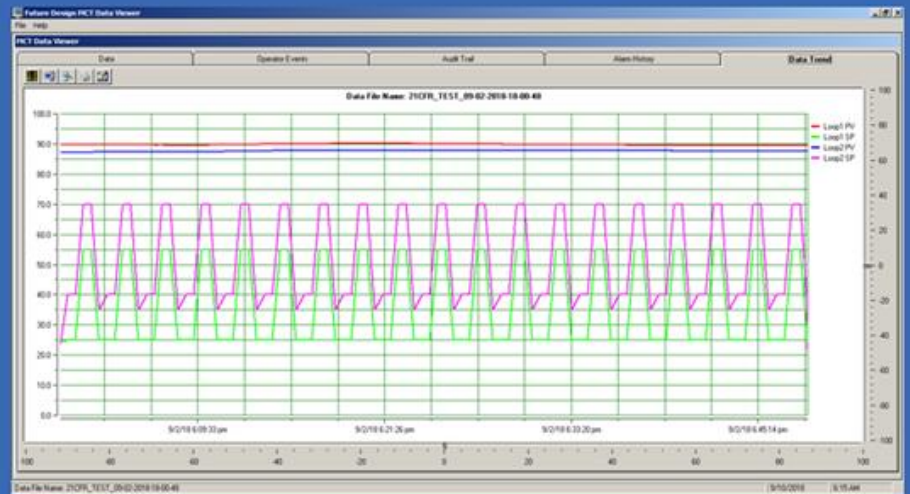


# MCT Data Viewer

## User Manual



## Technical Assistance

If you encounter a problem with your MCT control system, review all of your configuration information to verify that your selections are consistent with your application: inputs; outputs; alarms; limits; etc. If the problem persists after checking the above, you can get technical assistance by dialing +1 (866) 342-5332 or by faxing your request to +1 (866) 332-8014, Monday thru Friday, 8:00 a.m. to 5:00 p.m. Eastern Standard Time. You can also email your request to [support@futuredesigncontrols.com](mailto:support@futuredesigncontrols.com).

An applications engineer will discuss your application with you.

### **Please have the following information available:**

- Complete Model #'s and/or Serial #'s for Component(s) in Question
- Complete Software Version #'s
- All Configuration Information
- All User Manuals

**Software license, warranty and return information is on the back cover of this manual.**

## Comments

Your comments or suggestions on this manual are welcome. Please send them to:  
Future Design Controls, P.O. Box 1196, Bridgeview, Illinois, 60455  
Telephone: +1 (888) 751-5444; fax: +1 (888) 307-8014  
[csr@futuredesigncontrols.com](mailto:csr@futuredesigncontrols.com)

The MCT Data Viewer User Manual is copyrighted by Future Design Controls, Inc., © 2018, all rights reserved.

<b>1</b>	<b>Getting Started .....</b>	<b>4</b>
1.1	Hardware Requirements.....	4
<b>2</b>	<b>Viewing Data Files.....</b>	<b>5</b>
2.1	Trending Data.....	7
2.1.1	Trend Setup.....	8
2.1.2	Data Cursor .....	8
2.1.3	Chart Annotation.....	9
2.2	Operator Events .....	10
<b>3</b>	<b>Viewing Audit Trails .....</b>	<b>12</b>
<b>4</b>	<b>Viewing Alarm History Files .....</b>	<b>14</b>
	<b>Appendix.....</b>	<b>15</b>
	Software License	
	Warranty	
	Returns	

## **1 Getting Started**

The MCT Data Viewer is a PC based software program that allows data files, operator event files, alarm files and audit trail files to be viewed on a PC. It provides the ability to print, export, graphically trend and verify digital signatures of MCT system files. MCT products can be used in both the general industrial and pharmaceutical markets as they are designed to conform to 21 CFR 11 requirements for electronic signatures, audit trails, encryption and security, as well as AMS2750E for heat treatment.

The Data Viewer compliments MCT products by providing the means to validate data retrieved during operation. Without the MCT Data Viewer, data file signatures can only be verified on the MCT product. With the MCT Data Viewer, the signatures of any data file can be verified on any PC, from which the data can then be graphically trended and printed.

### **1.1 Hardware Requirements**

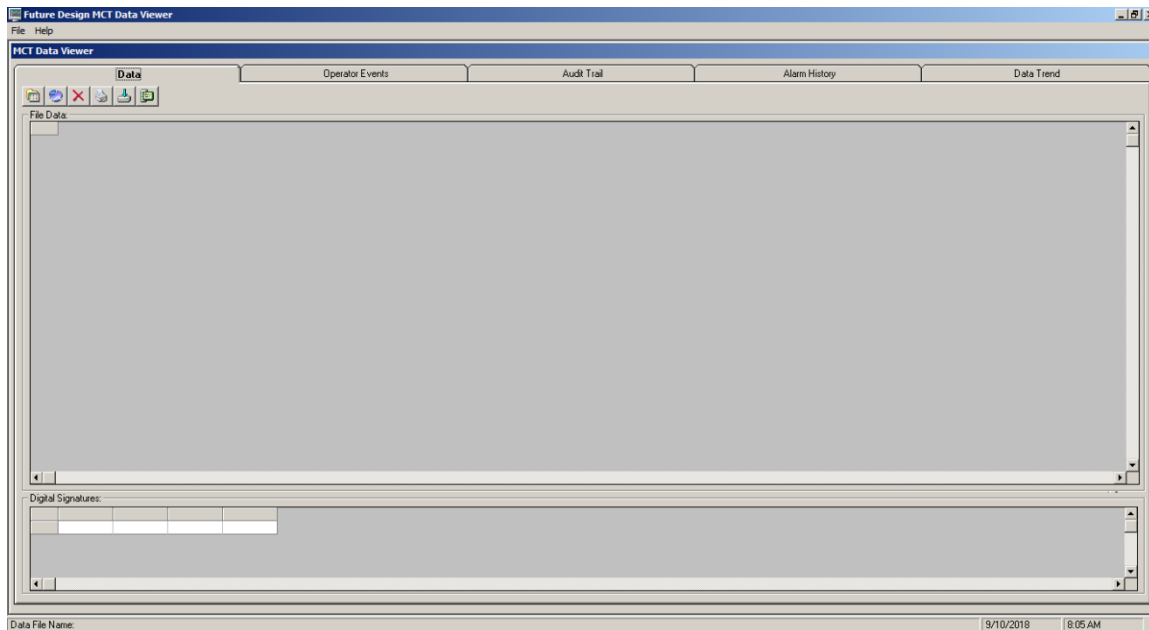
PC: minimum 2GHZ Pentium4 with 512MB of RAM.

OS: 98, NT 2000, XP Professional, Vista and Windows 7, 8 and 10 operating systems supported.







**Windows® is a registered trademark of the Microsoft Corporation**

## 2 Viewing Data Files

The MCT Data Viewer main window provides five tabs for accessing/viewing files. They include the Data, Operator Events, Audit Trail, Alarm History and Data Trend tabs. To view an MCT data file, select the Data tab.



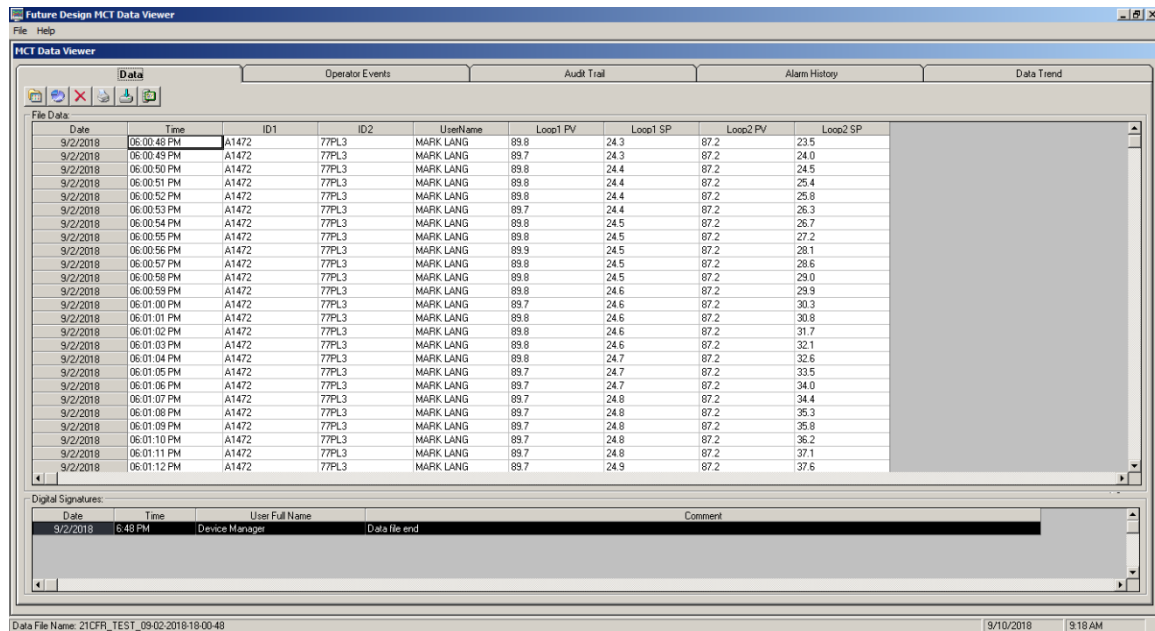
The Data tab toolbar provides the following functions:

- |   |                                  |   |
|---|----------------------------------|---|
|  | <b>Open History File:</b>        | Provides open file dialog to navigate to/select a data file.                    |
|  | <b>Plot History File:</b>        | Creates data trend plot of selected data points.                                |
|  | <b>Cancel History Plot:</b>      | Cancels current trend plot action.  |
|  | <b>Print History File:</b>       | Opens print dialog allowing user to print data table.                           |
|  | <b>Export History File:</b>      | Opens save file dialog allowing user to save a copy of the file in .csv format. |
|  | <b>Verify Digital Signature:</b> | Validates selected digital signature to see if file has been altered.           |

**IMPORTANT:** The historical data files of the MCT product line consist of three separate files. These files include the main data file (.csv), the digital signature file (.sig) and the operator events file (.evt). When opening a historical data file, the user will be selecting the ".csv" file. The MCT Data Viewer will automatically attempt to open the matching ".sig" and ".evt" files. If these files are missing (not located in the same directory as the ".csv" file), a dialog will be shown to indicate the file(s) missing.

The files are not required to view or trend the historical data; however, without the matching digital signature file, the data file cannot be validated to ensure it has not been altered.

To begin, select “Open History File” from the toolbar and select the desired data file. When the file is opened, the data table will automatically resize to fit all of the data contained in the file.



**Future Design MCT Data Viewer**

File Help

MCT Data Viewer

Data Operator Events Audit Trail Alarm History Data Trend

File Data:

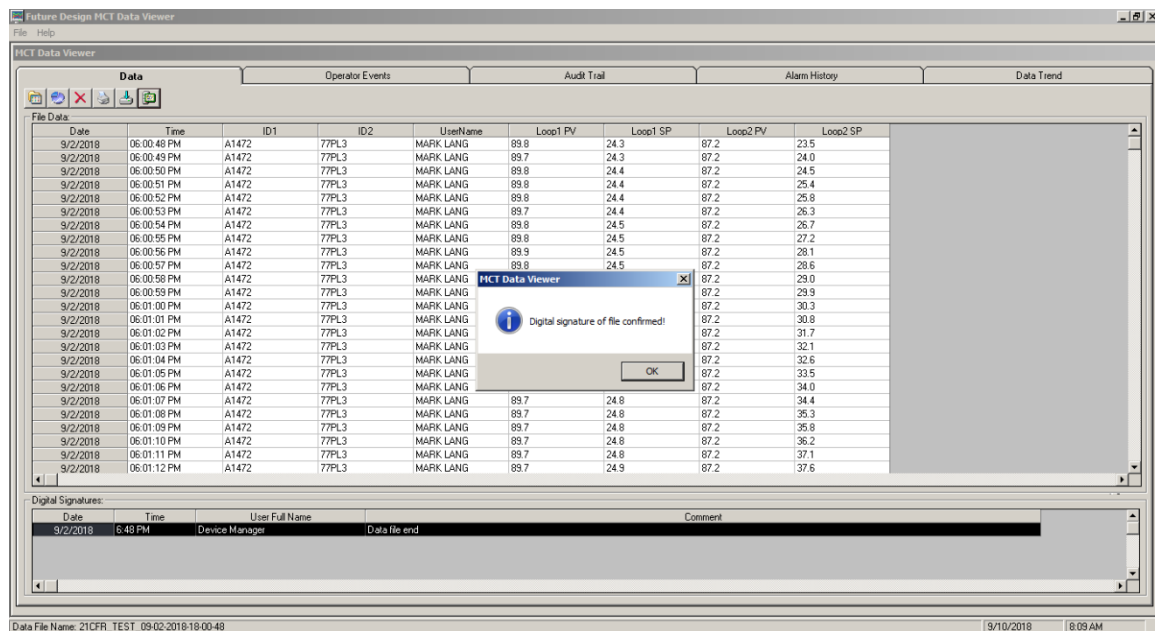
Date	Time	ID1	ID2	UserName	Loop1 PV	Loop1 SP	Loop2 PV	Loop2 SP
9/2/2018	06:00:48 PM	A1472	77PL3	MARK LANG	89.9	24.3	87.2	23.5
9/2/2018	06:00:49 PM	A1472	77PL3	MARK LANG	89.7	24.3	87.2	24.0
9/2/2018	06:00:50 PM	A1472	77PL3	MARK LANG	89.8	24.4	87.2	24.5
9/2/2018	06:00:51 PM	A1472	77PL3	MARK LANG	89.8	24.4	87.2	25.4
9/2/2018	06:00:52 PM	A1472	77PL3	MARK LANG	89.8	24.4	87.2	25.8
9/2/2018	06:00:53 PM	A1472	77PL3	MARK LANG	89.7	24.4	87.2	26.3
9/2/2018	06:00:54 PM	A1472	77PL3	MARK LANG	89.8	24.5	87.2	26.7
9/2/2018	06:00:55 PM	A1472	77PL3	MARK LANG	89.8	24.5	87.2	27.2
9/2/2018	06:00:56 PM	A1472	77PL3	MARK LANG	89.9	24.5	87.2	28.1
9/2/2018	06:00:57 PM	A1472	77PL3	MARK LANG	89.8	24.5	87.2	28.6
9/2/2018	06:00:58 PM	A1472	77PL3	MARK LANG	89.8	24.5	87.2	29.0
9/2/2018	06:00:59 PM	A1472	77PL3	MARK LANG	89.8	24.6	87.2	29.9
9/2/2018	06:01:00 PM	A1472	77PL3	MARK LANG	89.7	24.6	87.2	30.3
9/2/2018	06:01:01 PM	A1472	77PL3	MARK LANG	89.8	24.6	87.2	30.8
9/2/2018	06:01:02 PM	A1472	77PL3	MARK LANG	89.8	24.6	87.2	31.7
9/2/2018	06:01:03 PM	A1472	77PL3	MARK LANG	89.8	24.6	87.2	32.1
9/2/2018	06:01:04 PM	A1472	77PL3	MARK LANG	89.8	24.7	87.2	32.6
9/2/2018	06:01:05 PM	A1472	77PL3	MARK LANG	89.7	24.7	87.2	33.5
9/2/2018	06:01:06 PM	A1472	77PL3	MARK LANG	89.7	24.7	87.2	34.0
9/2/2018	06:01:07 PM	A1472	77PL3	MARK LANG	89.7	24.8	87.2	34.4
9/2/2018	06:01:08 PM	A1472	77PL3	MARK LANG	89.7	24.8	87.2	35.3
9/2/2018	06:01:09 PM	A1472	77PL3	MARK LANG	89.7	24.8	87.2	35.8
9/2/2018	06:01:10 PM	A1472	77PL3	MARK LANG	89.7	24.8	87.2	36.2
9/2/2018	06:01:11 PM	A1472	77PL3	MARK LANG	89.7	24.8	87.2	37.1
9/2/2018	06:01:12 PM	A1472	77PL3	MARK LANG	89.7	24.9	87.2	37.6

Digital Signatures:

Date	Time	User Full Name	Data file end	Comment
9/2/2018	6:48 PM	Device Manager		

Data File Name: 21CFR\_TEST\_09-02-2018-19-00-48 9/10/2018 9:18 AM

The table is read only so the data cannot be altered, only viewed. All digital signatures associated with the file will be provided in the Digital Signatures table below the main data table. To verify a digital signature, select the desired signature by clicking on its row (if more than one) and select “Verify Digital Signature” from the toolbar. The MCT Data Viewer will compare the signature to the data file and indicate whether or not the file has been altered.



**Future Design MCT Data Viewer**

File Help

MCT Data Viewer

Data Operator Events Audit Trail Alarm History Data Trend

File Data:

Date	Time	ID1	ID2	UserName	Loop1 PV	Loop1 SP	Loop2 PV	Loop2 SP
9/2/2018	06:00:48 PM	A1472	77PL3	MARK LANG	89.9	24.3	87.2	23.5
9/2/2018	06:00:49 PM	A1472	77PL3	MARK LANG	89.7	24.3	87.2	24.0
9/2/2018	06:00:50 PM	A1472	77PL3	MARK LANG	89.8	24.4	87.2	24.5
9/2/2018	06:00:51 PM	A1472	77PL3	MARK LANG	89.8	24.4	87.2	25.4
9/2/2018	06:00:52 PM	A1472	77PL3	MARK LANG	89.8	24.4	87.2	25.8
9/2/2018	06:00:53 PM	A1472	77PL3	MARK LANG	89.7	24.4	87.2	26.3
9/2/2018	06:00:54 PM	A1472	77PL3	MARK LANG	89.8	24.5	87.2	26.7
9/2/2018	06:00:55 PM	A1472	77PL3	MARK LANG	89.8	24.5	87.2	27.2
9/2/2018	06:00:56 PM	A1472	77PL3	MARK LANG	89.9	24.5	87.2	28.1
9/2/2018	06:00:57 PM	A1472	77PL3	MARK LANG	89.8	24.5	87.2	28.6
9/2/2018	06:00:58 PM	A1472	77PL3	MARK LANG	89.7	24.6	87.2	29.0
9/2/2018	06:00:59 PM	A1472	77PL3	MARK LANG	89.8	24.6	87.2	29.9
9/2/2018	06:01:00 PM	A1472	77PL3	MARK LANG	89.7	24.6	87.2	30.3
9/2/2018	06:01:01 PM	A1472	77PL3	MARK LANG	89.8	24.6	87.2	30.8
9/2/2018	06:01:02 PM	A1472	77PL3	MARK LANG	89.8	24.6	87.2	31.7
9/2/2018	06:01:03 PM	A1472	77PL3	MARK LANG	89.8	24.6	87.2	32.1
9/2/2018	06:01:04 PM	A1472	77PL3	MARK LANG	89.7	24.7	87.2	32.6
9/2/2018	06:01:05 PM	A1472	77PL3	MARK LANG	89.7	24.7	87.2	33.5
9/2/2018	06:01:06 PM	A1472	77PL3	MARK LANG	89.7	24.8	87.2	34.0
9/2/2018	06:01:07 PM	A1472	77PL3	MARK LANG	89.7	24.8	87.2	34.4
9/2/2018	06:01:08 PM	A1472	77PL3	MARK LANG	89.7	24.8	87.2	35.3
9/2/2018	06:01:09 PM	A1472	77PL3	MARK LANG	89.7	24.8	87.2	35.8
9/2/2018	06:01:10 PM	A1472	77PL3	MARK LANG	89.7	24.8	87.2	36.2
9/2/2018	06:01:11 PM	A1472	77PL3	MARK LANG	89.7	24.8	87.2	37.1
9/2/2018	06:01:12 PM	A1472	77PL3	MARK LANG	89.7	24.9	87.2	37.6

Digital Signatures:

Date	Time	User Full Name	Data file end	Comment
9/2/2018	6:48 PM	Device Manager		

Data File Name: 21CFR\_TEST\_09-02-2018-19-00-48 9/10/2018 9:09 AM

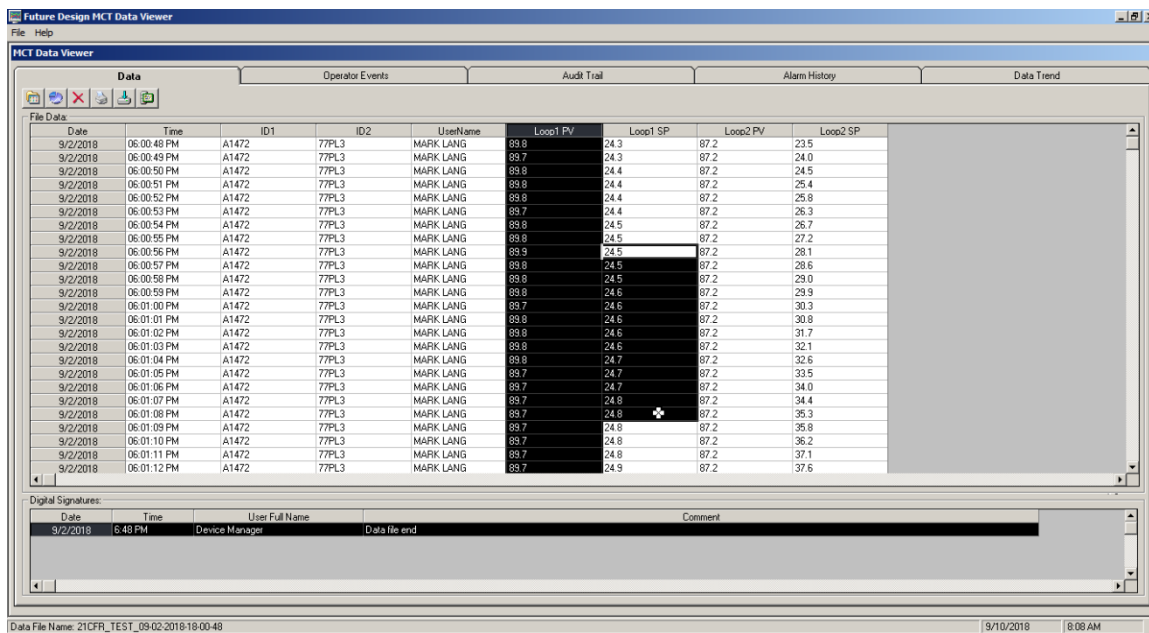
**MCT Data Viewer**

Digital signature of file confirmed!

OK

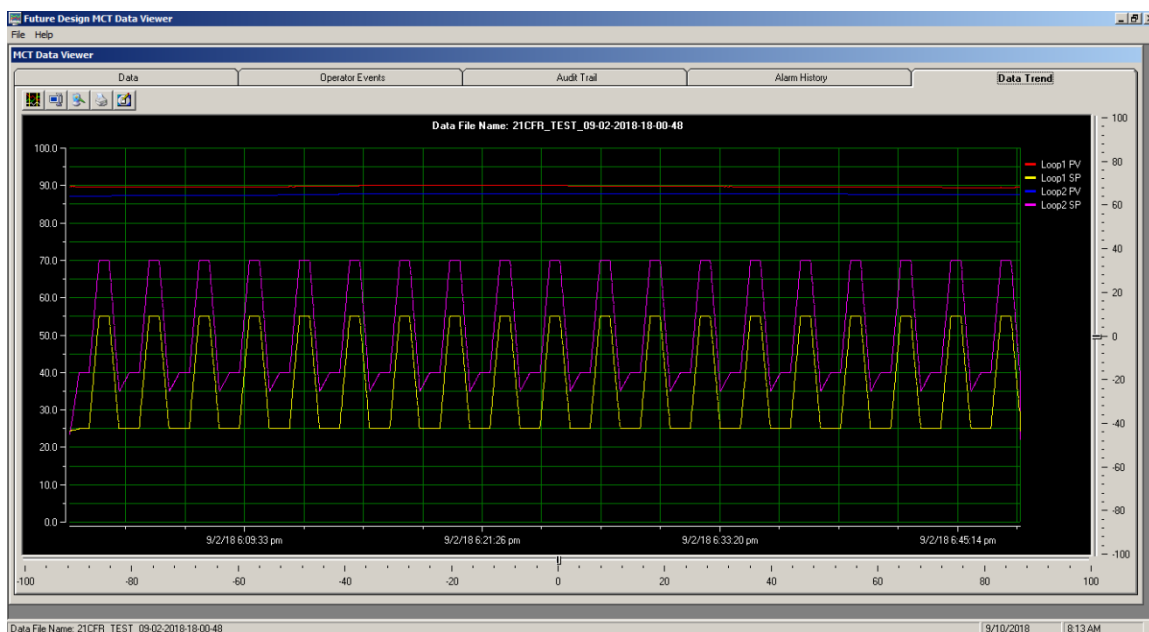
## 2.1 Trending Data

The MCT Data Viewer permits the selection of any combination of data points to be plotted. Entire columns can be selected by simply clicking on the header of the column. Groups of cells can be selected by a left-click and hold on a cell, and then dragging the cursor along multiple cells. Discontinuous groups can also be selected by using the “CTRL” key while selecting data. A minimum of four continuous cells in a single column is required to generate a trend. If multiple columns are selected, at least four continuous cells in each column is required.



Date	Time	ID1	ID2	UserName	Loop1 PV	Loop1 SP	Loop2 PV	Loop2 SP
9/2/2018	06:00:46 PM	A1472	77PL3	MARK LANG	89.9	24.3	87.2	23.5
9/2/2018	06:00:48 PM	A1472	77PL3	MARK LANG	89.7	24.3	87.2	24.0
9/2/2018	06:00:50 PM	A1472	77PL3	MARK LANG	89.8	24.4	87.2	24.5
9/2/2018	06:00:51 PM	A1472	77PL3	MARK LANG	89.8	24.4	87.2	25.4
9/2/2018	06:00:52 PM	A1472	77PL3	MARK LANG	89.8	24.4	87.2	25.8
9/2/2018	06:00:53 PM	A1472	77PL3	MARK LANG	89.7	24.4	87.2	26.3
9/2/2018	06:00:54 PM	A1472	77PL3	MARK LANG	89.8	24.5	87.2	26.7
9/2/2018	06:00:56 PM	A1472	77PL3	MARK LANG	89.8	24.5	87.2	27.2
9/2/2018	06:00:56 PM	A1472	77PL3	MARK LANG	89.9	24.5	87.2	28.1
9/2/2018	06:00:57 PM	A1472	77PL3	MARK LANG	89.8	24.5	87.2	28.6
9/2/2018	06:00:58 PM	A1472	77PL3	MARK LANG	89.8	24.5	87.2	29.0
9/2/2018	06:00:59 PM	A1472	77PL3	MARK LANG	89.8	24.6	87.2	29.9
9/2/2018	06:01:00 PM	A1472	77PL3	MARK LANG	89.7	24.6	87.2	30.3
9/2/2018	06:01:01 PM	A1472	77PL3	MARK LANG	89.8	24.6	87.2	30.8
9/2/2018	06:01:03 PM	A1472	77PL3	MARK LANG	89.8	24.6	87.2	31.7
9/2/2018	06:01:03 PM	A1472	77PL3	MARK LANG	89.8	24.6	87.2	32.1
9/2/2018	06:01:04 PM	A1472	77PL3	MARK LANG	89.8	24.7	87.2	32.6
9/2/2018	06:01:05 PM	A1472	77PL3	MARK LANG	89.7	24.7	87.2	33.5
9/2/2018	06:01:06 PM	A1472	77PL3	MARK LANG	89.7	24.7	87.2	34.0
9/2/2018	06:01:07 PM	A1472	77PL3	MARK LANG	89.7	24.8	87.2	34.4
9/2/2018	06:01:08 PM	A1472	77PL3	MARK LANG	89.7	24.8	87.2	35.3
9/2/2018	06:01:09 PM	A1472	77PL3	MARK LANG	89.7	24.8	87.2	35.8
9/2/2018	06:01:10 PM	A1472	77PL3	MARK LANG	89.7	24.8	87.2	36.2
9/2/2018	06:01:11 PM	A1472	77PL3	MARK LANG	89.7	24.8	87.2	37.1
9/2/2018	06:01:12 PM	A1472	77PL3	MARK LANG	89.7	24.9	87.2	37.6

Once the desired data is chosen, select Plot History File from the toolbar. If a large amount of data is selected it may take some time to generate the plot. A progress bar will appear at the top right of the Data tab window to display the current status. The plot can be cancelled at any time by selecting Cancel History Plot from the toolbar. Once the process is complete, the Data Trend tab will be automatically selected/shown.



The Data Trend tab toolbar provides the following functions:



**Setup History Trend:** Opens the Trend Scaling Setup window to adjust trend plot colors, scales, etc.



**Show/Hide Cursor:** Used to toggle the data cursor on and off.



**Save to Jpeg:** Opens save file dialog to save the current trend view as a picture (JPEG) file.



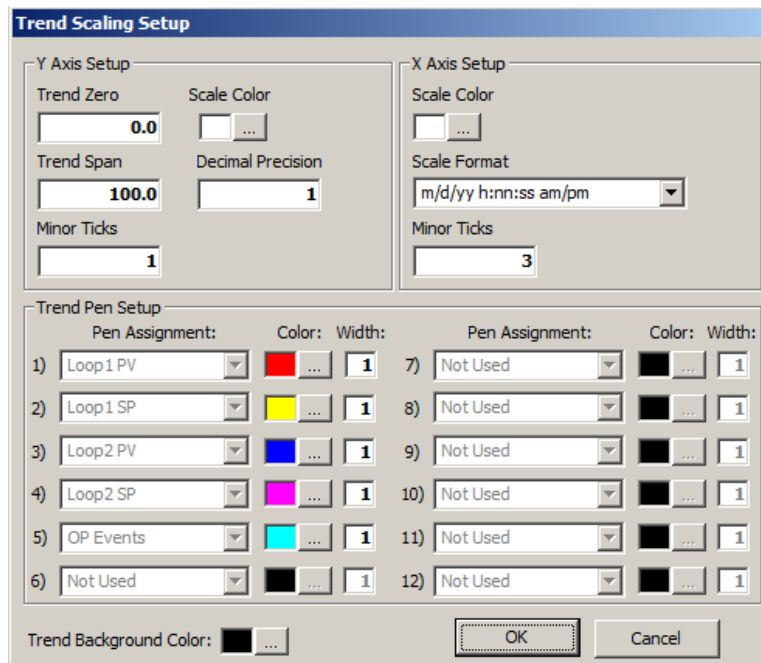
**Print History File:** Opens print dialog allowing user to print the current trend view.



**Chart Annotation:** Allows user to enter a title for the trend (default is "Data File Name: *Filename*").

## 2.1.1 Trend Setup

The trend plot is first displayed using default colors and scale selections. The appearance of the trend can be modified to make it easier to view and/or print. A black background is typically better for viewing while a white background is better for printing. To adjust the trend appearance, select Setup History Trend from the toolbar.



**Trend Scaling Setup**

**Y Axis Setup**

Trend Zero:  Scale Color:

Trend Span:  Decimal Precision:

Minor Ticks:

**X Axis Setup**

Scale Color:

Scale Format:

Minor Ticks:

**Trend Pen Setup**

	Pen Assignment:	Color:	Width:		Pen Assignment:	Color:	Width:
1)	Loop1 PV		<input type="text" value="1"/>	7)	Not Used		<input type="text" value="1"/>
2)	Loop1 SP		<input type="text" value="1"/>	8)	Not Used		<input type="text" value="1"/>
3)	Loop2 PV		<input type="text" value="1"/>	9)	Not Used		<input type="text" value="1"/>
4)	Loop2 SP		<input type="text" value="1"/>	10)	Not Used		<input type="text" value="1"/>
5)	OP Events		<input type="text" value="1"/>	11)	Not Used		<input type="text" value="1"/>
6)	Not Used		<input type="text" value="1"/>	12)	Not Used		<input type="text" value="1"/>

Trend Background Color:

The channel selections are automatically assigned and fixed based on the data selected for plot from the Data tab. All other settings for the trend are adjustable. Once new selections are, the choice will be remembered and used on future trend plots.

## 2.1.2 Data Cursor

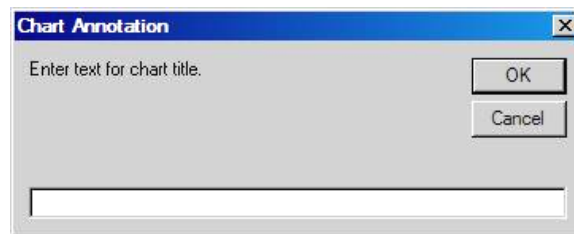
The data cursor is a vertical line that can be dragged across the trend plot. It displays the current value of the selected channel which is a useful tool when tracking actual values across a trend line. When the data cursor is activated, clicking on the channel legend on the right side of the trend plot will switch the cursor to the channel, and the color of the cursor will also change to match that of the selected channel.

Right clicking on the data cursor displays a pop-up menu where the user can select from the following cursor options:

- Channel: Allows the user to select a channel from those displayed on the current trend plot.
- Style: Allows the user to change the cursor display from XY, X or Y values only. The Period selection provides two vertical lines that can be moved to display the time period selected between the two lines for the selected channel (always shown as 12:xx:xx for hh:mm:ss). The Peak to Peak selection provides two horizontal lines to adjust, and obtains the absolute value of the selected channel between the two lines.
- Options: Provides the ability to select the data cursor color as the selected channel color (default) and hiding hints on release. When “hiding hints on release” is selected, the cursor data values will be hidden when the cursor is released. The value for the channel at the selected cursor position will then be shown only when the user holds the mouse button down on the data cursor.
- Flip Alignment: For XY, X and Y cursor styles, this allows the user to flip the cursor text between the left and right sides of the cursor.

## 2.1.3 Chart Annotation

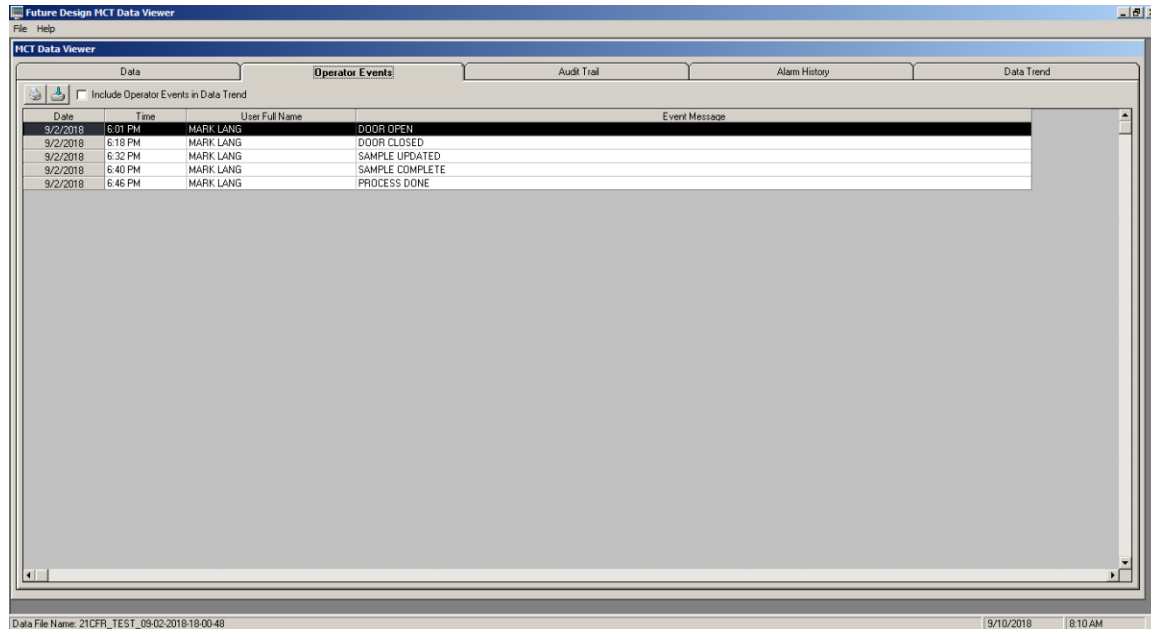
The default chart annotation for a trend plot is “Data File Name: *Filename*”. This can be changed by pressing the “Chart Annotation” button on the Data Trend toolbar. When pressed, the Chart Annotation dialog box will be shown. The user can then enter a description for the trend with up to 255 characters.



When complete, press the “OK” button to replace the current text with that entered; otherwise, press the “Cancel” button to exit without altering the current trend title.

## 2.2 Operator Events

When a historical data file is opened, the matching operator events file is also opened. To view the operator events (if any), select the Operator Events tab.



The Operator Events tab toolbar provides the following functions:



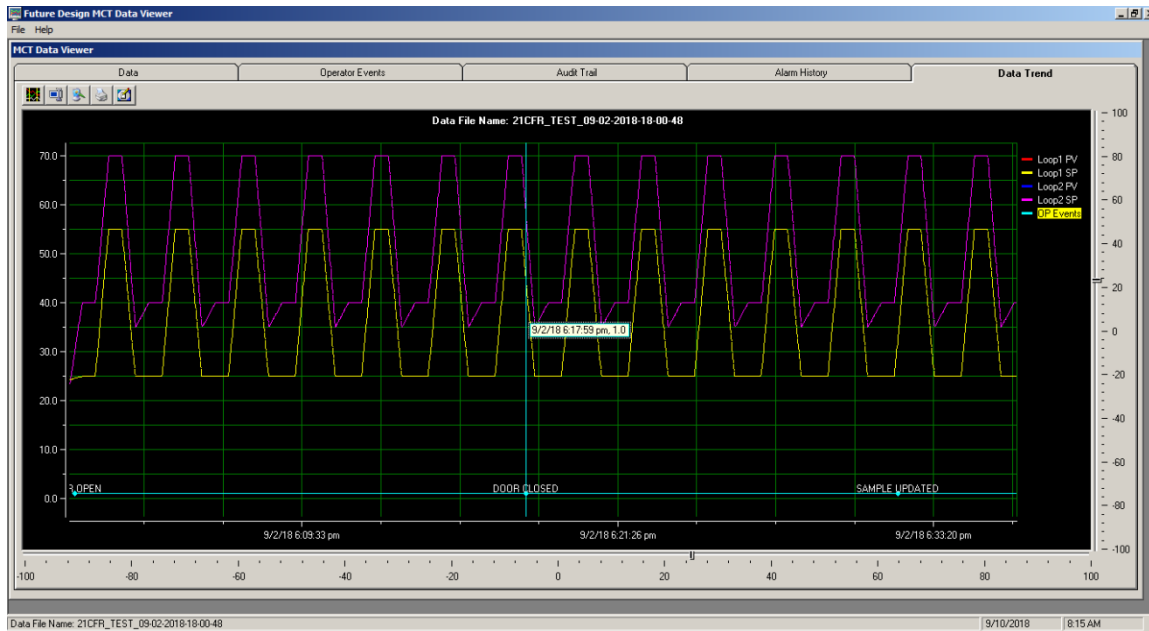
**Print Operator Events:** Opens print dialog allowing user to print system event table.



**Export Operator Events:** Opens save file dialog allowing user to save a copy of the file in .csv format.

The Operator Events table will automatically resize each time a historical data log file is opened. The date/time of each event along with the user and action will be provided. If no events are associated with the historical data file, the table will be empty.

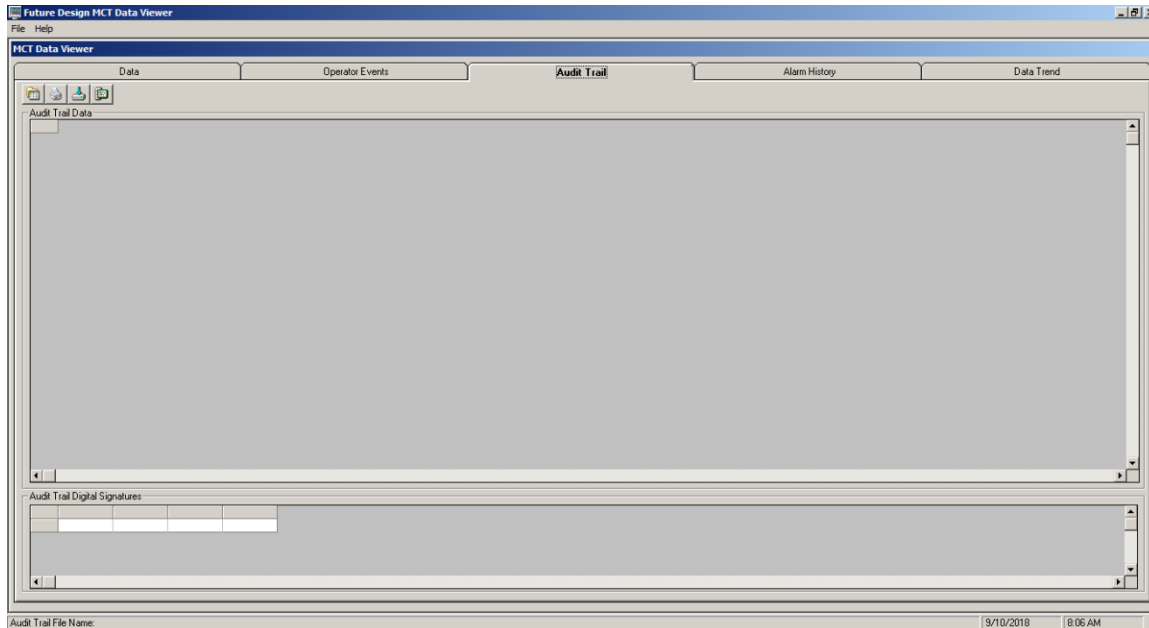
The **Include Operator Events in Data Trend** checkbox allows the operator events to be plotted on the trend at time of occurrence. In order to plot the operator events, first place a check in the checkbox. Then, from the Data tab, select at least once full column of data to plot. The operator events will not be plotted unless at least one full column is selected. Finally, select Plot History File from the Data tab toolbar. To remove the operator events from the trend plot, deselect the checkbox on the Operator Events tab and again select Plot History File from the Data tab toolbar.







The operator events will be displayed along the horizontal axis. By expanding/contracting the axis using the magnification sliders, the event messages can be viewed. Clicking and holding on the date/time labels and dragging forward/back allow the user to pan through the entire trend plot.

## 3 Viewing Audit Trails

The MCT Data Viewer main window provides five tabs for accessing/viewing files. They include the Data, Operator Events, Audit Trail, Alarm History and Data Trend tabs. To view an MCT audit trail file, select the Audit Trail tab.



The Audit Trail tab toolbar provides the following functions:

- |   |                                  |   |
|---|----------------------------------|---|
|  | <b>Open Audit Trail:</b>         | Provides open file dialog to navigate to/select an audit trail file.            |
|  | <b>Print Audit Trail:</b>        | Opens print dialog allowing user to print the audit trail data table.           |
|  | <b>Export Audit Trail:</b>       | Opens save file dialog allowing user to save a copy of the file in .csv format. |
|  | <b>Verify Digital Signature:</b> | Validates selected digital signature to see if file has been altered.           |

**IMPORTANT:** The audit trail files of the MCT product line consist of two separate files. These files include the main audit trail file (.aud) and the digital signature file (.sig). When opening an audit trail file, the user will be selecting the “.aud” file. The MCT Data Viewer will automatically attempt to open the matching “.sig” file. If the file is missing (not located in the same directory as the “.aud” file), a dialog will be shown to indicate the file is missing.

The signature file is not required to view the audit trail; however, without the matching digital signature file, the audit trail cannot be validated to ensure it has not been altered. Only audit trails exported from an MCT product using the USB File Utilities will be provided with a signature file. Audit trail files backed up using the FTP functionality of MCT products will not be provided with signature files.

To begin, select “Open Audit Trail” from the toolbar and select the desired file. When the file is opened, the data table will automatically resize to fit all of the data contained in the file.

**Audit Trail Data**

Date	Time	User Full Name	User Action
6/24/2016	10:24 AM	MARK LANG	Alarm Reset
6/24/2016	10:24 AM	MARK LANG	Data ID#1
6/24/2016	10:24 AM	MARK LANG	Data ID#2
6/24/2016	10:24 AM	MARK LANG	Data file start
6/24/2016	10:25 AM	FACTORY	Login
6/24/2016	10:26 AM	FACTORY	Annotation: 21CFR_TEST_06-23-2016-11-10-16.csv
6/24/2016	10:27 AM	FACTORY	Annotation: 21CFR_TEST_06-23-2016-11-10-16.csv
6/24/2016	10:27 AM	MARK LANG	Data file end
6/24/2016	10:27 AM	MARK LANG	Login
6/24/2016	10:27 AM	MARK LANG	Signature: 21CFR_TEST_06-24-2016-10-24-57.csv
6/24/2016	10:28 AM	MARK LANG	SP: Temperature From 22.5 To 32.5
6/24/2016	10:28 AM	MARK LANG	SP: Humidity From 33.4 To 43.4
6/24/2016	10:28 AM	MARK LANG	L1EV4: Hall
6/24/2016	10:28 AM	MARK LANG	L1EV3: Hall
6/24/2016	10:28 AM	MARK LANG	Copy Data
6/24/2016	10:29 AM	MARK LANG	Copy Audit

**Audit Trail Digital Signatures**

Date	Time	User Full Name	Comment
6/24/2016	10:29 AM	Device Manager	Audit file

Audit Trail File Name: 06-24-2016

The table is read only so the data cannot be altered, only viewed. All digital signatures associated with the file will be provided in the Digital Signatures table below the main data table. To verify a digital signature, select the desired signature by clicking on its row (if more than one) and select “Verify Digital Signature” from the toolbar. The MCT Data Viewer will compare the signature to the audit trail file and indicate whether or not the file has been altered.

**Audit Trail Data**

Date	Time	User Full Name	User Action
6/24/2016	10:24 AM	MARK LANG	Alarm Reset
6/24/2016	10:24 AM	MARK LANG	Data ID#1
6/24/2016	10:24 AM	MARK LANG	Data ID#2
6/24/2016	10:24 AM	MARK LANG	Data file start
6/24/2016	10:25 AM	FACTORY	Login
6/24/2016	10:26 AM	FACTORY	Annotation: 21CFR_TEST_06-23-2016-11-10-16.csv
6/24/2016	10:26 AM	FACTORY	Annotation: 21CFR_TEST_06-23-2016-11-10-16.csv
6/24/2016	10:27 AM	FACTORY	Data file end
6/24/2016	10:27 AM	MARK LANG	Login
6/24/2016	10:27 AM	MARK LANG	Signature: 21CFR_TEST_06-24-2016-10-24-57.csv
6/24/2016	10:28 AM	MARK LANG	SP: Temperature From 22.5 To 32.5
6/24/2016	10:28 AM	MARK LANG	SP: Humidity From 33.4 To 43.4
6/24/2016	10:28 AM	MARK LANG	L1EV4: Hall
6/24/2016	10:28 AM	MARK LANG	L1EV3: Hall
6/24/2016	10:28 AM	MARK LANG	Copy Data
6/24/2016	10:29 AM	MARK LANG	Copy Audit

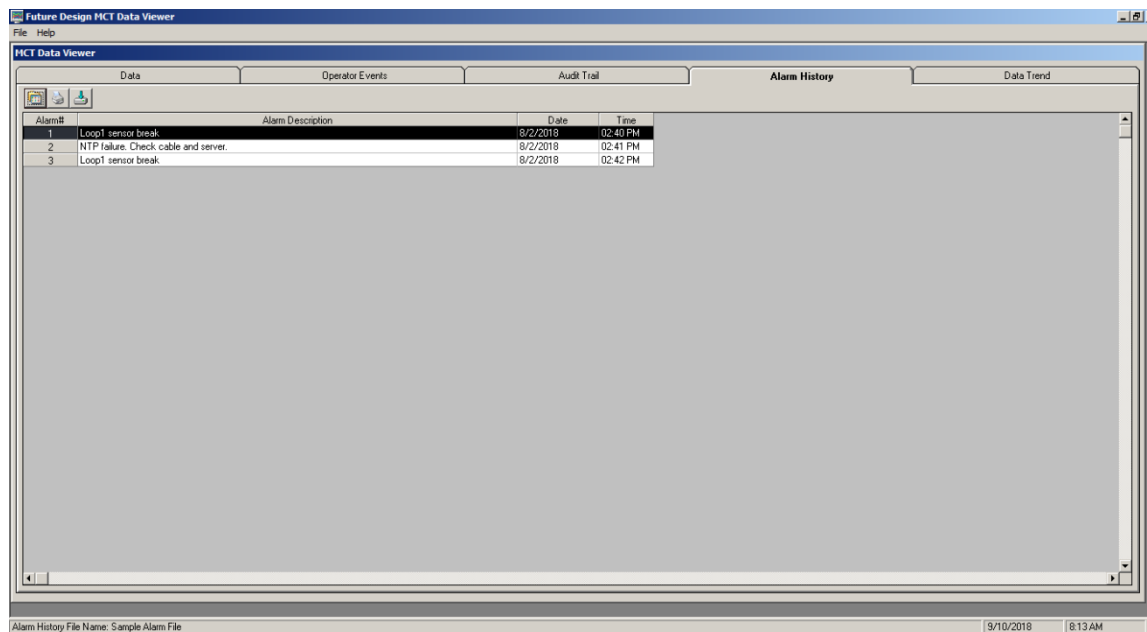
**Audit Trail Digital Signatures**

Date	Time	User Full Name	Comment
6/24/2016	10:29 AM	Device Manager	Audit file

Audit Trail File Name: 06-24-2016

## 4 Viewing Alarm History Files

The MCT Data Viewer main window provides five tabs for accessing/viewing files. They include the Data, Operator Events, Audit Trail, Alarm History and Data Trend tabs. To view an MCT alarm file, select the Alarm History tab.



The Alarm History tab toolbar provides the following functions:



**Open Alarm History:**

Provides open file dialog to navigate to/select an alarm history file.



**Print Alarm History:**

Opens print dialog allowing user to print the alarm history data table.



**Export Alarm History:**

Opens save file dialog allowing user to save a copy of the file in .csv format.

## **Appendix**

## **FUTURE DESIGN SOFTWARE LICENSE**

Future Design Controls MCT system software (listed as "SOFTWARE" in this document) is protected by copyright laws and international copyright treaties, as well as other intellectual property laws and treaties. The SOFTWARE is licensed at no charge to the end user when all components, including but not limited to the MCT hardware, are purchased from Future Design Controls. All ownership and rights remain with Future Design Controls.

### **I. LICENSE GRANT.** This LICENSE grants you the following rights:

A. You may use Future Design's SOFTWARE with Future Design Controls products or products marketed by Future Design Controls only. Products are considered Future Design Controls products (and products marketed by Future Design Controls) when the sale or shipment originates from our main headquarters in Bridgeview, IL or one of our authorized office locations. Products purchased from Future Design Controls distributors or OEM's with brand labels other than Future Design controls are not considered Future Design Controls products and cannot be used with Future Design's SOFTWARE. Using Future Design's SOFTWARE with any other manufacturer (or distributor) of hardware is a violation of this license and applicable copyright laws. The SOFTWARE is considered in "use" when it is installed into permanent or temporary memory (e.g. MCT4, or other storage device)

B. Solely with respect to electronic documents included with the SOFTWARE, you may make a copy (either in hardcopy or electronic form), provided that the software is not resold without the knowledge and acceptance of terms by Future Design Controls.

### **II. TITLE; COPYRIGHT.**

All title and copyrights in and to the SOFTWARE (including but not limited to any images, photographs, animation, video, audio, music, text and "applets" incorporated into the SOFTWARE), the accompanying printed materials, and any copies of the SOFTWARE are owned by Future Design Controls or its suppliers. The SOFTWARE is protected by copyright laws and international treaty provisions. Therefore, you must treat the SOFTWARE like any other copyrighted material, except that you may either (A) make one copy of the SOFTWARE solely for backup or archival purposes or (B) install the SOFTWARE on each system purchased from Future Design Controls (MCT4) provided you keep the original solely for backup or archival purposes. You may not copy the printed materials accompanying the SOFTWARE.

### **III. ADDITIONAL RIGHTS AND LIMITATIONS.**

A. Reverse Engineering, De-compilation, and Disassembly: You may not reverse engineer, decompile, disassemble or modify the SOFTWARE.

B. No Separation of Components. The SOFTWARE is licensed as a single product and the software programs comprising the SOFTWARE may not be separated for use on any hardware not supplied by Future Design Controls.

C. Rental. You may not rent or lease the SOFTWARE.

D. Software Transfer. You may NOT transfer any of your rights under this LICENSE.

E. Termination. Without prejudice to any other rights, Future Design Controls may terminate this LICENSE if you fail to comply with the terms and conditions of this LICENSE. In such event, you must destroy all copies of the SOFTWARE and agree not to modify/distribute the software or download to any hardware not purchased from Future Design Controls.

F. The selection, application and use of Future Design products and/or software is the sole responsibility of the purchaser or end user. No claims will be allowed for any damages or losses, whether direct, indirect, incidental, special or consequential. In addition, Future Design reserves the right to make changes without notification to purchaser or user to materials or processing that do not affect compliance with any applicable specification. Future Design Controls makes no warranties when using Future Design Controls SOFTWARE system.

## Software Usage Note:

The selection, application and use of Future Design Controls products and/or software is the sole responsibility of the purchaser or end user. No claims will be allowed for any damages or losses, whether direct, indirect, incidental, special or consequential.

In addition, Future Design Controls reserves the right to make changes without notification to purchaser or user to materials or processing that do not affect compliance with any applicable specification. Future Design Controls makes no warranties when using the MCT system.

## Warranty:

Future Design Controls products described in this book are warranted to be free from functional defects in material and workmanship at the time the products shipped from Future Design Controls facilities and to conform at that time to the specifications set forth in the relevant Future Design Controls manual, sheet or sheets for a period of one year after delivery to the first purchaser.

Future Design Controls products are warranted to be free from functional defects in materials and workmanship at the time the products shipped from Future Design Controls facilities and to conform at that time to the specifications set forth in the relevant Future Design Controls manual, sheet or sheets for a period of one year after delivery to the first purchaser for use.

There are no expressed or implied Warranties extending beyond the Warranties herein and above set forth. Limitations: Future Design Controls provides no warranty or representations of any sort regarding the fitness of use or application of its products by the purchaser. Users are responsible for the selection, suitability of the products for their application or use of Future Design Controls products.

Future Design Controls shall not be liable for any damages or losses, whether direct, indirect, incidental, special, consequential or any other damages, costs or expenses excepting only the cost or expense of repair or replacement of Future Design Control products as described below.

Future Design Controls sole responsibility under the warranty, at Future Design Controls option, is limited to replacement or repair, free of charge, or refund of purchase price within the warranty period specified. This warranty does not apply to damage resulting from transportation, alteration, misuse or abuse.

Future Design Controls reserves the right to make changes without notification to purchaser to materials or processing that do not affect compliance with any applicable specifications.

## Return Material Authorization:

Contact Future Design Controls for Return Material Authorization Number prior to returning any product to our facility:



7524 West 98th Place – Bridgeview, IL 60455 – Phone 888.751.5444 – Fax 888.307.8014

<http://www.futuredesigncontrols.com>