

CIPer™ Model 30 Controller

1 New Features

- 1) CIPer Model 30 controller firmware upgraded to WEBs-N4.10.0.154 version.
To upgrade a CIPer Model 30 controller to WEBs-N4.10, refer to [Steps to Upgrade CIPer Model 30 Controller from WEBs-N4.7, N4.8, or N4.9 to WEBs-N4.10 version](#) section.
- 2) USB support for communication to BACnet MSTP or Modbus devices. This feature allows you to configure RS-485 communication with a USB Type-A socket via an RS-485 serial port converter adapter.
- 3) Adapter Requirements for CIPer Model 30
 - USB to wire end RS-485 cable
 - Must use either FTDI chipset (FT232 series) or Prolific chipset (PL2303).
 Some specific adapters available on-line
 - <https://www.waveshare.com/usb-to-rs485.htm>
 Engineering group recommends these (w/ Tx/Rx LEDs, two cable lengths):
 - 1.8m cable: <https://ftdichip.com/products/usb-rs485-we-1800-bt/>
 - 5m cable: <https://ftdichip.com/products/usb-rs485-we-5000-bt/>
- 4) Licenses with Modbus
Existing Licenses: BACnet, 150 points, 3 devices
 - WEB-C3036EPUBNH – CIPer Model 30 Unitary
 - WEB-C3036EPVBNH – CIPer Model 30 VAV
 For Modbus, order ***New* Part Number: WEB-C30-CONV-M**, zero charge
Converts existing license to BACnet & Modbus, 100 points, 3 devices.

Convert this	To this
WEB-C3036EPUBNH BACnet, 150 points, 3 devices	WEB-C3036EPUBMNH BACnet & Modbus 100 points, 3 devices
WEB-C3036EPVBNH BACnet, 150 points, 3 devices	WEB-C3036EPVBMNH BACnet & Modbus 100 points, 3 devices

For more details refer to *CIPer Model 30 System Engineering User Guide - 31-0023*

2 Overview of the Release

CIPer Model 30 controllers are available in two models WEB-C3036EPUBNH and WEB-C3036EPVBNH. These are Internet Protocol (IP) based edge controllers that can be used for VAV, Unitary, and Plant applications.

Product Name	Honeywell – CIPer Model 30 Controller
Type of Release	General Release
Date	July, 2021
Niagara compatibility	WEBs-N4.10.0.154

2.1 Release Components and Versions

The update can be found on The Honeywell Buildings Forum. The software modules for CIPer Model 30 controller included in the [WEBs-N4.10.0.154](#) installer.

Alternatively, you can download the CIPer Model 30 tool and firmware software modules from [CIPer30_WEBsTool_1.0.11.zip](#), which includes updates of CIPer Model 30 V1.0.11 firmware and tool. Extract to find the following update files:

Firmware and Software Version

Tools	File Name	Version
Factory restore software	honeywell-IPC-factory.dist	0.1.0
WEB-O3022H Firmware	honeywell-IPCSIO.dist	1.1.0.76
WEB-O9056H Firmware	honeywell-IPCIO.dist	1.1.0.140
Baseboard Firmware	honeywell-IPCBASE.dist	1.1.1.146
OS QNX	honeywell-IPCQNX.dist	7.0.4.4
JRE	honeywell-azul-ejre-ipcqnx-arm.dist	1.8.0.282
IPC Tools	honeywell-IPC-tool.dist	4.10.0.1.1.257
IPC Module	honeywell-IPC-module.dist	4.10.0.154
Niagara Core Software	nre-core-honeywell-IPCQNX-arm.dist	4.10.0.154.4
Niagara Config Software	nre-config-honeywell-IPC.dist	4.10.0.154.6

Modules Version

Serial Number	Name	Version
1	docHoneywellFunctionBlocks-doc	4.10.0.1.1.257
2	docHoneywellSylkDevice-doc	4.10.0.1.2.55
3	docIPCProgrammingTool-doc	4.10.0.1.1.257
4	honeywellFunctionBlocks-rt	4.10.0.1.1.257
5	honeywellFunctionBlocks-ux	4.10.0.1.1.257
6	honeywellFunctionBlocks-wb	4.10.0.1.1.257
7	honeywellSylkDevice-rt	4.10.0.1.2.55
8	honeywellSylkDevice-ux	4.10.0.1.2.55
9	honeywellVersionManager-rt	4.10.0.1.1.12
10	ipcBaseDriver-rt	4.10.0.1.1.31
11	ipcCommBus-rt	4.10.0.1.1.257
12	ipcCommBus-wb	4.10.0.1.1.257
13	ipcMigrator-wb (only in Supervisor)	4.10.0.1.1.257
14	ipcProgrammingTool-rt	4.10.0.1.1.257
15	themeHoneywell-ux	4.10.0.1.1.16

2.2 Compatibility

Number	Item	Version Number/Type/Make
1	Hardware Compatibility (Sylk modules)	Zeleny: C7400S Sylk actuators: Zelix and Diamond Sylk Honeywell actuators TR120 as a replacement for TR7x (TR71, TR71-H, TR75, and TR75-H). TR7x: TR71, TR71-H, TR75, and TR75-H. TR4x: TR40, TR40-H, TR40-CO2, TR40-H-CO2, TR42, TR42-H, TR42-CO2, and TR42-H-CO2
2	Niagara compatibility	WEBs-N4.10.0.154
3	OS compatibility	Windows 10 (64-bit)
4	OS QNX	7.0.4.4 (honeywell-IPCQNX.dist)

2.3 Related Documentation

For more details on the installation procedure, features, and engineering configuration of the CIPer Model 30 controller and its IPC programming tool, refer to the following documents on [The Honeywell Buildings Forum](#).

- CIPer Model 30 System Engineering User Guide - 31-00237
- CIPer Model 30 Product Data - 31-00236EFS
- CIPer Model 30 Installation Instruction - 31-00183
- CIPer Model 30 Installation and Operation Guide - 31-00206
- CIPer Model 30 Hardening Guide - 31-00207
- CIPer Model 30 Expansion IO Product Data - 31-00239
- CIPer Model 30 Expansion IO Installation Instruction - 31-00319
- CIPer Model 30 Quick Setup Guide - 31-00446

3 Steps to Upgrade CIPer Model 30 Controller from WEBs-N4.7, N4.8, or N4.9 to WEBs-N4.10 version

This section provides the upgrade procedure with the core files, software, and firmware for the CIPer Model 30 controller and expansion IO to the latest build. For more details refer *CIPer Model 30 Installation and Operation Guide - 31-00183*

Check the power requirements of the controller and the expansion IO modules as specified in the product datasheets. To avoid overloading the power supply while upgrading, the firmware in the expansion IO modules can be upgraded later individually, by using the associated distribution files just for the expansion IO modules.



IMPORTANT

All modules must be signed

- WEBs-N4.10 requires all modules to be signed with a valid certificate. If you are using third-party modules, ensure that they are signed with a valid certificate using Niagara's Jar Signing Tool. For more details on the Niagara Third-Party Module Signing procedure, refer to the below Niagara internal help links (ORDs) for Niagara Third-Party Module Signing process,
 - **Signing A Third Party Module:**
module://docModuleSign/doc/CreateCodeSigningCertificate-28E327C0.html
 - **Staged roll-out:** *module://docModuleSign/doc/StagedRoll-outModuleSigning-182E7CC0.html*
 - **Verification modes:** *module://docModuleSign/doc/VerificationModesModuleSigning-182D0E86.html*

If you attempt to upgrade an existing CIPer Model 30 controller with an unsigned module, the station will not start.

For users using WEBs N4.8 version in CIPer Model 30 controller

- While installing any other tool packages in CIPer Model 30 controller, if CIPer Model 30 modules are getting overridden then ensure to copy the corresponding modules .sig files that are present along with modules using the "File Transfer Client" mechanism in Niagara.
- If the corresponding .sig file for the module is not installed in CIPer Module 30 controller, then during reboot those modules will be uninstalled and the station will fail to start.

Steps to Upgrade

1. Download and install the [WEBs-N4.10.0.154](#)
2. Upgrade using one of the following methods:
You can install a single controller or multiple controllers.
 - a) For single CIPer Model 30 Controller –use Distribution File Installer or Commissioning Service
 - b) For multiple CIPer Model 30 Controllers –use Provisioning Service
 - Upgrade using Distribution File Installer
 - Upgrade using Commissioning Wizard
 - Upgrade using Provisioning Service
3. Verify that the upgrade is successful.

**NOTE**Factory Reset Image

- The **honeywell-IPC-factory.dist** file can be used to reset the CIPer Model 30 Controller to factory settings. To install the **honeywell-IPC-factory.dist** file, use Distribution file installer.
- The factory reset image should only be installed after the upgrade process has been verified successfully.
- At this time, installing the Factory reset is not possible with Commissioning Service and Provisioning service

3.1 Install WEBs-N4.10.0.154

Download and install WEBs-N4.10.0.154 on your system.

**NOTE**

Honeywell Buildings Forum access requires a valid login to download the software.

3.2 Procedure to Upgrade CIPer Model 30 Controller and Expansion IO

3.2.1 Procedure 1: Distribution File Installer

Following are the dist files required to upgrade CIPer Model 30 controller and Expansion IO using the Distribution File installer:

Files required for Distribution File Installer		
Tools	File Name	Version
WEB-O3022H Firmware	honeywell-IPCSIO.dist	1.1.0.76
WEB-O9056H Firmware	honeywell-IPCIO.dist	1.1.0.140
Baseboard Firmware	honeywell-IPCBASE.dist	1.1.1.146
OS QNX	honeywell-IPCQNX.dist	7.0.4.4
JRE	honeywell-azul-ejre-ipcqnx-arm.dist	1.8.0.282
IPC Tools	honeywell-IPC-tool.dist	4.10.0.1.1.257
IPC Module	honeywell-IPC-module.dist	4.10.0.154
Niagara Core Software	nre-core-honeywell-IPCQNX-arm.dist	4.10.0.154.4
Niagara Config Software	nre-config-honeywell-IPC.dist	4.10.0.154.6

**NOTE**

- For upgrading all components in a single installation use **nre-config-honeywell-IPC.dist** file. This file installs all of the individual components of CIPer Model 30 core files, baseboard firmware, expansion IO firmware, and CIPer Model 30 modules.

nre-config-honeywell-IPC.dist

File nre-config-honeywell-IPC.dist
Size 137.3 KB
Distribution Name nre-config-honeywell-IPC
Description Niagara Configuration Files for honeywell IPC controller
Version honeywell 4.10.0.154.6
Release Date none

Contents

Dependencies

- IPC (<=1.0)
- honeywell-IPC-module (>=4.10.0.154)
- honeywell-IPC-tool (>=4.10.0.1.1.257)
- honeywell-IPCBASE (>=1.1.1.146)
- honeywell-IPCIO (>=1.1.0.140)
- honeywell-IPCQNX (>=7.0.4.4)
- honeywell-IPCSIO (>=1.1.0.76)
- honeywell-azul-ejre-IPCQNX-arm (>=Azul Systems 1.8.0.282)
- nre-core-honeywell-IPCQNX-arm >=4.10.0.154.4 (not allowed with nre-core-* (>=4.11))

Exclusions

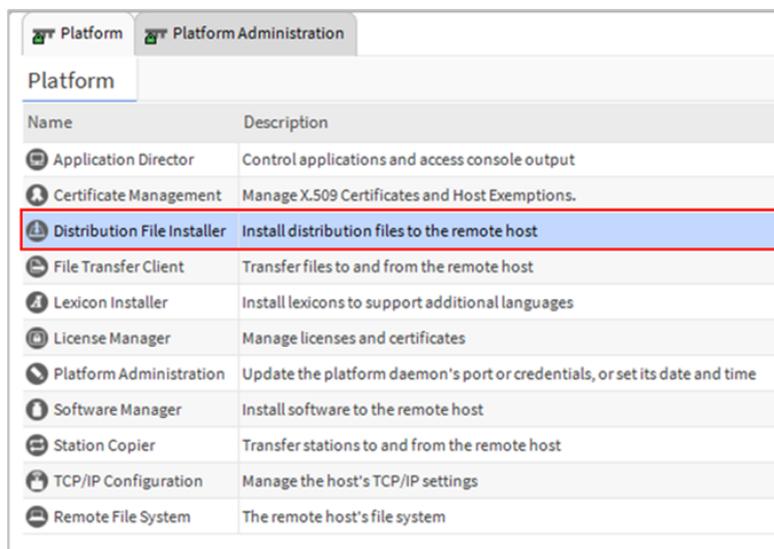
- nre-core-* (>=4.11)

Install **Cancel**

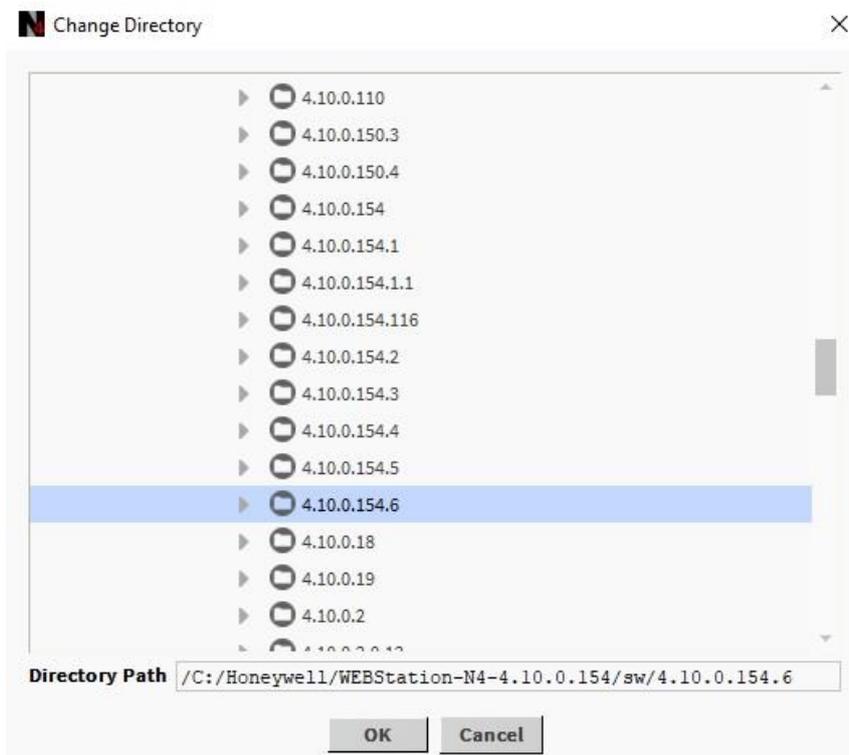
- For upgrading only controller tool use **honeywell-IPCtool-4.10.0.1.1.257.dist** file for installation.
- For upgrading controller baseboard firmware use **honeywell-IPCBASE.dist-1.1.1.146.dist** file for installation.
- For upgrading large expansion IO firmware, use **honeywell-IPCIO-1.1.0.140.dist** file for installation.
- For upgrading small expansion IO firmware, use **honeywell-IPCIO-1.1.0.76.dist** file for installation.

Steps To Run Distribution File Installer

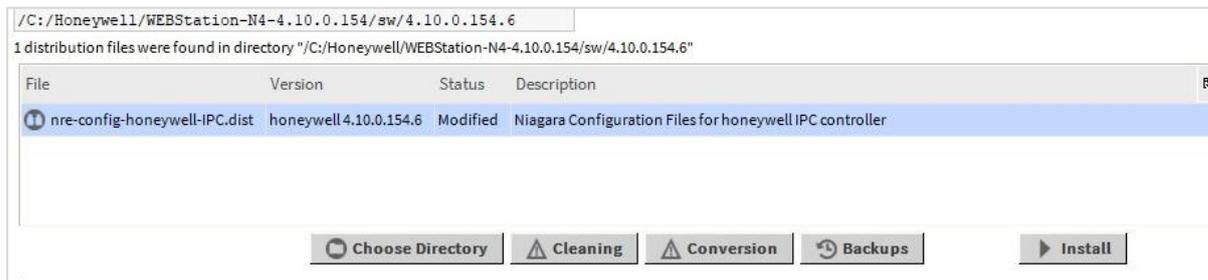
1. Connect to the platform and click **Distribution File Installer**.



2. Locate the folder containing (.dist) file from the **C:/Honeywell/WEBStation-N4-4.10.0.154/sw/4.10.0.154.6** directory, select the folder, and select **OK**.



3. Select the required .dist file and click **Install**, this action installs the (.dist) file.



NOTE

After this step, the controller automatically stops and reboots the station.

3.2.2 Procedure 2: Using Commissioning Wizard

Following are the dist files required to upgrade CIPer Model 30 controller and Expansion IO using Commissioning Wizard:

Files required for Commissioning Wizard		
Tools	File Name	Version
WEB-O3022H Firmware	honeywell-IPCSIO.dist	1.1.0.76
WEB-O9056H Firmware	honeywell-IPCIO.dist	1.1.0.140
Baseboard Firmware	honeywell-PCBASE.dist	1.1.1.146
OS QNX	honeywell-IPCQNX.dist	7.0.4.4
JRE	honeywell-azul-ejre-ipcqnx-arm.dist	1.8.0.282
IPC Tools	honeywell-IPC-tool.dist	4.10.0.1.1.257
IPC Module	honeywell-IPC-module.dist	4.10.0.154
Niagara Core Software	nre-core-honeywell-IPCQNX-arm.dist	4.10.0.154.4
Niagara Config Software	nre-config-honeywell-IPC.dist	4.10.0.154.6



NOTE

Installing the honeywell-IPC-factory.dist file is not supported via commissioning.

Steps To Perform Commissioning Wizard

1. Log in to the Platform of the CIPer Model 30 using the WEBs-N4- N4.10.0.154 workbench.
2. Run the **Platform Administration** from platform view.

Platform	
Name	Description
Application Director	Control applications and access console output
Certificate Management	Manage X.509 Certificates and Host Exemptions.
Distribution File Installer	Install distribution files to the remote host
File Transfer Client	Transfer files to and from the remote host
Lexicon Installer	Install lexicons to support additional languages
License Manager	Manage licenses and certificates
Platform Administration	Update the platform daemon's port or credentials, or set its date and time
Software Manager	Install software to the remote host
Station Copier	Transfer stations to and from the remote host
TCP/IP Configuration	Manage the host's TCP/IP settings
Remote File System	The remote host's file system

3. Select **Commissioning Wizard**.

Platform Administration

- View Details
- User Accounts
- System Passphrase
- Change HTTP Port
- Change TLS Settings
- Change Date/Time
- Advanced Options
- Change Output Settings
- View Daemon Output
- Configure Runtime Profiles
- Configure NRE Memory
- Backup
- Commissioning
- Reboot

Baja Version	Tridium 4.9.0.198
Daemon Version	4.9.0.198
System Home	/mnt/fs/niagara
User Home	/mnt/fs/home/niagara
Host	10.78.2.84 (IPCStation)
Daemon HTTP Port	3011
Daemon HTTPS Port	5011
Host ID	HON-IPC-9417-68EE-D489-2D1E
Model	IPC
Product	HonIPC N4
Local Date	23-Mar-21
Local Time	7:15 Greenwich Mean Time
Local Time Zone	GMT (+0)
Operating System	QNX (1.1.151)
Niagara Runtime	nre-core-honeywell-IPCQNX-arm (4.9.0.198.145)
Architecture	arm
Enabled Runtime Profiles	rt,ux,wb
Java Virtual Machine	honeywell-azul-ejre-ipcqnx-arm (Azul Systems 1.8.0.252)
Niagara Stations Enabled	enabled
Number of CPUs	1
Current CPU Usage	6%
Overall CPU Usage	12%
Filesystem	
	Total Free
/mnt/system	229,132 KB 198,628 KB

4. Uncheck all default checkboxes, except “*Install/Upgrade core software from distribution files*” (see below) and click **Next**.

Commissioning

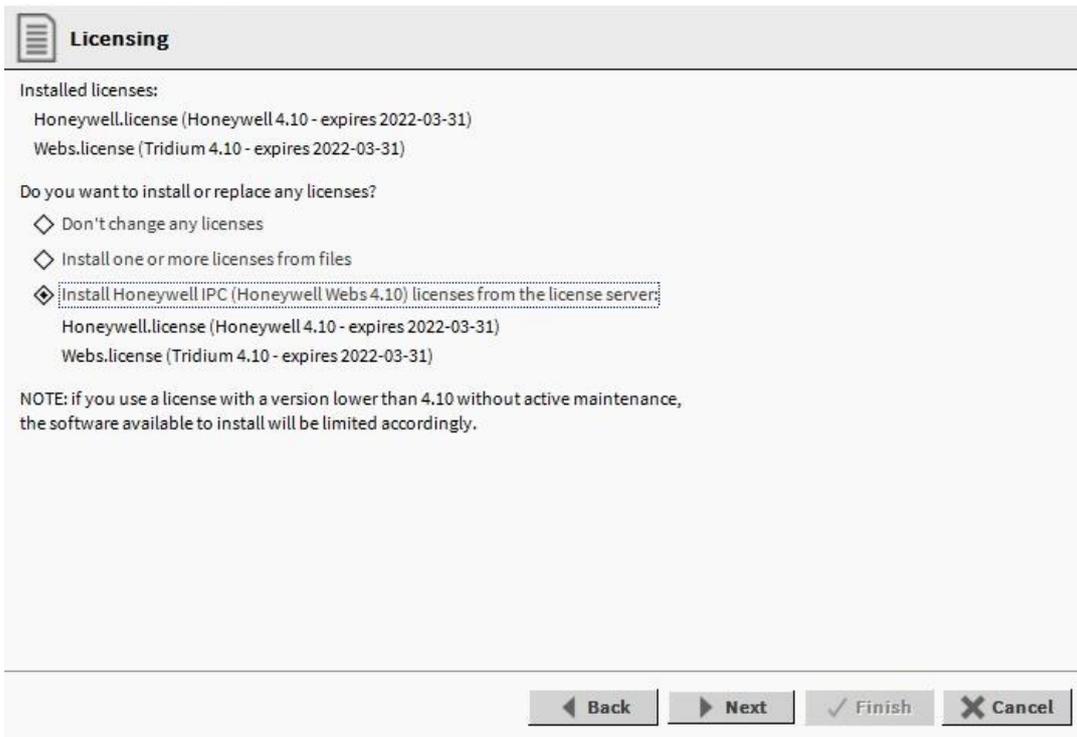
This wizard combines steps for configuring a host to run stations. Please check below for each type of configuration change you wish to make:

- Request or install software licenses
- Set enabled runtime profiles
- Install a station from the local computer
- Install lexicons to support additional languages
- Install/upgrade modules
- Install/upgrade core software from distribution files
- Sync with my local system date and time
- Configure TCP/IP network settings
- Configure system passphrase
- Configure additional platform daemon users

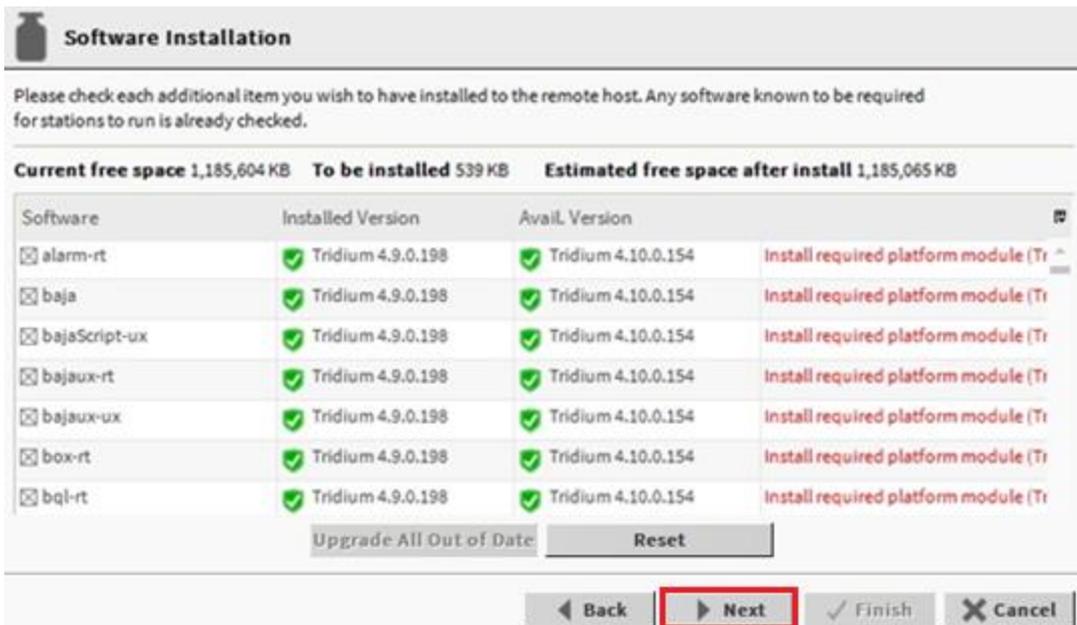
Clear All Check All

Back **Next** Finish Cancel

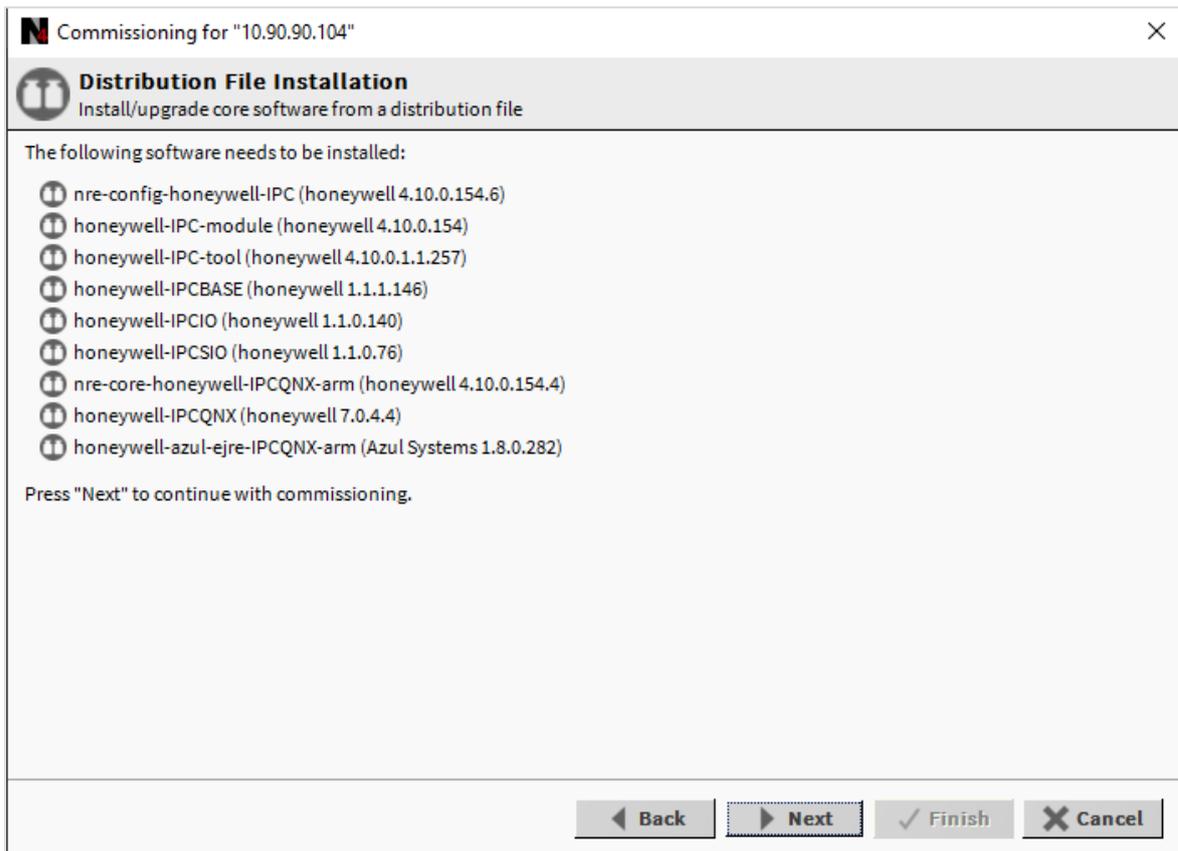
5. Select the licensing options and click **Next**.



6. Click **Next**.



7. The install/upgrade core software from the distribution file should look like the below image. If not, then go back and make sure the files from the zip folder were copied to the correct location and that the WEBS-N4.10.0.154 workbench was restarted.



8. Click **Next** and complete the commissioning wizard.

Wait for several minutes to complete the controller upgrade. After the upgrade is complete you will be able to log in to the platform of the controller.

3.2.3 Procedure 3: Using Niagara Provisioning Service

Following are the dist files required to upgrade CIPer Model 30 controller and Expansion IO using for Provisioning Service:

Files required for Niagara Provisioning Service		
Tools	File Name	Version
WEB-O3022H Firmware	honeywell-IPCSIO.dist	1.1.0.76
WEB-O9056H Firmware	honeywell-IPCIO.dist	1.1.0.140
Baseboard Firmware	honeywell-IPCBASE.dist	1.1.1.146
OS QNX	honeywell-IPCQNX.dist	7.0.4.4
JRE	honeywell-azul-ejre-ipcqnx-arm.dist	1.8.0.282
IPC Tools	honeywell-IPC-tool.dist	4.10.0.1.1.257
IPC Module	honeywell-IPC-module.dist	4.10.0.154
Niagara Core Software	nre-core-honeywell-IPCQNX-arm.dist	4.10.0.154.4
Niagara Config Software	nre-config-honeywell-IPC.dist	4.10.0.154.6



NOTE

Installing the honeywell-IPC-factory.dist file is not possible by Provisioning Service.

Niagara provisioning service allows you to upgrade multiple CIPer Model 30 controllers and Expansion IO. For additional information on setting up provisioning service see the [CIPer Model 30 Installation and Operation Guide - 31-00183](#) or open the following ORD (*local: module://docProvisioning/doc/ProvisioningInstall.html*) on your workbench:

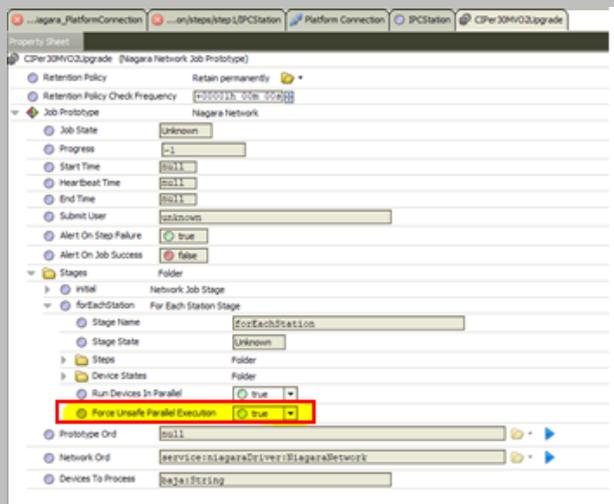


NOTE

The station names in each of the CIPer Model 30 controllers must be unique in order to add them as a remote Niagara station in the Niagara station manager. The station in the CIPer Model 30 controller need not be running in order to update the controller. You must configure the platform connection of the controller to perform the update.

By default, only one station will be upgraded at a time. In order to upgrade multiple controllers at the same time do the following

Navigate to the AX property sheet of the job prototype and set the **Force unsafe parallel execution** to **True**, refer to the screenshot below.



Steps To Perform Provisioning Service

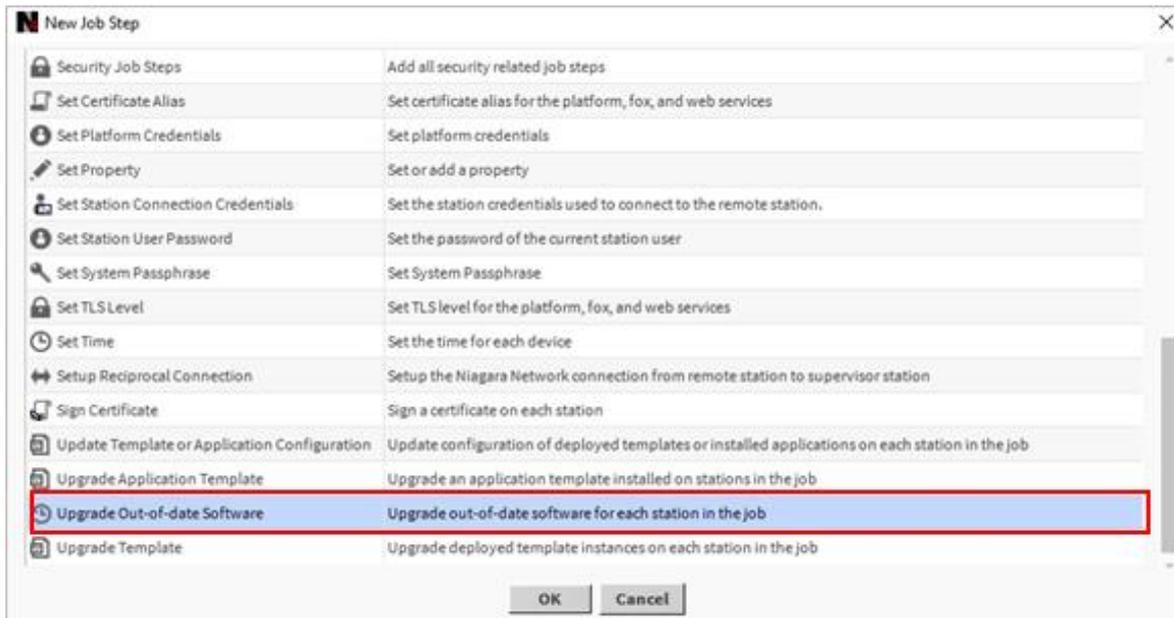
1. Navigate to the **ProvisioningNiagara** palette, add a new **NetworkJobPrototype** to any place in the station under Config (NiagaraNetwork for example) and name the job prototype (example - CIPer30_1.1.4_Upgrade).



NOTE

Make sure to increase the Device Reboot Timeout from 10 minutes to 15 minutes if you are connecting more than 6 expansion IO to the CIPer Model 30 controller.

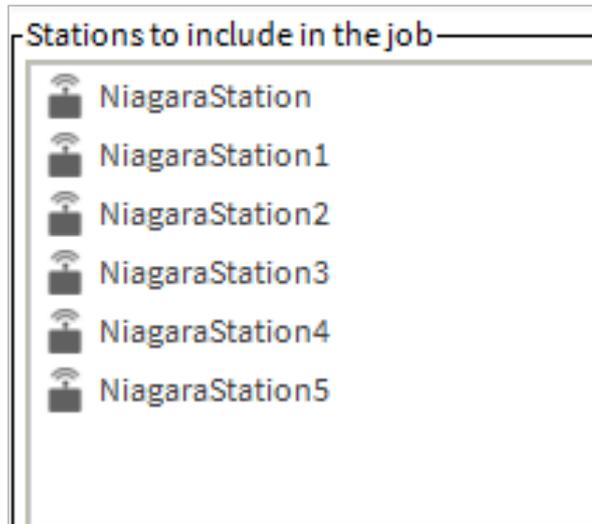
2. Click the **(+)** icon from **Steps run for each station** section, select **Upgrade Out-of-date Software**, and then click **OK**.



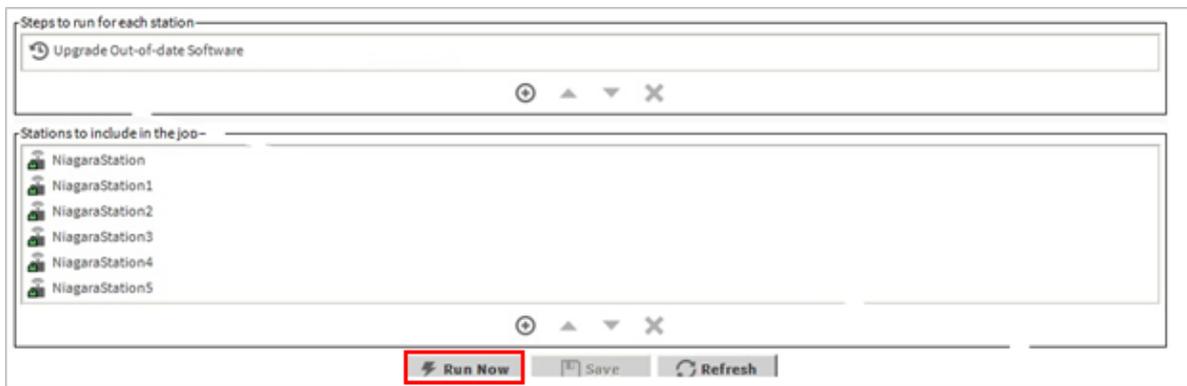
You can view the list of jobs defined for the required stations.



3. Click the **(+)** icon from **Stations to include in the job** section, select the checkbox to select a specific station, or select the **Check All** option to select the all listed station, and then click **OK**.



4. Click **Run Now**.



This upgrades CIPer Model 30 controller and Expansion IO to WEBS N4.10 version for all selected stations.

3.3 Verify Upgrade

After the upgrade process of the CIPer Model 30 controller and Expansion IO, verify the versions of QNX/Baseboard Firmware/Software Tool.

Log in to the Platform of the controller and then go to **Platform Administration**, and verify the updated versions installed. Refer to the below image, highlighting installed versions on the controller.

The screenshot shows the 'Platform Administration' interface. On the left is a sidebar with various configuration options. The main area displays system information. Several items are highlighted with red boxes:

- Baja Version**: Tridium 4.10.0.154
- Operating System**: honeywell-IPCQNX (7.0.4.4)
- Niagara Runtime**: nre-core-honeywell-IPCQNX-arm (4.10.0.154.4)
- Java Virtual Machine**: honeywell-azul-ejre-IPCQNX-arm (Azul Systems 1.8.0.282)

Other visible details include Daemon Version (4.10.0.154), System Home (/mnt/fs/niagara), User Home (/mnt/fs/home/niagara), Host (10.78.2.84), Daemon HTTP Port (3011), Daemon HTTPS Port (5011), Host ID (HON-IPC-9417-68EE-D489-2D1E), Model (IPC (1.0)), Product (HoniPC N4), Local Date (15-Jul-21), Local Time (6:02 Greenwich Mean Time), Local Time Zone (GMT (+0)), Architecture (arm), Enabled Runtime Profiles (rt,ux,wb), Niagara Stations Enabled (enabled), Number of CPUs (1), Current CPU Usage (31%), Overall CPU Usage (15%), and Filesystem details for /mnt/system and /mnt/fs.

3.3.1 To Verify Baseboard Version

1. Go to **Application Director** and start the station. Wait for the station to start when the station status displays running
2. Log in to the station.

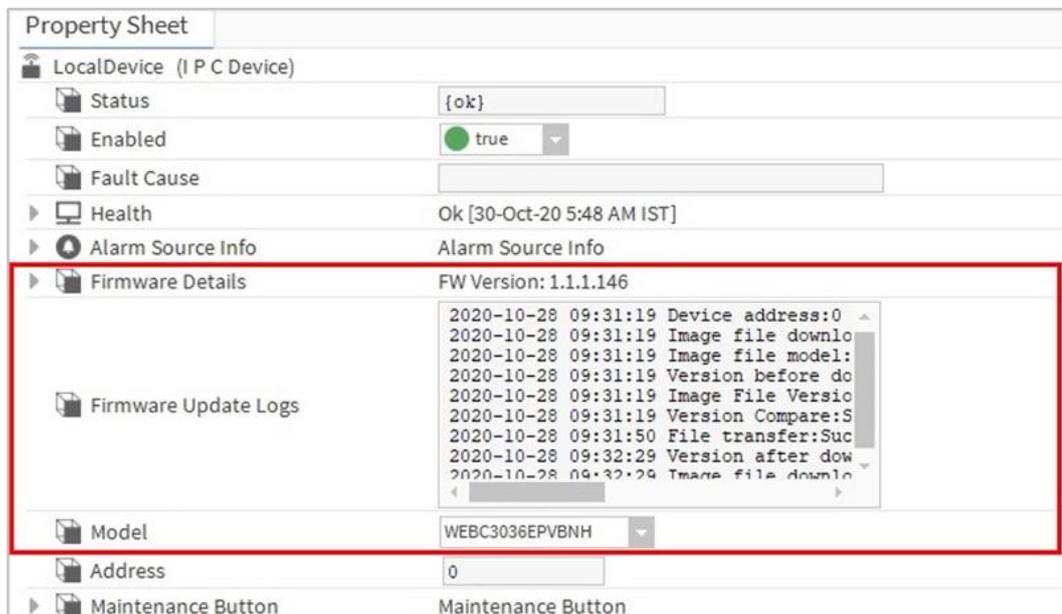
If you are logging into the station the first time, then use default credentials.

- Username: admin
- Password: Honeywell1

The change password wizard will come up to change the default credentials.

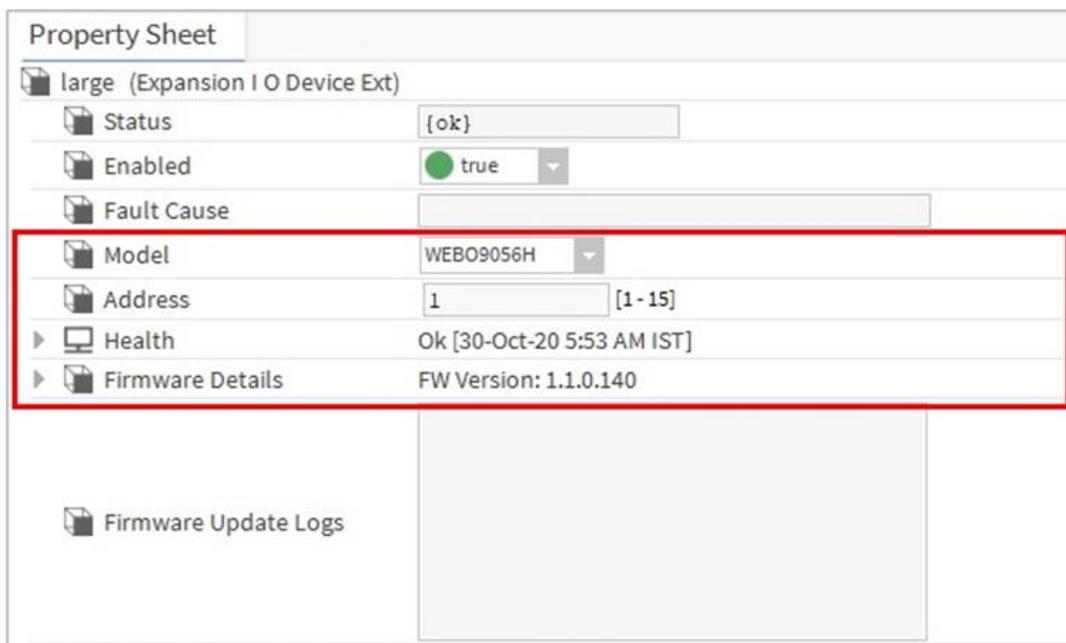
3. Navigate to **Station > Drivers > IPCNetwork** and click on **localDevice**.

This action opens the local device property sheet. Verify the updated firmware details. Refer to the below image, highlighting installed firmware versions on CIPer Model 30 controller and Expansion IO.



3.3.2 To Verify Expansion IO Baseboard Firmware Version

1. Navigate to **Station > Drivers > IPCNetwork** and click on **localDevice**.
2. Drag the Large Expansion IO device from the **ipcProgrammingTool** palette and configure the model type as **WEBO9056H** and the address to what is configured on the DIP switches of the expansion IO module. Make sure that the status shows **OK** and the firmware version shows **1.1.0.140** as seen below.



3. Drag the small Expansion IO device from the **ipcProgrammingTool** palette and configure the model type as **WEB03022H** and the address to what is configured on the DIP switches of the expansion IO module. Make sure that the status shows **OK** and the firmware version shows **1.1.0.76** as seen below.

Property Sheet	
small (Expansion I O Device Ext)	
Status	{unackedAlarm}
Enabled	<input checked="" type="checkbox"/> true
Fault Cause	
Model	WEB03022H
Address	7 [1 - 15]
Health	Ok [30-Oct-20 5:54 AM IST]
Firmware Details	FW Version: 1.1.0.76
Firmware Update Logs	
Alarm Source Info	Alarm Source Info
Ping Retry Count	0
Current Read Retry Count	0
Desired Read Retry Count	5 [0 - 30]
Current Write Retry Count	0
Desired Write Retry Count	5 [0 - 30]
Io Heart Beat	15 s [0 - 900]

This completes the CIPer Model 30 WEBs-N4.10 version upgrade process