Omega Sync - Omega Device Software

ΩΞ OMEGA™

User Manual

Version 1.0.0

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1 Introduction

Omega Sync is a generic device configuration tool. Omega Sync 1.0.0 supports devices CN616A, DP606A/DP612A. It allows users to configure device runtime parameters, to view process values and to export data. Omega Sync does not support long term process value storage where another Omega software does. Please consider Omega Enterprise Gateway (OEG) for long term data logging and analytics. OEG web client is platform independent.

The Omega Sync can be installed in Windows® 7/8/10, Windows Server 2008/2012/2016.

The minimum hardware requirements for server installation are: Dual core: CPU 2.4 GHz or up; Memory: 4 GB or up; Hard drive: 250 GB or up.

1.1 Licensing

Omega Sync is free to all customers who use Omega devices. The software is governed by Omega's EULA and is also subject to open source licensing.

1.2 Use Scenarios

Omega Sync is used for device configuration and viewing process data.

1.2.1 Device Configuration

Omega Sync provides a universal interface for the ease configuration of Omega devices. User should refer to the device user's manual on how to operate devices.

1.2.2 Short Term Data Graphing

Under certain circumstances, users may want to capture device process values to ensure that the device configuration is done correctly. Omega Sync supports the features of short-term data trend viewing and export. If users want to capture long term data, Omega Enterprise Gateway should be considered.

2   Installation

Omega Sync provides ClickOnce installer package for installation. The steps are followed:

1. Unzip the Omega Sync zipped file downloaded from https://www.Omega.com
2. Included in the installer package are Omega Sync application files, setup.exe, User Manual, Release Notes, License and Copyright Notice and End User License Agreement (**Figure 1**).
3. Users will click the setup.exe to install and launch Omega Sync the first time (**Figure 2**).
4. A desktop shortcut icon of Omega Sync (**Figure 3**) is created after the installation. Users will launch Omega Sync using the desktop shortcut afterwards.
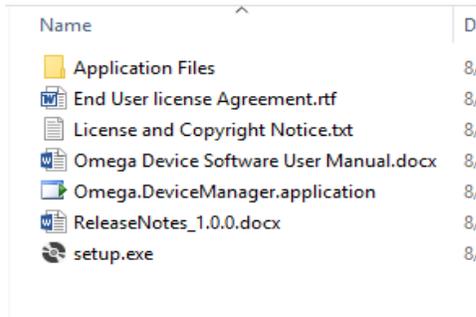

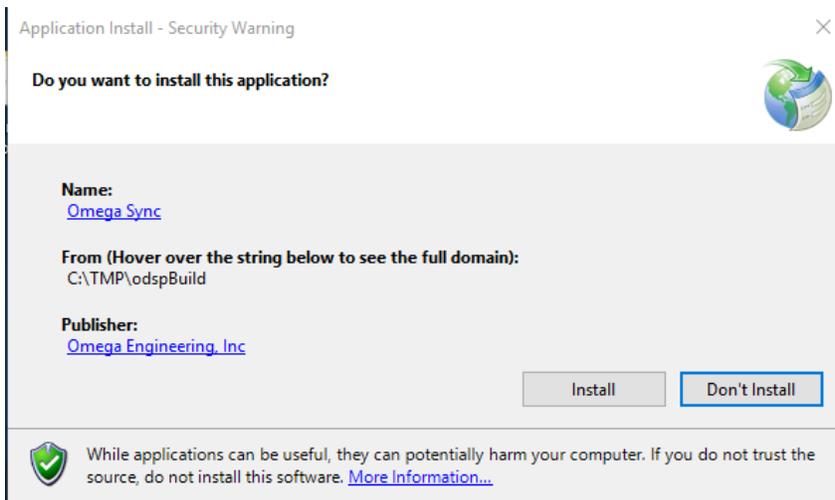**Figure 1. Unzipped Omega Sync installer package folder**

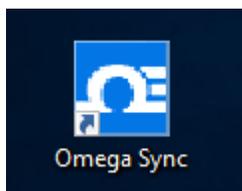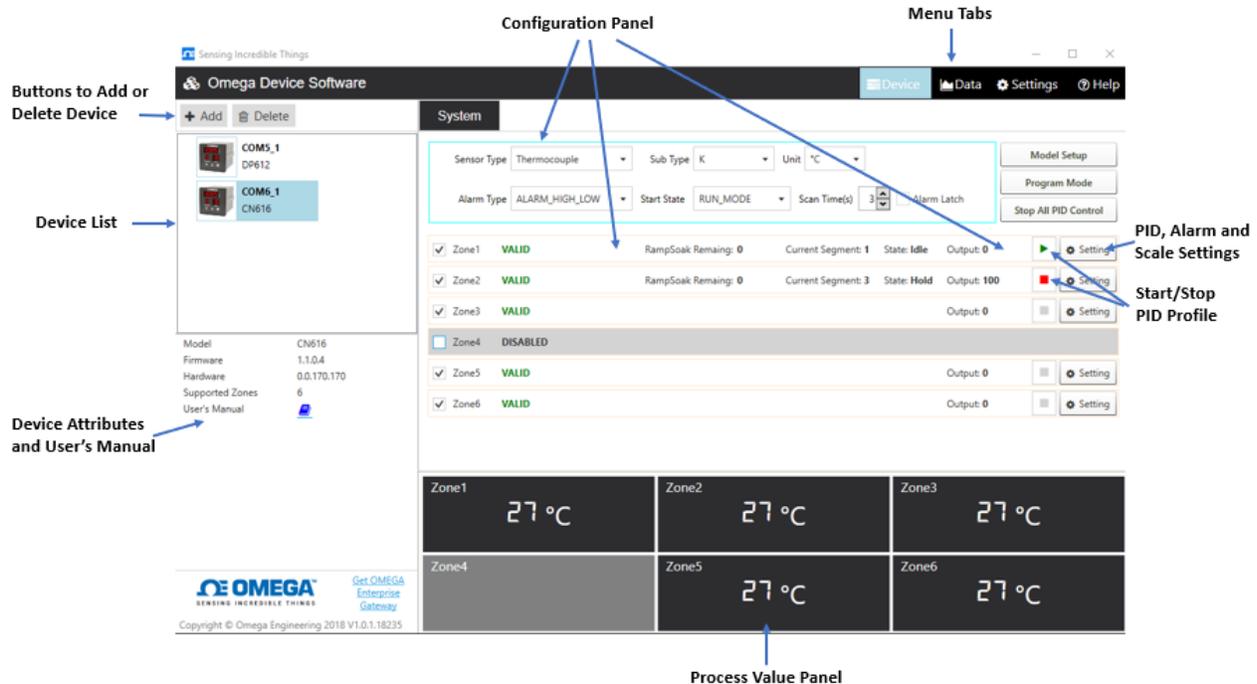**Figure 2. ClickOnce Installer**

Figure 3. Omega Sync Desktop Icon

3   Use Omega Sync

Omega Sync has two main user interfaces: Device Configuration and Device Data View/Export.

3.1   Omega Sync Device Configuration Interface

Figure 4. Device Configuration Interface

Device Configuration Interface (**Figure 4**) is the first view you see after Omega Sync is launched.

3.1.1   Device Auto Detection

A device of properly set for communication with endpoint device address on a bus being 1 can be automatically detected and added to the device list when Omega Sync is launched, or when re-plugging into a COM port. Please refer to the **Tech Notes** that comes with the device on how to set device connection to Omega Sync.

3.1.2   Add or Delete Device Button

The Add Device Wizard (**Figure 5(a)(b)(c)**) will lead you to add a connected device to Omega Sync. CN616, DP606A/DP612A supports serial connection only. Default serial interface settings (**Figure 5(c)**) are provided in the wizard. Please refer to device user's guide for other serial interface setting options if default settings are not applicable. The device can be removed by clicking on the Delete button.

3.1.3   Device List

Listing all connected devices. The device name consists of COM port, device address and model. Users can switch between devices in the list to do configuration or capture data.

3.1.4   Device Attributes

Listing the model, hardware/firmware versions, the total number of supported zones, and the hyperlink to user's manual.

3.1.5   Menu Tabs

Users can switch views between device configuration interface and data trending view. Settings menu allows users to set display refresh rate (**Figure 7**). The recommended refresh rate is 2 second. Help menu provides support, contacts and information about Omega Sync.

3.1.6   Configuration Panel

Users can configure sensor type, subtype, units, decimal points, alarm type, alarm latch, system state, scan time. Users can enable/disable zones, start/stop PID profile and open the setting dialog (**Figure 6**) to PID auto-tune, to configure PID, alarm and scaling factors per zone. Please refer to the device user's guide for parameter details.

3.1.7   Process Value Panel

Displaying device process value and unit per zone. Alarm status and zone active status are indicated in colors of red (alarm condition triggered), gray (disabled zone) or black (normal reading).

3.1.8   Model Setup

Click to open the dialog to enable/disable password, set password or do factory reset of the selected device (**Figure 8**).

3.1.9   Program/Run Mode

Toggle to set the selected device in either program or run mode. While in the program mode alarm triggers are reset and control outputs are turned off for all zones. Please refer to the device user's guide for details.

3.1.10   Start/Stop All PID Control

Toggle to start/stop PID profile for all active zones instead of toggling a button at a time in each zone.
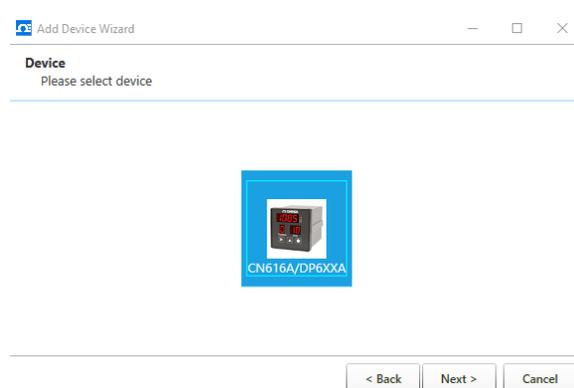

Figure 5(a). Add Device Wizard   **Figure 5(b). Add Device Wizard – selected device driver**
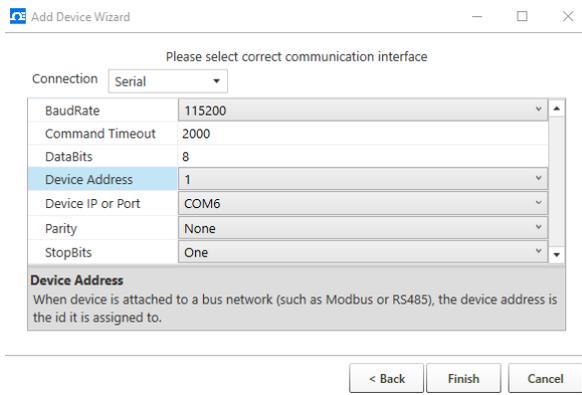
Figure 5 (c). Add Device Wizard – default serial interface settings of the selected driver
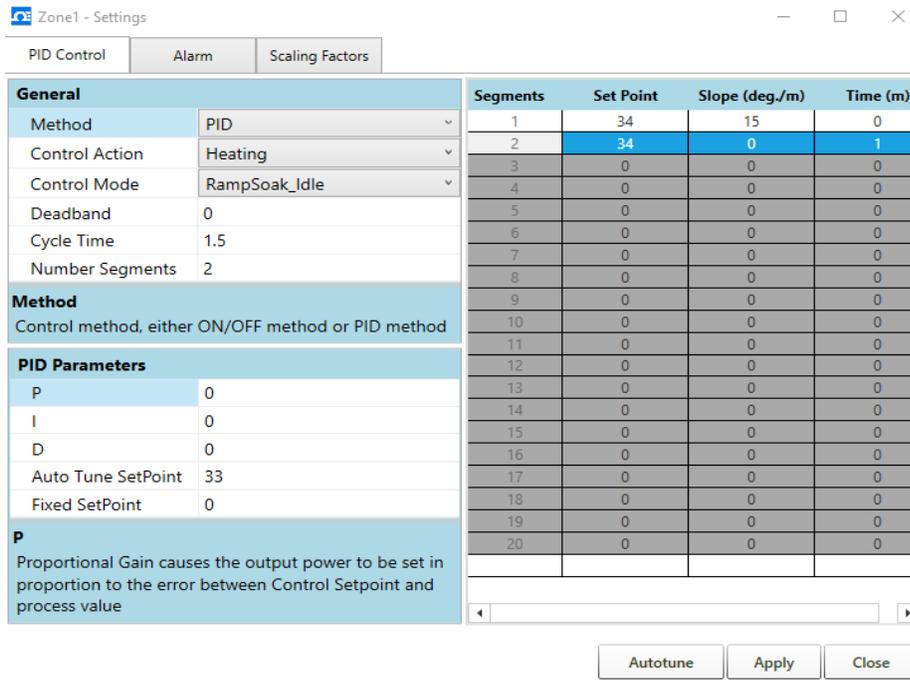

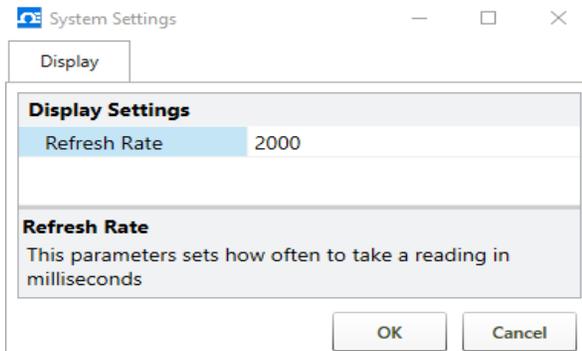**Figure 6. Configuration Dialog for PID, Alarm and Scaling Factors.**

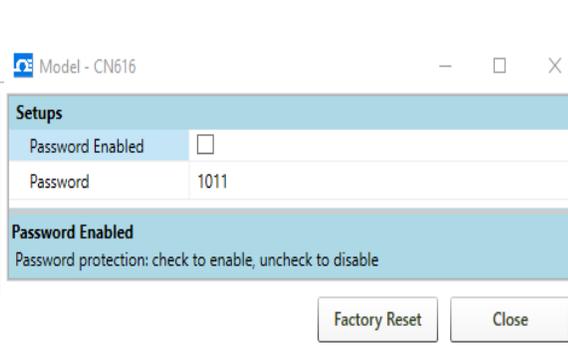**Figure 7. Data Refresh Rate Setting**   **Figure 8. Model Setup**

3.2   Omega Sync Data Interface

Data Interface provides a chart displaying real-time data from devices (**Figure 9**) and other chart functional uses such as start/stop live data, export data in a CSV file. The data range will subject to the life time of the chart. Data will be lost if it is switched to the device view and back. Data collection will restart after switching back to live data.
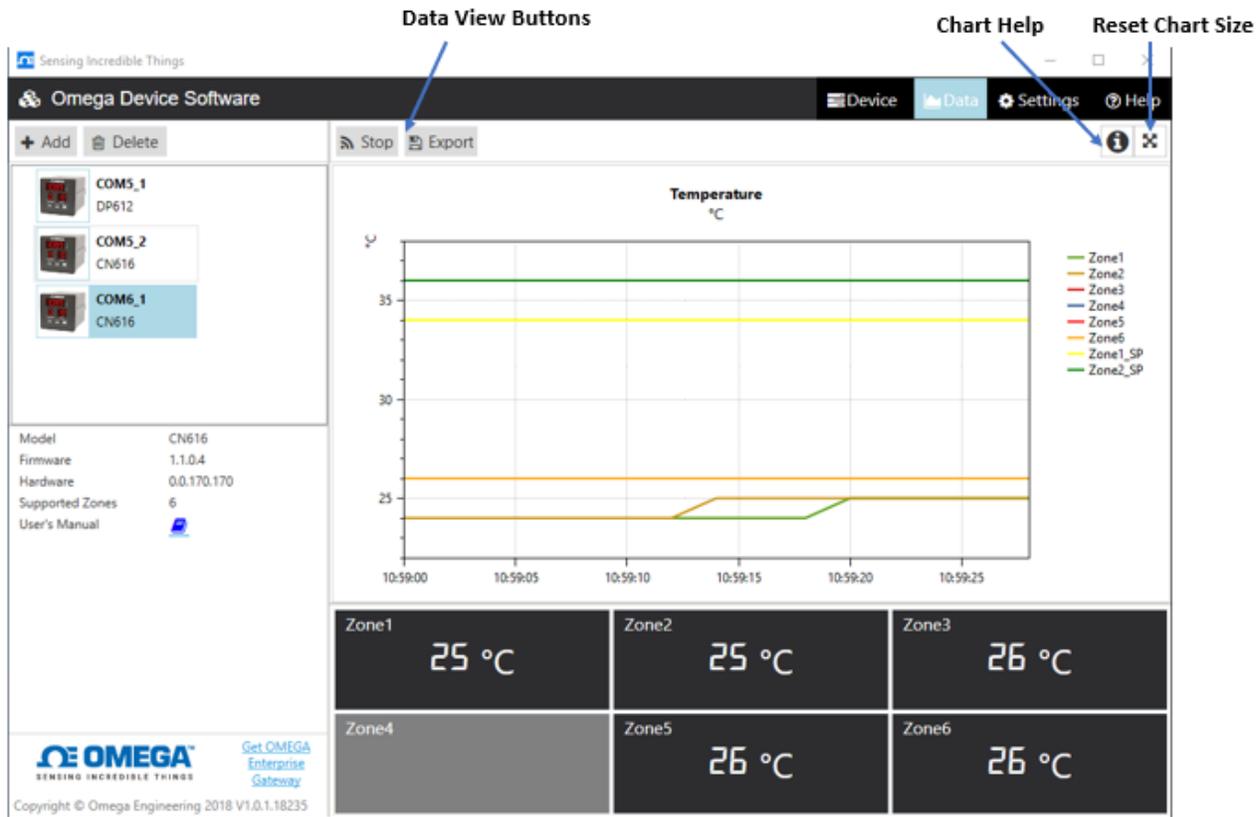
Figure 9. Data Interface

3.2.1   Live/Stop

Toggle on/off real-time data trending.

3.2.2   Export

Click to export the trending data into a .csv file.

3.2.3   Help

Click to show the detail information of how to use the live data chart (**Figure 10**).

3.2.4   Chart Resize

Click to reset the live data chart size.

Chart Info   ✕

1. click on live or export button to start data capture
2. double click on charting area to change Y axis range
3. use mouse buttons to zoom in/out chart.
4. right button to check values
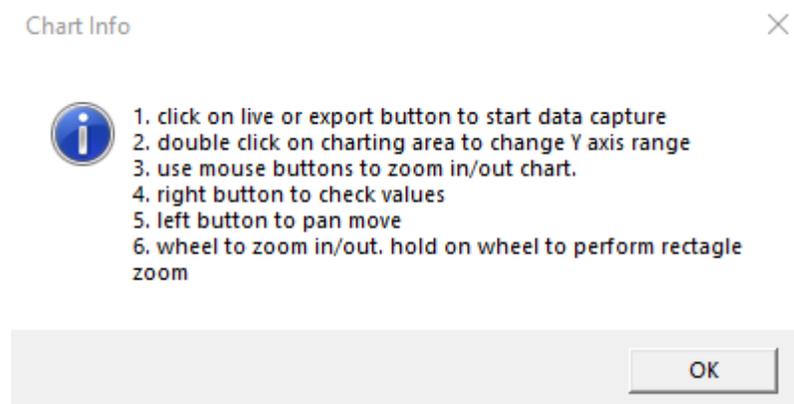5. left button to pan move
6. wheel to zoom in/out. hold on wheel to perform rectagle zoom

OK

Figure 10. Chart Help Information