

Emerson Plantweb Insight™



Framework version 3.4.0

pwi-v3.4.0 – October 2025

Release details

Category	Value
Version	3.4.0
Release date	10-Oct-2025
Release type	Major
Restore supported from	3.3.0 and later
In-Place upgrade allowed on	Not Supported

What is included in this release

1. Open Platform Communications (OPC) Unified Architecture (UA) Variables Dashboard

- Automatic Browsing of OPC-UA Variables** Upon configuring an OPC UA server as a data source, the system automatically discovers and lists all available OPC-UA variables.
- Variable Selection and Unified Unit Mapping** Users can easily select the required variables from the available list and assign a unified unit for consistent representation. Additionally, a comma-separated values (CSV) file containing the list of required variables and their corresponding unified units can be imported to streamline the setup process.
- Simplified Integration via Variable List APIs** Applications can leverage **Variable List APIs** to streamline variable selection during asset configuration.
- Consistent Units Across Applications** All applications display variable units based on the unified unit configuration defined in the **Variables** dashboard, ensuring consistency across the platform.
- Seamless Sync to PWI App-Only Systems** Configured OPC-UA servers and variables are now automatically synced to Plantweb Insight™ (PWI) **App-Only** systems in both **On-Prem** and **Cloud Connectivity** scenarios. This ensures that applications utilizing the **Variables** dashboard can be deployed in cloud environments without additional configuration.

Refactored applications that utilize the OPC **Variables** dashboard:

 - are compatible with App-Only systems
 - will receive data without issues

2. Modbus Variables Dashboard

- Modbus Variable Configuration:** Configure Modbus variables as data sources by specifying the required register and unit details. This can be done individually or in bulk by importing a CSV file containing the necessary variable information.
- Simplified Integration via Variable List APIs:** Applications can now leverage **Variable List APIs** to streamline variable selection during asset configuration.
- Consistent Units Across Applications:** All applications now display variable units based on the unified unit configuration defined in the **Variables** dashboard, ensuring consistency across the platform.
- Seamless Sync to PWI App-Only Systems:** Configured Modbus servers and variables are now automatically synced to PWI **App-Only** systems in both **On-Prem** and **Cloud Connectivity** scenarios. This ensures

that applications utilizing the **Variables** dashboard can be deployed in cloud environments without additional configuration.

Refactored applications that utilize the Modbus **Variables** dashboard:

- are compatible with App-Only systems
- will receive data without issues

3. Unified Data Source Support Across All PWI Deployment Modes

PWI integrates with a variety of data sources including *WirelessHART* gateways (HART-IP), OPC UA servers, Modbus servers, and MQTT servers/clients to collect and deliver real-time data for asset monitoring applications. Previously, support for these data sources was limited to on-premise deployments.

With this release, data from all supported sources in on-prem environments is now seamlessly relayed to **PWI App-Only** systems across both **On-Prem** and **Cloud Connectivity** deployment models. This enhancement enables applications to access and integrate data for asset monitoring even in cloud-based environments, ensuring consistent visibility and control across deployment types.

Mode/Variant name	WiHART gateway	OPC UA	Modbus TCP	AMS data server (MQTT server)	Valve link data (MQTT client)
Standard	Supported	Supported	Supported	Supported	Supported
Cloud direct	Supported	Supported	Supported	Supported	Supported
Cloud connector	Supported	Supported	Supported	Supported	Supported
Cloud application only	Supported	Supported from v3.4.0	Supported from v3.4.0	Supported from v3.4.0	Supported from v3.4.0
On-prem connector	Supported	Supported	Supported	Supported	Supported
On-prem app only	Supported	Supported from v3.4.0	Supported from v3.4.0	Supported from v3.4.0	Supported from v3.4.0

4. Single Sign On (SSO) Support

Users can authenticate without entering their credentials while connected to their corporate domain. To enable this capability, administrators must configure the required SSO settings in PWI.

The following SSO approaches are supported:

- Microsoft Entra® ID: Register an application in Microsoft Entra, and provide the **Client ID** and **Tenant ID** of the registered app within PWI to enable SSO via Entra ID.
- Kerberos: Generate a keytab file from your domain controller with the necessary credentials and upload it to PWI for seamless domain-based authentication.

Refer to PWI User Manual for SSO setup instructions.

Note

SSO is offered as an additional authentication method. Existing Lightweight Directory Access Protocol (LDAP) and local database-based authentication options will continue to be supported.

5. Base operating system (OS) updated to next Lightweight Directory Access Protocol (LDAP) version

To ensure long-term support and improved security, the base operating system has been upgraded from an older version to the latest LTS. This change replaces the previous OS, which is approaching its end-of-life.

Minor adjustments have been made to domain name system (DNS) and networking services to align with the new OS environment. However, there is no impact on the user interface or user experience as all screens and functionalities remain unchanged.

6. Other Minor Enhancements

Secondary Network Interface	Disabled by default. Customers are advised to finalize their network configurations before requesting license files, as changes to Ethernet settings post-licensing will require new license generation.
EULA Acknowledgement	Users are required to accept the End User License Agreement (EULA) upon their first use of the system.
Uninstall Backup Recommendation	A prompt recommends users perform a restorable backup before uninstalling any application.
Optimized Docker Image Handling	The loading process for Docker images has been improved to reduce the overall size of the OVA build files.

Note

On a fresh setup, the initial startup requires up to four minutes for the system to become fully operational. This delay occurs only once; subsequent reboots are unaffected.

Rescue Console Enhancements	The rescue console provides clearer guidance on available actions upon login. Directory listing and similar operations are restricted for improved security.
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```

eth0: 192.168.175.157
pwi-srv0 login: pwi-user
Password:

=====

With this rescue user you can perform one of the following operations.

add_new_disk
disk_free_status
help
http-whitelist-reset
set-static-ip

You will have to perform this operation with sudo privileges
example:
    sudo ./disk_free_status

=====

pwi-user@pwi-srv0:~$

```

7. General Performance Improvements

Several internal improvements have been made to system components to improve security, scalability, and long-term maintainability

Upgrade paths

In-place upgrade is not supported with Plantweb Insight™ v3.4.0 due to the operating system (OS) version update. Users should:

1. Save restorable backups of their existing PWI platform and apps on version 3.3.0 or later.
2. Restore into the new 3.4.0 virtual machine.

For PWI Edge Solutions, contact the factory

Notes and known issues

1. Recommendation on **Platform Restore** operation

The Plantweb Insight™ (PWI) v3.4.0 release is provided as a new OVA/VHDX file, requiring deployment of a new virtual machine (VM). To maintain business continuity, it is essential to perform a restore of the backup from the existing PWI system.

Below are the key recommendations for carrying out the restore operation:

Restore onto a new Virtual Machine

Always perform the restoration of platform data backup on a clean virtual machine (VM). Restoring on a system that already has configured data sources or platform settings may lead to data loss or conflicts, as the restore operation will overwrite existing configurations.

Reconfigure Settings Not Covered by Restore

The platform restore does not include the following configurations from the older PWI instance. These must be manually reconfigured on the new system:

a. Network Configuration: Ethernet

- Path: **Home** → **Platform Settings** → **Network Configuration** → **Ethernet Configuration**

Note

PWI v3.4.0 disables the secondary network interface by default. If your older system used this interface, ensure it is manually configured again on the new system.

b. DNS Servers

- Path: **Home** → **Platform Settings** → **Network Configuration** → **DNS Servers**

c. NTP Servers

- Path: **Home** → **Platform Settings** → **Network Configuration** → **NTP Servers**

d. Docker Network Subnet

- Path: **Home** → **Platform Settings** → **Network Configuration** → **Docker Network Subnet**

e. API Keys

- Path: **Home** → **Manage Access** → **API Keys**
- API keys are not restored. You must recreate and redistribute them to consumers manually.

2. Open Platform Communications (OPC) **Variable** status shows *Inactive* for 1 hour

Details

An application that is not yet updated to utilize the new OPC Unified Architecture (UA) **Variable** dashboard is installed on PWI v3.4.0. An asset in this app is configured to consume data from an OPC UA variable.

While the configured asset is in a healthy state, if a user has deleted the OPC UA server configuration from platform's data sources page, it will result in the OPC UA variable status being shown as inactive for the application's asset.

Later, the user adds the same OPC UA server back under Data Sources for the platform.

Observed Behavior

The application requires up to one hour to detect and reflect the correct OPC UA **Variable** status as *Active*.

3. Gateway connection limitation in Plantweb Insight™ (PWI)

PWI cannot have simultaneous secure connections to HART-IP and Open Platform Communications (OPC) Unified Architecture (UA) for a single gateway.

Details PWI supports secure gateway connections via:

- HART-IP, using a certificate in PEM format.
- OPC UA, using a certificate in DER format.

When a gateway is configured as a secure data source using only one of these protocols, PWI connects without issue.

However, if the same gateway is configured as a secure connection for both HART-IP and OPC UA data in PWI, connection failures occur.

Applications

Application name	Application Version	Release Date	Release notes
Cooling Tower	2.3.0-build-3	03-01-23	No changes from last release
Steam Trap	3.0.1-build-2	06-12-25	Refer to Steam Trap Application Release Notes for latest updates and version compatibility
Heat Exchanger	2.3.1-build-3	02-11-25	No changes from last release
Air Cooled Heat Exchanger	2.3.0-build-1	03-01-23	No changes from last release
PRV	2.7.3-build-2	09-23-24	No changes from last release
Pump	2.4.0-build-2	03-01-23	Refer to Pump Application Release Notes for latest updates and version compatibility.
Network Management	3.2.0-build-54	08-03-24	No changes from last release
Power Module	3.2.1-build-16	05-16-25	Refer to Power Module Application Release Notes for latest updates and version compatibility
WPG	2.3.0-build-2	03-01-23	No changes from last release
Inline Corrosion	1.2.0-build-3	03-01-23	No changes from last release
Non-Intrusive Corrosion	1.7.2	01-13-24	No changes from last release
Connected Lighting	2.4.0	10-06-23	No changes from last release
Valve Health	1.3.0	10-01-24	No changes from last release
Asset View	1.0.2-build-3	08-12-25	Refer to Asset View Application Release Notes for latest updates and version compatibility.

Previous versions

Version	Date
3.3.3	June 2025
3.3.2	March 2025
3.3.1	January 2025
3.3.0	August 2024
3.2.0	November 2023

Version	Date
3.1.0	July 2023
3.0.0	March 2023
2.4.1	July 2022
2.4.0	April 2022
2.1.5	April 2022
2.3.5	February 2022
2.3.4	November 2021
2.3.3	November 2021
2.3.2	September 2021
2.3.1	August 2021
2.3.0	June 2021
2.1.4	April 2021
2.1.3	March 2021
2.1.2	February 2021
2.1.1	January 2021
2.1.0	October 2020
2.0.062	June 2020
1.6.018	February 2020
1.6.017	January 2020
1.6.014	September 2019
1.5.022	January 2019
1.4.016	April 2018
1.3.002	September 2017
1.2.049	July 2017
1.1.016	February 2017
1.0.022	December 2016

Framework version 3.3.3

pwi-v3.3.3 – June 2025

Release details

Category	Value
Version	3.3.3
Release date	9-June-2025
Release type	Minor
Restore supported from	3.3.0

Category	Value
In-Place upgrade allowed on	3.0.0 and later

Included in this release

1. Fixes issue where the licensed **Power Module Application** v3.2.0 is not showing up in the AMS OPTICS /apps API.
2. Fixes issue where the license popup is not loading for an unlicensed **Power Module Application** on the **Home** screen when the app icon is clicked.

Note

This release is comprehensive of the previous releases 3.3.1 and 3.3.2.

Update paths

In-place Upgrade to v3.3.3

Category	Value
Upgrade bundle file name	platform_upgrade-v3.3.3-build-1.plf.20250409_0359UTC-PRD.tar.gz.asc
Upgrade bundle hash	platform_upgrade-v3.3.3-build-1.plf.20250409_0359UTC-PRD.tar.gz.asc.sha256
Compatible with PWI-STD	Yes
Compatible with PWI-EDGE	Yes

Upgrade paths from various PWI versions

A direct, in-place upgrade is supported from PWI version 3.0.0 or later, and no further actions are required before or after the upgrade.

Users on older versions of PWI should first upgrade to version 3.0.0 or later following the upgrade paths outlined in previous PWI version release notes.

Notes and known issues

None

Applications

Application name	Application version	Release date	Release notes
Cooling Tower	2.3.0-build-3	03-01-23	No changes from last release
Steam Trap	2.6.0-build-39	08-03-24	No changes from last release
Heat Exchanger	2.3.1-build-3	02-11-25	No changes from last release
Air Cooled Heat Exchanger	2.3.0-build-1	03-01-23	No changes from last release
PRV	2.7.3-build-2	09-23-24	No changes from last release

Application name	Application version	Release date	Release notes
Pump	2.4.0-build-2	03-01-23	No changes from last release
Network Management	3.2.0-build-54	08-03-24	No changes from last release
Power Module	3.2.1-build-16	05-16-25	Refer to Power Module Application Release Notes for latest updates
WPG	2.3.0-build-2	03-01-23	No changes from last release
Inline Corrosion	1.2.0-build-3	03-01-23	No changes from last release
Non-Intrusive Corrosion	1.7.2	01-13-24	No changes from last release
Connected Lighting	2.4.0	10-06-23	No changes from last release
Valve Health	1.3.0	10-01-24	No changes from last release
Asset View	1.0.0	01-07-25	No changes from last release

Previous versions

Version	Date
3.3.2	March 2025
3.3.1	January 2025
3.3.0	August 2024
3.2.0	November 2023
3.1.0	July 2023
3.0.0	March 2023
2.4.1	July 2022
2.4.0	April 2022
2.1.5	April 2022
2.3.5	February 2022
2.3.4	November 2021
2.3.3	November 2021
2.3.2	September 2021
2.3.1	August 2021
2.3.0	June 2021
2.1.4	April 2021
2.1.3	March 2021
2.1.2	February 2021
2.1.1	January 2021
2.1.0	October 2020
2.0.062	June 2020
1.6.018	February 2020
1.6.017	January 2020
1.6.014	September 2019
1.5.022	January 2019

Version	Date
1.4.016	April 2018
1.3.002	September 2017
1.2.049	July 2017
1.1.016	February 2017
1.0.022	December 2016

Framework version 3.3.2

pwi-v3.3.2 – January 2025

Release details

Category	Value
Version	3.3.2
Release date	January 27, 2025
Release type	Minor
Restore supported from	3.3.0
In-Place upgrade allowed on	3.0.0 and later

Included in this release

Application backup improvement for long-running application backup tasks

This release improves the stability of the application backup process where the target application backup may take longer than normal to complete.

Upgrade paths

In-place upgrade to v3.3.2

Category	Value
Upgrade bundle file name	platform_upgrade-v3.3.2-build-1.plf.20241216_0855UTC-PRD.tar.gz.asc
Upgrade bundle hash	platform_upgrade-v3.3.2-build-1.plf.20241216_0855UTC-PRD.tar.gz.asc.sha256
Compatible with PWI-STD	Yes
Compatible with PWI-EDGE	Yes

Upgrade paths from various PWI versions

A direct, in-place upgrade is supported from PWI version 3.0.0 or later, and no further actions are required before or after the upgrade.

Users on older versions of PWI should first upgrade to version 3.0.0 or later following the upgrade paths outlined in previous PWI version release notes.

Notes and known issues

None

Applications

App name	App version	Release date	Release notes
Cooling Tower	2.3.0-build-3	March 1, 2023	No changes from last release
Steam Trap	2.6.0-build-39	August 3, 2024	Refer to Steam Trap Application Release Notes for latest updates
Heat Exchanger	2.3.1-build-3	February 11, 2025	AMS Optics API bug fix
Air Cooled Heat Exchanger	2.3.0-build-1	March 1, 2023	No changes from last release
PRV	2.7.3-build-2	September 23, 2024	No changes from last release
Pump	2.4.0-build-2	March 1, 2023	No changes from last release
Network Management	3.2.0-build-54	August 3, 2024	No changes from last release
Power Module	3.2.0-build-26	January 15, 2025	Refer to Power Module Application Release Notes for latest updates
WPG	2.3.0-build-2	March 1, 2023	No changes from last release
Inline Corrosion	1.2.0-build-3	March 1, 2023	No changes from last release
Non-Intrusive Corrosion	1.7.2	January 13, 2024	<ul style="list-style-type: none"> ■ Bug fixes ■ Cybersecurity updates ■ Refer to Non-Intrusive Corrosion Application Release Notes for full details
Connected Lighting	2.4.0	October 6, 2023	No changes from last release
Valve Health	1.3.0	October 1, 2024	No changes from last release
Asset View	1.0.0	January 7, 2025	Refer to Asset View Application Release Notes for latest updates

Previous versions

Version	Date
3.3.1	January 2025
3.3.0	August 2024
3.2.0	November 2023
3.1.0	July 2023
3.0.0	March 2023

Version	Date
2.4.1	July 2022
2.4.0	April 2022
2.1.5	April 2022
2.3.5	February 2022
2.3.4	November 2021
2.3.3	November 2021
2.3.2	September 2021
2.3.1	August 2021
2.3.0	June 2021
2.1.4	April 2021
2.1.3	March 2021
2.1.2	February 2021
2.1.1	January 2021
2.1.0	October 2020
2.0.062	June 2020
1.6.018	February 2020
1.6.017	January 2020
1.6.014	September 2019
1.5.022	January 2019
1.4.016	April 2018
1.3.002	September 2017
1.2.049	July 2017
1.1.016	February 2017
1.0.022	December 2016

Framework version 3.3.1

January 2025

Release details

Category	Value
Version	3.3.1
Release date	January 27, 2025
Release type	Minor
Restore supported from	3.3.0
In-place upgrade allowed on	3.0.0 and later

Included in this release

1. Anti-virus solution: This release introduces an anti-virus component, which is a platform licensed feature. The new menu item is under **Platform Settings**.
2. OPC UA® Server and Modbus® Server enablement on **On-Prem App Only** Plantweb Insight (PWI) mode
3. PFX Certificate bundle upload: Certificate bundle upload now accepts PFX bundle format in addition to the current PEM bundle format.
4. HART®-IP Client CMD 178 fix: Combined CMD 178 will be skipped by HART-IP Client when it does not contain either CMD 9 or CMD 48.
Resolves a NO_DATA issue with Rosemount™ 802 Transmitter device in BMA.

Upgrade paths

In-place upgrade to version 3.3.1

Category	Value
Upgrade bundle file name	platform_upgrade-v3.3.1-build-7.plf.20241023_0312UTC-PRD.tar.gz.asc
Upgrade bundle hash	platform_upgrade-v3.3.1-build-7.plf.20241023_0312UTC-PRD.tar.gz.asc.sha256
Compatible with Plantweb Insight (PWI)-STD	Yes
Compatible with PWI-STD enabled with IOTCS	Yes
Compatible with PWI-EDGE	Yes
Compatible with PWI-EDGE enabled with IOTCS	Yes

Upgrade paths from various PWI versions

A direct, in-place upgrade is supported from PWI version 3.0.0 or later, and no further actions are required before or after the upgrade.

Users on older versions of PWI should first upgrade to version 3.0.0 or later following the upgrade paths outlined in previous PWI version release notes.

Notes and known issues

None

Applications

App name	App version	Release date	Release notes
Cooling Tower	2.3.0-build-3	March 1, 2023	No changes from last release.
Steam Trap	2.6.0-build-39	August 3, 2024	No changes from last release.
Heat Exchanger	2.3.0-build-4	March 1, 2023	No changes from last release.
Air Cooled Heat Exchanger	2.3.0-build-1	March 1, 2023	No changes from last release.

App name	App version	Release date	Release notes
PRV	2.7.3-build-2	September 23, 2024	<ul style="list-style-type: none"> ■ Added Temperature Threshold Slider in <i>Asset Details</i> ■ Updated Temperature Consideration
Pump	2.4.0-build-2	March 1, 2023	No changes from last release.
Network Management	3.2.0	August 3, 2024	No changes from last release.
Power Module	3.2.0	January 1, 2025	<ul style="list-style-type: none"> ■ Estimated critical temperature ■ Asset location hierarchy ■ Increased wireless portfolio ■ Email alerting ■ Sortable and exportable data
WPG	2.3.0-build-2	March 1, 2023	No changes from last release.
Inline Corrosion	1.2.0-build-3	March 1, 2023	No changes from last release.
Non-Intrusive Corrosion	1.7.1	July 24, 2024	No changes from last release.
Connected Lighting	2.4.0	October 6, 2023	No changes from last release.
Valve Health	1.3.0	October 1, 2024	No changes from last release.

Previous versions

Version	Date
3.3.0	August 2024
3.2.0	November 2023
3.1.0	July 2023
3.0.0	March 2023
2.4.1	July 2022
2.4.0	April 2022
2.1.5	April 2022
2.3.5	February 2022
2.3.4	November 2021
2.3.3	November 2021
2.3.2	September 2021
2.3.1	August 2021
2.3.0	June 2021
2.1.4	April 2021
2.1.3	March 2021
2.1.2	February 2021
2.1.1	January 2021
2.1.0	October 2020
2.0.062	June 2020

Version	Date
1.6.018	February 2020
1.6.017	January 2020
1.6.014	September 2019
1.5.022	January 2019
1.4.016	April 2018
1.3.002	September 2017
1.2.049	July 2017
1.1.016	February 2017
1.0.022	December 2016

Framework version 3.3.0

pwi-v3.3.0

Release date: August 2024

Release details

Version	3.3.0
Release date	August 15, 2024
Release type	Major
In-place upgrade allowed on	3.0.0 and later
Restore supported from	3.3.0

Included in this release

Hierarchy based access control (HBAC)

In the previous version of Plantweb Insight (PWI), a hierarchy-based view filter was introduced where users can filter assets based on their location. For instance, users can:

- View assets that belong to site 1
- View assets that belong to a specific unit under a site

In this case, all users were able to view/filter assets that belong to all the locations.

With HBAC, admin users will be able to control the accessible locations for each user that indirectly controls the access to corresponding assets under those locations. During user creation, admins can check/uncheck access to location nodes, and the system will enforce access accordingly. This capability is added in the PWI platform level, and each application is required to adopt it with required changes at their end.

Platform level audit log - phase 1

This is the first phase of PWI platform event tracking, and we covered most of the user management and security settings related events under this release. Audited events can be downloaded as part of backup and the same events can also be pushed to external syslog servers.

On-premises connectivity solution (MQTT data transfer between different network levels)

A solution that lets multiple PWI systems connect and aggregate data at a single system. There are some user environments where data sources like HART® devices/gateways are hosted on lower networks (L2 or L2.5) for which

direct access by users is restricted. In such environments, one or more PWI systems are deployed on the lower network to directly communicate with data sources and handover data to a PWI system which can be hosted at a more widely accessible network (higher network level such as L3.5 or L4). All users can access the PWI system hosted on higher network level which supports visualization of aggregated data in PWI apps. The lower network PWI systems must be converted to **On-Prem Connector** mode and the higher network PWI system must be converted to **On-Prem App-Only** mode.

Local CA Certificate upload support

Before the release of 3.3.0, PWI was shipped with a self-signed certificate, available as part of every PWI system. The locally generated certs are used for all the secure connections from PWI system. Users can download the certificate and use it for establishing secure connections with their own servers/clients. This new feature lets user upload their own self signed/local CA certs into their PWI system and overrides the existing default CA which comes with the system by default. All the PWI components which support secure connections will use the newly uploaded certificates.

Default SSL Cert and **Custom SSL Cert** certificate uploads now expect a single bundle PEM file containing the **Entity Cert, Entity Key, Root CA Cert** and any **Intermediary CA Certs**.

Note

The existing **Custom SSL Cert** upload feature is unchanged where a user can upload 3rd party-signed certificates and apply them for components like HTTPS, OPC UA® Client, and OPC UA server.

Support for ValveLink™ as a data source

New functionality has been introduced in PWI to connect and communicate with external clients over a secure connection. ValveLink data Agent provides MQTT data that is available for all the applications to consume. Currently, only the Valve Health application is set up to consume this data.

TLS support for LDAP

Users can choose to enable certificate-based authentication while establishing connection to their LDAP server. This is optional and when omitted, the PWI system will perform an anonymous TLS connection. When certificates are enabled for an LDAP server, the CA cert of the LDAP server is required to be uploaded to the peer certificates category in PWI.

OpenSSL updated to latest versions

OpenSSL version is updated to the latest versions for components that use it.

Internet of Things (IoT) Hub Custom CA support

Users can now upload their Custom CA Certificate if they face IoT Hub connection issues caused by SSL Termination setups in their corporate network.

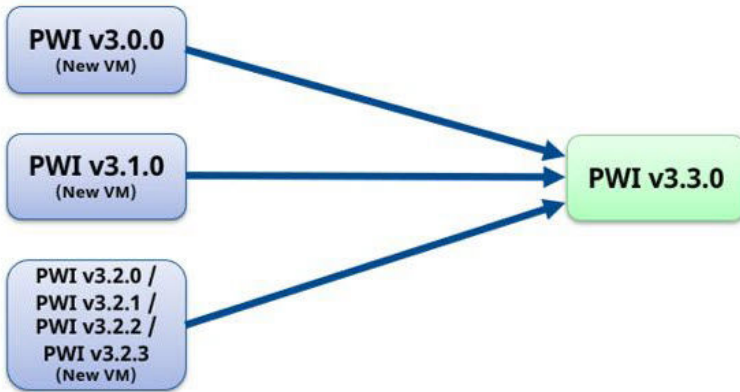
Upgrade and restore paths

Category	Value
Upgrade bundle file name	platform_upgrade-v3.3.0-build-14.plf.20240704_0317UTC-PRD.tar.gz.asc
Upgrade bundle hash	platform_upgrade-v3.3.0-build-14.plf.20240704_0317UTC-PRD.sha256
Compatible with Plantweb Insight (PWI)-STD	Yes
Compatible with PWI-STD Enabled with IOTCS	Yes
Compatible with PWI-EDGE	Yes
Compatible with PWI-EDGE Enabled with IOTCS	Yes

If you already have an existing PWI system which is 3.0.0 or later, you can upgrade it to the current version v3.3.0 in following manner.

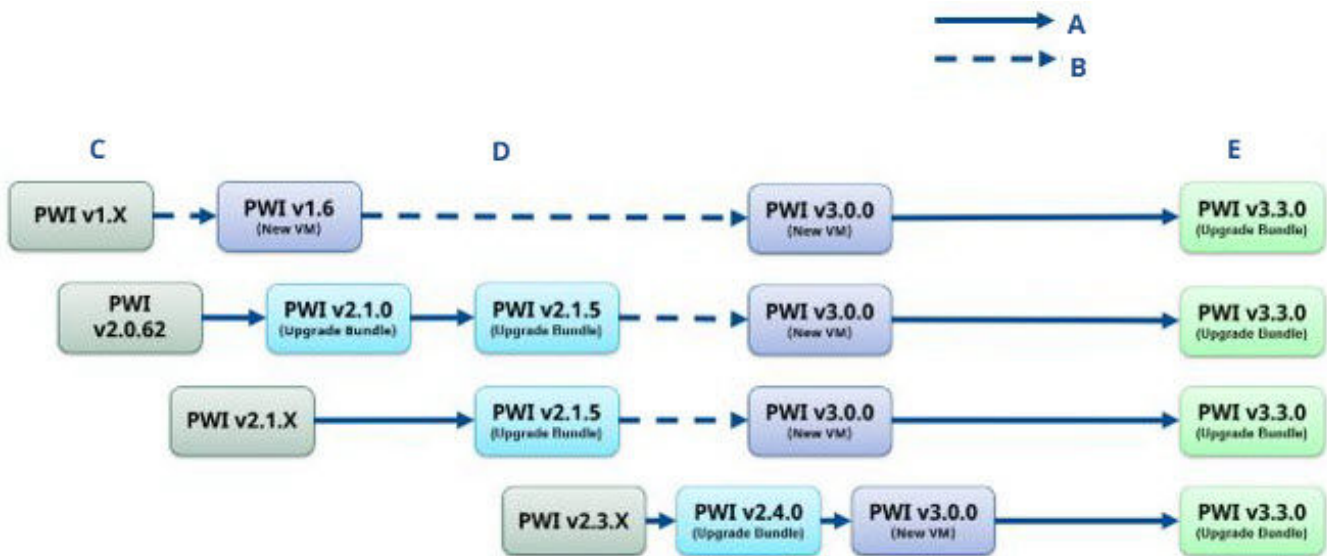
Upgrade paths from existing latest PWI versions

A direct upgrade is supported from following three PWI latest versions and no actions needed before or after the upgrade.



Upgrade paths from various PWI versions

If a customer has an older PWI version, they can choose to upgrade to latest PWI Version v3.3.0 in the following upgrade path.



- A. In-place update (backup not required)
- B. Virtual Machine update (backup required)
- C. Current version
- D. Version required to save a backup
- E. Latest version

Note

If a customer is using Version 2.4.1 or lower, Emerson recommends updating to Version 3.3.0 to get the benefit of a larger VM size.

New virtual machine (VM) setup

This release also comes with an OVA/VHD image file to start a fresh Plantweb Insight (PWI) v3.3.0 instance. This new OVA/VHD brings forward some of the following capabilities which were introduced in previous release v3.2.0:

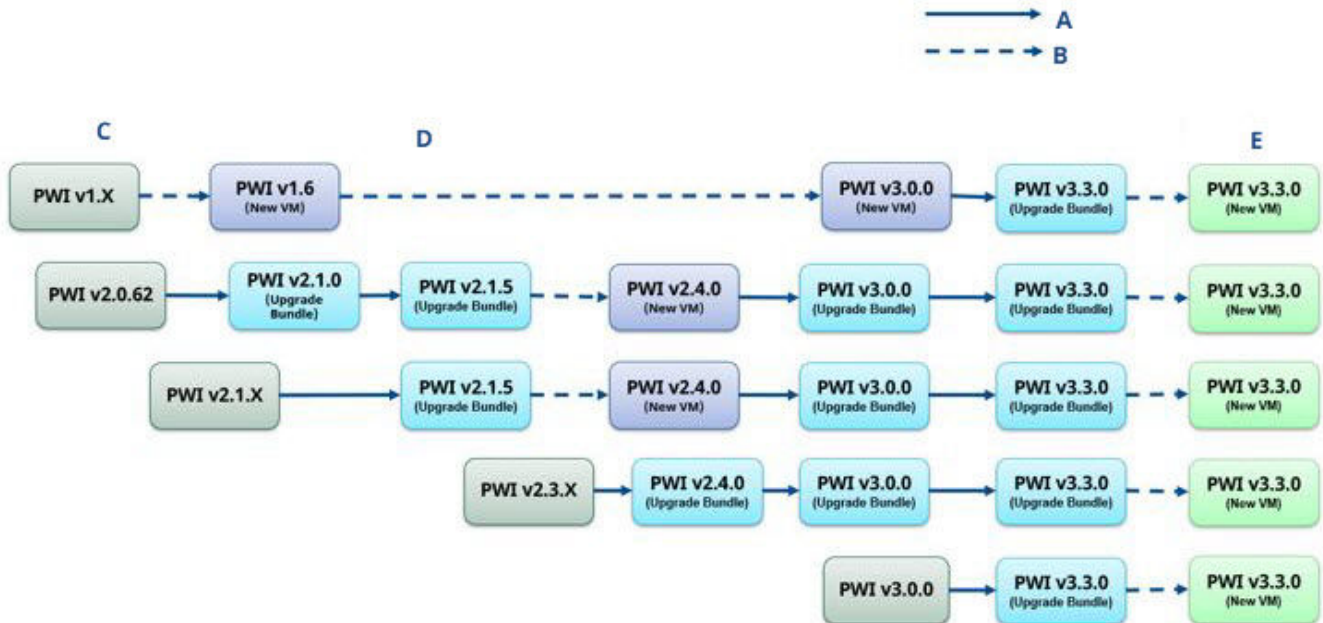
- Hard Disk of 512 GB
- Ability to expand disk with logical volume manager

A user who is not on PWI v3.1.0 or higher may prefer to choose this OVA/VHD to receive the additional disk size benefits along with other 3.3.0 enhancements.

Restoration support

In PWI v3.3.0, there are some updates related to ports and protocols, and it is necessary to handle these appropriately during backup and restoration. To ensure that, restoration of other PWI system backups is only supported from v3.3.0.

To restore backups from older PWI systems, customers are required to upgrade their existing PWI system to v3.3.0 with an in-place upgrade bundles and then create a restorable backup that can be restored into a fresh v3.3.0 OVA/VHD.



- A. In-place update (backup not required)
- B. Virtual machine update (backup required)
- C. Current version
- D. Version required to save a backup
- E. Latest version

Note

If a customer is on v3.1.0, Emerson recommends an in-place upgrade to v3.3.0, as there is no benefit of going for a new OVA.

Notes and known issues

User and access management changes

With this release, local user account maintenance is handled with a dedicated menu under **User Settings**. This section contains local user password rules and accounts creation. A user account allows a user to enter the Plantweb Insight (PWI) system, but without a proper access permission, users cannot perform anything on the system.

A new menu called **Manage Access** provides access related features. Access should be granted to both Local and LDAP accounts. A user without any access is restricted at the PWI login page itself since they cannot perform any actions.

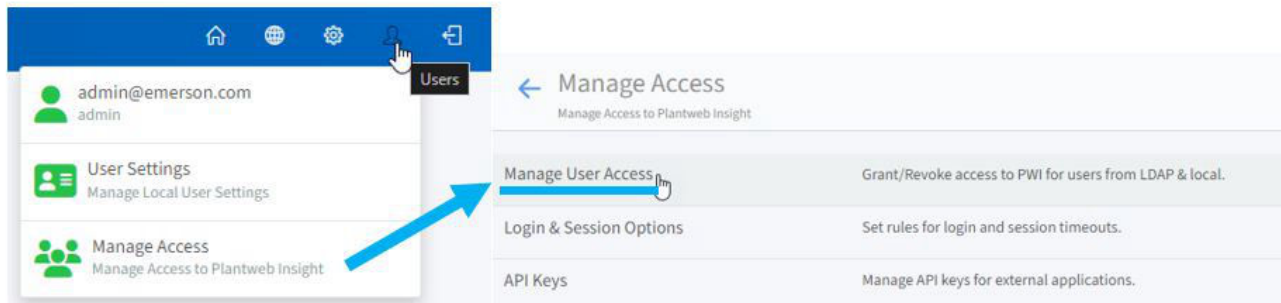
It is necessary to grant access to both LDAP and Local user accounts.

LDAP user accounts

With 3.3.0, PWI uses LDAP servers only for authenticating user logins and doesn't consider security groups of the user in order to derive/authorize user roles. From this release onwards, an LDAP server configuration will not capture PWI role to LDAP security groups mapping.

PWI is enhanced to grant application specific roles to every user. Here the user can be a local account or an LDAP account. In both the cases users must be granted with access in order to access PWI applications.

To support existing users, PWI has done a migration of known LDAP user accounts to have access as per their current LDAP security groups. Administrators are recommended to verify roles of LDAP users after upgrading their system to 3.3.0. Access can be granted/verified from **Manage Access** → **Manage User Access**.



Cert bundle uploads

With 3.3.0, **Default SSL Cert** and **Custom SSL Cert** certificate uploads now expect a single file containing the **Entity Cert**, **Entity Key**, **Root CA Cert**, and any **Intermediary CA Cert** as part of the certificate chain, all in PEM format, stored in a file ending with a **.PEM** extension.

Certificate Management

Certificate Management Configurations

Home / Platform Settings / Certificate Management

Default SSL Cert Custom SSL Cert Peer Cert

Note: Uploading a new certificate will replace the current default certificate, and reverting to the original default certificate is not possible. you must re-establish all secure connections with the newly uploaded certificate.

UPLOAD CERTIFICATE BUNDLE

BUNDLE FILE : NO FILE CHOSEN

Certificate Management

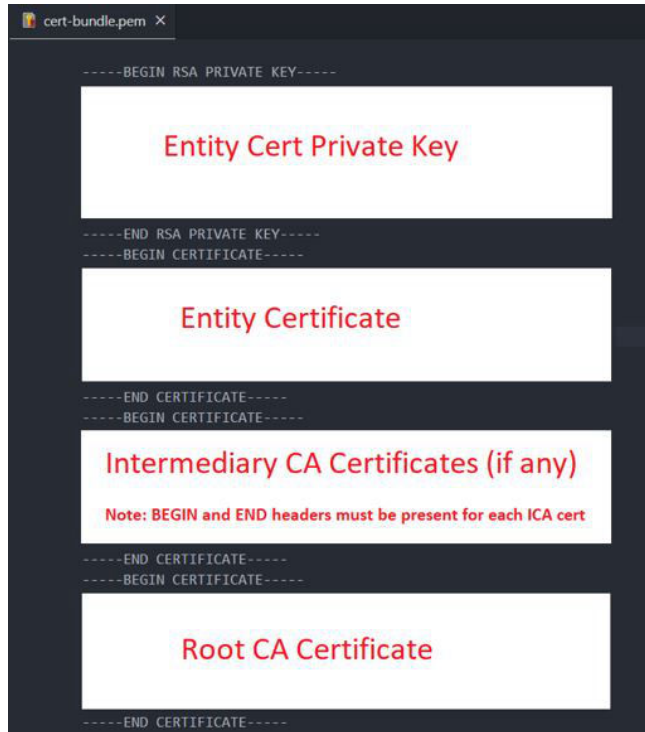
Certificate Management Configurations

Home / Platform Settings / Certificate Management

Default SSL Cert Custom SSL Cert Peer Cert

UPLOAD 3RD PARTY CREDENTIALS: KEY, CERTIFICATE AND SIGNING CA

Certificate Name	User loaded/Default	Validity	Upload Cert
HTTPS Cert	<input type="radio"/> USER LOADED <input checked="" type="radio"/> DEFAULT	Entity Cert Valid <input checked="" type="checkbox"/>	BUNDLE FILE : <input type="text" value="CHOOSE FILE"/> NO FILE CHOSEN <input type="button" value="SUBMIT"/> <input type="button" value="CANCEL"/>
OPC-UA client cert	<input checked="" type="radio"/> USER LOADED <input type="radio"/> DEFAULT	Entity Cert Valid <input checked="" type="checkbox"/>	BUNDLE FILE : <input type="text" value="CHOOSE FILE"/> NO FILE CHOSEN <input type="button" value="SUBMIT"/> <input type="button" value="CANCEL"/>
OPC-UA server cert	<input type="radio"/> USER LOADED <input checked="" type="radio"/> DEFAULT	Entity Cert Valid <input checked="" type="checkbox"/>	BUNDLE FILE : <input type="text" value="CHOOSE FILE"/> NO FILE CHOSEN <input type="button" value="SUBMIT"/> <input type="button" value="CANCEL"/>

Figure 1: Example of the Cert Bundle File

On-prem and Cloud connectivity versions

A connectivity solution is formed with two or more PWI systems joining together and aggregating data to an App Only system.

For On-Prem connectivity solution, one or more On-Prem Connectors will send data to a On-Prem App Only system.

For Cloud connectivity solution, one or more Cloud Connectors will send data to a Cloud App Only system.

It's necessary to set up PWI Connector and PWI App only systems of compatible versions. For better compatibility, Emerson recommends using same PWI version for **Connector** and **App Only** systems of On-Prem and Cloud connectivity solutions.

When the sender configuration is deleted from On-Prem App Only system, the current connection is not closed even though the firewall is updated. In order to fix this issue, the secondary MQTT broker is restarted, which will interrupt the connection of other data senders for one or two seconds.

Similarly, the secondary MQTT broker is restarted whenever the MQTT Clients or Data receiver configurations are updated.

Capturing of audit events by remote audit/Syslog servers

In this release, PWI comes with the capability to capture some of the critical platform level events. These events are stored to a file system and can be downloaded by users through the platform diagnostic backup feature.

The audit feature also supports sending of the same events to external syslog servers. If a user has a TLS connection, add the CA certificate in the **Certificate Management Peer Cert** tab of the **Certificate Management** page before proceeding to add the external syslog server. This ensures that the system can pick up the new configuration with the certificates necessary for verification.

Users can configure their syslog servers and establish certificate-based secure connections by navigating to **Home > Platform Settings > Remote Audit Logging**. Once the connection is established, platform events are also sent to these servers along with writing to the file system.

The system may fail to capture events in the case of an external syslog server becoming unreachable. To prevent this, Emerson recommends ensuring that the configured syslog servers are always reachable by the PWI system. If a

server is not reachable, Emerson recommends removing the specific server configuration. This will allow the events to continue to be written to file system and also to other reachable syslog servers.

Remote audit logging - issue with external Syslog TLS connections

PWI audits are written to the files system and also handed over to external syslog servers.

PWI’s syslog server connection supports UDP, TCP, and TLS communications. For TLS, certificate based mutual authentication is performed by exchanging certificates during the handshake. An issue with this TLS connection scenario was noticed where it breaks capturing of events to files as well as to remote servers. The PWI audit system is getting stuck at the certificate exchange and can end up in an unrecoverable state.

At this moment, if any users get into this state with a TLS connection of a remote Syslog server configuration, the only way to recover PWI is to restart VM.

Applications

App name	App version	Release date	Release notes
Cooling Tower	2.3.0-build-3	March 1, 2023	No changes from last release
Steam Trap	2.6.0-build-4	August 3, 2024	ISA-95 Location Hierarchy: Users can view and filter assets by specific locations
Heat Exchanger	2.3.0-build-4	March 1, 2023	No changes from last release
Air Cooled Heat Exchanger	2.3.0-build-1	March 1, 2023	No changes from last release
PRV	2.7.0-build-35	April 10, 2024	Differential pressure transmitter for pilot operated valve
Pump	2.4.0-build-2	March 1, 2023	No changes from last release
Network Management	3.2.0	August 3, 2024	<ul style="list-style-type: none"> ■ Network diagram updates: Users can upload their own image to the network diagram, filter by number of hops, use color indication for path stability between devices, and determine RSSI values ■ Email alert functionality: Users can choose frequency of email alerts (Immediate or Daily Summary) and configure alert weights (Informational, Warning, Critical) ■ ISA-95 location hierarchy: Users can view and filter assets by specific locations ■ New network statuses: <ul style="list-style-type: none"> — Unreachable — Pending — Out of Service — No Data ■ New alerts: <ul style="list-style-type: none"> — Device Unreachable — Device Reachable — Gateway Reachable — Gateway Out of Service — Gateway — No Data ■ Support for on-prem connectivity solution

App name	App version	Release date	Release notes
Power Module	3.1.2	July 8, 2024	Support for on-prem connectivity solution
WPG	2.3.0-build-2	March 1, 2023	No changes from last release
Inline Corrosion	1.2.0-build-3	March 1, 2023	No changes from last release
Non-Intrusive Corrosion	1.7.1	July 24, 2024	<ul style="list-style-type: none"> ■ Ability to deploy across multiple network layers, to allow one direction communications through network layers ■ User and Editor roles within the application to limit editing of certain fields ■ User-based access control to individual datasets, to allow segregation of data from individuals
Connected Lighting	2.4.0	October 6, 2023	No changes from last release
Valve Health	1.3.0	October 1, 2024	Integration with OPC UA® server. Compatible with non-Emerson positioners: <ul style="list-style-type: none"> ■ Masoneilan SVI II AP ■ AVP702 ■ AVP302

Previous versions

Version	Date
3.2.0	November 2023
3.1.0	July 2023
3.0.0	March 2023
2.4.1	July 2022
2.4.0	April 2022
2.1.5	April 2022
2.3.5	February 2022
2.3.4	November 2021
2.3.3	November 2021
2.3.2	September 2021
2.3.1	August 2021
2.3.0	June 2021
2.1.4	April 2021
2.1.3	March 2021
2.1.2	February 2021
2.1.1	January 2021
2.1.0	October 2020
2.0.062	June 2020
1.6.018	February 2020
1.6.017	January 2020

Version	Date
1.6.014	September 2019
1.5.022	January 2019
1.4.016	April 2018
1.3.002	September 2017
1.2.049	July 2017
1.1.016	February 2017
1.0.022	December 2016

Framework version 3.2.0

pwi-v3.2.0

Release date: November 2023

Release details

Version	3.2.0
Release date	November 10, 2023
Release type	Minor
In-place upgrade allowed on	2.4.1, 3.0.0, 3.1.0
Restore supported from	3.2.0

Included in this release

Enhanced licensing capability

Enhanced licensing capability for application features to better support customer licensing.

Support of new data source MQTT - AMS data connector for Valve Health application

AMS provides some of the valve health details in terms of data and alerts, and Valve Health application would like to consume those details. One of the protocols supported by AMS is MQTT, and Plantweb Insight™ (PWI) is enhanced to leverage this information.

Location hierarchy configuration - ISA 95

Location hierarchy configuration - ISA 95 is a guided and flexible hierarchy configuration support to on-board location details of a customer. It is also a CSV-based import capability and hierarchy representation with an expandable/collapsible view. Necessary support from platform to applications in choosing location information during asset configuration and the ability to filter them accordingly.

Support for 250 gateways for PWI on-premises instances

In the past, only 100 Emerson *WirelessHART*® gateways were allowed to be configured to the PWI appliance. This capacity has been increased to 250 gateways.

Default certificates enhancements

The following two enhancements are performed in this release. However, they are only reflected with a rebuild of default certificates on the v3.2.0 upgraded machine.

- CRL files generated and available for download.

- Certificate parameters like `keyUsage` and `extendedKeyUsage` are updated to support CRL and AMS connectivity.

Note

- Those customers who need the above capabilities had to rebuild certificates. Rebuild of certificates required customers to re-establish client/server connections with new certificates.
 - A new PWI v3.2.0 system will carry these changes by default, and there is no need to rebuild certificates.
-

Other improvements

- Refactored and improved the performance of components that exchange data between on-Premises and cloud.
- Updated OpenSSL on infrastructure components (HART® Client, OPC UA® Client, and OPC UA Server).
- Ensured support of large files (~10 GB) restoration on PWI-Edge and PWI-Cloud systems.
- Remove/block root user to prevent any security concerns.
- Updated npm packages with any vulnerabilities detected for the components impacted by this release.
- Ability to interact with the PWI system to perform network changes and diagnostics backup when the system fails to generate a license fingerprint. Emerson does not recommend performing any operations, except diagnostics backup and network configuration changes, with the system when it gets into this state.

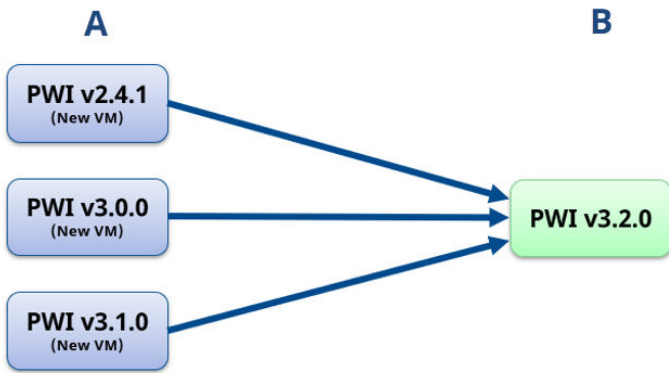
In-place upgrade

Upgrade bundle file name	<code>platform_upgrade-v3.2.0-build-7.plf.20231023_0358UTC-PRD.tar.gz.asc</code>
Upgrade bundle hash	<code>platform_upgrade-v3.2.0-build-7.plf.20231023_0358UTC-PRD.sha256</code>
Compatible with PWI-STD	Yes
Compatible with PWI-STD Enabled with IOTCS	Yes
Compatible with PWI-EDGE	Yes
Compatible with PWI-EDGE Enabled with IOTCS	Yes
Compatible with PWI-CLOUD	Yes

If you already have an existing PWI system, you can upgrade it to the current version v3.2.0 in the following manner.

Upgrade paths from existing latest PWI versions

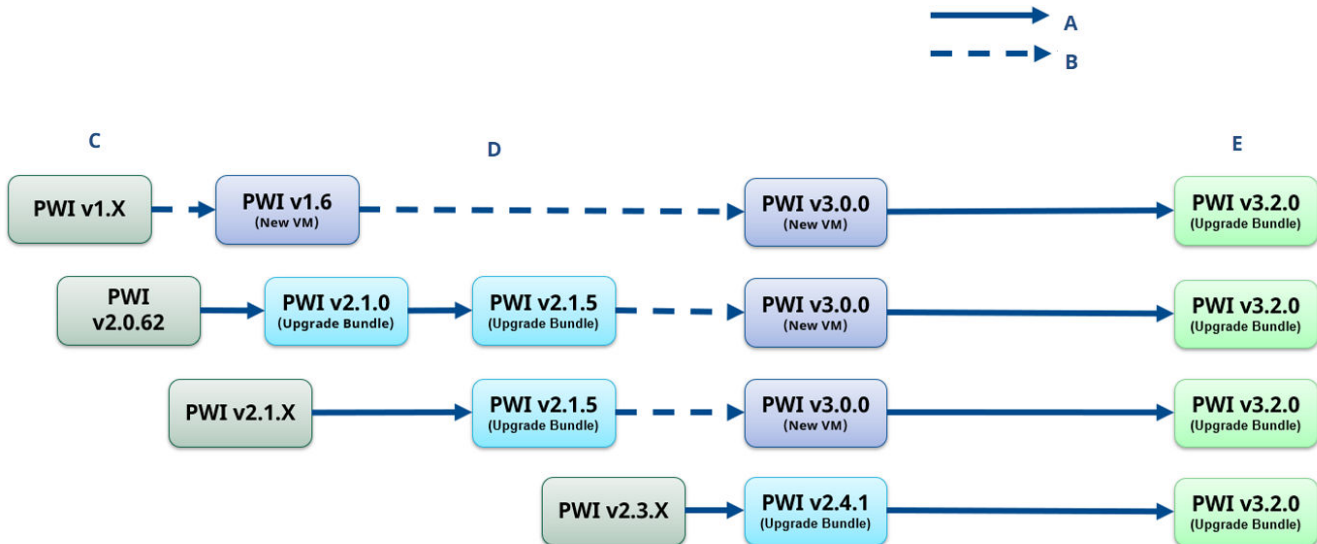
A direct upgrade is supported from following three PWI latest versions, and no actions are needed before or after the upgrade.



A. Current version
 B. Latest version

Upgrade paths from various PWI versions

If a customer has an older PWI version, they can choose to upgrade to latest PWI version v3.2.0 in the following upgrade path.



A. In-place update (backup not required)
 B. Virtual machine update (backup required)
 C. Current version
 D. Version required to save a backup
 E. Latest version

New virtual machine (VM) setup

This release also comes with an OVA/image to start a fresh Plantweb Insight™ (PWI) v3.2.0 instance. This OVA carries forward some of the following capabilities which were introduced in the previous release.

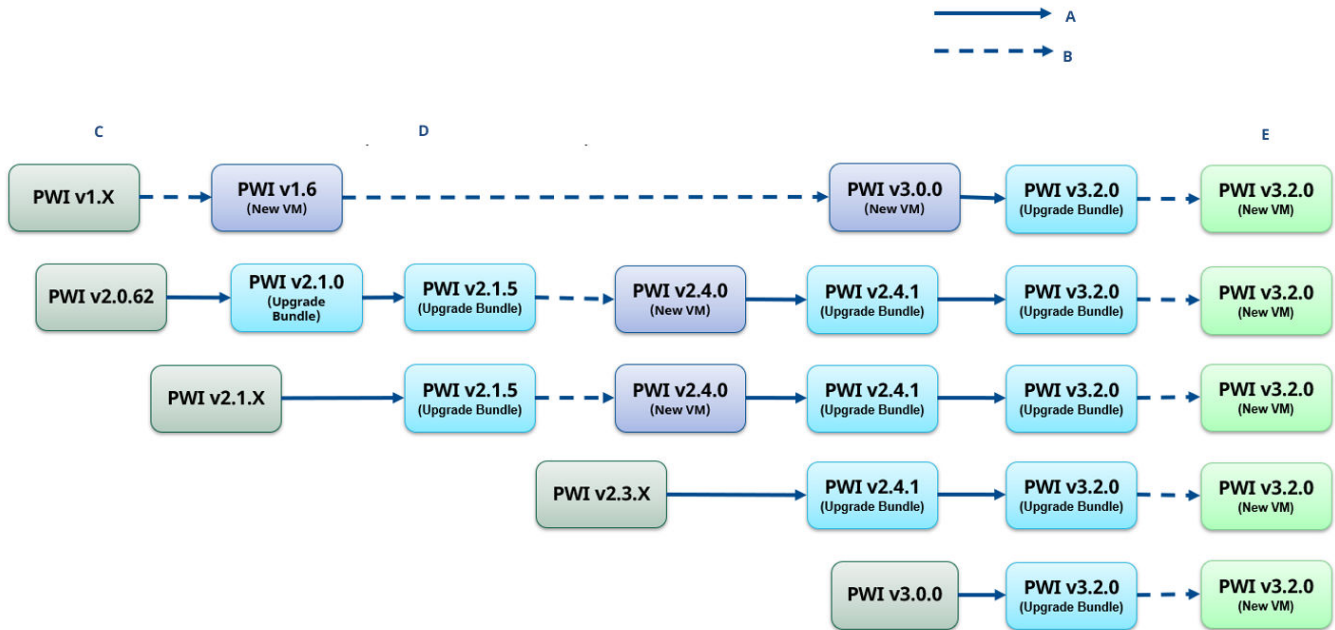
- Hard disk of 512 GB size
- Ability to expand disk with Logical Volume manager

A customer who is not on v3.1.0 may prefer picking this OVA to get the additional disk size benefits along with other 3.2.0 enhancements.

Restoration support

In v3.2.0, there are some improvements to default certificates and it is necessary to handle these appropriately during the backup and restoration. To ensure that, restoration of backup is only supported from v3.2.0.

To fulfil this, customers are required to upgrade their existing PWI system to v3.2.0 with an in-place upgrade bundles and perform a restorable backup.



If a customer is on version 3.1.0, Emerson recommends going with an in-place upgrade to reach version 3.2.0, as there is no benefit to going for a new OVA.

- A. *In-place update (backup not required)*
- B. *Virtual machine update (backup required)*
- C. *Current version*
- D. *Version required to save a backup*
- E. *Latest version*

Applications

App name	App version	Release date	Release notes
Cooling Tower	2.3.0-build-3	March 1, 2023	No changes from last release
Steam Trap	2.5.0-build-4	March 1, 2023	No changes from last release
Heat Exchanger	2.3.0-build-4	March 1, 2023	No changes from last release
Air Cooled Heat Exchanger	2.3.0-build-1	March 1, 2023	No changes from last release

App name	App version	Release date	Release notes
PRV	2.6.0-build-1	August 7, 2023	<ul style="list-style-type: none"> ■ Reduction of the calculation cycle interval from 5 minutes to 1 minute. Calculations are performed at a 1-minute interval, providing more frequent updates to the asset status. This includes asset status updates to external OPC UA® and Modbus® connections. ■ Introduce state latching for RELEASE events. Asset status published to OPC UA and Modbus now indicates if any new or ongoing release events were detected inside the 1-minute calculation window instead of the calculated current state of the asset once every minute.
Pump	2.4.0-build-2	March 1, 2023	No changes from last release
Network Management	3.1.1	June 8, 2023	No changes from last release
Power Module	3.1.1	June 8, 2023	No changes from last release
WPG	2.3.0-build-2	March 1, 2023	No changes from last release
Inline Corrosion	1.2.0-build-3	March 1, 2023	No changes from last release
Non-Intrusive Corrosion	1.6.0	October 10, 2023	<ul style="list-style-type: none"> ■ Corrosion rate threshold added. The threshold, above which the corrosion rate will be classified as high, can be specified for each measurement point. The default value is 0.1 mm/y (or 4 mpy). ■ Measurement intervals can be updated. The interval between measurements can be updated from the default of 12 hours. Only update the interval in consultation with Emerson, as it can affect battery life and network stability. ■ Support for Model A and Model M sensors. Model A sensors and Model M sensors (such as the WT210 A and WT210 M) are supported.
Connected Lighting	2.3.0	October 6, 2023	<ul style="list-style-type: none"> ■ Introducing group lighting controls in Mercmaster Connect Asset Details – calculate and track energy usage for standard dimmable luminaires controlled by the Mercmaster Connect luminaire. ■ Expansion of group motion sensing controls with instrumentation - Operate lighting groups with the group motion sensing control when gateways are mixed with instrumentation devices.
Location Awareness	1.3.8	Aug 16, 2023	Contact Emerson for latest release information.

Previous versions

Version	Date
3.1.0	July 2023
3.0.0	March 2023
2.4.1	July 2022
2.4.0	April 2022
2.1.5	April 2022
2.3.5	February 2022

Version	Date
2.3.4	November 2021
2.3.3	November 2021
2.3.2	September 2021
2.3.1	August 2021
2.3.0	June 2021
2.1.4	April 2021
2.1.3	March 2021
2.1.2	February 2021
2.1.1	January 2021
2.1.0	October 2020
2.0.062	June 2020
1.6.018	February 2020
1.6.017	January 2020
1.6.014	September 2019
1.5.022	January 2019
1.4.016	April 2018
1.3.002	September 2017
1.2.049	July 2017
1.1.016	February 2017
1.0.022	December 2016

Framework version 3.1.0

pwi-v3.1.0

Release date: July 2023

Security considerations

Category	Impacted?	Comments/details
Inbound ports	No	There are no new inbound ports opened as part of this release.
Outbound ports	Yes	<p>Plantweb Insight™ (PWI) IOTCS</p> <ul style="list-style-type: none"> ▪ host: all port: 8883 - For communication with Internet of things (IOT) devices on Azure IOT Hub <p>PWI Cloud</p> <ul style="list-style-type: none"> ▪ host: all port 5671 - communication with Event Hub on Azure IOT Hub ▪ host: 168.63.129.16 port: 32526 - For Azure Agent communication. For more information, see What is IP address 168.63.129.16? ▪ host: all port: 80 - For communication with Emerson's CrowdStrike Agent

Category	Impacted?	Comments/details
Data sensitivity	Yes	Emerson has introduced IOT Devices and Event Hub configuration screens for IOTCS and Cloud variants. These configuration screens capture some shared access keys of those Azure resources. <ul style="list-style-type: none"> ▪ ensured that only administrators can view these keys on the user interface (UI) ▪ ensured that data at rest is encrypted (client encryption) ▪ excluded those details as part of diagnostics backup
Security vulnerabilities	Yes	Emerson has addressed the following tickets which are related to security vulnerabilities. <ul style="list-style-type: none"> ▪ PP-1274: updated alpine image to 3.17 to patch sqlite vulnerability ▪ PP 1303: fixed NPM vulnerabilities ▪ open Ssl related ticket to be added

In-place upgrade

Existing Plantweb Insight™ (PWI) virtual machine (VM) instances have a disk capacity of 125 GB or 250 GB based on the version you are on.

If this disk capacity is good enough for the networks, you can remain on the same VM and use the in-place upgrade file `platform_upgrade-v3.1.0-build-13.plf.20230519_0928UTC-PRD.tar.gz.asc` to reach the latest version.

This in-place upgrade enables you with all the features and bugs of PWI 3.1.0 release. Disk size of 512 GB and ability to expand disk will only be available with a new PWI VM with x.

After upgrading to PWI 3.1.0, there is a new feature under the rescue console to check the available disk size. You can check the available disk space and move to a new 3.1.0 VM at a later time as well.

Upgrade requirements

- Platform bundle (Platform v 3.1.0-build-12) should only be installed on PWI 2.4.0 or higher.
- If a customer is still on a version older than 2.4.0, they should first upgrade to 2.4.0 before installing this platform upgrade bundle.

Table 1: Upgrade bundle compatibility metrics with existing PWI variants

Version	PWI-STD	PWI-EDGE	PWI-IOTCS	PWI-CLOUD
2.4.0 and later	Compatible	Incompatible	Compatible	Compatible ⁽¹⁾
2.3.5 and older	Incompatible	Incompatible	Incompatible	Incompatible

(1) *PWI-CLOUD upgrade requires configuration of eventhub. In the past, it was a file-based configuration. With the 3.1.0 release, it has changed to a user interface (UI) screen.*

Create new virtual machine (VM)

New and existing customers can get this OVA and create Plantweb Insight™ (PWI) 3.1.0 VM, which enables the following additional capabilities:

- disk space of 512 GB
- ability to expand the disk (A disk should be fully allocated and should not be removed once allocated)

To support users moving from their existing VMs to the newer version of OVA, Emerson has introduced restoration support from the following versions:

- PWI 2.4.1 to PWI 3.1.0

- PWI 3.0.0 to PWI 3.1.0
- PWI 3.1.0 to PWI 3.1.0 (for those users who have initially upgraded to 3.1.0 in-place and later wish to move to new OVA)

The following sections describe steps to move to the new PWI 3.1.0 VM. Pick the appropriate section based on the version you have.

From PWI v 2.4.1, v 3.0.0, and 3.1.0:

Procedure

1. Take restorable backup of platform.
2. Take restorable backup of each application.
3. Set up a new **PWI v 3.1.0 OVA**.
4. Restore the platform's backup on the new PWI v 3.1.0 VM.
5. Install the required latest apps on the new PWI v 3.1.0 VM.
6. Install the licenses of the applications.
7. Restore the applications' backups one by one to the new PWI v 3.1.0 VM.

From PWI v 2.4.2 patch version

There was a hotfix release to fix the OPC UA® timeout issue that was released to specific customers. If you have upgraded to this version:

Procedure

1. Upgrade to PWI v 3.0.0 with an in-place upgrade: `platform_upgrade-v3.0.0-build-13.plf.20221012_0835UTC-PRD.tar.gz.asc`.
2. Follow these [steps](#).

From PWI v 2.3.0, v 2.3.1, v 2.3.2, v 2.3.3, v 2.3.4, v 2.3.5, and v 2.4.0

Procedure

1. Upgrade PWI to v 2.4.1 by installing the `platform_upgrade-v3.0.0-build-13.plf.20221012_0835UTC-PRD.tar.gz.asc` upgrade bundle.
2. Follow these [steps](#).

From PWI v 2.1.0, v 2.1.1, v 2.1.2, v 2.1.3, v 2.1.4, and v 2.1.5

Procedure

1. Move to PWI v 2.4.0 VM, which has support for restoration of data from PWI v 2.1.5.
 - a) Ensure you are using PWI v 2.1.5.
 - b) If your PWI version is lower than v 2.1.5, perform the upgrade to v 2.1.5 by installing the `platform_upgrade-2.1.5.20220322_0318UTC-PRD.tar.gz` upgrade bundle.
 - c) Install app versions required on version 2.1.5.
 - d) Take a restorable backup of the platform.
 - e) Take restorable backups of each application.
 - f) Set up a new PWI v 2.4.0 VM.
 - g) Install apps required on version 2.4.0.
 - h) Restore v 2.1.5 platform's backup on PWI v 2.4.0 VM with the option **Restore from PWI V2**.

- i) Restore application backups one by one.

You are now on PWI v 2.4.0.

2. Follow these [steps](#).

From PWI v 1.6

Restoration of backups from v 1.6 is obsoleted in PWI v 2.4.0. To perform the restoration:

Procedure

1. Set up a PWI 2.4.0 OVA and restore backup from v 1.6.
 - a) Take backups of the platform and apps from the v 1.6 system.
This will be a single file on this version of the system.
 - b) Set up a new PWI v 2.4.0 OVA.
 - c) Install the required apps on v 2.4.0 VM.
 - d) Restore the v 1.6 backup file to v 2.4.0 VM with the option **Restore from 1.6**.

You are now on PWI v 2.4.0.

2. Follow these [steps](#).

Applications

App name	App version	Release date	Release notes
Cooling Tower	2.3.0-build-3	March 1, 2023	No changes from last release
Steam Trap	2.5.0-build-4	March 1, 2023	No changes from last release
Heat Exchanger	2.3.0-build-4	March 1, 2023	No changes from last release
Air Cooled Heat Exchanger	2.3.0-build-1	March 1, 2023	No changes from last release
PRV	2.5.0-build-4	March 1, 2023	No changes from last release
Pump	2.4.0-build-2	March 1, 2023	No changes from last release
Network Management	3.1.1	June 8, 2023	<ul style="list-style-type: none"> ▪ IOTCS support ▪ improved handling of identical gateway tags ▪ fixed device drop-down loading issue in network diagram ▪ bug fix: device count in network is doubled when a gateway tag is changed
Power Module	3.1.1	June 8, 2023	<ul style="list-style-type: none"> ▪ IOTCS support ▪ added Site and Location columns in Alerts screen ▪ restricted acknowledgement of ongoing alerts ▪ bug fix: location details were missing when navigating from Alerts screen to asset details ▪ quality assurance bug fixes
WPG	2.3.0-build-2	March 1, 2023	No changes from last release
Inline Corrosion	1.2.0-build-3	March 1, 2023	No changes from last release
Non-Intrusive Corrosion	1.5.1	April 3, 2023	No changes from last release
Connected Lighting	2.0.0	March 1, 2023	No changes from last release
Location Awareness	1.3.8	Aug 16, 2023	Contact Emerson for latest release information.

Previous versions

Version	Date
3.0.0	March 2023
2.4.1	July 2022
2.4.0	April 2022
2.1.5	April 2022
2.3.5	February 2022
2.3.4	November 2021
2.3.3	November 2021
2.3.2	September 2021

Version	Date
2.3.1	August 2021
2.3.0	June 2021
2.1.4	April 2021
2.1.3	March 2021
2.1.2	February 2021
2.1.1	January 2021
2.1.0	October 2020
2.0.062	June 2020
1.6.018	February 2020
1.6.017	January 2020
1.6.014	September 2019
1.5.022	January 2019
1.4.016	April 2018
1.3.002	September 2017
1.2.049	July 2017
1.1.016	February 2017
1.0.022	December 2016

Framework version 3.0.0

pwi-v3.0.0

Release date: March 2023

- Version 3.0.0 is available as an in-place system upgrade and as a new OVA or VHD.
- Version 3.0.0 as a new OVA or VHD introduces an increased disc size of 250 GB.
- Version 3.0.0 as an upgrade bundle will retain the previous version's disc size (100 GB).
 - Only install upgrade bundle (platform_upgrade-v3.0.0-build-14) on latest Plantweb Insight™ (PWI) 2.4.0 or 2.4.1.
 - If using a version older than 2.4.0, first upgrade to 2.4.0 before installing this upgrade bundle.

Note

The PWI 3.0.0 upgrade process takes slightly more time than usual upgrades. Emerson recommends avoiding navigating/refreshing the page during the installation. A completion status is shown once the system is ready for use.

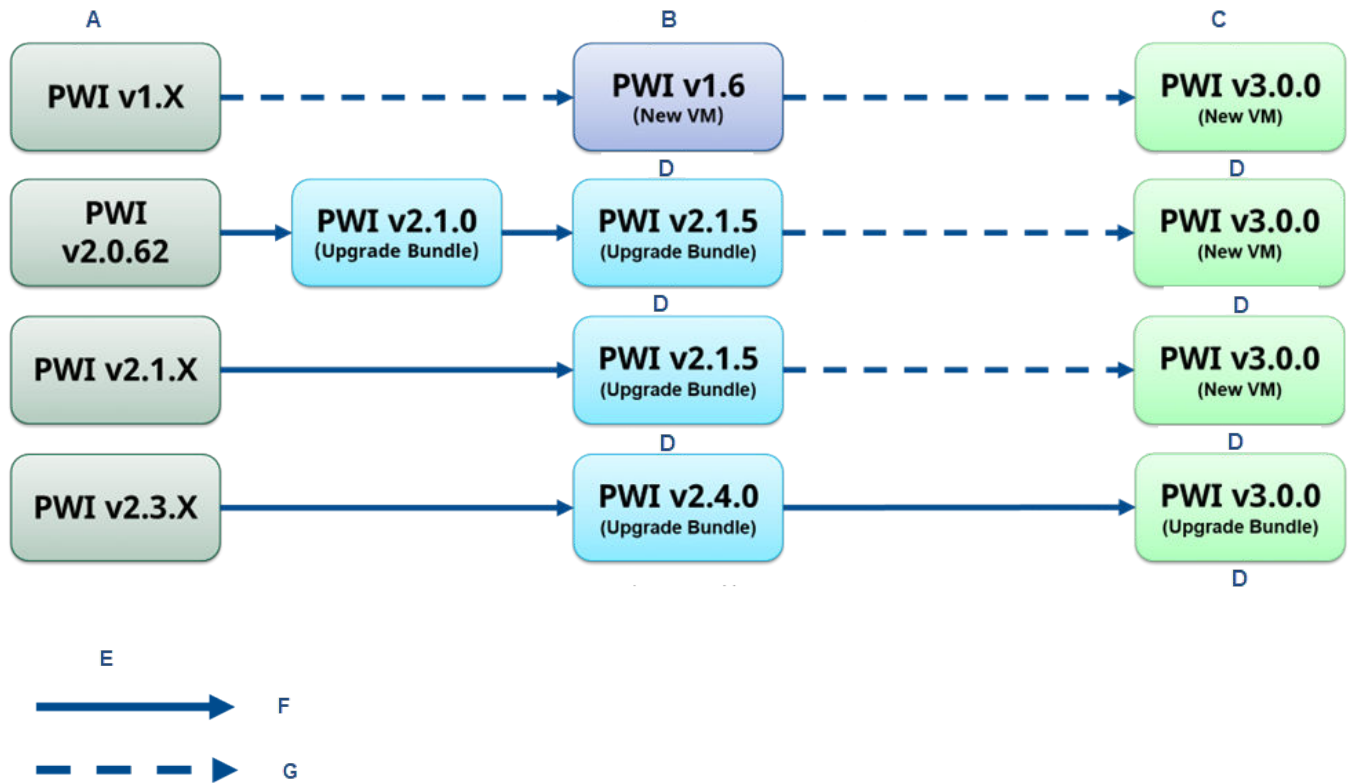
- Application updates on this release are tied with framework version v3.0.0-build-14.
 - Only install application updates from this release after upgrading the framework.
 - Existing applications that do not have an update with this release can continue to run on this new version of the framework.

Steps to perform proper upgrade:

1. Ensure you are using PWI version 2.4.0 or 2.4.1. See below for backup/restore paths from previous framework versions.
2. Uninstall any of the existing apps that have updates available (do not check **clean uninstall** unless desired).
3. Install framework upgrade bundle (platform_upgrade-v3.0.0-build-14).

4. Install new app bundles.

Figure 2: User Upgrade Paths to Version 3.0.0



- A. Current version
- B. Version required to save a backup
- C. Latest version
- D. Requires new apps
- E. Key
- F. In-place update (backup not required)
- G. Virtual Machine update (backup required)

Framework changes

- increased disc size of 250 GB for OVA/VHD only
- support for licensing
- defaulted number of allowed gateway data sources
- OPC UA® – granular timeout support from default/template/publish
- bug fix – related to data handling from gateways
- bug fix – restore status stuck at In Progress when performing a restore on PWI 3.0.0

Table 2: Applications

App name	App version	Release date	Release notes
Cooling Tower	2.3.0-build-3	March 1, 2023	<ul style="list-style-type: none"> ■ support for licensing ■ security vulnerability fixes

Table 2: Applications (*continued*)

App name	App version	Release date	Release notes
Steam Trap	2.5.0-build-4	March 1, 2023	<ul style="list-style-type: none"> ▪ support for licensing ▪ security vulnerability fixes ▪ user interface (UI) footer update
Heat Exchanger	2.3.0-build-4	March 1, 2023	<ul style="list-style-type: none"> ▪ support for licensing ▪ security vulnerability fixes ▪ bug fix: exported asset detail – installation date was split into two columns ▪ bug fix: search function was not fully functional in Alerts page ▪ bug fix: null value from OPC UA server for asset cost when value was 0
Air Cooled Heat Exchanger	2.3.0-build-1	March 1, 2023	<ul style="list-style-type: none"> ▪ support for licensing ▪ security vulnerability fixes
PRV	2.5.0-build-4	March 1, 2023	<ul style="list-style-type: none"> ▪ email notifications for PRV releases ▪ support for licensing ▪ security vulnerability fixes ▪ bug fix: status of >2500th asset not showing on Asset Summary page
Pump	2.4.0-build-2	March 1, 2023	<ul style="list-style-type: none"> ▪ support for licensing ▪ security vulnerability fixes
Network Management	3.1.0-build-1	March 1, 2023	<ul style="list-style-type: none"> ▪ support for licensing ▪ security vulnerability fixes
Power Module	3.1.0-build-2	March 1, 2023	<ul style="list-style-type: none"> ▪ support for licensing ▪ security vulnerability fixes
WPG	2.3.0-build-2	March 1, 2023	<ul style="list-style-type: none"> ▪ support for licensing ▪ security vulnerability fixes
Inline Corrosion	1.2.0-build-3	March 1, 2023	<ul style="list-style-type: none"> ▪ support for licensing ▪ updated to openssl
Non-Intrusive Corrosion	1.5.1	April 3, 2023	<ul style="list-style-type: none"> ▪ fix OPC bad timeout error ▪ fix disk storage filling up ▪ added support for new ET410 v4 sensor ▪ fix Permasense Shape Indicator (PSI) calculation ▪ restorable backups ▪ UI refresh ▪ support for licensing
Connected Lighting	2.0.0	March 1, 2023	Support for licensing
Location Awareness	1.3.8	August 16, 2023	Contact Emerson for latest release information.

Previous versions	Release date
2.4.1	July 2022
2.4.0	April 2022
2.1.5	April 2022
2.3.5	February 2022
2.3.4	November 2021
2.3.3	November 2021
2.3.2	September 2021
2.3.1	August 2021
2.3.0	June 2021
2.1.4	April 2021
2.1.3	March 2021
2.1.2	February 2021
2.1.1	January 2021
2.1.0	October 2020
2.0.062	June 2020
1.6.018	February 2020
1.6.017	January 2020
1.6.014	September 2019
1.5.022	January 2019
1.4.016	April 2018
1.3.002	September 2017
1.2.049	July 2017
1.1.016	February 2017
1.0.022	December 2016

Framework version 2.4.1

pwi-v2.4.1

Release date: July 2022

- Version 2.4.1 is available as an in-place system upgrade applicable on v2.4.0 and above (822 MB).
- Only install framework bundle (platform_upgrade-v2.4.1-build-5) on latest Plantweb Insight™ (PWI) LTS v2.4.0.
 - If using a version older than v2.4.0, first upgrade to v2.4.0 before installing this framework bundle.
- Application upgrades on this release are tied with framework version v2.4.1-build-5.
 - Install both platform and application upgrades at the same time. Do not upgrade only platform or only applications.
- Once applications are upgraded, do not downgrade application versions.

Steps to perform proper upgrade:

1. Make sure you are using PWI v2.4.0.
2. Uninstall any of the existing apps:

- Steam Trap
- Network Management
- Air Cooled Heat Exchanger
- Heat Exchanger
- PRV
- Pump
- Pressure Gauge

Do not select **clean uninstall** unless desired.

3. Install framework upgrade bundle (platform_upgrade-v2.4.1-build-5).
4. Install new app bundles.

Framework changes

- dual HART® support on same gateway Internet protocol (IP)
- Modbus® default timeout for all variables increased from 60 seconds to 600 seconds
- minimum validity period of user uploaded certificates changed to 90 days instead of 180 days
- session idle time out configuration - indicate when exceeding the recommended idle time
- security vulnerability fixes
- bug fixes

Table 3: Applications

App name	App version	Release date	Release notes
Cooling Tower	2.2.5	July 1, 2022	<ul style="list-style-type: none"> ■ security vulnerability fixes ■ support for dual <i>WirelessHART</i>® ■ bug fix: cooling tower efficiency calculation
Steam Trap	2.4.0	July 1, 2022	<ul style="list-style-type: none"> ■ temperature units are now user configurable ■ asset names of existing assets can be edited ■ security vulnerability fixes ■ support for dual <i>WirelessHART</i> ■ bug fix: status of >2500th asset was not showing
Heat Exchanger	2.2.4	July 1, 2022	support for dual <i>WirelessHART</i>
Air Cooled Heat Exchanger	2.2.4	July 1, 2022	<ul style="list-style-type: none"> ■ support for dual <i>WirelessHART</i> ■ bug fix: variable status was not shown when status was bad
PRV	2.3.2	July 1, 2022	<ul style="list-style-type: none"> ■ support for dual <i>WirelessHART</i> ■ bug fix: variable status was not shown when status was bad
Pump	2.3.2	July 1, 2022	support for dual <i>WirelessHART</i>
Network Management	3.0.4	July 1, 2022	<ul style="list-style-type: none"> ■ security vulnerability fix ■ bug fix: network diagram not loading ■ bug fix: unable to hide alerts
Power Module	3.0.2	March 24, 2022	No changes from last release
WPG	2.2.3	July 1, 2022	support for dual <i>WirelessHART</i>

Table 3: Applications (continued)

App name	App version	Release date	Release notes
Inline Corrosion	1.1.5	March 24, 2022	No changes from last release
Non-Intrusive Corrosion	1.3.0	January 26, 2022	No changes from last release
Connected Lighting	1.2.0	February 18, 2022	No changes from last release
Location Awareness	1.3.6	N/A	Contact Emerson for latest release information.

Previous versions	Release date
2.4.0	April 2022
2.1.5	April 2022
2.3.5	February 2022
2.3.4	November 2021
2.3.3	November 2021
2.3.2	September 2021
2.3.1	August 2021
2.3.0	June 2021
2.1.4	April 2021
2.1.3	March 2021
2.1.2	February 2021
2.1.1	January 2021
2.1.0	October 2020
2.0.062	June 2020
1.6.018	February 2020
1.6.017	January 2020
1.6.014	September 2019
1.5.022	January 2019
1.4.016	April 2018
1.3.002	September 2017
1.2.049	July 2017
1.1.016	February 2017
1.0.022	December 2016

Framework version 2.4.0

pwi-v2.4.0

Release date: April 2022

Version 2.4.0 is available as both an in-place system upgrade applicable on v2.3.0 and above (663 MB) and as a standalone virtual machine (2.59 GB).

	Changes
Framework	<ul style="list-style-type: none"> ▪ backup/restore functionality <ul style="list-style-type: none"> — Plantweb Insight™ (PWI) v2.4.0 introduces two types of backups: diagnostic and restorable backups. — You can perform a backup of either type for either the framework and/or specific application(s). — If using PWI v2.1.X or older versions, first upgrade to v2.1.5 to take restorable system and application backups. — If using PWI v2.3.X or later, you can apply the in-place update to get to v2.4.0. ▪ ability to configure internal docker network to avoid subnet conflicts ▪ OPC UA® client fix related to servers that use a hostname instead of an Internet protocol (IP) address (DeltaV™) ▪ security updates
Applications	Applications now support restorable backups.

App name	App version	Release date	Release notes
Cooling Tower	2.2.4	March 24, 2022	<ul style="list-style-type: none"> ▪ ability to capture restorable backup ▪ ability to restore a backup
Steam Trap	2.3.1	March 24, 2022	<ul style="list-style-type: none"> ▪ ability to capture restorable backup ▪ ability to restore a backup
Heat Exchanger	2.2.3	March 24, 2022	<ul style="list-style-type: none"> ▪ ability to capture restorable backup ▪ ability to restore a backup
Air Cooled Heat Exchanger	2.2.3	March 24, 2022	<ul style="list-style-type: none"> ▪ ability to capture restorable backup ▪ ability to restore a backup
PRV	2.3.1	March 24, 2022	<ul style="list-style-type: none"> ▪ ability to capture restorable backup ▪ ability to restore a backup
Pump	2.3.1	March 24, 2022	<ul style="list-style-type: none"> ▪ ability to capture restorable backup ▪ ability to restore a backup
Network Management	3.0.3	March 24, 2022	<ul style="list-style-type: none"> ▪ ability to capture restorable backup ▪ ability to restore a backup
Power Module	3.0.2	March 24, 2022	<ul style="list-style-type: none"> ▪ ability to capture restorable backup ▪ ability to restore a backup
WPG	2.2.2	March 24, 2022	<ul style="list-style-type: none"> ▪ ability to capture restorable backup ▪ ability to restore a backup
Inline Corrosion	1.1.5	March 24, 2022	<ul style="list-style-type: none"> ▪ ability to capture restorable backup ▪ ability to restore a backup
Non-Intrusive Corrosion	1.3.0	January 26, 2022	<ul style="list-style-type: none"> ▪ new remaining life analysis ▪ new application program interface (API) capabilities ▪ performance and useability improvements ▪ improved functionality over legacy Data Manager software

App name	App version	Release date	Release notes
Connected Lighting	1.2.0	February 18, 2022	No changes from last release
Location Awareness	1.2.4	March 29, 2022	Contact Emerson for latest release information.

Previous versions	Release date
2.1.5	April 2022
2.3.5	February 2022
2.3.4	November 2021
2.3.3	November 2021
2.3.2	September 2021
2.3.1	August 2021
2.3.0	June 2021
2.1.4	April 2021
2.1.3	March 2021
2.1.2	February 2021
2.1.1	January 2021
2.1.0	October 2020
2.0.062	June 2020
1.6.018	February 2020
1.6.017	January 2020
1.6.014	September 2019
1.5.022	January 2019
1.4.016	April 2018
1.3.002	September 2017
1.2.049	July 2017
1.1.016	February 2017
1.0.022	December 2016

Framework version 2.1.5

pwi-v2.1.5

Release date: April 2022

Version 2.1.5 is available as an in-place system upgrade applicable on version 2.1.X (395 MB).

Version 2.1.5 is intended for customers on version 2.1.X or earlier to provide an upgrade path to carry system data to version 2.4.0.

	Changes
Framework	Restorable backup functionality <ul style="list-style-type: none"> ■ Plantweb Insight™ (PWI) v2.1.5 allows the user to capture a restorable backup file. ■ A restorable backup can be performed for either the framework and/or specific application(s). ■ If using PWI v2.1.4 or older versions, first upgrade to v2.1.5 to take restorable system and application backups. ■ If using PWI v2.3.X or later, you do not need this release and can simply apply an in-place update to get to v2.4.0.
Applications	<ul style="list-style-type: none"> ■ No changes to applications in PWI v2.1.5, but ensure you have the versions listed below before capturing a restorable backup that will be restored into v2.4.X. ■ Application backups can only be restored on PWI v2.4.0 or later.

App name	App version	Release date	Release notes
Cooling Tower	2.1.1	December 18, 2020	No changes from PWI v2.1.4 release
Steam Trap	2.1.2	December 16, 2020	No changes from PWI v2.1.4 release
Heat Exchanger	2.1.3	February 11, 2021	No changes from PWI v2.1.4 release
Air Cooled Heat Exchanger	2.1.3	February 22, 2021	No changes from PWI v2.1.4 release
PRV	2.1.1	January 7, 2021	No changes from PWI v2.1.4 release
Pump	2.2.0	April 22, 2021	No changes from PWI v2.1.4 release
Network Management	2.3.0	April 1, 2021	No changes from PWI v2.1.4 release
Power Module	2.1.0	October 26, 2020	No changes from PWI v2.1.4 release
WPG	2.1.0	October 26, 2020	No changes from PWI v2.1.4 release
Inline Corrosion	1.1.0	March 15, 2021	No changes from PWI v2.1.4 release
Non-Intrusive Corrosion	1.2.0	July 15, 2021	No changes from PWI v2.1.4 release
Connected Lighting	N/A	N/A	Does not exist for PWI v2.1.X
Location Awareness	N/A	N/A	Contact Emerson for latest release information.

Previous versions	Release date
2.3.5	February 2022
2.3.4	November 2021
2.3.3	November 2021
2.3.2	September 2021
2.3.1	August 2021
2.3.0	June 2021
2.1.4	April 2021
2.1.3	March 2021
2.1.2	February 2021
2.1.1	January 2021
2.1.0	October 2020

Previous versions	Release date
2.0.062	June 2020
1.6.018	February 2020
1.6.017	January 2020
1.6.014	September 2019
1.5.022	January 2019
1.4.016	April 2018
1.3.002	September 2017
1.2.049	July 2017
1.1.016	February 2017
1.0.022	December 2016

Framework version 2.3.5

pwi-v2.3.5

Release date: February 2022

Version 2.3.5 is an in-place system upgrade applicable on v2.3.0 and above (621 MB).

	Changes
Framework	<ul style="list-style-type: none"> ■ security upgrade in conjunction with Emerson <i>WirelessHART</i>® Gateway firmware updates. <ul style="list-style-type: none"> — If using Plantweb Insight™ (PWI) 2.3.5 or later that are using HART®-IP secure connection to an Emerson <i>WirelessHART</i> Gateway, you must also use firmware versions 4.8.1 or later for the V4 gateway (1410, 1420, 1552, 1410D) or firmware version 6.6.1 or later for the V6 gateway (1410S). — Please refer to Emerson Cyber Security disclosure EMR.MSOL22001-1 for more details. ■ bug fix – NTP sync flag on About page displaying incorrectly
Applications	Updates to: <ul style="list-style-type: none"> ■ Steam Trap ■ PRV ■ Pump ■ Network Management

App name	App version	Release date	Release notes
Cooling Tower	2.2.1	November 25, 2021	No changes from last release
Steam Trap	2.3.0	February 9, 2022	<ul style="list-style-type: none"> ■ create option to Acknowledge All Alerts Simultaneously ■ fixes to sorting issues for columns in Asset Summary and Event page ■ Exported Asset Detail is increased to 5000 assets ■ bug fix - Exported Asset Detail -installation date is split and copied over to the next column ■ RUNNING CALCULATIONS state is published to OPC UA® and Modbus® as NO_DATA/ERROR state

App name	App version	Release date	Release notes
Heat Exchanger	2.2.2	November 25, 2021	No changes from last release
Air Cooled Heat Exchanger	2.2.2	November 25, 2021	No changes from last release
PRV	2.3.0	February 9, 2022	<ul style="list-style-type: none"> ▪ create option to Acknowledge All Alerts Simultaneously ▪ fixes to sorting issues for columns in Asset Summary and Event page
Pump	2.3.0	February 9, 2022	<ul style="list-style-type: none"> ▪ create option to Acknowledge All Alerts Simultaneously ▪ fixes to sorting issues for columns in Asset Summary and Event page
Network Management	3.0.2	February 9, 2022	bug fix related to devices not appearing in network diagram after changing networks
BMA	3.0.1	November 25, 2021	No changes from last release
WPG	2.2.1	November 25, 2021	No changes from last release
Inline Corrosion	1.1.4	November 25, 2021	No changes from last release
Non-Intrusive Corrosion	1.2.2	November 25, 2021	No changes from last release
Connected Lighting	1.1.0	August 5, 2021	No changes from last release
Location Awareness	1.1.19	July 1, 2021	<ul style="list-style-type: none"> ▪ no changes from last release ▪ contact Emerson for latest release information

Previous versions	Release date
2.3.4	November 2021
2.3.3	November 2021
2.3.2	September 2021
2.3.1	August 2021
2.3.0	June 2021
2.1.4	April 2021
2.1.3	March 2021
2.1.2	February 2021
2.1.1	January 2021
2.1.0	October 2020
2.0.062	June 2020
1.6.018	February 2020
1.6.017	January 2020
1.6.014	September 2019
1.5.022	January 2019
1.4.016	April 2018
1.3.002	September 2017
1.2.049	July 2017
1.1.016	February 2017

Previous versions	Release date
1.0.022	December 2016

Framework version 2.3.4

pwi-v2.3.4

Release date: November 2021

Version 2.3.4 is an in-place system upgrade applicable on v2.3.0 and above (621 MB).

	Changes
Framework	<ul style="list-style-type: none"> ▪ Various security patches ▪ Other minor bug fixes encountered during regression testing
Applications	Security patches

Note

For this release, update both platform and applications. Recommended upgrade procedure is as follows:

1. Uninstall old applications.
2. Upgrade the platform.
3. Install new applications.

App name	App version	Release date	Release notes
Cooling Tower	2.2.1	November 25, 2021	<ul style="list-style-type: none"> ▪ Security patches ▪ Fix to Optics application programming interface (API). Supply Water Conductivity should have header <code>cooling_tower</code> instead of <code>other</code>
Steam Trap	2.2.1	November 25, 2021	Security patches
Heat Exchanger	2.2.2	November 25, 2021	Security patches
Air Cooled Heat Exchanger	2.2.2	November 25, 2021	Security patches
PRV	2.2.1	November 25, 2021	Security patches
Pump	2.2.1	November 25, 2021	Security patches
Network Management	3.0.1	November 25, 2021	Security patches
BMA	3.0.1	November 25, 2021	Security patches
WPG	2.2.1	November 25, 2021	Security patches
Inline Corrosion	1.1.4	November 25, 2021	Security patches
Non-Intrusive Corrosion	1.2.2	November 22, 2021	No changes from last release
Connected Lighting	1.1.0	August 5, 2021	No changes from last release
Location Awareness	1.1.19	July 1, 2021	<ul style="list-style-type: none"> ▪ No changes from last release ▪ Contact Jacob Tardoni for latest release information.

Previous versions	Release date
2.3.3	November 2021
2.3.2	September 2021
2.3.1	August 2021
2.3.0	June 2021
2.1.4	April 2021
2.1.3	March 2021
2.1.2	February 2021
2.1.1	January 2021
2.1.0	October 2020
2.0.062	June 2020
1.6.018	February 2020
1.6.017	January 2020
1.6.014	September 2019
1.5.022	January 2019
1.4.016	April 2018
1.3.002	September 2017
1.2.049	July 2017
1.1.016	February 2017
1.0.022	December 2016

Framework version 2.3.3

pwi-v2.3.3

Release date: November 2021

Version 2.3.3 is an in-place system upgrade applicable on v2.3.0 and above.

	Changes
Framework	<ul style="list-style-type: none"> ■ Bug fix - Modbus® server timeout issue with Permasense devices (Non-Intrusive Corrosion app) ■ Bug fix - Disk UUID mismatch for Hyper-V virtual machine

App name	App version	Release date	Release notes
Cooling Tower	2.2.1	June 1, 2021	No changes from last release
Steam Trap	2.2.0	June 1, 2021	No changes from last release
Heat Exchanger	2.2.1	June 1, 2021	No changes from last release
Air Cooled Heat Exchanger	2.2.1	June 21, 2021	No changes from last release
PRV	2.2.0	June 1, 2021	No changes from last release
Pump	2.2.0	June 1, 2021	No changes from last release

App name	App version	Release date	Release notes
Network Management	3.0.0	June 1, 2021	No changes from last release
BMA	3.0.0	June 1, 2021	No changes from last release
WPG	2.2.0	June 1, 2021	No changes from last release
Inline Corrosion	1.1.0	June 1, 2021	No changes from last release
Non-Intrusive Corrosion	1.2.2	November 22, 2021	Fixes a Modbus server timeout issue that resulted in NaN/stale values
Connected Lighting	1.1.0	August 5, 2021	No changes from last release
Location Awareness	1.1.19	July 1, 2021	No changes from last release

Previous versions	Release date
2.3.2	September 2021
2.3.1	August 2021
2.3.0	June 2021
2.1.4	April 2021
2.1.3	March 2021
2.1.2	February 2021
2.1.1	January 2021
2.1.0	October 2020
2.0.062	June 2020
1.6.018	February 2020
1.6.017	January 2020
1.6.014	September 2019
1.5.022	January 2019
1.4.016	April 2018
1.3.002	September 2017
1.2.049	July 2017
1.1.016	February 2017
1.0.022	December 2016

Framework version 2.3.2

pwi-v2.3.2

Release date: September 2021

Version 2.3.2 is an in-place system upgrade applicable on v2.3.0 and above.

	Changes
Framework	<ul style="list-style-type: none"> ■ Bug fix - Rescue console user scripts were not accessible after upgrade to 2.3.1 ■ Bug fix - OPC server connection issue upon host port change ■ Bug fix - Internet protocol (IP) is not renewed after 30 minutes with the latest released OVA (v2.3.0) ■ Bug fix - Plantweb Insight™ (PWI) certificate exchange failure after CSRF fix in old and next generation gateways ■ Bug fix - Ethernet configuration change host name issue ■ GDS - Publish device Tag change messages when there is a change (in preparation for BMA update) ■ Bug fix - OPC UA® server publishing confusion caused by reusing NodeID of a deleted variable ■ Improvement - Reduce journal log size to 100 MB (currently this is 2.5 GB) ■ Bug fix - Application backup is failing due to space constraint ■ Improvement in startup behavior

App name	App version	Release date	Release notes
Cooling Tower	2.2.1	June 1, 2021	No changes from last release
Steam Trap	2.2.0	June 1, 2021	No changes from last release
Heat Exchanger	2.2.1	June 1, 2021	No changes from last release
Air Cooled Heat Exchanger	2.2.1	June 21, 2021	No changes from last release
PRV	2.2.0	June 1, 2021	No changes from last release
Pump	2.2.0	June 1, 2021	No changes from last release
Network Management	3.0.0	June 1, 2021	No changes from last release
BMA	3.0.0	June 1, 2021	No changes from last release
WPG	2.2.0	June 1, 2021	No changes from last release
Inline Corrosion	1.1.0	June 1, 2021	No changes from last release
Non-Intrusive Corrosion	1.2.1	September 7, 2021	Contact Permasense development team for details
Connected Lighting	1.1.0	August 5, 2021	No changes from last release
Location Awareness	1.1.19	July 1, 2021	No changes from last release

Previous versions	Release date
2.3.1	August 2021
2.3.0	June 2021
2.1.4	April 2021
2.1.3	March 2021
2.1.2	February 2021
2.1.1	January 2021
2.1.0	October 2020
2.0.062	June 2020

Previous versions	Release date
1.6.018	February 2020
1.6.017	January 2020
1.6.014	September 2019
1.5.022	January 2019
1.4.016	April 2018
1.3.002	September 2017
1.2.049	July 2017
1.1.016	February 2017
1.0.022	December 2016

Framework version 2.3.1

pwi-v2.3.1

Release date: August 2021

Version 2.3.1 is an in-place system upgrade applicable on v2.3.0 and above.

	Changes
Platform	<ul style="list-style-type: none"> ■ Fixes an issue that caused a certificate exchange failure with the following gateway firmware: <ul style="list-style-type: none"> — Old generation gateway: 4.7.100 (and above) — Next generation gateway: 6.4.5 (and above) ■ Reduces journal log size to 100 MB ■ Bug fix – Application backup failing due to space constraints ■ Bug fix – Ethernet configuration change host name propagation to DHCP server ■ Bug fix – Improved handling of device tag changes (for BMA)

App name	App version	Release date	Release notes
Cooling Tower	2.1.1	June 1, 2021	No changes from last release
Steam Trap	2.2.0	June 1, 2021	No changes from last release
Heat Exchanger	2.2.1	June 1, 2021	No changes from last release
Air Cooled Heat Exchanger	2.2.1	June 21, 2021	No changes from last release
PRV	2.2.0	June 1, 2021	No changes from last release
Pump	2.2.0	June 1, 2021	No changes from last release
Network Management	3.0.0	June 1, 2021	No changes from last release
BMA	3.0.0	June 1, 2021	No changes from last release
WPG	2.2.0	June 1, 2021	No changes from last release
Inline Corrosion	1.1.0	June 1, 2021	No changes from last release
Non-Intrusive Corrosion	1.2.0	July 15, 2021	No changes from last release

App name	App version	Release date	Release notes
Connected Lighting	1.0.2	June 30, 2021	No changes from last release
Location Awareness	1.1.19	July 1, 2021	No changes from last release

Previous versions	Release date
2.3.0	June 2021
2.1.4	April 2021
2.1.3	March 2021
2.1.2	February 2021
2.1.1	January 2021
2.1.0	October 2020
2.0.062	June 2020
1.6.018	February 2020
1.6.017	January 2020
1.6.014	September 2019
1.5.022	January 2019
1.4.016	April 2018
1.3.002	September 2017
1.2.049	July 2017
1.1.016	February 2017
1.0.022	December 2016

Framework version 2.3.0

pwi-v2.3.0

Release date: June 2021

Version 2.3.0 is a disruptive upgrade and requires a new virtual machine.

There is no system update or backup/restore for users on previous versions.

	Changes
Platform	<ul style="list-style-type: none"> ▪ 20.04 LTS – new OVA build ▪ Enhanced Role Management (for Location Awareness) ▪ Audit Log Service (for Location Awareness) ▪ Email Service (for Location Awareness) ▪ Increased file upload size – 2.5 GB (for Location Awareness) ▪ Improved system upgrade process – baseline <ul style="list-style-type: none"> — Improved user interaction and responsiveness — Allows for future enhancements to handle disruptive / informed upgrades ▪ PWI Rescue Console – allows users to reconfigure system settings through the VM console. Refer to document in PWI Technical Support Teams site for instructions. <ul style="list-style-type: none"> — Ability to assign static IP — Ability to reset HTTP whitelist ▪ Enhanced API key management – API keys are now assigned to users ▪ Azure cert generation bug fix ▪ Preferred DNS settings ▪ NTP synchronization ▪ Unique machine ID during deployment (for licensing/entitlement) ▪ Deployment type handling: <ul style="list-style-type: none"> — Environment variable – for smart updates — Deployment type: PWI-STD, PWI-IOTCS, PWI-CLOUD — UI display on About page and footer ▪ Split virtual disk – flexibility to enable backup/restore functionality for future disruptive upgrades ▪ Additional banner message on VM console on health of PWI data disk
Applications	<ul style="list-style-type: none"> ▪ Location Awareness migrated to application bundle ▪ All applications ported to new version for compatibility with v2.3.0 platform

App name	App version	Release date	Release notes
Cooling Tower	2.1.1	June 1, 2021	Fixes a units issue with AMS 9530 / 9420
STA	2.2.0	June 1, 2021	No changes from last release
Heat Exchanger	2.2.1	June 1, 2021	No changes from last release
Air Cooled Heat Exchanger	2.2.1	June 21, 2021	Fixes a units issue with AMS 9530 / 9420
PRV	2.2.0	June 1, 2021	Changed default display settings to hide “Emission Loss” and “Lost Production Cost” columns in Asset Summary display

App name	App version	Release date	Release notes
Pump	2.2.0	June 1, 2021	<ul style="list-style-type: none"> ▪ Fixes an issue where OPC variables in the Asset are always returning an Inactive status. ▪ Fixes a units issue with AMS 9530/9420.
NMA	3.0.0	June 1, 2021	<ul style="list-style-type: none"> ▪ Supports cloud installations ▪ Assets and Alerts APIs for OPTICS: <ul style="list-style-type: none"> — Testing with optics team (pending) ▪ Data publish to OPC UA and Modbus servers ▪ Compatible with pwi-v2.1.4
BMA	3.0.0	June 1, 2021	<ul style="list-style-type: none"> ▪ Supports cloud installations ▪ Assets and Alerts APIs for OPTICS: <ul style="list-style-type: none"> — Testing with optics team (pending) ▪ Data publish to OPC UA and Modbus servers ▪ Compatible with pwi-v2.1.4
WPG	2.2.0	June 1, 2021	No changes from last release
Inline Corrosion	1.1.0	June 1, 2021	No changes from last release
Non-Intrusive Corrosion	1.2.0	July 15, 2021	<ul style="list-style-type: none"> ▪ Bug fixes ▪ Supports cloud installations ▪ Users cannot upgrade from previous versions to v1.2.0, must install on a clean VM which has never had the NIC app.
Connected Lighting	1.0.2	June 30, 2021	Initial release
Location Awareness	1.1.19	July 1, 2021	Initial release as a PWI application bundle

Previous versions	Release date
2.1.4	April 2021
2.1.3	March 2021
2.1.2	February 2021
2.1.1	January 2021
2.1.0	October 2020
2.0.062	June 2020
1.6.018	February 2020
1.6.017	January 2020
1.6.014	September 2019
1.5.022	January 2019
1.4.016	April 2018
1.3.002	September 2017
1.2.049	July 2017
1.1.016	February 2017
1.0.022	December 2016

Framework version 2.1.4

Release date: April 2021

Users can upgrade from v2.1.0 and higher.

	Changes
Platform	This upgrade is a minor change to HART®-IP configuration to support the Connected Lighting application (not released yet).

App name	App version	Release date	Release notes
Cooling Tower	2.1.1	December 18, 2020	No changes from last release
STA	2.1.2	December 16, 2020	No changes from last release
Heat Exchanger	2.1.3	February 11, 2021	No changes from last release
Air Cooled Heat Exchanger	2.1.3	February 22, 2021	No changes from last release
PRV	2.1.1	January 7, 2021	No changes from last release
Pump	2.2.0	April 22, 2021	<ul style="list-style-type: none"> ■ Fixes a bug where OPC variables in the Asset were always returning an Inactive status ■ With the fix, OPC variables are now displaying Active - Good and data is displayed in the Process Data table for each Asset
NMA	2.3.0	April 1, 2021	Fixes a bug in graphics rendering when there are lot of neighbors (>19) reflected for a device
BMA	2.1.0	October 26, 2020	No changes from last release
WPG	2.1.0	October 26, 2020	No changes from last release
Inline Corrosion	1.1.0	March 15, 2021	No changes from last release
Non-Intrusive Corrosion	1.1.0	May 5, 2021	N/A

Previous versions	Release date
2.1.3	March 2021
2.1.2	February 2021
2.1.1	January 2021
2.1.0	October 2020
2.0.062	June 2020
1.6.018	February 2020
1.6.017	January 2020
1.6.014	September 2019
1.5.022	January 2019
1.4.016	April 2018
1.3.002	September 2017
1.2.049	July 2017
1.1.016	February 2017
1.0.022	December 2016

Framework version 2.1.3

Release date: March 2021

Users can upgrade from v2.1.0 and higher.

	Changes
Platform	Vibration device variable handling fixes – all published variables are available for all apps

Application deployment notes for AMS 9530 Wireless Vibration Monitor (Pump, ACHE):

1. Configure the AMS 9530 update time to be one hour or less – very important.
 - a. Due to the slow update rate of the device, user must have patience during configuration.
2. Steps during initial deployment of Pump/ACHE in pwi-v2:
 - a. Upgrade platform and application.
 - b. Configure data sources and other parameters. Ensure data sources are active.
 - c. Let the system run for a duration \geq slowest device update duration (\geq 1 hour).
 - d. Next, go in and configure the required assets / devices in the application – full device variable list will be available now.
 - e. Wait for next device update as specified in step (c.) (\geq 1 hour).
 - f. Verify on Details tab if all required variables have current values.
 - g. Capture baseline.
 - h. Application setup is complete and live for monitoring.

App name	App version	Release date	Release notes
Cooling Tower	2.1.1	December 18, 2020	No changes from last release

App name	App version	Release date	Release notes
STA	2.1.2	December 16, 2020	No changes from last release
Heat Exchanger	2.1.3	February 11, 2021	No changes from last release
Air Cooled Heat Exchanger	2.1.3	February 22, 2021	No changes from last release
PRV	2.1.1	January 7, 2021	No changes from last release
Pump	2.1.5	March 11, 2021	<ul style="list-style-type: none"> ■ Fixed data extraction from polling db for specific device variable ■ Updating asset health correctly when data sources are disconnected/re-connected ■ Polling db purge duration set to 70 mins to support 1-hour bursts reliably
NMA	2.2.2	March 11, 2021	Fixes issue where removing/adding devices under the same tag name causes the network diagram to show duplicate devices
BMA	2.1.0	October 26, 2020	No changes from last release
WPG	2.1.0	October 26, 2020	No changes from last release
Inline Corrosion	1.1.0	March 15, 2021	No changes from last release
Non-Intrusive Corrosion	1.0.4	March 8, 2021	N/A

Previous versions	Release date
2.1.2	February 2021
2.1.1	January 2021
2.1.0	October 2020
2.0.062	June 2020
1.6.018	February 2020
1.6.017	January 2020
1.6.014	September 2019
1.5.022	January 2019
1.4.016	April 2018
1.3.002	September 2017
1.2.049	July 2017
1.1.016	February 2017
1.0.022	December 2016

Framework version 2.1.2

Release date: February 2021

Users can upgrade from v2.1.0 or v2.1.1.

	Changes
Platform	<ul style="list-style-type: none"> ■ HART®-IP client WIOC fix (Non-Intrusive Corrosion app only) ■ OPC UA® client fixes ■ OPC UA server fixes

Application deployment notes for AMS 9530 Wireless Vibration Monitor (Pump, ACHE):

1. Configure the AMS 9530 update time to be one hour or less – very important.
 - a. Due to the slow update rate of the device, user must have patience during configuration.
2. Steps during initial deployment of Pump/ACHE in pwi-v2:
 - a. Upgrade platform and application.
 - b. Configure data sources and other parameters. Ensure data sources are active.
 - c. Let the system run for a duration \geq slowest device update duration (\geq 1 hour).
 - d. Next, go in and configure the required assets / devices in the application – full device variable list will be available now.
 - e. Wait for next device update as specified in step (c.) (\geq 1 hour).
 - f. Verify on Details tab if all required variables have current values.
 - g. Capture baseline.
 - h. Application setup is complete and live for monitoring.

App name	App version	Release date	Release notes
Cooling Tower	2.1.1	N/A	No changes from last release
STA	2.1.2	N/A	No changes from last release
Heat Exchanger	2.1.3	February 11, 2021	Fixes a bug with app data being published to OPC UA server
Air Cooled Heat Exchanger	2.1.3	February 22, 2021	Fixes vibration unit issue encountered with AMS 9530 device
PRV	2.1.1	N/A	No changes from last release
Pump	2.1.4	February 22, 2021	Fixes vibration unit issue encountered with AMS 9530 device
NMA	2.2.0	N/A	No changes from last release
BMA	2.1.0	N/A	No changes from last release
WPG	2.1.0	N/A	No changes from last release
Inline Corrosion	1.1.0	N/A	No changes from last release
Non-Intrusive Corrosion	1.0.3	N/A	No changes from last release

Previous versions	Release date
2.1.1	January 2021
2.1.0	October 2020

Previous versions	Release date
2.0.062	June 2020
1.6.018	February 2020
1.6.017	January 2020
1.6.014	September 2019
1.5.022	January 2019
1.4.016	April 2018
1.3.002	September 2017
1.2.049	July 2017
1.1.016	February 2017
1.0.022	December 2016

Framework version 2.1.1

Release date: January 2021

No backward compatibility with PWI v2.0.062.

	Changes
Platform	<ul style="list-style-type: none"> ■ OPC Client update: <ul style="list-style-type: none"> — Small footprint — Handling 'localhost' endpoint correctly — Appl URI, Product URI in config file ■ HART[®]-IP Client update: <ul style="list-style-type: none"> — Allow configuration to peg data_ts to host_ts or device_ts — Default set to host_ts — Takes care of time-sync issues when NTP is not reachable ■ LTS tied to PWI v2.1.0
Applications	<ul style="list-style-type: none"> ■ Translation ready for all applications - (except Inline Corrosion) ■ Optimized disk IO (data injector app interaction) ■ Data flow disruption fixes ■ OPC UA output calc (OPC templates) ■ OPC UA data source config ■ Bug fixes
Compatibility	<ul style="list-style-type: none"> ■ No backward compatibility with PWI v2.0.062 <ul style="list-style-type: none"> — Platform and apps should be updated together ■ Restore from PWI v1.6.018 supported

App name	App version	Release notes
Cooling Tower	2.1.1	Unit fixes

App name	App version	Release notes
STA	2.1.2	<ul style="list-style-type: none"> ▪ Unit fixes ▪ "Running Calculations" fix caused by bug + 5 minutes update rate from device ▪ "NO_DATA / ERROR" due to time sync issue with gateway when there is no access to NTP ▪ Corner case to handle multiple burst messages
Heat Exchanger	2.1.1	Unit fixes
Air Cooled Heat Exchanger	2.1.1	Unit fixes
PRV	2.1.1	Unit fixes
Pump	2.1.3	Unit fixes
NMA	2.2.0	No changes from last release
BMA	2.1.0	No changes from last release
WPG	2.1.0	No changes from last release
Inline Corrosion	1.1.0	No changes from last release
Non-Intrusive Corrosion	1.0.3	Initial release

Previous versions	Release date
2.1.0	October 2020
2.0.062	June 2020
1.6.018	February 2020
1.6.017	January 2020
1.6.014	September 2019
1.5.022	January 2019
1.4.016	April 2018
1.3.002	September 2017
1.2.049	July 2017
1.1.016	February 2017
1.0.022	December 2016

Framework version 2.1.0

Release date: October 2020

	Changes
Platform	<ul style="list-style-type: none"> ▪ Allow Hostname change ▪ Email format – upper case ▪ Translation Ready ▪ OPC UA® server (output calculations, dynamic variables, out of service handling) ▪ Small footprint MODBUS and OPC UA servers ▪ Robust application install process (status bar and app misloading prevention) ▪ Uninstall option to allow clean install of applications ▪ Improved UX for restore from pwi-1.6 ▪ Optimized disk IO (GDS) ▪ OPC UA data source config ▪ Certificate Management – user cert handler UI
Applications	<ul style="list-style-type: none"> ▪ Translation ready for all applications – (except Inline Corrosion) ▪ Optimized disk IO (data injector app interaction) ▪ Data flow disruption fixes ▪ OPC UA output calc (OPC templates) ▪ OPC UA data source config ▪ Bug fixes
Compatibility	<ul style="list-style-type: none"> ▪ No backward compatibility with PWI v2.0.062 <ul style="list-style-type: none"> — Platform and apps should be updated together ▪ Restore from PWI v1.6.018 supported

App name	App version	Release notes
Cooling Tower	2.1.0	No changes from last release
STA	2.1.1	No changes from last release
Heat Exchanger	2.1.0	No changes from last release
Air Cooled Heat Exchanger	2.1.0	No changes from last release
PRV	2.1.0	No changes from last release
Pump	2.1.0	No changes from last release
NMA	2.2.0	No changes from last release
BMA	2.1.0	No changes from last release
WPG	2.1.0	No changes from last release
Inline Corrosion	1.1.0	No changes from last release

Previous versions	Release date
2.0.062	June 2020
1.6.018	February 2020

Previous versions	Release date
1.6.017	January 2020
1.6.014	September 2019
1.5.022	January 2019
1.4.016	April 2018
1.3.002	September 2017
1.2.049	July 2017
1.1.016	February 2017
1.0.022	December 2016

Framework version 2.0.062

Release date: June 2020

	Changes
Log-in	<ul style="list-style-type: none"> ▪ Local DB ▪ LDAP with AD ▪ AD configuration page ▪ User management for local login ▪ Two roles: Admin, Users ▪ Password change ▪ Password and Login options
Data Source config	<ul style="list-style-type: none"> ▪ Gateway connection → secure, non-secure ▪ OPC UA® server connection → secure, non-secure ▪ Modbus® server connection → non-secure⁽¹⁾
Application management	<ul style="list-style-type: none"> ▪ Install / uninstall application bundle ▪ Upgrade bundles for OS, platform and applications ▪ Signed and encrypted bundles
Certificate management	<ul style="list-style-type: none"> ▪ Default SSL Certificate: <ul style="list-style-type: none"> — Can be used for all services — Can be modified by users ▪ 3rd party certificate installation for: <ul style="list-style-type: none"> — HTTPS — OPC UA client — OPC UA server ▪ Peer certificate (trusted) store
Ethernet configuration	N/A

	Changes
Dual ethernet interface - Primary and Secondary	<ul style="list-style-type: none"> ▪ Enable / Disable Secondary interface ▪ Static / DHCP configurable ▪ Default gateway on primary interface ▪ Out of box setting: <ul style="list-style-type: none"> — Primary - DHCP — Secondary - static: 192.168.254.10/24
Backup and restore	<ul style="list-style-type: none"> ▪ Granular Backup – diagnostics and for each application ▪ Restore from pwi-v1.6.018 backup
MODBUS service	<ul style="list-style-type: none"> ▪ Secure / non-secure connection ▪ MODBUS mapping download to setup clients
RESTful service	<ul style="list-style-type: none"> ▪ Secure connection only ▪ Access control → registered API keys
Syslog-ng service	<ul style="list-style-type: none"> ▪ Secure / non-secure connection ▪ Used for remote logging from wireless Gateways (NMA appl)
SMTP service	<ul style="list-style-type: none"> ▪ Single SMTP connection can be configured ▪ Secure and non-secure ▪ Only service implemented – at the moment none of the apps use SMTP
Archiver service	<ul style="list-style-type: none"> ▪ Deferred to next release
Internationalization	<ul style="list-style-type: none"> ▪ Architecture is extensible to support multiple languages ▪ Initial release supports only English
Protocol and Ports configuration	<ul style="list-style-type: none"> ▪ Manage inbound connections: <ul style="list-style-type: none"> — HTTP/S — OPC UA — Modbus — Syslog-ng ▪ User configurable: <ul style="list-style-type: none"> — Enable / Disable service — Change operation port — Client whitelist for each service
Security	<ul style="list-style-type: none"> ▪ Strong firewall rules to dynamically manage: <ul style="list-style-type: none"> — Outbound connections – whitelisted server IP:port — Inbound connections – whitelisted client IP:port ▪ Certificate based authentication ▪ TLS-1.2 secure connections for most services ▪ OPC UA secure connections for OPC UA end points ▪ Sign and encrypt application install/upgrade bundles ▪ Docker namespace remapping ▪ Block GRUB UI ▪ Strong root and user password

(1) Client implemented but no data feed to any application.

App name	App version	Release notes
Cooling Tower	2.0.35-hotfix-3	<ol style="list-style-type: none"> 1. Changed API to open a read-only connection from polling_DB 2. Include APP ID in the OOS topic and ignore app published OOS messages (CTA-90) 3. Comment out batch insertion/deletion logic from API container (CTA-95)
STA	2.0.46-hotfix-2	<ol style="list-style-type: none"> 1. Changed API to open a read-only connection from polling_DB 2. Include APP ID in the OOS topic and ignore app published OOS messages (STA-142)
Heat Exchanger	2.0.30-hotfix-2	<ol style="list-style-type: none"> 1. Changed API to open a read-only connection from polling_DB 2. Include APP ID in the OOS topic and ignore app published OOS messages (HEA-53)
Air Cooled Heat Exchanger	2.0.23-hotfix-4	<ol style="list-style-type: none"> 1. Changed API to open a read-only connection from polling_DB 2. Include APP ID in the OOS topic and ignore app published OOS messages (ACHE-81) 3. Fixed alert acknowledgement issue (ACHE-89) 4. Comment out batch insertion/deletion logic from API container (ACHE-90) 5. Editing the Asset Location Detail will clear the Device Detail configurations (ACHE-91)
PRV	2.0.73-hotfix-5	<ol style="list-style-type: none"> 1. Changed API to open a read-only connection from polling_DB 2. Include APP ID in the OOS topic and ignore app published OOS messages (PRV-142) 3. Data jitter (PRV-140 and PP-304) 4. Asset Detail page "Minimum Detectable Event" bounces from 0 secs and back (PRV-137) 5. Manually changing the Threshold, changes it for all stored baseline (PRV-138) 6. Pin alert duration to the last calculation time (PRV-139) 7. Threshold reading on UI does not change when asset minimum detect interval is updated (PRV-151) 8. Comment out batch insertion/deletion logic from API container (PRV-152)
Pump	2.0.34-hotfix-2	<ol style="list-style-type: none"> 1. Changed API to open a read-only connection from polling_DB 2. Include APP ID in the OOS topic and ignore app published OOS messages (AP20-93)
NMA	2.0.17-hotfix-1	Comment out VACUUM code (ANV0-39)
BMA	2.0.33-hotfix-2	<ol style="list-style-type: none"> 1. Comment out VACUUM code (BM-114) 2. Wired devices Issues (BM-115)
WPG	2.0.10	No changes from last release
Inline Corrosion	1.0.8	No changes from last release

Previous versions	Release date
1.6.018	February 2020
1.6.017	January 2020

Previous versions	Release date
1.6.014	September 2019
1.5.022	January 2019
1.4.016	April 2018
1.3.002	September 2017
1.2.049	July 2017
1.1.016	February 2017
1.0.022	December 2016

Framework version 1.6.018

Release date: February 2020

	Changes
Fixes	Steam Trap excess No_Data/Error issue resolved

Previous versions	Release date
1.6.017	January 2020
1.6.014	September 2019
1.5.022	January 2019
1.4.016	April 2018
1.3.002	September 2017
1.2.049	July 2017
1.1.016	February 2017
1.0.022	December 2016

Framework version 1.6.017

Release date: January 2020

	Changes
Fixes	<ul style="list-style-type: none"> ▪ Graph not rendering error resolved (Pump, Heat Exchanger, PRD, ACHE) ▪ Steam Trap excess No_Data/Error issue resolved ▪ Newest alerts now replace oldest alerts when maximum alert limit is reached (all applications) ▪ PRD application connection to Plantweb Optics resolved ▪ PRD application asset details page no appearing issue resolved
Security	General security updates and patches included

Previous versions	Release date
1.6.014	September 2019
1.5.022	January 2019

Previous versions	Release date
1.4.016	April 2018
1.3.002	September 2017
1.2.049	July 2017
1.1.016	February 2017
1.0.022	December 2016

Framework version 1.6.014

Release date: September 2019

	Changes
Fixes	Excess energy costs and emissions accumulation calculation error resolved (Steam Trap)
New features	<ul style="list-style-type: none"> ▪ Cooling Tower app compatibility ▪ Asset Details modal window replaced with separate page ▪ Asset Details page segregated by key functions (general information, charts, devices, notes, etc.) ▪ Event/alert log added to other applications
Security	General security updates and patches included

Previous versions	Release date
1.5.022	January 2019
1.4.016	April 2018
1.3.002	September 2017
1.2.049	July 2017
1.1.016	February 2017
1.0.022	December 2016

Framework version 1.5.022

Release date: January 2019

	Changes
Fixes	<ul style="list-style-type: none"> ▪ Vibration units bugged resolved in both Pump and ACHE apps ▪ Vibration default alert thresholds resolved in both Pump and ACHE apps ▪ Password options lock out bug resolved ▪ Energy loss, emissions loss, health index sorting resolved ▪ Heat Exchanger hidden calculations issue resolved

	Changes
New features	<ul style="list-style-type: none"> ▪ Accumulate excess energy costs and emissions (Steam Trap app) ▪ Temperature display in Asset Summary page (Steam Trap app) ▪ Pressure Relief Device, Network Management, Power Module Management app compatibility ▪ New selectable time frames for graphs and charts (8 hours, 24 hours, 1 week, 1 month, 1 year) ▪ Event/alert log: table used to accumulate all events/alerts (event/alert start, event/alert end, duration, other important considerations) – effective for PRD and Network Management app ▪ Alerts dashboard graphic now indicates most prevalent alerts
Continuous improvements	HART®-IP Client improvement
Security	General security updates

Previous versions	Release date
1.4.016	April 2018
1.3.002	September 2017
1.2.049	July 2017
1.1.016	February 2017
1.0.022	December 2016

Framework version 1.4.016

Release date: April 2018

	Changes
Fixes	User display table resolved
New features	<ul style="list-style-type: none"> ▪ OPC UA® Client ▪ Variable pressure inlet (Steam Trap app) ▪ Working hours additions (Steam Trap app) ▪ Temperature display in Asset Details page (Steam Trap app) ▪ Air Cooled Heat Exchanger app compatibility
Continuous improvements	<ul style="list-style-type: none"> ▪ HART®-IP Client improvement ▪ Header and footer update
Security	General security updates

Previous versions	Release date
1.3.002	September 2017
1.2.049	July 2017
1.1.016	February 2017
1.0.022	December 2016

Framework version 1.3.002

Release date: September 2017

	Changes
Fixes	Vibration value bug resolved
Continuous improvements	HART®-IP Client improvement
Security	General security updates

Previous versions	Release date
1.2.049	July 2017
1.1.016	February 2017
1.0.022	December 2016

Framework version 1.2.049

Release date: July 2017

	Changes
Fixes	Orifice size, line size, pressure inlet, pressure outlet entry bug resolved
Continuous improvements	<ul style="list-style-type: none"> ▪ HART®-IP Client improvement ▪ “Home” page added ▪ “Application Management” page added ▪ Apps separated ▪ Air Cooled Heat Exchanger app compatibility
Security	General security updates

Previous versions	Release date
1.1.016	February 2017
1.0.022	December 2016

Framework version 1.1.016

Release date: February 2017

	Changes
Fixes	708 update rate bounded

Previous versions	Release date
1.0.022	December 2016

Framework version 1.0.022

Release date: December 2016

	Changes
Fixes	<ul style="list-style-type: none">▪ Initial release of Plantweb Insight™▪ Plantweb Insight and Steam Trap app combined release

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