

1

Select a server product

Select either GENESIS64™ Basic SCADA or GENESIS64™ Advanced according to the number of tags and necessary functions referring to the product list on page 45 and function list (A server product) on page 34.

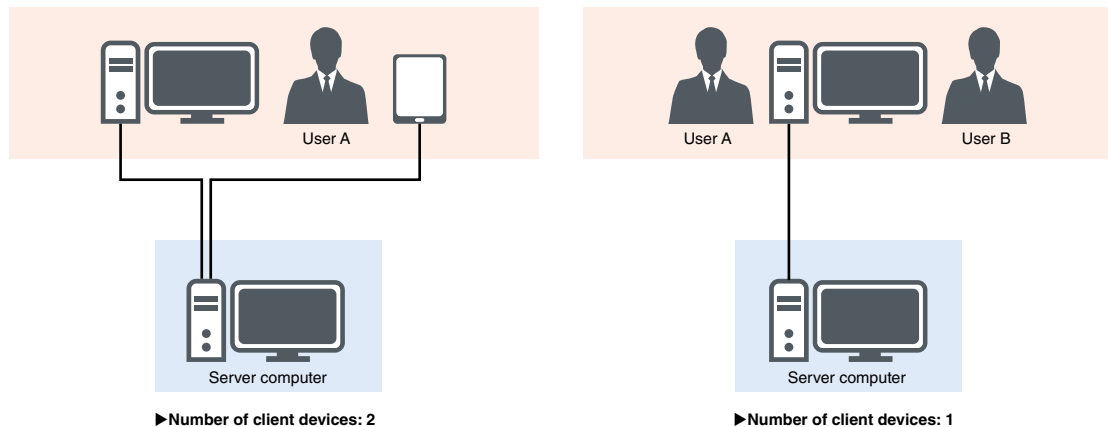
For tags, please refer to page 37.

2

Select client products

The maximum number of client devices*1 simultaneously accessing the monitoring control screen of the GENESIS64™ server during system monitoring. Select client products according to the estimated maximum number of client devices.

*1. Count as "2" when the same user accesses from both computer and smartphone simultaneously. Count as "1" when a different user accesses from a shared computer.



Device	Accessing method	Necessary product
Computer	Browser*2	WebHMI™
	Application*3	WebHMI™ or MobileHMI™
Mobile device (smartphone, tablet)	Browser*2	WebHMI™
	Application*3	WebHMI™ or MobileHMI™

*2. Please refer to the operating environment on page 44 for supported browsers.

*3. To use the application, please search for "MobileHMI™" in App Store® or Google Play™.

3

Select optional products

Select optional products from the product list according to selected functions.

Function list (Hyper Historian™ products)

Function	Hyper Historian™ Enterprise (GEN64-HH-ENT)	Hyper Historian™ Standard (GEN64-HH-STD)	Hyper Historian™ Express (included in server product)
High-speed data collection	●	●	●
Collected data calculation/storage	●	●	-
Collection/accumulation distribution	●	-	-
Server redundancy	●*4	-	-
How to count tags	Tags are counted separately from the server product		Tags are counted as server product tags
Number of tags	75, 150, 500, 1500, 5k, 15k, 50k, 100k, 250k, 500k, 1M		75, 150, 500, 1500, 5k*5

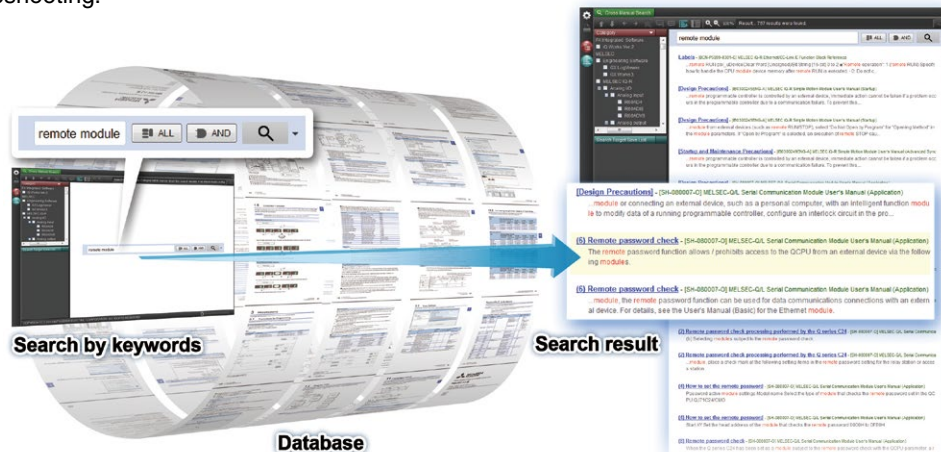
*4. Hyper Historian™ Redundant (GEN64-HH-R) for redundant system is available. Please refer to the product list on page 45 for details.

*5. More than 5K tags can be handled with additional tag pack option.

Innovative next-generation, e-Manual

e-Manual Viewer

The e-Manual viewer is a next-generation digital manual offered by Mitsubishi Electric that consolidates factory automation products manuals into an easy-to-use package with various useful features integrated into the viewer. The e-Manual allows multiple manuals to be cross-searched at once, further reducing time for setting up products and troubleshooting.



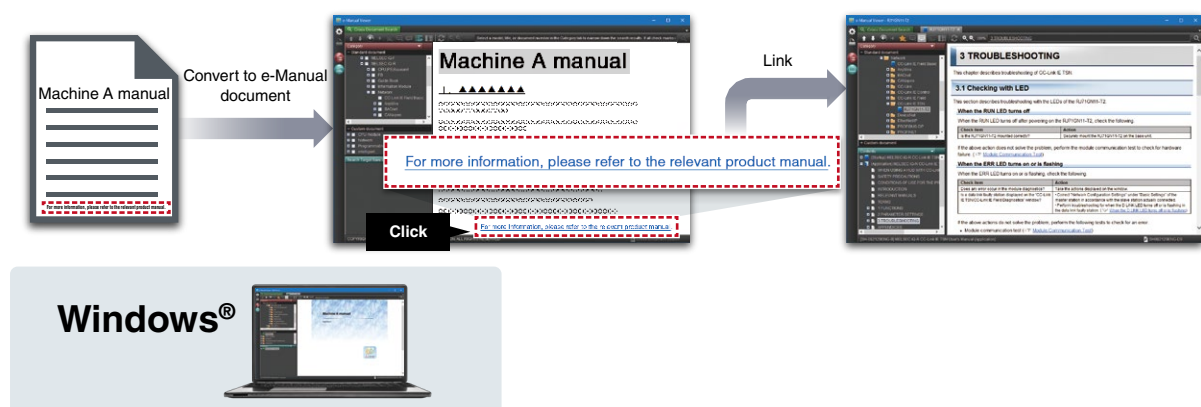
■ Key features included

- One-stop database containing all required manuals, with local file cache
- Included with GX Works3 engineering software
- Also available in tablet version
- Easily download manuals all at once
- Multiple users can share the latest manuals and knowhow with document sharing function
- Directly port sample programs within manuals to GX Works3
- Downloaded manuals are usable offline



e-Manual Create

e-Manual Create is software for converting word files and chm files to e-Manual documents. e-Manual Create allows users to directly refer to Mitsubishi Electric e-Manuals from user's customized device maintenance manuals and such, supporting quick troubleshooting and reduction in document creation process.



* To obtain the Windows® version of e-Manual Viewer and e-Manual Create, please contact your local Mitsubishi Electric sales office or representative.

Server product

System requirements

Item	Specifications
CPU	Quad Core 64-bit processor or better
RAM	8 GB or larger
Storage	4 GB or larger (adequate physical memory for the actual data to be saved)
Virtual memory	16 GB or larger (2x RAM capacity recommended)
Operating System (OS)* ¹	64-bit Windows® OS
Display	Resolution: 1024 × 768 pixels or more
Database* ²	Microsoft® SQL Server®
Microsoft® .NET Framework	4.7.2
Web server* ³	Microsoft® Internet Information Services (IIS) 7.0 or later
Web browser* ³	Microsoft Edge®, Firefox®, Safari®, Google Chrome™, or Internet Explorer® 11* ⁴

*1. Please refer to "Supported OS table for details.

*2. Please refer to "Supported database table for details.

*3. Use when displaying a screen on the client. For details on supported web browsers, please refer to "Supported web browser table.

*4. Internet Explorer® 11 only supported for Windows® Presentation Foundation (WPF) WebHMI™, not HTML5 WebHMI™.

Supported OS

OS* ⁵	GENESIS64™	Hyper Historian™	Energy AnalytiX® Facility AnalytiX® Quality AnalytiX®
Windows® 10* ⁶	●	●	-
Windows® 8.1* ⁷	●	●	-
Microsoft® Windows Server® 2019	●	●	●
Microsoft® Windows Server® 2016	●	●	●
Microsoft® Windows Server® 2012 R2	●	●	●
Microsoft® Windows Server® 2012	●	●	●

*5. Operation on Embedded system is not supported.

*6. Operation on Windows® 10 Professional and Enterprise (including 2019 LTSC/2016 LTSB) is supported.

*7. Operation on Windows® 8.1 Professional and Enterprise is supported.

Supported database

Database	GENESIS64™
Microsoft® SQL Server® 2019 (including Express)* ⁸	●
Microsoft® SQL Server® 2017 (including Express)* ⁸	●
Microsoft® SQL Server® 2016 (including Express)* ⁸	●
Microsoft® SQL Server® 2014 (including Express)* ⁸	●

*8. When using Microsoft® SQL Server® Express (free edition), a capacity of one database is limited to 10 GB.

IoT device

System requirements

Item	Specifications
CPU	Intel Atom® 3800 Dual Core/Arm® 32v7 Dual Core, or comparable processor
RAM	2 GB (4 GB recommended)
Storage	32 GB or larger
OS	Raspbian-stretch (Arm® 32) Ubuntu 16.04 (AMD 64) Ubuntu 18.04 (AMD 64) Ubuntu Server 16.04 (AMD 64) Ubuntu Server 18.04 (AMD 64)
Microsoft® Azure® service	Microsoft® Azure® IoT Hub (tier S1 or higher), Microsoft® Azure® Storage Account
Communication	Ethernet, Wi-Fi, or cellular (3G/4G)

Screen display

Supported web browser

Web browser	HTML5 technology	Windows® Presentation Foundation (WPF) technology
Microsoft Edge®	●	-
Firefox®	●	-
Safari®	●	-
Google Chrome™	●	-
Internet Explorer® 11	-	●

GENESIS64™ server product

Product name	Model	Number of tags	Outline
GENESIS64™ Basic SCADA	GEN64-BASIC	75, 150, 500, 1500, 5k	Server for configuration and runtime with modular licensing for small to medium applications.
GENESIS64™ Advanced*1	GEN64-APP	75, 150, 500, 1500, 5k, 15k, 50k, 100k, 250k	Server for configuration and runtime with comprehensive licensing for large and distributed applications.

*1. Runtime-only license version is available. Please consult us when you are requesting for quotation.

GENESIS64™ client product

Product name	Model	Number of clients	Outline
Client for monitoring control*2*3	WEBHMI-BRWSR	1, 5, 25, 100, 500	Fully interactive read/write clients for use on desktops, web browsers using WPF or HTML5, or as mobile app clients.
Client for monitoring control*3 (for mobile application)	MOBILEHMI-CLIENT	1, 5, 25, 100, 500	Fully interactive read/write clients dedicated to access via the MobileHMI™ app on smartphones, tablets, or AR devices.

*2. License for development (multiple persons can develop simultaneously on one server) is available.

*3. Read-only and browser-only client licensing is available.

Optional products*4

Product name	Model	Unit	Outline
Hyper Historian™	GEN64-HH-STD GEN64-HH-ENT GEN64-HH-R	75, 150, 500, 1500, 5k, 15k, 50k, 100k, 250k, 500k, 1M (tag)	Time series data historian collecting large amounts of shop floor data at high speed. STD: Supports performance calculations and predefined aggregates. ENT/R: In addition to the above, supports remote collectors, advanced data compression and redundancy. (Model numbers R include two ENT licenses for redundant system).*5
BridgeWorX™	BRIDGEWORX64	SVR (1 transaction) LITE (5 transactions) STD (25 transactions) ENT (100 transactions)	Graphical data bridging tool to execute simple to very complex data transaction scenarios between automation and enterprise systems. The number of concurrently executing transactions determines which license to choose.*6
ReportWorX™	REPORTWORX64	SVR (1 report) LITE (5 reports) STD (25 reports) ENT(100 reports)	Report generation engine to configure and run reports on schedule or on demand. Finished reports can be delivered via email, SMS, and file copy. (Supported formats: Excel®, PDF, HTML, CSV). Number of concurrently executing reports determines which license to choose.*7
Energy AnalytiX®	AX-EA-A	-	Energy monitoring, analysis, and management system delivering rich, real-time visualization for energy demand, consumption and cost.*8*9
	AX-EA-METER	1, 5, 25, 100, 500, 1500, 5K, 10K (meter)	Additional Energy AnalytiX® meters.
Quality AnalytiX®	AX-QA-A	-	This quality control package uses highly specialized Statistical Process Control (SPC) calculations for manufacturing quality management, and drive corrective actions based on process trends.*8
Facility AnalytiX®	AX-FA-A	-	This package provides advanced fault detection and diagnostics significantly reducing system downtime and improving operational efficiency.*10
	AX-FA-ASSET	1, 5, 25, 100, 500, 1500, 5K, 10K (asset)	Additional Facility AnalytiX® assets.
CFSWorX™	CFSWORX	-	This package can alert field service workers to respond to equipment service needs based on location. Worker availability and location is monitored. The package tracks field service worker responses and maintains a full audit trail.
IoTWorX™	IOT-CV IOT-CVCA IOT-CVCA-JSON-500 IOT-CVCA-JSON-5000	1, 5, 25, 100 (device)	A solution package running on IoT devices at the edge to monitor shop floor data in the cloud (annual license).*11 IOT-CV: Publish shop floor data to cloud platforms providing bidirectional real-time communication. On-premise visualization for read-only access to local data. IOT-CVCA: In addition to the above, store and forward of historical data points and merge in the cloud. Includes lightweight analytics module for fault detection. IOT-CVCA-JSON-500/5000: In addition to the above, send data in JSON format. Data sharing with third-party applications in the cloud.

*4. This list does not include options available for GENESIS64™ Basic SCADA only. For details, please refer to the function list (server product) on page 34.

*5. For difference of product functions, please refer to the function list (Hyper Historian™ products) on page 35.

*6. Other transaction product is available.

*7. Other report product is available.

*8. Hyper Historian™ license is separately required.

*9. License per instrument (meter). This license includes 5 meters.

*10. License per device (asset). This license includes 5 assets.

*11. This license applies to IoT devices.

USB hardware key

Product name	Model	Outline
USB hardware key	HW KEY-USB	USB device to store server/client /optional license. Just inserting this product to the server will activate stored license.*12

*12. Applying license to the server is possible. Please refer to the license registration procedure on page 40.