

Specifications

FACTORY AUTOMATION

Energy Saving Support Software EcoAdviser

iQ Edgecross

Assists data analysis

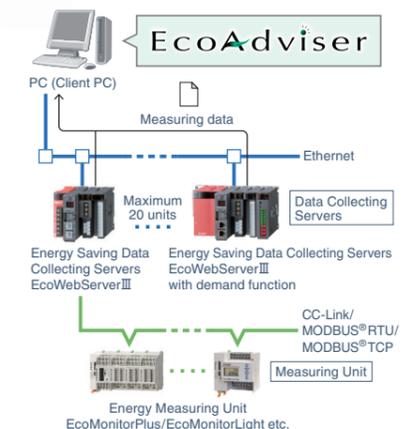
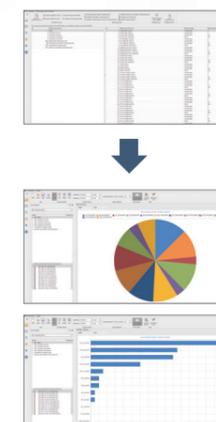
EcoAdviser assists monitoring and analysis of measurement data by converting data to suitable types of graphs/charts. Complicated data analysis and report is no longer required.

Display collecting data in Dashboard

Collected energy consumption data and production information are displayed on customizable Dashboard.

Easy system extension

In combination with EcoWebServerIII, users can build a system without complicated programming. EcoAdviser manages up to 20 units of EcoWebServers with user-friendly GUI.



Item	Details
Register collection source	Register a collection source and its measuring points.
Collection source	EcoWebServerIII or Edgecross
The number of registration	A maximum of 20 units *1
The number of registration for measuring point	A maximum of 5680 points
EcoWebServerIII	A maximum of 255 points per collection source
EcoWebServerIII with demand monitoring function	Demand time (15 minutes): Up to 284 points per unit Demand time (30 minutes): Up to 282 points per unit Demand time (60 minutes): Up to 280 points per unit
Edgecross	A maximum of 256 points per unit Data type: BOOL, INT, UINT, DINT, UDINT, REAL, LREAL
Register manual input measuring point	Register measuring points such as offline meter to visually check a measured value.
The number of registration	A maximum of 256 points
Register product type time period measuring point	Register measuring points to measure values during a specified time period.
The number of registration	A maximum of 256 points
Measuring value point/Time period measuring point	Select from measuring point or manual input measuring point.
Time period type	0 to 65535
Register calculation measuring point	Register measuring points to perform four arithmetic operations or calculate measuring points with each other.
The number of registration	A maximum of 256 points
Calculable measuring point	Select from measuring point, manual input measuring point, or product type time period measuring point. -A maximum of 200 points can be registered per calculation formula. -A maximum of 4000 letters are settable per calculation formula.
Specific consumption measuring point	Register measuring points to calculate specific consumption.
The number of registration	A maximum of 256 points
Energy measuring point/Production number measuring point	Select from measuring point, manual input measuring point, or calculation measuring point.
Measuring point group	Folder tree: A maximum of 4 hierarchy levels The number of groups: A maximum of 256 groups The number of registration: A maximum of 256 measuring points per group *A maximum of 7000 measuring points for group total
Analysis method (Graph type)	Select from time series chart, box plot, pie chart, scatter plot, histogram, or pareto chart.
Display interval	Select from hourly, daily, monthly, or yearly. *When analysis method is box plot, the display interval is automatically set to hourly.
The number of saving	A maximum of 300 panels
Dashboard creation	Create a dashboard with panels of graph and measuring point data arranged.
Sheet setting	Settable up to 10 sheets per dashboard
Available panel	-Graph panel (created with graph function): A maximum of 10 panels per sheet -Number panel (collected measuring point data): A maximum of 15 panels per sheet -Image panel (Image file): A maximum of 5 panels per sheet
The number of saving	A maximum of 5 files
Display mode	Display a created dashboard on the software.
Auto-update	Set up whether to automatically update a graph and measuring point data.
Auto-update timing	After automatic collection
Tab display	Set up whether to display the tab for sheet switching.
Auto-switch	Set up whether to automatically switch the sheet at regular intervals.
Auto-switch interval	10/20/30/60/120/180/300 (sec)
HTML output	Output a created dashboard to a HTML file.
Automatic HTML output function	Set up whether to automatically output to a HTML file when dashboard setting is changed or displayed data is updated.
Output timing	After automatic collection
Saving destination	Set up the saving destination of HTML file to be output.

*1: You can register a maximum of 20 units for collection source on the software. When collection source is Edgecross, the number to be registered depends on the flow number of data logging in Edgecross. The number of data logging flow in Edgecross is up to 8.
For more information about the data logging flow, refer to Edgecross Basic Software for Windows User's Manual.

Item	Details
Format	Set up the report format.
The number of saving	A maximum of 24 report settings (Using a setting, output items of Daily/Monthly/Annual report are saved.)
The number of output items	Daily report: A maximum of 320 items, 16 items per page x 20 pages Monthly report: A maximum of 320 items, 16 items per page x 20 pages Annual report: A maximum of 320 items, 16 items per page x 20 pages
Output item	Select from measuring point, manual input measuring point, product type time period measuring point, calculation measuring point, or specific consumption measuring point.
Daily report	Create Daily report of specified day and save it in Excel format.
Monthly report	Create Monthly report of specified month and save it in Excel format.
Annual report	Create Annual report of specified year and save it in Excel format.
Automatic report output settings	Set up whether to automatically output a report.
Automatic output time	Set up the time when a report is automatically output. -Set up the destination path of Daily report file. -Set up the destination path of Monthly report file. -Set up the destination path of Annual report file.
Saving destination	Set up the saving destination of report file.
File collection settings	Collect the logging file stored in collection source.
Collection target	EcoWebServerIII: Zoom (1 min.) data file and Demand (daily) data file basis *2 Edgecross: Historical data file
Automatic collection settings	Set up whether to automatically collect data on each file type.
Automatic collection timing	EcoWebServerIII: Collection time specified by the user Edgecross: Collection cycle specified by the user
Collection interval	Set up the collection period on Daily/Monthly/Annual basis.
Retention period	Set up the retention period on each file type.
15/30/60 minutes basis data	2 to 10 years (Default: 10 years)
Daily basis data	
Monthly basis data	
Annual basis data	
File deletion timing	Sequentially delete logging files of expired retention period.
Data input	Input each measuring point data on 15/30/60 minutes basis for a user-specified period. The number of measuring points for simultaneous inputs: A maximum of 256 points Specified period: A maximum of 31 days
Export	Output each measuring point data on 15/30/60 minutes and daily basis for a user-specified period to Excel file.
Import	Input each measuring point data on 15/30/60 minutes and daily basis based on imported Excel file.
Target measuring point	Select from product type time period measuring point, calculation measuring point, or specific consumption measuring point. *A maximum of 256 measuring points are selectable at one time.
Automatic calculation	Automatically calculate measuring point data.
Target measuring point	Select from product type time period measuring point, calculation measuring point, or specific consumption measuring point.
Calculation timing	At automatic collection
Data output	Output collected measuring point data. (saved in a file)
Auto output settings for data file	Set up whether to automatically output a data file.
Output group settings	A maximum of 30 groups
Output destination	Set up the destination path.
Measuring point to be output	Select from measuring point, manual input measuring point, product type time period measuring point, calculation measuring point, or specific consumption measuring point.
Output timing	After automatic collection
Backup	Back up settings and data to a folder.
Restore	Restore settings and data backed up from a specified folder.
EcoAdviser	1.0.0
Historical data access I/F	1.0

*2: When collection source is EcoWebServerIII with demand monitoring function, you can collect Demand (daily) data file.
*3: The latest version is described.

Country/Region Sales Office

USA+1-847-478-2100	Czech Republic+420-251-551-470	Korea+82-2-3660-9530
Mexico+52-55-3067-7500	Poland+48-12-347-65-00	Singapore+65-6473-2308
Brazil+55-11-4689-3000	Sweden+46-8-625-10-00	Thailand+66-2682-6522
Germany+49-2102-486-0	Russia+7-812-633-3497	Vietnam+84-8-3910-5945
UK+44-1707-28-6780	Turkey+90-216-526-3990	Indonesia+62-21-3192-6461
Ireland+353-1-4198800	UAE+971-4-3724716	India+91-20-2710-2000
Italy+39-039-60531	South Africa+27-11-658-8100	Australia+61-2-9684-7777
Spain+34-935-65-3131	China+86-21-2322-3030	
France+33-1-55-68-55-68	Taiwan+886-2-2299-2499	

• Edgecross is a trademark of Edgecross Consortium.
• Company names and product names used in this document are trademarks or registered trademarks of their respective companies.

For safe use
• To use the products listed in this publication properly, always read the relevant manuals before use.

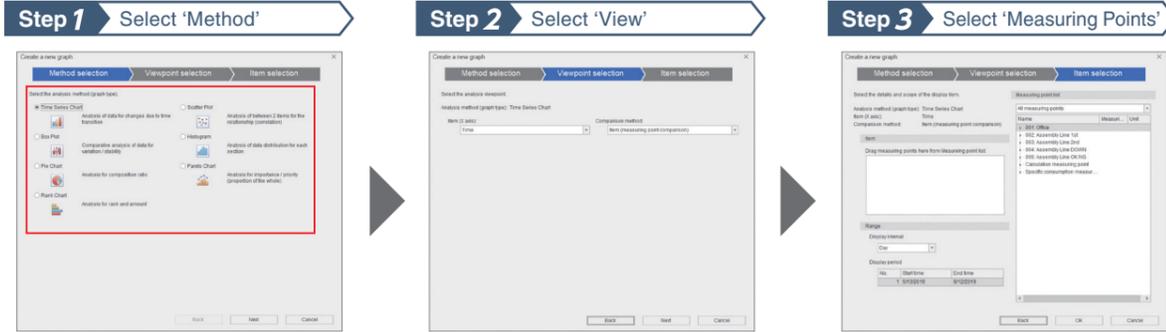
MITSUBISHI ELECTRIC CORPORATION

HEAD OFFICE: TOKYO BLDG., 2-7-3 MARUNOUCHI, CHIYODA-KU, TOKYO 100-8310, JAPAN

Feature 1 Analyze collected data

Various analysis can be realized by collecting energy information such as electricity consumption and production volume accumulated by PLC.

Only 3 steps to display graphs



Feature 2 Customizable Dashboard

Collected data can be displayed in graphs/charts on customizable Dashboard. Also, if a web server is set on your PC, EcoAdviser can be used as a visualization tool at the site.



• Try demo software!
Demo software can be downloaded from website.
(<https://www.mitsubishielectric.com/fa/products/pmng/ems/index.html>)

* Monitor screen update cycle is 1 hour.

Feature 3 User-friendly setting and scalability

No programming or complicated engineering work is required. All you need is just simple setting. EcoAdviser collects measured data automatically. It can be also used as an application that runs on Edgexross*.



Easy setup

The application can be launched and extended only with PC mouse operation.

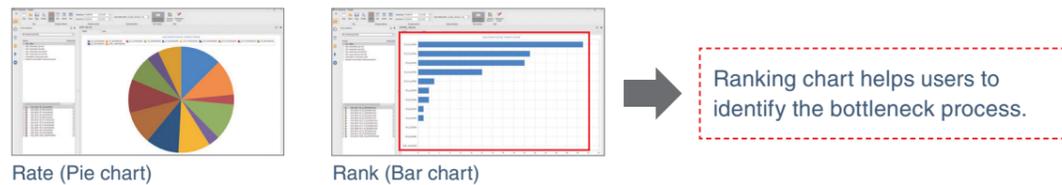
Easy operation with Edgexross

*Edgexross
Open software platform for edge computing domain that enables collaboration between FA and IT.

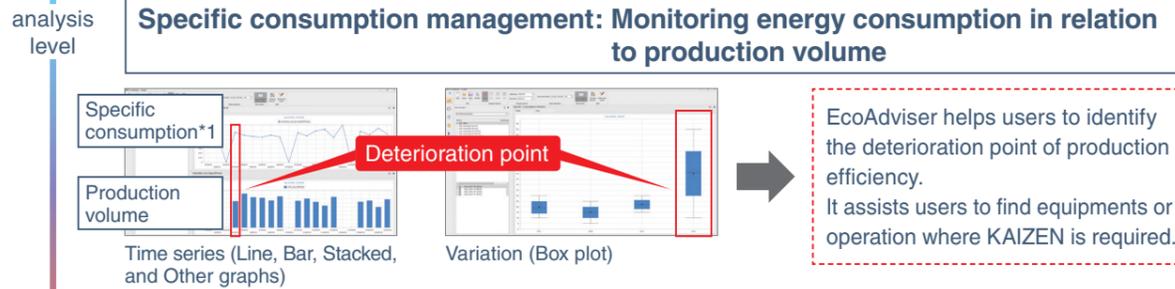


Selectable from 7 types of graphs depending on analysis purpose

Understanding the present situation: Visualizing the energy consumption of each production process

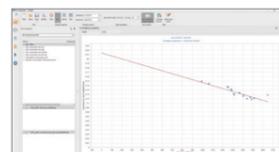


Specific consumption management: Monitoring energy consumption in relation to production volume



Find out correlation

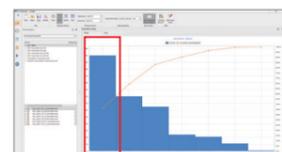
Understanding the present production efficiency by checking the correlation between production volume and energy consumption.



Correlation (Scatter diagram)

Check error records

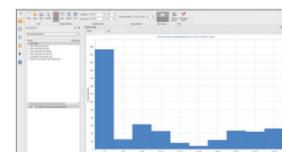
Understanding the error content to be dealt with.



Factor (Pareto chart)

Setting threshold and target

Determine the threshold or target value by understanding the distribution of collected data.

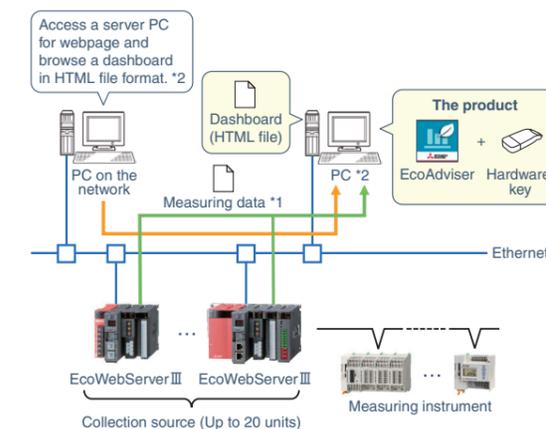


Distribution (Histogram)

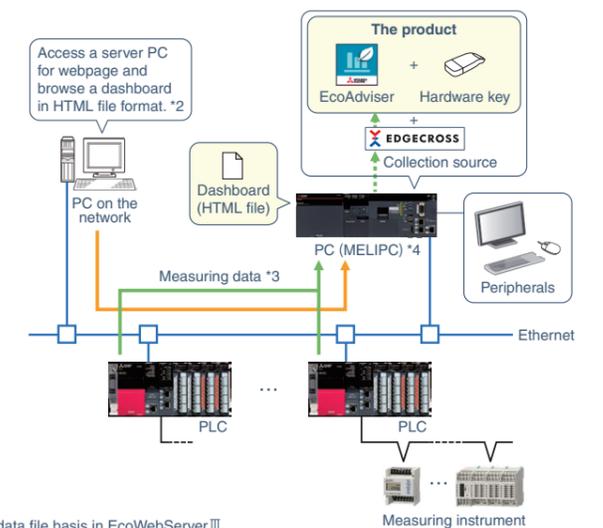
*1: Specific consumption = $\frac{\text{Amount of energy consumption}}{\text{Production quantity}}$

System Configuration

Collecting data from EcoWebServer III



Collecting data from Edgexross application



*1: The software collects measuring data from Zoom (1 min.) data file and Demand (daily) data file basis in EcoWebServer III.

*2: To browse a dashboard in HTML file on a PC in the network, it is necessary to enable Web server functionality such as IIS on the PC.

*3: The software collects measuring data in collection source from historical data file created by Edgexross.

*4: If a PC, MELIPC, is able to communicate with EcoWebServer III through Ethernet, both Edgexross and EcoWebServer III can be registered as collection source.