

# DataPage+ 5.0

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Revision Date: 21 January 2015

### **Table of Contents**

- New Features & Enhancements
- System Requirements
- Installing DataPage+ 5.0
- Collecting Data with PC-DMIS
- Installing DataPage+ Database
- Getting Started Using DataPage+ 5.0





# New Features and Enhancements

### New Features and Enhancements

- New Chart Reports
- New Text Report
- New CAD Report
- Customized Excel Report
- DataImporter Service Option
- Import Directly to Part Category from PC-DMIS
- Support for LMS Licensing



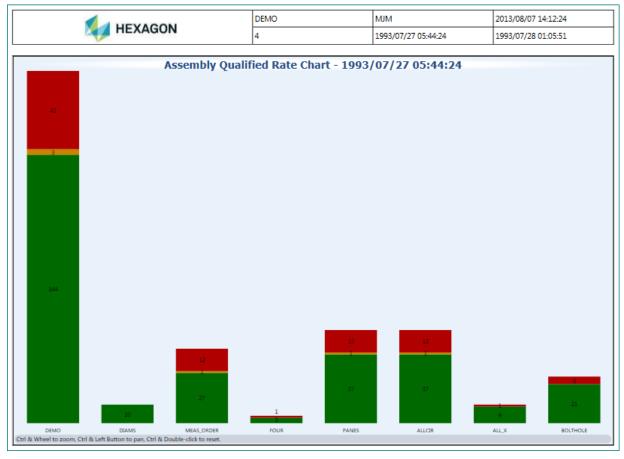
## **New Chart Reports**

DataPage+ 5.0 introduces three new Chart reports

- Assembly Qualified Rate Chart
- Measurement Deviation Chart
- CII (Continuous Improvement Index) Variation Chart



### **Assembly Qualified Rate Chart**



- Similar to
   "Qualified Rate
   Chart", but able to
   break out by
   variable sets.
- Graphical display for all variables within 75% tolerance (green), between 75% and 100% tolerance (yellow), and out of tolerance (red).
- Cumulative tolerance values for all selected variable sets.
- Tolerance values for each selected variable set.



### **Measurement Deviation Chart**

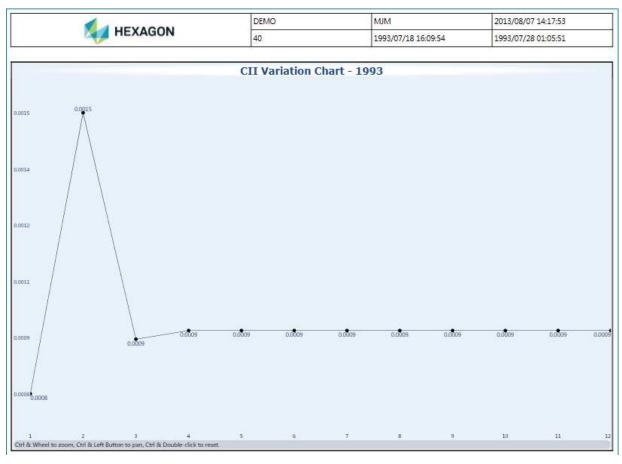


- Displays deviation trends with color coded tolerance indicators.
- Graphical display for all variables within 75% tolerance (green), between 75% and 100% tolerance (yellow), and out of tolerance (red).

The longer the bar, the greater the measurement deviation from nominal.



# CII (Continuous Improvement Index) Variation Chart



- Displays deviation trend over a yearlong time period.
- Calculates Six
   Sigma of all
   dimensions with
   measured data,
   per month.

Sigma value at 95% observed as CII value.



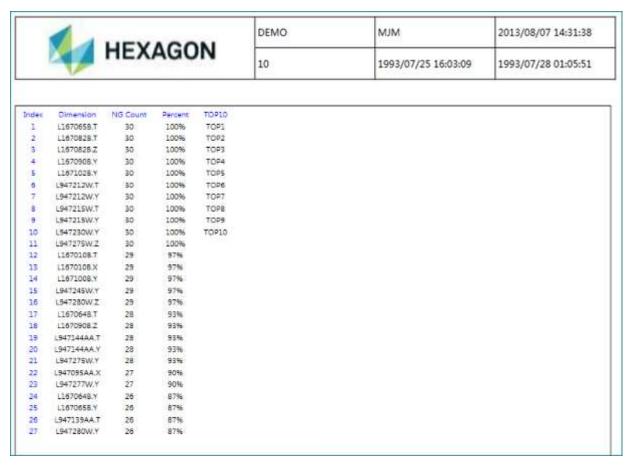
# **New Text Report**

DataPage+ 5.0 introduces one new Text report

NG Details Report



### **NG** Details Report



- Displays ranking for each selected dimension, sorted based on highest percent out of tolerance.
- Highlights Top 10 (lowest tolerance percent).



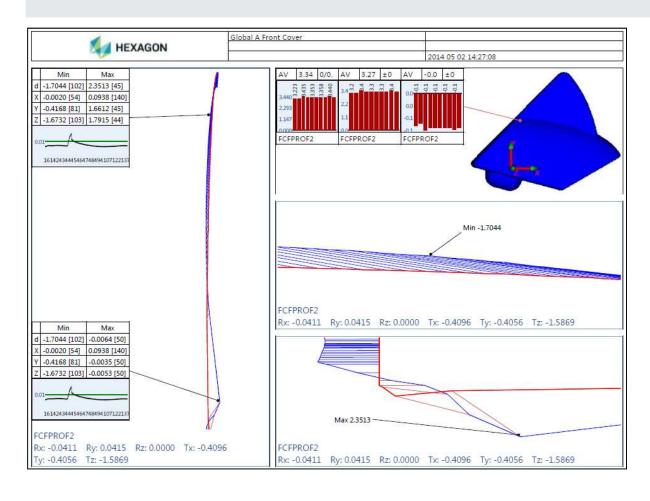
# New CAD Report

DataPage+ 5.0 introduces one new CAD report

Profile Report (Graphical Analysis Control)



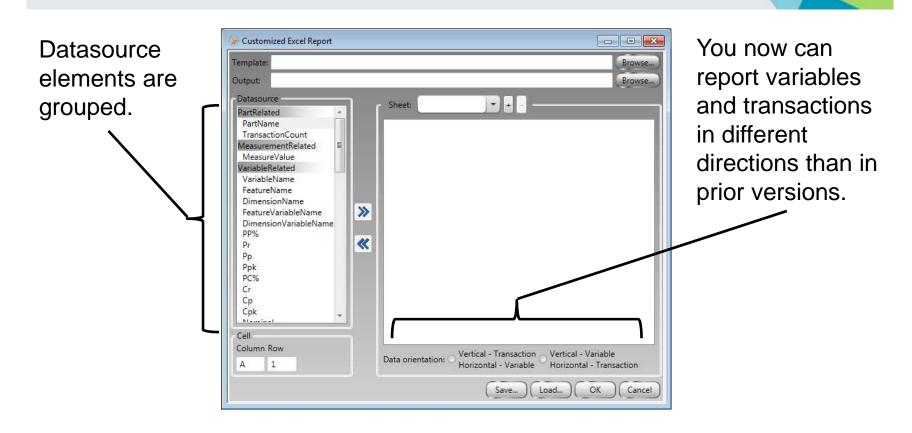
# Profile Report (Graphical Analysis Control)



- Provides flexible and customizable Best-Fit options.
- Built on WPF technology, so images are scalable, while maintaining high resolution.



# **Customized Excel Report**

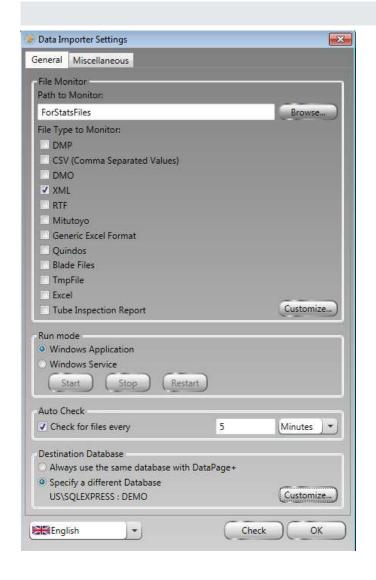


In prior versions, you could only report up to 30 measured values. Now, you can report all measured values.

More variables and trace fields available.



### Data Importer – Service Option



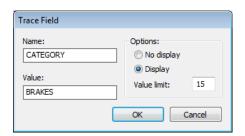
The new "Windows Service" option configures DataImporter to run as a Windows Service.

When the machine is restarted, the DataImporter service restarts. This ensures you do not have to remember specifically to start DataImporter when your machine fails.

The "Windows Application" option still exists.



### Import Directly to DataPage+ Part Category from PC-DMIS



Allow your operators to view their parts automatically without having the DataPage+ Administrator move them to the operator category.

```
EXTERNALCOMMAND/NO_DISPLAY, WAIT ;

ASSIGN/PART_NUMBER-SETTENT (191, 8, "FILEHEDR")

TRACEFIELD/DISPLAY, LIMIT=15 ; CATEGORY : BRAKES
ASSIGN/PART_RBVISION-SETTENT (192, 9, "FILEHEDR")

ASSIGN/PART_OPERATION=GETTEXT (193, 0, "FILEHEDR")

ASSIGN/PART_TIMESTAMF=CONCAT (SYSTEMDATE ("yyMMdd"), "_", SYSTEM
```



In your PC-DMIS part program, add the tracefield, "CATEGORY", then enter the category name as the value.

When the part program completes, the part data will be added to that part category in DataPage+ automatically.



# Support for LMS Licensing

DataPage+ 5.0 supports LMS licensing as well as portlock licensing.







# System Requirements

# System Requirements

#### Hardware

- 1 GHz (or faster) 32-bit (x86) or 64-bit (x64) processor
- 1 GB RAM (32-bit) or 2 GB RAM (64-bit)
- 8 GB available disk space (32-bit) or 12 GB available disk space (64-bit)
- Optical DVD drive

#### Additional Requirement for DataView+ Module

DirectX 9 graphics processor

#### **Language Support**

English	French	German
Hungarian	Italian	Japanese
Korean	Polish	Portuguese
Russian	Simplified Chinese	Spanish
Swedish	Traditional Chinese	Turkish

#### Compatibility

Works with PC-DMIS version 3.7 (or higher); optimized for PC-DMIS 2013 MR1.





Installing DataPage+ 5.0

# Installing DataPage+ 5.0

- Install DataPage+ 5.0 FULL (Including Prerequisite Components)
- Attach Database to SQL Server 2008 Express
- Start DataPage+ 5.0 and Connect to Database



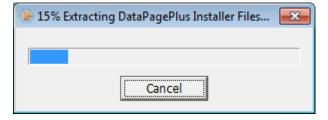
#### Overview

The DataPage+ 5.0 FULL package includes the following components:

- Microsoft SQL Server 2008 R2 Express
- Microsoft .NET Framework 4 (x86 and x64)
- Microsoft Visual C++ 2010 Runtime Libraries (x86)
- Microsoft Visual C++ 2012 Runtime Libraries (x86)
- CLM Tools (x86)
- DataPage+ 5.0
- Microsoft SQL Server Management Studio 2008

#### Start the Installation

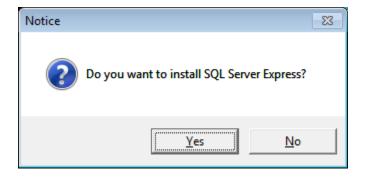
If you are installing from the downloaded "FULL" .zip package, extract the package contents to a folder on your machine's hard drive. Then, open that folder. If you are installing from a CD/DVD, open the root file folder. Right-click the "setup.exe" file, and then select "Run as administrator". DataPage+ 5.0 first searches for prerequisite components. If a component is not found, the installer attempts to install it.

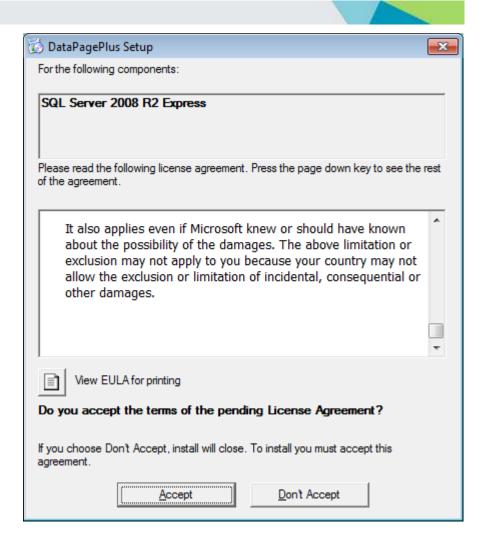




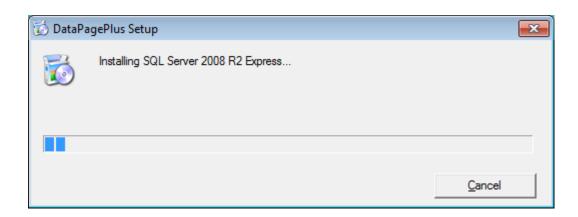
#### **SQL Server 2008 R2 Express**

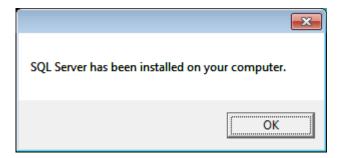
- During the DataPage+ 5.0 installation, it prompts the user if s/he wants to install SQL Server 2008 R2 Express. If the user clicks "Yes", it will attempt to install it during this step.
- An End User License Agreement (EULA) appears.
   Click Accept to accept the terms of the EULA.
- The installer continues to install SQL Server 2008 R2 Express. When complete, the EULA goes away, and the DataPage+ 5.0 installation continues to the next step.



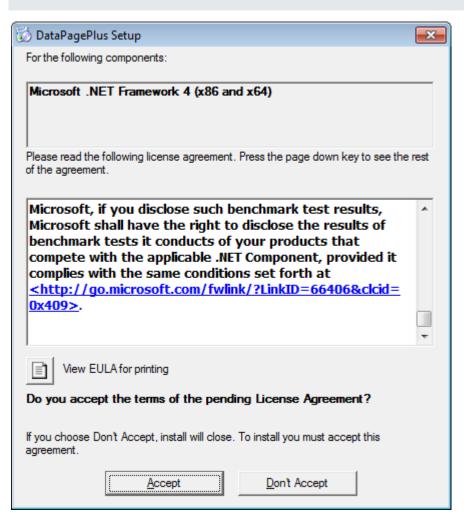






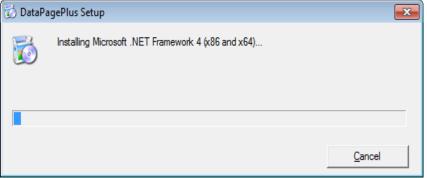






#### Microsoft .NET Framework 4 (x86 and x64)

- During the DataPage+ 5.0 installation, if it detects that .NET 4 is not installed, it will attempt to install it during this step. An End User License Agreement (EULA) appears. Click Accept to accept the terms of the EULA.
- The installer continues to install the .NET
   Framework component. When complete, the
   EULA goes away, and the DataPage+ 5.0
   installation continues to the next step.





Microsoft Visual C++ 2010 Runtime Libraries (x86) Microsoft Visual C++ 2012 Runtime Libraries (x86) CLM Tools (x86)

 During the DataPage+ 5.0 installation, if it detects that one or more of these components are not installed, it will attempt to install the missing component(s) during this step. An End User License Agreement (EULA) appears. Click Accept to accept the terms of the EULA. The following components will be installed on your machine:

Visual C++ 2010 Runtime Libraries (x86)
Visual C++ 2012 Runtime Libraries (x86)
CLM Tools (x86)

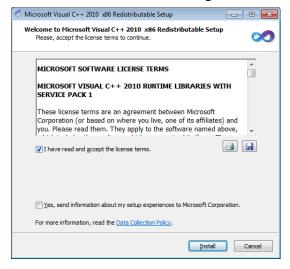
Do you wish to install these components?

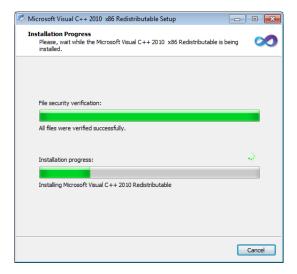
If you choose Cancel, setup will exit.

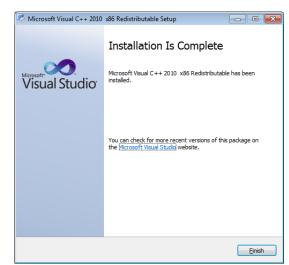


#### Microsoft Visual C++ 2010 Runtime Libraries (x86)

- During the DataPage+ 5.0 installation, if it detects that the Microsoft Visual C++ 2010 Runtime Libraries (x86) component (RTL) is not installed, it will attempt to install it during this step. An End User License Agreement (EULA) appears. Check the box and then click **Install** to accept the terms of the EULA and continue the installation.
- The installer continues to install the RTL component. When complete, click **Finish** at the Installation Is Complete window. The DataPage+ 5.0 installation continues to the next step.





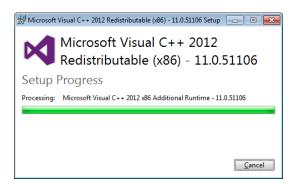


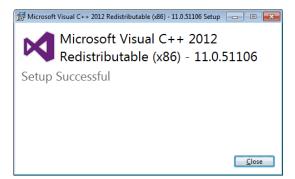


#### Microsoft Visual C++ 2012 Runtime Libraries (x86)

- During the DataPage+ 5.0 installation, if it detects that the Microsoft Visual C++ 2012 Runtime Libraries (x86) component (RTL) is not installed, it will attempt to install it during this step. An End User License Agreement (EULA) appears. Check the box and then click **Install** to accept the terms of the EULA and continue the installation.
- The installer continues to install the RTL component. When complete, click **Close** at the Setup Successful window. The DataPage+ 5.0 installation continues to the next step.



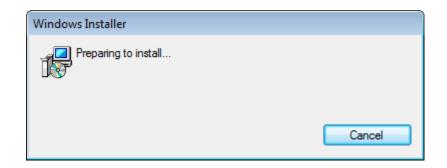


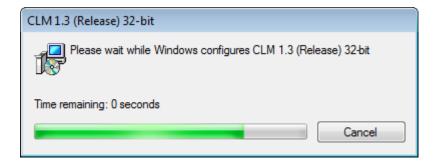




#### **CLM Tools (x86)**

- During the DataPage+ 5.0 installation, if it detects that the CLM Tools (x86) component (CLM) is not installed, it will attempt to install it during this step. An End User License Agreement (EULA) appears. Check the box and then click **Install** to accept the terms of the EULA and continue the installation.
- The installer continues to install the CLM component. When complete, the installer goes away and the DataPage+ 5.0 installation continues to the next step.



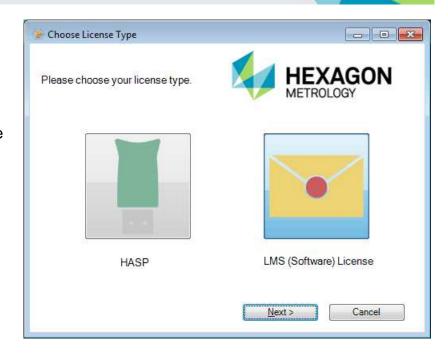




#### DataPage+ 5.0

- During the DataPage+ 5.0 installation, if it detects that DataPage+ 5.0 is not installed, it will attempt to install it during this step.
- You will be prompted to install via HASP or LMS license. To use a HASP (portlock), click HASP. To use an LMS license, click LMS. Then, click Next.
- Refer to the PC-DMIS LMS support page and documentation for installing DataPage+ 5.0 using LMS licensing.
- You must first sign up and login to view the pages and documents.

http://support.hexagonmetrology.us



#### **How to Install using NODE locked LMS licenses**

http://support.hexagonmetrology.us/link/portal/16101/16131/Article/702/How-to-install-using-NODE-Locked-LMS-licenses

#### What is needed to install, activate, and use LMS floating licenses

http://support.hexagonmetrology.us/ics/support/kbAnswer.asp?questionID=666

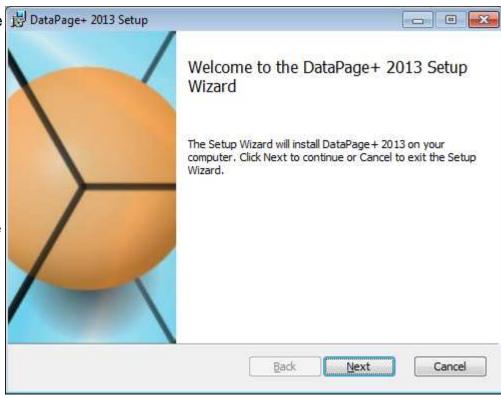
#### LMS network license server setup instructions

http://support.hexagonmetrology.us/ics/support/DLRedirect.asp?fileNum=728&deptID=16131



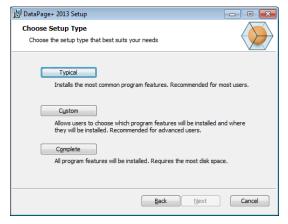
#### DataPage+ 5.0

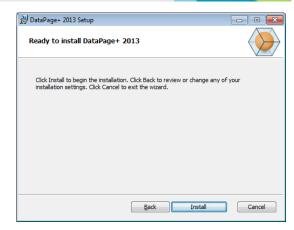
- An End User License Agreement (EULA)
   appears. Check the box and then click Next
   to accept the terms of the EULA and continue the installation.
- Choose your setup type.
  - Typical Installs the most common program features. This is recommended for most users.
  - Custom Allows users to choose which program features will be installed and where they will be installed. This is recommended for advanced users.
  - Complete All program features will be installed in the default directory. This requires the most disk space.
- Click Install to install DataPage+ 5.0 under the selected setup type.
- The installer continues to install DataPage+
   5.0. When complete, click Finish at the Setup window.

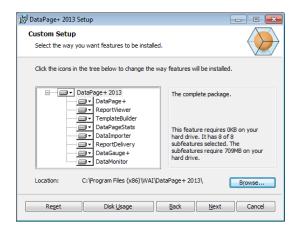


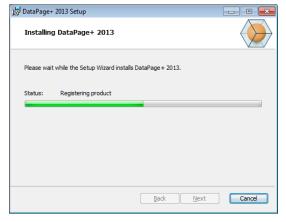


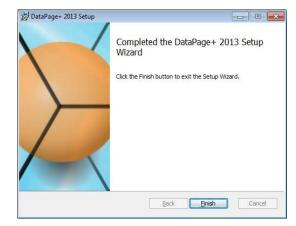




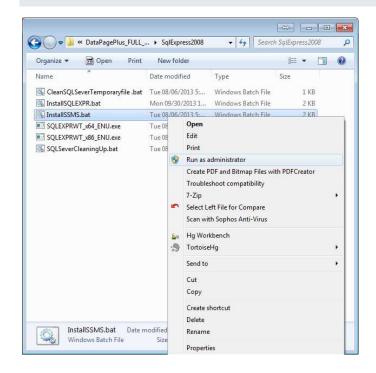


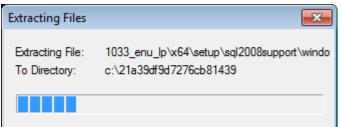








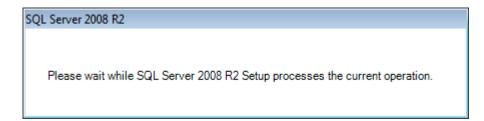


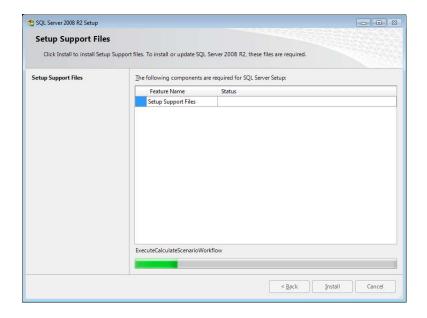


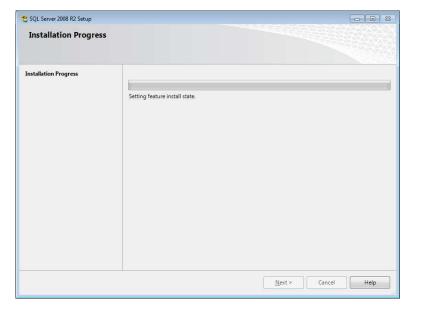
#### Microsoft SQL Server Management Studio 2008

• Open the SqlExpress2008 folder in the installation package. Right-click the file InstallSQLSSMS.bat and click Run as Administrator. This opens a Windows command window and executes the script. The script installs SQL Server Management Studio 2008 using defaults for all prompt values. This means that you do not have to manually answer prompts in the standard wizard interface. Go get a 2<sup>nd</sup> cup of coffee, and when you come back, SQL Server Management Studio is installed!













# Collecting Data with PC-DMIS

# Collecting Data with PC-DMIS

#### **Using DataPageStats.exe**

Working Modes:

ReceiveALL – This is the default working mode. An external command is inserted at the <u>END</u> of the PC-DMIS part program as shown below. Loops are considered separate transactions, turn loop ID's off.

```
Edit Window - 4 looped holes.PRG

File Header

STARTUP = Start Alignment

Manual/DCC Mode

Dimension Format

Load Probe - PROBE1

T1A0B0 = Set Active Tip

Manual/DCC Mode

Loop Start

CIR1 = CIRCLE (CONTACT) (1.0000,1.0000,1.0000), 1.0000

LOC1 = Dimension Location : CIR1

Loop End

Display Trace Prompt : DISPLAY

Command String : C:\PROGRAM FILES (X86)\WAI\DATAPAGE+ 5.0\DATAPAGESTATS.EXE -L
```



## Collecting Data with PC-DMIS

#### **Using DataPageStats.exe**

#### Working Modes:

Listening – This mode runs as a background application, listening to the PC-DMIS execution events. This mode is recommended for reducing cycle time because it creates the XML file while the program is running instead of all at once at the end. An External Command is inserted at the <u>START</u> of the PC-DMIS part program with a **listening** parameter as shown below. Loops are considered separate transactions, turn loop ID's off.

```
Edit Window - 4 looped holes.PRG

File Header

Display Trace Prompt: DISPLAY
Command String: C:\PROGRAM FILES (X86)\WAI\DATAPAGE+ 5.0\DATAPAGESTATS.EXE

Manual/DCC Mode

Display Trace Prompt: DISPLAY

Manual/DCC Mode

Disp
```



### Using DataPageStats.exe

#### Parameters:

#### No parameters

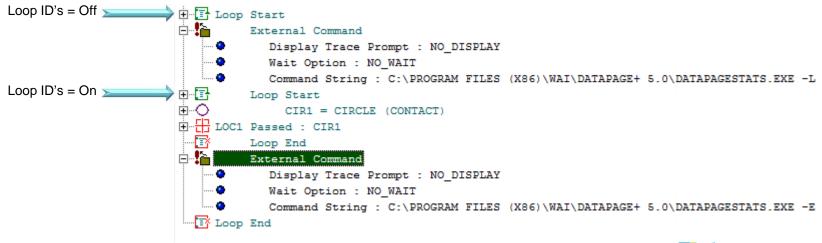
This starts DataPageStats in the default ReceiveAll mode, as described above.

#### -I or -listening

This starts DataPageStats in listening mode, as described above.

#### -e or -end

In conjunction with **listening** mode, this ends the previous DataPageStats instance. This parameter provides control when loops should not be considered as separate transactions. The example below produces 2 transactions with 4 location dimensions in each transaction.



#### **Using DataPageStats.exe**

#### Parameters:

### -s or -settings

This displays the settings dialog box. The settings dialog box is also accessed from the Start menu by navigating to Start | All Programs | DataPage+ 5.0 | Tools | Settings for DataPageStats.



#### -r or -reset

This abandons the XML data being gathered and continues gathering data on the following command.



#### **Using DataImporter.exe**

The DataImporter.exe tool monitors a specified directory on a local computer or a network for these types of files: DMP, CSV, DMO, XML, RTF, Mitutoyo text, Generic Excel Format, Quindos, Blade (BSF), Temporary File (Tmp), Excel (XLS), or Romer Measurement Report (html).

Data Importer uses a defined interval to read the data from the monitored file(s) and import that data into the database defined in **Destination Database**.

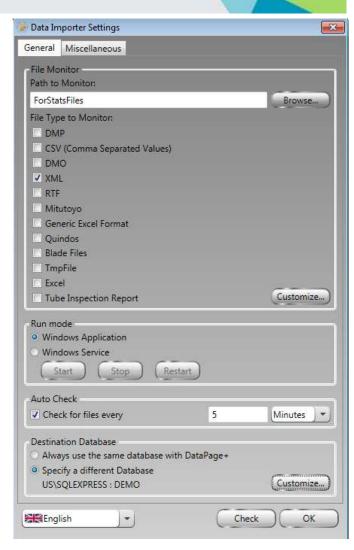
You can re-access the database at any time inside DataPage+ to get at the new data by using the **Refresh** icon.

This tool resides in the directory where you installed DataPage+. To use it, run DataImporter.exe, fill out the resulting dialog box, and then either click the **Check** button to check the monitored directory now, or click the **OK** button to automatically check the monitored directory using the time interval in the **Auto Check** area.

Once you run this program, an orange icon appears in your system tray:



To completely exit the **Data Importer** dialog box, right-click on the tool in the system tray and choose **Exit**.





#### **Using DataImporter.exe**

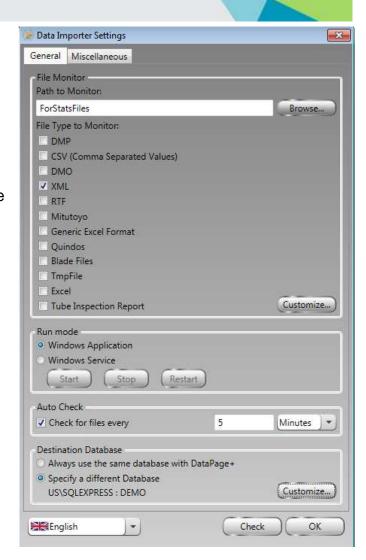
The dialog box contains two tabs:

- General
- Miscellaneous

The **General** tab contains following items:

- **File Monitor:** This area defines the directory to monitor for any of the selected file types.
  - You can specify the directory to monitor by using the Browse... button.
- You can monitor any of these supported statistics files: DMP, CSV, DMO, XML, RTF, Mitutoyo text, Generic Excel Format, Quindos, Blade (BSF), Tmp File, Excel and Tube Inspection Report.
  - The **Customize...** button lets you customize the import settings for these file types.

The tool will look in the **Path to Monitor** directory at the specified interval, and if it detects any new files, it will send the data in those files to the database defined in the **Destination Database** area.



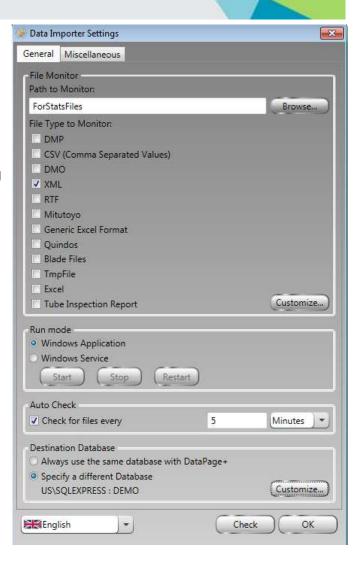


#### **Using DataImporter.exe**

**Run mode**: This area defines how the application runs, either as an application or as a service:

- Windows Application: This runs DataImporter as a Windows application by launching DataImporter.exe.
- Windows Service: This option runs DataImporter by creating a service called DataImporterService. In the Windows Services dialog box, the Startup Type is automatic and the Log On As is set to Local System. If you use this mode, in the Data Importer Settings dialog box, in the Auto Check area, the Check for files every\_\_\_\_\_minutes check box is marked and disabled and the Destination Database area, the Always use the same database with DataPage+ is also unavailable.
- Start: This starts the service.
- Stop: This halts the service.
- Restart: This restarts the service.

**Auto Check:** This area defines whether or not to automatically check the monitored directory using the defined time interval. Set the time interval as a value in the edit box and select the time component (seconds, minutes, hours) from the drop down list.

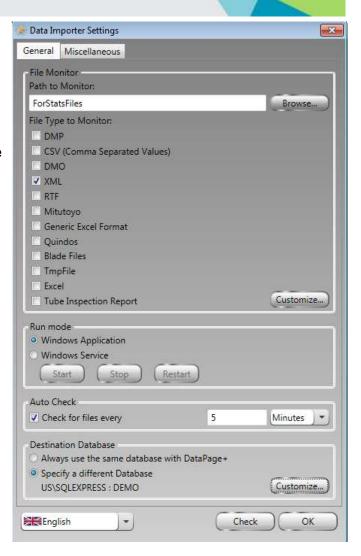




#### **Using DataImporter.exe**

**Destination Database:** This lets you choose the database to which the tool will send the data in the statistics file. It contains these options:

- Always use the same database with DataPage+ This will use the same database that DataPage+ is currently configured to use.
- Specify a Different Database The tool will use a different database specified by using the Customize... browse button. Clicking this button opens the Database Connection Properties dialog box.





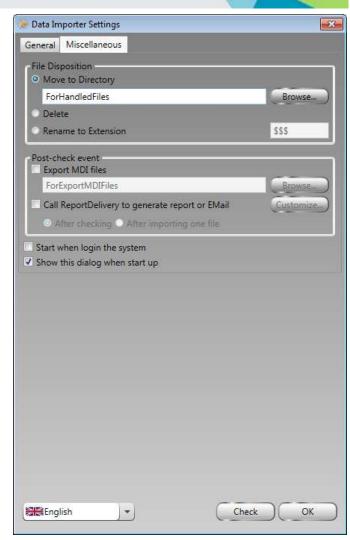
#### **Using DataImporter.exe**

**File Disposition:** When a statistics file is detected in the monitored directory, and after the data has been imported into the specified database, you can use this area to tell the tool what to do with the file. You must use one of these items so that the file is no longer monitored once it has been processed. The available options are:

- Move to directory This moves the statistics file out of the monitored directory and into the new directory.
- Delete This deletes the statistics file.
- Rename to Extension This renames the statistics file to a different extension.

**Post-check event:** This area lets you automatically send an export of MDI files (XML files) to a specified directory as well as generate and send a report and a notification email.

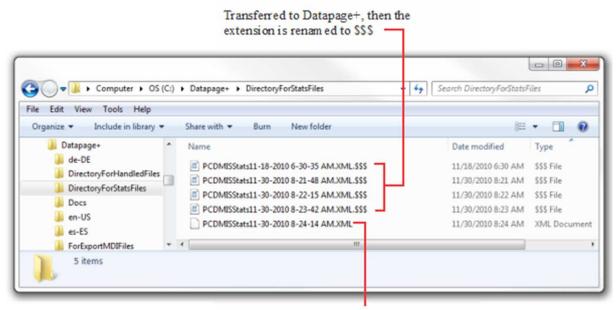
- Export MDI files If marked, DataPage+ exports XML files for the most recently handled statistics files.
  - Browse This changes the export directory for the exported MDI files.
- Call ReportDelivery to generate report or EMail If marked,
   DataPage+ generates a report and sends an email of the most
   recently handled statistics files, using the settings defined in this
   area's Customize button. This is used to inform someone that the
   incoming data contains out-of-tolerance measurements and generate
   a report of the incoming data.
  - Customize This button displays the Report Delivery Configuration dialog box.





#### **Example overview of the dataflow:**

- A PC-DMIS program is executed that contains the executable "DataPageStats.exe".
- This executable transfers a file containing the part name, time, actual data, tracefields etc., into the directory: \DirectoryForStatsFiles.
- The executable "DataImporter.exe" is running in the background and monitors the contents of this directory.
- When a new .XML file is dropped here from PC-DMIS, it is read and the data is transferred to DataPage+.
- This file is then disposed of as specified to insure it is not read again. This example shows the file extension being renamed.



Not yet transferred to Datapage+





Installing DataPage+ Database

# Installing DataPage+ Database

#### Install MS SQL Server or MS SQL Server Express on the Server

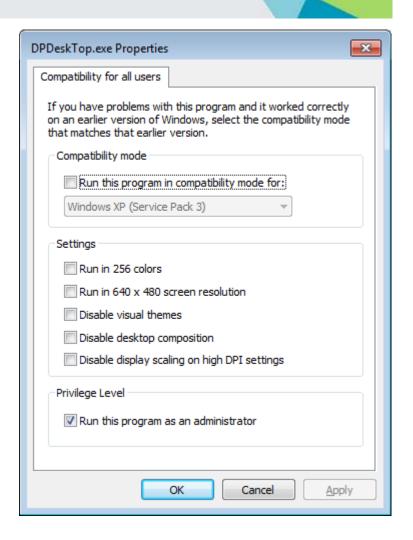
- You (the customer) are responsible for installing the MS SQL Server software on the Server computer..
- If you do not have a license for MS SQL Server, you can install the MS SQL Server 2008 R2 Express software on the server. MS SQL Server 2008 R2 Express is free and can be installed using the FULL DataPage+ installation package, or it can be downloaded from the following Microsoft link: <a href="http://www.microsoft.com/en-us/download/details.aspx?id=30438">http://www.microsoft.com/en-us/download/details.aspx?id=30438</a>
  - Important note: Be sure to download and install the appropriate installation set (32-bit or 64-bit) for your Server computer.
- We also recommend that you install the MS SQL Server 2008 R2 Management Studio Express software. MS SQL Server 2008 R2 Management Studio Express is free and is included in the FULL DataPage+ installation package ("SqlExpress2008" folder), or it can be downloaded from the following Microsoft link: <a href="http://www.microsoft.com/en-us/download/details.aspx?id=22985">http://www.microsoft.com/en-us/download/details.aspx?id=22985</a>



# Installing DataPage+ Database

#### Attach "Demo" database to MS SQL Server software

- The DataPage+ 5.0 installation puts an icon on your desktop. Right-click the icon and click Properties. Click the Compatibility tab, then click the Change settings for all users button. Click the checkbox to Run this program as an administrator. Click OK, then OK again.
- This sets the DataPage+ 5.0 application to always run as an administrator.

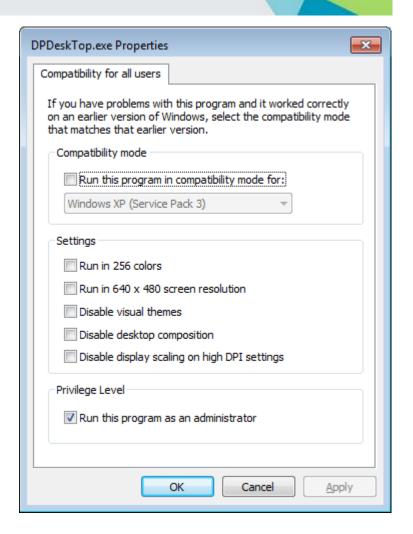






#### **Change application permissions**

- The DataPage+ 5.0 installation puts an icon on your desktop. Right-click the icon and click Properties. Click the Compatibility tab, then click the Change settings for all users button. Click the checkbox to Run this program as an administrator. Click OK, then OK again.
- This sets the DataPage+ 5.0 application to always run as an administrator.

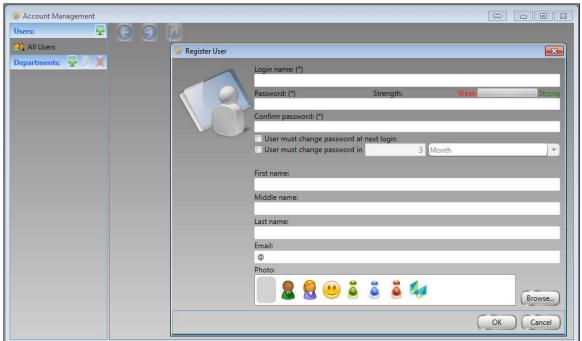






### Launch DataPage+ and login

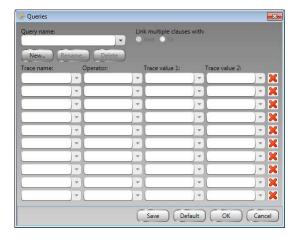
- Launch DataPage+ from the desktop icon. You will see a login screen. Enter Administrator in the User Name box, and enter 123456 in the Password box.
- After logging in the first time, you can create new user accounts. Click **Tools**, then click **Account**.

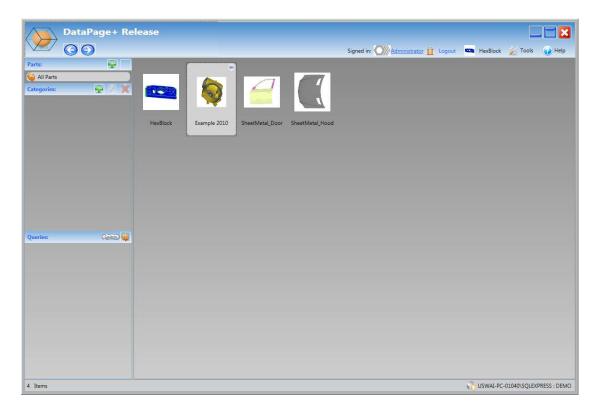




#### **Filter and Select Parts**

Once logged in, you access the Parts (Home) screen. From All Parts, you see all the parts in your database. You
can filter the displayed parts by adding a query. Pull up a part and its transactions by double-clicking it.

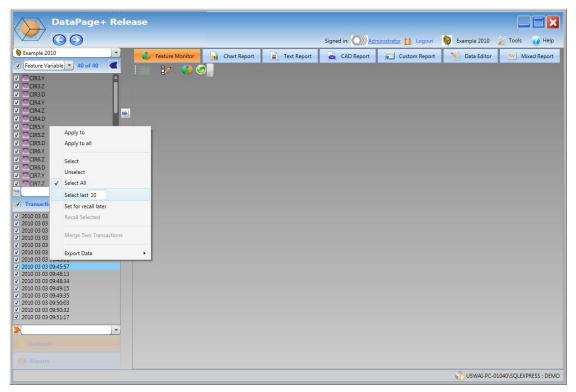






#### **Select Features/Dimensions and Transactions**

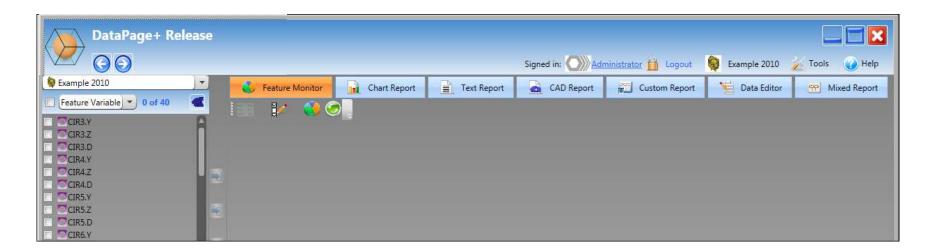
- Once you select a part, its Features, Dimensions, and Transactions load into DataPage+ 5.0. Depending on the available Features and Dimensions, you can select the type from the drop-down list. Also, you can select specific transactions, all transactions, or create a filter to select transactions that meet specific criteria.
- Once you have identified your desired Features/Dimensions and Transactions, click the Apply to or the Apply to All button to apply your selections to the active tab or to all tabs.





#### **Tab Definitions**

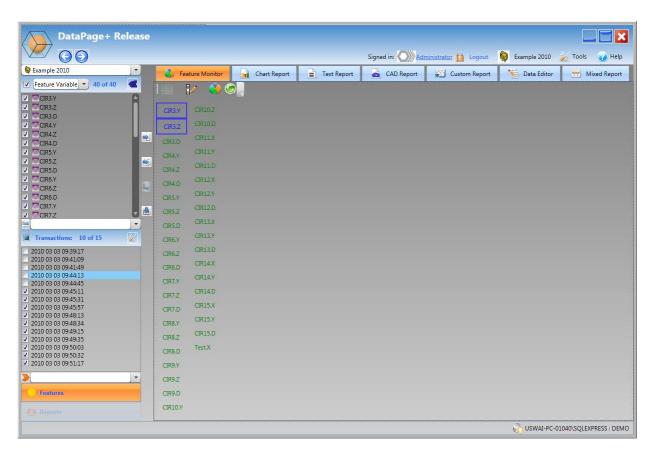
- Once you have applied transactions to one or more tabs, you can begin analyzing transaction data in the tabs.
  - **Feature Monitor** Overview page that displays key statistics and Pie Chart and Monitor Mode.
  - Chart Report Statistical Chart Reports, like Histogram, Run Chart and Bar Whisker (and others).
  - Text Report Text reports.
  - CAD Report DataView-like reports, including 3D-rotational CAD image (you provide) and report labels.
  - Custom Report Custom report canvas, allowing you to combine all three report types in one.
  - Data Editor Spreadsheet-like editor to modify features, tolerances, trace fields, and cause codes.
  - Mixed Report Custom report canvas, allowing you to put together a final presentation and execute saved reports.





#### **Feature Monitor**

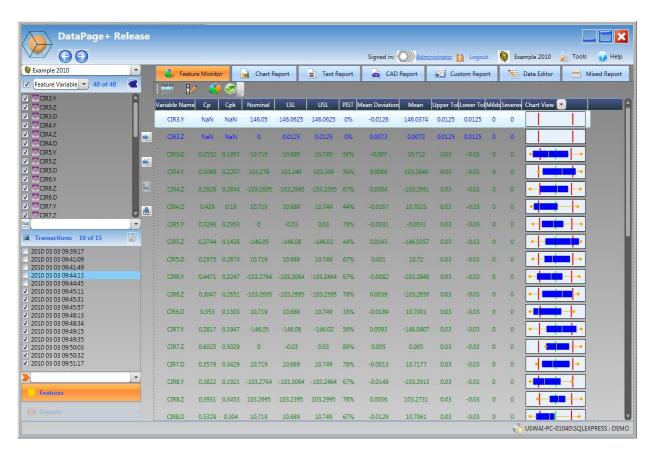
Monitor View includes color-coded Feature IDs.





#### **Feature Monitor**

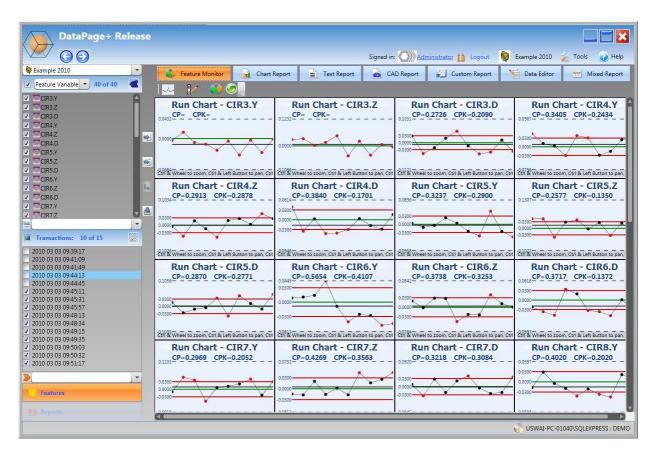
Detail View includes details and mini-charts for key characteristics.





#### **Feature Monitor**

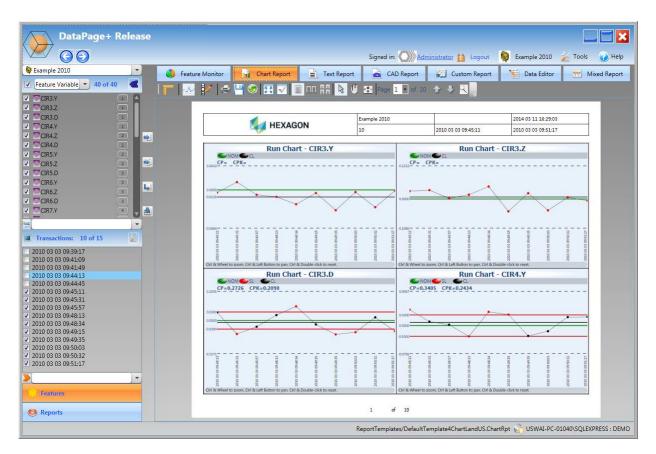
Chart View includes Run Charts for all selected Features/Dimensions and Transactions.





### **Chart Report**

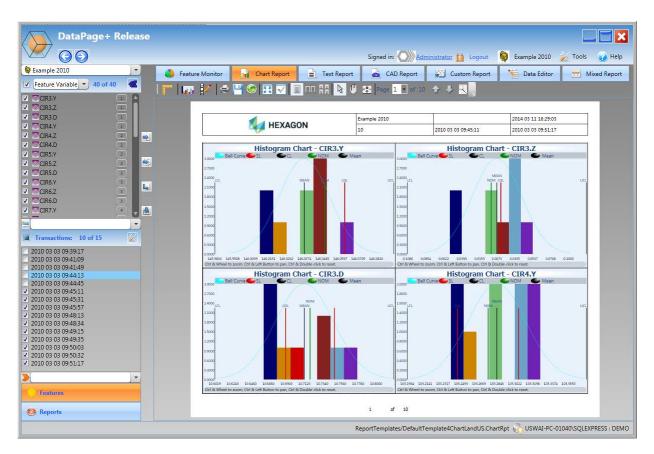
• The Chart Report View shows SPC reports for all selected Features/Dimensions and Transactions. You can select from over 20 included reports from the report selection menu.





### **Chart Report**

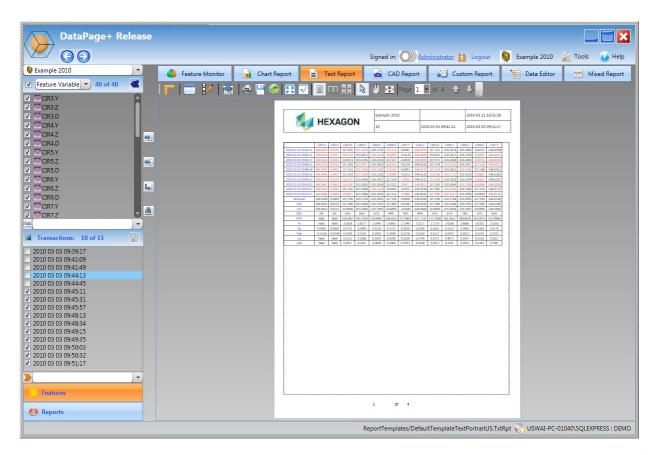
• The Chart Report View shows SPC reports for all selected Features/Dimensions and Transactions. You can select from over 20 included reports from the report selection menu.





### **Text Report**

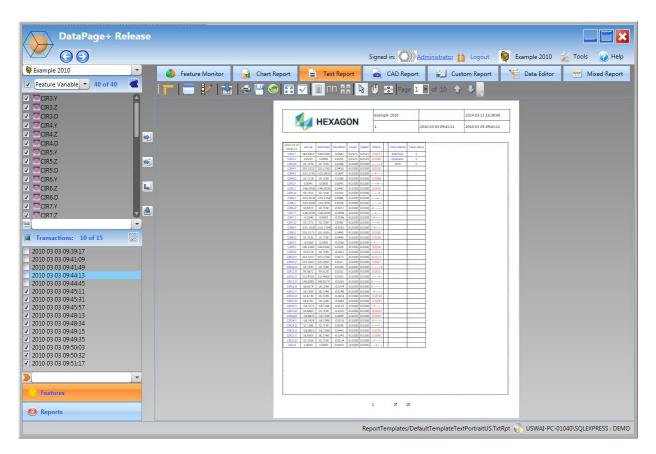
• The Text Report View allows you to analyze the nominal and measured data in a tabular (grid) format. You can select from over 15 included reports from the report selection menu, including some industry-specific reports.





### **Text Report**

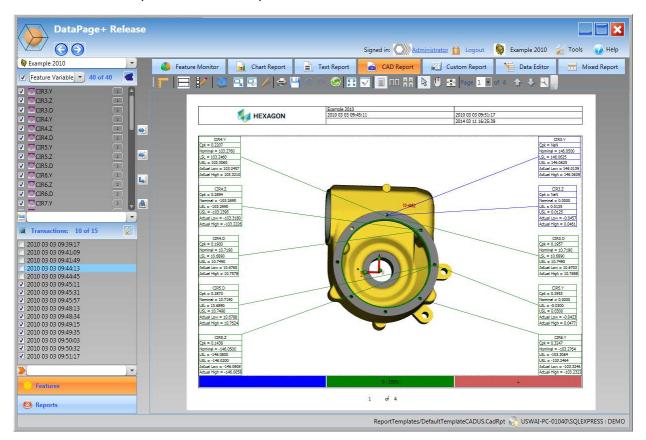
• The Text Report View allows you to analyze the nominal and measured data in a tabular (grid) format. You can select from over 15 included reports from the report selection menu, including some industry-specific reports.





### **CAD Report**

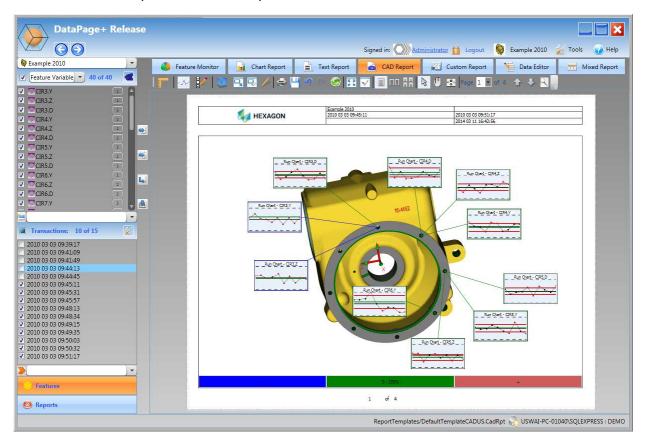
• The CAD Report View allows you to analyze the data along with the 3D CAD model. The CAD model is fully rotational, and you can apply report labels with leader lines tied to specific Features/Dimensions. You can select from over a dozen included reports from the report selection menu.





### **CAD Report**

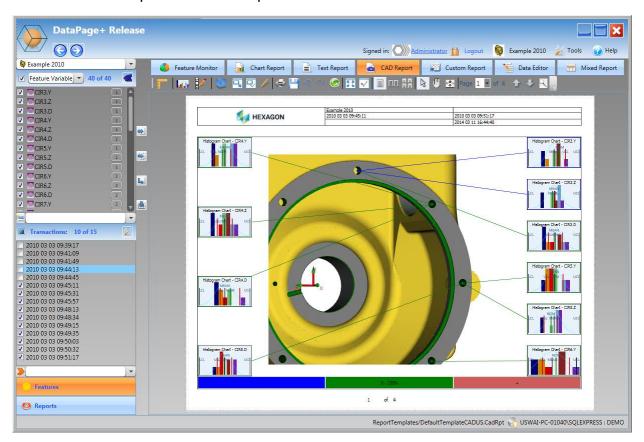
• The CAD Report View allows you to analyze the data along with the 3D CAD model. The CAD model is fully rotational, and you can apply report labels with leader lines tied to specific Features/Dimensions. You can select from over a dozen included reports from the report selection menu.





### **CAD Report**

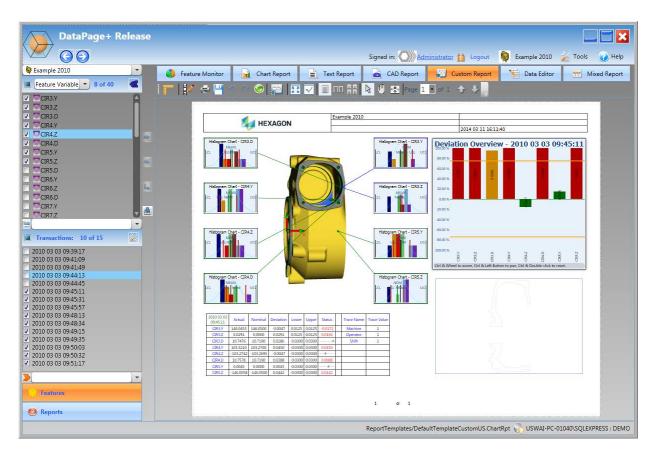
• The CAD Report View allows you to analyze the data along with the 3D CAD model. The CAD model is fully rotational, and you can apply report labels with leader lines tied to specific Features/Dimensions. You can select from over a dozen included reports from the report selection menu.





### **Custom Report**

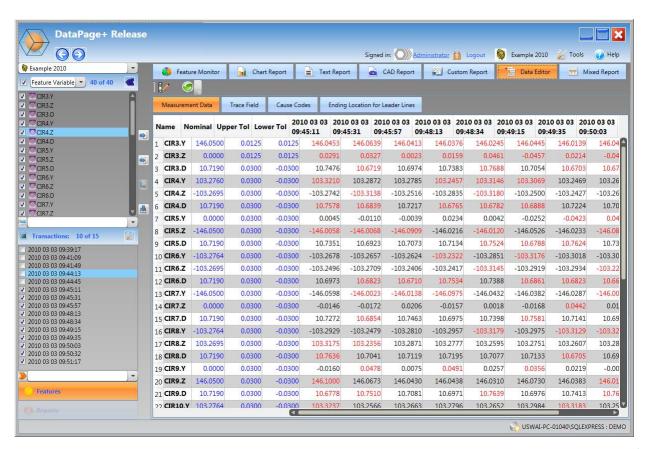
• The Custom Report View allows you to add elements from each tab (Chart, Text, CAD) to view combined analysis data on one report.





#### **Data Editor**

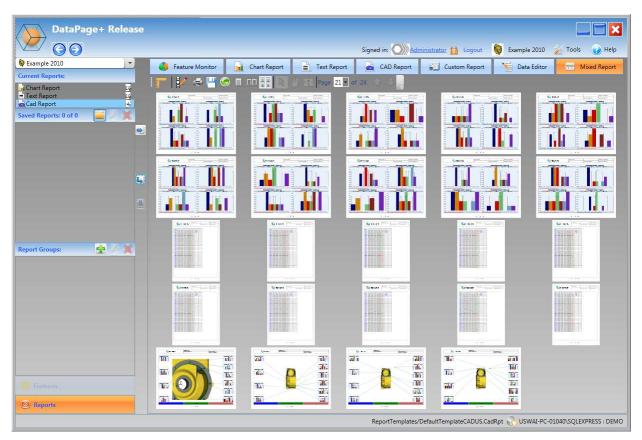
 The Data Editor View allows you to modify Feature information such as Feature Names, Tolerances, Control Limits, and more. You can also change Trace Fields and enter Cause Codes.





### **Mixed Report**

 The Mixed Report View allows you to put together a final presentation based on the reports generated from the Chart, Text, and CAD Report tabs. You can arrange the order of the report pages by dragging and dropping them where you want.







# **End of Presentation**