trend File Information

NOTE: The "Date" format is based on the PC's settings.

3.10.2. Signal Name Select

Analog and digital signals can be selected or deselected from the Signal Name Select pane. The following shows the default selections when a trend is first viewed.

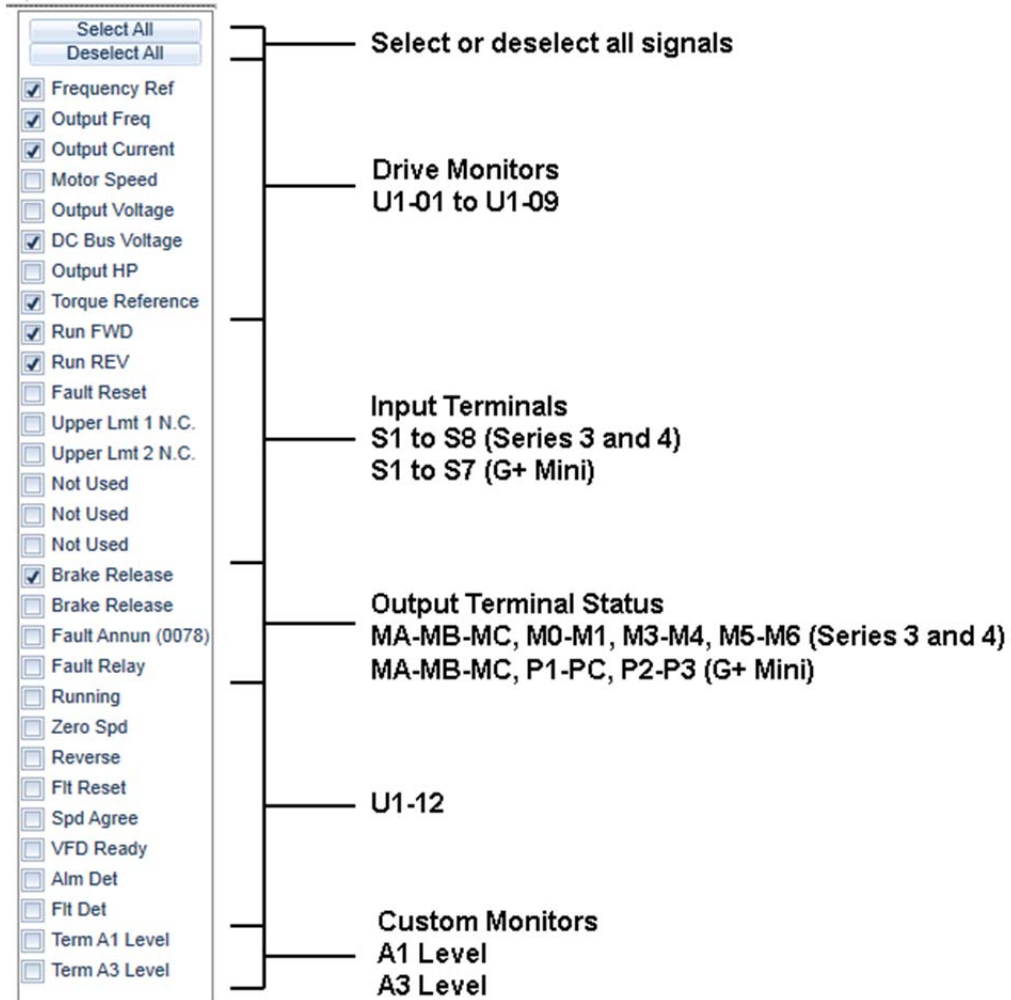


Figure 16: Signal Name Select Pane

3.10.3. Mouse Tooltips

Hovering the mouse pointer over a signal in the Signal Name Select pane will display additional information about that signal, such as the monitor name or meaning, terminal number, and programmed parameter value.

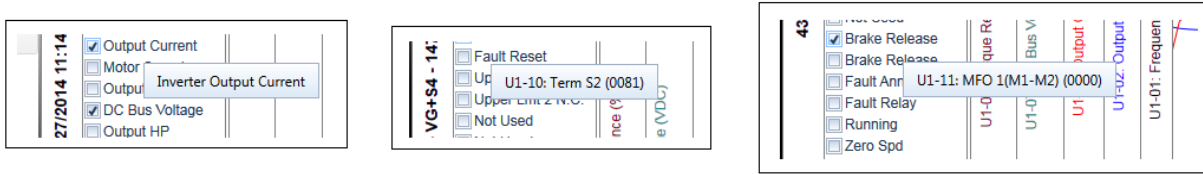


Figure 17: Mouse Tooltip Examples

3.10.4. Signal Names – Analog

When an analog signal is selected, the trend will populate the graph with this data and display the signal name with the upper and lower limits for that monitor. The color of the name is the same as the color of the data graphed.

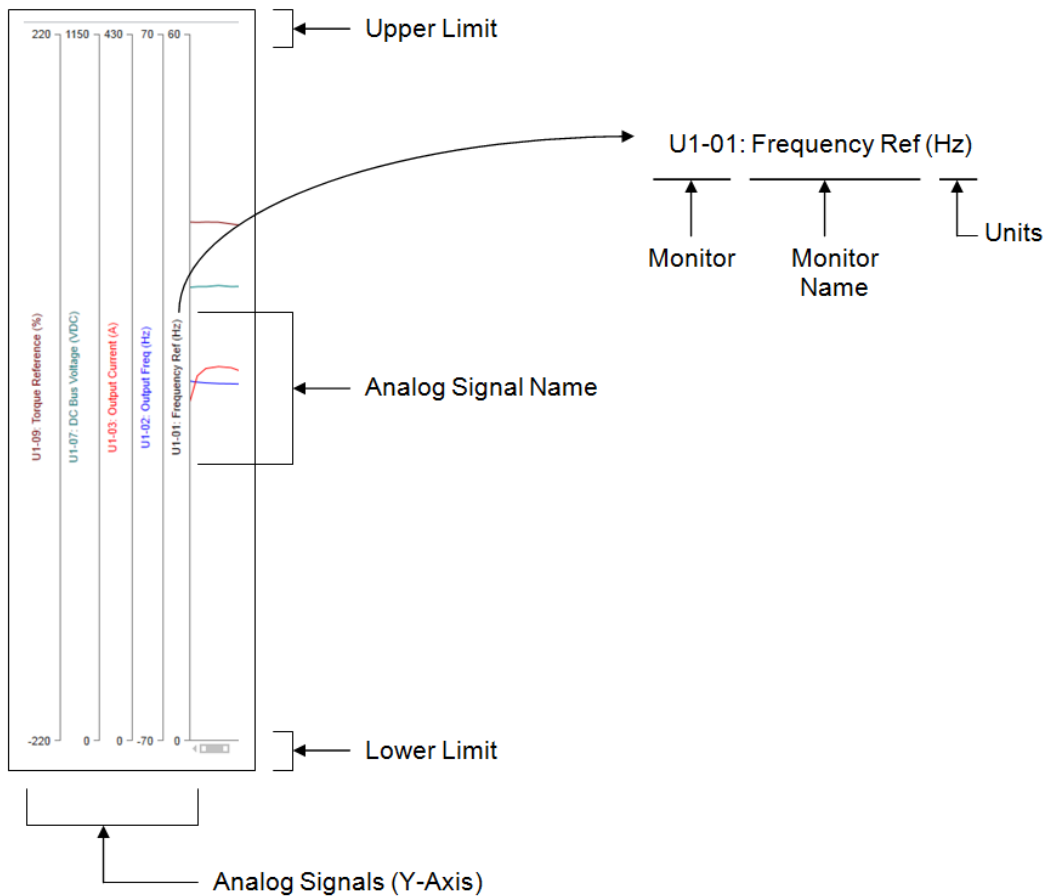


Figure 18: Analog Signal Names

3.10.5. Signal Names – Digital

When a Multi-Function Digital Input (MFDI) or Multi-Function Digital Output (MFDO) signal is selected, the trend will populate the graph and display the signal name. A one (1) or a zero (0) is used to identify whether the input/output is closed or open. The color of the name is the same as the color of the data graphed.

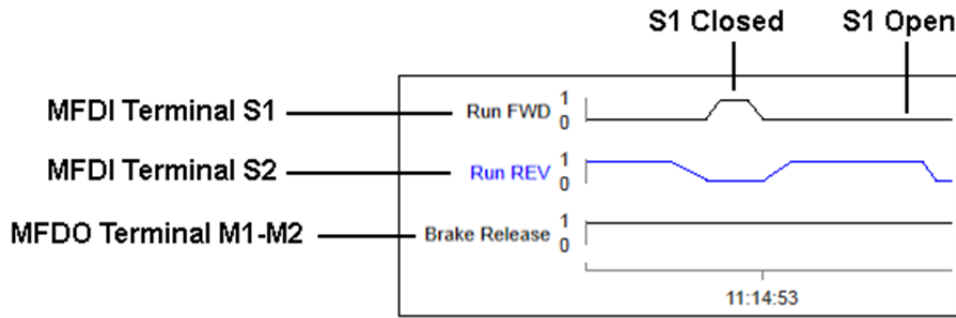


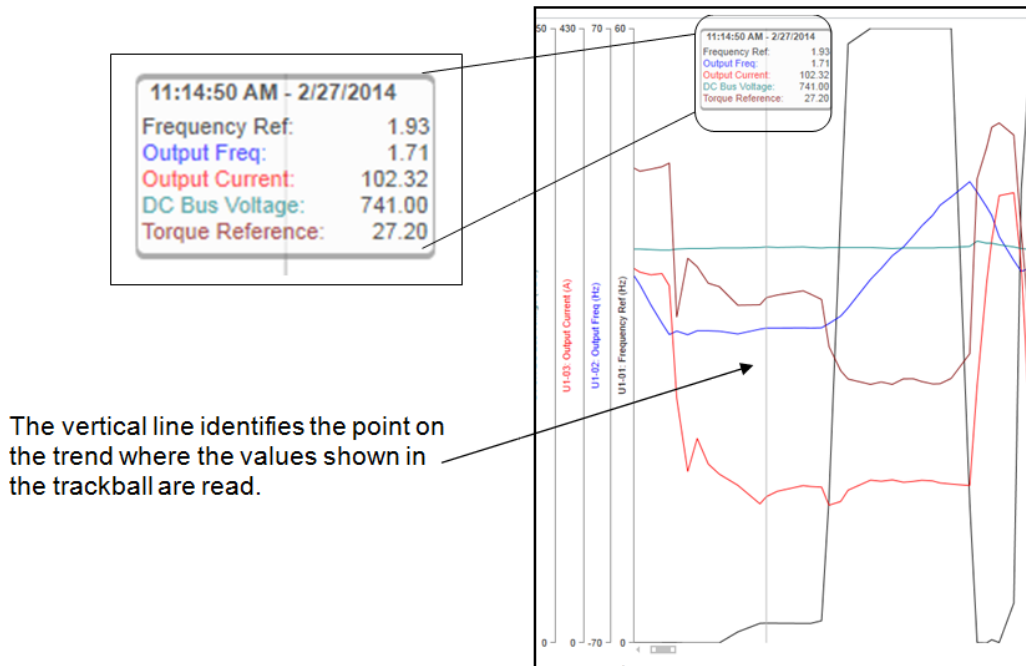
Figure 19: Digital Signal Names

3.10.6. Time

Time is displayed on the bottom in HH:MM:SS using 24 hour format.

3.10.7. Trackball

The trackball displays values for each of the analog signals when the mouse pointer is hovered over the area where the analog signals are shown. The information shown are the values recorded by the DLS4 for each signal. The colors of the names are the same as the color of the signal in the graph.



The vertical line identifies the point on the trend where the values shown in the trackball are read.

Figure 20: Trackball Details

3.10.8. Scrollbar Navigation

IMPULSE®•Link 5 provides a proportional scrollbar to navigate through a trend file. The scrollbar is used to zoom in/out or move from the beginning/end of the trend file.

3.10.9. Sliding the Scrollbar

Navigation from the beginning to the end of a trend file is done by left-clicking on the scrollbar and sliding the scrollbar left or right.

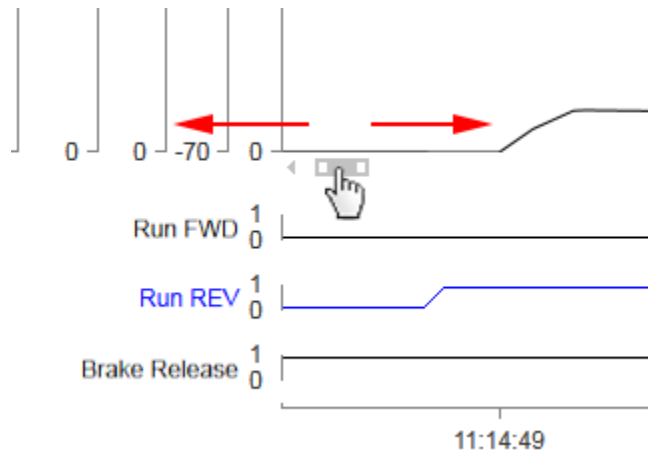


Figure 21: Sliding the Scrollbar

3.10.10. Zoom

Zooming in or out on a trend can be done with the scrollbar, mouse, or mouse wheel.

1. Scrollbar: Left-click on the outside edge of the scrollbar, then drag to expand or contract view. Below is an example of zooming out. The cursor turns into a double-sided arrow.

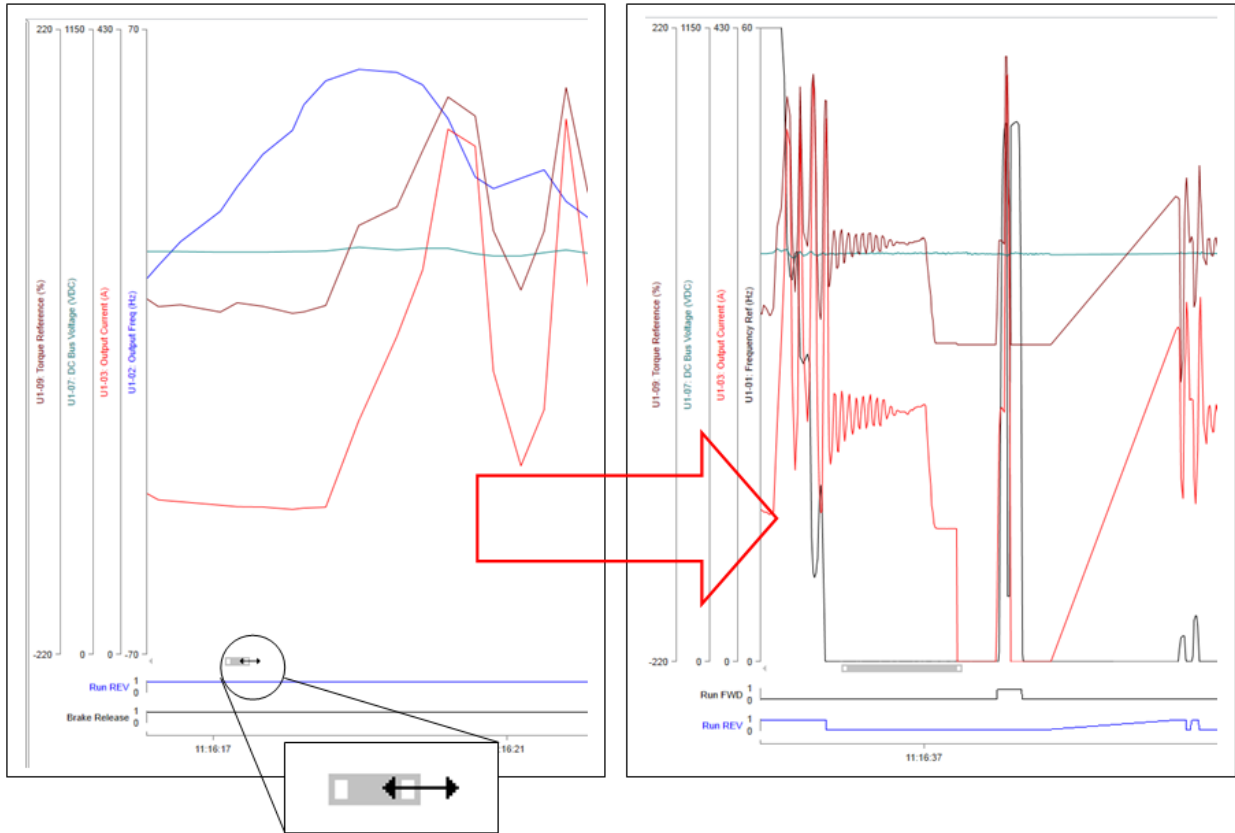
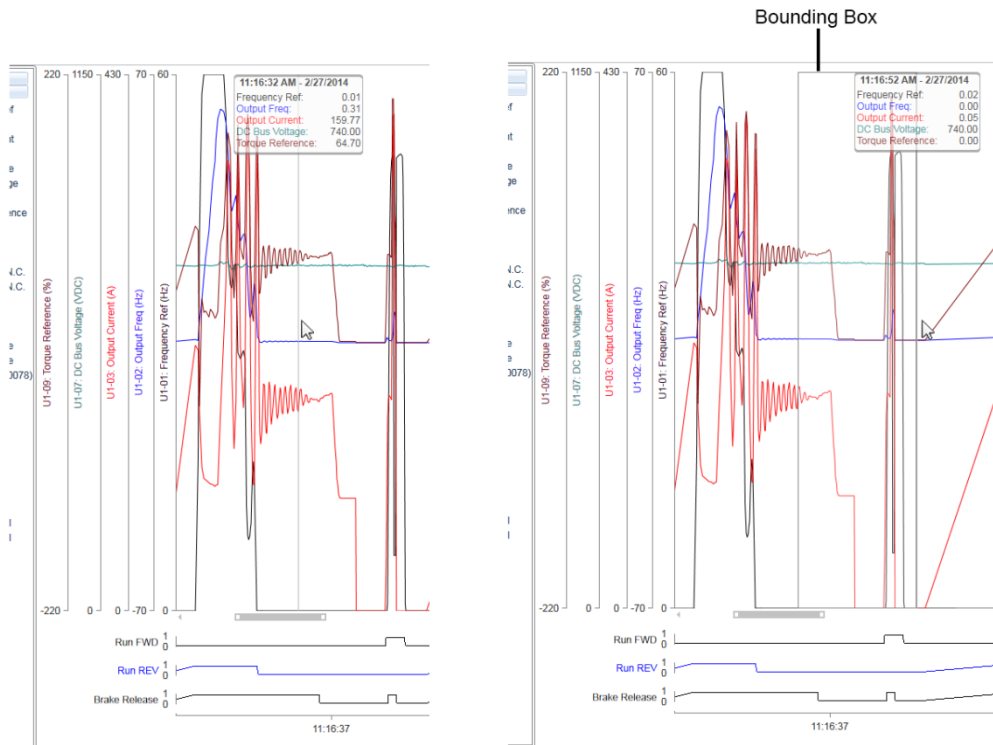


Figure 22: Using the Scrollbar

2. Mouse wheel: Position the mouse over the desired area on the trend to zoom in/out from. Use the mouse wheel to zoom in or out on the trend at that position on the graph.
3. Mouse: With the mouse, left-click and hold on the desired area of the graph and then drag mouse to zoom in.



Left-click and hold the mouse pointer at the start of the data to be examined, and drag it to the left or right to select the time range.

Figure 23: Zooming In via Mouse

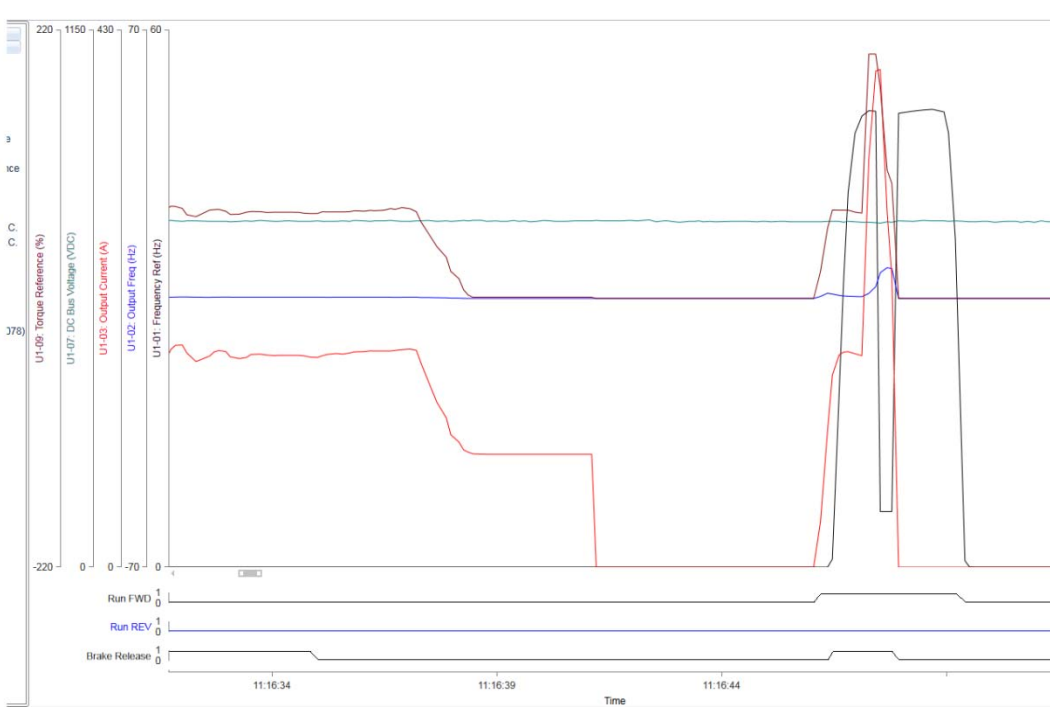


Figure 24: Final View After Zooming In via Mouse

3.10.11. Printing

IMPULSE®•Link 5 can print parameter sets, event information, and trending data.

3.10.11.1 Parameter Data

In order to print parameter data, go to the Parameters tab and select the parameter set to be printed from the Workspace.

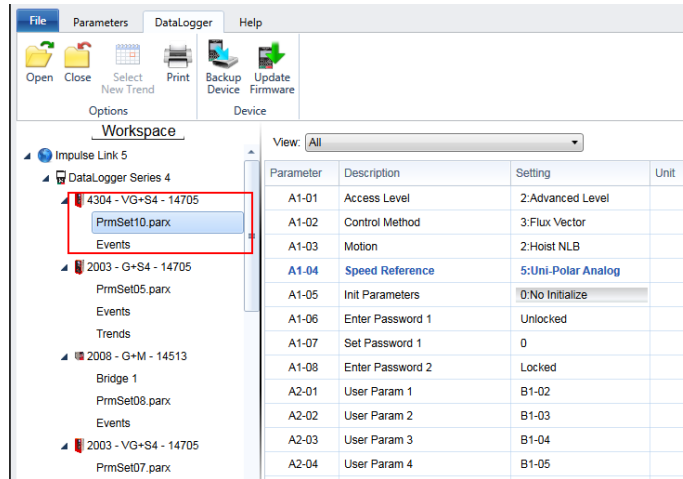


Figure 25: Selecting the Parameter Set

Click the Print icon, which will bring up the IMPULSE®•Link 5's print dialog.

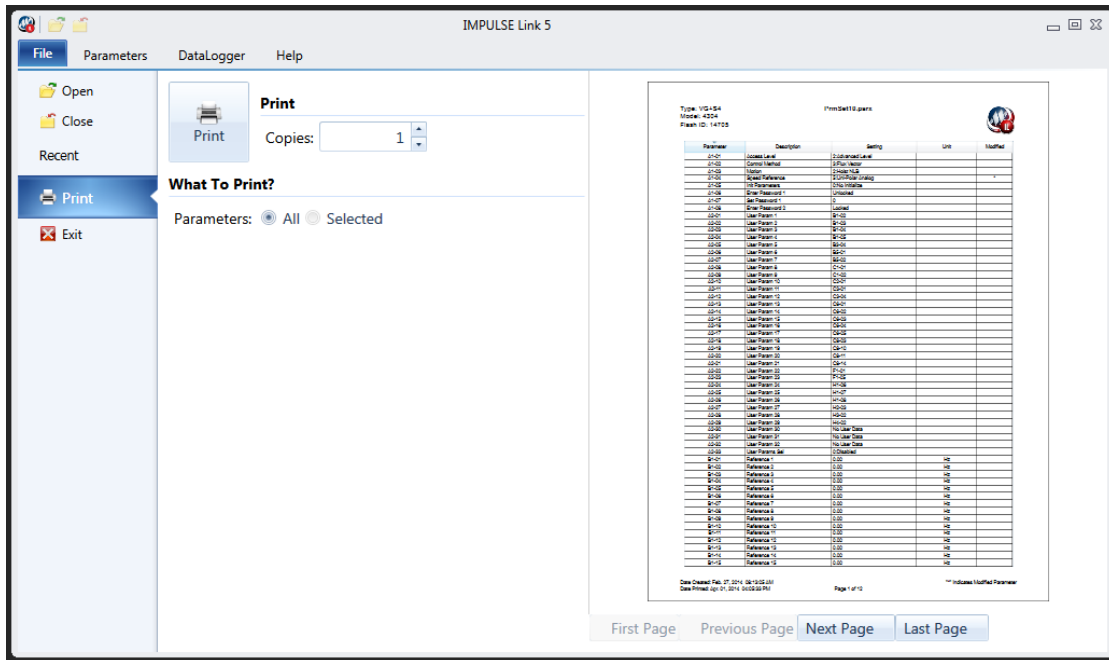


Figure 26: Print Preview of the Parameter Set

The initial "Print" data is controlled by the Parameter view. Changing the view in the Parameter tab from "All" to the desired view (parameter groups, modified parameters, etc.) will change the data available for printing.

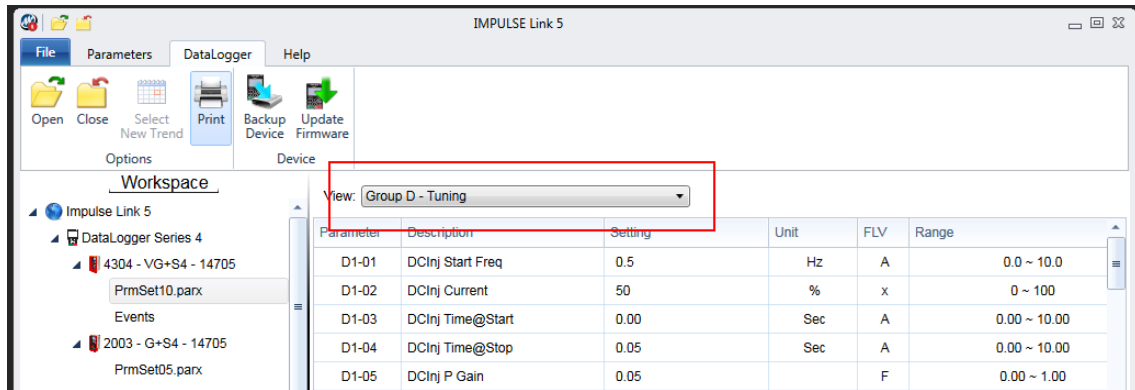



Figure 27: Selecting a Specific Parameter Group

Type: VG+S4
Model: 4304
Flash ID: 14705

PrmSet10.parx



Parameter	Description	Setting	Unit	Modified
D1-01	DCInj Start Freq	0.5	Hz	
D1-02	DCInj Current	50	%	
D1-03	DCInj Time@Start	0.00	Sec	
D1-04	DCInj Time@Stop	0.05	Sec	
D1-05	DCInj P Gain	0.05		
D1-06	DCInj Intgl Time	10.0	ms	
D1-07	DCInj Limit	15.0	%	
D1-08	Field Comp	0	%	
D1-14	MFDI DC Inj Cur1	50	%	
D1-15	MFDI DC Inj Cur2	50	%	
D1-16	MFDI DC Inj Tim1	0.0	Sec	
D1-17	MFDI DC Inj Tim2	0.0	Sec	
D1-18	SC Brake T@Start	0.00	Sec	
D1-19	SC Brake T@Stop	0.50	Sec	
D1-20	Shrt Cir Brk 1	100.0	%	
D1-21	Shrt Cir Width	10.0	%	
D2-01	Slip Comp Gain	1.0		
D2-02	Slip Comp Time	0	ms	
D2-03	Slip Comp Limit	200	%	
D2-04	Slip Comp Regen	0.Disabled		
D2-05	Output V Lim Sel	0.Disabled		
D2-06	V/F Slip Cmp Sel	0.Slip Included		
D2-07	Slp Cmp Regen LL	2.0	Hz	
D3-01	Torq Comp Gain	0.00		
D3-02	Torq Comp Time	200	ms	
D3-03	F TorqCmp@Start	0.0	%	
D3-04	R TorqCmp@Start	0.0	%	
D3-05	TorqCmp Delay T	10	ms	
D3-06	Start Torq Time	150	ms	
D3-07	Motr2 Comp Gain	1.00		
D4-01	ASR P Gain 1	20.00		
D4-02	ASR I Time 1	0.500	Sec	
D4-03	ASR P Gain 2	20.00		
D4-04	ASR I Time 2	0.500	Sec	
D4-05	ASR Limit	5.0	%	
D4-06	ASR Delay Time	0.004	Sec	
D4-07	ASR Gain SW Freq	0.0	Hz	
D4-08	ASR I Limit	400	%	
D4-09	I Op In AcoDec	0.Disabled		
D4-10	Motor Inertia	0.0330	kgm2	
D4-11	Load Inertia	1.0		
D4-16	ASR Limit Mtr2	5.0	%	
D4-17	ASR Dly Time 2	0.000	Sec	
D4-18	ASRGainSwitch2	0.0	Hz	
D4-19	ASR I limit 2	400	%	
D4-20	AcoDec I Sel 2	0		
D4-22	Load Inertia 2	10		
D4-36	NLB Strt ASR 1	0.100	Sec	
D4-37	NLB Strt ASR Dly	0.50	Sec	
D4-23	Regen ASR Lim	0.0	%	
D5-01	Torq Control Sel	0.Speed Control		
D5-02	Torq Ref Filter	0	ms	
D5-03	Speed Limit Sel	2.Speed Limit Sel		
D5-04	Speed Lmt Value	105	%	
D5-05	Speed Lmt Bias	10	%	
D5-06	Ref Hold Time	0	ms	

Date Created: Feb. 27, 2014 08:13:05 AM
Date Printed: Apr. 01, 2014 04:13:21 PM

Page 1 of 2

*** Indicates Modified Parameter

Figure 28: Print Preview of Parameter Group Data

To print up a few select parameters, shift-click the desired block of rows to print, or ctrl-click to select non-contiguous rows. If a parameter was selected in error, simply ctrl-click that parameter to remove it from the selected parameters (it should no longer be highlighted). Then click on the Print icon to open up the print dialog and click on the "Selected" option before printing.

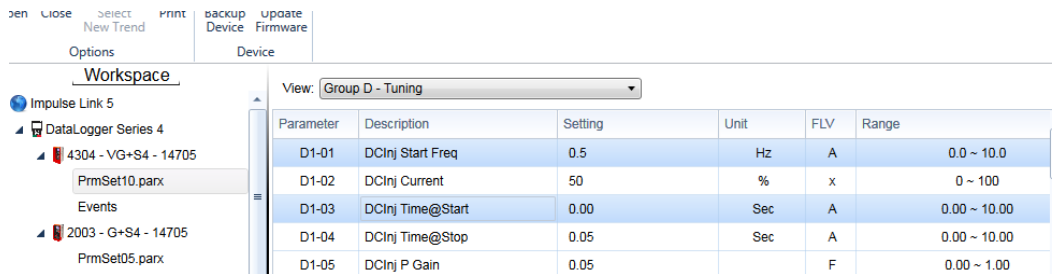


Figure 29: Highlighting Select Parameters

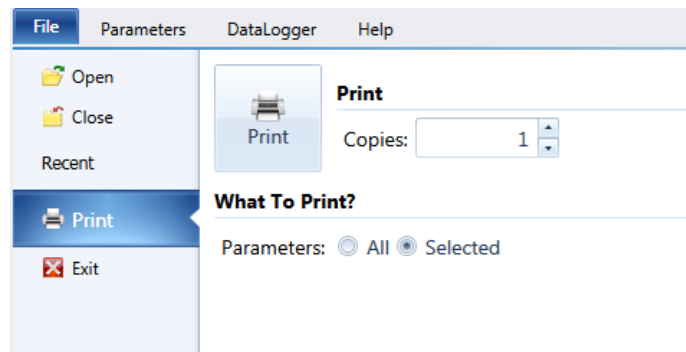


Figure 30: Print Selected

3.10.11.2 Events

In order to print Event data, go to the DataLogger tab and select the Event set to be printed from the workspace.

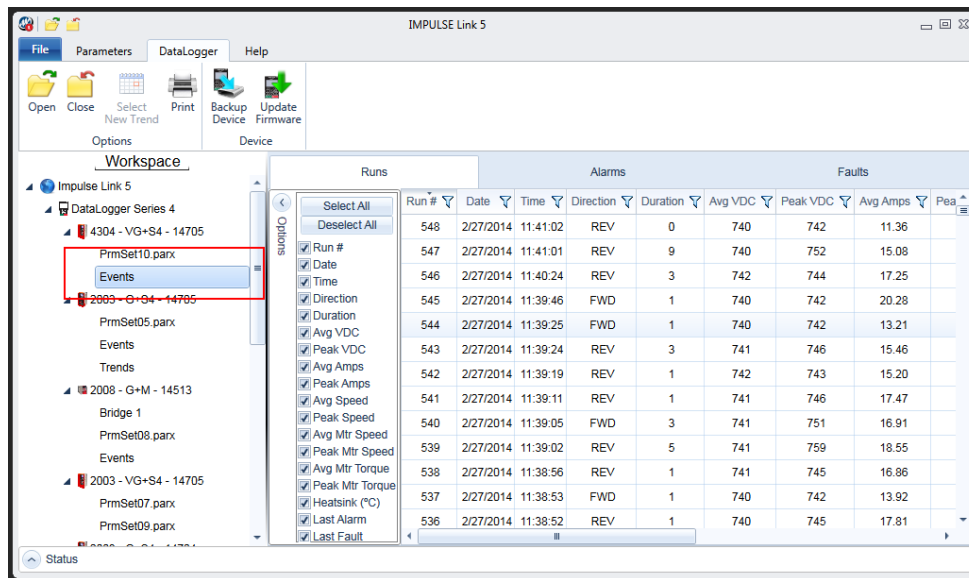


Figure 31: Selecting an Event

Click the Print icon, which will bring up the IMPULSE®•Link 5's print dialog.

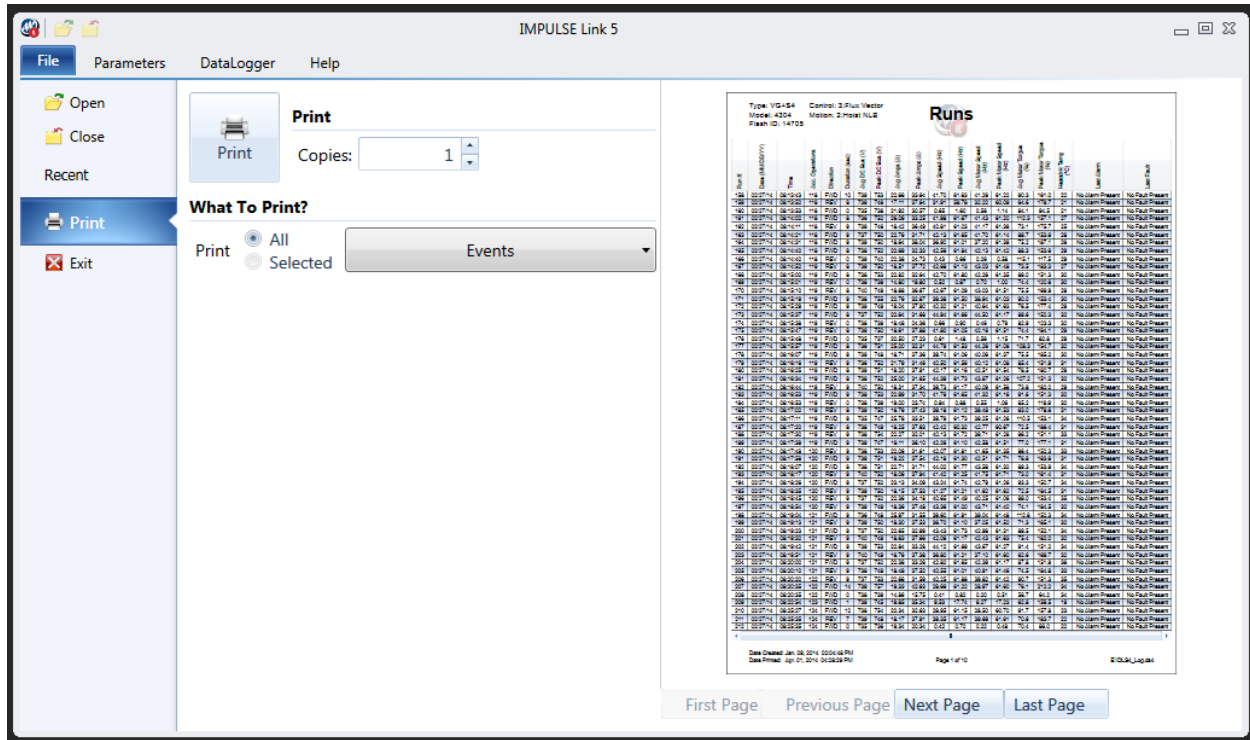


Figure 32: Print Preview of the Event

Users can use the pull-down menu in the print dialog to specify which data to print: Events (which will print the entire series of Runs, Alarms, and Faults), Runs, Alarms, and Faults.

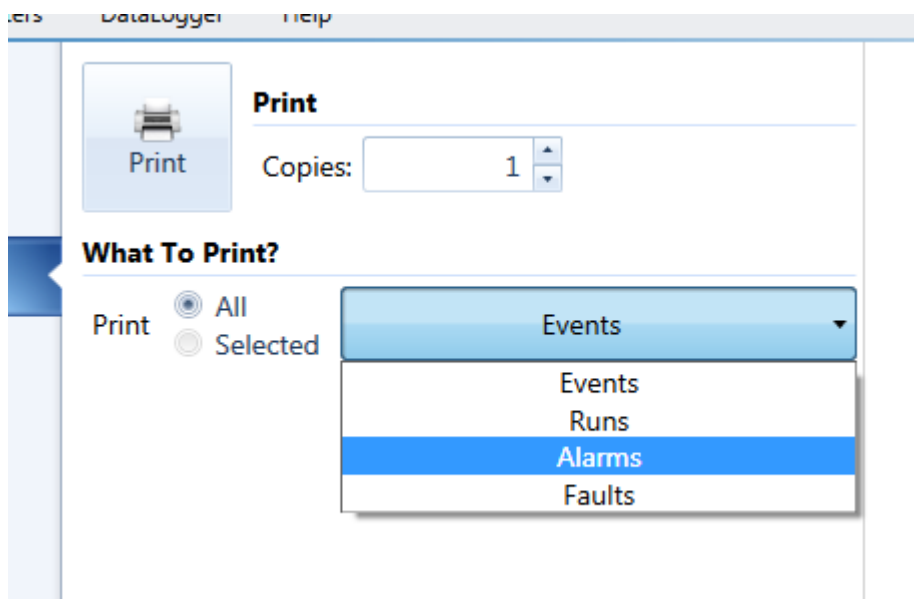


Figure 33: Selecting the Event Data

To select particular data rows, shift-click the desired block of rows to print, or ctrl-click to select non-contiguous rows. If a parameter was selected in error, simply ctrl-click that parameter to remove it from the selected parameters (it should no longer be highlighted). This can be done in any combination of Run, Alarm, and Fault rows - simply select the required data in the Runs tab, and then click on the Alarms tab and/or Faults tab and repeat as necessary. Then click on the Print icon to open up the print dialog and click on the "Selected" option before printing.

The screenshot shows the 'Workspace' view with a tree on the left and a main data table. The 'Runs' tab is active, displaying a table of runs. An 'Options' menu is open, showing a list of parameters that can be selected for printing. The table contains the following data:

Run #	Date	Time	Direction	Duration	Avg VDC	Peak VDC	Avg Am
548	2/27/2014	11:41:02	REV	0	740	742	11.1
547	2/27/2014	11:41:01	REV	9	740	752	15.1
546	2/27/2014	11:40:24	REV	3	742	744	17.1
545	2/27/2014	11:39:46	FWD	1	740	742	20.1
544	2/27/2014	11:39:25	FWD	1	740	742	13.1
543	2/27/2014	11:39:24	REV	3	741	746	15.1
542	2/27/2014	11:39:19	REV	1	742	743	15.1
541	2/27/2014	11:39:11	REV	1	741	746	17.1
540	2/27/2014	11:39:05	FWD	3	741	751	16.1
539	2/27/2014	11:39:02	REV	5	741	759	18.1

Figure 34: Selecting Specific Runs, Alarms, and/or Faults

The screenshot shows the 'Print' dialog box. On the left, there is a 'Print' button and a 'Copies' field set to 1. Below that, the 'What To Print?' section has radio buttons for 'All' and 'Selected', with 'Selected' being chosen. A dropdown menu shows 'Runs' selected. On the right, a preview of the 'Runs' data is shown, including a table with the following columns: Run #, Date (MM/DD/YYYY), Time, Acc. Operations, Direction, Duration (sec), Avg DC Bus (V), Peak DC Bus (V), Avg Amps (A), Peak Amps (A), Avg Speed (FPM), Peak Speed (FPM), Avg Motor Speed (FPM), Peak Motor Speed (FPM), and Avg Motor Torque (Nm). The table contains three rows of data corresponding to runs 545, 542, and 543.

Figure 35: Print Preview of Selected Data

NOTE: The selection options for the Events under the DataLogger tab do not control what will print.

3.10.11.3 Trends

In order to print Trend data, go to the DataLogger tab and select the Trend to be printed from the workspace.

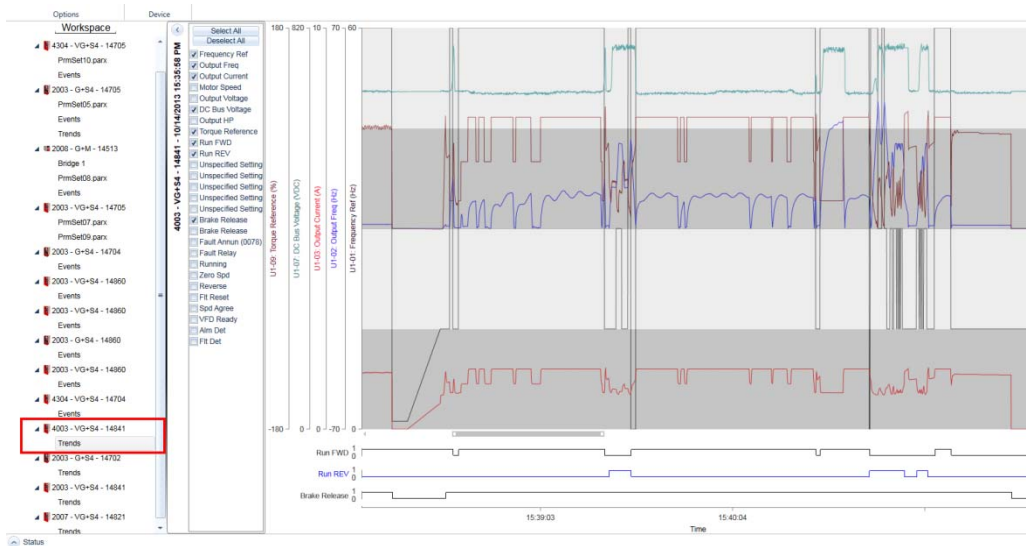


Figure 36: Selecting the Trend

Click the Print icon, which will bring up the IMPULSE® Link 5's print dialog.

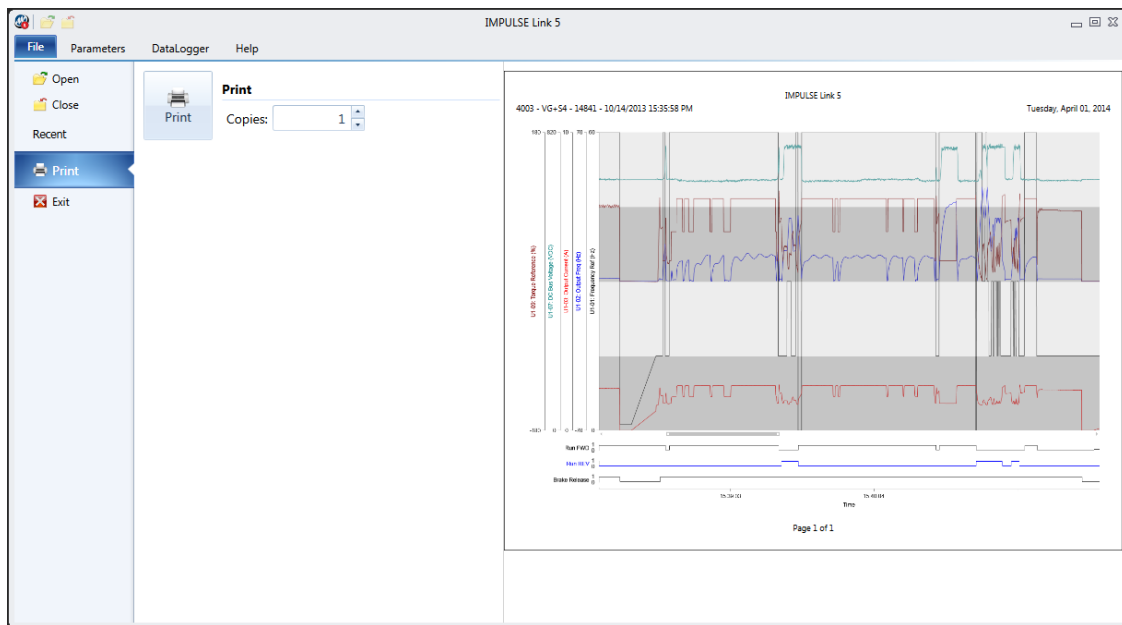


Figure 37: Printing the Trend

The printed data is based on the view in the main window, so be sure to adjust the view as necessary before printing (zooming on the desired data, adding and removing signals as necessary, etc.).

3.11. Update Firmware

IMPULSE®•Link 5 can update the firmware in the DLS4 to incorporate any new features and enhancements to the DLS4. Refer to Chapter 4: DataLogger Maintenance for more details.

3.12. Help Tab

The Help tab contains information about IMPULSE®•Link 5, as well as resources for the user.

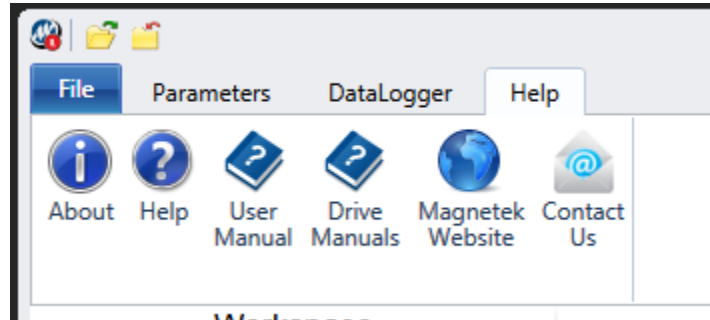


Figure 38: The Help Tab

About - Launches the "IMPULSE®•Link 5" screen, which includes information regarding the version, the build, and the copyright date.

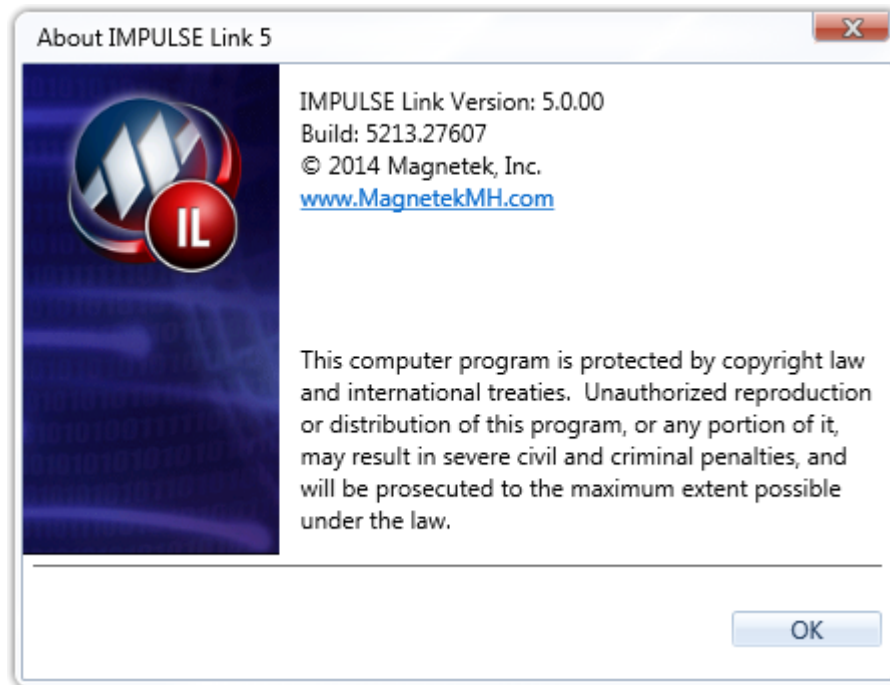


Figure 39: About IMPULSE®•Link 5

Help - Launches the IMPULSE®•Link Help File, which contains information about communication profiles, troubleshooting codes, an index of errors, faults, and alarms, etc.

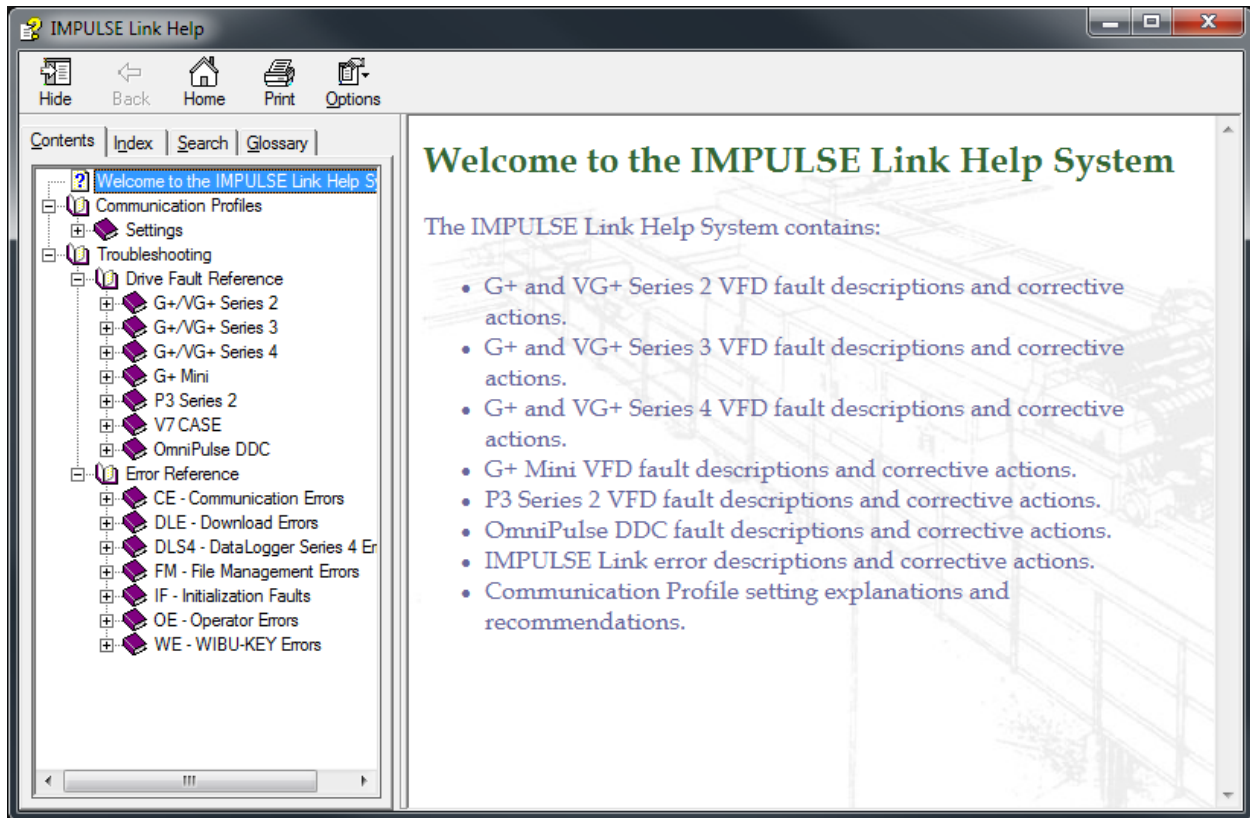


Figure 40: IMPULSE®•Link Help File – Main Page

User Manual - Downloads the IMPULSE®•Link 5 manual from the internet, provided the PC is connected.

Drive Manuals - Launches the PC's default browser (or opens a new tab) and opens Magnetek Material Handling's "Product Manuals" webpage (<http://www.magnetekmh.com/Material%20Handling/Product%20Manuals.aspx>), provided the PC is connected to the internet.

Magnetek Website - Launches the PC's default browser (or opens a new tab) and opens Magnetek Material Handling's main website (<http://www.magnetekmh.com/>), provided the PC is connected to the internet.

Contact Us - Creates a new email message, using the PC's default email client, which is addressed to the IMPULSE®•Link 5 Feedback team.

4. DataLogger Maintenance

4.1. Updating DataLogger Firmware

IMPULSE®•Link 5 can update the firmware in the DLS4 to incorporate any new features and enhancements to the DLS4. When the IMPULSE®•Link 5 software is updated, the newest version of firmware for the DLS4 will be automatically installed on PC.

If the IMPULSE®•Link 5 cannot download the newest version of the firmware for some reason (if the PC is not connected to the internet, for example), the firmware may be manually downloaded from the Magnetek Material Handling website at <http://www.magnetek.com/en/Material%20Handling/Downloads.aspx>.

Once the firmware is saved to the PC, do the following:

- Connect the DataLogger Series 4 to the PC using the 6' USB cable. Press the DLS4 keypad's F1 and F2 keys simultaneously until the "READY FOR UPDATE" message appears.



Figure 41: DataLogger Series 4 Screen – Ready for Update

- Go to the DataLogger tab.
- Click on the "Update Firmware" icon in IMPULSE®Link 5.

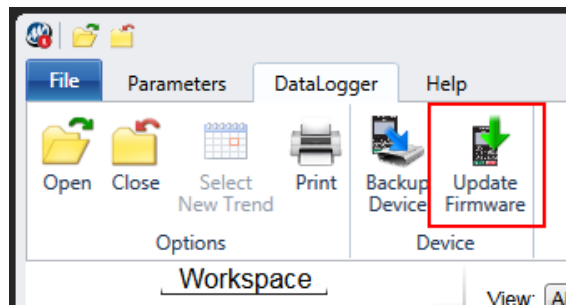


Figure 42: The Update Firmware Icon

- After the software is updated, the firmware revision will be displayed on the main screen of the DLS4.



Figure 43: DataLogger Series 4 Main Screen

5. Software Updates

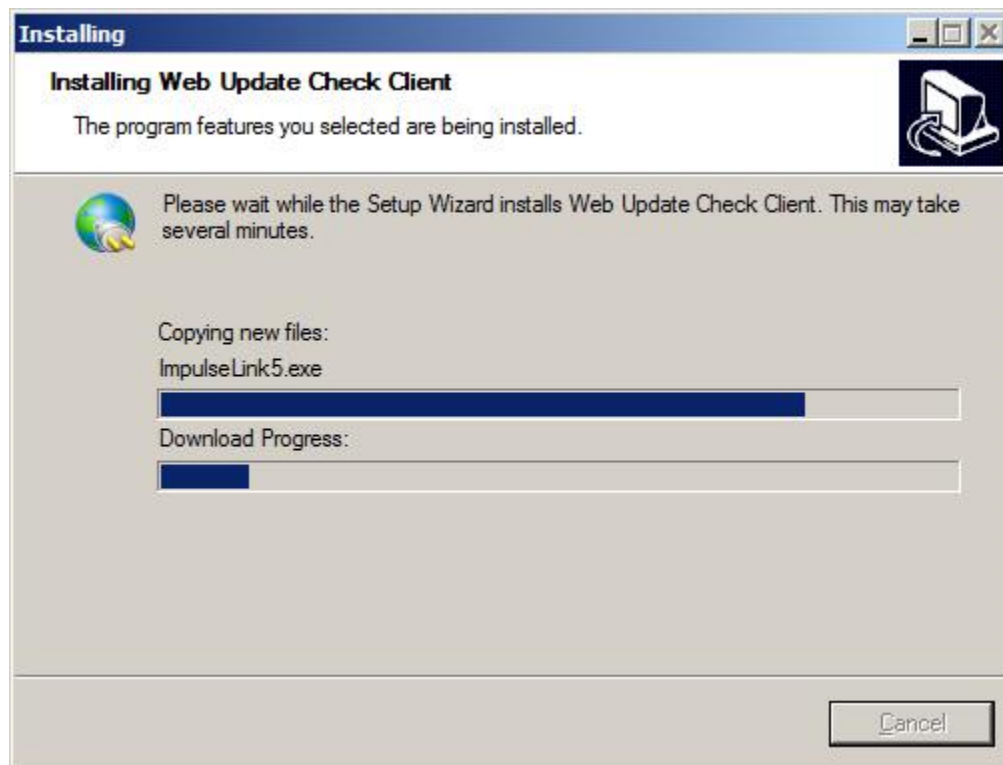
Additional features and enhancements may be released without notice.

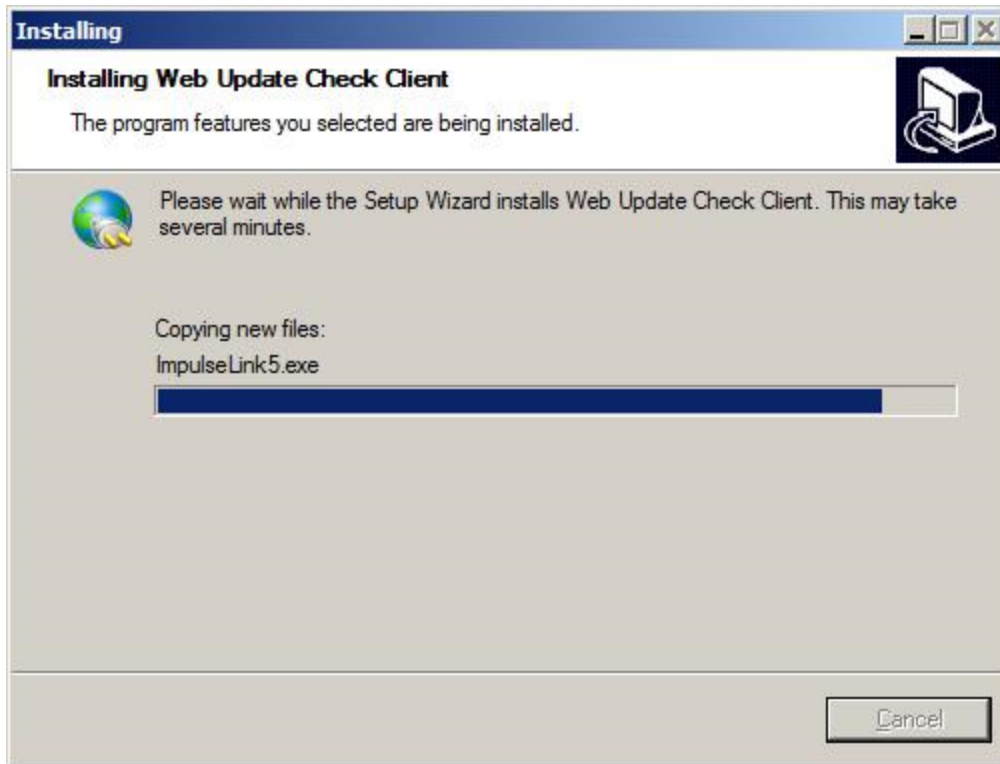
If the PC does not have internet access, the software may be obtained from the Magnetek Material Handling website at <http://www.magnetek.com/en/Material%20Handling/Downloads.aspx> and then uploaded to the PC (without internet connection) via a mass storage device.

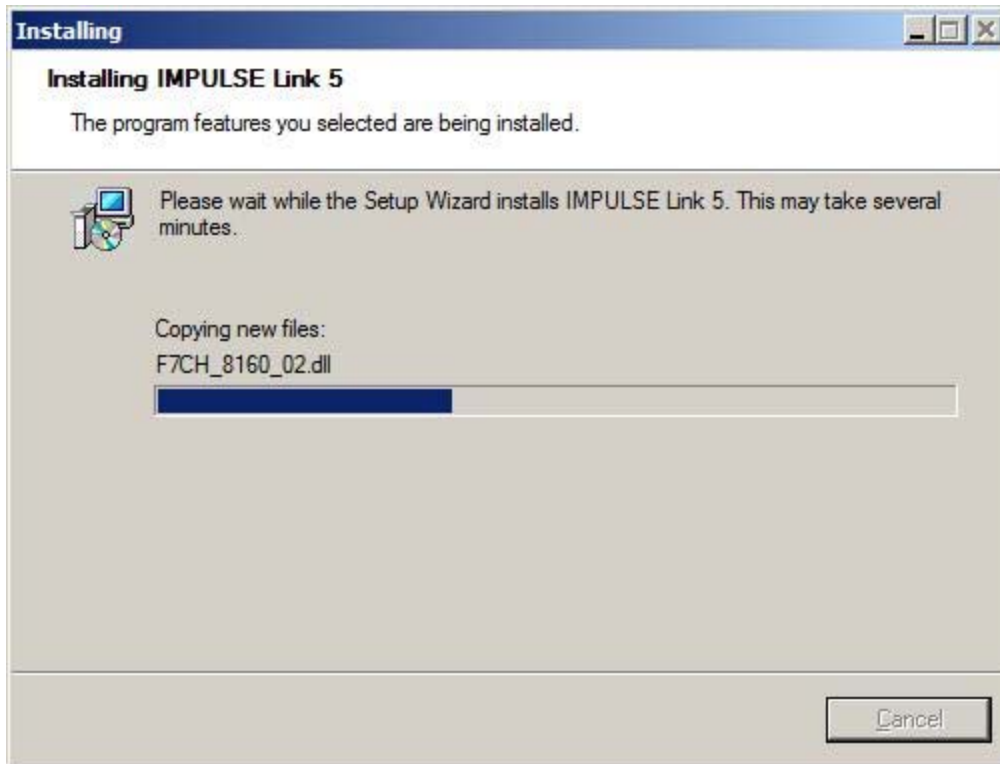
If the PC does have internet access, the IMPULSE®•Link 5 software will automatically check for updates when launched. If the PC is connected to the internet, IMPULSE®•Link 5 will prompt the user to install the update.



If the user chooses to install the update immediately, the Web Update Check Client will launch.







Once IMPULSE®•Link 5 is done installing the update, it will automatically re-launch.