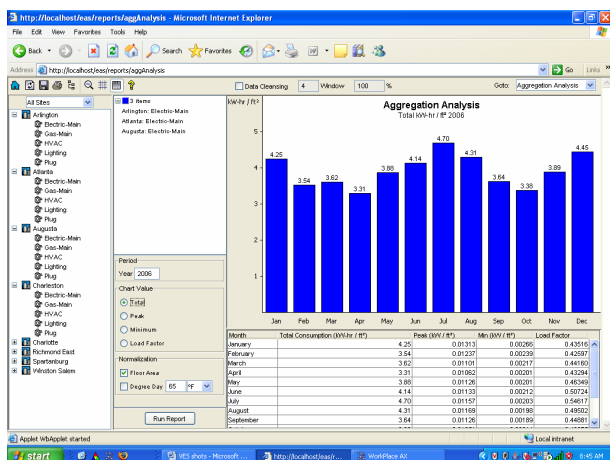


WEBS-AX™ Energy Analytics

SPECIFICATION DATA



WEBS-AX ENERGY ANALYTICS FEATURES

- Web-based application enables anytime, anywhere access from an internet browser.
- Universal comparison allows users to convert measurement units to a common unit.
- Graphical zoom provides ability to zoom in horizontally and vertically for more in-depth analysis.
- Allows for aggregation of energy data on the fly.
- Extensive data import capabilities allow interval data to be added to the database.
- Localization support provides quick translation into several languages.

APPLICATIONS

The WEBS-AX Energy Analytics works within the WEBStation^{AX} workstation. It comes packaged with the **Energy** and **Enterprise** profiler (E² Profiler) and the **Cost Profiler** to provide the complete functionality for energy analysis and management. Additional E² Profiler points and Cost Meters can be added, as needed, to expand the WEBS-AX Energy Analytics to unlimited point and meter capacity to suit the needs of any size enterprise. Users can analyze consumption, demand, and compute load factor with a click of the mouse. You simply select the information you want to display along with the time and date range to get a complete report in both graphical and text format. Meters can be aggregated and disaggregated on the fly to determine how underlying meters affect the total portfolio.

E² Profiler

E² Profiler offers extensive reporting flexibility allowing users to profile any data point over any period of time. Users can trend and analyze energy, temperatures, production, and facility data. Fully browser-based, intuitive navigation tools make it easy to get the information when you need it, where you need it. With 10 different reports specifically designed for energy usage analysis, E² Profiler utilizes a robust time series database that enables complex, multi-faceted computations quickly and easily.

OVERVIEW

WEBS-AX Energy Analytics is a software applications package designed to help end users understand and manage energy in their facilities. Built on the NiagaraAX Framework®, the WEBS-AX Energy Analytics gathers data from the systems in the enterprise including utility meters, building automation systems, and mechanical and electrical systems and provides pre-engineered reports specifically designed to analyze energy usage and identify the impact of alternative energy strategies.

Honeywell WEBS-AX is a product suite developed on the Niagara Framework® that provides an end-to-end building automation solution. Users can seamlessly integrate LONWORKS®, BACnet®, Modbus®, OPC, and other standard protocols with legacy systems to provide a unified real-time controls network. The suite includes a browser-based graphical user interface allowing users to view and manipulate underlying systems without the need for dedicated workstations or client software.



E² Profiler allows different commodities to be converted to a common measurement unit to aggregate and compare dissimilar energy types. In addition to the flexible reporting capabilities, E² Profiler normalizes potentially confounding variables such as weather and floor area to see what energy would have been under “normal” circumstances. With the comprehensive baselining features, users can compare energy usage against historical levels, giving users a scorecard on their conservation efforts. You can also, determine correlations and perform other statistical analysis on buildings, equipment, temperature, and energy. E² Profiler provides a comprehensive M&V tool that meets International Performance Measurement and Verification Protocol (IPMVP) guidelines.

E² Profiler Reports

- Aggregation Analysis** — Computes consumption and demand along with load factor for a point or group of points.
- Average Daily Profile** — Displays an average 24-hour period for any day or combination of days.
- Enterprise Ranking** — Ranks energy usage in the enterprise to identify the most and least efficient buildings.
- Equipment Operation** — Displays runtime and runtime percentage for digital points.
- Exceptions** — Allows users to compare data values versus a baseline or against a defined range of values.
- Load duration** — Identifies the length of time that a demand exceeds a certain level.
- Point Trending** — Performs statistical analysis to determine correlations, standard deviations, slope, regression line, and mean.
- Relative Contribution** — Determines how submeters or multiple main meters contribute to total energy within or between sites.
- Spectrum Summary** — Utilizes pattern recognition to quickly identify anomalies with inconsistent patterns indicating a need for more detailed analysis.
- Correlation** — Shows the correlation between two data logs to determine if any relationship exists between them.

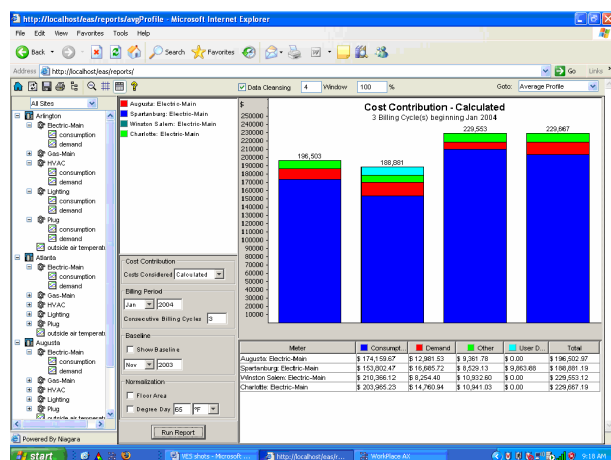
Cost Profiler helps manage energy costs allowing users to easily compare energy costs based on metered interval data and applicable rate structures. With this information, users can benchmark facilities, identify inefficiencies, implement changes, and measure the cost impact of energy reduction strategies to proactively manage budgets and calculate accurate cost projections. Cost Profiler simplifies utility buying strategies by allowing the user to compare different procurement strategies and rate structures without actually switching energy providers or rates.

Energy managers can aggregate and disaggregate meters, try alternative rates, manipulate consumption and demand levels, and utilize a combination of rates on a single meter or group of meters. Cost Profiler also allows you to compare actual costs to a predetermined budget with delta and variance from forecasts and helps take the risk out of energy procurement.

Cost Profiler Reports

- Bill Reconciliation** — Compare utility invoices to calculated values to identify billing errors. Users can establish a historical baseline with manually entered data from utility invoices
- Cost Contribution** — Determine how meters – whether sub meters within a building or main meters across an enterprise – contribute to the aggregate energy expense.
- Cost Ranking** — Rank meters to determine the most costly. Normalize data based on Outside Air Temperature and floor area.
- Budget Report** — Users can enter budgets or use historically generated data, then compare against actual costs. Make projections for reporting periods before its too late.
- What-if Analyzer** — Enables prediction of future costs. Users can manipulate consumption patterns and demand levels to project savings from various strategies.
- Rate Comparison** — Analyze alternative rates and energy providers. Determine the effect of an energy strategy before you implement it!

Cost Profiler



SERVER HARDWARE REQUIREMENTS

- Processor** Intel Pentium® IV, 2 GHz or higher
- Operating System** Windows XP Professional, Windows 2003 Server (if Microsoft IIS is disabled), Vista Ultimate, Mozilla Firefox™, Internet Explorer™ 5.0 or later.
- Memory** 1 GB minimum, 2GB recommended for large systems
- Hard Drive** 1 GB minimum, 5 GB for applications that need more archiving capacity
- Display** Video card and monitor capable of displaying 1024 x 768 pixel resolution or greater
- Network Support** Ethernet adapter (10/100 Mb with RJ-45 connector)
- Modem** 56 KB minimum, full time high speed ISP connection recommended for remote site access (i.e. T1, ADSL, cable modem)

ORDERING INFORMATION

WEBS-AX Energy Analytics Licenses	
OS Number	Description
WES-STA-AX	Station connection for WEBS-AX controllers with connected meters and energy points. No hard limit on meter or point connections per controller. Requires WEBS-AX Supervisor. Does not include database drivers, or drivers for connected meters.
WES-PNT-AX	Single point license for IP connected points monitored by Energy Analytics. Requires WEBS-AX Supervisor. Does not include database drivers, or drivers for connected meters.
WEBS-AX Supervisor Options	
OS Number	Description
WEB-S-AX	AX Supervisor software for Windows XP or Windows 2000; Includes Niagara Historical Database and Workplace AX. Includes oBIX client / server driver for connecting to Niagara based controllers only.
WEB-S-AX-LNX	AX Supervisor software for Linux; Includes Niagara Historical Database and Workplace AX. Includes OBIX client / server driver for connecting to Niagara based controllers only.
WEB-S-AX-64	AX Supervisor software for 64 bit Window's platforms; Includes Niagara Historical Database and Workplace AX. Includes OBIX client / server driver for connecting to Niagara based controllers only.
WEB-S-AX-SBS	AX Supervisor software limited to 3 WEB controllers; Includes Niagara Historical Database and Workplace AX. Includes oBIX client / server driver for connecting to Niagara based controllers only. NOTE: No drivers can be added to Small building Supervisor.
WEBS-AX Supervisor Database Drivers (Required for import/export of data)	
OS Number	Description
S-DB-SQL	Microsoft SQL Database Driver for WEBS-AX Supervisor
S-DB-MYSQL	MySQL Database Driver for WEBS-AX Supervisor
S-DB-DB2	IBM DB2 Database Driver for WEBS-AX Supervisor
S-DB-ORCL	Oracle Database Driver for WEBS-AX Supervisor
S-DB-CSV	CSV file Database Driver for WEBS-AX Supervisor
WEBS-AX Supervisor Common Open Protocol Drivers for Energy Points	
OS Number	Description
DR-NS-BAC-AX	BACnet IP Driver - Includes license for 500 BACnet IP points.
DR-NS-MDB-AX	Modbus TCP Driver - Includes license for 500 Modbus TCP points.
WEBS-AX Common Open Protocol Drivers for Meters connected to WEBS-AX Controllers	
OS Number	Description
DR-MSTP-AX	BACNet MS/TP over RS-232 or RS-485 Driver
DR-BAC-CLI-AX	BACNet IP over Ethernet Driver
DR-LONDRIV-AX	FT-10 LON Driver (twisted pair connection)
DR-LON-IP-AX	LON over Ethernet Driver
DR-MDB-AX	Modbus RTU over RS-232 or RS-485 Driver
DR-MDB-TCP-AX	Modbus TCP over Ethernet Driver

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