



Implementer

Energy Systems Lab at the Texas A&M Engineering Experiment Station

Implementer

Implementer is a scalable building-automation system trend-analysis tool developed by the Energy Systems Laboratory (ESL) that extracts key observations, efficiently from extensive data sets

Input

- Trends from Building Automation System
- Equipment specifications (optional)
- Weather (auto obtained)

Process

- Visualization
- Analysis
 - Control Sequence
 - On/Off
 - Critical Zone
- Fault detection & Issue Management
 - Boolean rules
 - Custom equations
- Trend manipulation equations
- Automated reports

Output

- Plots, Multiple plots, Auto reports (Excel)
- Analysis Routines, Custom Eq. & Rules
- Fault detection & Issue management

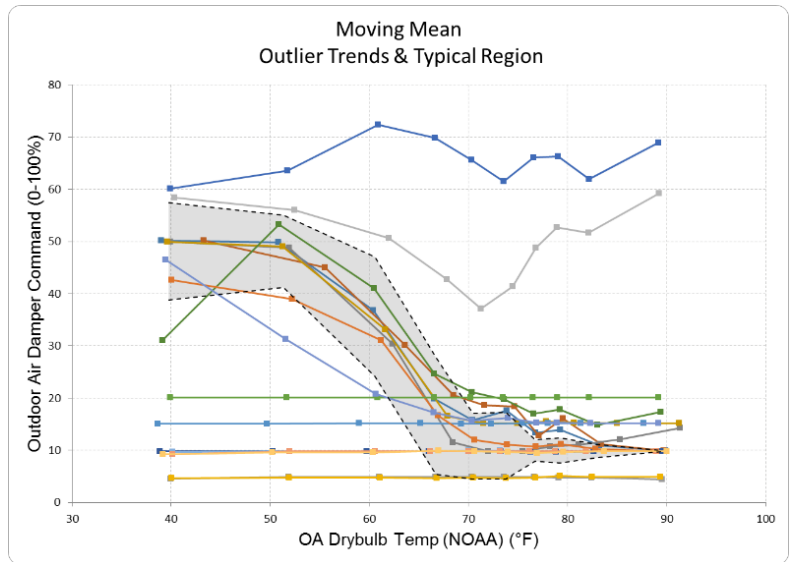
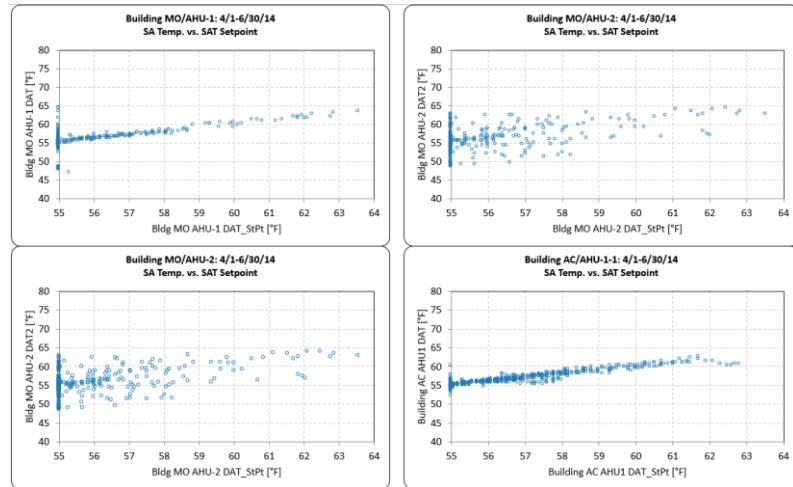
The goal with Implementer is to empower the engineer to extract useful information from the BAS trend data, without becoming overwhelmed by it. By analyzing this data, the CC® engineer verifies control sequences and identifies issues that impact energy use, indoor air quality, and comfort.

The Energy Systems Laboratory

The Energy Systems Laboratory (ESL) at the Texas A&M Engineering Experiment Station is the premiere research lab in energy reductions and emissions reductions in the state of Texas. The ESL has developed the Continuous Commissioning® process, which creates comfort and increases energy efficiency. The ESL licenses this process and software to companies

which implement the CC® process.

The ESL educates students and develops technology in the HVAC area. Our graduates are advancing the state-of-the-art for a variety of HVAC Technologies.



XXX/AHU-04												
Triggered when abs(Supply Air Temperature - Supply Air Temperature Setpoint) > 3. For a fault to be identified, at least 85% of the timestamps in at least one 60-minute window must have the above condition. Data is aligned to 30-minute periods.												
Percent of Time:	68%											
Rule Configuration:	https://											
Time Series Plotter (choose the trends to plot):	https://											
Point XY Plotter (choose the trends to plot):	https://											
	Week of	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Missing all day			
	8/27/2017								Ignoring all day			
	9/3/2017								Bad < 25% of run time			
	9/10/2017								Bad < 25% of run time			
	9/17/2017								Bad < 25% of run time			
	9/24/2017								Bad < 25% of run time			
	10/1/2017								Bad < 25% of run time			
XXX/AHU-02												
Triggered when Cooling Coil Command > 99. For a fault to be identified, at least 81% of the timestamps in at least one 360-minute window must have the above condition. Data is aligned to 30-minute periods.												
Percent of Time:	96%											
Rule Configuration:	https://											
Time Series Plotter (choose the trends to plot):	https://											
Point XY Plotter (choose the trends to plot):	https://											
	Week of	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Missing all day			
	8/27/2017								Ignoring all day			
	9/3/2017								Bad < 25% of run time			
	9/10/2017								Bad < 25% of run time			
	9/17/2017								Bad < 25% of run time			
	9/24/2017								Bad < 25% of run time			
	10/1/2017								Bad < 25% of run time			