



Release Notes – v2.5.1

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***OMEGA Enterprise Gateway***

*Updated May 15, 2024*

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## General Remarks

The OEGv2.5.0/v2.5.1 release adds the support of sensor devices with manufacture-default or user-defined units and bug fixes. However, the application global unit still applies. Please read the OEG user manual for the sensor user-defined units use cases.

The OEG server can be installed on the following OS/Platforms: Windows® 7, 8, 10, and 11, Windows Server 2008, 2012, 2016 and up. All OS must be 64-bit.

The OEG web client is platform independent.

The minimum hardware requirements for server installation are as follows: Dual-core CPU 3.4 GHz or higher, Memory 16 GB or higher, hard drive 500 GB or higher.

OEG uses MongoDB as a historian database. More information about MongoDB including AGPL licensing can be found at <https://www.mongodb.com/community>. OEG also uses other software components under various commercial-free license terms. For license terms of all other components, please refer to the license statement document.

A self-signed certificate can be generated and bound to OEG url in the configuration when running OEG as administrator. However, the self-signed certificate is a quick and limited SSL/TLS certificate solution when enabling OEG to use HTTPS. A signed by a CA certificate could be an alternative if applicable.

Review this document to learn what is new in each release and to be informed regarding important remarks, known issues, and their workarounds.

For more information about the software or if you require technical support, please refer to the User's Manual or contact Omega Engineering support at [support@omega.com](mailto:support@omega.com).

## New Features

1. Support wide range sensor units which can be both device sensor default and user-defined units.

## Bug Fixes

1. Fixed map view device selection.
2. Fixed page load hanging when the sensor historian data were retrieved.
3. Fixed sensor unit display in dashboard.
4. Fixed the Data Tool data export file name with special characters.
5. Fixed the sensor alarm setpoint misinterpretation.

## Enhancements

1. The map view device dialog box has battery level and device status information. The device name in the dialog box is clickable and redirected to the device measurements page.
2. Signed-up organization user login name is displayed in the profile for login clarity.
3. Self-signed certificate generation in configuration is updated based on browser latest version requirements, Chrome(122.0.6261.129)/Edge(122.0.2365.92). See the comment on self-signed certificate in the Known Issues section.

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## Removed/Retired Features

N/A

## Known Issues

1. The selected global units under System/Units apply to all sensors in OEG. The global unit feature is not user account specific.
2. The OEG smtp client can fail if the smtp server such as Microsoft 365 or Office 365 mail service is not set properly due to an expired password, Multi-Factor Authentication (MFA), etc. Please refer to the solutions from Microsoft(<https://docs.microsoft.com/en-us/exchange/mail-flow-best-practices/how-to-set-up-a-multifunction-device-or-application-to-send-email-using-microsoft-365-or-office-365>) or (<https://docs.microsoft.com/en-us/exchange/mail-flow-best-practices/mail-flow-best-practices>). Omega cloud email service could be an alternative should the user-defined email server fail.
3. The user-defined device alias name associated with its device ID is stored in the database. When the device ID such as a COM port is used for another device, the stored alias name will be applied. This can cause confusion when the COM port is connected to another device. Rename the device after adding it to OEG to fix the issue.
4. OEG as an agent in Omega Cloud is not fully supported. The full feature will be announced.
5. Avoid using the same name as the Omega reserved models when adding a third-party device.
6. MongoDB is bundled with the OEG service. It is highly recommended that OEG be installed on a workstation where the hard drive capacity is abundant should the OEG pulling device data interval be in high frequency.
7. A device is not automatically reconnected in OEG if the IP address of the previously connected device is changed when using DHCP. It is highly recommended to apply a static IP address to the device for a consistent TCP connection in OEG.
8. Popular browsers Chrome and Edge have been updating the requirements for server certificates. This could make the self-signed certificate generated by OEG configuration invalid with time. It is recommended to check the browser latest policies and use the command line tool such as windows power shell to create a new self-signed certificate that meets the browser security requirements. Please refer to the sites list below. This advanced feature requires IT management skills.
  - <https://chromeenterprise.google/policies/>
  - <https://learn.microsoft.com/en-us/powershell/module/pki/new-selfsignedcertificate?view=windowsserver2022-ps>

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## Version 2.4.0.0

### New Features

2. Full support of Omega iServer2 devices in OEG.
3. Allowed direct read/write of device and sensor names of connected smart probe devices (SPxxx/IFxxx).
4. Added feature of UI background color changes on device alarm/event alerts triggered.

### Bug Fixes

6. Added email filters to avoid email bounce through Omega cloud email service.
7. Fixed data filter of data point selection in Historian and Dashboard.

### Enhancements

4. Updated JQuery to v3.5.1 which mitigates security vulnerability.
5. Measurement type and unit are dynamically populated when adding iServer2 or SPxxx/IFxxx devices to OEG. No sensor edit registers are needed.

## Version 2.3.0.0

### New Features

5. Full support of Layer N Enterprise Gateway devices (GW-001-2 and GW-001-3) in OEG.
6. Added OEG smtp client support of Office365 or Microsoft365 mail server. It requires OEG to run as an administrator.
7. The latest version OPC UA Local Discovery Server 1.04.402 is available to update during installation.
8. Warning dialog and messages to the OEG trial version users.

### Bug Fixes

8. Fixed global unit conversion when a device is not set for the standard measurement unit.
9. Fixed historian date range calendar.
10. Fixed uwtcREC12 connected device UWPC sensor type and unit.
11. Replaced the previous version log4net library with the latest version 2.0.14.

### Enhancements

6. Allow users to authenticate the Layer N Gateway if it failed when adding to OEG.
7. Supports user-defined units in Layer N Smart Sensor devices.

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## Removed/Retired Features

N/A

## Known Issues

1. The OEG smtp client can fail if the smtp server such as Microsoft 365 or Office 365 mail service is not set properly due to expired password, Multi-Factor Authentication (MFA), etc. Please refer to the solutions from Microsoft(<https://docs.microsoft.com/en-us/exchange/mail-flow-best-practices/how-to-set-up-a-multifunction-device-or-application-to-send-email-using-microsoft-365-or-office-365>) or (<https://docs.microsoft.com/en-us/exchange/mail-flow-best-practices/mail-flow-best-practices>). Omega cloud email service could be an alternative should the user-defined email server fail.
2. The user-defined device alias name associated with its device ID is stored in the database. When the device ID such as a COM port is used for another device, the stored alias name will be applied. This can cause confusion when the COM port is connected to another device. Rename the device after adding it to OEG to fix the issue.
3. OEG as an agent in Omega Cloud is not fully supported. The full feature will be announced.
4. Avoid using the same name as the Omega reserved models when adding a third-party device.
5. MongoDB is bundled with the OEG service. It is highly recommended that OEG be installed on a workstation where the hard drive capacity is abundant should the OEG pulling device data interval be in high frequency.
6. A device is not automatically reconnected in OEG if the IP address of the previously connected device is changed when using DHCP. It is highly recommended to apply a static IP address to the device for the consistent TCP connection in OEG.

## Version 2.2.6.0

### General Remarks

Omega Enterprise Gateway (OEG) is a replacement software for the Omega OPC Server, iCONNECT, iLOG, HTTPGet, iPort, Mail Notifier, Virtual Coordinator, and Omega Dashboard. If you are a current user of any software listed above, we encourage you to install OEG. OEG supports, but is not limited to, the following Omega products:

1. Controller – Platinum™, iSeries, iTH, CN616
2. Wireless receivers – ZW-REC, zCDR, UW-REC3, UW-REC1, UW-REC2, wSeries, WW-ED
3. Wireless end devices - Depended on receiver
4. iServer Series – bit, iBTHX-W, iBTX-SD, iTHX-W, it-SD, iTCX, iPTX, iSD-TH, iSD-TC, EIT
5. DAQ devices – OM-DAQ-USB, OM-DAQXL, DM240
6. Pressure Sensors – PX409-USBH/485, IN-USBH,
7. Meter – DP612, DP606
8. 3<sup>rd</sup> Party device – As long as the device support Modbus protocol.

The OEG server can be installed on the following OS/Platforms: Windows® 7, 8, and 10, Windows Server 2008, 2012, and 2016. All OS must be 64-bit.

OEG web client is platform independent.

The minimum hardware requirements for server installation are as follows: Dual-core CPU 2.4 GHz or higher, Memory 4 GB or higher, Hard drive 250 GB or higher.

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OEG uses MongoDB as a historian database. More information about MongoDB including AGPL licensing can be found at <https://www.mongodb.com/community>. OEG also uses other software components under various commercial-free license terms. For license terms of all other components, please refer to the license statement document.

Review this document to learn what is new in each release and to be informed regarding important remarks, known issues, and their workarounds.

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## New Features

1. Updated the installer to auto-remove older installed versions and supports semi-auto software update
2. Allows the user to set the Y-axis value range
3. Sync user-defined scale across multiple charts
4. Added alarm delay function
5. Enabled the OPC UA write function
6. Supports Layer N Gateway
7. Consolidated web and web API port to single port 8080

## Bug Fixes

1. The dashboard gauge range does not work properly
2. Dashboard chart time axis shows 00:00
3. The save button on the data cleaning page crashes the data tool if no outlier data is selected
4. The data tool manual clean does not accept decimal
5. The historian check box does not work
6. Fixed device register editing bugs

## Version 2.1.0.0

### New Features

1. Data tool to allow database backup, restore, export, and data cleaning
2. Changed the map view layout and the float device on the map
3. Reinstated Web APIs for device data access
4. Added native smart sensor support
5. Click-to-hide outlier data points in a chart
6. Enabled drag and drop to change device location

### Bug Fixes

1. Long service start time when too many devices are connected

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2. User added registers cannot be saved and reloaded
  3. The device image does not display after upload
  4. License lost after update or reinstallation
  5. Duplicated OEG ID for cloud connection
  6. Value scaling is wrong when the measurement unit is different than the unit of selection
  7. ZW-REC end device name contains a space causing OEG to show the end device offline

## **Version 2.0.0.0**

### **New Features**

1. New device management interface
2. Dashboard – this feature allows user to create or modify dashboard
3. Device insights – this feature allows user to look into device activities, wireless sensor signal, battery usage etc.
4. User customizable device support – this feature allows user to add new devices to OEG as long as the device use Modbus protocol or simple ASCII command
5. Revised historian with prediction support
6. Battery alarm for wireless device
7. Multi-user access – this feature allows multiple level of user access control
8. Local user management – user is managed locally
9. Simplified notification
10. Support user defined value scaling

## **Version 1.4.2.0**

### **Bug Fixes**

1. Fixed OM\_DAQXL connectivity issue

## **Version 1.4.0.0**

### **New Features**

2. Improve installation process
3. Added CN6xxx controller support, added OM240 support
4. Allow using end device name for identification
5. Use human readable alarm message

## **Version 1.2.2.0**

### **Bug Fixes**

1. Fixed OPC UA tag identifier changed after system reboot or OEG restart
2. Fixed date time format error in Internet Explorer

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## Version 1.2.0.0

### New Features

1. Support Omega Pressure products
2. Support iSeries temperature humidity controller
3. Support OM-DAQXL
4. Support Omega Cloud application (for more information, please contact [sales@omega.com](mailto:sales@omega.com))
5. Allows the user to turn on/off MQTT broker on OEG

### Enhancements

1. Reorganized system tab functions
2. Simple devices add functions
3. Allows user to use device name to find/retrieve historical data
4. Improved data retrieve time
5. UI updates
6. Enable MQTT message group function to reduce traffic

### Removed/Retired Features

1. Moved firmware management to device listener settings

### Bug Fixes

1. Fixed unable to reading negative measurement on iServer product
2. Fixed OPC device status data are not able update bug
3. Fixed unable to view live data for iTCX device
4. Fixed data deletion not working on measurement points
5. Fixed IE 11 compatibility issue
6. Use correct channel/ID for coordinator device and end sensing device

### Known Issues

1. OEG requires MongoDB to be installed for historical data. MongoDB has dependency on VC runtime. On certain machine, user is required to install VC runtime redistributable in the installation package

## Version 1.0.0.0

### New Features

1. Supports integrated windows authentication. User required to have a Windows/domain account to access web functions and data
2. Supports HTTPS connection to ensure data security and integrity
3. Supports most connected Omega measurement devices, controllers, and DAQ system (Please refer to general remarks)



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4. Contains embedded OPC UA server to allow OPC UA compliant client application to communicate with Omega devices. Measurements are automatically populated and exposed by OPC UA server (requires license)
  5. Contains embedded OPC DA server to allow OPC DA compliant client application to communicate with Omega devices
  6. Supports local historian/analytics, allows user to save, search, retrieve, filter, visualize, export long term measurement values of interesting
  7. Allows user to monitor multiple devices, multiple readings on a single page in real time
  8. Allows user to easily add, delete, start, stop one or more devices. Device settings are persisted, once the device is added to the system. The device will be automatically added back to gateway without human intervene
  9. Real-time device measurement monitoring via charting. User can set charting window
  10. System healthy status monitoring via graphical interface or system log file
  11. User can set alarm on measurement values. User can also set alarm notification via email
  12. User can set event notification via email
  13. User can select measurement channel to capture data
  14. Local alarming function. Required to be run locally
  15. Support IOT and Cloud connectivity via MQTT protocol (requires license)

## Enhancements

N/A

## Removed/Retired Features

N/A

## Bug Fixes

N/A

## Known Issues

N/A