

SKF Static Motor Analyzer Software

Surveyor DX



SKF Static Motor Analyzer Software Surveyor DX

User's Guide

Part number: PUB CM-I4 71-030E EN

Version: V3

Copyright © 2015 by SKF USA, Inc.

All rights reserved.

SKF USA, Inc.

4812 McMurtry Ave. Suite 100

Fort Collins, CO 80525

(970) 282-1200

(970) 282-1010 (FAX)

800-752-8272 (USA Only)

Information furnished in this manual by SKF USA, Inc. is believed to be accurate and reliable. However, SKF USA, Inc. assumes no responsibility for the use of such information or for any infringements of patents or other rights of third parties that may result from its use. No license is granted by implication or otherwise under any patent rights of SKF USA, Inc.

No part of this document may be reproduced in part or in full by any means, such as photocopying, photographs, electronic recording, videotaping, facsimile, etc. without written permission from SKF USA, Inc. Fort Collins, Colorado.



NOTICE

SKF USA, Inc. assumes no liability for damages consequent to the use of this product.

Limited Warranties; Disclaimer

(a) SKF USA, Inc.'s sole and exclusive warranties with respect to the related Instruments and Software are set forth in this User's Manual.

(b) EXCEPT AS SET FORTH IN THIS USER'S MANUAL AND TO THE EXTENT PERMITTED BY APPLICABLE LAW, ALL EXPRESS AND/OR IMPLIED WARRANTIES OR CONDITIONS, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY, MERCHANTABILITY OF A COMPUTER PROGRAM, INFORMATIONAL CONTENT, SYSTEM INTEGRATION, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT, ARE HEREBY DISCLAIMED AND EXCLUDED BY SKF USA, Inc.

Limitations on Liability

(a) Limitations and Exclusions. IN NO EVENT WILL SKF USA, Inc. BE LIABLE TO LICENSEE FOR ANY DIRECT, INDIRECT, INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR OTHER SPECIAL DAMAGES, LOST PROFITS, OR LOSS OF INFORMATION SUFFERED BY LICENSEE ARISING OUT OF OR RELATED TO THE SOFTWARE OR RELATED INSTRUMENTS OR THE USE OF THE SOFTWARE OR RELATED INSTRUMENTS, FOR ALL CAUSES OF ACTION OF ANY KIND (INCLUDING TORT, CONTRACT, NEGLIGENCE, STRICT LIABILITY, BREACH OF WARRANTY OR CONDITION, AND STATUTORY) EVEN IF SKF USA, Inc. HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE PRECEDING EXCLUSION AND DISCLAIMER OF DAMAGES SHALL APPLY TO ALL CLAIMS MADE BY LICENSEE RELATED TO OR ARISING OUT OF LICENSEE'S USE OF THE SOFTWARE, INCLUDING, BUT NOT LIMITED TO, CLAIMS ALLEGING THAT THE SOFTWARE, OR ANY COMPONENT THEREOF, FAILED OF ITS ESSENTIAL PURPOSE OR FAILED IN SOME OTHER RESPECT.

(b) Acknowledgment. You agree that the limitations of liability and disclaimers of warranty set forth in this Software License will apply regardless of whether SKF USA, Inc. has tendered delivery of the Software or you have accepted the Software. You acknowledges that SKF USA, Inc. has set its prices and granted the licenses contemplated herein in reliance on the disclaimers of warranty and the limitations and exclusions of liability set forth in this Software License, and that the same form an essential basis of the bargain between the Parties.

Term and Termination

(a) Term. The licenses granted herein shall commence on your acceptance of the terms of this Software License, and shall continue in existence until it is terminated in accordance with Section b below.

(b) Termination. SKF USA, Inc. may terminate this Software License and the license conveyed hereunder in the event that you breach any provision, term, condition, or limitation set forth in this Software License, including but not limited to the license restrictions set forth in Section 2(b) of the Software License.

(c) Effect of Termination. Within 10 days after termination of the Software License and the licenses granted hereunder, you shall return to SKF USA, Inc., at your expense, the Computer Software and all copies thereof, and deliver to SKF USA, Inc. a certification, in a writing signed by an officer of you, that all copies of the Computer Software have been returned to SKF USA, Inc. and that you have complied with the requirements of this Section.

Assignment

You may assign this Software License in connection with the sale or other transfer of the Instrument, provided, that the transferee agrees in writing to be bound by the terms of this Software License. Except as authorized by the preceding sentence, you shall not assign or otherwise transfer the Software or this Software License to anyone, including any parent, subsidiaries, affiliated entities, or third Parties, or as part of the sale of any portion of its business, or pursuant to any merger, consolidation, or reorganization, without SKF USA, Inc.'s prior written consent. Any assignment or transfer effected in violation of this Section 4 shall be void ab initio and of no force or effect.

General

The validity and interpretation of this Software License shall be governed by Colorado Law except as to copyright and other proprietary matters, which may be preempted by United States laws and international treaties. In the event of any violation of this Software License, SKF USA, Inc. reserves the right to pursue any state law remedies (including contractual remedies) or remedies under federal laws or both. You consents to exclusive jurisdiction in either state or federal courts in Colorado or both as appropriate and agrees that the prevailing party shall be entitled to its attorney fees and costs. No decision, act or inaction of SKF USA, Inc., shall be construed to be a waiver of any right or remedy, and pursuit of any state or federal causes shall not be deemed an election or remedies. In the event of any provision of this Software License shall be deemed unenforceable, or void, or invalid, such provision shall be modified so as to make it valid and enforceable and as so modified the entire agreement shall remain in full force and effect. This Software License sets forth the entire understanding and agreement between the parties and no written or oral representative of any kind whatsoever shall in any way modify or expand the terms of this User's Manual.

In the event of any conflict or inconsistency between the terms of this Software License and any Documentation, this agreement shall preempt such documentation to the extent inconsistent.



NOTICE

All material associated with this Software License is copyrighted material. Federal law provides severe civil and criminal penalties for the unauthorized reproduction, distribution, or use of copyrighted materials (Title 17, United States Code). The Federal Bureau of Investigation investigates allegation of criminal infringement for enforcement.

Technical assistance / authorized service centers

See our website at www.bakerinst.com for technical assistance / authorized service center information. This information will be marked with an asterisk.

Service department phone number: (970) 282-1200 or toll free at (800) 752-8272.

Trademarks

Microsoft, Windows, Internet Explorer, and Windows 7 are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. All other trademarks, service marks, or registered trademarks appearing in this manual are trademarks, service marks, or registered trademarks of their respective owners.

Table of contents

1	About this guide	1
	Formatting	1
	Information devices.....	1
2	Introduction to the Surveyor DX application	3
	<i>Surveyor DX reports</i>	3
	<i>Quick view results</i>	3
	<i>Report formats</i>	4
	<i>Languages supported</i>	4
	<i>XML report</i>	4
	<i>Database support</i>	4
3	Installing the Surveyor DX application	5
	Activating the software.....	8
	<i>Evaluating the software</i>	8
	<i>Other options for activating the software</i>	9
4	Configuring the Surveyor DX database	11
	Merging databases.....	13
5	Using the Surveyor DX software	15
	Overview	15
	Exporting data from a Baker DX via USB	15
	Surveyor DX user interface	16
	Deactivating software	18
	The Quick View Pane	19
	Location tree features.....	39
	<i>Folder and results management</i>	39
	Attributes.....	43
	Drag and drop.....	47
	Importing data into the application	48
	Generating reports.....	50
	<i>Selecting data to include in reports</i>	50
	Specifying options to use in the report	54
	<i>Report options</i>	56

Selecting report type..... 68

Example reports 69

MS Word® Report example 69

Web Archive Report example..... 71

Report examples with PD data 73

Index 79

1 About this guide

This guide uses the following conventions in formatting, and informational devices to help you more clearly identify specific elements and information.

Formatting

Interface items are set in **Initial Caps and Bold**.

Page or window names are set in *italics*.

File names are set in `courier` font.

Information devices

Information requiring special attention is set in the following format and structure:



NOTE

Indicates additional information about the related topic that deserves closer attention or provides a tip for using the product.



NOTICE

Indicates information about product usage that can result in difficulty using product if not heeded.

2 Introduction to the Surveyor DX application

Surveyor DX is a desktop application that provides added value to Baker DX users by uploading Baker DX test data stored on a USB drive for archiving and reporting purposes. Uploaded data is saved in a database on the desktop computer.

Only one database is created and used with each installation. Multiple users of the data would require access to the computer where the database is created. The information in the database is shared by all users and is not locked during use.



NOTICE

The Surveyor DX is not compatible with existing AWA/MTA data; it cannot open existing AWA/MTA data or save data to MTA.

This application does not allow users to apply test parameters to the data nor does it allow the direct addition of pass/fail criteria.

Surveyor DX reports

The Surveyor DX application generates the following types of reports, depending on the source data collected from the tester:

- RLC: Resistance, inductance, capacitance, D/Q, impedance.
- Coil/Armature Bar/Span: Resistance, inductance, impedance, phase angle graphs.
- RIC: Rotor Influence Check graphs, inductance, impedance, phase angle, AC resistance.
- DC Tests: Megohm, DA, PI, DC HiPot, Step voltage, DC Graphs.
- Surge 3 Phase: Surge waveform, LL and PP EAR.
- Surge Coil/Armature Bar/Span: Reference vs. Test EAR bar chart, thumbnails of each coil/bar vs. reference surge waveforms, partial discharge (PD) data bar charts, and PD tables.

Quick view results

The Surveyor DX application provides representative views of printed reports for selected results.

For DC Test and Surge graphs, the application includes a zoom feature and a cursor with x,y readout.

The screenshot displays the configuration options for the Surveyor DX application, organized into four main sections:

- RLC**
 - ☐ 3 Phase RLC
 - Coil/Armature Bar/Span
 - Include Graphs
 - ☒ R ☒ L ☒ Z ☒ Phase Ang
 - ☐ Use Scatter Plot
 - RIC
 - Include Graphs
 - ☒ L ☒ Z ☒ Phase Ang
 - ☒ AC R ☒ Orbit
- DC Tests**
 - ☒ Megohm/DA/PI
 - ☒ Step-Voltage
 - ☒ DC Comprehensive
 - ☐ Include DC Graph
- Surge**
 - 3 Phase
 - ☐ Summary with PP EAR
 - ☐ Phase-To-Phase Comparison
 - Surge Coil/Armature Bar/Span
 - ☐ EAR Bar Chart
 - ☐ Thumbnail Comparison with Ref

Report formats

Web (html, htm), Web archive (mhtml, mht), MS Word 2003 (doc), 2007, 2010, and 2013 (docx), and Xml (xml)

Languages supported

The application supports English, German, French, Spanish, and Portuguese.

XML report

Surveyor DX can generate an XML report that contains the values of the results. In addition to the DX serial number and date/time stamp for each test result type, the test data includes all scalars and the DC test tables. The data for graphs are also exported and include the Surge graph data and the DC Tests graph data.

Platforms and software supported

The Surveyor DX software works on the following 32-bit and 64-bit platforms:

- Microsoft Windows XP® with service pack 3
- Microsoft Vista®
- Microsoft Windows 7®
- Microsoft Windows 8®

It also works with Internet Explorer 8 (or better) for opening mhtml files and Microsoft Word® 2003/2007/2010/2013 for creating MS Word documents.

Database support

The Surveyor DX software currently works with a Microsoft Access® database. Future revisions are expected to support SQL databases such as SQL Express RT2.

The Surveyor DX database will have a .dxdb extension.

Surveyor DX will only connect to one database. You can choose where the database will be located such as on a local computer or on a network share.

If a company has multiple licenses for Surveyor DX, a merge capability is provided to allow each user to see all the data.

3 Installing the Surveyor DX application

1. Download the setup file from the link provided by the support team.
2. Double-click on the `SurveyorDX_Steup_##.##.##.###.exe` file to start the installer program.
3. If you are running Windows Vista or higher, you will need to Click “Yes” to allow the program to make changes to your computer.
4. Select the language you want the application to use in your interface then click on **Next** arrow to continue.



Figure 1. Surveyor DX installer; select language.

5. Select the products you want to install from the list displayed. In this case, the current Surveyor DX version.

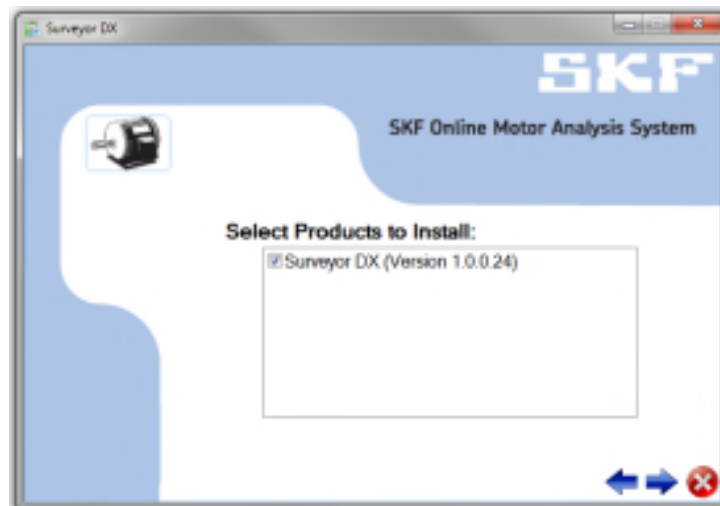


Figure 2. Surveyor DX installer; select product.

6. Read the license agreement then click **Next** arrow to continue if you accept the agreement.
7. Click on the **Back** arrow to go to the previous page.

8. Click on the **Cancel** icon (red X) if you do not want to accept the terms of the license. The installation will terminate.



Figure 3. Surveyor DX installer; read license agreement.

9. Choose the location where you want to install the application. Use the **Browse** button to search for and define a custom location, or you can accept the default location provided.
10. Check the box next to **Create Shortcut on Desktop** to have the installer add an icon to your desktop that is linked to the application. (This box is checked by default.)



Figure 4. Surveyor DX installer; specify location and shortcut.

11. Click **Next** arrow to continue.

12. The installer will proceed and you will see a percent complete indicator as shown below.

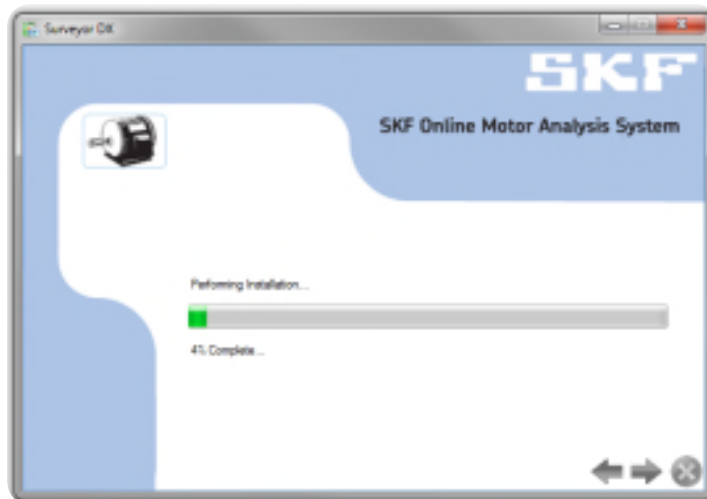
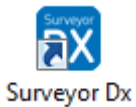


Figure 5. Surveyor DX installer; progress indicator.

13. When the installer completes, you will see a message like the one shown below. If you want to review the steps taken during the installation process, click on the **View Log** button. Otherwise, click on the Finished icon (green check) to exit the installer.



Figure 6. Surveyor DX installer; installation successful and view log.



If you checked the **Create Shortcut on Desktop** checkbox (checked by default) during the installation process, you will see an icon on your desktop like the one shown here. You can start the application by clicking on the icon.

If the desktop icon was not requested, the link to the application can be found in the default start up structure. For example, in MS Windows 7® a “Surveyor” folder is available in the **All Programs** menu when you click on the **Start** icon.

Activating the software

When you first start the application, you will be presented with a dialog box like the one shown below.



NOTE

This process assumes that the computer on which you installed the software is connected to the internet and that you have a valid sales order number ready.

1. Enter your sales order number and email address in the appropriate fields.
2. Click on the **Activate Now** button.

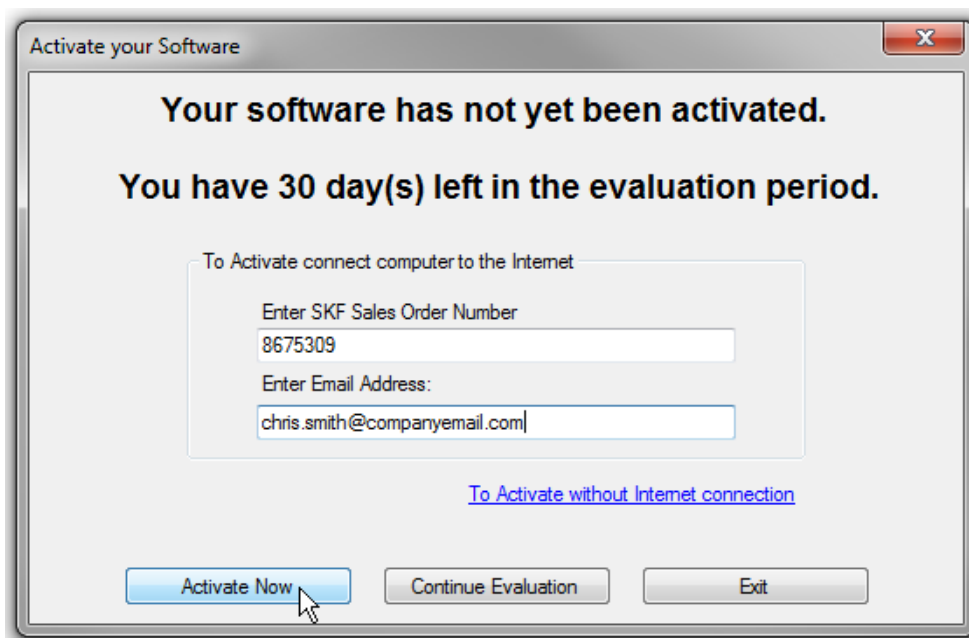


Figure 7. Software activation dialog box.

3. The information will be verified and a dialog box will appear confirming your activation status. You will also receive an email with an activation code, which you can use for re-installation purposes if needed.

Evaluating the software

If you are simply evaluating the software, click on **Continue Evaluation** to button to proceed. The message at the top of dialog informs you how many days remain in your evaluation period.

Other options for activating the software

If the computer on which the software is installed is not connected to the internet, click on the **To Activate without internet connection** link. That will open a new dialog like the one shown below.

1. Read the contents of the dialog box to determine your situation.

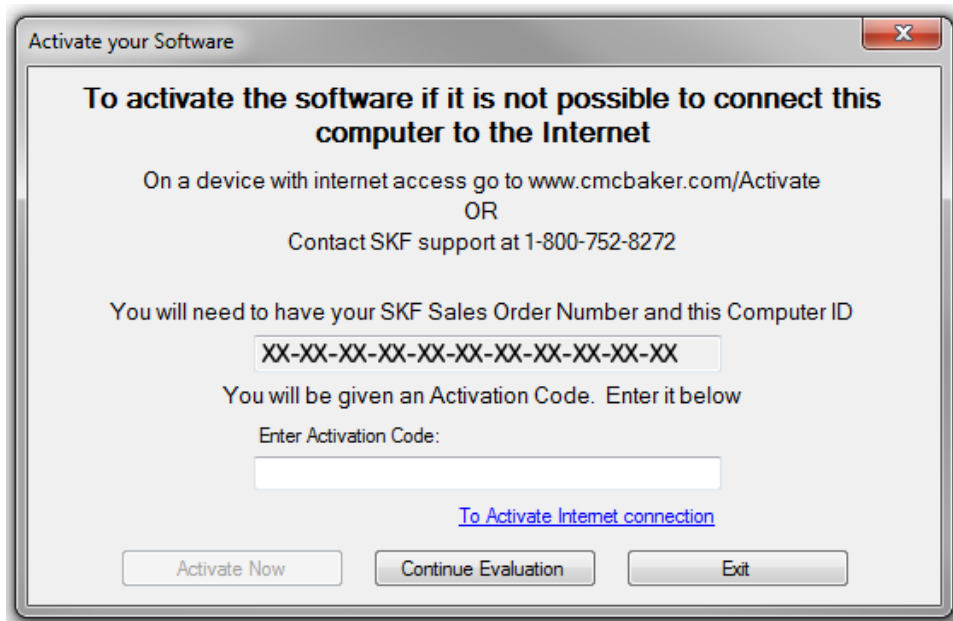


Figure 8. Alternatives for activating the software.

2. Ensure that you have your sales order number and the computer ID presented in the dialog. The example ID above shows all Xs, but your will include numbers and letters. Each will be different; they are generated from the computer's characteristics.
3. Contact SKF support as noted to obtain the activation code.
4. Enter the activation code in the appropriate field.
5. Click on the **Activate Now** button to continue.
6. A dialog box will appear confirming your activation status.

4 Configuring the Surveyor DX database

When you first use the application, you will see the dialog box shown below asking whether a new database should be created, or whether the software should use an existing database. Click on the appropriate radio button for your application.

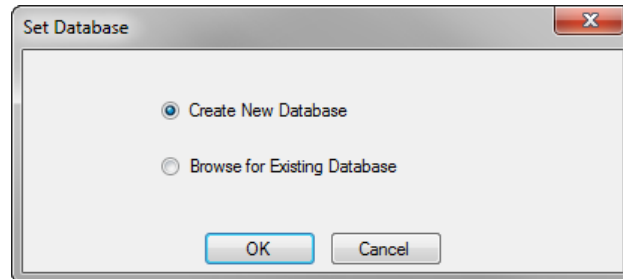


Figure 9. Specifying database to use.

If you click on **Create New Database**, a search dialog will open that you can use to specify the name that you want to give to the database. By default, the file will be located in the application data folder specified by your operating system with the structure shown in the example. It is important to note that this folder is by default set by the operating system to be a hidden folder. You might need to change your folder settings to manually browse to this folder. Change the location if you prefer to use another folder.

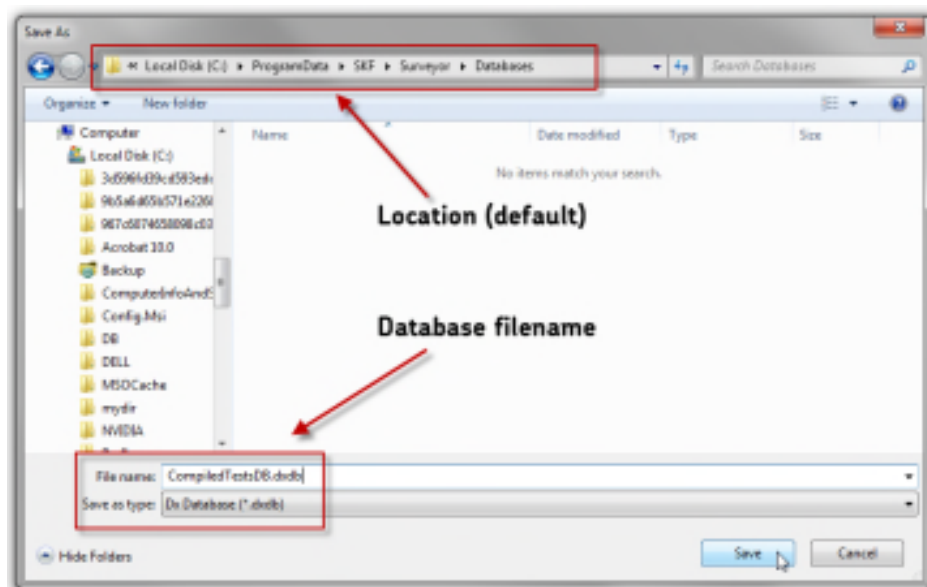


Figure 10. Search dialog for defining database to use.

If you click on **Browse for Existing Database**, a search dialog will open that you can use to locate and specify an existing database.

After you click on **Save** in the dialog, the selected database will appear as the top item in the **Location tree**.

Specifying the database location

1. To define or confirm the location of your database, click on the **Settings** icon found in the **Main toolbar**.

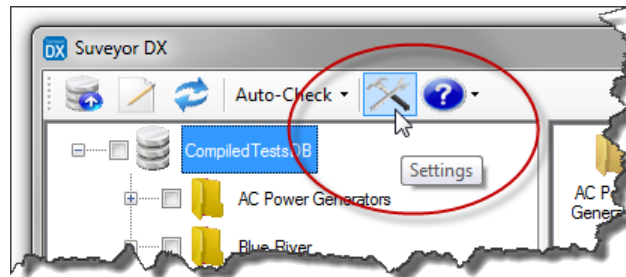


Figure 11. Icon used to open Settings dialog box.

2. A dialog box like the one shown below opens to help you confirm or change the database location.
3. Click on the **Browse** button if you need to change the location of the database you will be using.

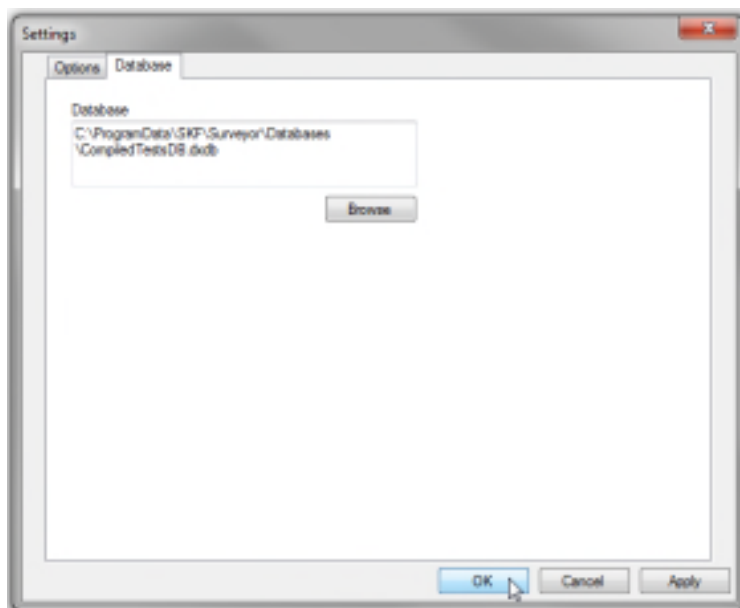


Figure 12. Settings dialog box; Database tab used to define location.

4. Click on **OK** to return to the main user interface.



NOTE

The **Apply** button is used more for the **Select Reports** tab in this dialog. You do not need to click on **Apply** and **OK**. Clicking on **OK** saves your changes and returns you to the main user interface.

Merging databases

Merging databases is accomplished by exporting the entire database (or desired portions) to a .dx file then importing the file into another system on which the Surveyor DX application has been installed.

You can use the same methods to select data to export that you use to select results for reporting. This includes all the selection features via **Auto-Check** and the **Settings** dialog box.

Then you would right click on the tree to open a menu like the one shown below then click on the **Export** item to save the selected data to a .dx file. Selecting **Export** at the database level (this example) exports the entire database (or a subset if you use any of the application's selection features).

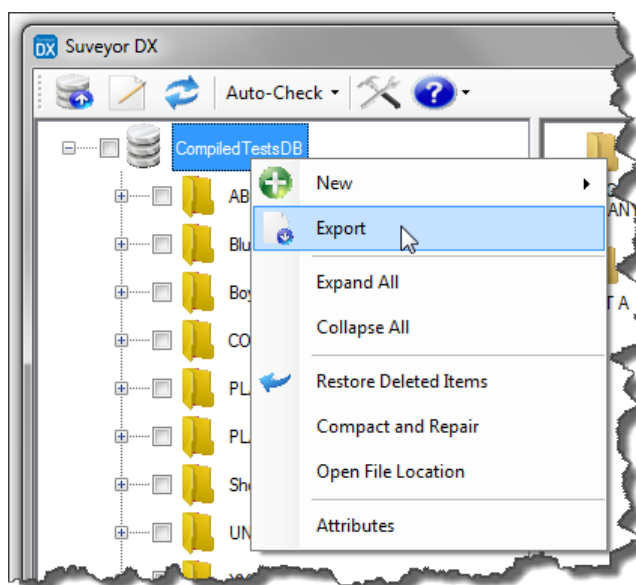


Figure 13. Exporting data at the database level.

The exported database .dx file is then read by the target database and merged into the existing data just as it would be with any other file import. Duplicate data is omitted during the import, and new or updated data is added to the existing file structure.

Selecting the **Export** item from a menu below the database level restricts the export to data found at that level and lower.

5 Using the Surveyor DX software

Overview

The graphic below shows the flow of data from the DX tester (via USB thumb drive) to a personal computer or workstation where the Surveyor DX software resides. From there, test results can be viewed and reports can be generated as needed.

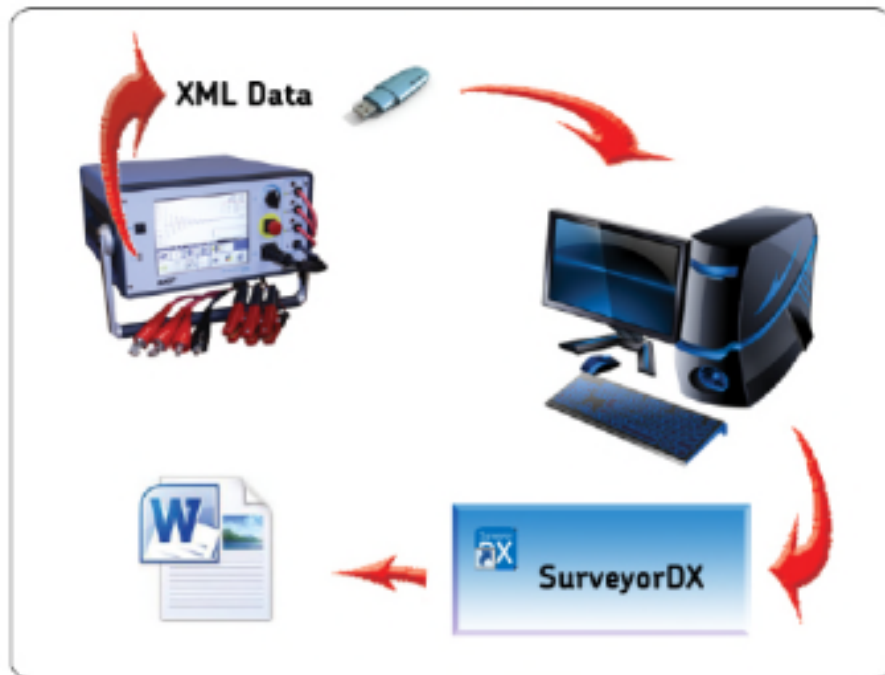


Figure 14. Data transfer path from DX through Surveyor DX report generator.

The test data is contained in an XML structured file that uses a .dx extension. When you double-click on a file with a .dx extension, the application automatically opens.

Exporting data from a Baker DX via USB

The data exported from the DX is transferred to the computer where the application resides via a USB drive. These instructions are for completing the export process:

1. To export data to a USB drive, connect an external zip drive, memory stick, or other USB storage test item to the USB port on the front of the DX unit. The USB disk or drive must be formatted with a FAT32 file system.
2. On the Baker DX, select the folder or record to export.
3. Press **Export to USB**. A pop-up menu allows you to choose export all data, export selected folder (from step 2) or export selected record (from step 2).
4. When the on-screen keyboard comes up, type in a name for the file you want to save and click on **Done**.
5. The selected data will save to the USB drive.
6. On Baker DX firmware versions older than 1.2, the data will export as an .xml file; on the newer versions, it will export as a .dx file.

Surveyor DX user interface

The graphic below shows the basic elements found in the Surveyor DX user interface.

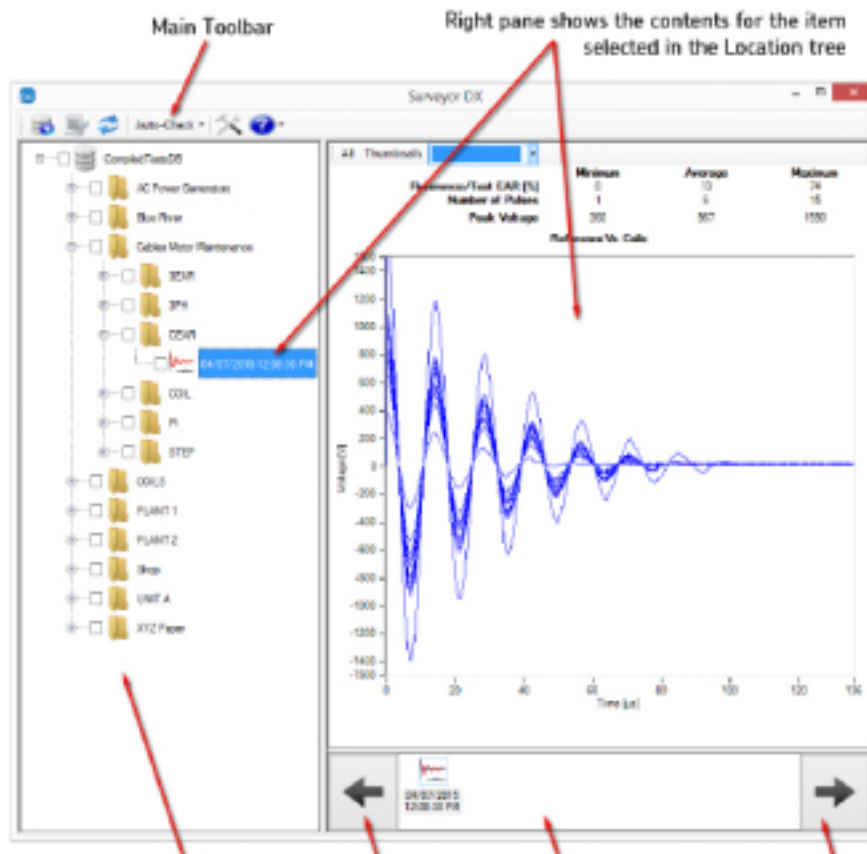


Figure 15. Surveyor DX user interface descriptions.

The **Location tree** allows you to select folder contents or results to display. You can display a folder and all of its child items (folders and results) with a single click.

You can select items for report generation by checking the boxes next to a folder or result, or you can use the **Auto-check** feature found in the **Main toolbar**.

When you click on an item in the **Location tree**, the associated elements (child items) for that item are displayed in the pane on the right side of the page called the **Quick View**. If the item is a test result, it will be displayed in a **Quick View** pane so that you can quickly glance over the data's big picture information.

A **Results navigation bar** is added to the bottom of the **Quick View** pane to present the test data available for a selected motor (or other tested item) in the **Location tree**.

The **Main toolbar** is shown in the image below. It contains the controls for basic functions such as importing new data or opening files, generating reports, refreshing the display area, and retrieving help or about information.

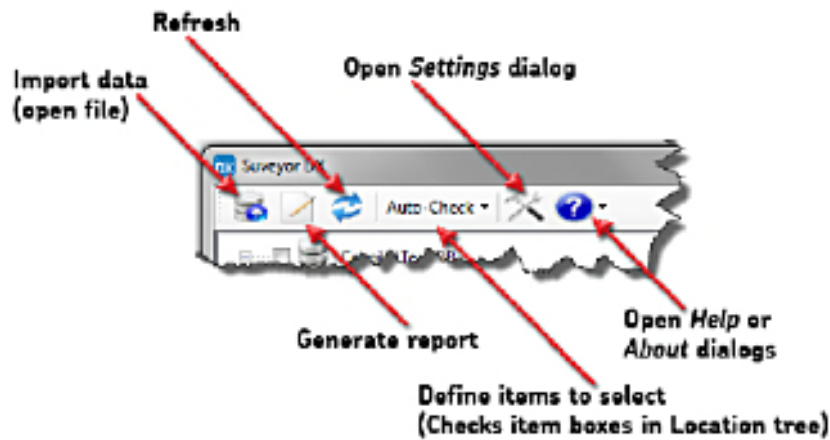


Figure 16. Main toolbar items defined.

The **Auto-check** control is used to select (check) data for report generation.

Another icon opens the *Settings* dialog box, which you use to specify report options. It is also used to define or verify the location for the system database.

Clicking on the **Help and About** icon opens a menu that you can use to access the online help for the application or find out more about the current version installed.

The **About Surveyor DX** menu item also provides information about the current software version, and allows you to check for new updates simply by clicking on the **Check for Updates** button.



Figure 17. About Surveyor DX dialog box.

Deactivating software

If you need to install the software on another computer for any reason and you want to use the license for the software installed on a computer that no longer will be used, you must deactivate the software first so that the license can be properly released for re-use.



NOTE

You will need to have internet access for the computer on which the software will be deactivated so the system can recognize the computer ID and release the license. If that computer is not on the internet, call SKF Support directly at 1-800-752-8272.

Click on the **De-Activate this Computer** link to deactivate the software. You will see a warning dialog like the one shown below letting you know that the software will be deactivated and revert to an evaluation version.

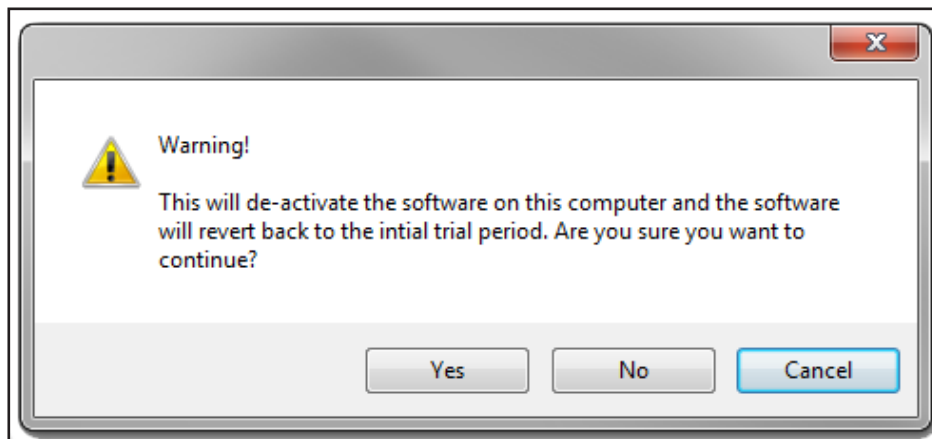


Figure 18. Warning dialog box displayed during software deactivation.

After the software has been deactivated, you can continue to use it as an evaluation copy until the evaluation period expires, or you can uninstall the software using the Windows Control Panel uninstall feature.

You can then install the software on a new machine using the sales order number to get a new activation code.

The Quick View Pane

The **Quick View** pane provides a number of features to help you view and examine the data presented.

As the example below shows, the information displayed for DC Tests can be hidden if desired by clicking the right mouse button over the legend entry and unchecking the box assigned to the entry.

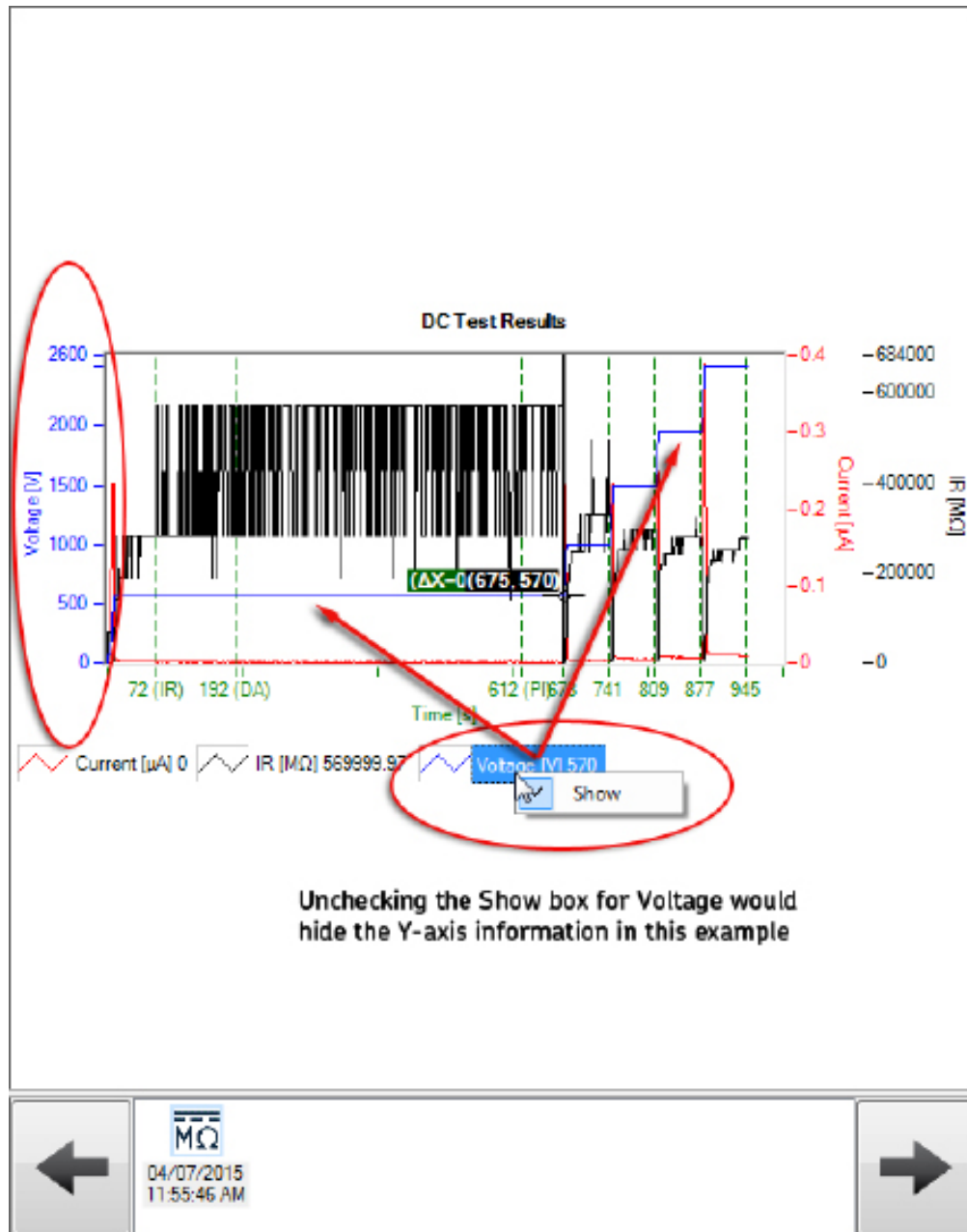


Figure 19. Quick View pane option for show/hide data.

For DC Test results, the **Quick View** pane includes two cursors that you can use to closely examine the information in the graphs. A black point of interest cursor displays the values of the specific point on which it rests in the graph. The green differences cursor indicates the change/difference from the location of the point of interest (black) cursor to the location of the difference (green) cursor on the graph.

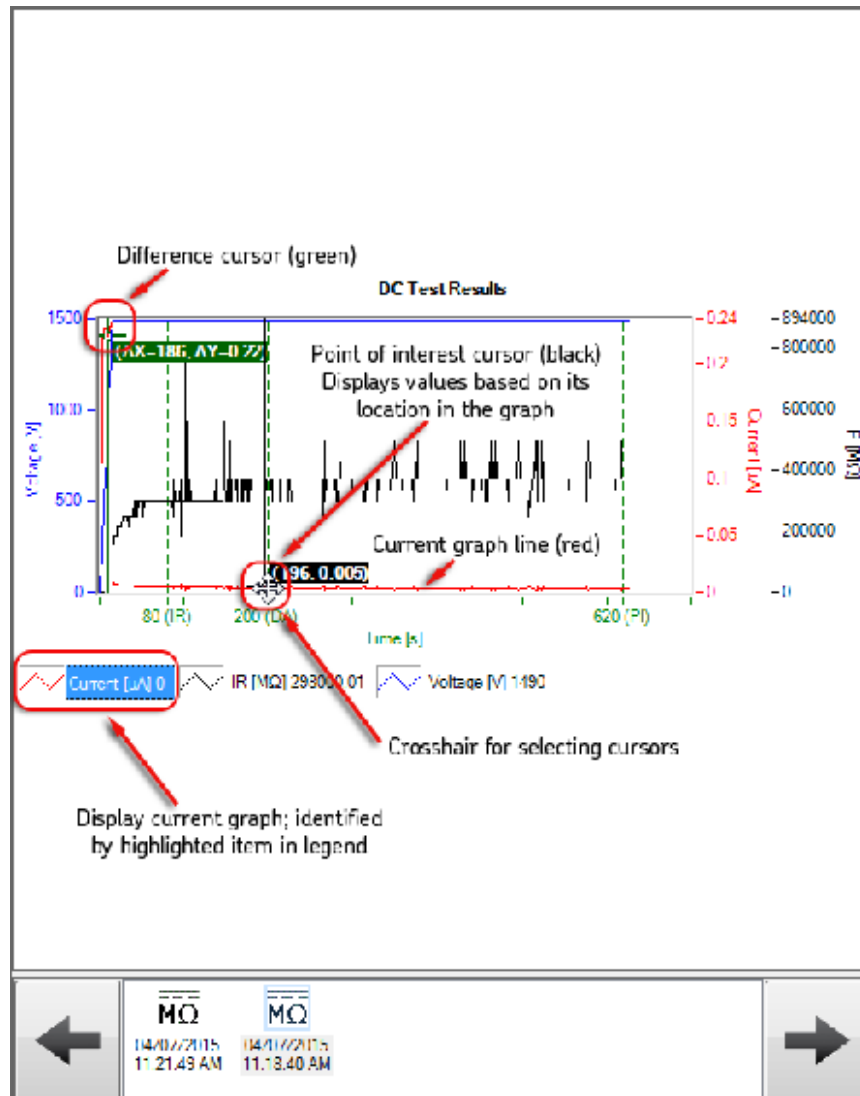


Figure 20. Quick View pane with DC Tests features: point of interest and difference cursors.

To select a cursor, look for a small crosshair on one of the corners of the green or black box, then move your mouse over the crosshair until it changes to a four-way arrow. Click and hold the mouse to drag the cursor to the desired location along the graph line for the measurement highlighted in the legend. The cursor will only drag along the line for the selected measurement.

As you drag the black cursor to new points, the values in the cursor itself change along with those found in the legend to reflect the values at the new points of interest in the graph.

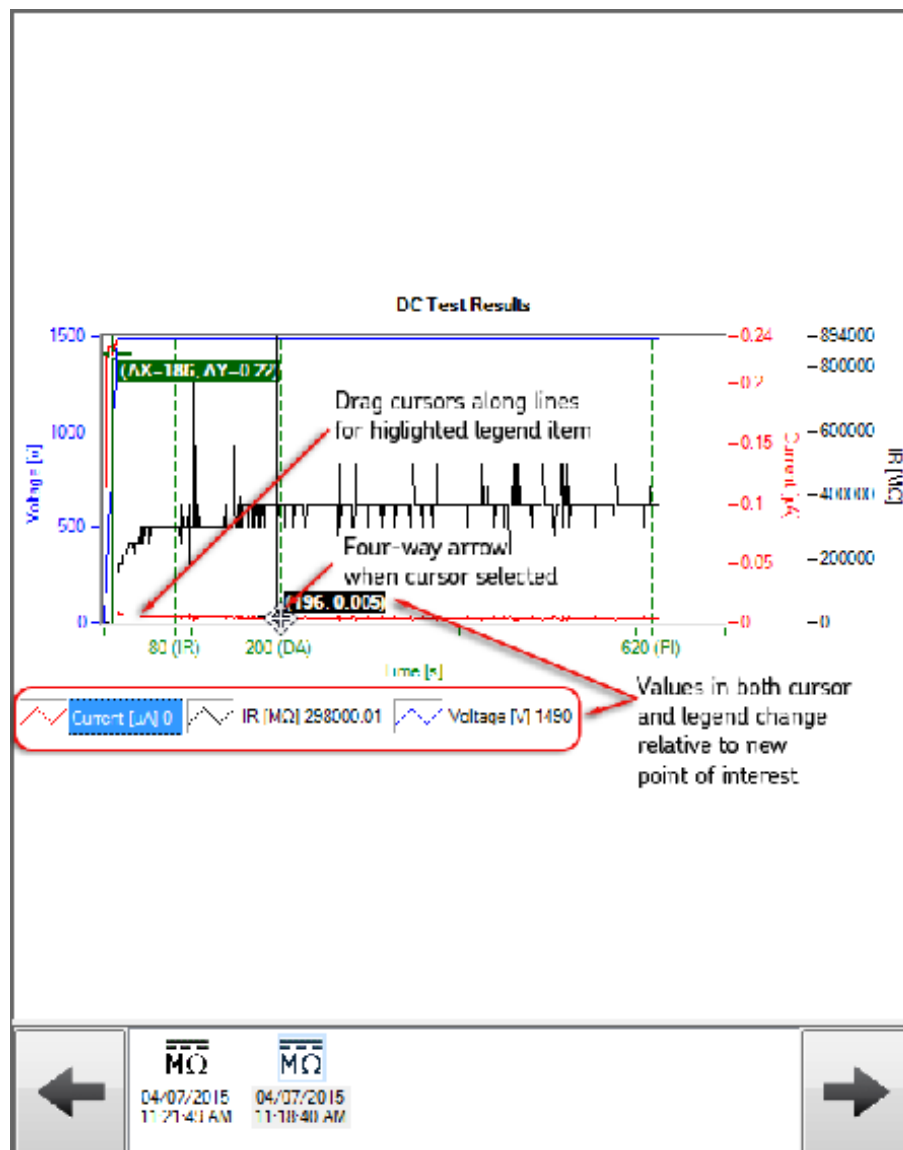


Figure 21. Value in cursor and legend change for each new point of interest.

When you change to a new measurement in the legend, in this case voltage, the cursors will follow the new measurement's line (blue voltage in this case).

In this example, we examine the differences between two step voltages. Notice that the green differences cursor shows you the differences in X and Y values from its location to the location of the black cursor.

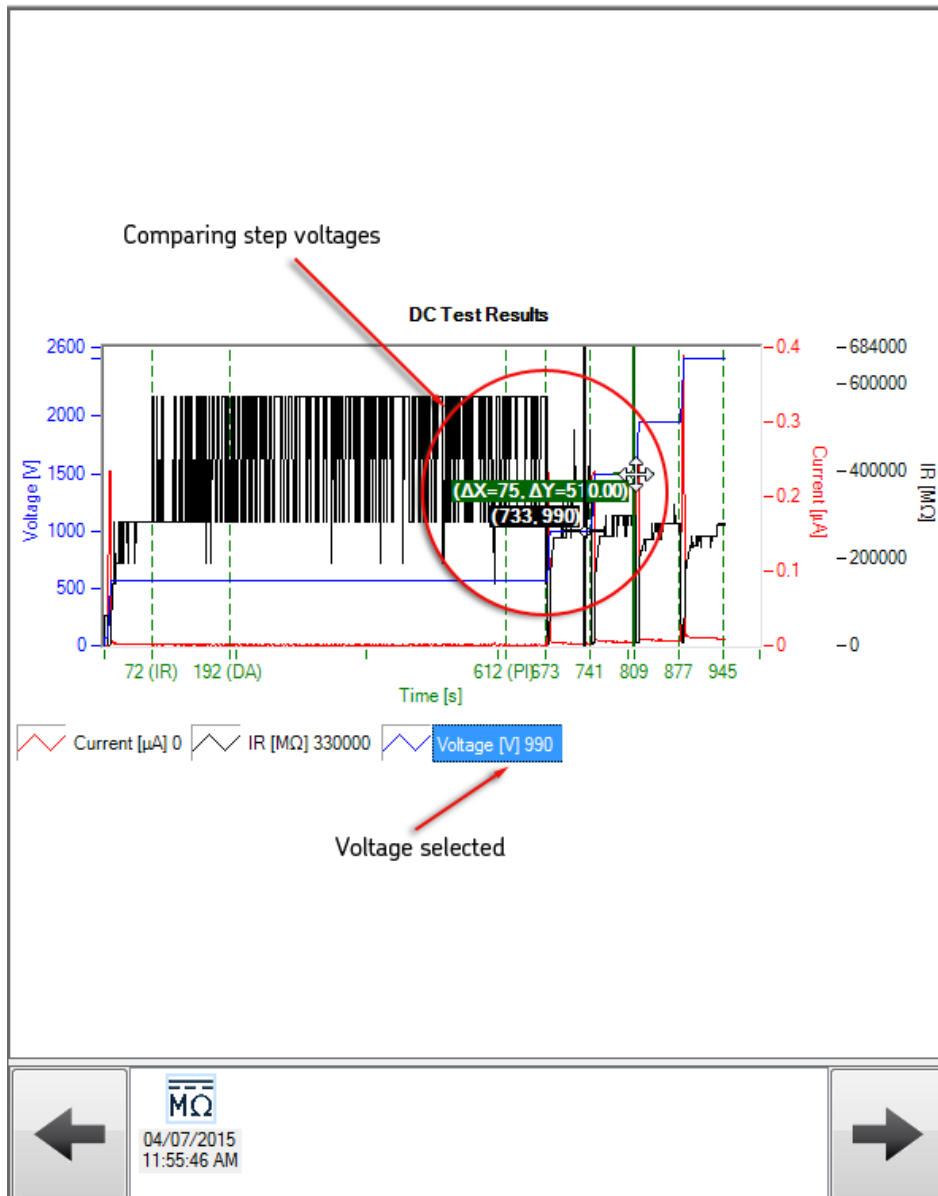


Figure 22. Green differences cursor displays differences in X and Y values between its location and that of the black point of interest.

In this example, we show the zoom feature being activated. Click and hold down the right mouse button to draw a zoom box around the area that you want to enlarge. When you release the mouse button, the display will zoom in on your selected area.

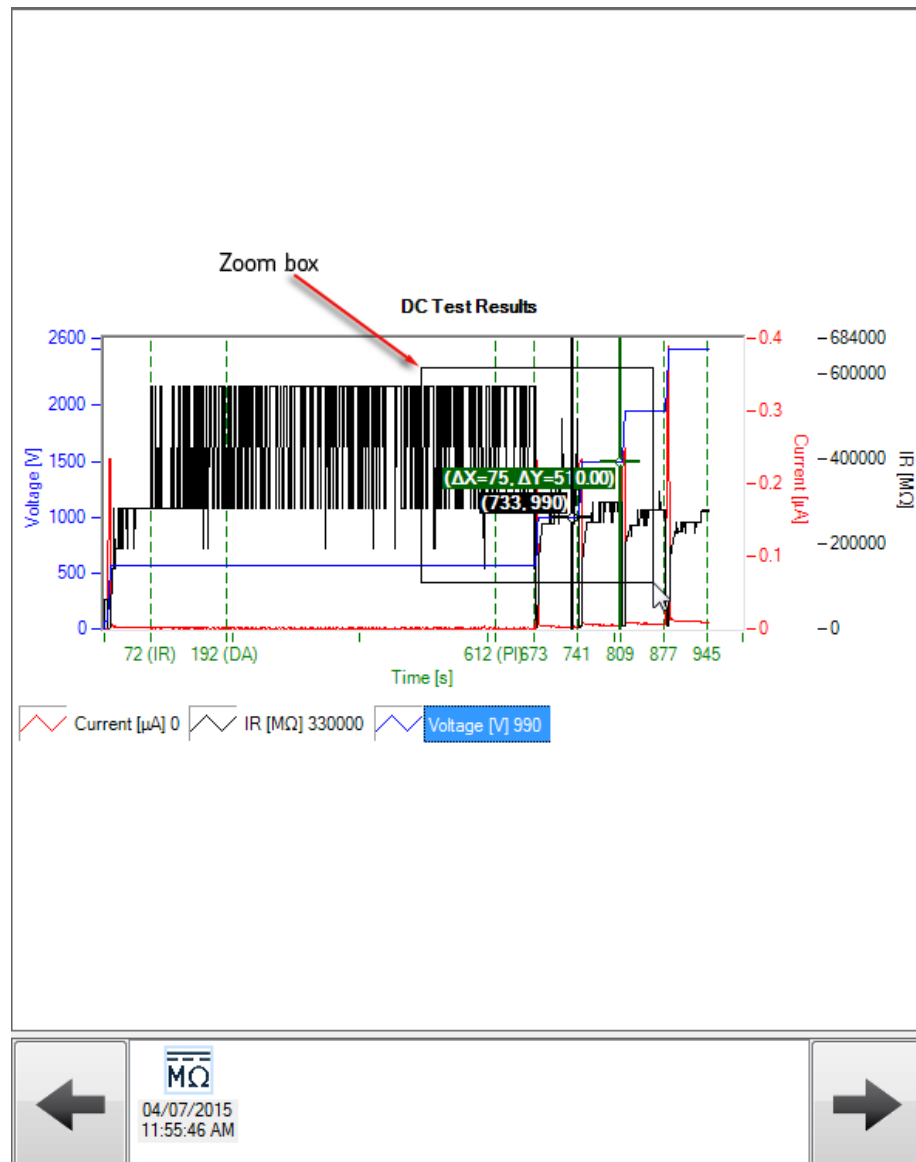


Figure 23. Zoom feature helps you enlarge sections for easier viewing.

You can zoom in incrementally if you like to find the best view for your examination.

Press the space bar to zoom back out incrementally until you reach full size.



NOTE

The zoom feature works the same for all display options in the Quick View pane.

Coil surge test results displayed in the **Quick View** pane provide three viewing options, which are selected using the menu in the top left corner.

In the following example, **All** results are selected. Clicking on **All** shows all the waveforms for every coil tested overlaid in one display.

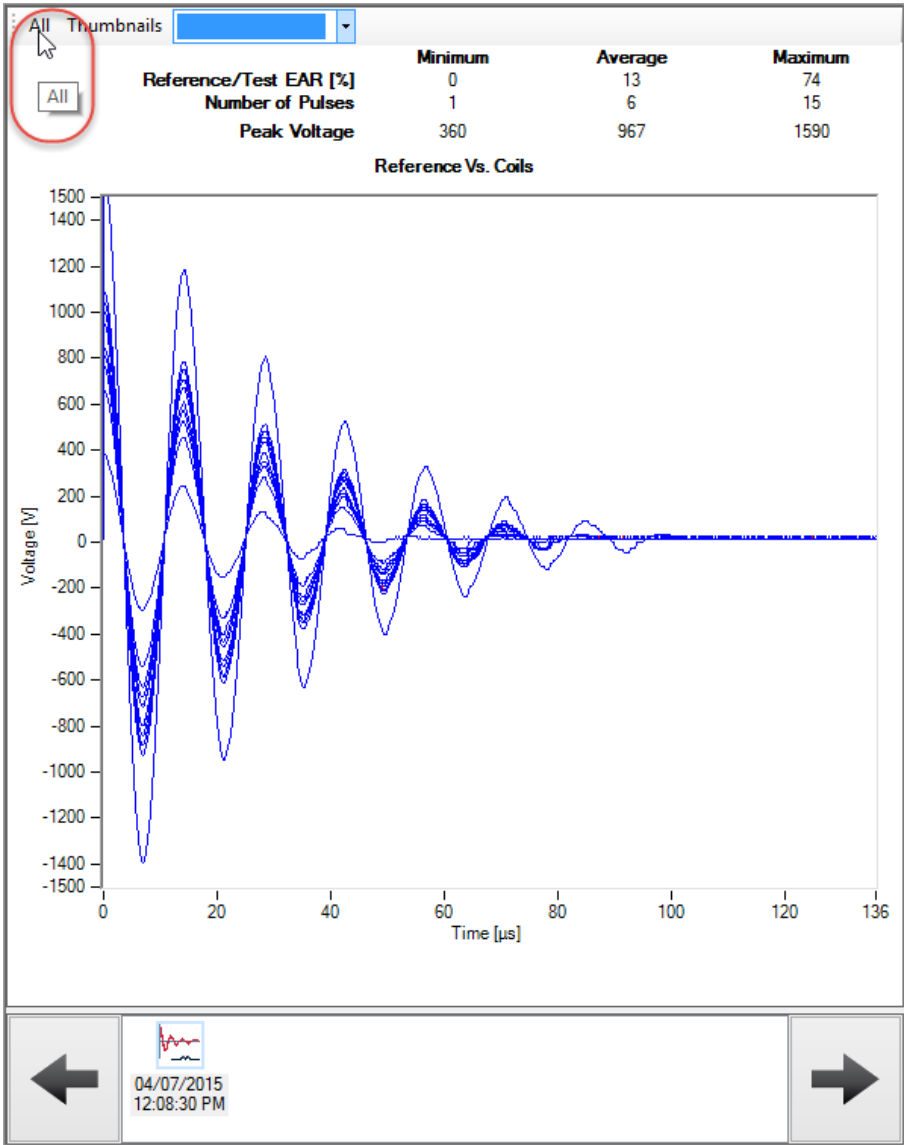


Figure 24. Quick View pane coil surge displaying all results.

In the following example, the **EAR** (Error Area Ratio) option is selected. All EAR results are displayed, with failing results shown in red.

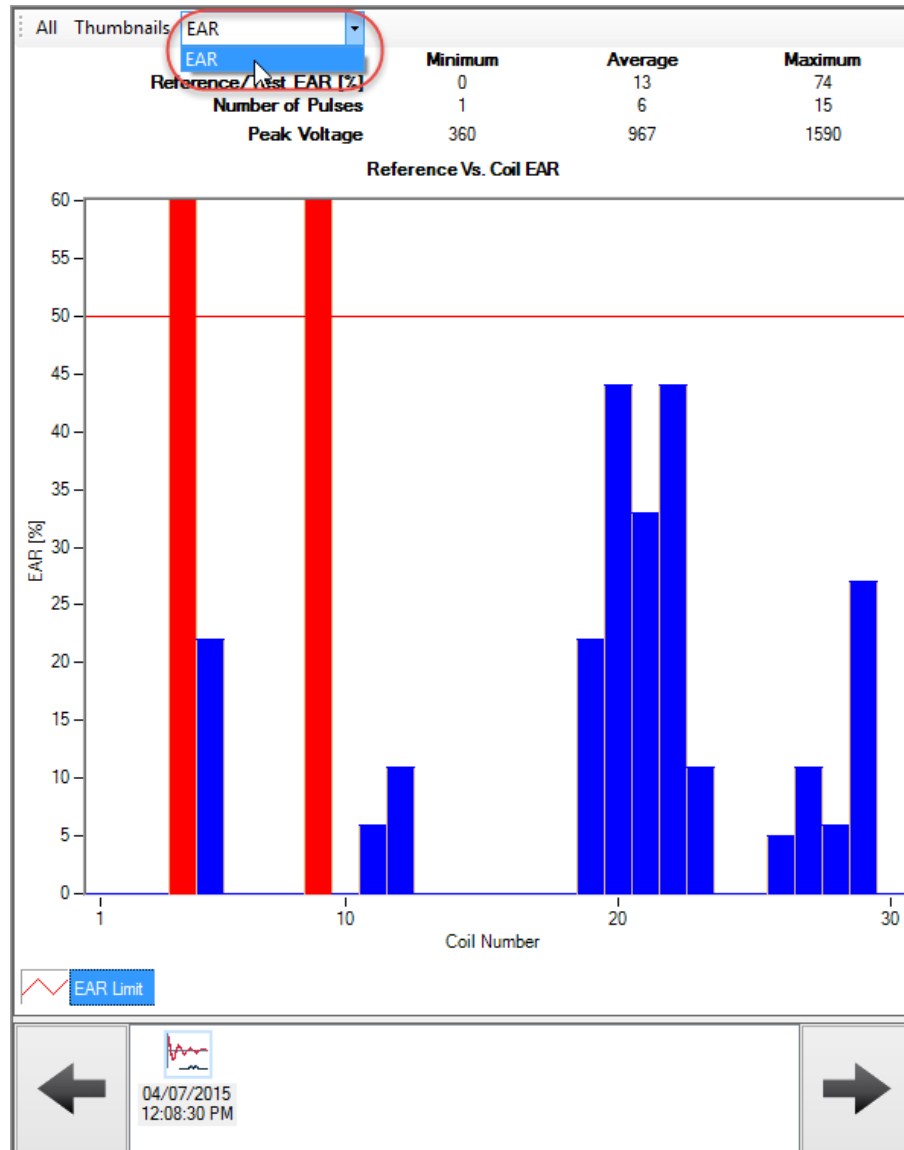


Figure 25. Quick View pane coil surge displaying EAR results.

In the following example, the **EAR** (Error Area Ratio) option is selected again. Notice that in this example, we also see **PD Events** and **PD Pulses** as options in the dropdown list. If PD data is available with a selected coil or 3-phase surge test, these options will appear in the dropdown list as shown.

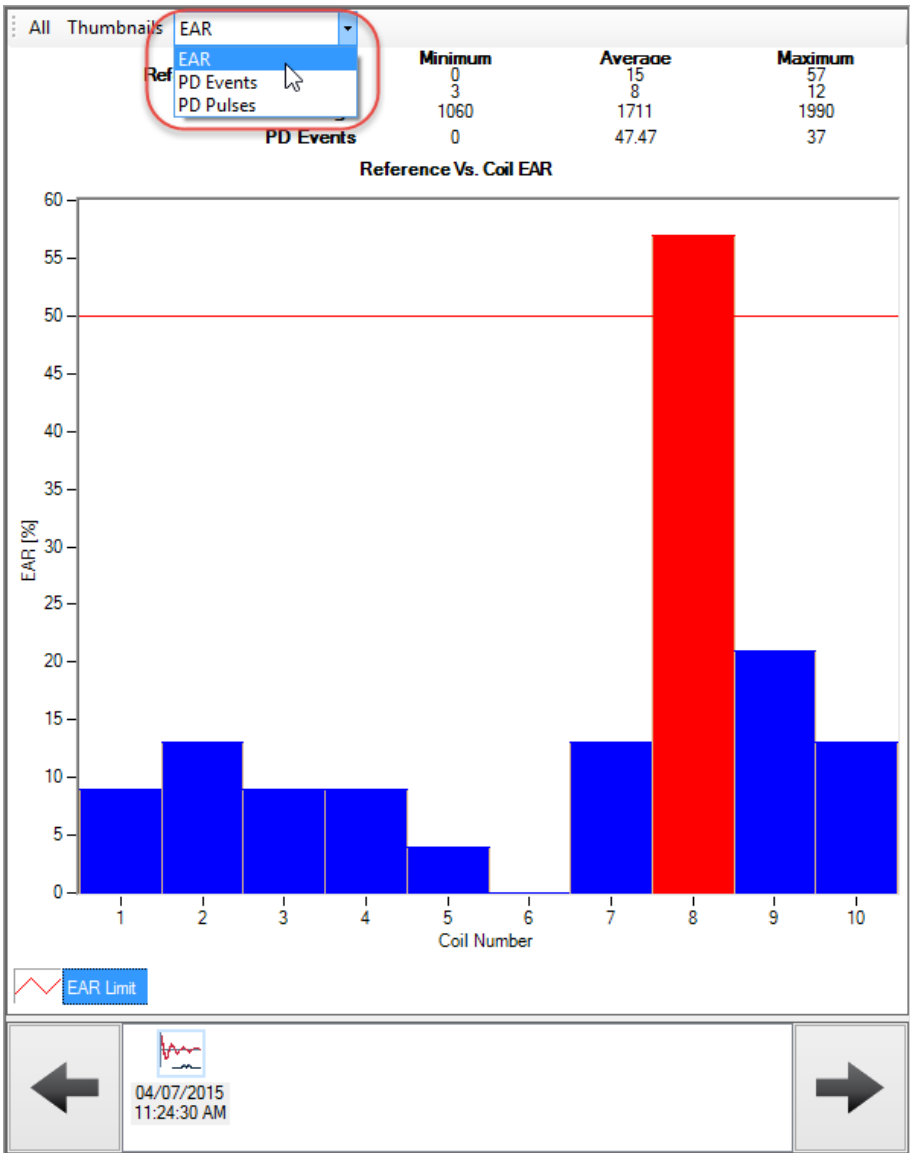


Figure 26. Quick View pane coil surge displaying EAR results with PD options.

In the following example, PD data is available with the coil surge test, and the **PD Events** option is selected from the dropdown list.

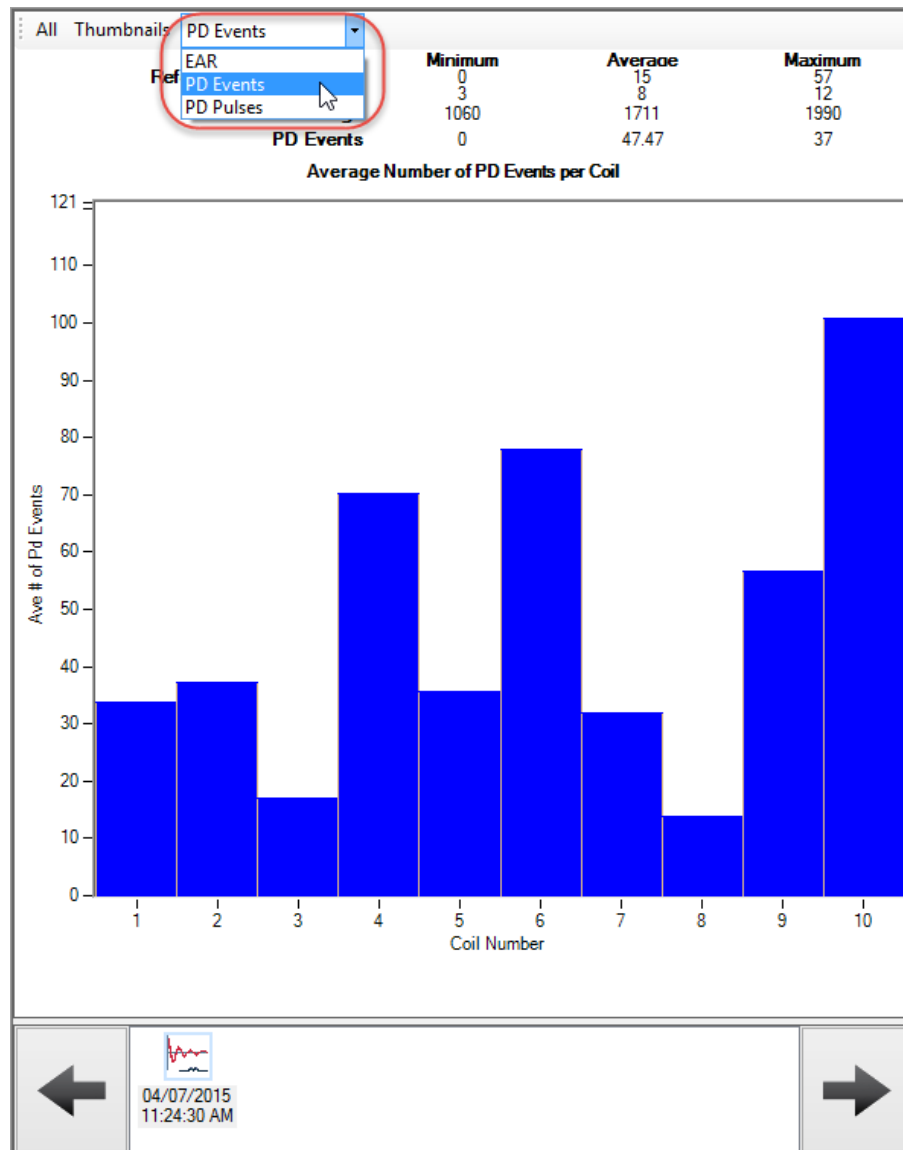


Figure 27. Quick View pane coil surge displaying PD Events.

In the following example, PD data is available with the coil surge test, and the **PD Pulses** option is selected from the dropdown list.

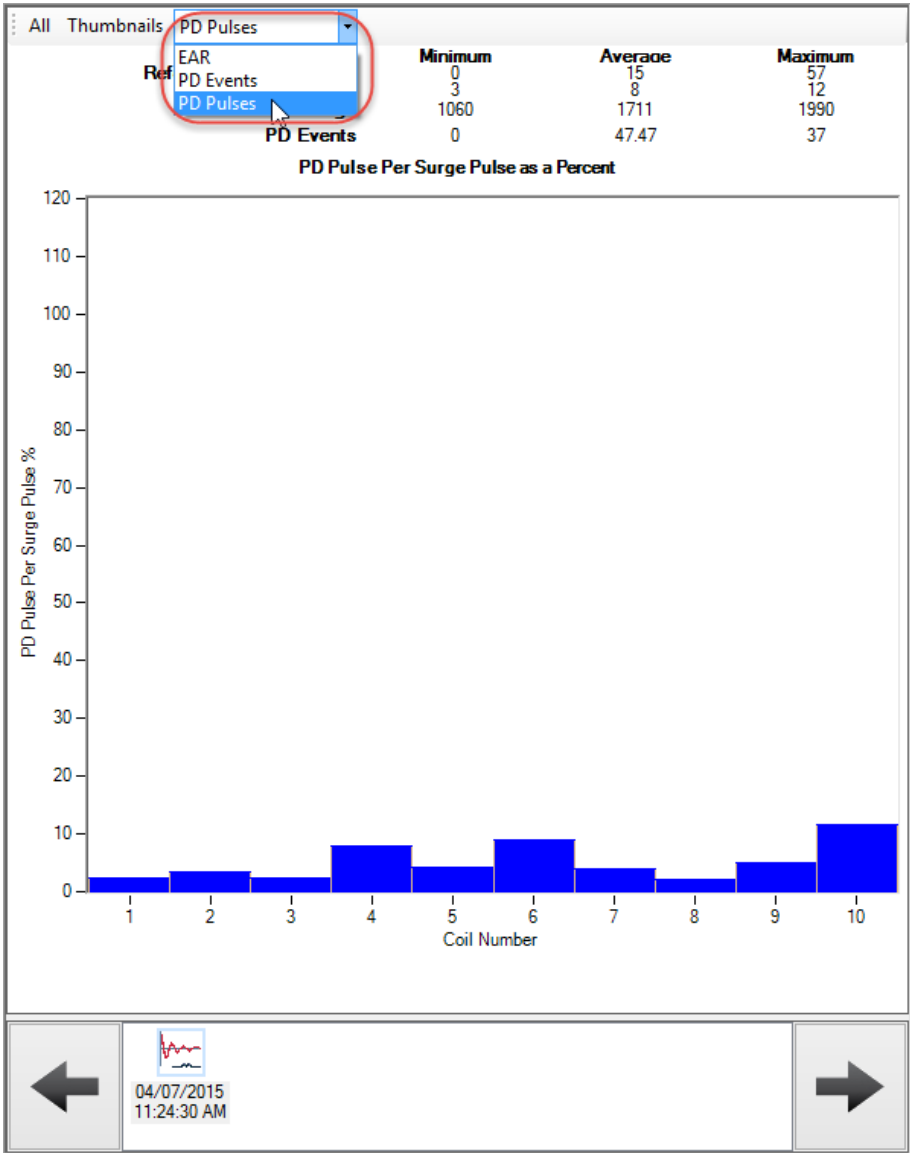


Figure 28. Quick View pane coil surge displaying PD Pulses.

In the next example, the **Thumbnails** option is selected for the coil surge test results. All results are displayed in thumbnail graphics with failing results highlighted by a red box.

Use the scroll bar to the right to move through longer listings.

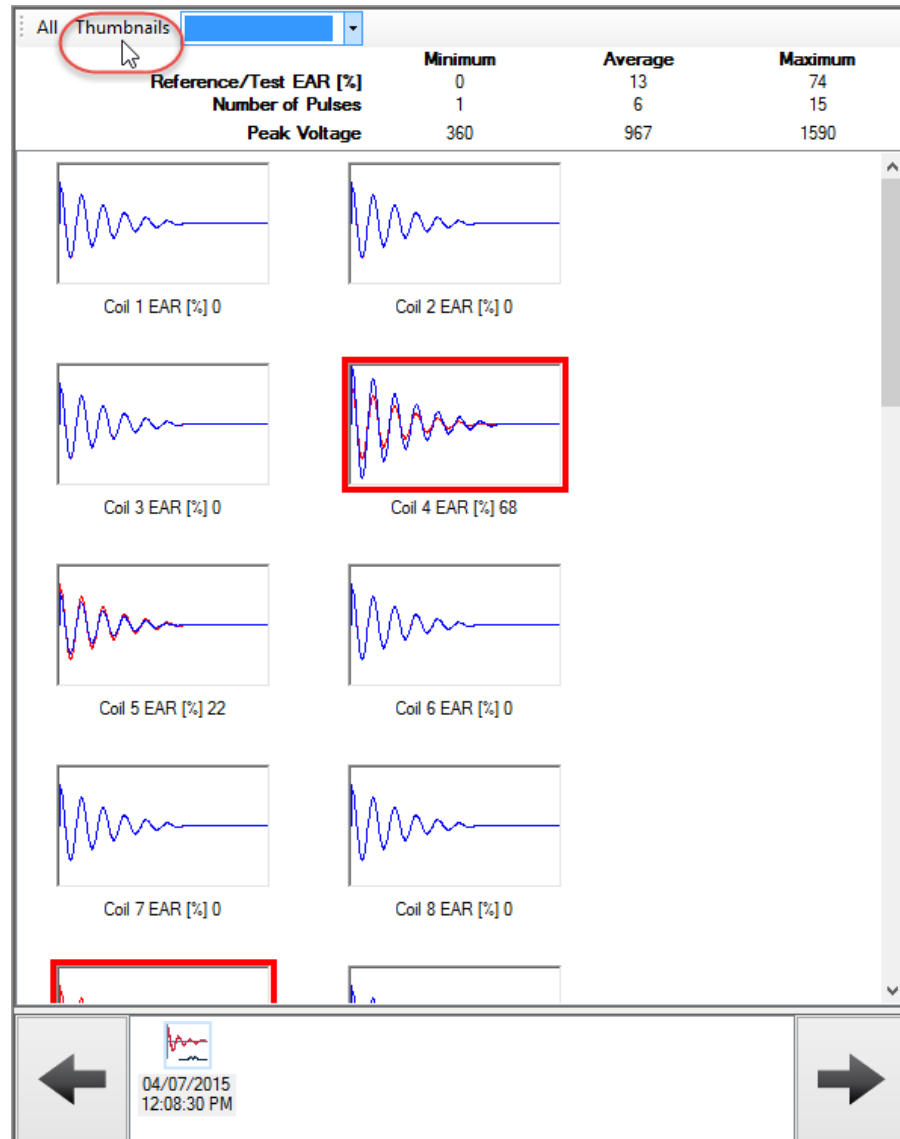


Figure 29. Quick View pane coil surge displaying test results with Thumbnail graphics.

Double clicking on an individual thumbnail graphic opens the result in a separate dialog box so you can view the results more closely.

In the following example, PD data is available with the 3-phase surge test, and the PD data is overlaid on the surge waveform. This example shows the summary with the PP EAR graph selected for the bottom section.

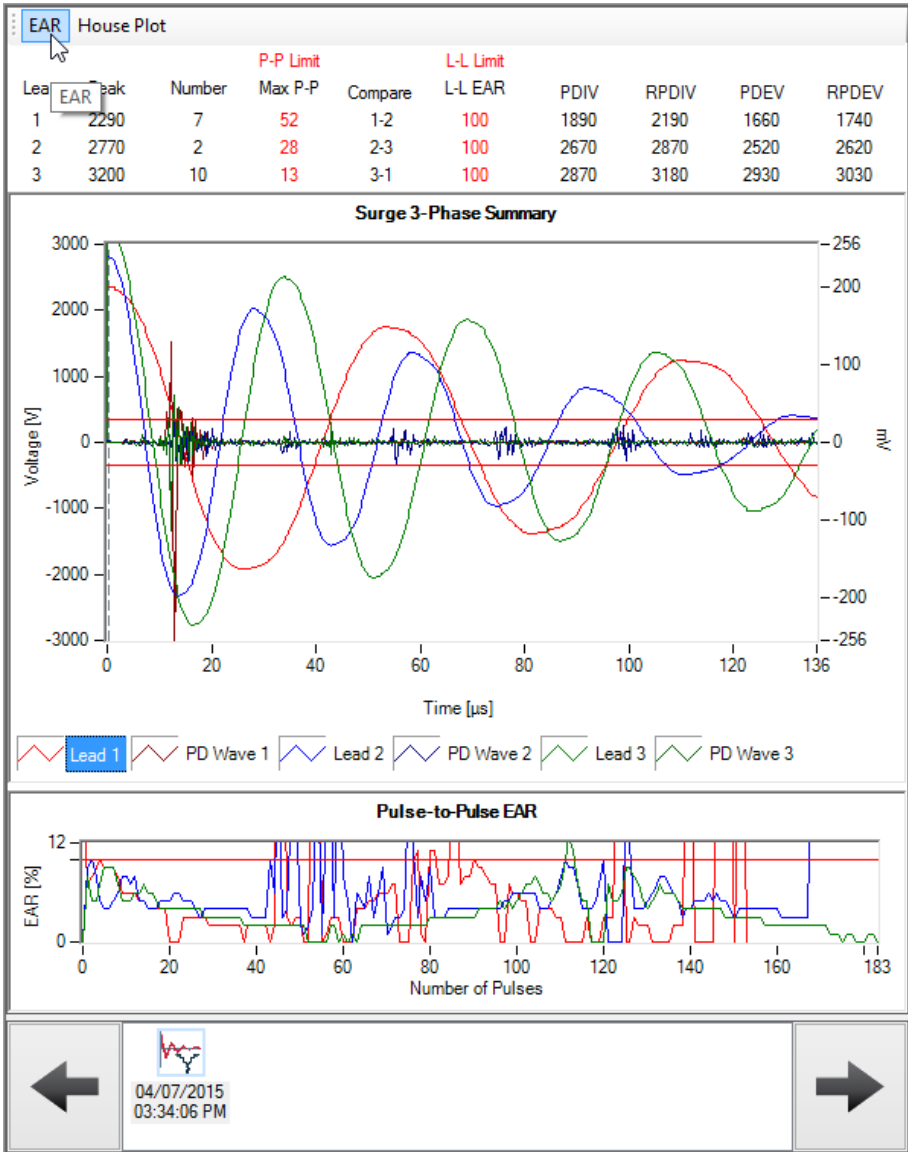


Figure 30. Quick View pane 3-phase surge displaying PD overlay with EAR.

Again, the PD data is overlaid on the surge waveform. This example shows the summary with the Houseplot graph selected for the bottom section.

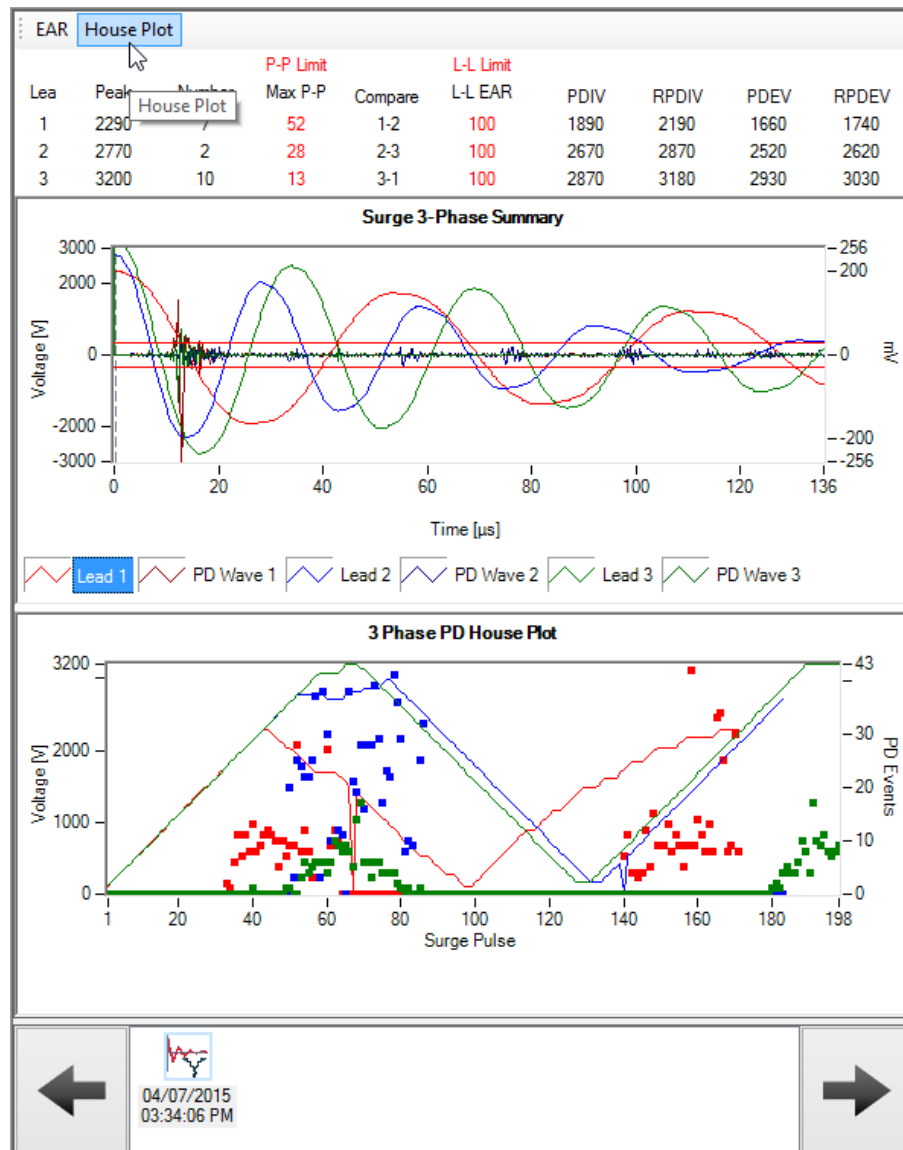


Figure 31. Quick View pane 3-phase surge displaying PD overlay with houseplot.

In the following example, PD data is available with the coil surge test, and the PD data is overlaid on the surge waveform. Clicking on **All** shows all the waveforms for every coil tested overlaid in one display.

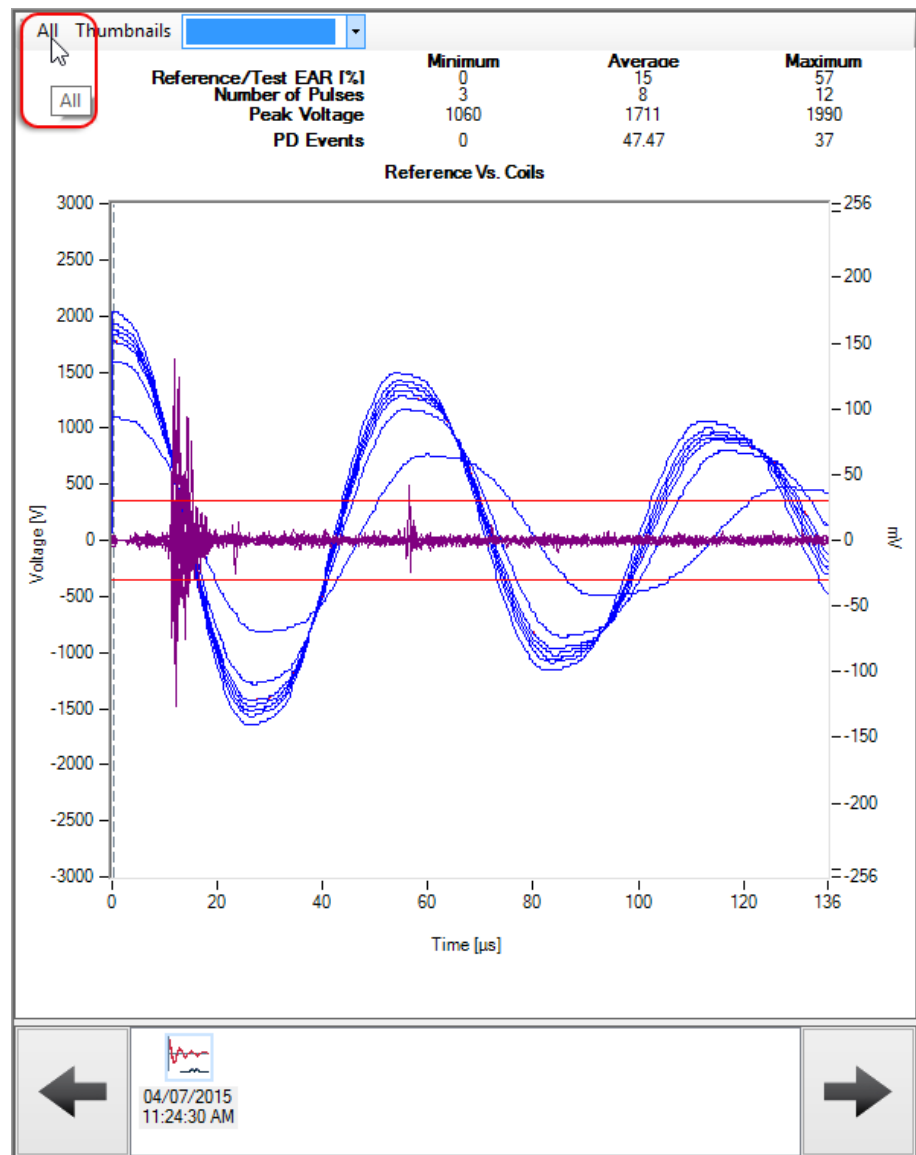


Figure 32. Quick View pane coil surge displaying all PD data overlaid on graph.

In the next example, PD data is available with the coil surge test, and the PD data is overlaid on the surge waveform.

The **Thumbnails** option is selected for the coil surge test results. All results are displayed in thumbnail graphics with failing results highlighted by a red box.

Use the scroll bar to the right to move through longer listings.

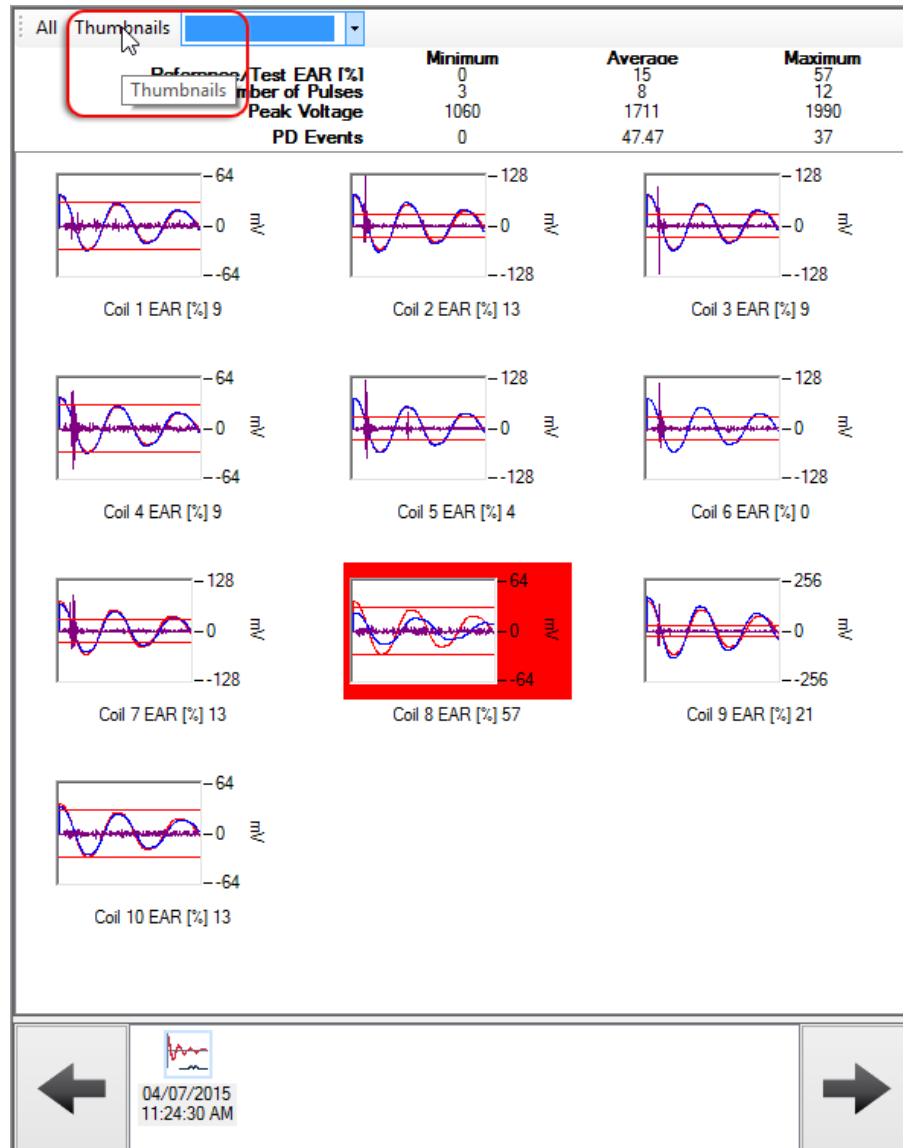


Figure 33. Quick View pane coil surge displaying all PD data with Thumbnails option selected.

Double clicking on an individual thumbnail graphic opens the result in a separate dialog box so you can view the results more closely.

The following example shows PD data collected during a surge three-phase test process, but the data in this view is shown with the surge and PD waveforms unlocked. The PD data is displayed within the rectangular box in the example. The arrow shows where the PD event actually occurred within the time line. A vertical dotted line shows the end of the time range (from zero) in which the PD event occurred.

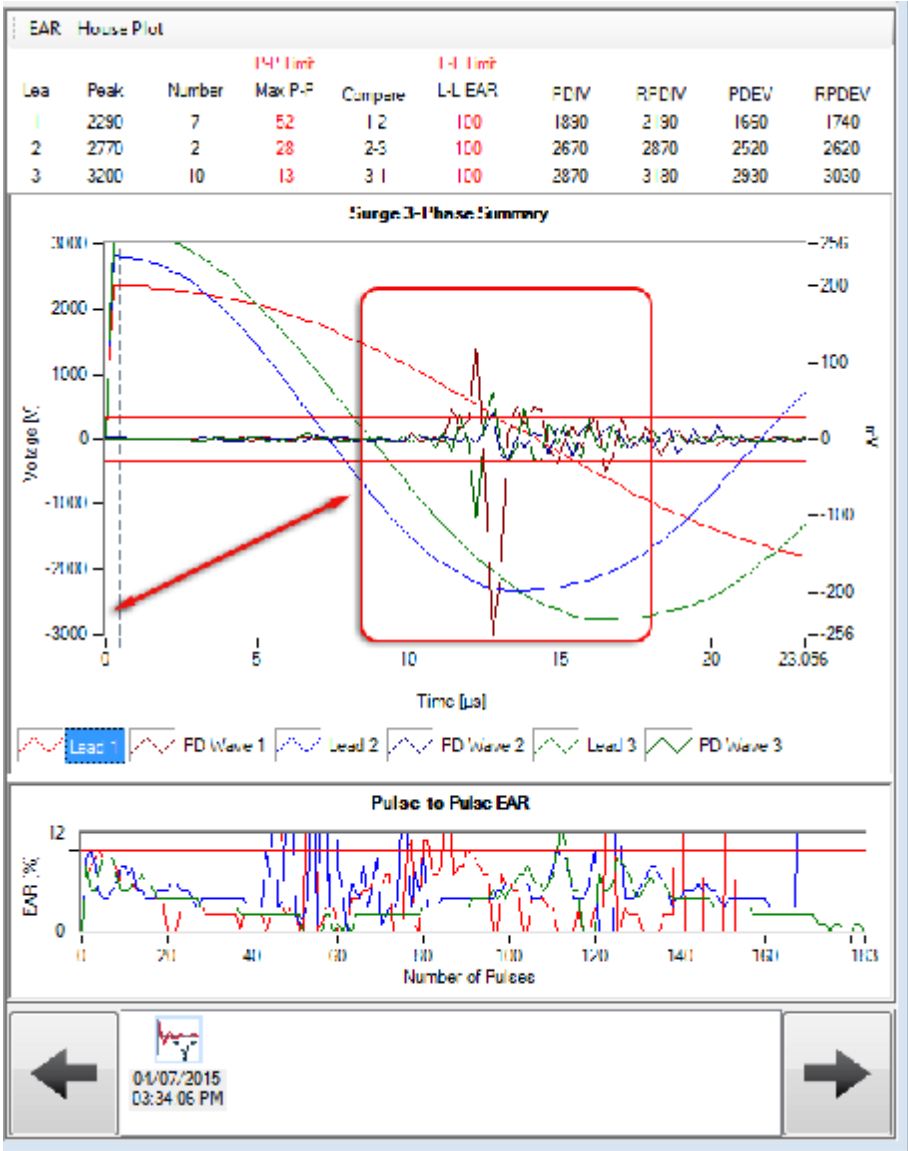


Figure 34. Quick View pane displaying PD with surge and PD waveforms unlocked.

The RLC test options include graphical displays for RLZ test results. The example below shows and impedance graph option. RIC test options can be selected using the dropdown list at the top of the display.

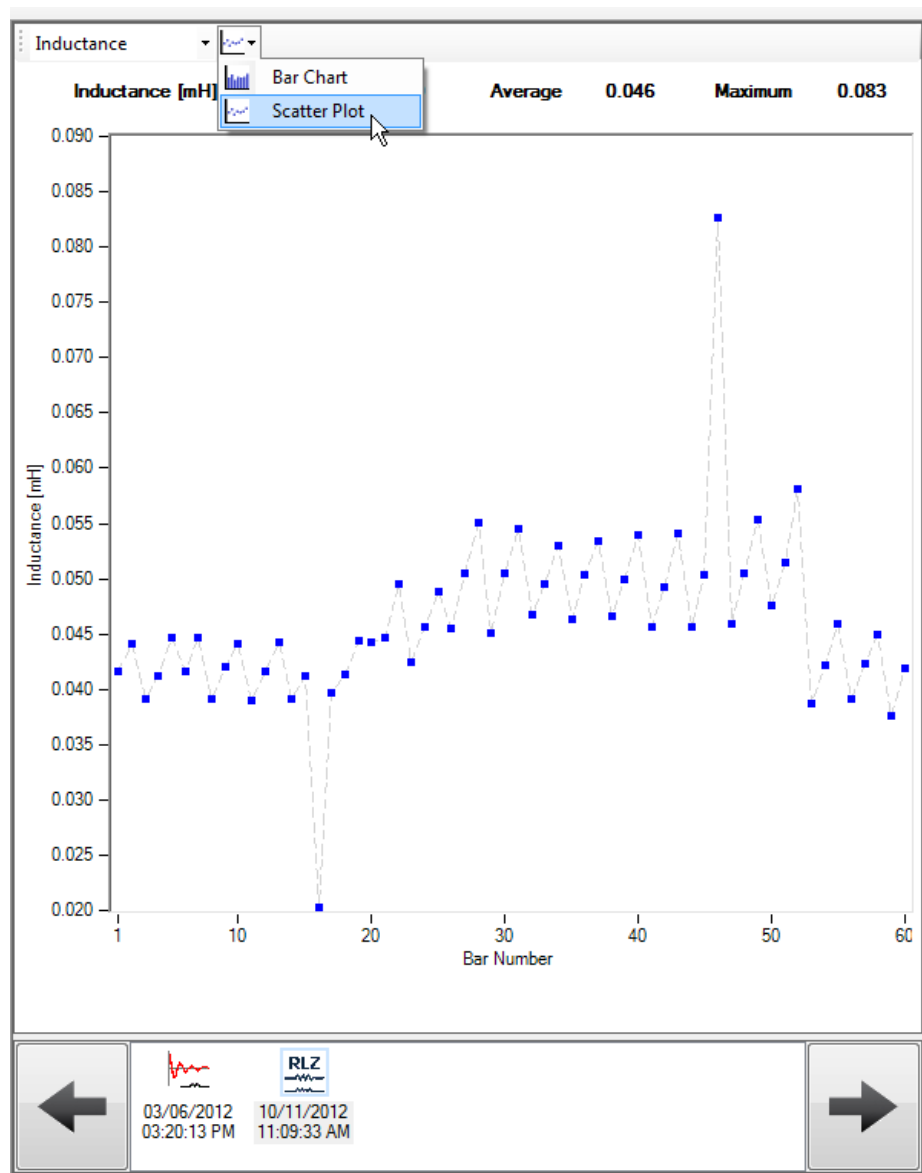


Figure 35. RLZ test example showing induction result displayed in a Scatter Plot.

You can also select the type of chart (Bar Chart or Scatter Plot) to display as shown in the example.

The RIC test options also include graphical displays for RIC test results. The example below shows an impedance graph option. RIC test options can be selected using the dropdown list at the top of the display.

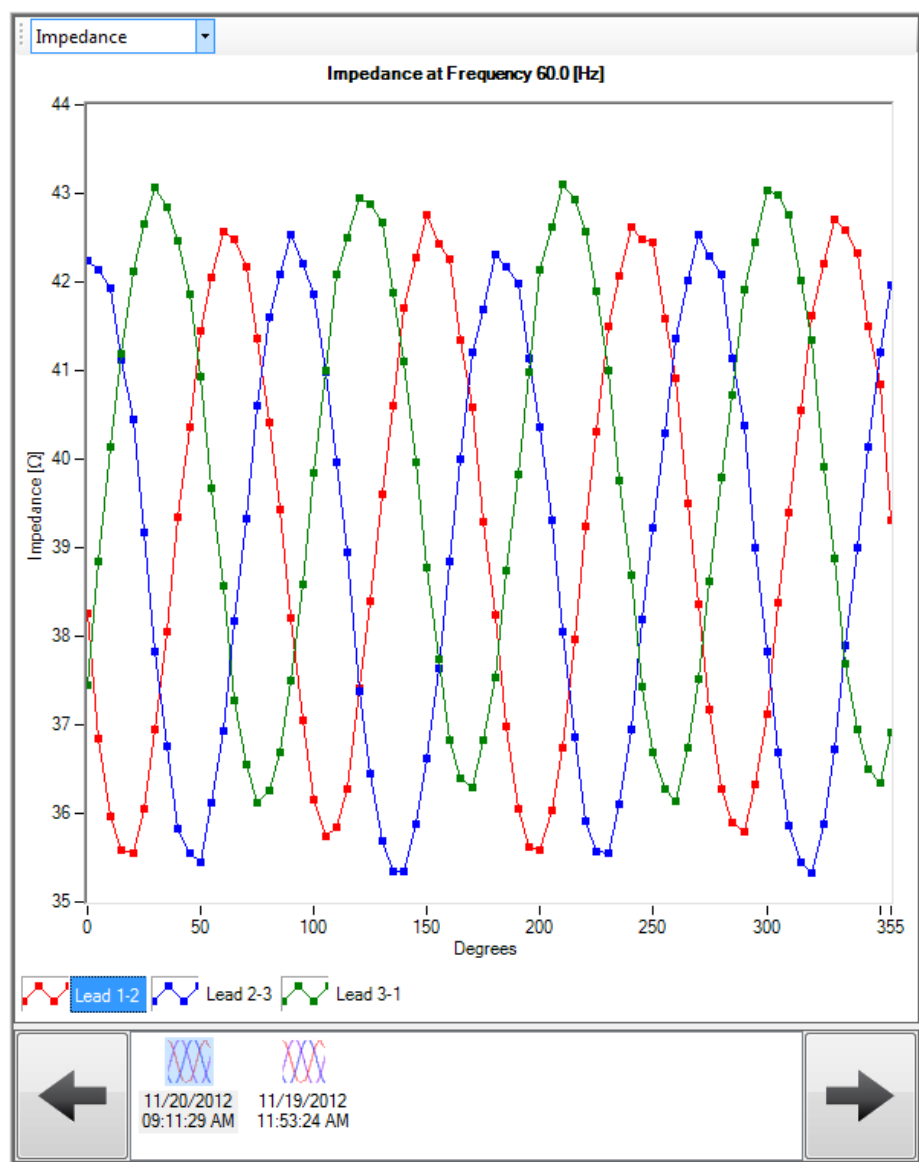


Figure 36. RIC impedance test results display.

As with other results displayed in the **Quick View** pane, you can zoom in on a test result to examine details more closely by clicking and holding down the right mouse button to draw a zoom box around the area that you want to enlarge. When you release the mouse button, the display will zoom in on your selected area.

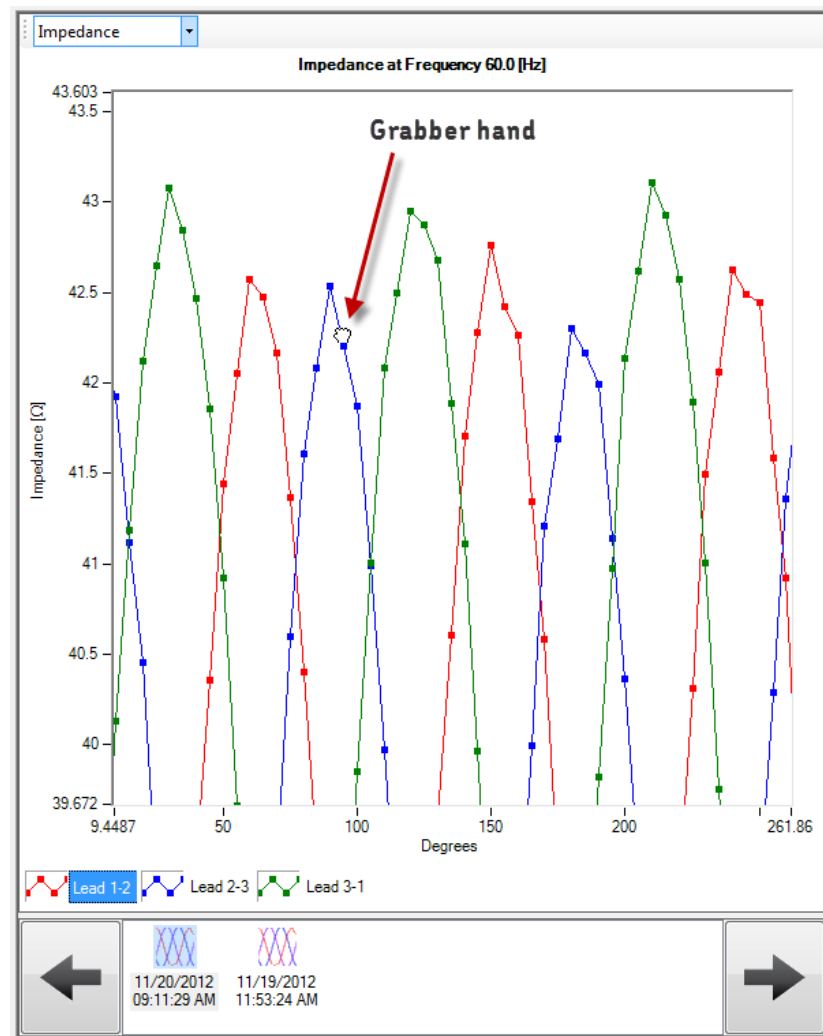


Figure 37. Using the zoom and grab features to optimize display elements.

You can also move the elements in the display by holding down the CTRL key on your keyboard to display a “grabber hand” as shown in the example above. With the grabber hand activated, slide the element as needed with the **Quick View** pane.

Press the space bar to zoom back out incrementally until you reach full size.



NOTE

The zoom and grab features work the same for all display options in the Quick View pane.

Among the RLC graphical display options for RIC test results is the Orbit Plot, which is shown in the example below. You can use the dropdown list at the top of the display to select impedance, inductance, or phase angle results.

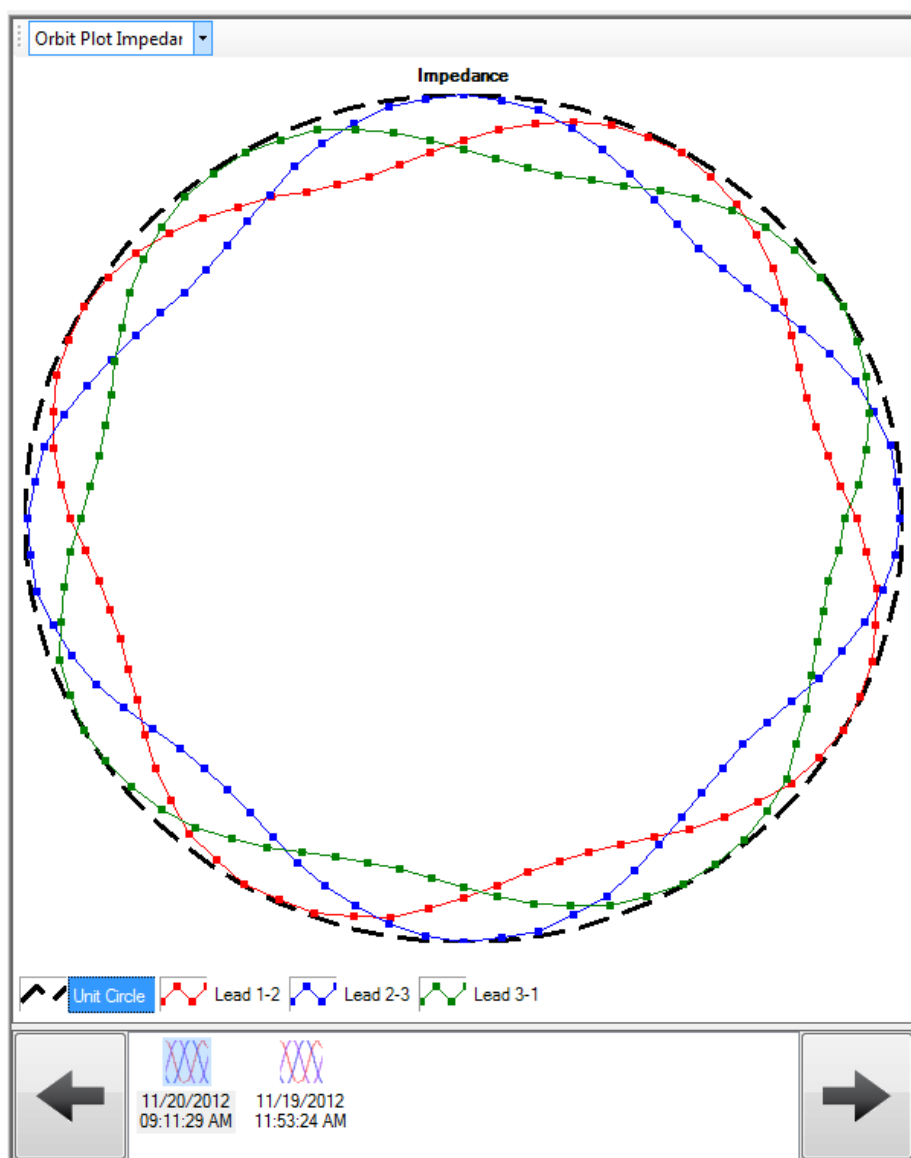


Figure 38. Orbit plot option for RIC test results.

Location tree features

The **Location tree** includes several features to help you manage your test data including standard file/folder management features and a drag-and-drop function.

Folder and results management

When you highlight an item in the **Location tree** then right-click the mouse, you will see a standard set of file/folder management tools listed in a menu. These tools help you create new file folders, rename folders, expand or collapse all items within a folder, delete a file or folder, and display the attributes for the selected file or folder.

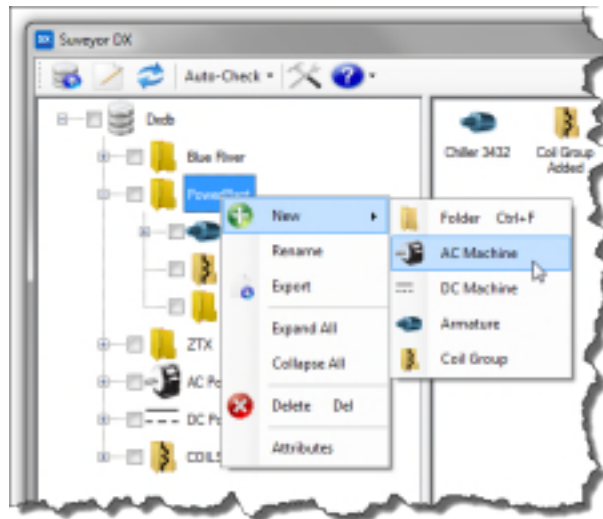


Figure 39. Folder management menus.

The **New** item in the menu allows you to create a new folder or add a new test item type to the selected folder. Adding a new test item essentially creates a new folder with attributes that pertain to the type of test item that was created.

When you add a new folder or test item, a dialog box similar to the one shown below opens so you can assign a name.

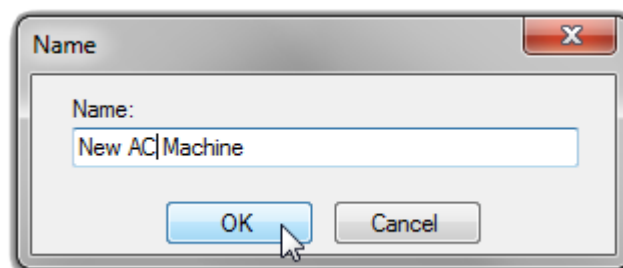


Figure 40. Assigning test item type dialog box.

After you click on **OK**, the new folder or test item is added to the selected folder as shown below.

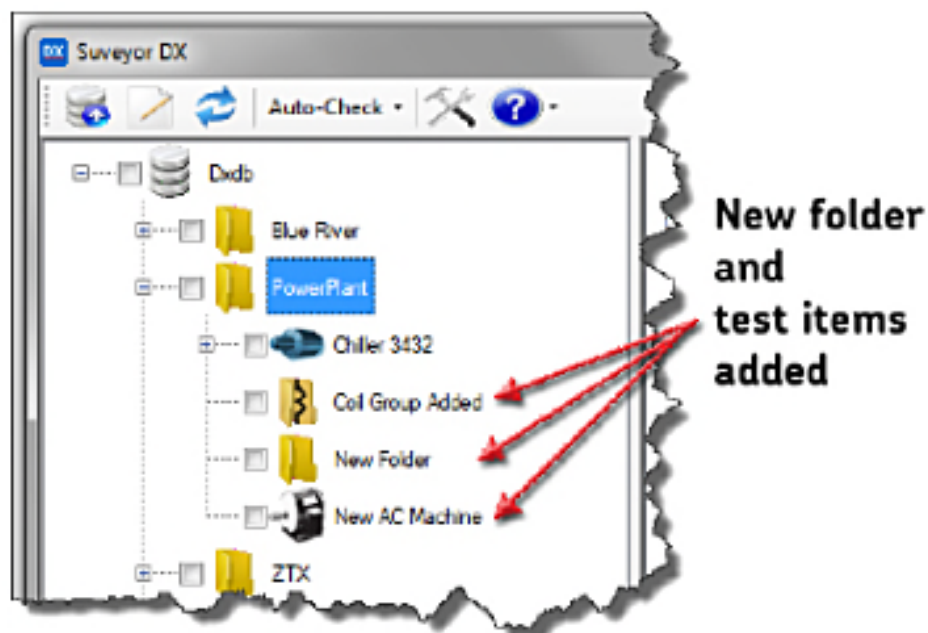


Figure 41. Example of new folder and test items added.

If you attempt to delete an item from the **Location tree**, you will see the dialog box shown below warning you about the ramifications of deleting the selected item.

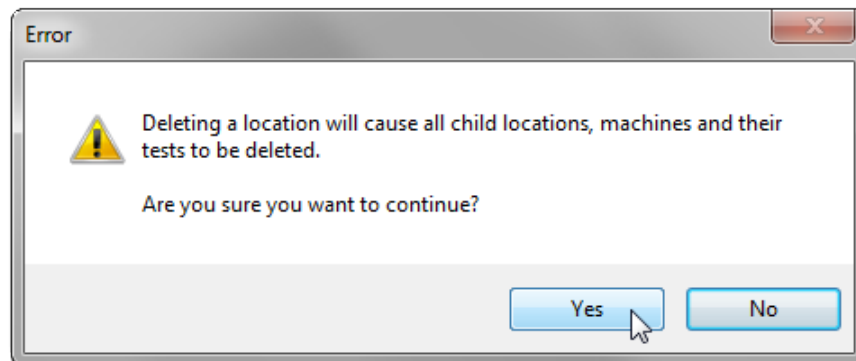


Figure 42. Warning dialog box displayed when deleting tree items.

If you do not want to remove the associated data, click on **No**.

Click **Yes** to remove the file/folder and all related data.

At the database level, the management menu provides you with some features found at other levels and some that are exclusive to this level.

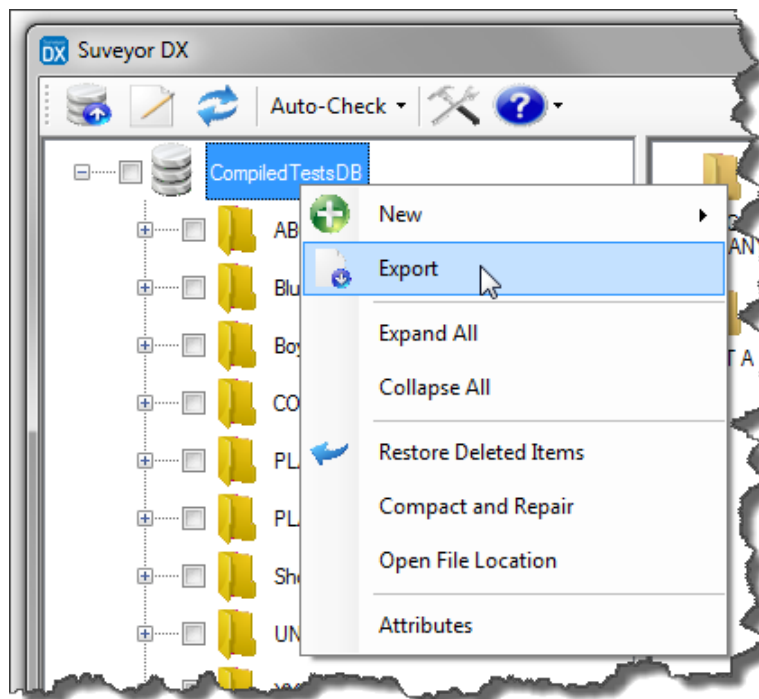


Figure 43. Database level management menu.

The **New** item in the menu allows you to create a new folder or add a new test item type to the selected folder as it does at other levels. Adding a new test item essentially creates a new folder with attributes that pertain to the type of test item that was created.

The **Export** menu item allows you to save all the database information to a .dx file.

The **Expand All** and **Collapse All** menu items toggle between displaying the folders and their contents in the **Location tree**.

Click on **Restore Deleted Items** to undo deletions that you might have made during the current session. Items that were deleted in previous sessions (the application is closed then re-opened) can also be restored as long as you have not used the **Compact and Repair** feature or imported new data into the database—the software automatically runs **Compact and Repair** when importing new data.

Use the **Compact and Repair** menu item to have the application reduce the space needed to store the database files and repair elements in the saved database.



NOTICE

This feature also cleans out all deleted items and permanently removes them from the system.

To identify the location of the current database, click on **Open File Location**. A dialog box opens to show you the current location. This is for reference purposes only; the location cannot be changed from this dialog box.

Clicking on the **Attributes** menu item opens a dialog box similar to those shown for test results. These attributes are not used in any manner for generating reports.

At the test results level, the management menu provides you with only three options. You can delete the selected test result. You can export just the selected test result's data to a .dx file. You can open the attributes dialog box for the selected test result.

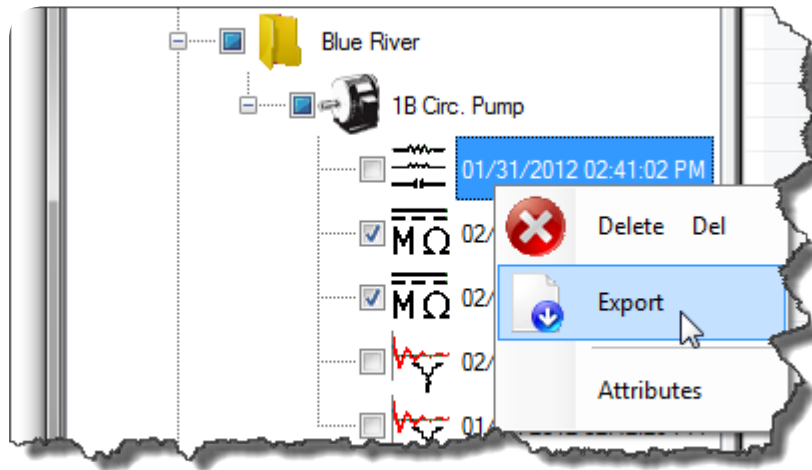


Figure 44. Test results level management menu.

Exporting data at these levels is practical for moving individual files to another system or for sending files to support when troubleshooting issues related to the test result.

Attributes

When you highlight an item in the **Location tree** then right-click the mouse, you will see a menu that provides access to management features. The last item in that menu is **Attributes**.

Clicking on the **Attributes** item opens a dialog box similar to the one shown below (form fields may vary depending on the test item type). The dialog displays the current property information (typically nameplate) assigned to the folder or file.

Attributes - Motor1			
Amature	Coil Type	Frequency [Hz]	Rated Voltage [V]
		60	460
Rated Current [A]	Armature Voltage [V]	Field Volts [V]	Interpoles
116			
Amature Current [A]	Field Current [A]	Speed [RPM]	LockedRotor I [A]
		3578	0.00
Off Level [A]	Power Out [kW]	Power Out [hp]	Service Factor
			1.15
Enclosure	Frame	Insulation	Manufacturer
TEAO			GE
MCC	Model	Serial Number	Job Number
	15B	123456	2812
Tested By	Tested For		
JJC	McCullough Power		
		OK	Cancel Apply

Figure 45. Attribute dialog box displaying nameplate information.

When you generate reports, the information that is present in this dialog will be included. You can enter or revise information as needed using this dialog box.

The information that can be added via this method is shown in the graphic. Other information that will also be included in the report comes from the data imported from the DX. This information is not editable, so it does not appear in the attribute dialog box, but it does print on the report. This information includes:

- Tester Type
- Tester SN
- Firmware Version
- Tester Configuration

Test results attributes include a subset of the information found in the parent folder's *Attributes* dialog such as **Job Number**, **Tested By**, and **Tested For** fields as shown in the graphic below.

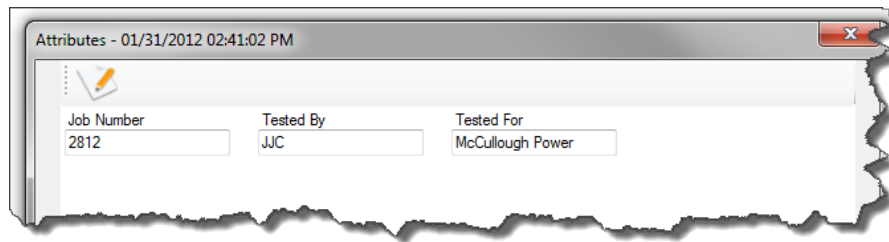


Figure 46. Test results attributes dialog box.

If you want to change any of the information in the dialogs, type directly in the fields as required and click on **Apply** to save changes and keep the dialog open.

You can also make changes and click on **OK**. Your changes will still be saved, but the dialog will close and you will return to the main user interface.

The *Attributes* dialog has a notes feature so you can add comments, special instructions, or other annotation as needed.

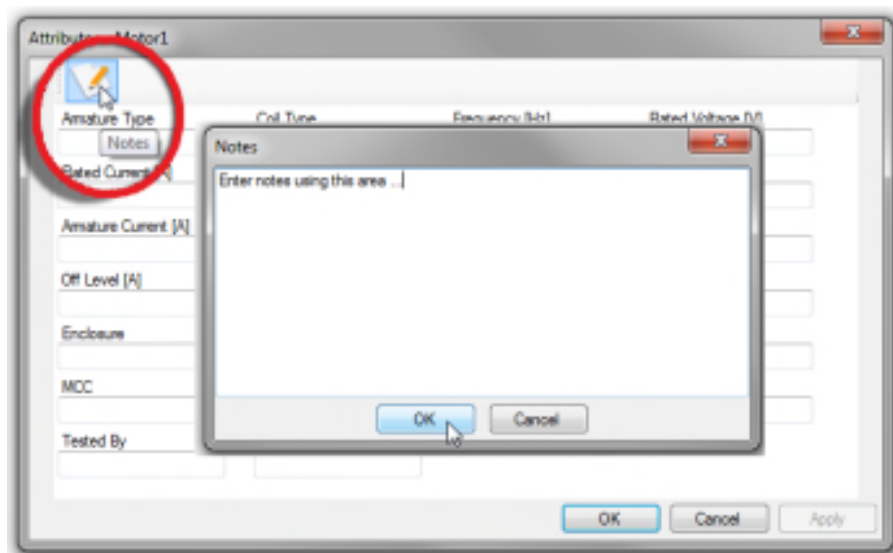


Figure 47. Adding notes to attributes.

To add notes, click on the **Notes** icon found in the top left corner of the dialog then enter your notes in the area provided in the *Notes* dialog box.

All notes are kept in the *Notes* dialog box for future reference. You can add, revise, or delete note contents as needed.

Test items have their own folders in which their test results are stored. Folder attributes are assigned based on test item type. If a test item type has not been assigned to a folder, when you right click on the folder you will see a **Convert to** item in the menu as shown in the example below. When you expand that menu item, you will see the test item types that can be assigned.

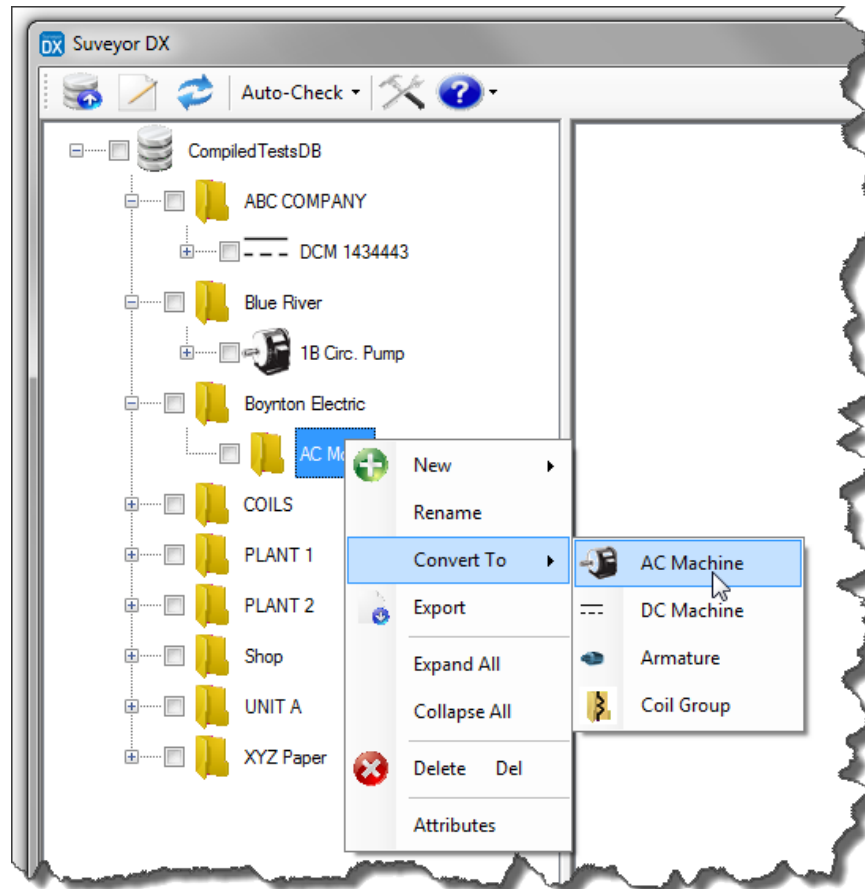


Figure 48. Assigning test item type to a folder.



NOTE

Ensure that you assign test item types only to appropriate test item folders to ensure that the attributes features provide the expected data and that they function as expected. Assigning test item types to higher folder levels (such as company name) locks the test item type to all sub-folders and will not allow editing of attribute information at the test item level.

Clicking on an item opens a dialog box like the one shown below. As the example explains, you cannot change the test item type assignment after it has been made, so be sure that you want to assign the selected test item type to the folder before you click on the **Yes** button.

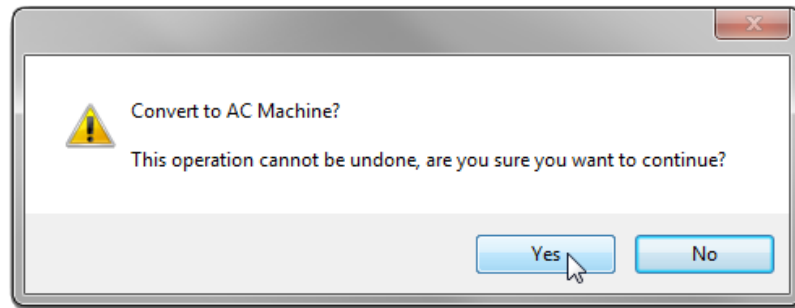


Figure 49. Confirmation dialog box for defining test item type.

The graphic below shows the test item types and their related icons that appear in the **Location tree** when assigned.

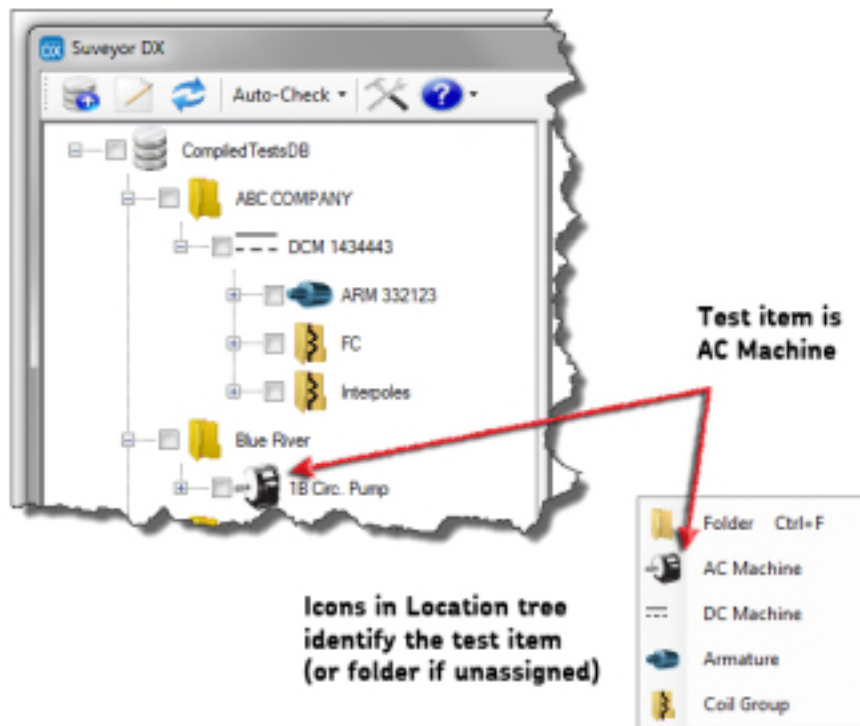


Figure 50. Test item types and related icons.

Drag and drop

You can drag folders or files from one location to another to suit your needs and preferences. The image below shows the basic process for moving items using the drag-and-drop feature.



Figure 51. Using drag-and-drop feature.

1. Click and hold down the left mouse button over the item you want to move.
2. Drag the item over the new folder location. The folder will be highlighted.
3. Release the mouse button.
4. The item will appear in the new location. If you would like to sort alphabetically you can click on the **Refresh** icon in the **Main toolbar** and the items will be sorted as shown below.

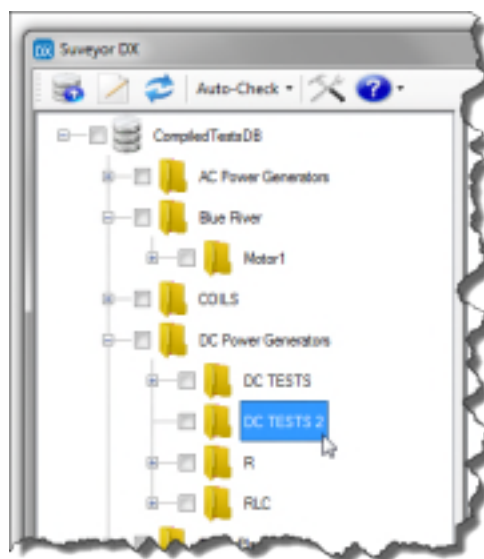


Figure 52. Item dragged to new location.

Importing data into the application

Click on the **Import Data** icon found in the top left corner of the **Main toolbar**.

The *Open* file dialog box can be used to open files with either a .dx or .xml extension. You can change which file type to display by using the combo box in the lower right section of the dialog.

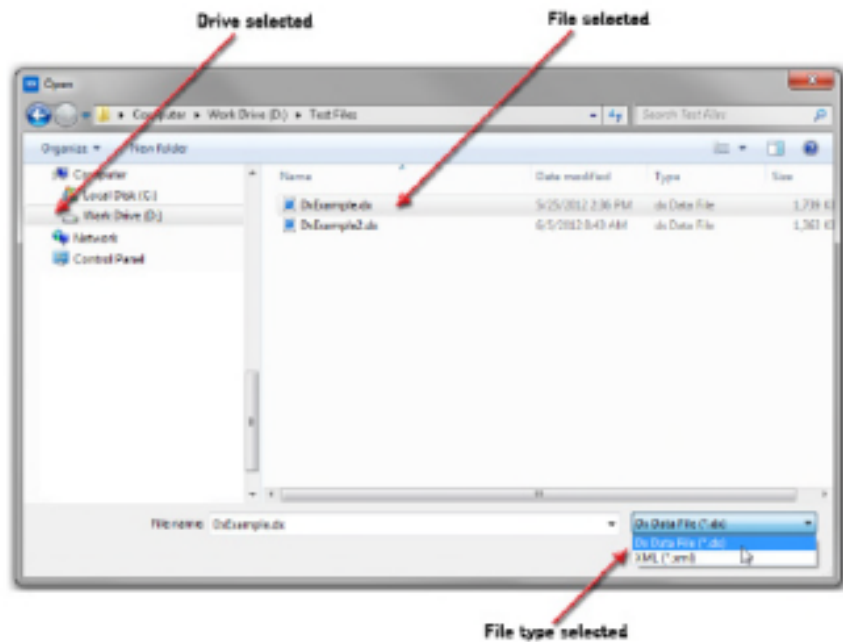


Figure 53. Selecting drive and file location for data to be imported.

When you first use the application, you will see a dialog box asking whether a new database should be created, or whether the software should use an existing database. Click on the appropriate radio button for your application.



NOTE

For more information on selecting the database or changing the database location, refer to “Configuring the Surveyor DX database” found earlier in the guide.

When the target file is loaded, its contents will look something like this in the application interface (after you expand the database root).

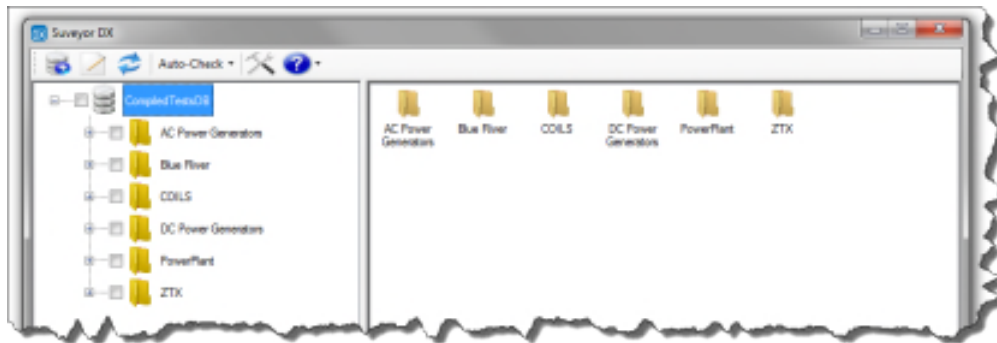


Figure 54. Contents loaded into Surveyor DX.

The application determines where the data should be located based on the folder paths used in the Baker DX. So no matter which option you use to export data from your DX (results only, a single folder, a single folder with children folders, or all data) that data will be saved to the appropriate folder when it is imported into the Surveyor DX database.

Double clicking an item in the **Location tree** expands the tree for that item and displays the item's children in the pane on the right side of the page. Double-clicking again collapses the tree, but the selected item's children are still displayed to the right. You can also click on the plus or minus (+ / -) signs to the left of the folder to expand and collapse the contents.



Figure 55. Selected folder and displayed contents.

Generating reports

To generate reports, you need to select the data and specify the report options that you want to include in the report.

Selecting data to include in reports

Select data that you want to include in a report by checking the boxes next to the desired item(s) in the **Location tree**.

You can also select data by using the **Auto-check** menu as shown below. This menu allows you to select by a range of date/time or by selecting a specific type of test result.

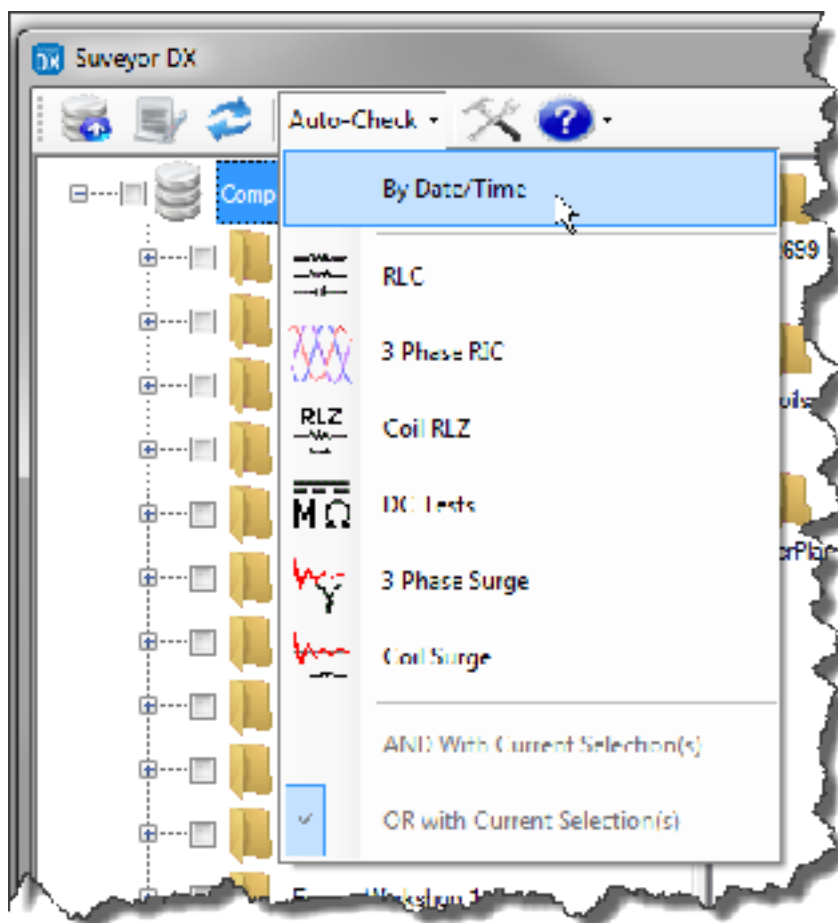


Figure 56. Using Auto-check to define date/time parameters.

If you select **By Date/Time**, the *Select Date/Time* dialog box opens as shown below.

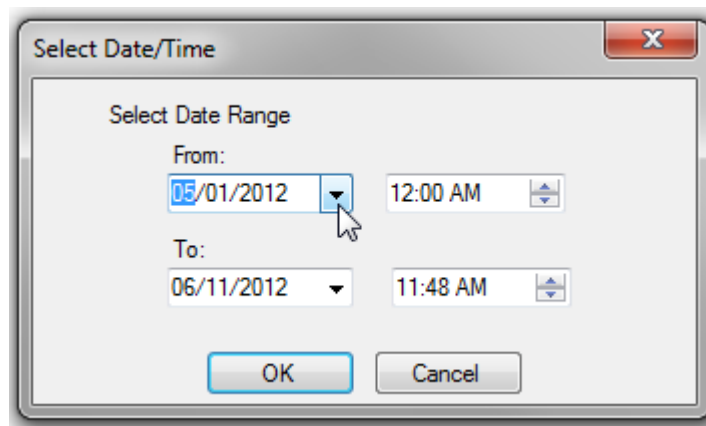


Figure 57. Date/time selection dialog box.

You can enter information directly in the fields using the format shown, or you can click on the up or down arrows to the right of the time combo boxes to change times.

If you click on the arrows to the right of the date fields, a calendar opens like the one shown below.

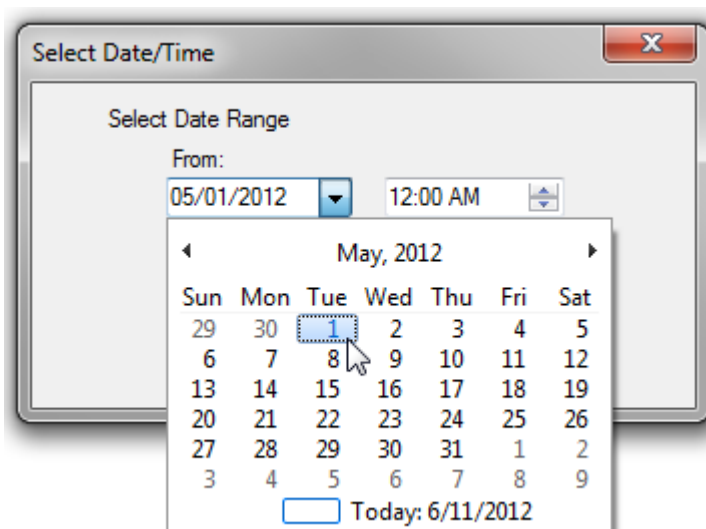


Figure 58. Using the calendar feature to select date.

1. Click on the arrows to the left and right of the month to change the month.
2. Click directly on the date to select the date.
3. Click on **OK** when you are satisfied with your selections.

After you specify the date range, any item falling within the range will have a check in the box next to it and will be included in the report you generate.

The **Auto-check** menu includes other options for selecting test result types. So, for example, if you select **3 Phase Surge** the software will look for test results that have 3-phase surge results and will automatically check the boxes next to those items.

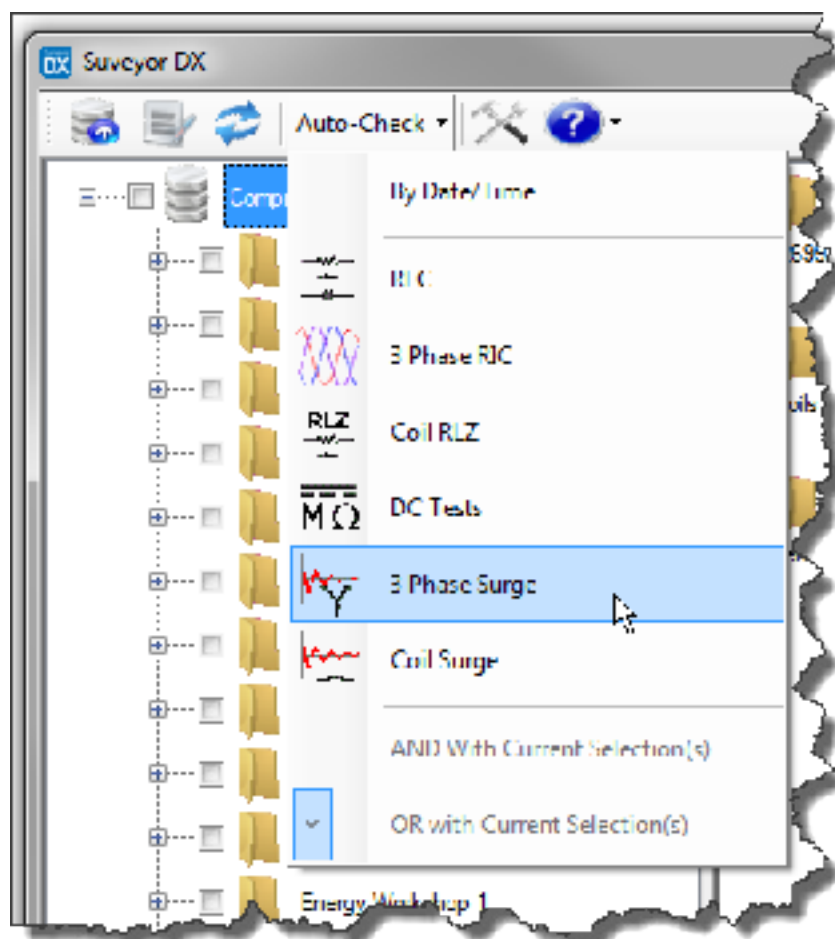


Figure 59. Using the 3 Phase Surge option to select results.

When folders within the **Location tree** contain test results of the type selected (or fall within the date range selected) the boxes for those folders are colored as shown in the example below to indicate that the folder has children that are checked.

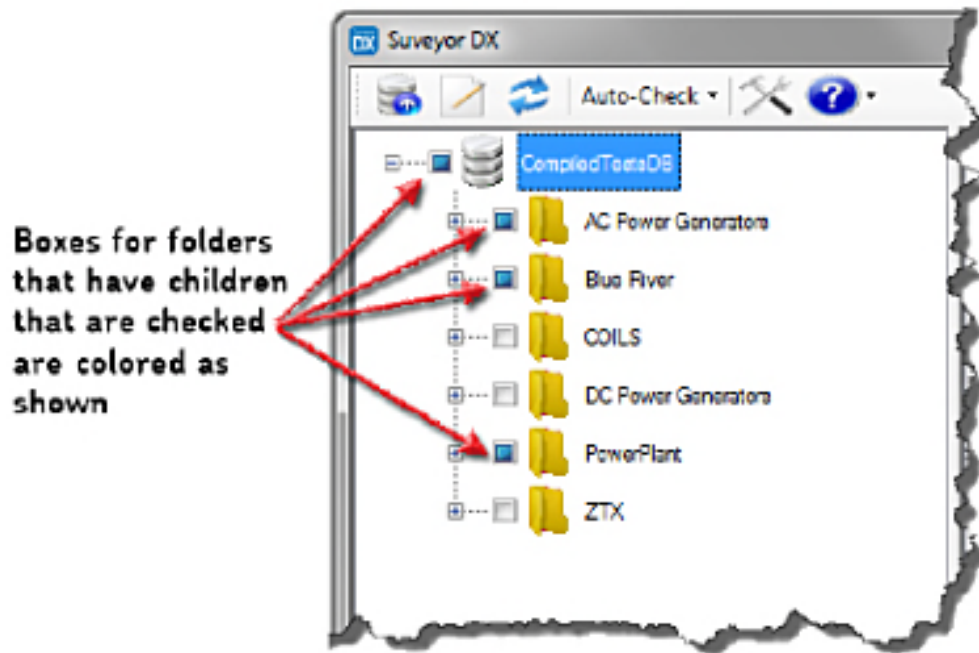


Figure 60. Colored boxes identify folders containing selected results.

The **AND** and **OR** features allow you to refine your filter selections. For example, if you wanted DC tests within a certain date range, you would first specify your date range and **Auto-check** would select all results in that date range. Then you would select **AND** then select **DC Tests**. **Auto-check** would then unselect all results in the date range that are not DC Tests.

To remove all checks, simply click on the check box next to the database name at the highest level of the **Location tree**.

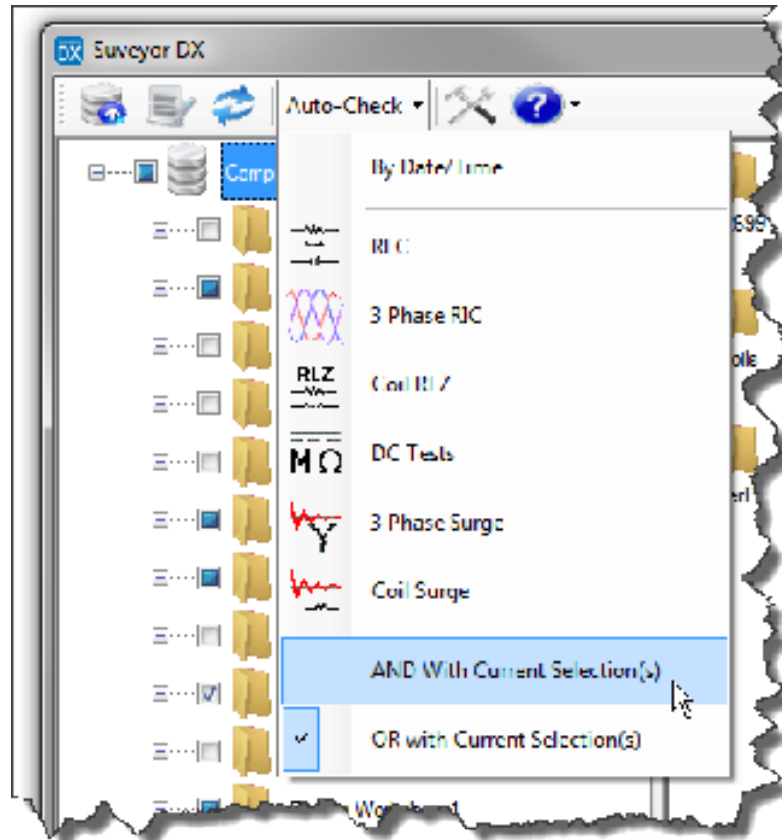


Figure 61. Using the AND/OR selection functions.

Specifying options to use in the report

1. To select the options that you want to include in your report, click on the **Settings** icon found in the **Main toolbar**.

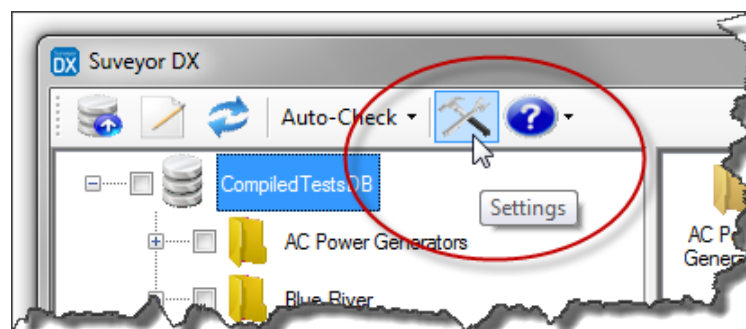


Figure 62. Click on the icon shown to open the setting dialog box.

- The dialog box shown below opens to help you select the report types you need. It also allows you to add the company logo and name if you like, and it lets you choose options for including attributes and logging reports.

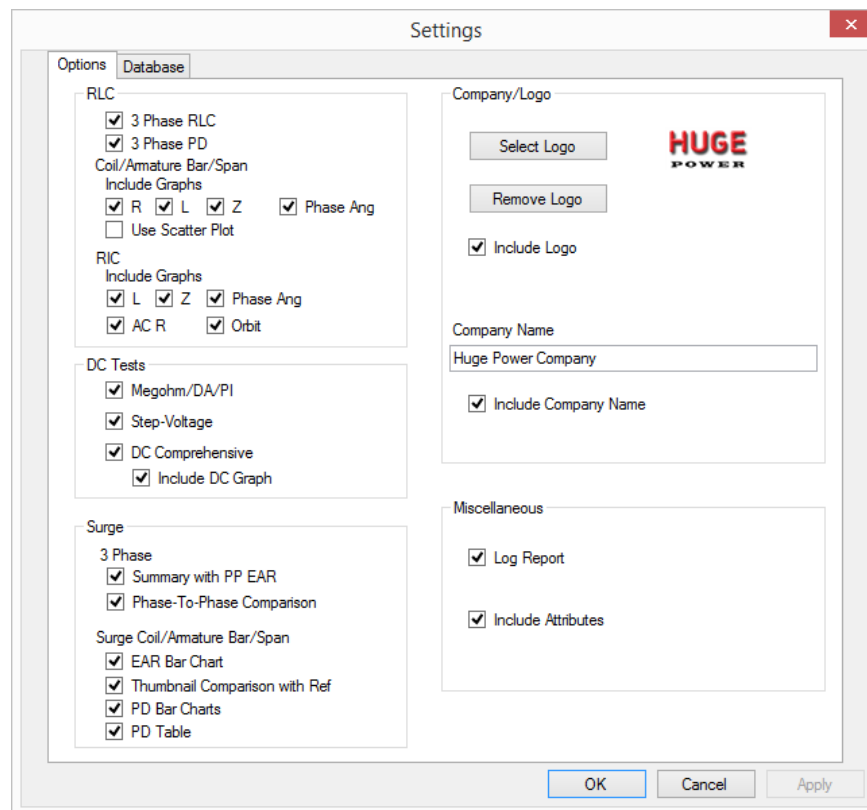


Figure 63. Selecting report options.

- Click on the check boxes to select the report options you would like to use.
- Click on the **Select Logo** button to open a search dialog to locate the logo you want to use. The software will accept most formats and sizes, but you should be aware that larger files or complex graphics might be harder to view when the software converts to logo to its final size (64 X 64 pixels).
- If you want to include the company name, check the appropriate box and enter the company name in the related field as you want it to appear in the report.
- Click on **Apply** to commit your selections and leave the dialog box open (if you want to continue considering report options).
- Click on **OK** to accept your selections and return to the main user interface.

Report options

The information included in report options that you can select using the *Settings* dialog box are described below. The reports generated for each option include one or more report pages, depending on the data content.

3 Phase RLC

Information prints out much like it does from the DX. It will include unbalances and averages.

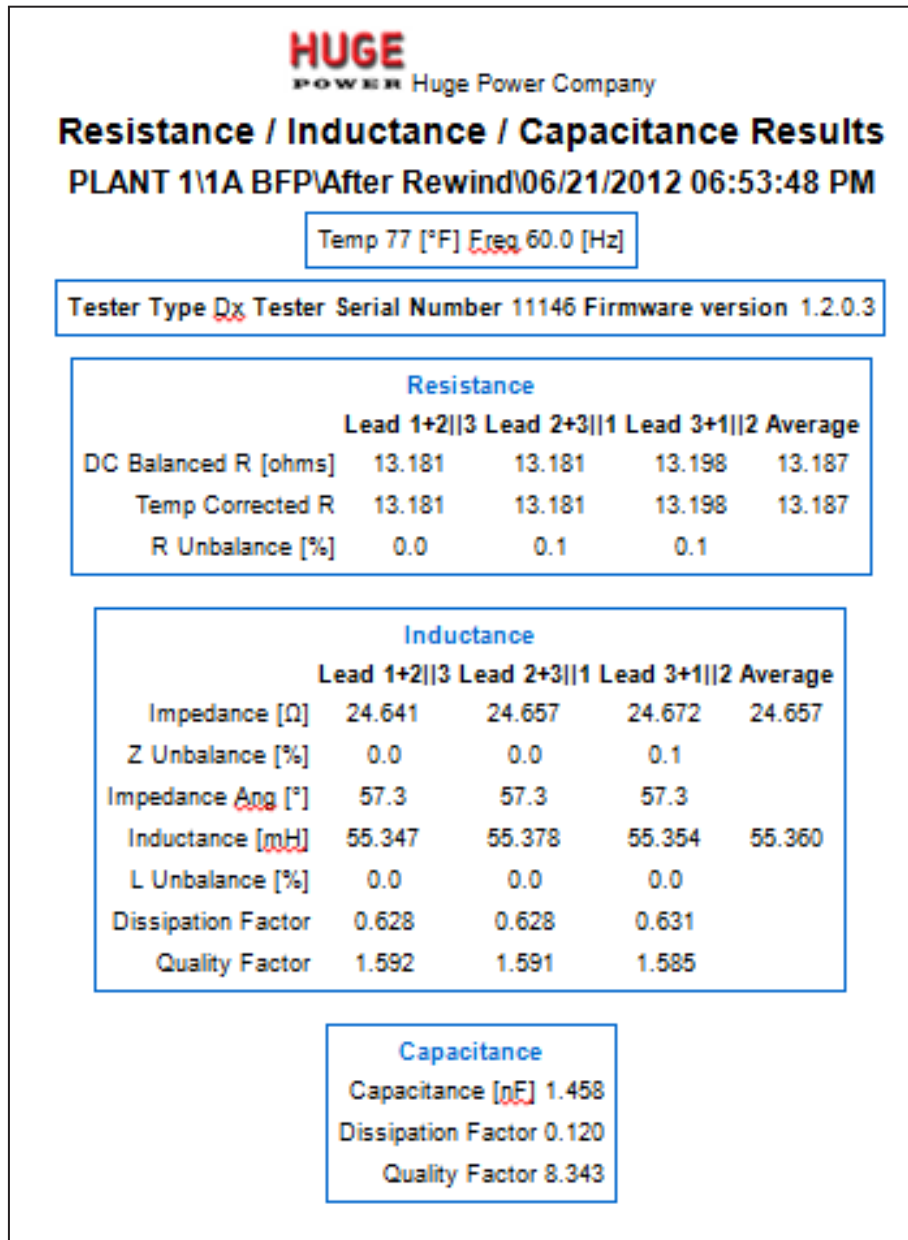


Figure 64. Example 3-Phase RLC report.

RLZ

The resistance, inductance, and impedance (RLZ) test generates a report like the one shown below (the **Use Scatter Plot** option was selected for this example.).

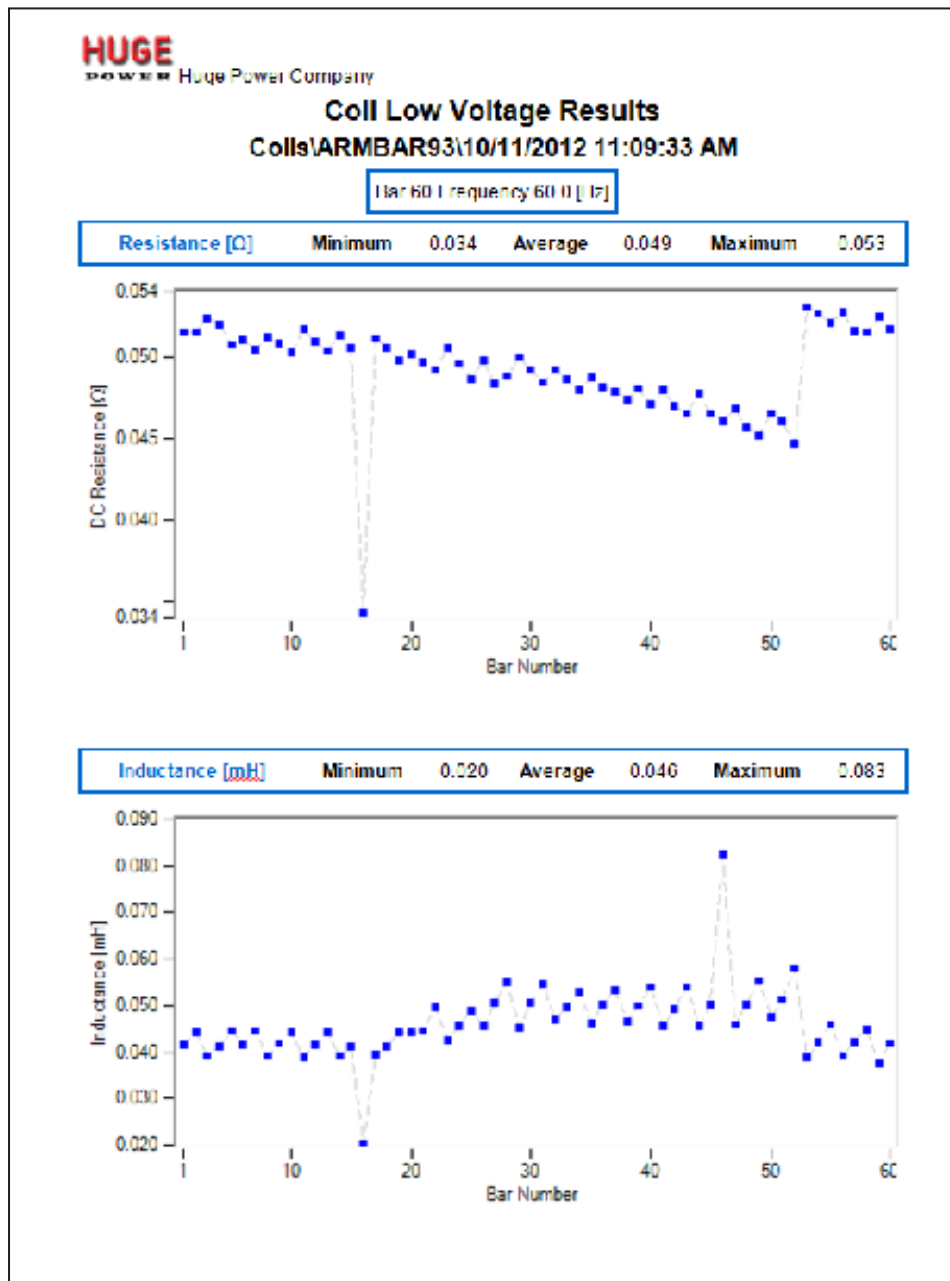


Figure 65. RLZ test example showing DC Resistance and Inductance results.

The graphic below shows a segment of the RLZ report displaying impedance and phase angle results.

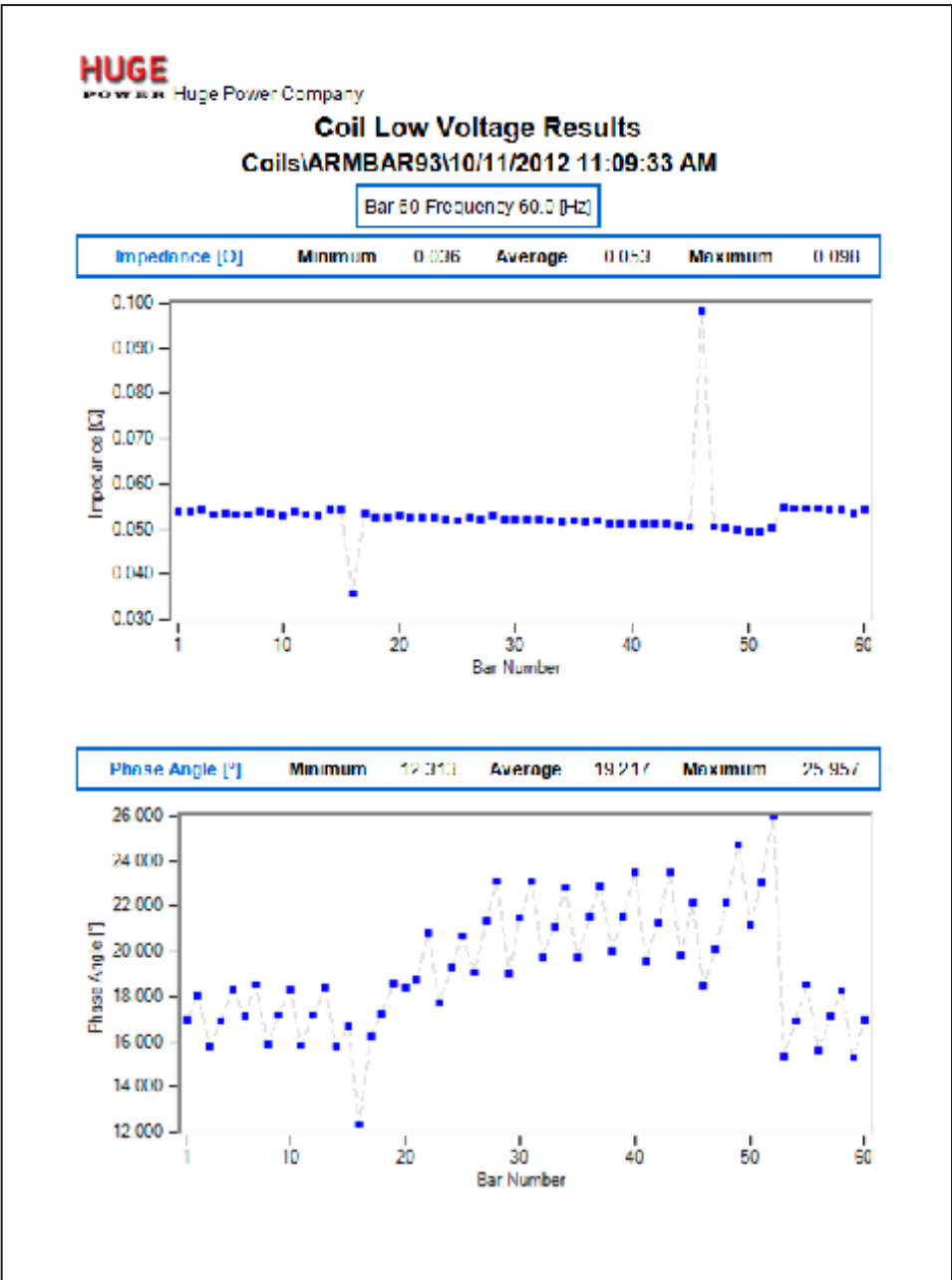


Figure 66. RLZ test example showing Impedance and Phase Angle results.

RIC

The rotor influence check (RIC) test generates a report like the one below. There is no resistance test included in the RIC, but an AC resistance test is included.

As the example shows, the graphs for all three leads are stacked on the same page.

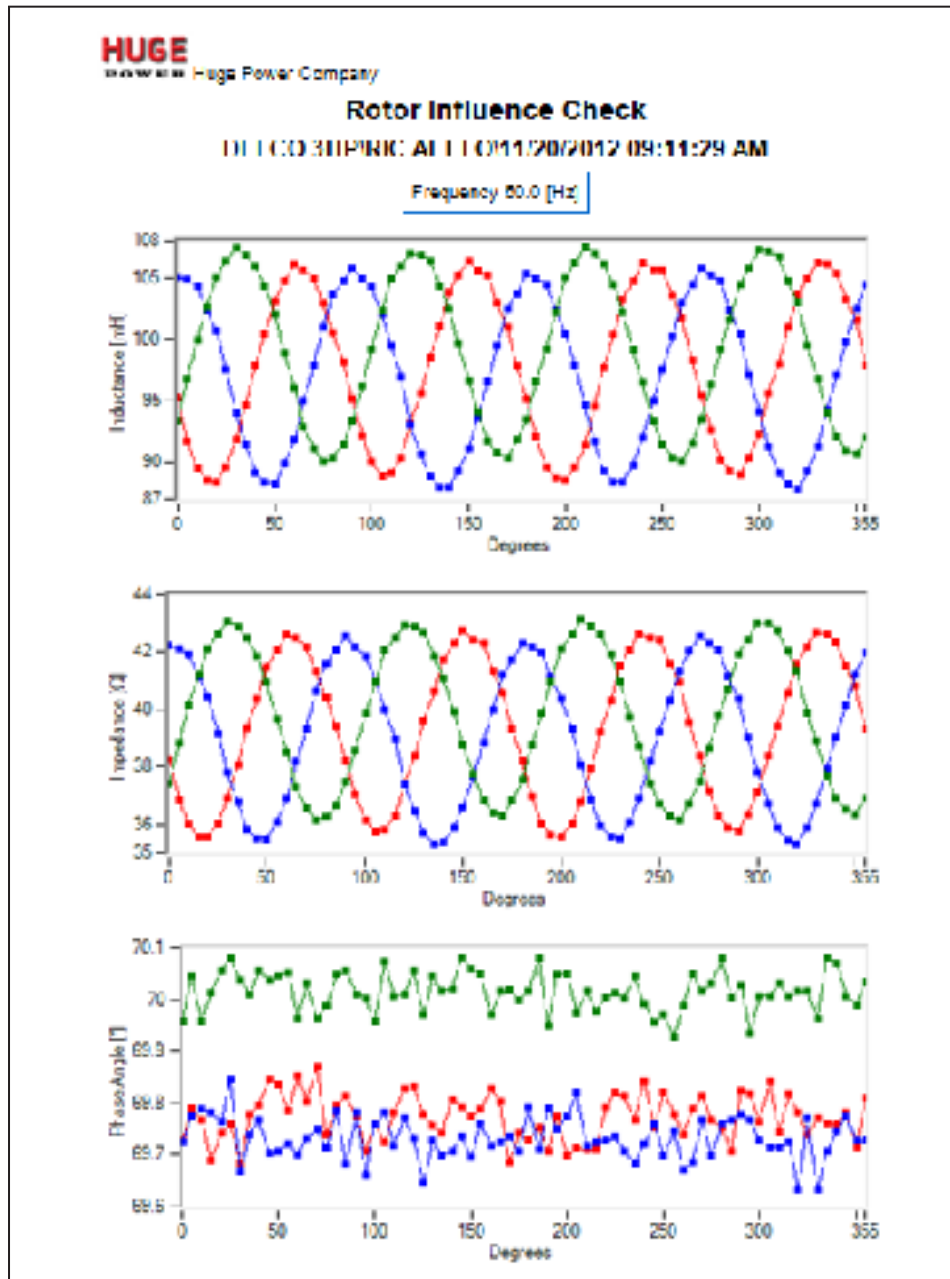


Figure 67. RIC test example showing inductance, impedance, and phase angle results.

The RIC report example segment below shows the AC Resistance results and the Orbit diagrams for inductance, impedance, and phase angle.

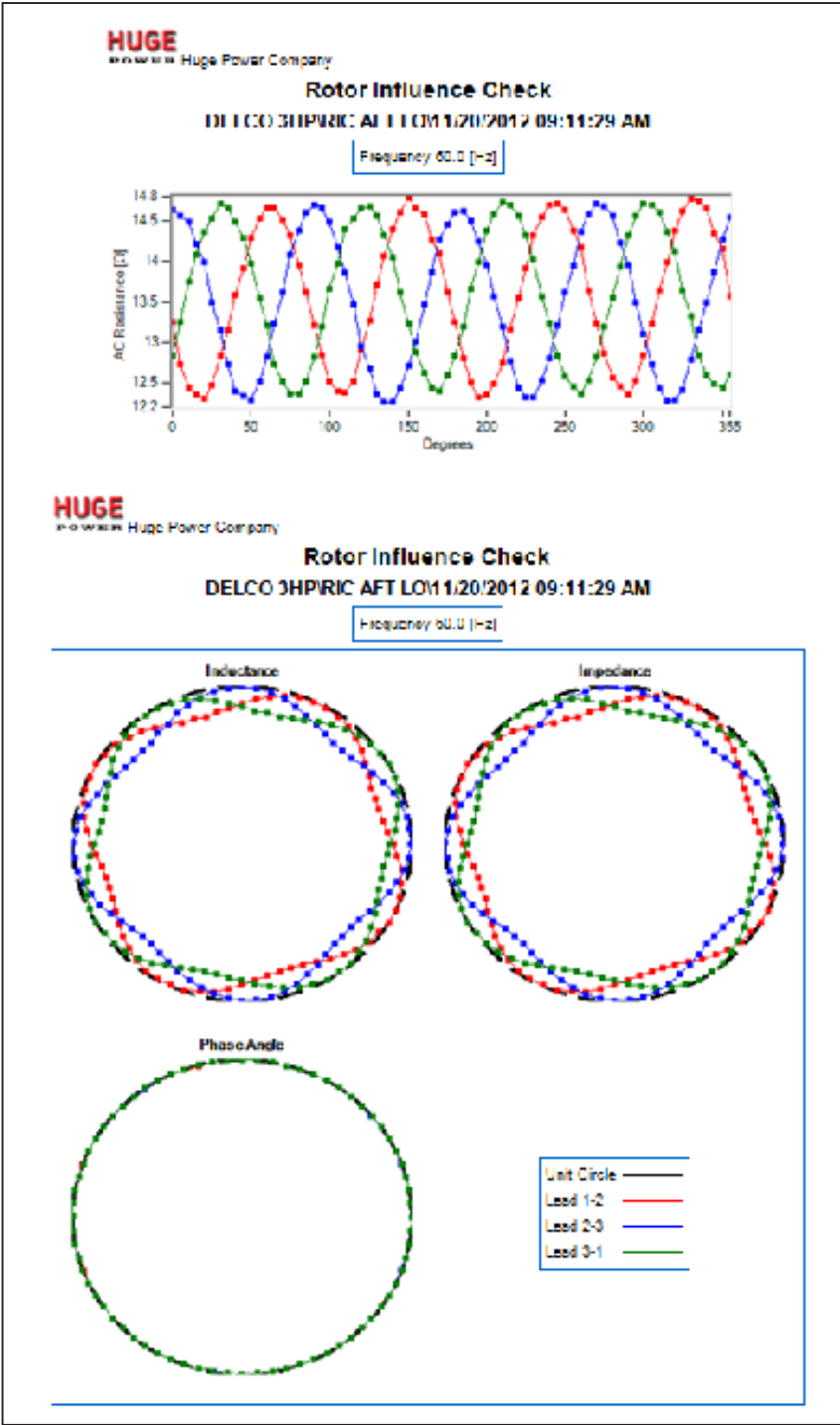


Figure 68. RIC report with AC resistance and Orbit diagrams.

DC Tests

These results will have temperature-corrected megohms in addition to actual measured value. Results include:

- Megohm/DA/PI— scalar values, graph, and DA/PI table of values for each minute of the test
- Step-Voltage— graph with table of end step values
- DC Comprehensive— All-in-one graph of voltage (displayed when **Include Graph** option is selected), current and megohm over time

Examples of the DC Tests results are shown below and on the next page.

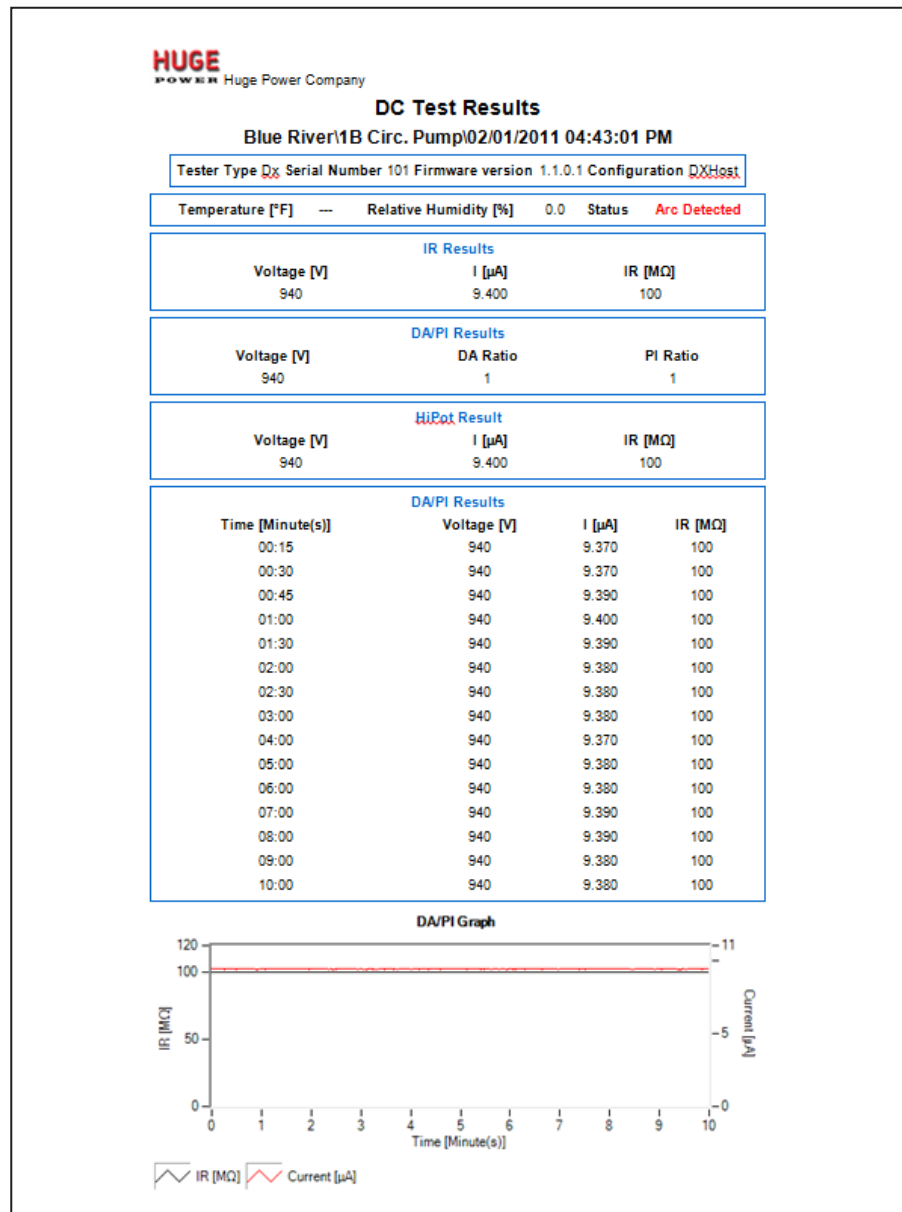


Figure 69. Example DC Tests report.

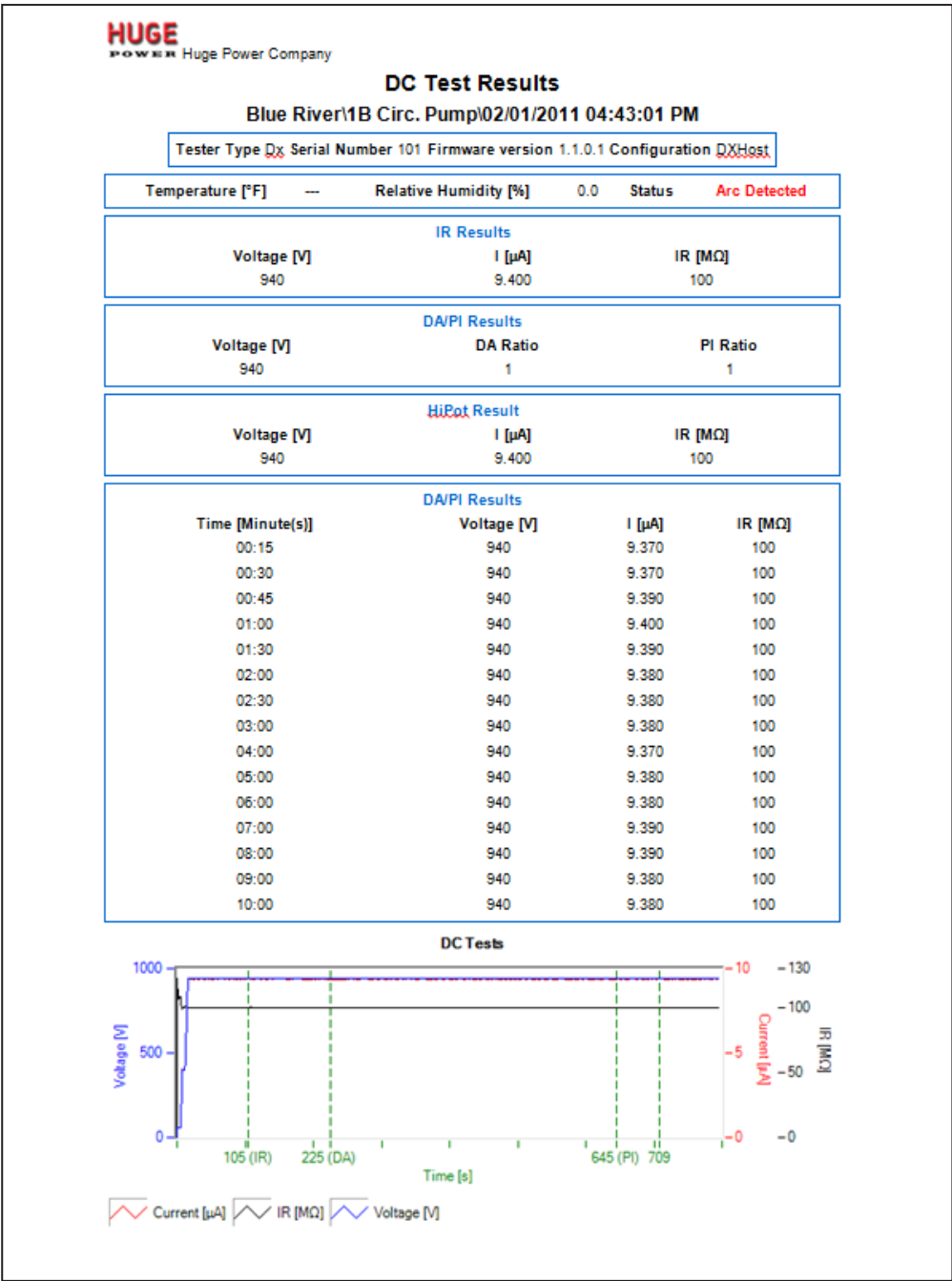


Figure 70. Example DC Tests report.

Surge 3 Phase

Results include:

- Summary Graph with all 3 leads and PP EAR graph
- Comparison Report lead 1-2, 2-3, 3-1
- Will have pass/fail set based on the PPEAR limit and LLEAR limit

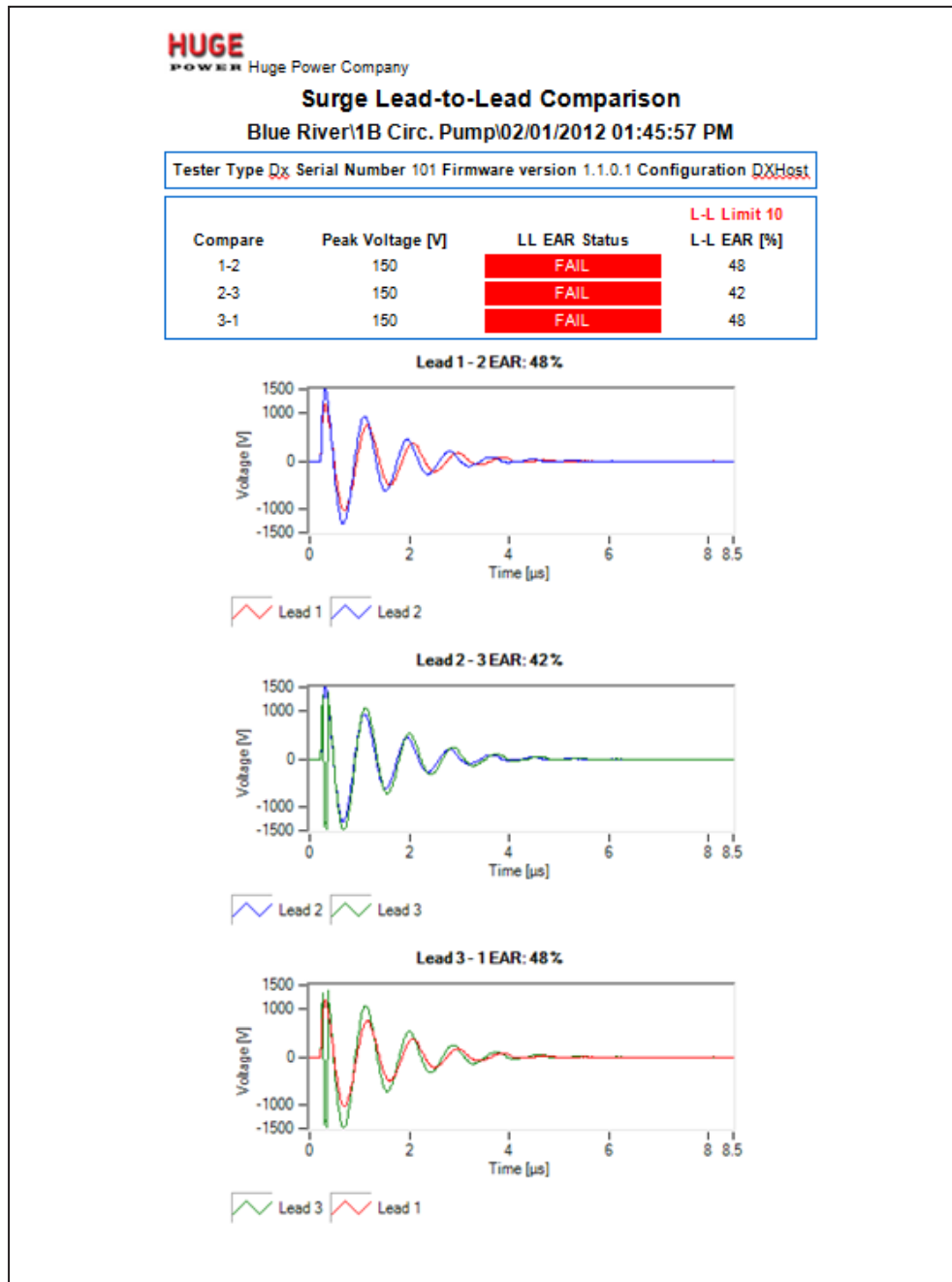


Figure 71. Example Surge 3 Phase report.

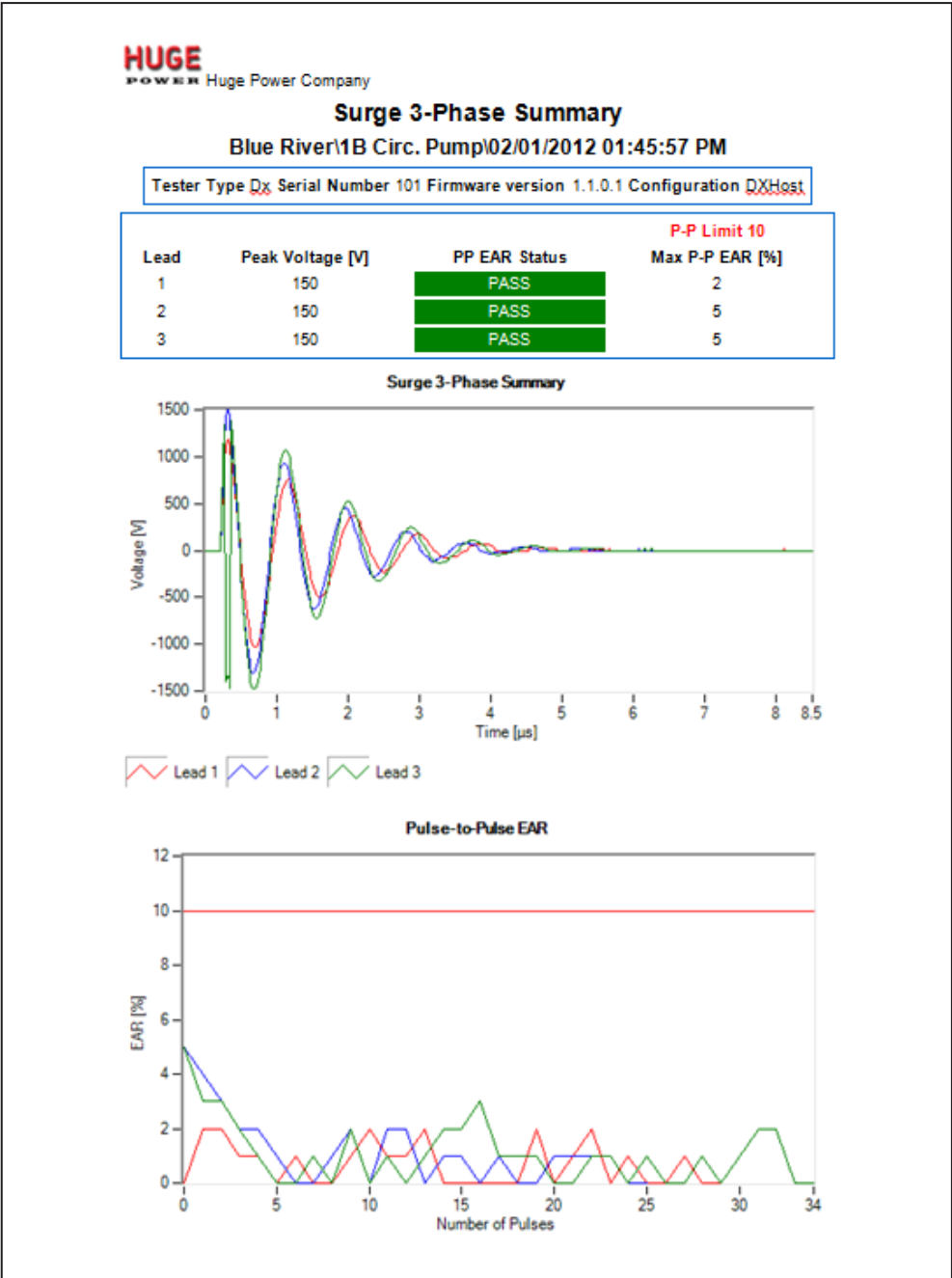


Figure 72. Example Surge 3 Phase report.

Surge Coil/Armature Bar/Span

Results include:

- EAR bar graph
- All waveforms graph
- Thumbnail comparison report of reference wave versus each coil/bar/span under test
- Graphs of each FC and IP against a reference

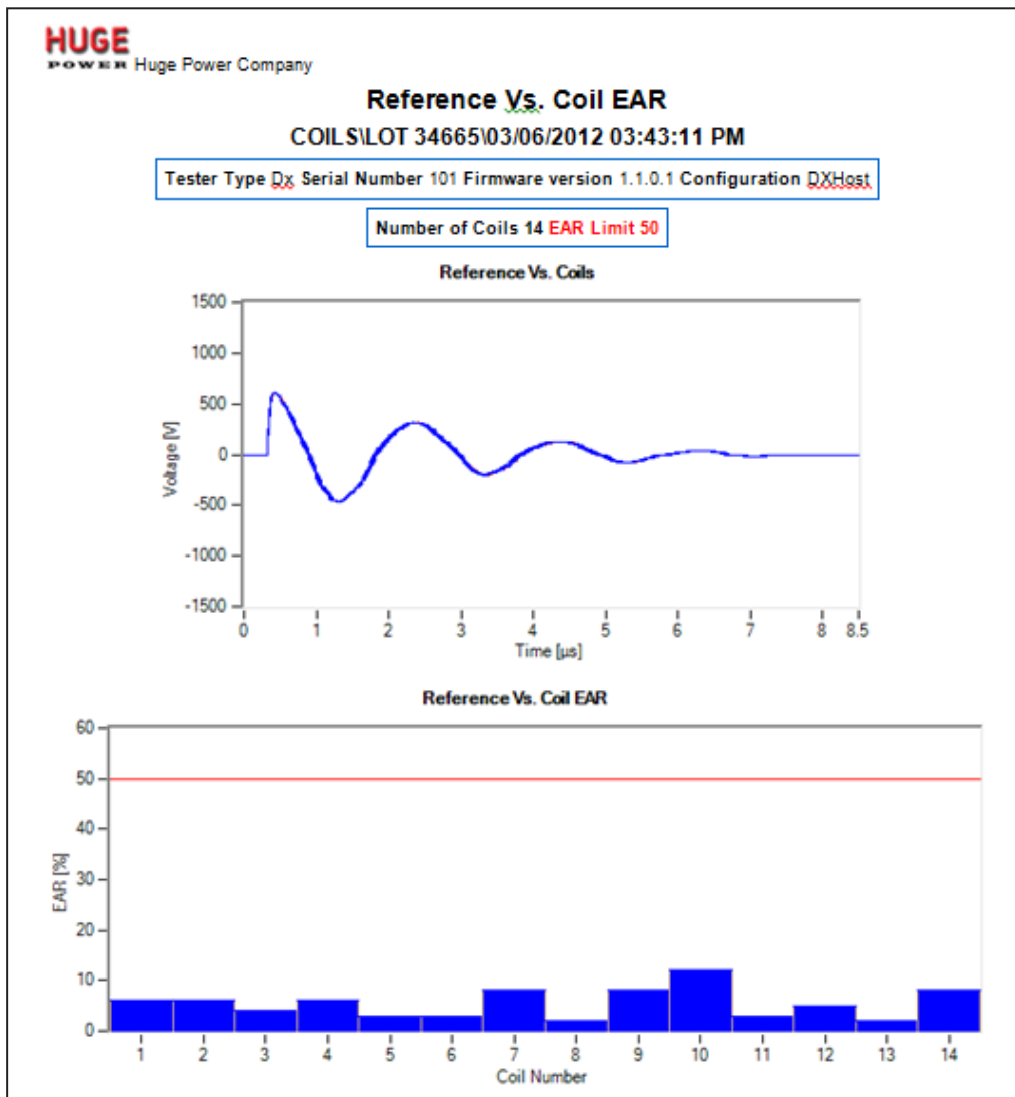


Figure 73. Example Surge Coil report EAR bar graph.

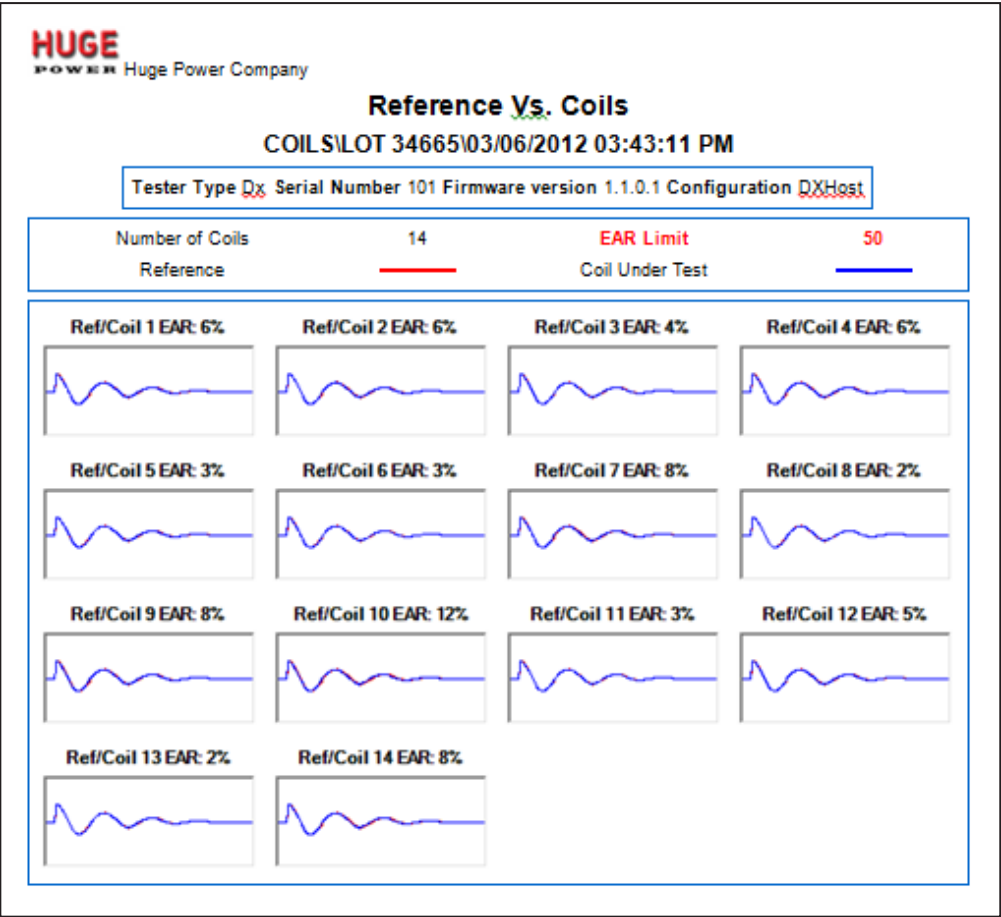


Figure 74. Example with thumbnail comparisons.

Log Report (High Level Summary)

List of folder/records including test result types

Testing Log						
EXAMPLE\DC TESTS						
Date-Time	R	LC	IR	DA/PI	Step-Voltage	Surge Notes
02/15/2012 08:50:05 AM	☒	☒	☒	☒	☒	☒
02/15/2012 09:07:03 AM	☒	☒	☒	☒	☒	☒
02/15/2012 09:11:31 AM	☒	☒	☒	☒	☒	☒
EXAMPLE\IR						
Date-Time	R	LC	IR	DA/PI	Step-Voltage	Surge Notes
04/02/2012 03:36:37 PM	☒	☒	☒	☒	☒	☒
03/30/2012 02:58:30 PM	☒	☒	☒	☒	☒	☒
EXAMPLE\RLC						
Date-Time	R	LC	IR	DA/PI	Step-Voltage	Surge Notes
02/16/2012 03:52:03 PM	☒	☒	☒	☒	☒	☒

Figure 75. Example test log.

Include Attributes (Folder/Result)

Attributes reported include fields from within the attributes form that have values entered in them.

To display attributes in the generated reports, you must have values entered in one or more fields, the test item's folder must be converted to a specific test item, and you must ensure that the Include Attributes box is checked in the *Settings* dialog box.

Attributes	
Blue River\1B Circ. Pump	
Frequency [Hz]	60
Rated Voltage [V]	230
Rated Current [A]	2.1
Speed [RPM]	1725
Off Level [A]	.2
Power Out [kW]	0.37
Power Out [hp]	0.5
Insulation	F

Figure 76. Example attributes included in report.

Selecting report type

When you have made your data and report option selections, you are ready to generate your report.

1. Click on the **Generate Report** icon in the **Main toolbar**.
2. The **Save As** dialog box opens as shown below.

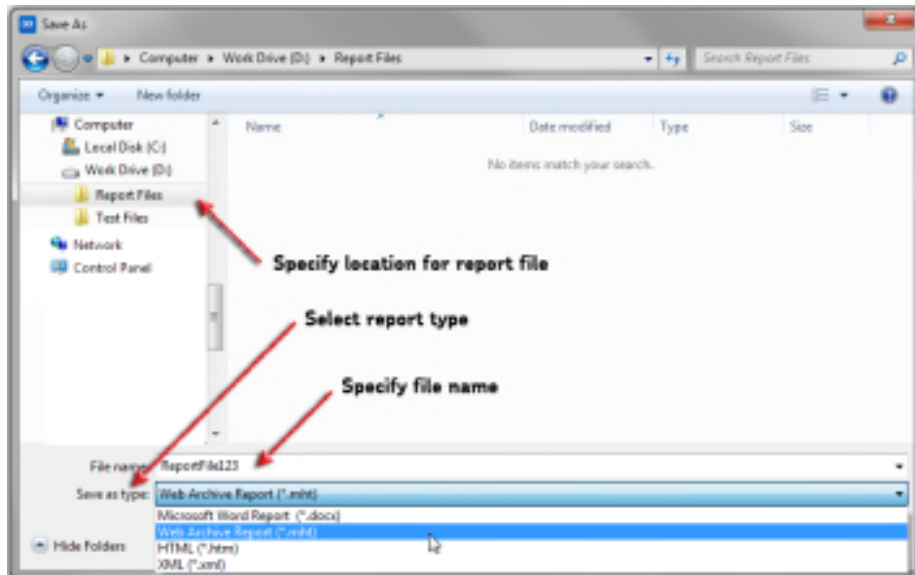


Figure 77. Selecting location and report type.

3. Specify the location where you want to save the report file.
4. Select the report type that you want to generate using the **Save as type** dropdown list. The available types include:
 - **Microsoft Word Report (*.docx)**—Formatted to work directly in MS Word® so you can make additions and edit information that will added to annotate the report. (Requires MS Word® 2003 or later. The extension will be .doc if you have Word 2003 installed.)
 - **Web Archive Report (*.mht)**—Formatted to be displayed in a web browser. Saved in one file.
 - **HTML (*.htm)**—Formatted to be displayed in a web browser. Saved in multiple files and can be difficult to manage, but provides more options for advanced users.
 - **XML (*.xml)**—Formatted in XML to use externally. This type/format is typically used to export data from Surveyor DX to use externally in other programs or applications.
5. Specify a name for the file in the **File name** field.
6. When you are satisfied with your selections, click on **Save** to save the file and generate the report.

Example reports

The next few pages present examples of reports that can be generated using Surveyor DX.

MS Word® Report example

The graphic below shows the first two pages of an example report generated using the **Microsoft Word Report** type.

For this example, we used the following options in the *Settings* dialog:

- RLC—Include RLC (not shown in example graphic)
- DC Tests—Step-Voltage
- Include Logo
- Include Company name (Huge Power Company, Inc.)
- Log Report

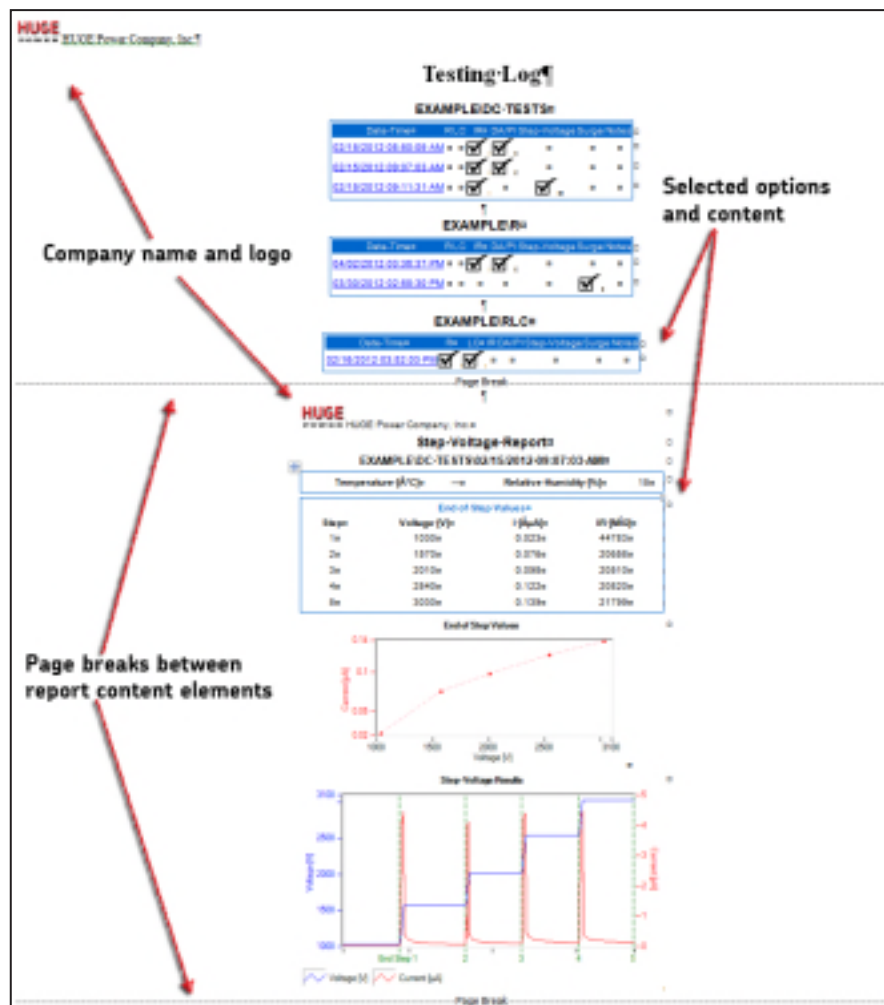


Figure 78. MS Word report example.

As the graphic shows, the company name and/or logo are added to the top of each page. Page breaks are added between each page of selected options and content.

A report generated using this option automatically opens MS Word® and displays the report.

You can use all available features and functions in MS Word® to modify report content and add information to the report as needed.

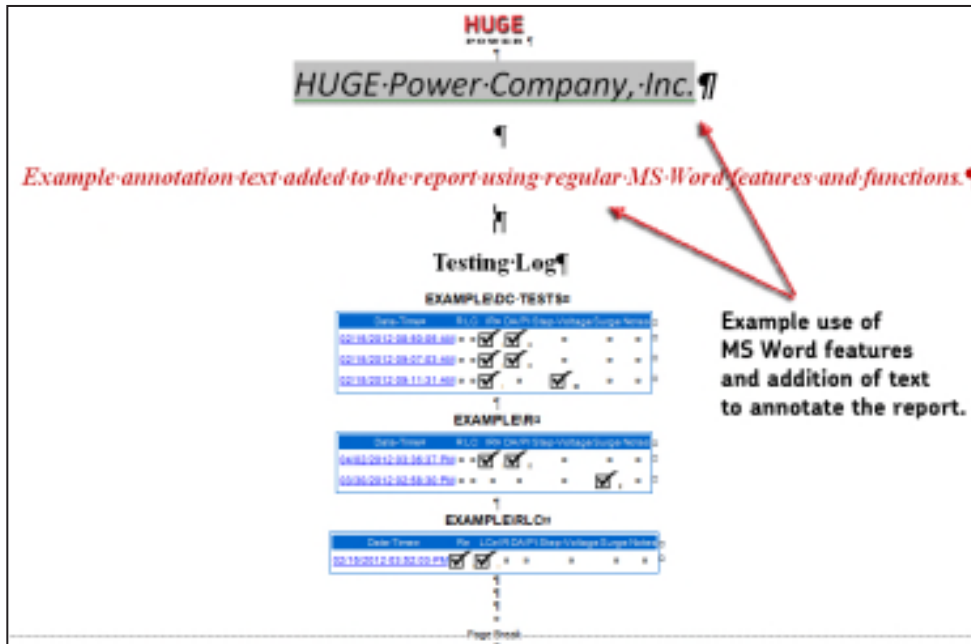


Figure 79. Using MS Word features to format report output.

Web Archive Report example

The following graphics show different parts of a report generated using the Web Archive Report type.

This is the same report generated for the preceding MS Word example; it used the same options, but a different report type.

When this type is selected, the application automatically opens the default browser to display the report.

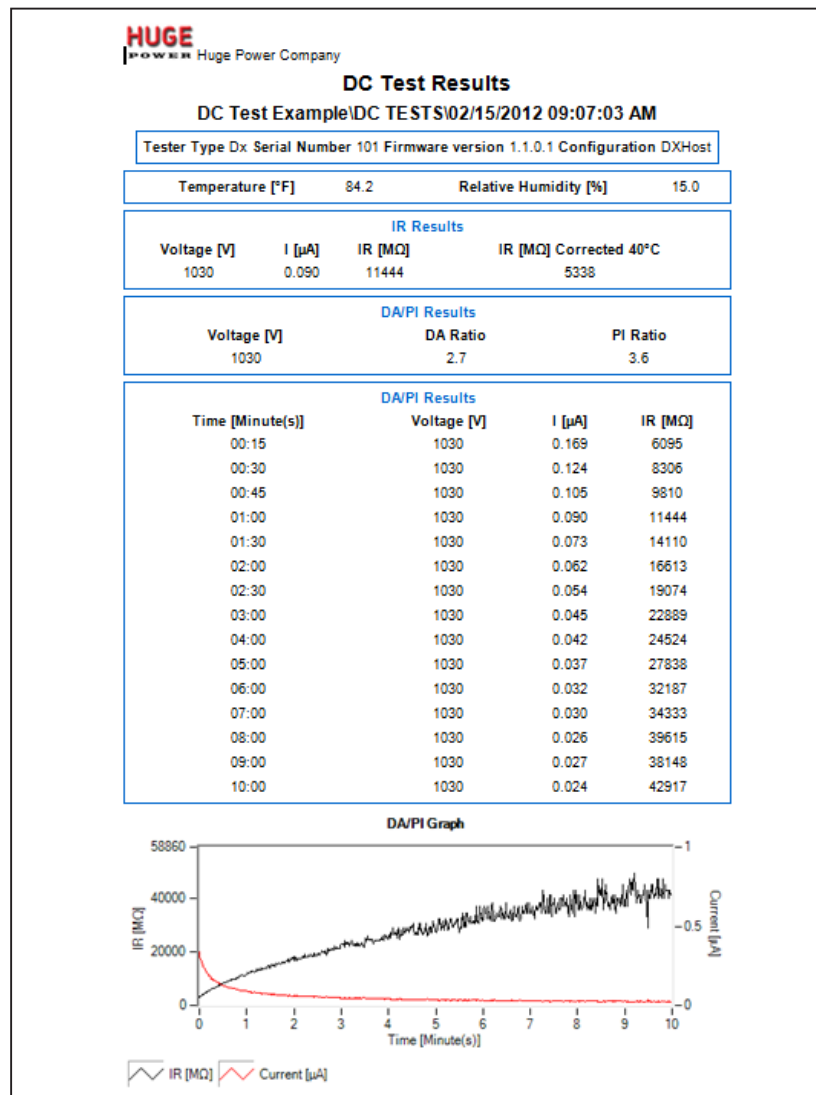


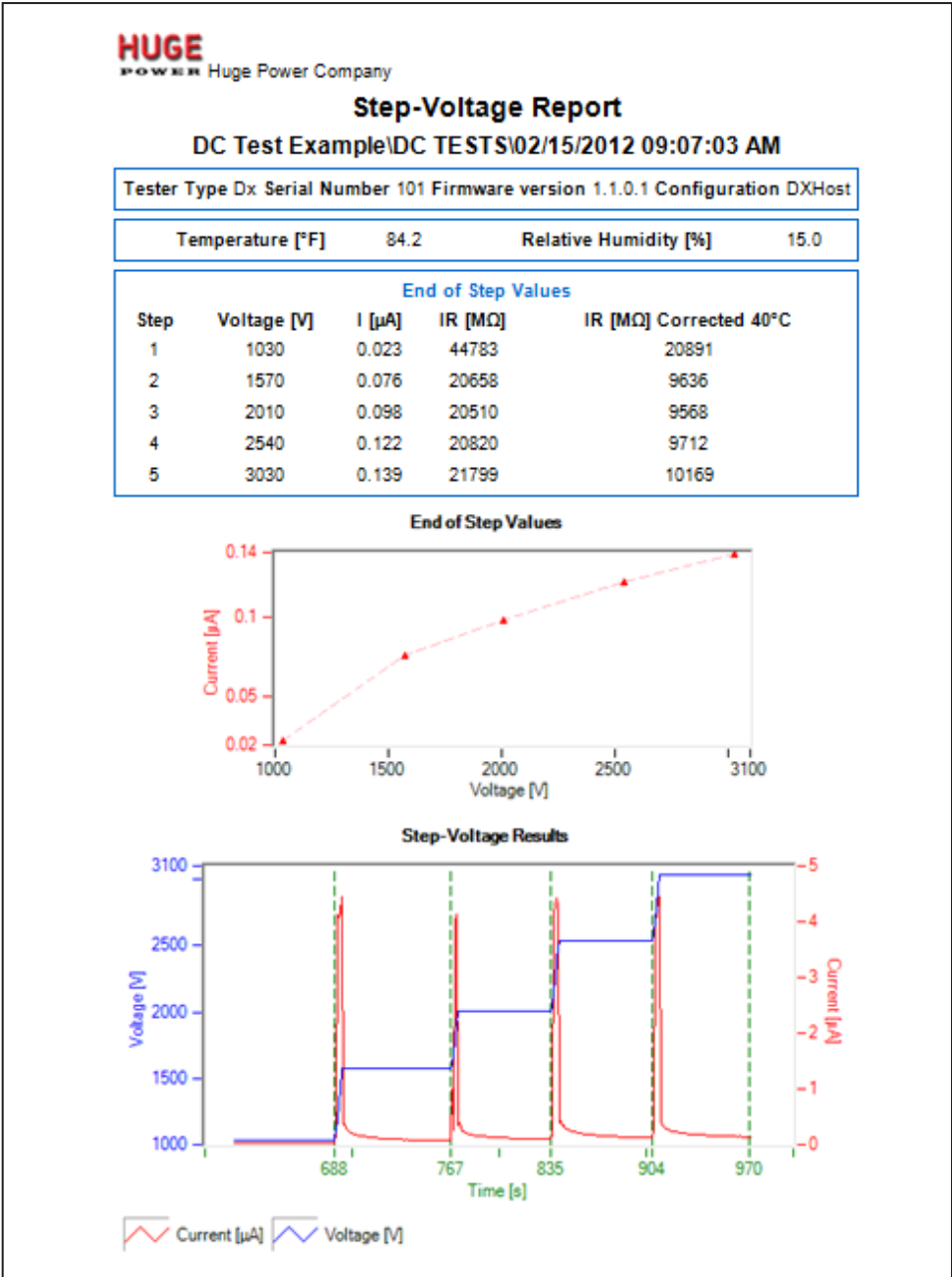
Figure 80. MHT format report example.



NOTE

The .mht file format requires a plug-in to be able to display in Firefox or Google Chrome®. If no plug-ins are present, Windows® will open the file using Internet Explorer®.

The contents of this report format can be edited or modified using MS Word or standard HTML editors.



Report examples with PD data

Coil and 3 Phase surge waveforms will have PD data overlaid on them if there is PD data collected during testing.

In the example below, we see a Surge 3-Phase Summary with PD data added to the report. The summary includes a data table, overlaid PD data in the surge graph, and a house plot at the bottom of the report.

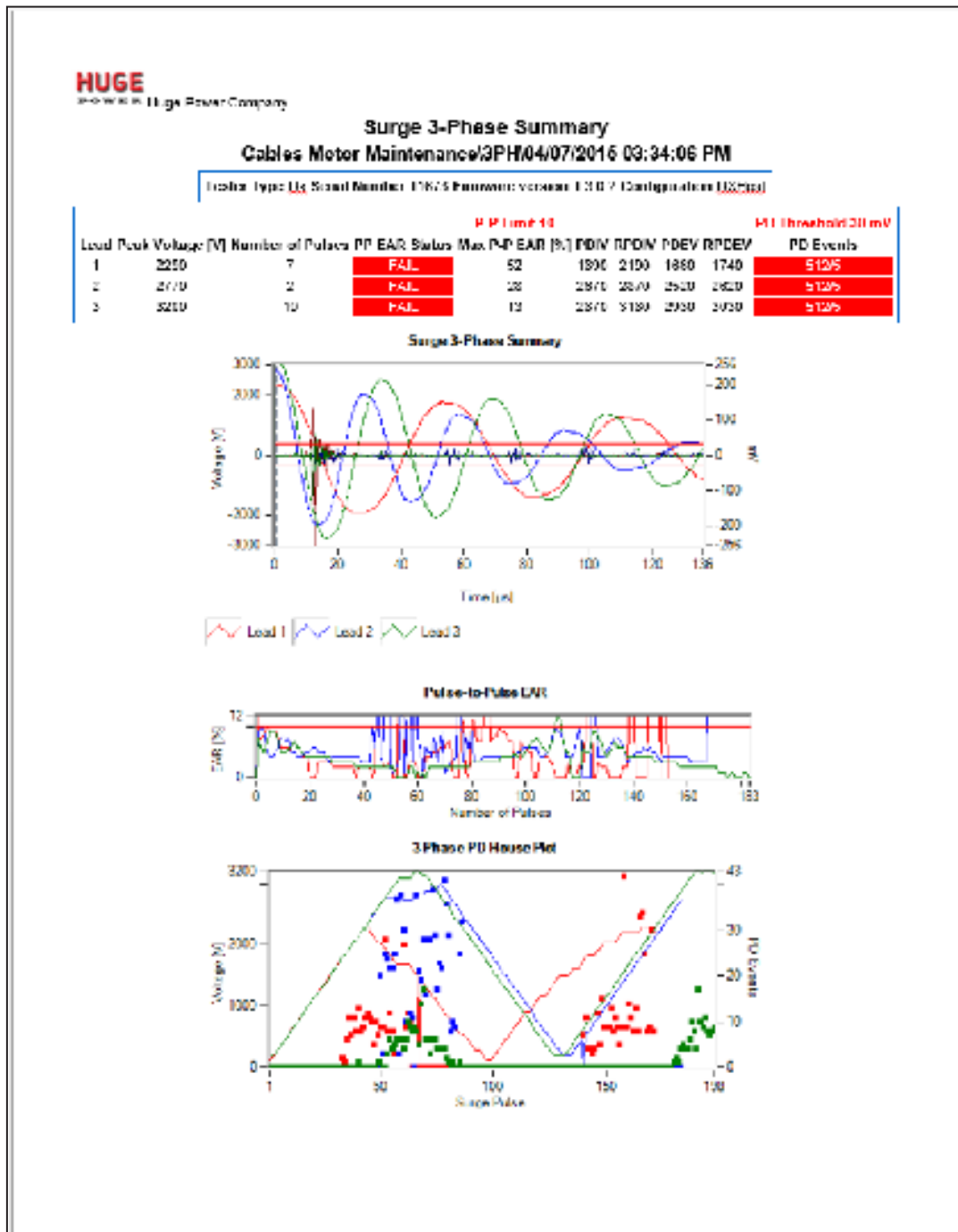


Figure 82. Surge 3-phase summary report with PD data.

In the example below, we see a Surge Coil Summary with PD data added to the report. The summary includes a data table and bar graphs representing the PD events and pulses recorded during testing.

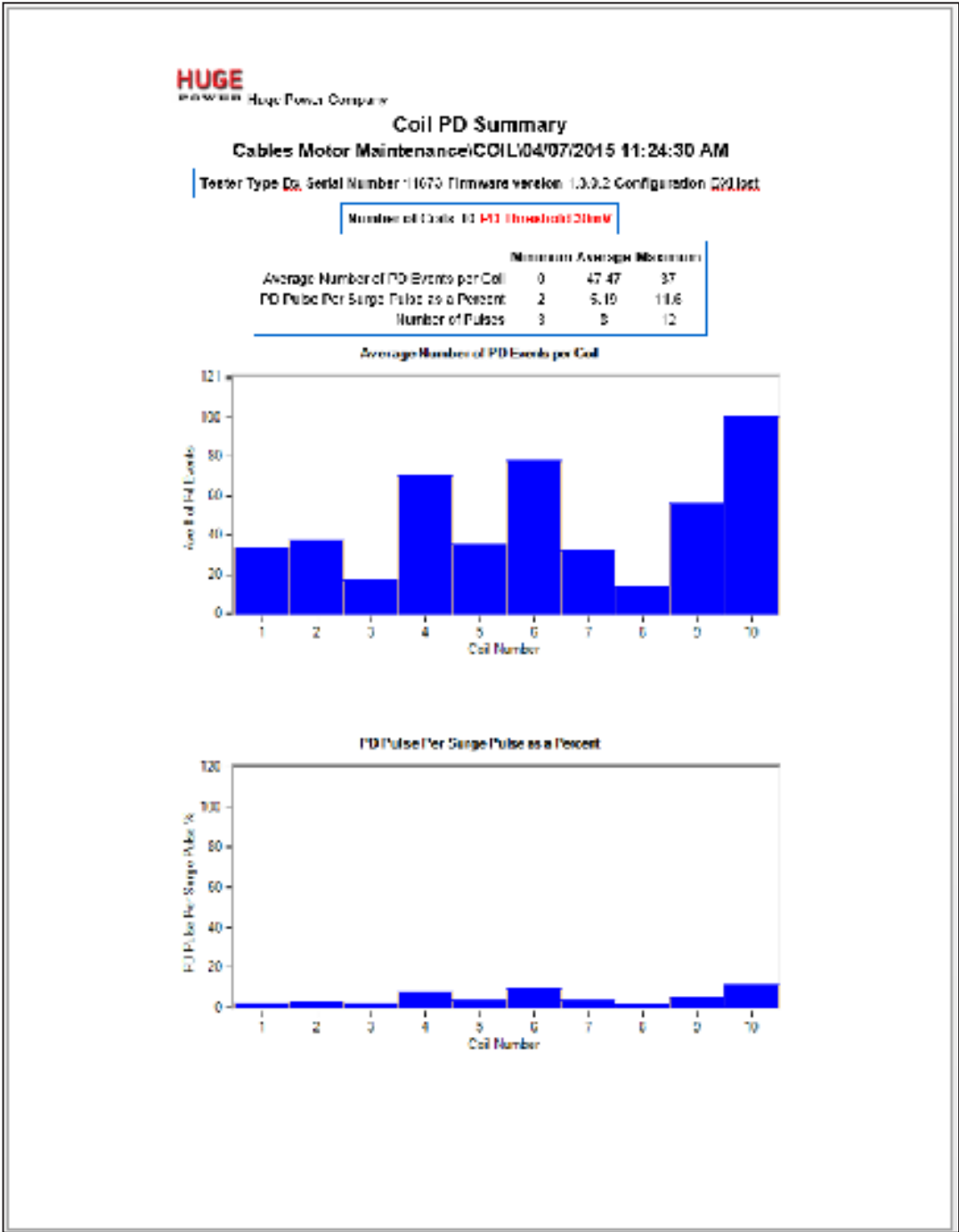


Figure 83. Surge coil summary report with PD data.

The coil surge PD table section is shown in the next example. This section is added to the coil reports when PD data is available. It shows the peak voltages along with the inception and extinction voltages for each coil tested in the process.

HUGE POWER Huge Power Company

Coil Surge PD Table

Cables Motor Maintenance\COIL\04/07/2015 11:24:30 AM

Tester Type Dx Serial Number 11673 Firmware version 1.3.0.2 Configuration DXHost

Coil Number	Peak Voltage [V]	PDIV	RPDIV	PDEV	RPDEV
1	1840	1560	2350	1890	2450
2	1890	1310	2240	1840	2350
3	1840	1560	1890	1740	1890
4	1840	1740	2040	1840	2140
5	1790	1610	1840	1790	1990
6	1740	1560	1890	1740	1890
7	1560	1610	1790	1560	1790
8	1060	1610	1790	1690	1690
9	1990	1740	2350	1990	2190
10	1560	1560	1790	1610	2040

Figure 84. Coil surge PD table section.

In the example below, we see the sensitivity values used during 3-phase surge testing. These values are reported for both coil and 3-phase surge testing.

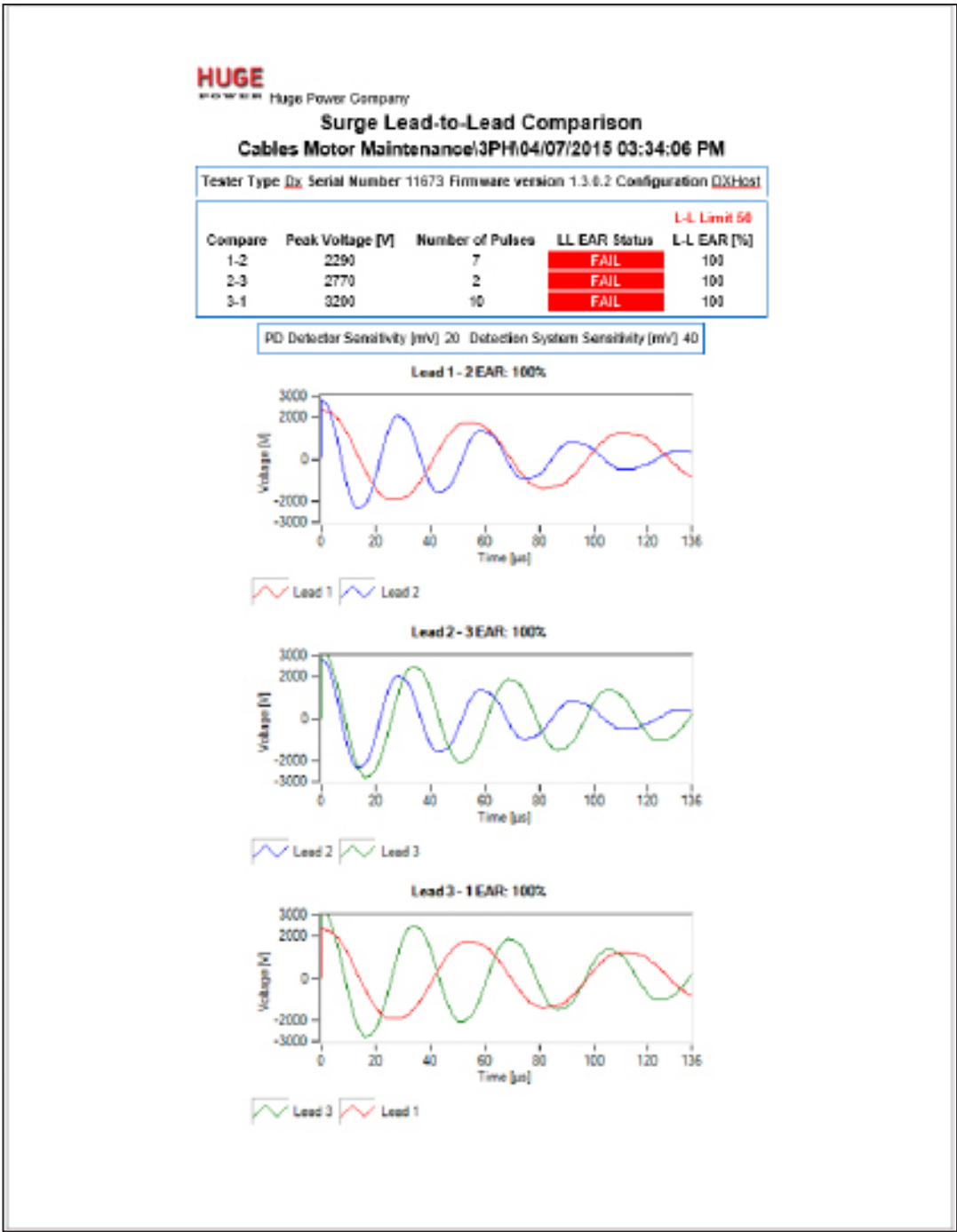


Figure 85. Three-phase surge testing PD sensitivity values.

In the example below, we see the 3-Phase PD Graphs section included with surge test results when PD data is available. This section includes a data table detailing the peak voltages along with the inception and extinction voltages for each test lead. Graphic representations of the results are also provided for each lead.

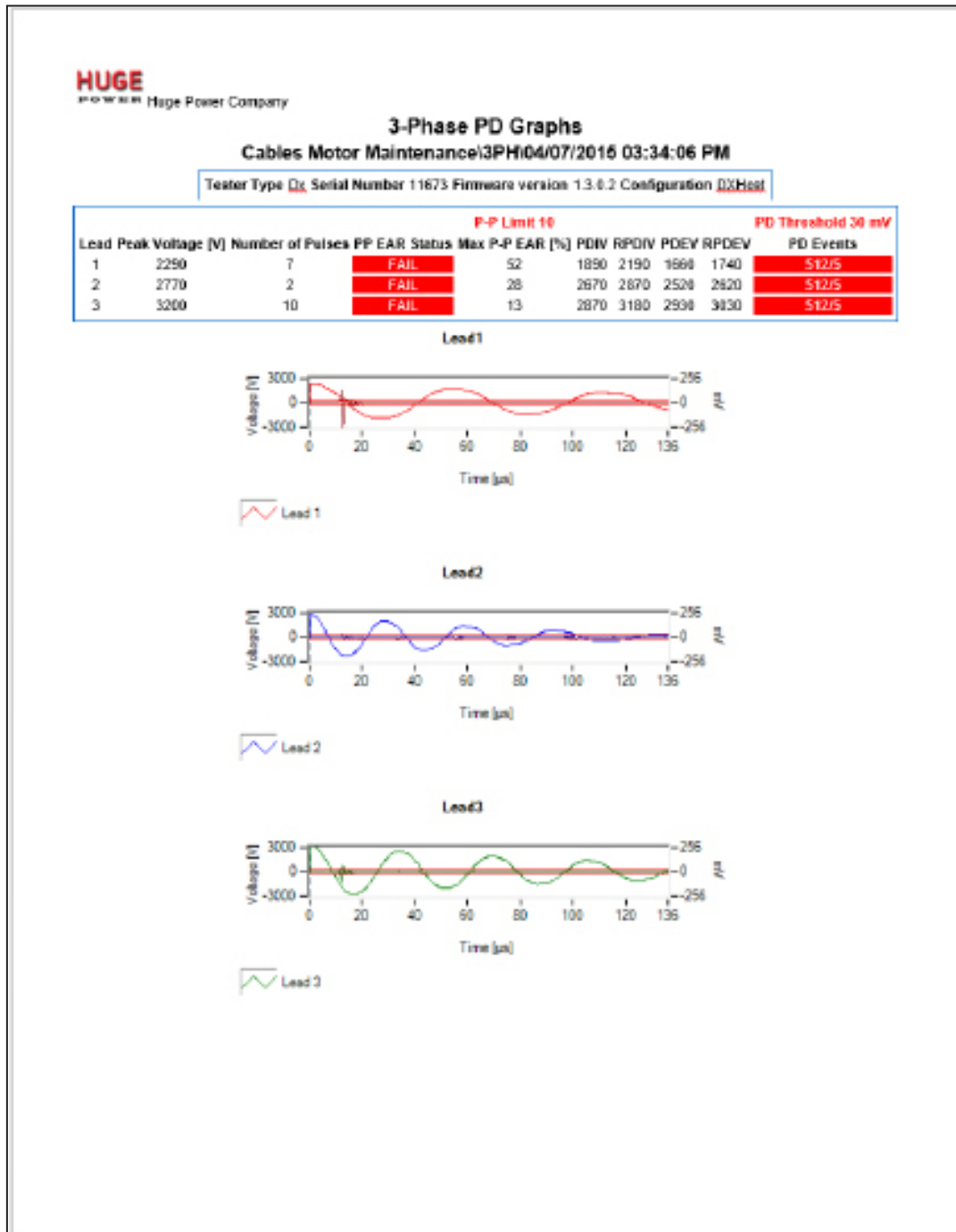


Figure 86. Three-phase surge testing PD graphs section.

Symbols

3 phase RLC report example 56

A

about Surveyor DX 17

about this guide 1

activating software

alternatives 9

activating the software 8

adding a new test item type 39, 41

adding notes to attributes 44

AND and OR features

filter selection 54

assigning test type 45

attributes 43

adding notes 44

include in report 67

test results 44

authorized service centers iii

auto-check feature 16, 54

auto-check menu 50

B

browsing for existing database 11

C

coil surge results example 24

collapse all 41

compact and repair feature 41

configuring database 11

creating a new folder 39, 41

creating new database 11

D

database 11

compact and repair 41

specifying location 12

databases

merging 13

database support 4

DC test features

point of interest and difference cursors 20

DC tests report example 61

deactivating software 18

deleting an item from the location tree 40

difference cursor 20

drag and drop feature 47

E

EAR option example 25, 26

example reports 69

existing database 11

expand all 41

export database 13

exporting data via USB 15

F

file management

database level 41

filter selection

AND and OR features 54

folder and results management 39

formatting 1

G

generating reports 50

grabber hand feature 37

H

help and about 17
HTML report option 68

I

importing data into the application 48
include attributes 67
information devices 1
installing Surveyor DX 5
 activating software 8
 creating desktop shortcut 6
 license agreement 6
 selecting language 5
 selecting product version 5
interface 16
introduction to Surveyor DX 3

L

languages supported 4
location tree 16
 expanding 49
location tree features 39
logos
 in reports 55
log report 67

M

main toolbar 16, 17
merging databases 13
Microsoft Word report 68
MS Word report example 69

N

nameplate information
 revising for reports 43
notes 44

O

open file dialog 48
options
 specifying for reports 54
orbit diagram 60
orbit plot
 for RIC tests 38
organizing folders
 drag and drop feature 47
overview 15

P

partial discharge reports 3
PD Events 26, 27, 28, 30, 31, 32, 33
PD Pulses 26
PD waveform unlocked 34
point of interest cursor 20

Q

quick view 16
quick view pane 19
 coil surge results example 24
 DC test features 20
 DC test options 19
 EAR option example 25, 26
 grabber hand feature 37
 RLC test options 35
 thumbnails option 29, 33
 zoom feature 23
quick view results 3

R

report examples 69
report formats 4
report options
 3 phase RLC 56
 DC tests 61
 include attributes 67
 log report 67

Microsoft Word 68
RIC 59
RLZ 57
surge 3 phase 63
surge coil/armature 65
web archive report 68
XML and HTML 68
reports 3
 generating 50
 specifying options 54
report type
 selecting 68
restoring deleted items 41
results navigation bar 16
revising information for reports 43
RIC report example 59
RIC report options 59
 orbit diagram 60
RIC test options 38
RIC test results example 36
RLC test options 35
RLZ report example 57, 58
RLZ test results example 35, 36
rotor influence check 59

S

selecting data to include in reports 50
selecting report type 68
software overview 15
specifying database location 12
specifying report options 54
surge 3 phase report example 63
surge coil/armature report example 65
Surveyor DX user interface 16

T

technical assistance iii
test item folders 45
test type

 assigning 45
 thumbnails option 29, 33

U

user interface 16
 location tree features 39
using the software 15

W

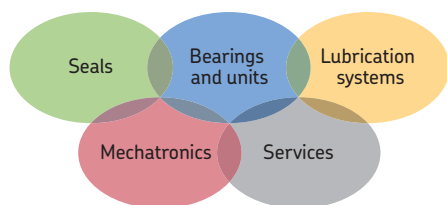
warranty i
web archive report 68
web archive report example 71

X

XML report 4
XML report option 68

Z

zoom feature 23



The Power of Knowledge Engineering

Drawing on five areas of competence and application-specific expertise amassed over more than 100 years, SKF brings innovative solutions to OEMs and production facilities in every major industry world-wide. These five competence areas include bearings and units, seals, lubrication systems, mechatronics (combining mechanics and electronics into intelligent systems), and a wide range of services, from 3-D computer modelling to advanced condition monitoring and reliability and asset management systems. A global presence provides SKF customers uniform quality standards and worldwide product availability.

® SKF is a registered trademark of SKF USA, Inc.

© SKF Group 2015

The contents of this publication are the copyright of the publisher and may not be reproduced (even extracts) unless prior written permission is granted. Every care has been taken to ensure the accuracy of the information contained in this publication but no liability can be accepted for any loss or damage whether direct, indirect or consequential arising out of the use of the information contained herein.

71-030E FR Surveyor DX User Manual • May 2015