GE VERNOVA

CIMPLICITY

Important Product Information

We want to hear from you. If you have any comments, questions, or suggestions about our documentation, send them to the following email address:
doc@ge.com

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Chapter 1. Important Product Information 2024

System Requirements and Compatibility

The following are the hardware and software requirements for CIMPLICITY.

Hardware Requirements

CIMPLICITY v2024 requires, at a minimum, the following hardware specifications. GE Vernova recommends testing your particular system to determine if your performance needs require hardware beyond the base system recommendations.

Hardware	Requirements
Microprocessor	Intel Core 2 Duo 3.0 GHz
RAM	8 GB
Hard disk	40 GB
Ports	• USB port, if using a USB M4 or M5 license or a green key. • Serial port for some touch screens, pointing devices, and I/O drivers • Additional ports for I/O hardware
Monitor	• Color graphics monitor, SVGA or better • 24-bit graphics card capable of 800 x 600 resolution

Supported Operating Systems and Versions

CIMPLICITY v2024 runs on any of the following operating systems, provided that specified revisions and service packs are included.

• Microsoft Windows 11 (64-bit)

> **Note:**
> The command line utilities will work well only in the V22621 or 22H2 version of Windows 11.

- Microsoft Windows 10 (64-bit)
- Microsoft Windows Server 2022
- Microsoft Windows Server 2022 Cluster
- Microsoft Windows Server 2019
- Microsoft Windows Server 2019 Cluster
- Microsoft Windows 10 IoT Enterprise (LTSB) (Only full blown IoT version is supported. Not the core & mobile versions)

Supported External Software Versions

CIMPLICITY v2024 is compatible with the following external software.

External Software	Supported Version
Microsoft Office	2019
Microsoft SQL Server	2022 and 2019 **Note:** CIMPLICITY has been validated to work with Database configurations using SQL 2016 AlwaysOn with the exception of the Tracker Attribute Database (TADB) functionality.
SQL Express	2022 and 2019
Oracle	18c and 19c **Note:** Both the client and server should be running same version of Oracle.
Microsoft Visual Studio	2017
Flexera Software - Install Shield	2018
Dream Report	2023
Azure	NA

Supported GE Vernova Software Versions

CIMPLICITY v2024 is compatible with the following GE Vernova software.

GE Vernova Software	Supported Version	Install Before or After CIMPLICITY
Common Licensing	20.7	With CIMPLICITY
Global Discovery Server	2.2	After
Historian (full version)	2024, 2023, 2022 and 9.1 **Note:** Logging array points to Historian is supported from version 9.1 onwards.	Either
IGS OPC Server	Latest version	Either
Plant Apps	2024, 2023 and 2022	Either
Proficy Driver Server (PDS) *	6.7.6	After
Operations Hub	2024	Either
Proficy Authentication	2024	Either
Configuration Hub	2024	Either
Webspace	6.2	Either

Starting CIMPLICITY 11.1, the Proficy Driver Server will not be installed with CIMPLICITY installation.

To install Proficy Driver Server, navigate to the CIMPLICITY Install Media located at **Setup\Proficy Driver Toolkit\setup.exe**. Before you install Proficy Driver Server, you must install .NET Framework 3.5 through your Windows options.

> ✎ **Note:**
>
> - If you are already using the Proficy Driver Server in your CIMPLICITY projects, it will continue to work as expected. Existing PDS is not uninstalled when you uninstall CIMPLICITY and upgrade to 11.1 or higher.
>
> - The Driver Server protocol may be enabled in Project Properties even when Proficy Driver Server is not installed.

Compatibility Requirements

Note the following as they apply to your installation:

Element	Requirement
Network Communication I/O	Allen-Bradley Ethernet Driver Note the following: • RSLINX OEM 3.80.00 is required. • Rockwell requires a Factory Talk activation for RSLINX OEM. If RSLINX OEM is not activated, the Allen-Bradley Ethernet device communication interface will not run. Allen-Bradley Internet is supported on the following operating systems: 　◦ Microsoft Windows 11 (64-bit) 　◦ Microsoft Windows 10 (64-bit) 　◦ Microsoft Windows Server 2022 　◦ Microsoft Windows Server 2022 Cluster 　◦ Microsoft Windows Server 2019 　◦ Microsoft Windows Server 2019 Cluster 　◦ Microsoft Windows 10 IoT Enterprise (LTSB) (Only full blown IoT version is supported. Not the core & mobile versions) > ✎ **Note:** > Depending on the OS, some RSLINX OEM features may not be supported. Refer to the RSLINX documentation for further information.

Element	Requirement
Genius PCI	If you are using Genius PCI communications you need: • One full height PCI slot for each port (up to four) • One Genius PCI card (IC660ELB931) **Note:** Genius PCI is only supported on 32-bit Windows 7 and Windows 10 systems.
Reflective Memory	If you are using reflective memory, the card requirements are: • PCPCIE-5565PIORC requires a low profile PCI Express Slot for each card • PCI-5565PIORC requires a 64-bit PCI slot for each card • PCIE-5565RC requires a PCI Express Slot. **Note:** You can install up to two reflective memory cards, but not all computers support two cards due to hardware or BIOS-specific limitations. The Reflective Memory driver is only supported on Windows 7 and is no longer packaged with CIMPLICITY. However, the package is available from Abaco, who is also the vendor for the reflective memory cards. You must install the following package: RFM2G Windows 7/XP/Vista/Server 2008/Server 2003/32/64-bit PCIE/PCI/PMC Driver for X86 R08.01.
DDE Communications	The DDE communications interface runs in the service session only. The DDE server must be able to run from the service session.
Browsers	The following browsers are supported for Webspace with CIMPLICITY and SCADA Web Configuration. • Google Chrome 92 or Greater • Microsoft Edge 92.x

Element	Requirement
	• Firefox 90.x • Safari 14 or Greater 📝 **Note:** Ensure that you use the browsers supported by CIMPLICITY, as the support for TLSv1 and TLSv1.1 HTTPS protocols is deprecated. You must use TLS libraries for the rest calls that support TLS 1.2 or higher.

What's New in CIMPLICITY 2024

The HMI/SCADA CIMPLICITY v2024 release includes the following new features and enhancements.

📝 **Note:**

The on-premise version of Help is current as of the release date of CIMPLICITY 2024, for the latest Important Product Information, refer to the online version, https://www.ge.com/digital/documentation/cimplicity/version2024/oxy_ex-2/ipi/topics/c_cimplicity_whats_new.html.

Redundant Configuration Update (RCU)
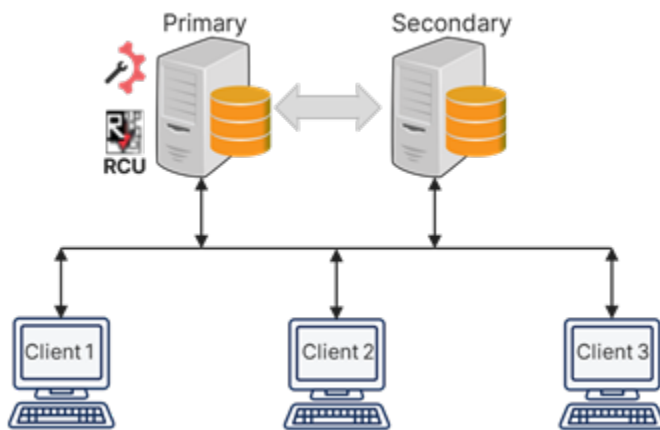
What is it?

Redundant Configuration Update (RCU) feature allows users to perform bulk changes at runtime to the configuration of a server redundant project without any downtime. RCU accomplishes this task by copying

configuration files and restarting (stop/start) projects on primary and secondary node in a specific sequence.

Why use it?

- The redundant configuration update enables you with the following:
    - **Improved IT Security** - Enhanced security without any dependency on remote registry to start or stop remote projects.
    - **Improved UX** - Easy and secure server redundancy configuration without the use of Windows admin user to call the remote Windows service.
    - **Ease of use** - Easy user interface with the click of a button that allows bulk configuration updates and synchronization in runtime.
    - **Reduced Downtime** - Allows users to perform configuration changes during runtime that are not possible with "dynamic" configuration (e.g., new device, new product option)

Resources

Topic - About Redundant Configuration Update.

Topic - Perform Redundant Configuration Update.

Multiple Event Manager (EMRP) Support

What is it?

CIMPLICITY's powerful SCADA side event and action processor is now horizontally scalable for your enterprise scale needs. Multiple event manager processes can now be configured, and events/actions assigned to run on a targeted Event Manager.

Why use it?

When setting up a large CIMPLICITY project that covers many different areas and relies heavily on the events and actions available in the Event Manager, you can take advantage of multiple processors by having more than one Event Manager process, giving you the following advantages:

- Better scaling for Basic Script-based scripts can be achieved through multiple Event Manager instances. Each instance receives its own string-space pool, overcoming string-space limitations.
- Isolation of critical events allows you to run your own processes and have dedicated resources.
- Multiple Event Manager instances are not impacted by the activities of less important scripts.
- Allow grouping of scripts that share common resources like database connections, criticality, and more.

Resources

Topic- About Multiple Event Manager Resident Process (EMRP).

Topic- Create a New EMRP Instance.

Install Time/ Central Configuration Hub Registration

What is it?

With the Proficy 2024 products, registering a product with Configuration Hub has been improved to allow users to immediately register with existing Configuration Hub instances during install or, if you skip this step during install, a Central Node Manager is available in Configuration Hub to centrally register the product.

Why use it?

Configuration Hub is the central management and configuration tool for the Proficy products. Over time, majority of the CIMPLICITY configuration will be moved to this web-based tool and all Central Management capabilities will be setup using it.

Registering CIMPLICITY 2024 with Configuration Hub allows you to:

- See all your registered CIMPLICITY projects from one central location.
- Review, manage and distribute your Licenses centrally.
- Browse OPC UA Servers configured in your CIMPLICITY project and auto-create tags.
- Integrate with Proficy Authentication to configure your users in one location for all Proficy products and connect to multiple LDAP and SAML servers.

Resources

Topic- CIMPLICITY plug-in registration.

CimView Enhancements

What is it?

CIMPLICITY HMI has been enhanced with various updates to its features, introducing new procedures for common tasks that would normally require scripting.

Why use it?

CIMPLICITY procedures provide error-proofing and encapsulate essential functions that would normally require scripting, allowing for the implementation of critical functionality with increased confidence and minimal maintenance needs.

What are the enhancements?

The following new procedures have been added:

Set language
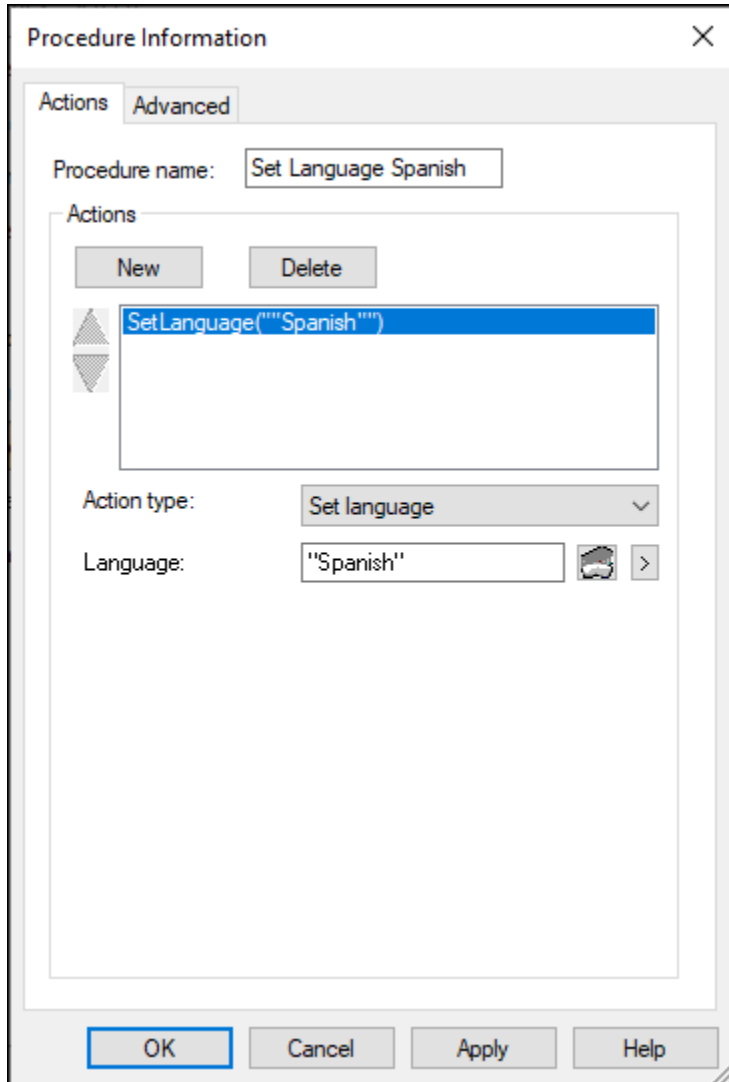
This procedure allows you to set the language of the screen to a pre-configured language in a screens translation file.

Set view rectangle
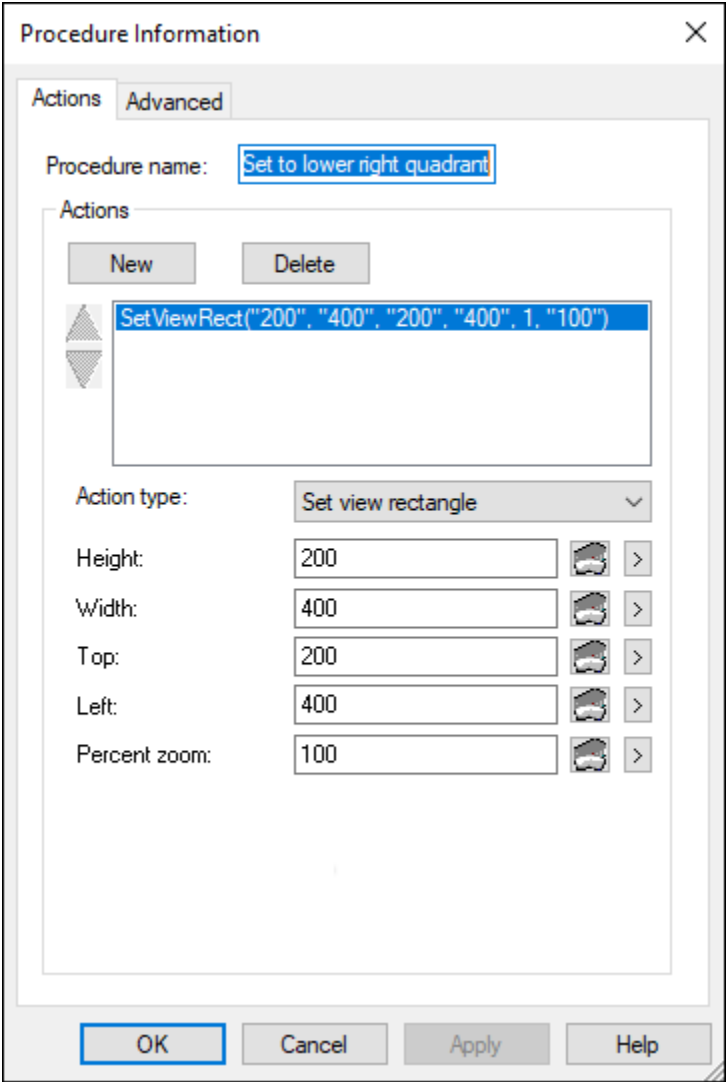
This procedure allows you to dynamically set the viewable area of a screen, expanding or reducing it as needed. It also allows the hiding and showing of advanced properties, such as an asset's faceplate.

Log status message
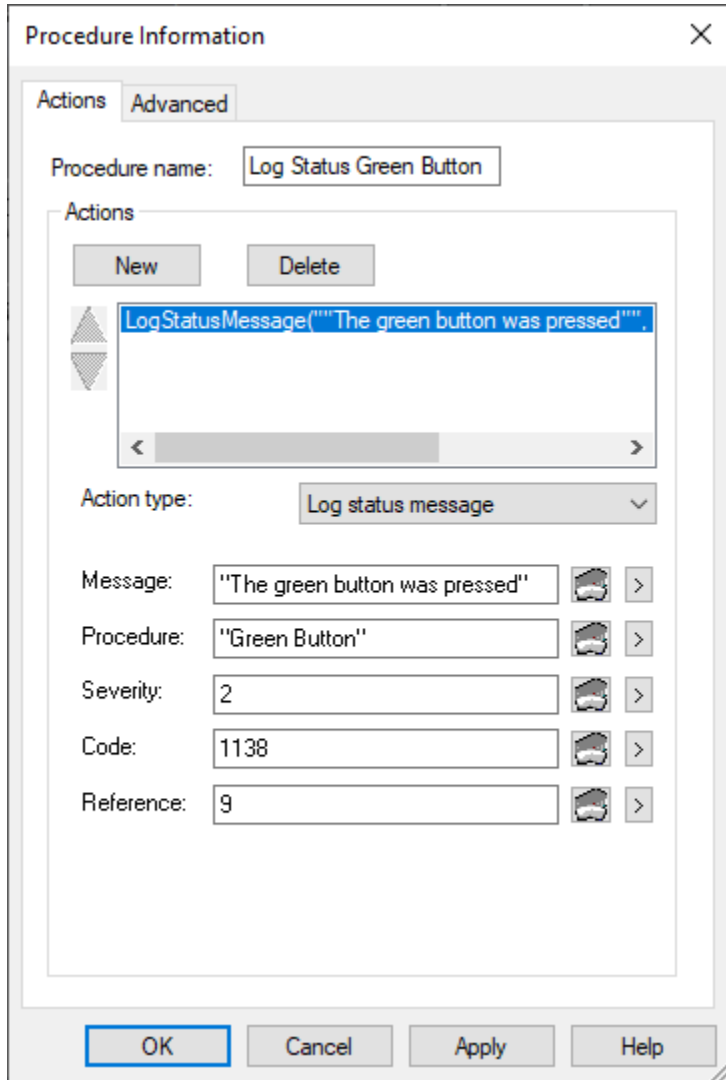
This procedure allows you to log an event's status message to the project status log without the need for a script.

X, Y Coordinate Capture in Variables

The **$MOUSE_X**, **$MOUSE_Y**, and **$MOUSE_FLAGS** variables have been added to every screen, capturing the last mouse coordinates and flags recorded when a procedure is called. This enables you to pass these coordinates into other procedures that require variables as parameters.

Resizeable dialogs
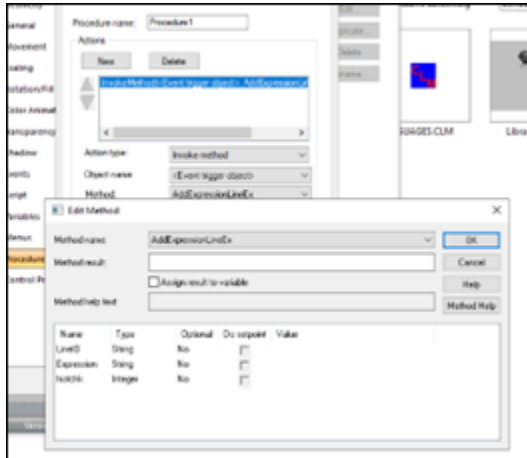
Some of the internal dialogs used with ActiveX Control methods have been made resizeable to enable better display of additional information.

Resources

Topic- Set language.

Topic- Set view rectangle.

Topic- Log status message.

Topic- $MOUSE_X.

Topic- $MOUSE_Y.

Topic- $MOUSE_FLAGS.

Right-to-left (RTL) Support
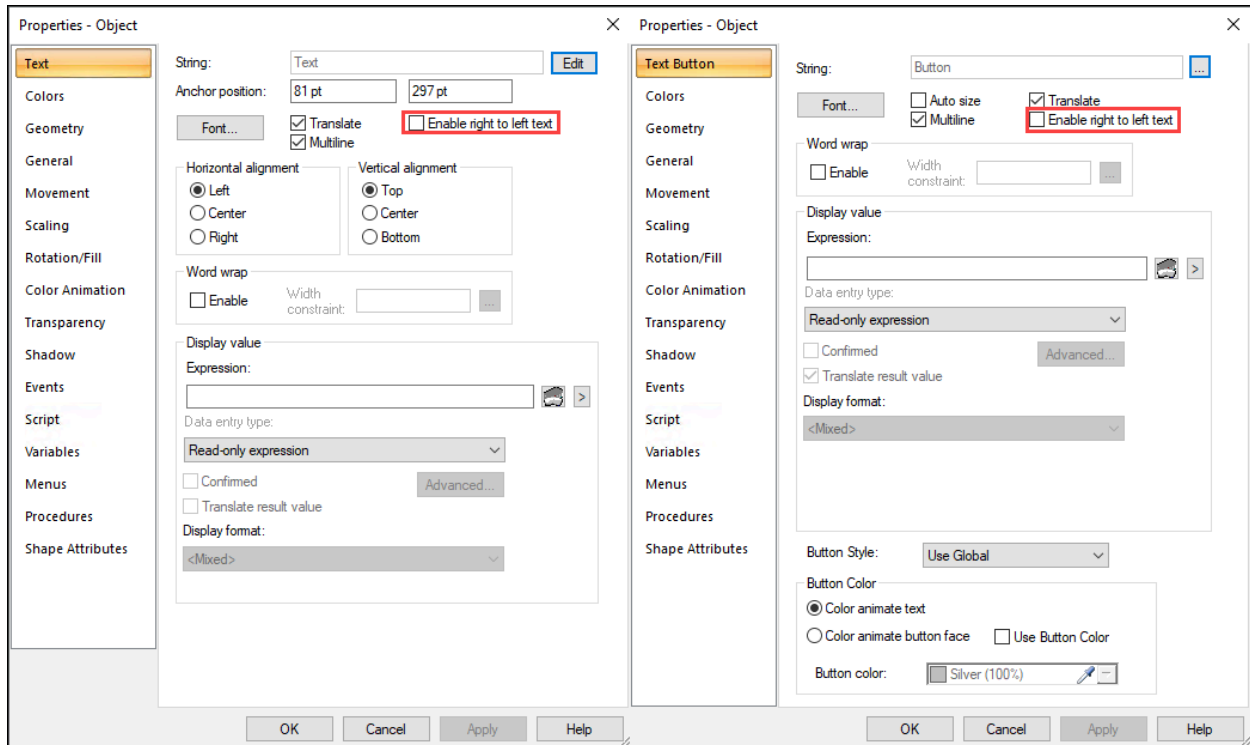
What is it?

CimEdit now allows users to configure text and string objects to be rendered right-to-left (RTL) on the CIMPLICITY screens. You can view the text and string objects in runtime using CimView.

Why use it?

- Users can develop screens for projects that use RTL text languages, such as Hebrew, Arabic, etc.
- RTL text will be rendered correctly on screens, making it easy for users to understand.

Resources

Topic- Text Object Formatting.

Topic- Text Button Formatting.

Script Details
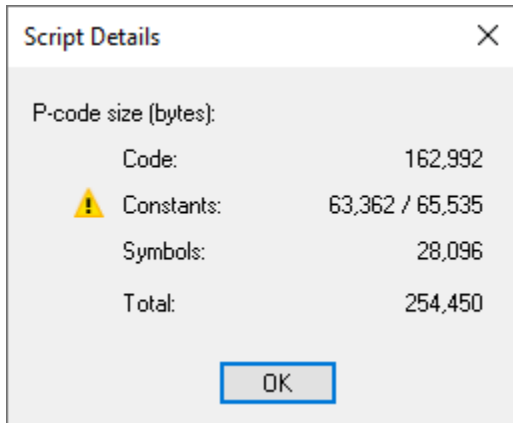
What is it?

A new dialog has been added to the BCL script editor, providing statistics about the resources used by your current script.

Why use it?

These statistics are particularly useful when working with larger scripts that may begin to exceed certain script engine limits, especially regarding script contents.

Resources

Topic- View Script Details.

Global Class Script Library

What is it?

When using the power capability in CIMPLICITY to encapsulate assets as classes and objects, scripting triggered on pre/post creation and deletion can now share code in a common library file across class instances.

Why use it?

Having a common library file to capture reusable code that can be used by all classes in your project allows you to write code once and utilize it multiple times, reducing maintenance costs and scripting errors.

To enable this enhancement, the **BASIC_CLASS_LIBRARY_FILE** parameter is added. You can reference to the common library file in this parameter.

Resources

Topic- BASIC_CLASS_LIBRARY_FILE.

Performance Updates

What is it?

As part of our ongoing support and collaboration with customers using large CIMPLICITY projects, we have identified and improved some key areas of the product, enhancing CIMPLICITY's efficiency and performance, particularly with larger projects. At a high level, the following areas have been improved:

- Alarm Viewer connections run in the background instead of holding up the UI in CimView.
- Command Line Import/Export for the point database is more efficient and faster in dynamic mode.
- Improved Alarm Management, especially in scenarios with numerous roles and alarms.
- Alarm Setup regular expression evaluation has been upgraded to a faster engine.
- Point attributes are read more efficiently, resulting in faster screen open times.
- Optimization of hash table lookups across the product backend has led to lower overall CPU usage.

Why use it?

Running larger projects on a single CIMPLICITY server, as opposed to splitting them into multiple projects, saves you server, IT, and maintenance costs. CIMPLICITY's architecture and performance are among the most efficient in the SCADA market. These improvements continue to enhance its performance and are included at no additional cost when upgrading to the CIMPLICITY 2024 version.

Centralized Licensing

What is it?

Configuration Hub now has the central management ability to both read and display the license information of all its registered nodes, as well as push updated licenses to selected CIMPLICITY Servers and Viewers.

Why use it?

Configuration Hub offers the ability to centrally view all your Proficy Software installations and manage and execute many of the key actions you typically perform on them. With 2024, you can now view the license details of each of your CIMPLICITY nodes and centrally push updated licenses to them all from a web-based interface.

Resources

Topic- Central License Management.

Topic- Product License Details.

Term Licensing Model

What is it?

In addition to the existing perpetual licensing model, CIMPLICITY 2024 supports term licensing model.

Why use it?

- You have the flexibility to use or evaluate the complete product and all its features for a defined time and continue to renew the license as needed.
- You can run multiple projects with limited device tags (I/O).
- Unlike a trial or demo product, you still get the latest updates and support on the product throughout your license period.

Resources

Topic- About Term Licensing.

Topic- Best Practices.

Increased Password Length in the CIMPLICITY Native Login Dialog

What is it?

The CIMPLICITY native login dialog now accepts passwords up to 50 characters long. If you are using Windows authentication or Proficy Authentication, you can enter a password up to 50 characters. However, for the CIMPLICITY authentication type, the limit remains at 16 characters.

Why use it?

This allows for enhanced password security by enabling the creation of longer and more complex passwords, particularly for users who rely on Windows or Proficy Authentication. It helps strengthen access controls and mitigate security risks associated with shorter passwords.

Fixed Defects

The following issues have been fixed in CIMPLICITY v2024:

Description	Tracking ID
Issue: Previously, PTDP_RP would stop after adding new derived points to the MB4SHM project, causing crash dump files to be generated. **Resolution**: This issues has now been resolved. PTDP_RP no longer stops when there is an error in configuration for a derived point. A safety NULL check has been implemented to prevent crashes, informed by observations from dump analysis.	SF-01126986
Issue: Previously, attempting to install help while the project was in a running state was resulting in an error message. **Resolution**: To prevent potential conflicts, help installation is now restricted when a project is running. Users will receive an error message if they attempt to install help while the project is active. The procedure in the help documentation is also updat-	SF-01128506

Description	Tracking ID
ed accordingly. For more information on how to install local help, refer to https://www.ge.com/digital/documentation/cimplicity/version2024/oxy_-ex-2/getting_started/topics/g_cimplicity_install_-help_installer.html.	

Known Issues and Limitations

The following issues have been identified in CIMPLICITY v2024:

Description	Tracking ID
Screen in CimEdit from the CIMPLICITY Workbench will not open if the project is placed in a directory with special names. For example, C:\My-Project_Automation\CIM_Ver2\.	SF-01120187
Unable to form logical links between primary and secondary servers in a redundant setup.	SF-01123046
String indexer for the CimClassList object does not work as expected. Working alternative is not documented well.	SF-00984050
Class dialogs have inconsistent Pre/Post Script selection behavior (Typed/Browsed).	SF-01077222
When only Proficy Authentication is enabled on the CIMPLICITY node, the login dialog appears and then disappears on a Webspace session, preventing login to the session. If mixed mode is enabled, the login dialog on the client appears correctly.	NA

The following limitation has been identified in CIMPLICITY 2024:

Description	Tracking ID
The Redundant Configuration Update feature is not supported when opening a remote project over a UNC path.	NA