



GAINING VALUE THROUGH IOT, DATA AND PROACTIVE SERVICE

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A NEW DATA RESOURCE

- Traditional Sources of Data
 - Service History
 - Sales History
 - Inventory Counts
- Product Data
 - Operations Summaries (2007+)
 - Sensory Data (2011+)
- Today, *reactive to proactive* approach
 - Enabled by Big Data and Analytics tools



EXTRACTING VALUE

- Predictive and prescriptive actions. Measures of success include:
 - Service (Up-time, FTFR)
 - Customer Efficiency (Satisfaction, Utilization rate)
 - Product Development (Performance, Quality)
 - Sales (Upsell, Cross-sell)
 - Manufacturing (Failure rate, Recalls)
- ThingWorx Analytics, R



CHALLENGES FACED

- Legacy Equipment
- Siloed Departments
- Cultural Change
- Emerging Industry
- FDA Validation



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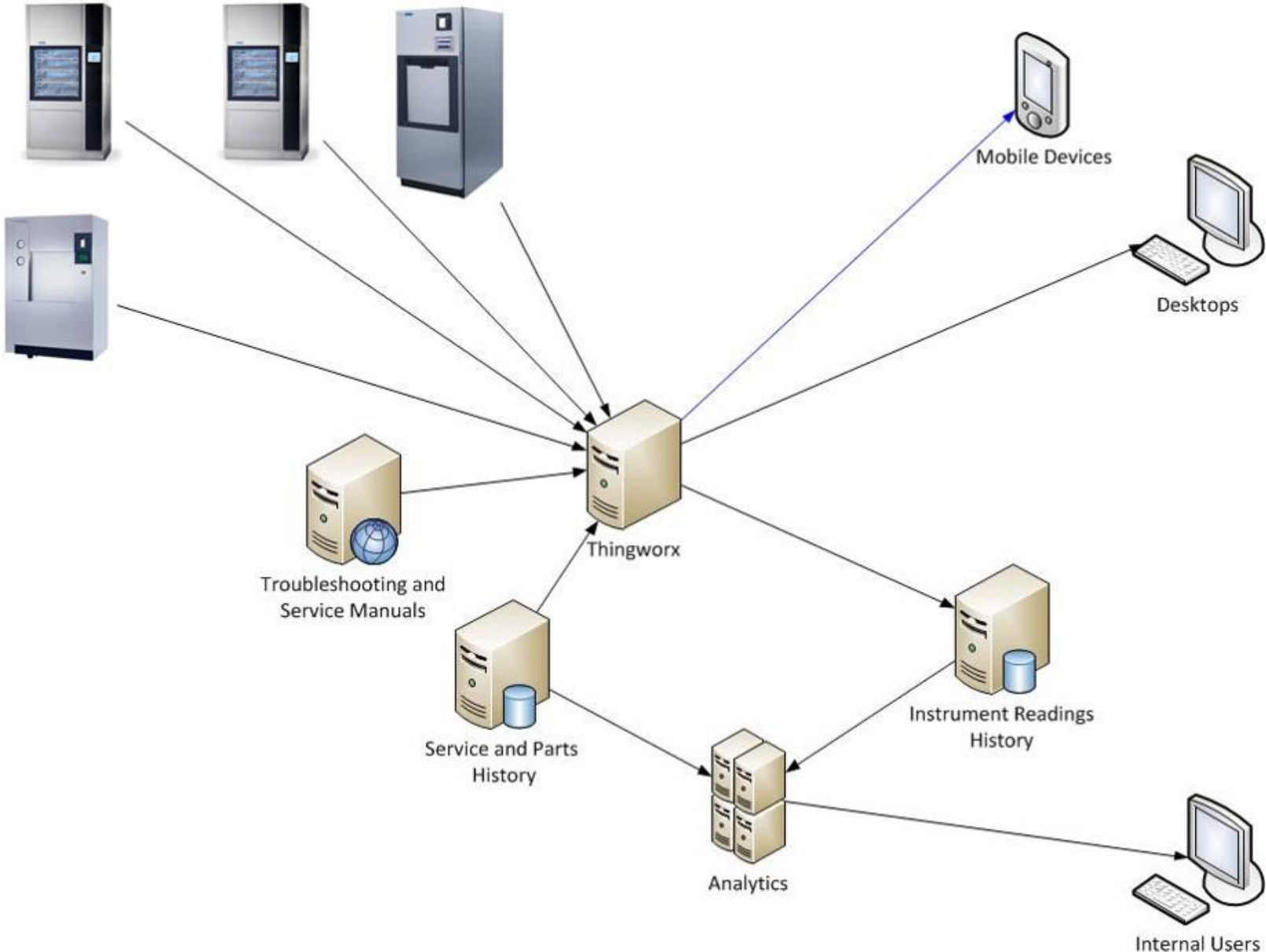
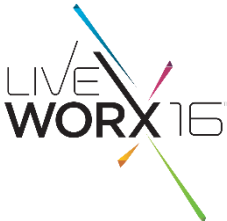
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- Real-time remote monitoring of STERIS equipment
 - 1000s of devices spread over 400 hospitals
- Custom Alert notifications indicating equipment failure and required maintenance
- SR and PM Scheduling Automation
- Mobile app
- On-going Analytics offerings

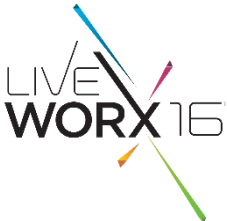


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STERIS **Alarms** Customer Map Reports Device Registration ProConnect Brochure My Profile Help Logout

Overview [Send Feedback](#) v1.7.1 DEV

0 of 5 Active Filter(s) [Add Filter](#)

- All Customers
- Test LAC
- Test -Re-
- SPD Washer #1
- SPD Washer #5
- STERIS MOBILE SPD
- Test Spd

Map Satellite

Name: [Redacted]
Address: [Redacted]
City: CLEVELAND **State:** Ohio
Zip: 44106
Contact Information: [Redacted]

Device Count 1
Open Alarms 0
In Process Alarms 0

Google Map data ©2016 Google Terms of Use Report a map error



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STERIS
Alarms Customer Map Reports Device Registration
ProConnect Brochure My Profile Help Logout

Overview
Send Feedback
v1.7.1 DEV

0 of 5 Active Filter(s) [Add Filter](#)

All Customers

- [blurred]
- [blurred]
- [blurred]
- Test Spd ([blurred])

Customer Information

Map Satellite

System Status : ONLINE

Name: STERIS MOBILE SPD Account Number: [blurred]

Address: [blurred] Account Address Id: [blurred]

City: PHOENIX Assignment Type: [blurred]

State: Arizona Zip: 85015

Device Count: 1

[Customer Summary](#)
[Customer Blog](#) [Customer Technicians](#)

Utilities

Steam: N/A Water Pressure: N/A Air Pressure: N/A Voltage: N/A

[Save Utilities](#)

Open Alarms

Open Alarms: 2

Total Alerts: 24

CurrentAlarmState	Alarm Classification	Created Date	AlarmDescription
In Process	FSR Required	2015-01-29 14:58:29	WATER IN CHAMBER, CHAMBER FLOO
Open	Equipment Performance	2015-01-29 14:58:41	DOOR SWITCH FAILURE

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ProConnect Brochure My Profile Help Logout

Alarms Customer Map Reports Device Registration
Send Feedback v1.7.1 DEV

0 of 5 Active Filter(s) + Add Filter

STERIS MOBILE SPD--PHOENIX Arizona--Account:
 Device Status : ONLINE

All Customers

-
-
-
-
- Test Spd

Equipment Description:
AMSCO400 36DD 480V HNG LR

PMCL Number

Name
Test Spd

Serial Number

Status
Invalid IP Address

Door Status ● **Phase**

Current Cycle Type

Remaining Cycle Time

Chamber Temperature (F)

Chamber Pressure (PSIA)

Equipment Location:
Mobile SPD 2

STE ProConnect Active - RM

Cycle Count
3069

Open Alarms

2

Total Alarms

24

Current Alarm State	Classification	Alarm Description	Serial
In Process	FSR Required	WATER IN CHAMBER, CHAMBER FLOODED	03086130
Open	Equipment Performance	DOOR SWITCH FAILURE	03086130

Open Alarms

Alarm Troubleshooting Info

Change Alarm State

Mail/SMS Contacts

Service Unit

Phone Contacts

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STERIS Summary Summary **Alarms** Customer Map Users Exports Reports My Profile Logout

Alarm Listing Definitions and Priority Send Feedback v1.4.1 DEV

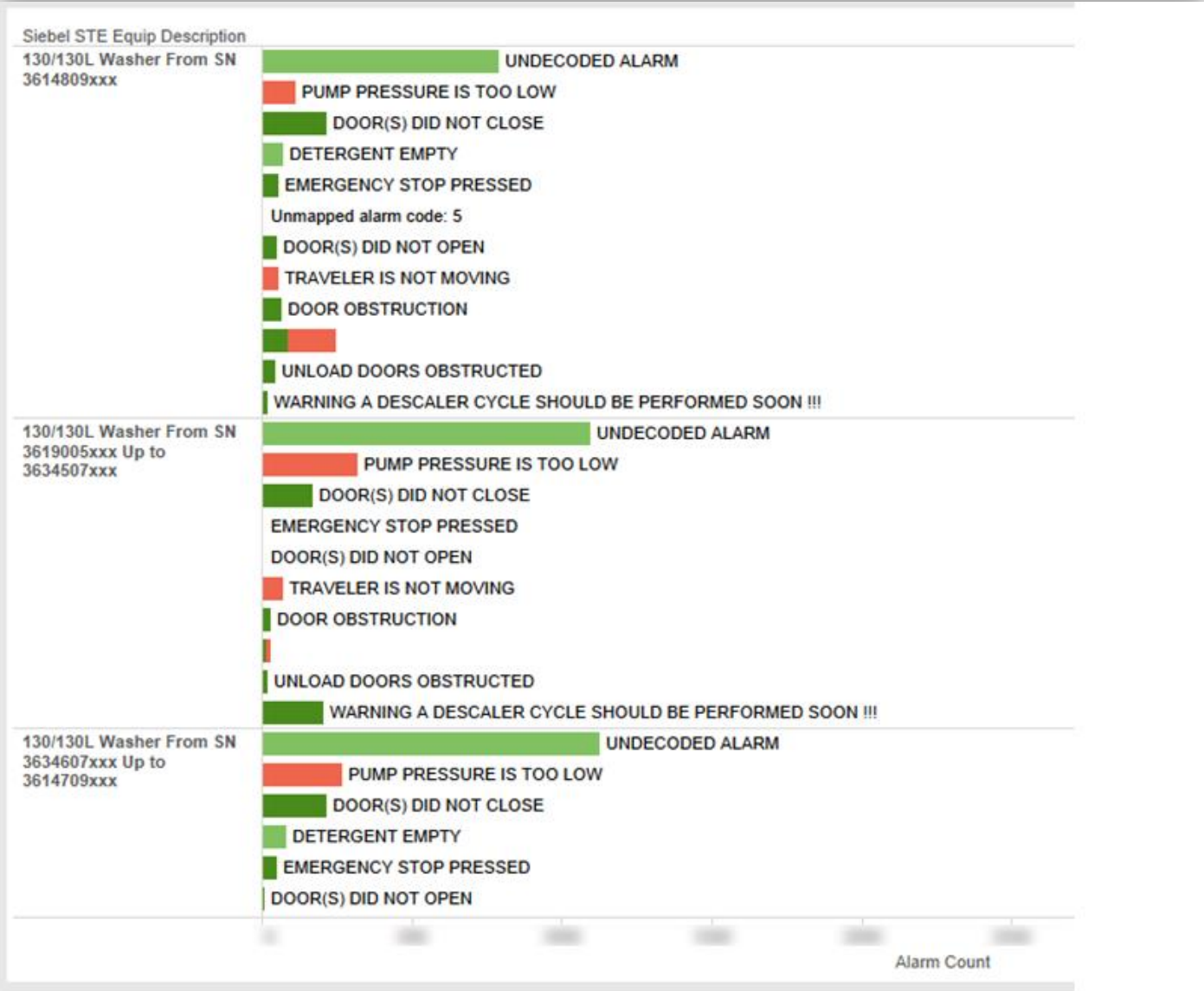
0 of 22 Active Filter(s) Add Filter # of Days to Query

Current Alarm State	Alarm Priority	Created Date	Alarm Description	Serial Number	Siebel Account Number	Siebel Equipment Description	Acknowled
Open	1	2015-11-12 13:05:23	ROM FAILURE			Century 26x37.5 Steam Sterilizer-SD	---
Open	1	2015-11-13 10:39:20	ROM FAILURE			Century 26x37.5 Steam Sterilizer-SD	---
Open	1	2015-11-13 11:52:44	TOO LONG IN AIR BREAK			EAGLE3000 STG3 24X36X36/48/60 VAC-SGL MD	---
Email Notification Only	2	2015-11-13 10:44:10	POWER DOOR FAILED			Century 26x37.5 Steam Sterilizer-SD	2015-11-13 10
Email Notification Only	3	2015-11-13 11:52:01	RAM FAILURE			EAGLE3000 STG3 24X36X36/48/60 VAC-SGL MD	2015-11-13 11
Email Notification Only	4	2015-11-13 11:52:30	UNDER STERILIZE TEMPERATURE			EAGLE3000 STG3 24X36X36/48/60 VAC-SGL MD	2015-11-13 11
Closed	2	2015-11-12 13:06:38	TOO LONG IN EXHAUST			Century 26x37.5 Steam Sterilizer-SD	2015-11-13 10

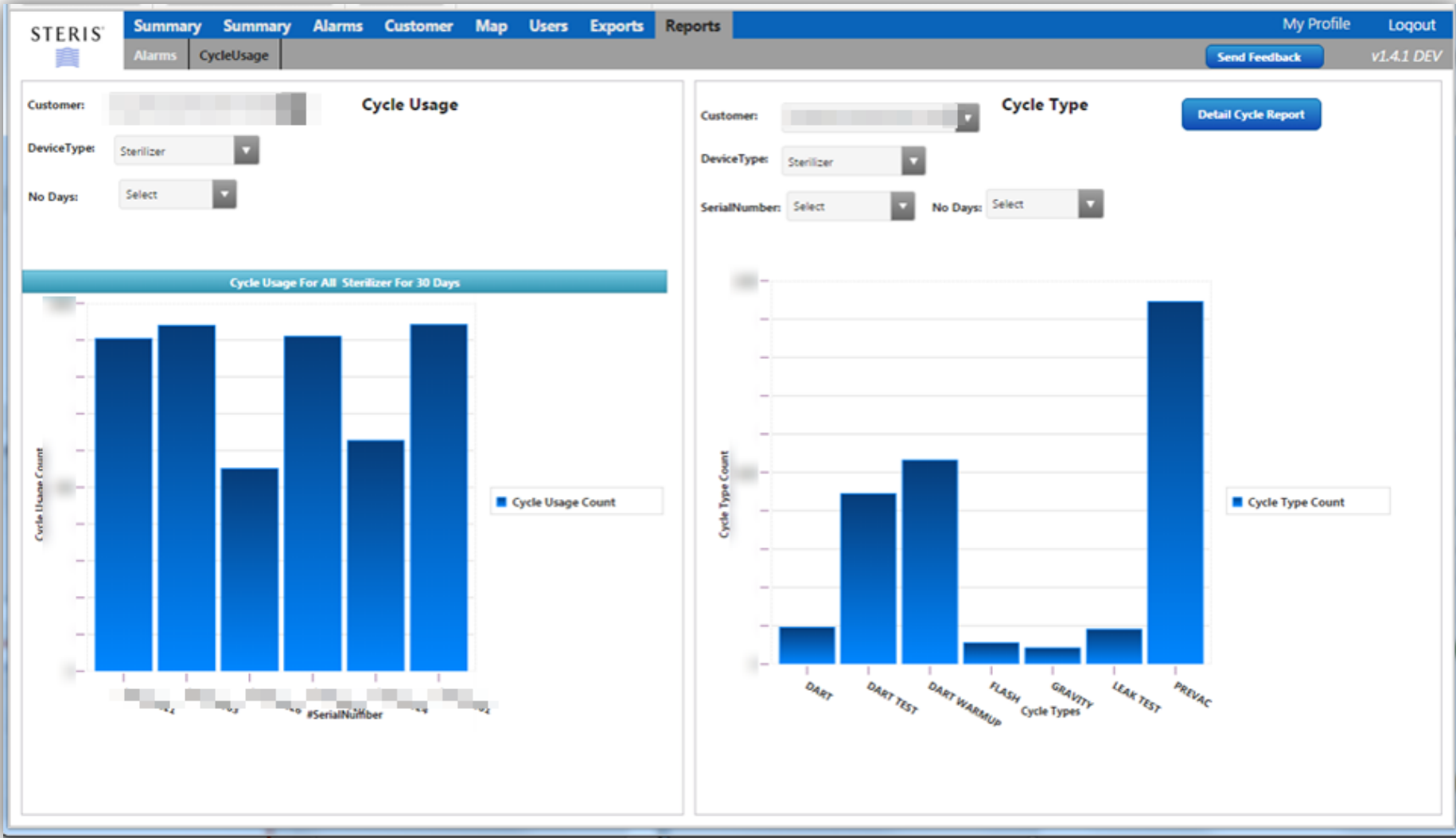
Change Alarm State View Alarm's Comments Alarm Troubleshooting Info Refresh Export Csv



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STERIS ProConnect Cycle Viewer

File Tools Window Help

Cycles				
File	Number	Cycle Type	Device Type	Family
	1609	P R E V A C FU	26x37.5	AMSCO 40

Print Tape Chart Notes

TimeStamp	Offset	Text	Extra
06:23:48 PM	0:00:00	=====	
06:23:48 PM	0:00:00	===== P R E V A C =====	
06:23:49 PM	0:00:01	===== FULL LOAD =====	
06:23:49 PM	0:00:01	=====	
06:23:50 PM	0:00:01	CYCLE START AT 18:35:57	
06:23:50 PM	0:00:01	ON 7/07/15	
06:23:50 PM	0:00:01		
06:23:50 PM	0:00:02	CYCLE COUNT 1609	
06:23:50 PM	0:00:02	OPERATOR _____	
06:23:50 PM	0:00:02	STERILIZER _____	
06:23:50 PM	0:00:02	SERIAL # _____	
06:23:50 PM	0:00:02		
06:23:51 PM	0:00:02	STER TEMP = 270.0F	
06:23:51 PM	0:00:02	CONTROL TEMP = 272.0F	
06:23:51 PM	0:00:02	STER TIME = 5 MIN	
06:23:51 PM	0:00:02	DRY TIME = 8 MIN	
06:23:51 PM	0:00:03		
06:23:51 PM	0:00:03	V=inHg	
06:23:51 PM	0:00:03	- TIME T= F P=psig	
06:23:51 PM	0:00:03	-----	
06:24:02 PM	0:00:13	C 18:36:25 107.5 0.4P	
06:24:32 PM	0:00:44	C 18:37:26 227.4 15.8P	
06:25:23 PM	0:01:35	C 18:39:07 186.2 10.3V	
06:26:03 PM	0:02:14	C 18:40:26 260.3 26.1P	
06:26:54 PM	0:03:06	C 18:42:10 190.6 12.2V	
06:27:27 PM	0:03:39	C 18:43:16 263.7 26.0P	
06:28:18 PM	0:04:29	C 18:44:57 191.1 15.0V	
06:28:50 PM	0:05:01	C 18:46:00 263.9 26.1P	
06:29:40 PM	0:05:52	C 18:47:41 190.7 16.4V	
06:31:33 PM	0:07:44	S 18:51:27 270.7 29.5P	
06:32:03 PM	0:08:14	S 18:52:27 272.1 30.3P	
06:32:33 PM	0:08:44	S 18:53:27 272.2 30.4P	
06:33:03 PM	0:09:14	S 18:54:27 272.2 30.3P	
06:33:33 PM	0:09:44	S 18:55:27 272.2 30.4P	
06:34:03 PM	0:10:14	E 18:56:27 272.2 30.4P	
06:34:25 PM	0:10:36	E 18:57:11 223.7 3.6P	
06:38:25 PM	0:14:37	E 19:05:11 149.1 28.4V	
06:39:26 PM	0:15:38	Z 19:07:13 145.2 1.9V	
06:39:48 PM	0:15:59		

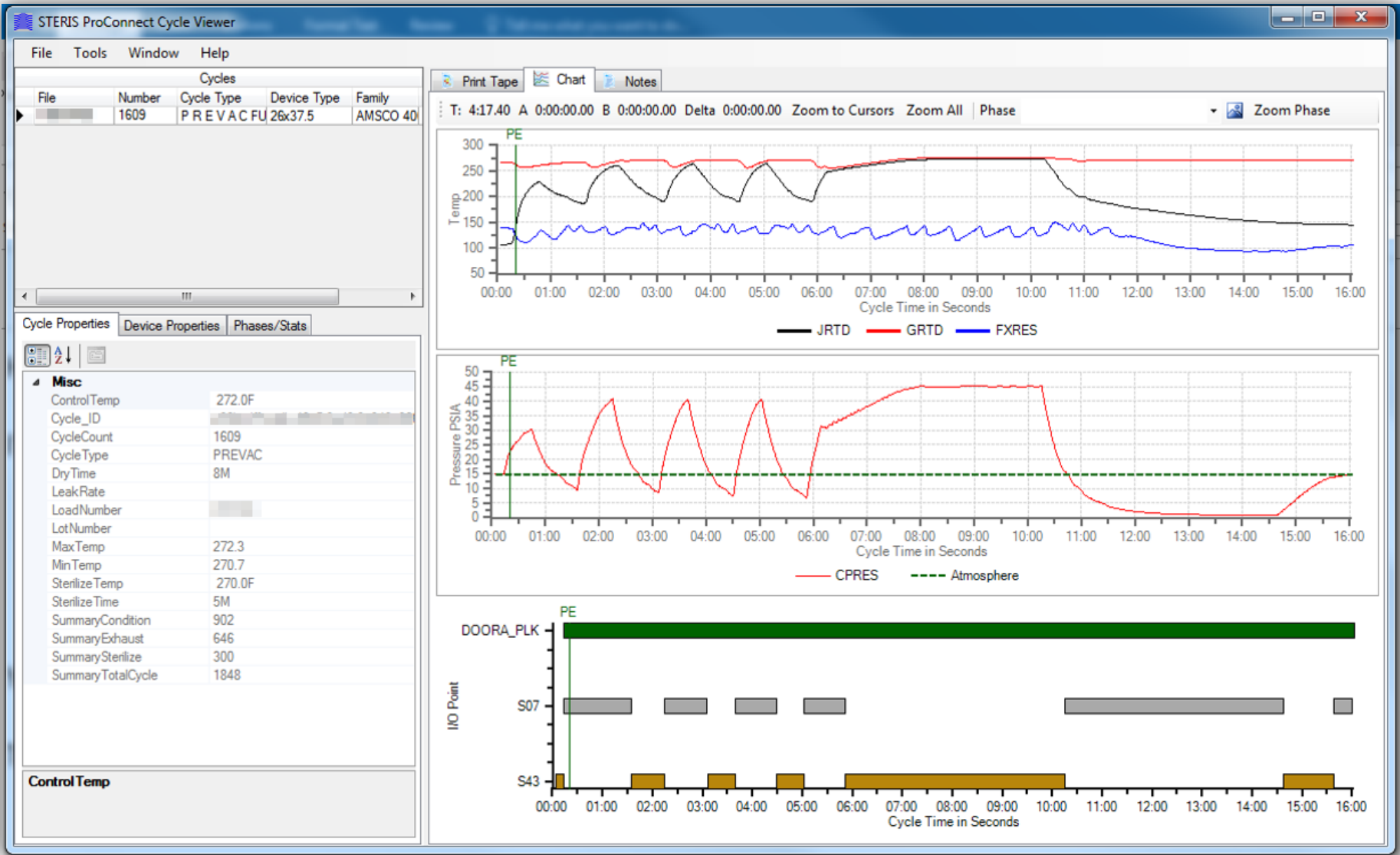
Cycle Properties Device Properties Phases/Stats

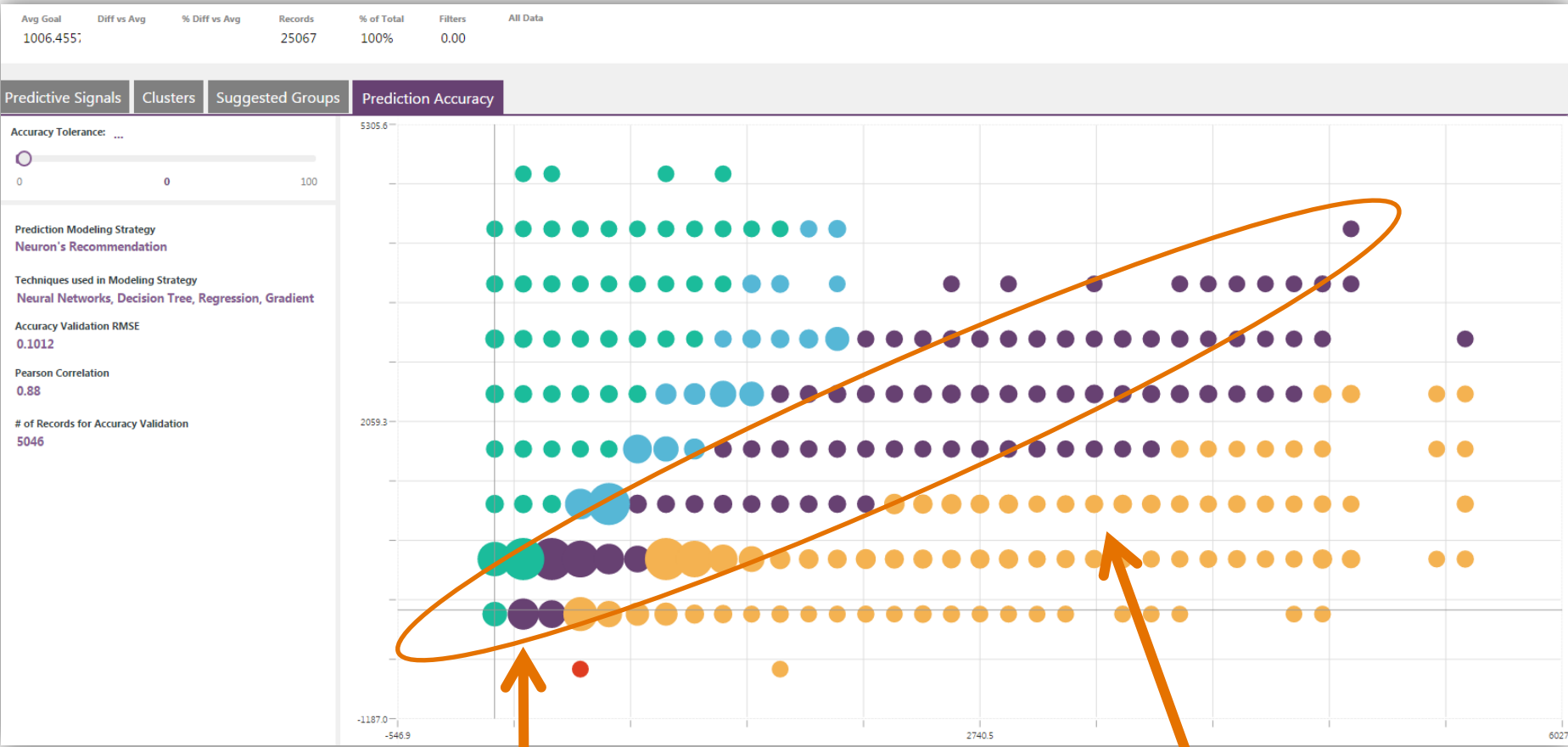
Misc

ControlTemp	272.0F
Cycle_ID	_____
CycleCount	1609
CycleType	PREVAC
DryTime	8M
LeakRate	
LoadNumber	_____
LotNumber	
MaxTemp	272.3
MinTemp	270.7
SterilizeTemp	270.0F
SterilizeTime	5M
SummaryCondition	902
SummaryExhaust	646
SummarySterilize	300
SummaryTotalCycle	1848

Control Temp

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Band shows Predictions that are close to Actuals.

Area below curve shows Predictions lower than Actuals.

WHAT'S NEXT FOR STERIS?

- Continue to utilize ThingWorx Machine Learning and other analytics tools.
- Find Data Science talent
 - Internal education
 - External recruitment
- Cross-Business-Unit Steering Committee
 - Executive management discussions to establish IoT strategy.



The image features several colorful geometric shapes, primarily triangles and lines, scattered across the white background. A large, multi-colored triangular shape is prominent on the right side, composed of various shades of blue, green, yellow, orange, and purple. Several thin, colored lines (blue, pink, green, orange) radiate from the center towards the edges. The text 'LIVE WORX 16' is centered, with 'LIVE' in a thin, outlined font and 'WORX 16' in a bold, solid black font. A small 'TM' trademark symbol is positioned to the upper right of the '6'.

LIVE
WORX 16™

TAKE A FRESH LOOK AT THINGS

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