

# PdP use and results at Edison Mission Energy

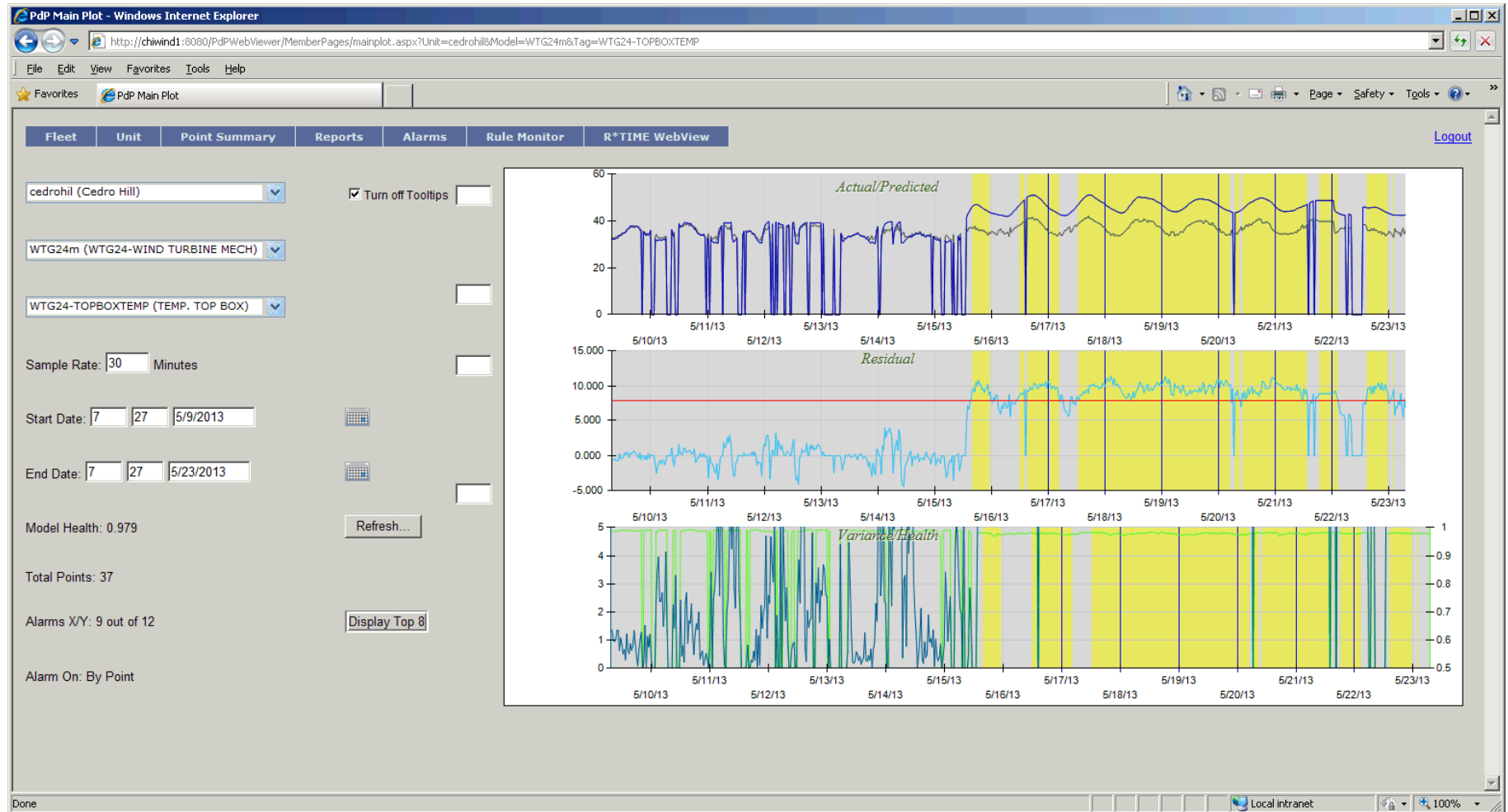
August 8, 2013

Edison Mission Energy has

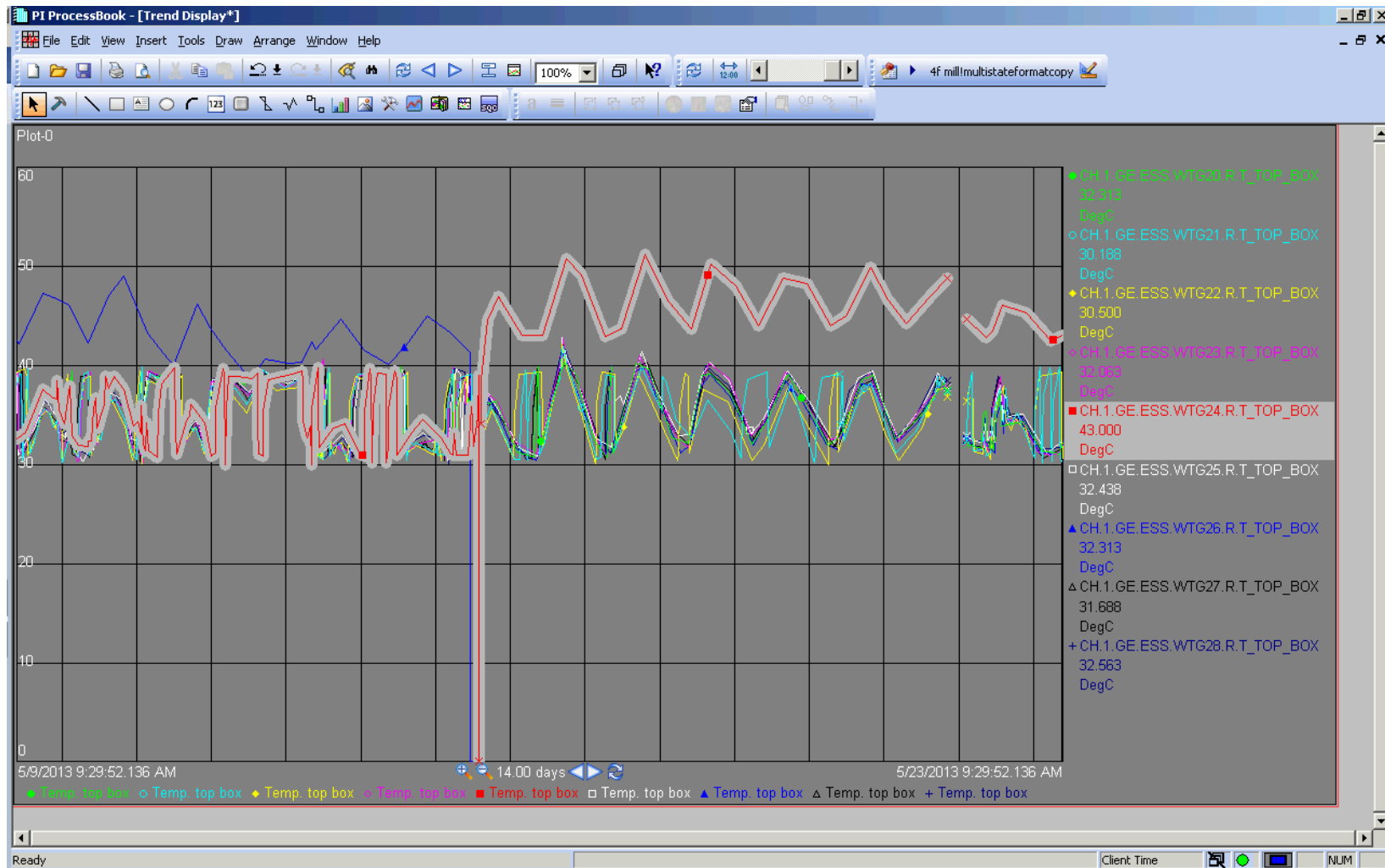
- 4,306 MW of coal fired units at four plants in Illinois.
- 2,024 MW of wind energy in eleven states.
- 2,044 MW of gas fired generation in California



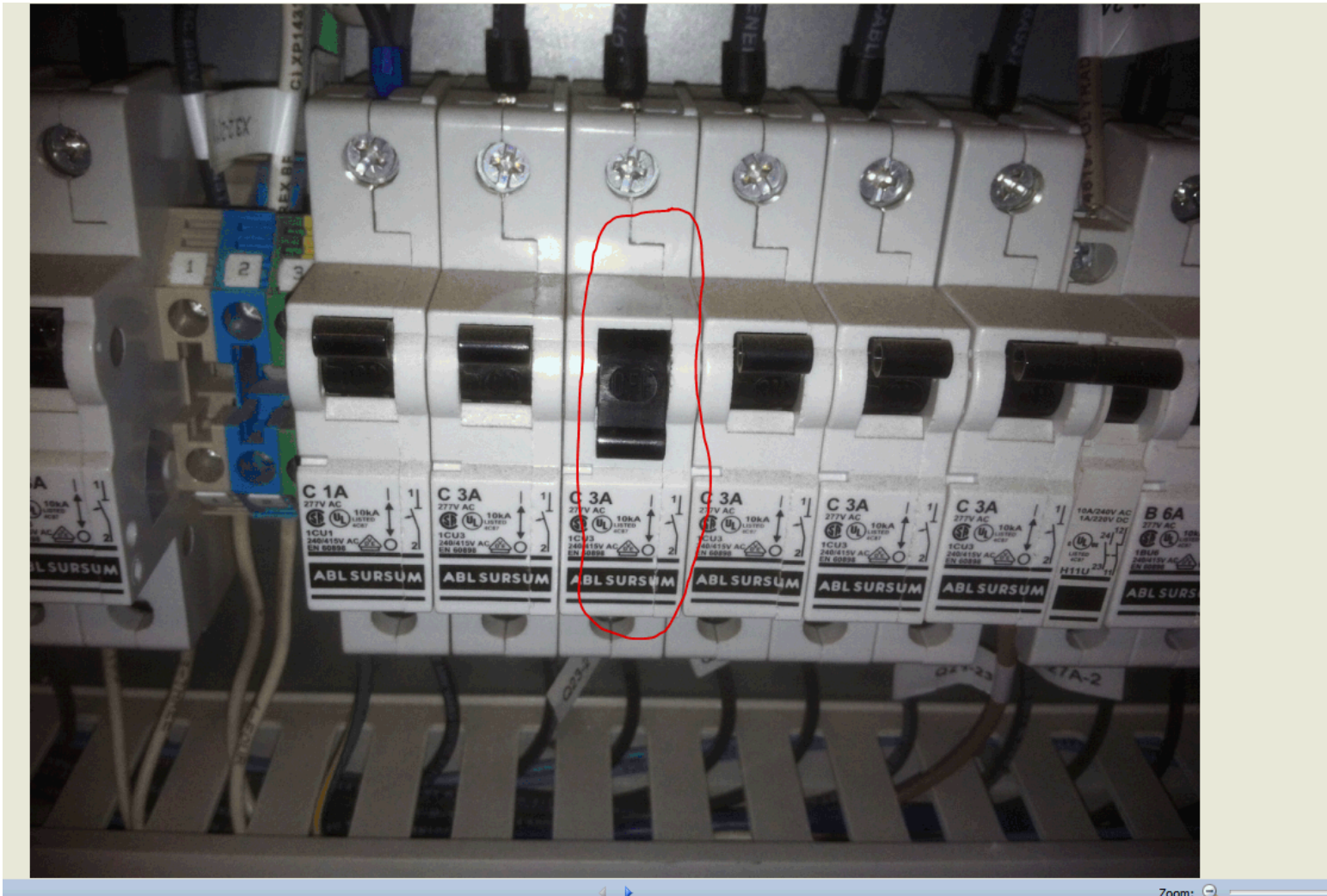
## Use of PdP at Edison Mission Energy – some “finds”



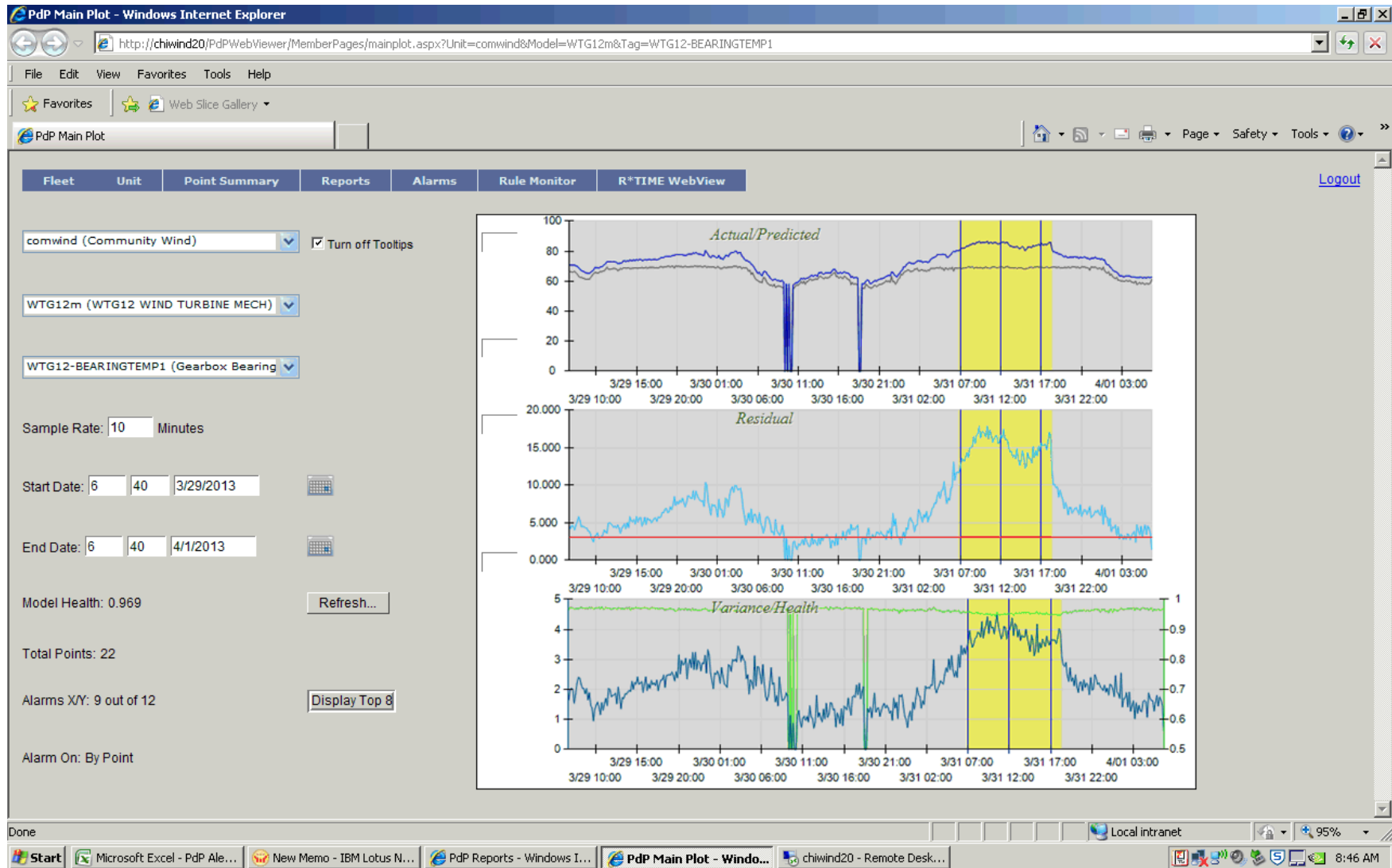
## Use of PdP at Edison Mission Energy



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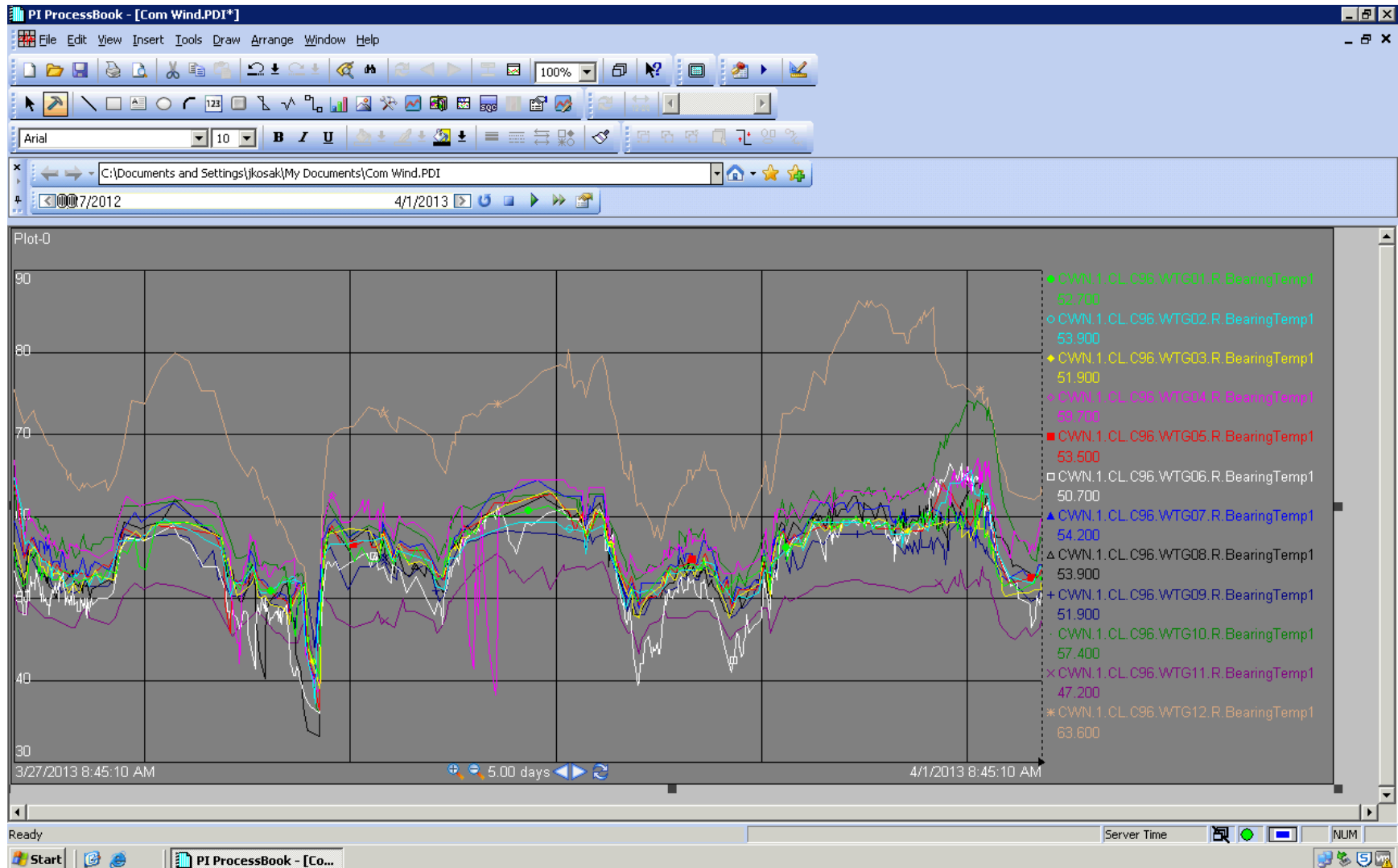


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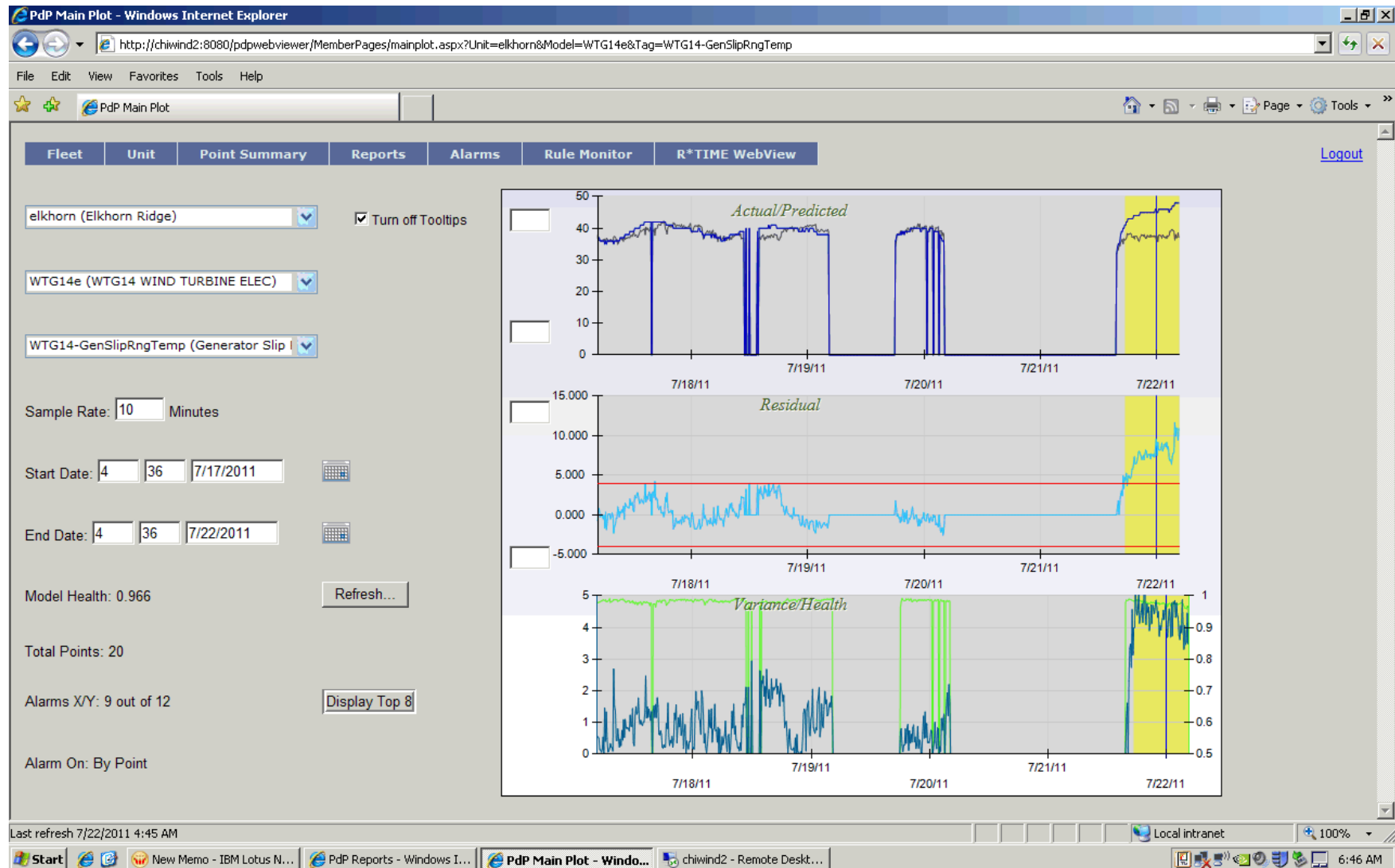




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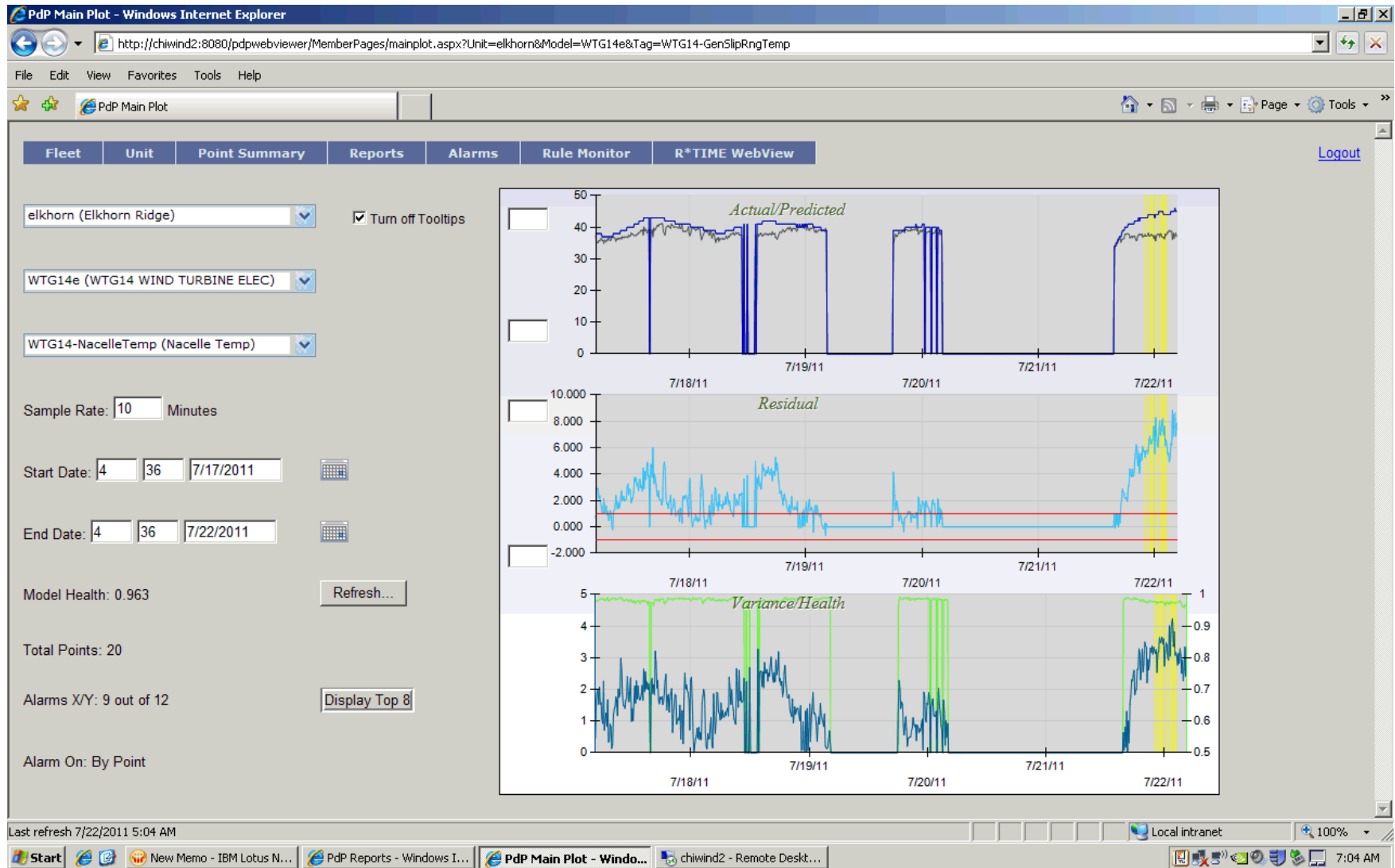


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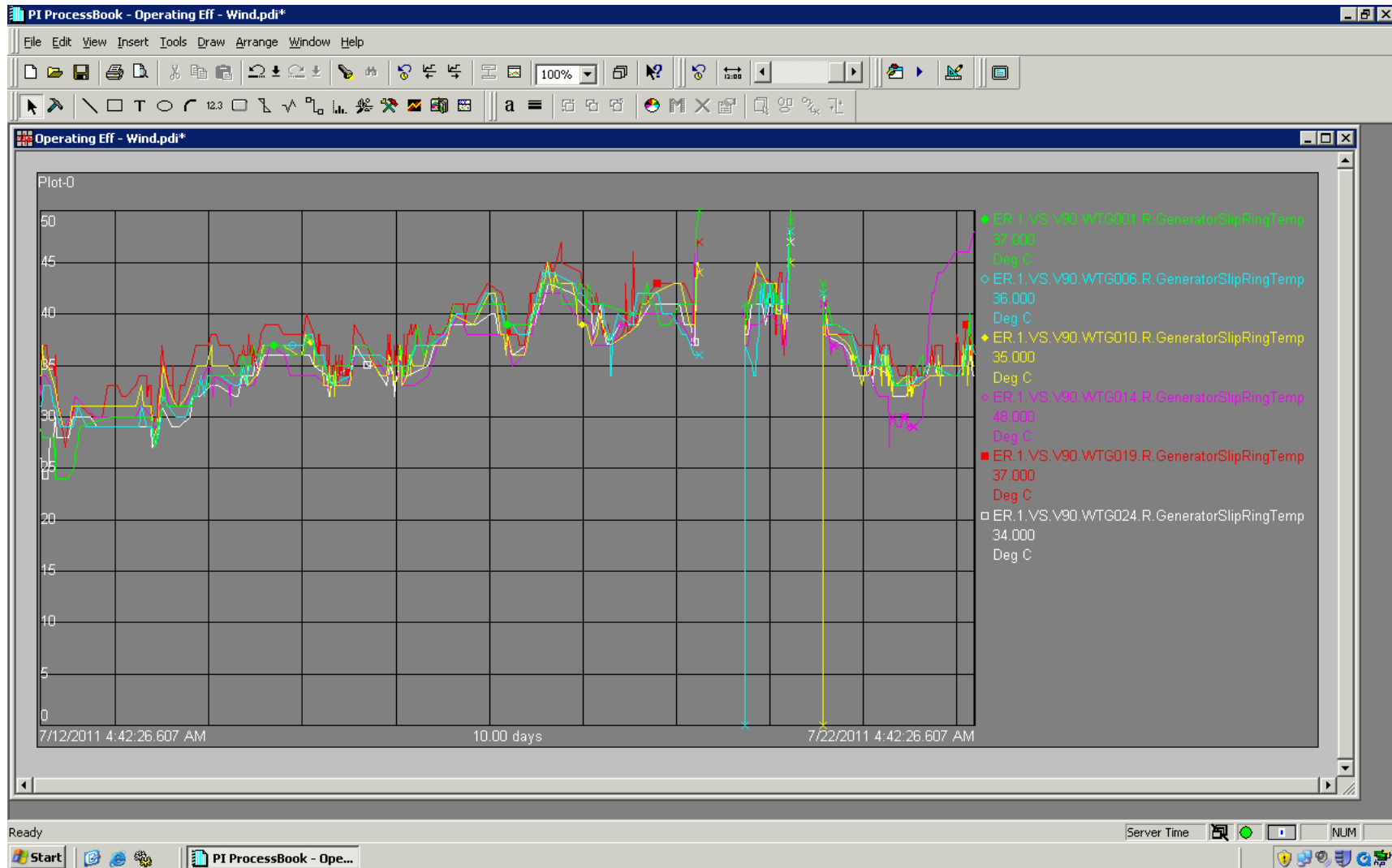




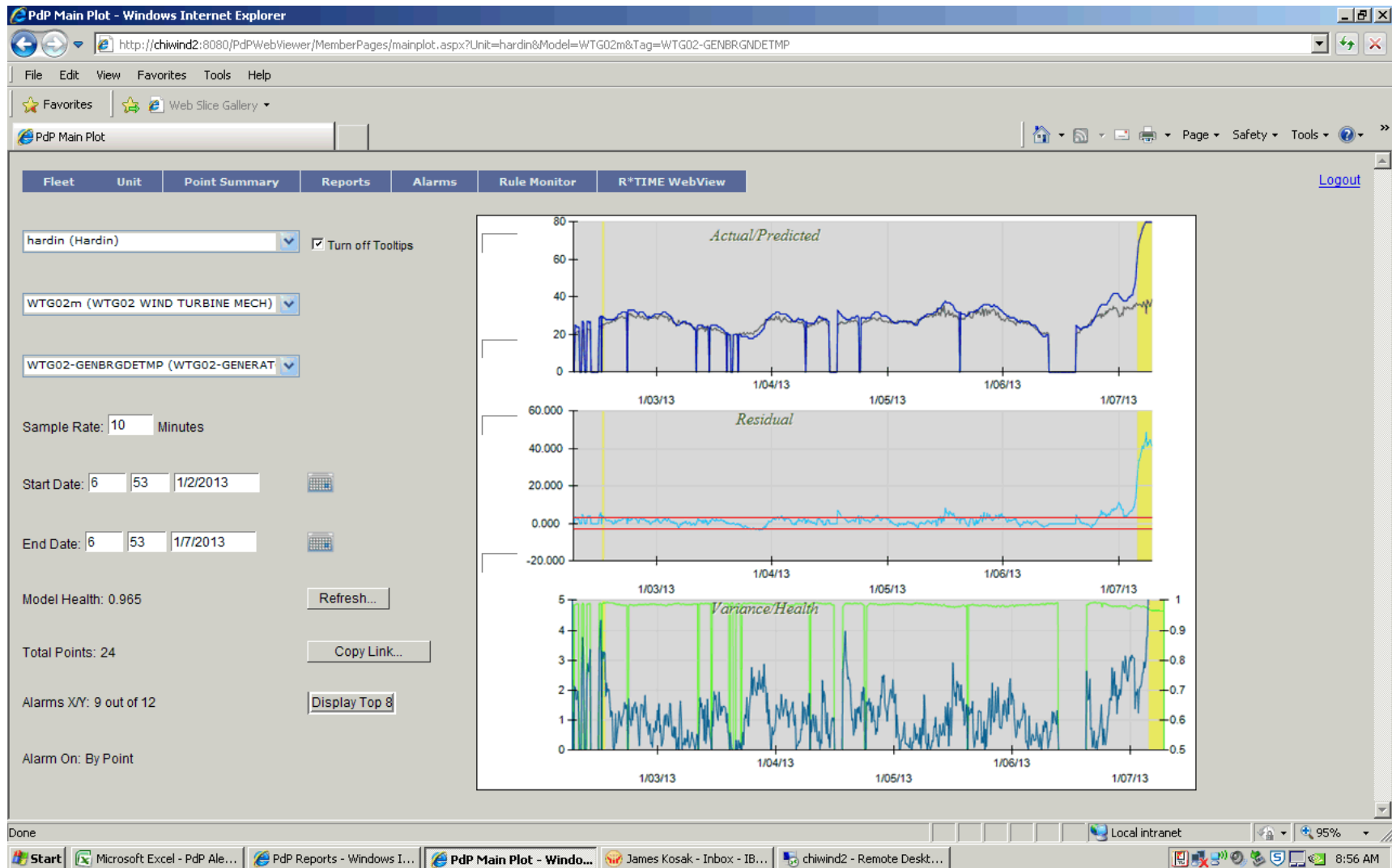
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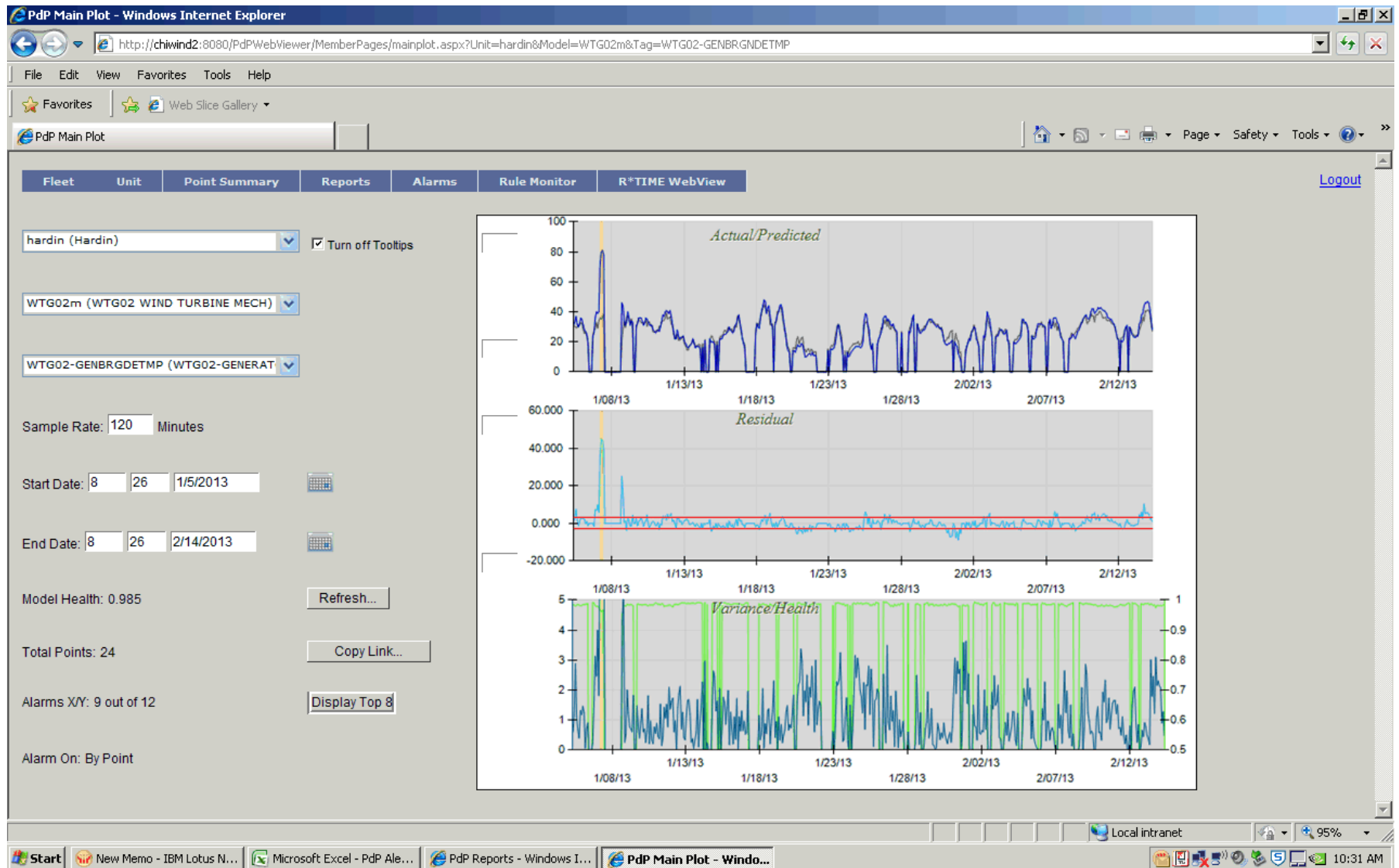
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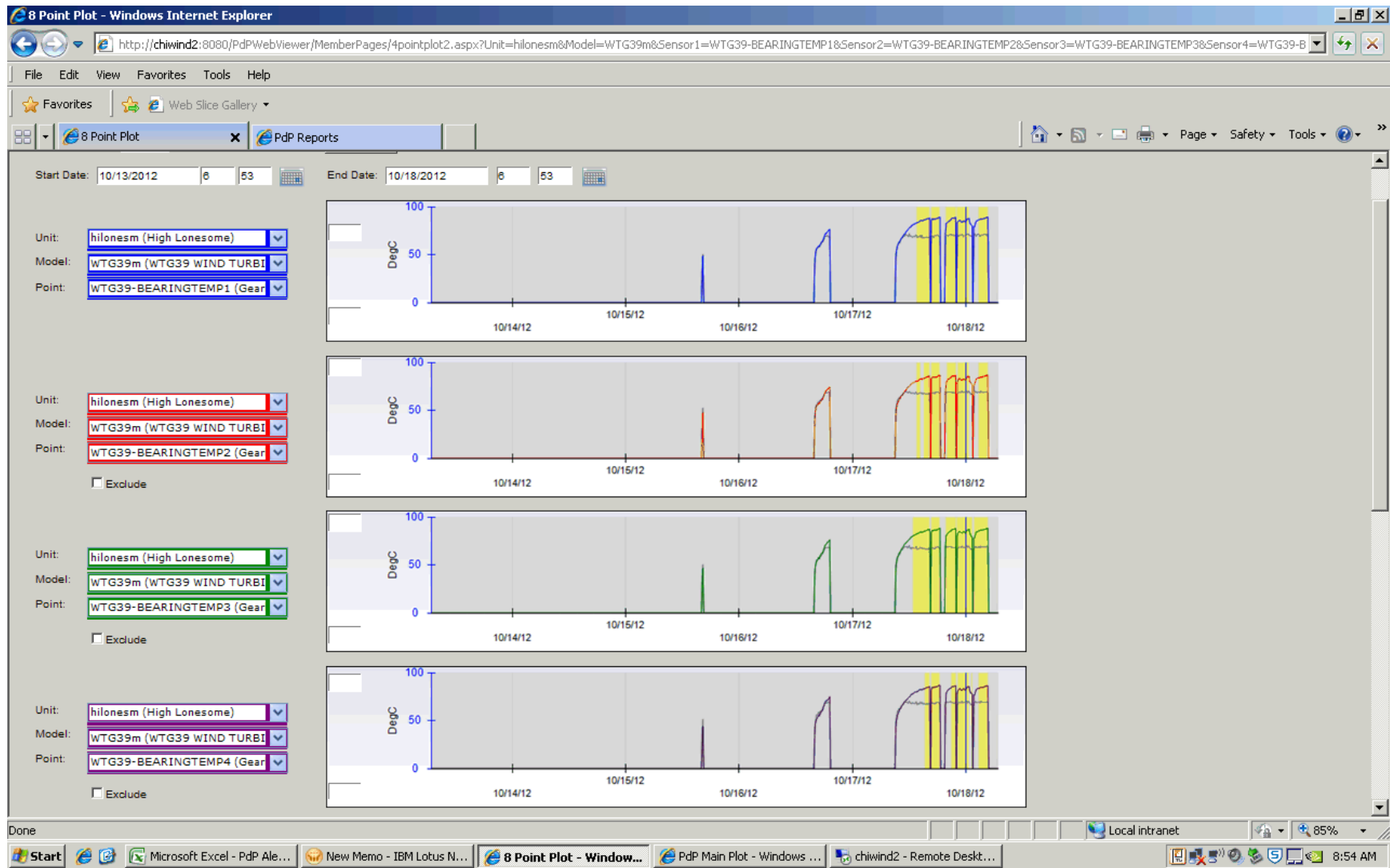
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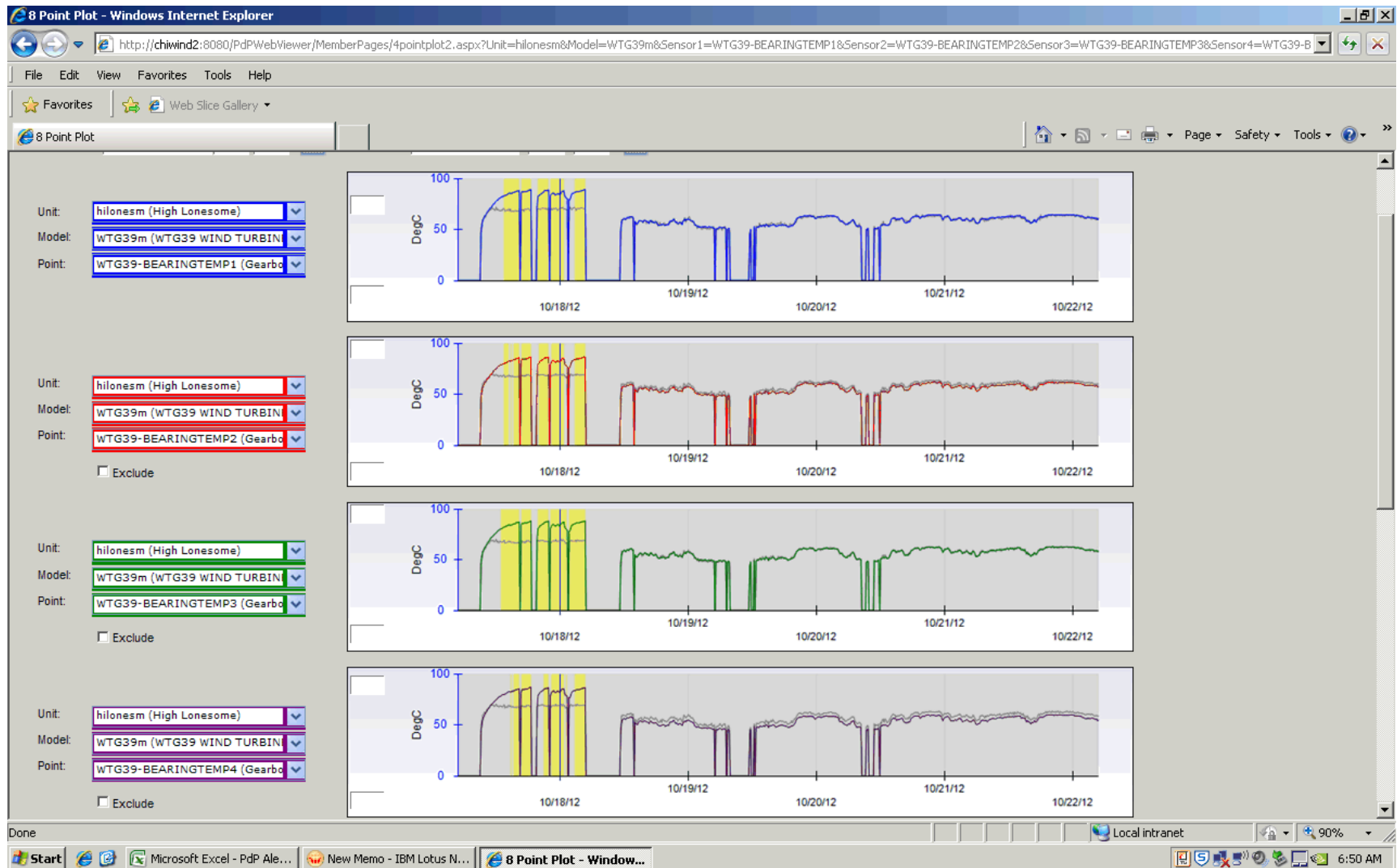
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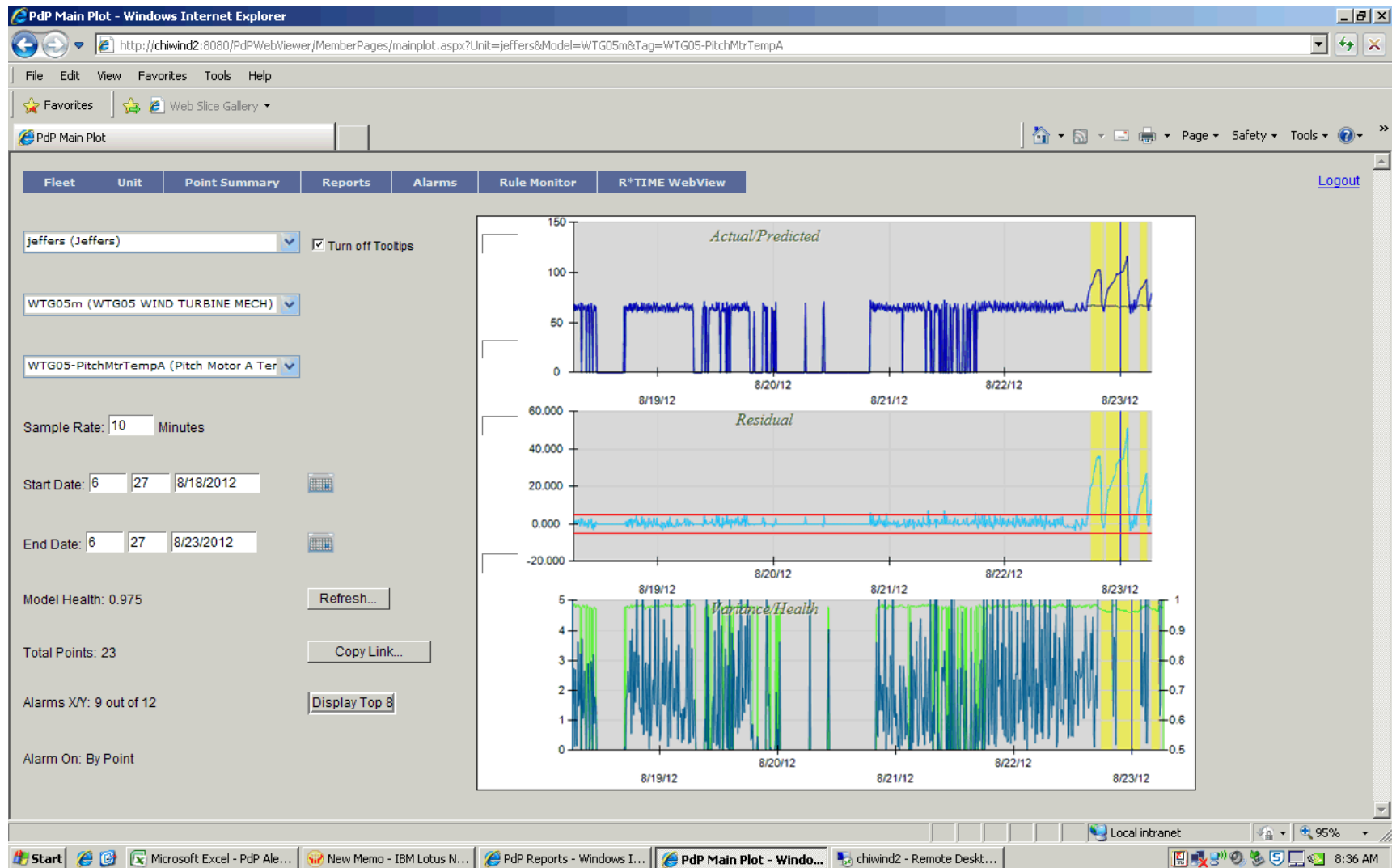


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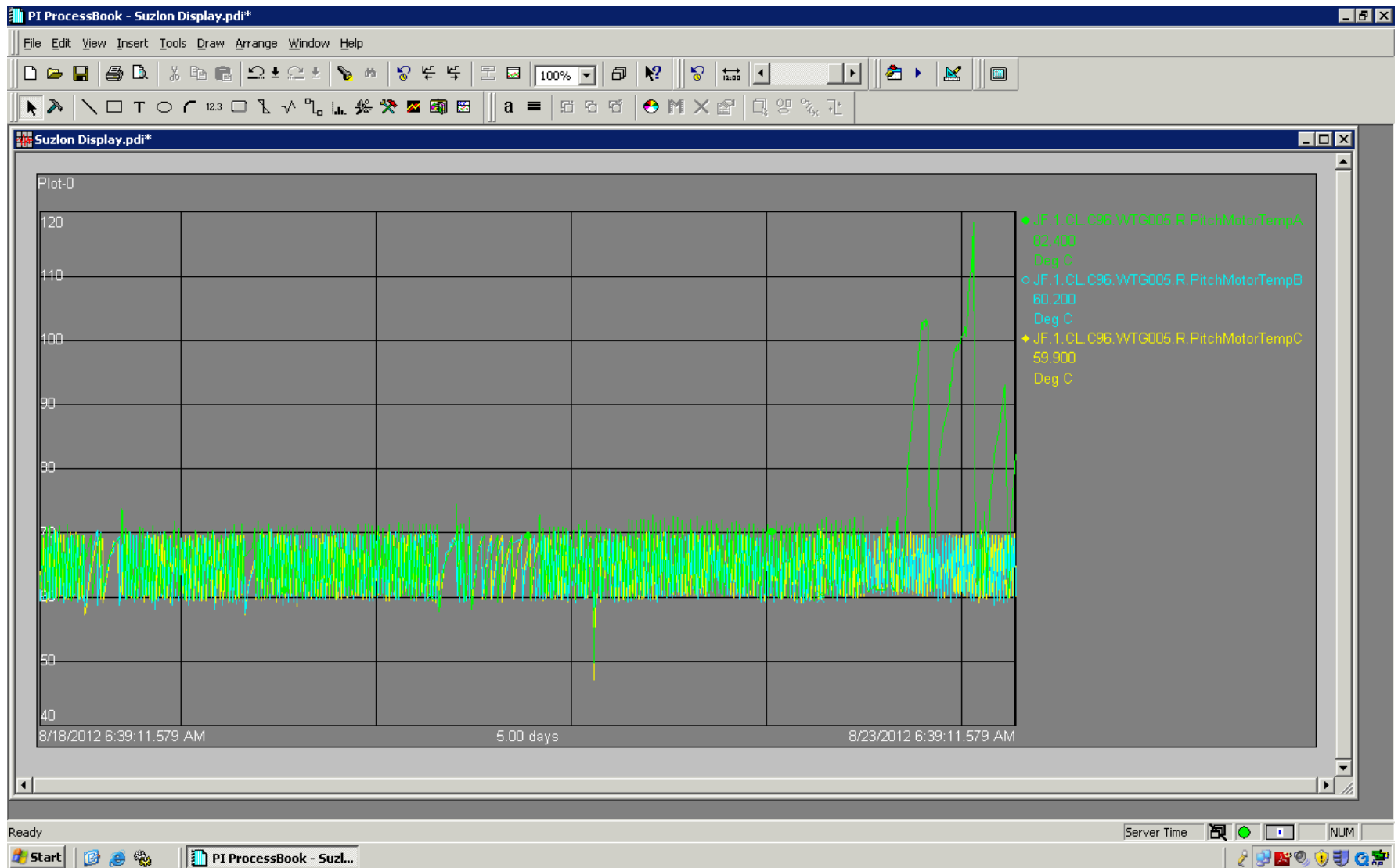




# Use of PdP at Edison Mission Energy



## Use of PdP at Edison Mission Energy



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### Other finds:

- Bad thermocouples
- Bad oil pumps
- Bad cooling fans
- Plugged radiator on oil cooler
- Switches left off (or on)
- Low glycol levels in coolers
- Blown Fuses
- Rag blocking cooling fan vent
- Bad bearings
- Improper thermostat settings
- Poor alignment
- Wrong lubricant

## Use of PdP at Edison Mission Energy

- Moving PdP prediction and alarm points into OSI/PI system
  - Allows site personnel to use a more familiar tool (PI).
  - Allows data to be recalled from months and years in the past.
    - Changes in predictions upon equipment changes
    - Look at changes on similar models over varying seasons.

## PdP AutoReport and PI at Edison Mission Energy

- AutoReport can display a link to any external file (open a PI display or ProcessBook, \*.pdf....). A separate link can be configured for each model.
- The report not includes the PI Server and PI Tag Names for sensors in the report
- The report is expanded to include data from the current value table at the time of the report ... Actual, Predicted, Residual, Variance
- Configured to run once a day, filtering results to show only those above 30% of time in alarm. Emails configured to send reports to responsible parties on a site by site basis

D:\SCIENTECH\REPORTS\bufbear.html - Microsoft Internet Explorer

Address: D:\SCIENTECH\REPORTS\wcity1.html

Models and Sensors in Abnormal Mode

Unit: bufbear

Model	Sensor	PI Tag	Parent PI Tag	Description	Link	Percent of Time in Alarm	First Time in Alarm	Last Time in Alarm	Last Time in Alarm	Current Value	Predicted	Residual	Variance
<a href="#">WTG06e</a>	<a href="#">WTG06-BTMCAPSECTMP</a>	\\wcity1pi.BB.1.SZ.S88.WTG06.R.BottomCapSectionTemp		WTG06-BOTTOM CAPACITOR PANEL TEMP	<a href="#">\\wcity1srv.D\SCIENTECH\REPORTS\TestingTrend.PDI</a>	82.35	03/13/13 15:15:00	03/14/13 03:40:00	03/14/13 03:40:00	21.000	27.466	-6.466	4.455
<a href="#">WTG01e</a>	<a href="#">WTG01-BOTFWRSECTMP</a>	\\wcity1pi.BB.1.SZ.S88.WTG01.R.BottomPowerSectionTemp		WTG01-BOTTOM POWER SECTION TEMP	<a href="#">\\wcity1srv.D\SCIENTECH\REPORTS\TestingTrend.PDI</a>	32.03	03/13/13 21:35:00	03/14/13 01:35:00	03/14/13 01:35:00	37.000	28.476	8.524	5.939
<a href="#">WTG08m</a>	<a href="#">WTG08-AMBTMP</a>	\\wcity1pi.BB.1.SZ.S88.WTG08.R.AmbTemp		WTG08-AMBIENT TEMPERATURE	<a href="#">\\wcity1srv.D\SCIENTECH\REPORTS\TestingTrend.PDI</a>	44.44	03/13/13 21:50:00	03/14/13 03:35:00	03/14/13 03:35:00	10.000	15.158	-5.158	3.121

Hyperlink to the Point Summary for the PdP Model

Hyperlink to the Main Plot for the Sensor

Hyperlink - User Configurable in FAMOS Architect

Data from the Current Value Table at the time the Report Ran

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