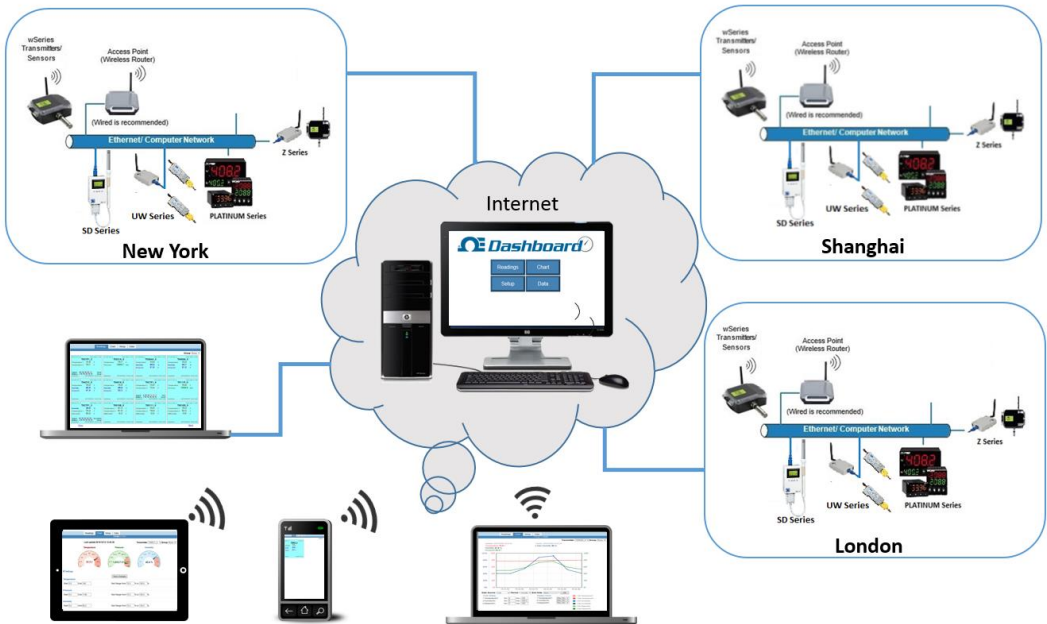


Omega Dashboard

Quick Start Manual



PART 1 CONFIGURATION

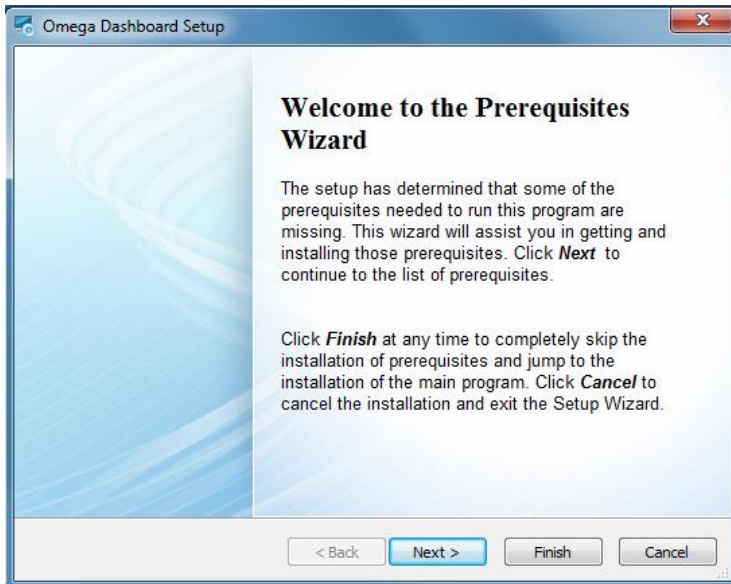
1.1 Installing Dashboard Software

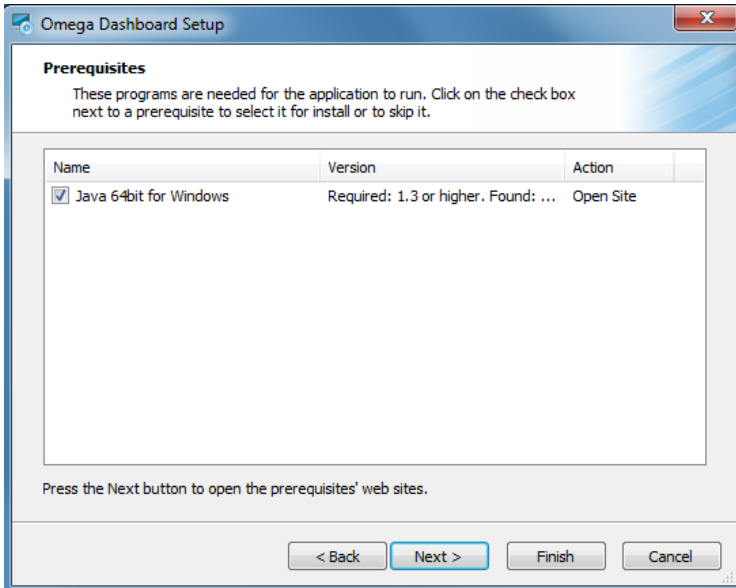
Find the **Dashboardxxx.exe** in the accompanying CD or on the web. Double click that to install it.

The setup process is typical to any Windows program and asks you to choose the installation path and whether it is a new installation or an upgrade. You must have the **Administration Rights** to the PC when installing the Dashboard.

Prerequisite Wizard

There is a prerequisite wizard to assist you in getting and installing those prerequisites such as Java 32bit or 64bit. The wizard does not show when it does not detect any missing prerequisites, and you can jump to next section 3.2.2.

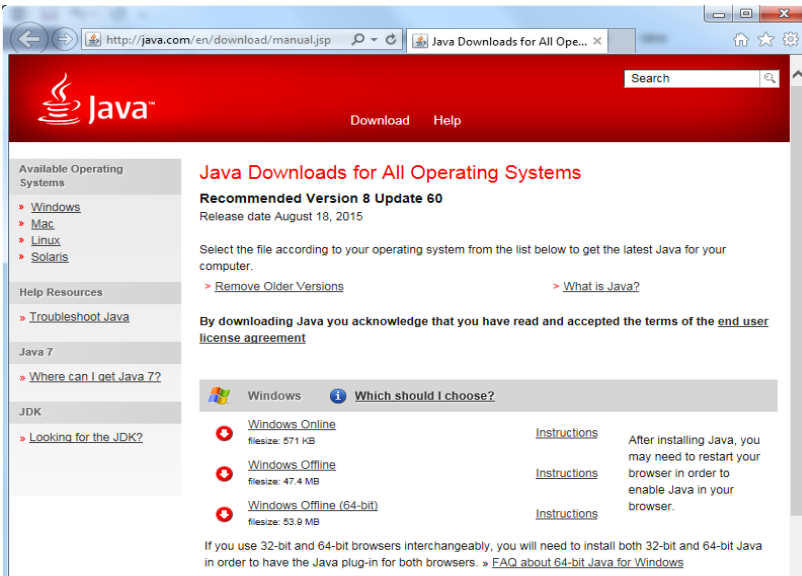




Once you click the "Next" button, your browser will open a website for you to download the missing prerequisites.

Since Dashboard needs either 32bit or 64bit version of Java depending on your Windows system, please just download the version it mentioned in the list.

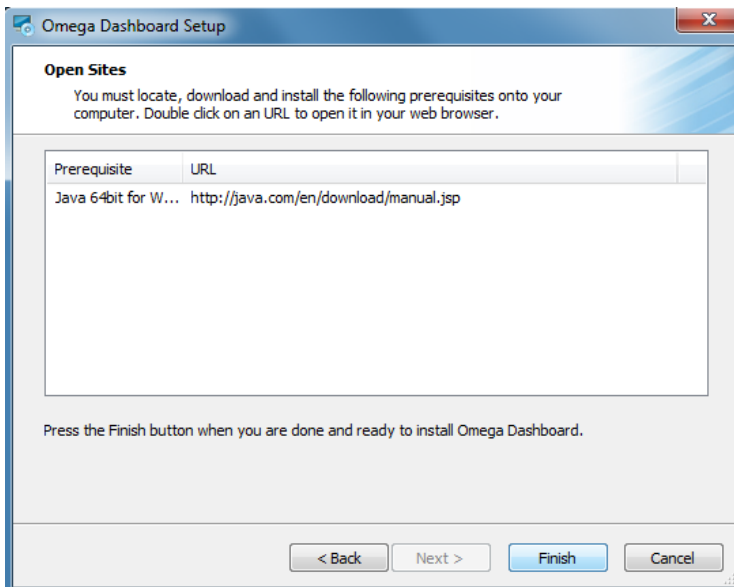
For example, here you need to download the 64bit Java from the link "Windows Offline (64-bit)" from this page. If it needs 32bit of Java or it does not mention the version, you can download the 32bit Java using the other two links on the same page.



You can install the prerequisite applications after you download them.

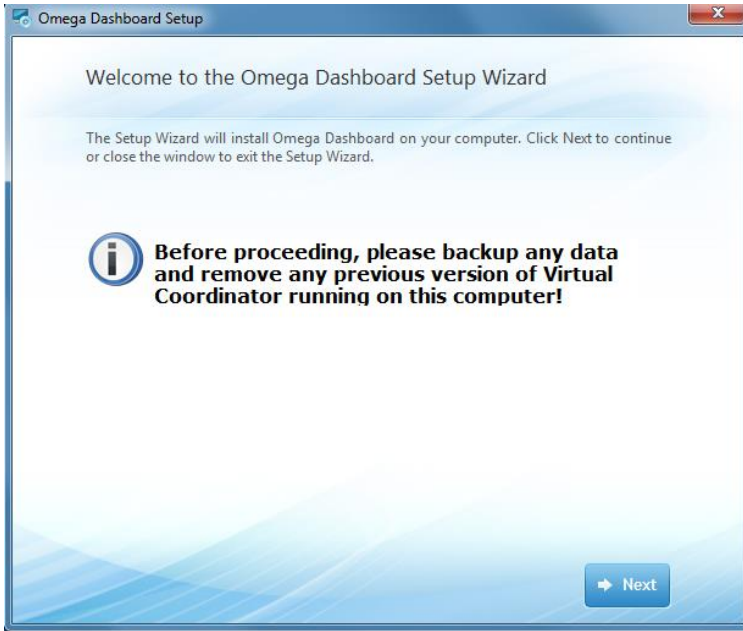


After you install all the applications on the list, you can click the “Finish” button on the Dashboard installation window and continue to install the Dashboard.



1.2 Install Dashboard and Ports Settings

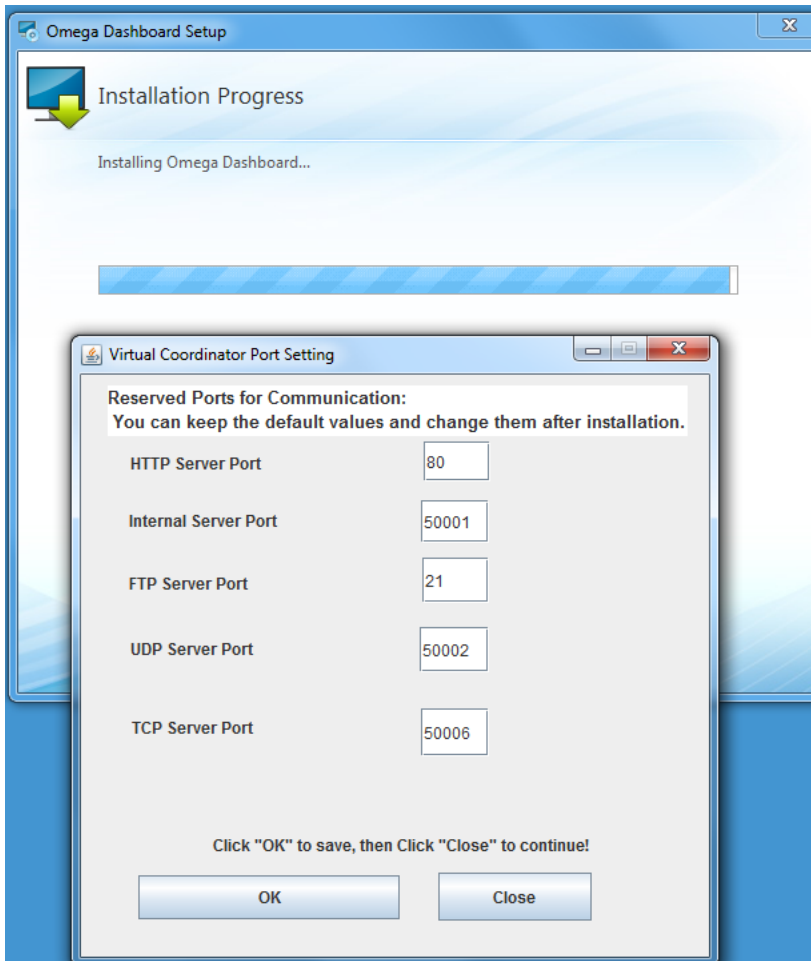
If this is the first time installing the Dashboard you can ignore the following installation screen and click “Next” directly. This notice is only intended for upgrading the software from the previous version, which is formally called Virtual Coordinator.



Step #1: Install the OMEGA Dashboard, following the installer instructions.

Step #2: This computer may have a firewall running which will block the readings sent from the sensor (transmitter) to the Dashboard Software.

Turn off the “Windows Firewall” in your Control Panel Security Settings; or **Open** the Communications Ports (80, 50001, 21, 50002, 50006) so the data can reach the OMEGA Dashboard. Refer to **Appendix I** and **J** to configure the firewall.



Step #3: Now you are ready to verify the web-server and add your Transmitters/Ethernet based devices.

1.3 Verify your Dashboard web server

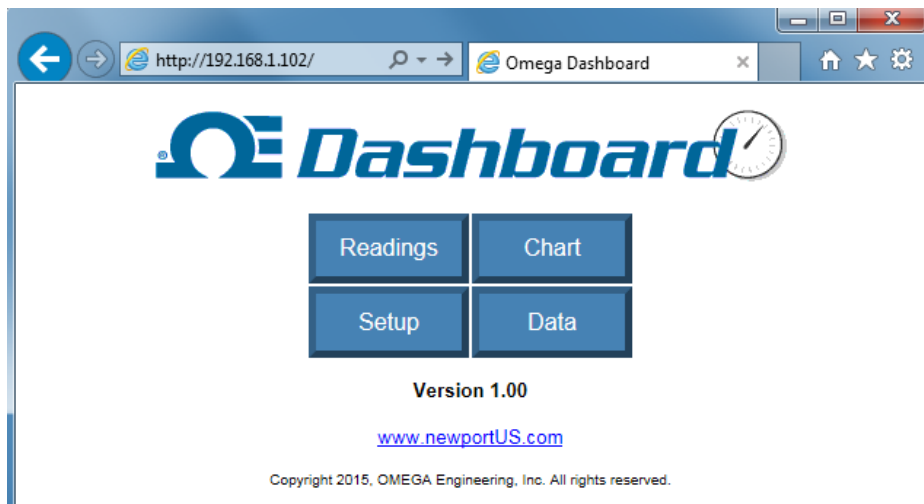
Once the installation is completed, open up a web browser like Internet Explorer, type in your PC's IP Address and a Dashboard home web page should show up. This means that the Dashboard web-server is running.

You can go to any browser and type in the IP address of your computer with the Dashboard installed (the format is "**http://IP:port**", for example: 192.168.1.102: 81, where 192.168.1.102 is the IP of the computer, 81 is the http port. If you set 80 as the port number, you can just type the IP address without port number since 80 is the default http port) using the same computer or any other computer or phone or tablet within the same network.

See examples below when the port is 81:



Or, when 80 is the port, you only need to type in the IP address without the port number.



More info:

When you are on the same computer with the Dashboard installed (the server), there are three methods to access the Dashboard homepage in your browser.

- a. Use the network IP of your computer with the port number: e.g `http://192.168.1.102:81`, as seen previously. OR,*
- b. Use the string "localhost" with port number: e.g `http://localhost:81`; OR,*



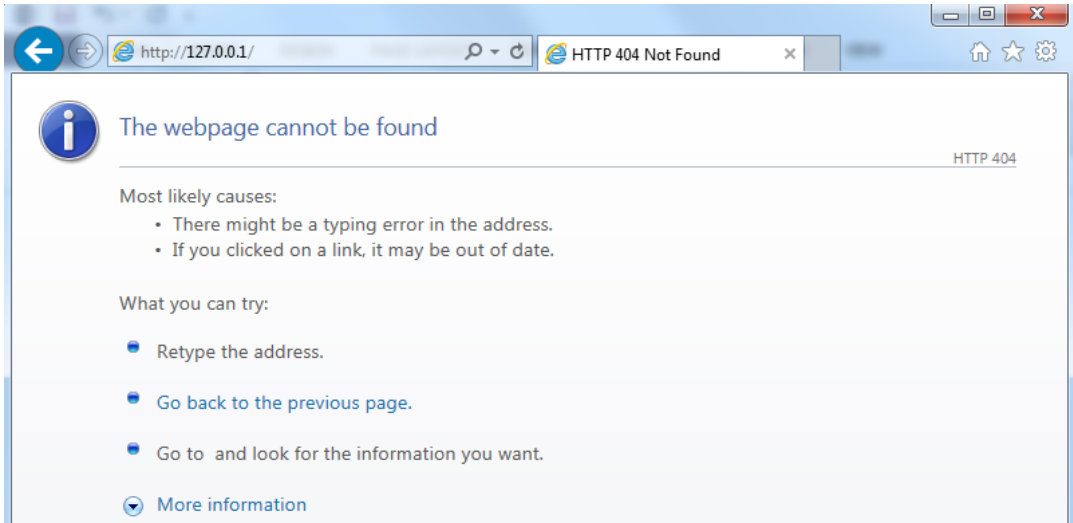
- c. Use the lookback IP of localhost which is 127.0.0.1 with port number: `http://127.0.0.1:81`*



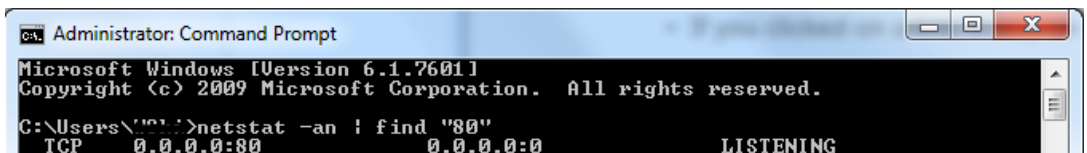
If you try to access the Dashboard from any other devices/computers (the clients) through network, you can only use the network IP (method a) with a port number to access the Dashboard on the server.

1.4 Troubleshooting

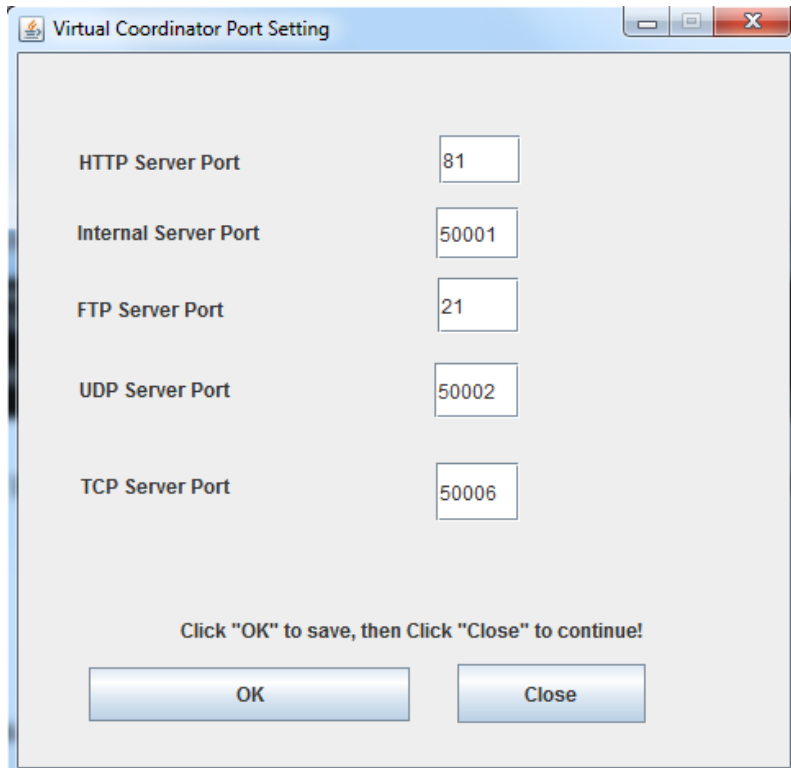
You can skip this section if you can see the home page of your Dashboard now. If you see the “HTTP 404 Not Found” error message when you visit the Dashboard homepage, in most cases, you need to check if the HTTP server port (it is 80 by default) you assigned has been used by any other applications on your computer.



The way to know the usage of a specific port is to run a “netstat -an | find “port#” ” command on the Command Prompt. For example, if you want to know if port “80” is taken, you can run command like this:

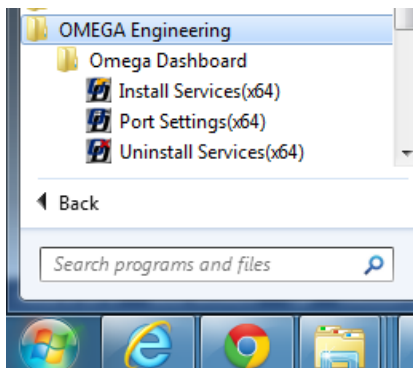


If the port 80 or any other port you assigned as the HTTP server port is taken, you can use **Port Settings** tool from the **Start>All Programs>OMEGA Engineering>Omega Dashboard** to change the HTTP Server Port to another port. After that, you are able to use the new port number to access the homepage and check if the new port takes effect.



Tip

The Dashboard web-server is running as Windows services in the background and it runs automatically after computer/server reboot. This helps to acquire the data seamlessly without manual operation. You can go to Start>All Programs>OMEGA Engineering>Omega Dashboard >Uninstall Services (or Install Services) to uninstall the Dashboard web-server or reinstall the Dashboard web-server.



PART 2 DASHBOARD OPERATIONS

2.1 Dashboard Home Page

Once the Dashboard and its Services are installed, you can access the Dashboard using an Internet Browser.

Simply, open your browser, type the IP address (with a port number when the HTTP server port is not assigned to the default 80) of the computer on which the Dashboard is installed and you will see the Home Page of the Dashboard as shown in below.

Note

The IP address for the Dashboard is the same as the IP address of the computer on which the Dashboard is installed.

If the computer has more than one IP address, use the IP address that is on the same network as the Access Point.

Note

The Dashboard can be accessed from the same computer on which it's installed or it can be accessed from a different computer on or outside the local network.



Figure 2.1 Dashboard Home Page

2.2 Password Protection

There are two kinds of accounts with different username and password for the Dashboard:

- Normal user account:** default name is **user**, default password is **12345678**, and it can access the **Readings**, **Chart** and **Data** tabs while cannot change the settings through **Setup** tab.
- Administrator account:** default name is **admin**, default password is **00000000**, and it can access all the four tabs on the home page.



The username and password can be changed or disabled. See the Security menu for details.

Readings Chart Setup Data

Username

Password

Login

Figure 2.2 Dashboard Log In Page

2.3 Add Ethernet based Devices to Dashboard

Dashboard communicates with devices through Ethernet, and it gets data from the iServer on the devices board by sending command periodically. We have two types of Ethernet based devices:

1. Standalone devices with sensor or probe on them (such as iSD-TH, iSeries, Platinum series...), and the iServer is on the device;
2. “Coordinator-End Device” type system who typically has one coordinator with several end devices, and the iServer is on the coordinator side while end devices connect to sensors or probes. We actually add each end device at a time though the iServer in the coordinator while the coordinator itself is “invisible” on the Dashboard. That also indicates all the end devices under the same coordinator (iServer) share most of the attributes from the iServer, including MAC Address, IP Address, Admin Password, Protocol, and Port for communication of the iServer. The Device ID (#), Update Rate, Device Name and Device Type are attributes from the end device and they can be different from each other.

2.3.1 Before You Start

You need to prepare the **6 items** of your Ethernet Devices/End Devices to add the device to Dashboard. Please check the manual for the specific device to know more information of these items.

1. **IP address:** The IP address of your Ethernet device. **Note:** for zSeries and UW series, it is the IP of the Coordinator (it is an iServer device). “192.168.1.200” is the factory default IP for all of our products. If you have multiple iServer devices to add, please change the IP of your devices and make them have different IP addresses

when you do the initial configuration. Please make sure all your Ethernet devices are running by accessing the device webpages on your computer first. For example, to verify the device iSD-TH is running on the IP 192.168.1.18:



2. **Device Type:** such as (iTHX-SD, iSD-TH, iSD-TC, iBTX-SD, ZED-TH...). For zSeries and UW series or any other “Coordinator-End Device” type system, it is the type of your End Device you want to add. Please refer to the product to know the device type. You can only add one End Devices at a time.

Network

IP Address		Device Type	iTHX-SD/W/M/D
Admin Password		Device #	iSD-TH iSD-TC iBTX-SD/W/M/D iBTHX-SD/W/M/D iTHX-W3/M iTCX-W/D ZED-T/TP ZED-TH/THP ZED-BT/BTP ZED-BTH/BTHP ZED-TC UWTC/UWRTD UWRH ZED-VI ZED-S-665 RS232 Device RS485 Device

Note: Some of the products may share one Device Type option on the list:

iTHX-SD/W/M/D: for iTHX-SD, iTHX-W, iTHX-W*, iTHX-M, iTHX-D with the Temperature and Humidity probe

iBTX-SD/W/M/D: for iBTX-SD, iBTX-W, IBTX-M, IBTX-D with the Barometric pressure and Temperature probe

iBTHX-SD/W/M/D: for iBTHX-SD, iBTHX-W, IBTHX-M, IBTHX-D with the Barometric pressure, Temperature and Humidity sensor probe

iTHX-W3/M: for iTHX-W3, iTHX-M with the with the Temperature and Humidity probe

ITCX-W/D: for iTCX-W, iTCX-D with one or two Thermocouples or RTDs

ZED-T/TP: for ZED-T, ZED-TP, or any zSeries End Device with only one Temperature reading

ZED-TH/THP: for ZED-TH, ZED-THP, or any zSeries End Device with Temperature and Humidity readings

ZED-BT/BTP: for ZED-BT, ZED-BTP, or any zSeries End Device with Barometric Pressure and Temperature readings

ZED-BTH/BTHP: for ZED-TH, ZED-THP, or any zSeries End Device with Barometric Pressure, Temperature and Humidity readings

UWTC/UWRTD: for UW series with two Temperature readings

RS232 Devices: for iSeries and Platinum series with RS232 protocol enabled

RS485 Devices: for iSeries and Platinum series with RS485 protocol enabled

3. Device #: For standalone devices, it is 0 by default; For zSeries and UW series, it is the Device ID you set for the End Device.

4. Admin Password: The admin password of your device/coordinator on the webpage. It is 00000000 in factory default for all of our products.

5. Protocol: TCP or UDP, defined on the Configuration page on your device webpage, TCP by default.

6. Port Number: 2000 is the factory default value, you may check the port number for TCP or UDP communication on the configuration page of your device.

Please refer to your Ethernet Device setting to check the iServer configuration before you add the device:

TCP/UDP: Server Type: Forward CR: Number of Connections: Port:

1. The TCP/ UDP option should be identical to the protocol you used in the OMEGA Dashboard; if your device does not have this option, use TCP by default.
2. Server Type: choose "Command".
3. CR or Carriage Return: Choose "Enable".
4. Number of connections: Choose at least 2, we suggest you use the Max value of this option.
5. Port: the port number you put in the OMEGA Dashboard when you add the device need to be identical with the port number you set here, the value is 2000 by default. This is the port on the iSever board of our product for the Dashboard software to get readings from it.

Note: There is another default port number 2000 when you install the Dashboard or do the port setting from the Windows Start menu. And that port is on the computer

side which is for getting all the data or reading from Dashboard software by sending TCP commands to it.

Note: for the devices without some of these options, you can only check the options you have before you add the device.

Note: for EIP based zSeries (firmware version bigger than 3.0), you also need to check the option called “Disconnect After Data Sent” (see the Figure below).

CONFIGURATION

Name

Temperature Pressure

TCP Connections Port

Disconnect After Data Sent ☒

Please remember if any one of them above is wrong, you will fail to add the device and need to start over! If you have added the device with wrong setting and found that device in the Transmitter pull down list, you need to remove the device first and add it again. Please check the part for removing devices.

2.3.2 Open the Setup menu

This Setup menu has all the configuration options for the Dashboard and the Transmitters/Ethernet devices. The Setup menu is secured with a username and a password as shown in **Figure 2.2**. The default username is **admin** and the default password is **00000000**.

2.3.3 Add a Device

Go to **Setup->Network** or **TX Configuration**, click **Add iServer**

Readings Chart **Setup** Data

Network | Sensors | Alarms | System

TX Configuration
DB Configuration
Management
Security
Diagnostic
Logout

Transmitter Group

If you have added some devices before, the Add iServer option can be found on the bottom

of the Transmitter list on this page.

ReadingsChartSetupData

Network | Sensors | Alarms | System

TX Configuration

VC Configuration

Management

Security

Diagnostic

Logout

Transmitter

TXC87D_5

Group

None

Network

MAC Address

00:03:34:00:C6:7D

IP Address

192.168.1.207

Device #

5

Admin Password

00000000

Protocol

TCP

Port

2000

Update

10

Seconds

Transmitter

Name

TXC87D_5

Device Type

ZED-BTH/BTHP

Note: Restarting the services after changing IP address or port number is recommended.

Save Changes Reset

Input the **IP address** and choose one device type

Network | Sensors | Alarms | System

Network

IP Address

192.168.1.18

Admin Password

Device Type

Device #

iTHX-SD/W/M/D

iSD-TH

iSD-TC

iBTX-SD/W/M/D

iBTHX-SD/W/M/D

iTHX-W3/M

iTCX-W/D

ZED-T/TP

ZED-TH/THP

ZED-BT/BTP

ZED-BTH/BTHP

ZED-TC

UWTC/UWRTD

UWRH

ZED-VI

ZED-S-665

RS232 Device

RS485 Device

Save Changes Reset

Input the Admin Password and Device #

Note: if your device does not have any password, keep it empty.

Network Sensors Alarms System			
Network			
IP Address	192.168.1.18	Device Type	iSD-TH
Admin Password	00000000	Device #	0
Save Changes Reset			

Click Save Changes and then click Confirm. Depends on the network status, it may take several seconds to jump to the next step.

Network Sensors Alarms System			
Please Confirm New Settings			
Network			
IP Address	192.168.1.18	Device Type	iSD-TH
Admin Password	00000000	Device #	0
Confirm Cancel			

When the webpage jumps to the Network configuration page (see below), you need to choose the protocol as TCP or UDP and input the Port and also input the recording interval in the Update input. You can also change the name of the device by checking the Name option. In most of cases, you only need to type in the port number here. After you edit this page, click Save Changes when click Confirm. You can access the setting later if you want to make any change to your settings.

Readings Chart Setup Data	
Network Sensors Alarms System	
TX Configuration DB Configuration Management Security Diagnostic Logout	Transmitter TX85C1_1 Group None
	Network
	MAC Address: 00:03:34:00:85:C1
	IP Address: 192.168.1.200
	Device #: 1
	Admin Password: 00000000
	Protocol: TCP
	Port:
	Update: 10 Seconds
	Transmitter
Name: TX85C1_1 ☐	
Device Type: ZED-BTH/BTHP	
Save Changes Reset	

Readings
Chart
Setup
Data

Network | Sensors | Alarms | System

TX Configuration
DB Configuration
Management
Security
Diagnostic
Logout

Please Confirm New Settings
Transmitter TX85D6_0 Group None

Network

MAC Address00:03:34:00:85:D6
IP Address192.168.1.18
Device #0
Admin Password00000000
ProtocolTCP
Port2000
Update10 Seconds

Transmitter

Device TypeISD-TH

Confirm
Cancel

Note: If you come back to this webpage later to change some settings inside of the “Network” field set (such as IP Address, Port Number, Protocol...) that you have already set in the initialization configuration, we recommend you restart the services after the change to prevent unexpected errors! For changing settings outside of the “Network” filed set, you do not need to restart the service. Since the combination of MAC address and device # makes the unique ID for each device/client, the MAC address and Device # are not editable. The device type is also not editable. If you want to change those fixed settings, you need to remove the device from the Dashboard first and add it back with new settings.

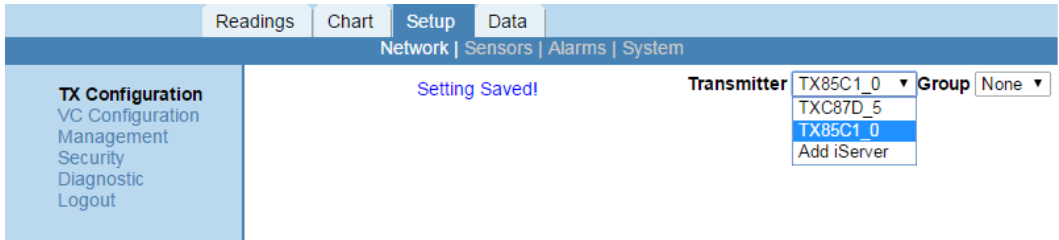
Readings
Chart
Setup
Data

Network | Sensors | Alarms | System

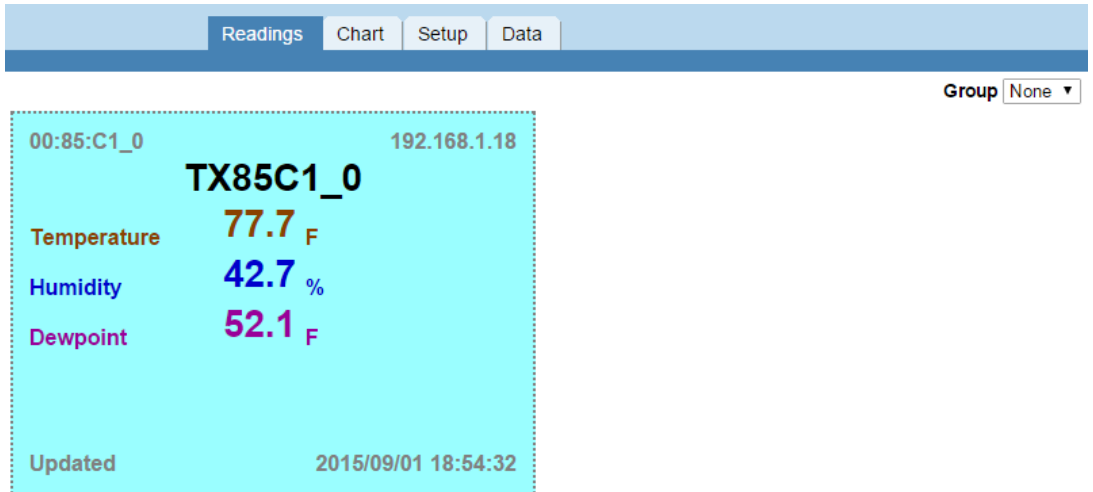
TX Configuration
DB Configuration
Management
Security
Diagnostic
Logout

Setting Saved
Transmitter TX85D6_0 Group None

You can see the device is now in the Transmitter pull down list. The pull down list includes all the devices you have added to Dashboard. By choosing one item from the list, you can switch to the Setup page of that device or the page to add another device to Dashboard.

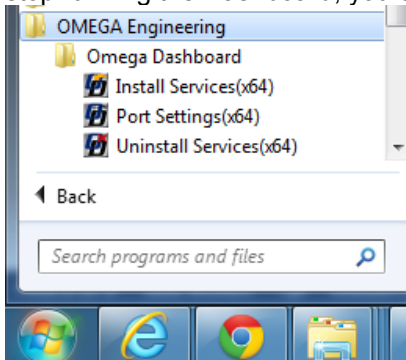


You will see the device on the reading page to verify the device has been added successfully:



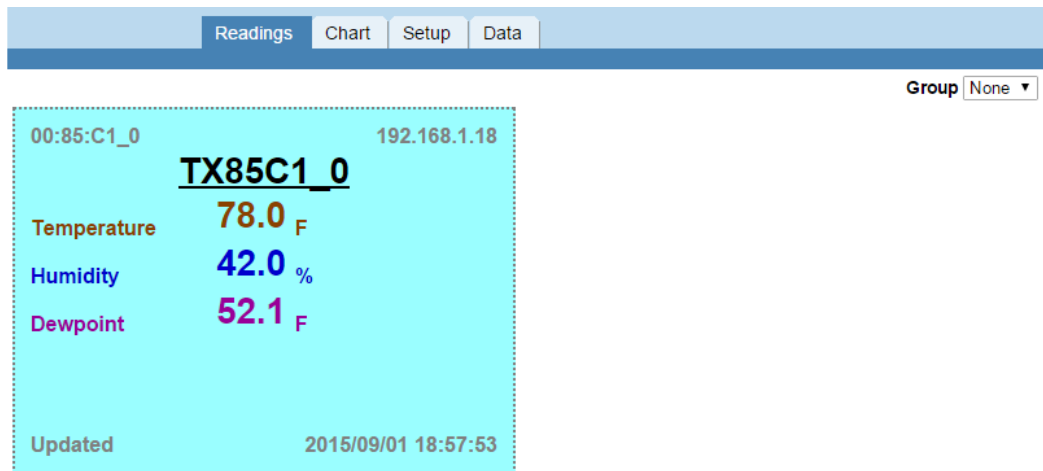
Tips:

How do you restart the services? Go to Start->OMEGA Engineering->Omega Dashboard, click "Install Services". If you want to change the HTTP server port or other port settings of your Dashboard, you can use the "Port Settings" program. If you want to stop running the Dashboard, you can click "Uninstall Services".



2.4 Remove the Ethernet based Device from Dashboard

You can click the name of the device on the **Readings** page to jump to the **Setup** page or go the **Setup** tab and choose one device from the pull down list. If you have assigned a Group to the device, choose the Group of the device first and pick the device from that chosen Group.



Then click the “**Sensors**” tab on the submenu to jump to the “**Sensors**” page.

The screenshot shows the 'Setup' tab selected. On the left is a sidebar with 'TX Configuration' highlighted, including links for DB Configuration, Management, Security, Diagnostic, and Logout. The main area shows the 'Sensors' configuration for 'TX85D6_0'. At the top, it says 'Last Updated: 2015/10/07 12:35:20' and shows 'Transmitter' as 'TX85D6_0' and 'Group' as 'None'. Under the 'General' section, the 'Active' checkbox is checked, and the 'Group' dropdown is set to 'None'. Below this are three sections for sensor settings: 'Temperature' with 'Unit' set to 'F' and 'Latest' reading of '79.1 F'; 'Humidity' with 'Unit %' and 'Latest' reading of '49.1 %'; and 'Dewpoint' with 'Unit F' and 'Latest' reading of '57.9 F'. At the bottom are 'Save Changes' and 'Reset' buttons.

You can uncheck the **Activate** checkbox if you want to remove the device.

Transmitter will be deactivated.Continue to deactivate?

OK
Cancel

Click “OK” when it shows a popup window. Then click “Confirm”.

Readings
Chart
Setup
Data

Network | Sensors | Alarms | System

TX Configuration
DB Configuration
Management
Security
Diagnostic
Logout

Please Confirm New Settings
Transmitter TX85D6_0 Group None

General

Active
Group

Temperature

Unit F
Latest:

Humidity

Unit %
Latest:

Dewpoint

Unit F
Latest:

Confirm
Cancel

You will see this message when the device is removed without error. Sometimes when the messages says you need to wait another transmission cycle to finish this, you need to try it again later.

Readings
Chart
Setup
Data

Network | Sensors | Alarms | System

TX Configuration
DB Configuration
Management
Security
Diagnostic
Logout

Transmitter Inactivated.

Note: the update time we use in this Dashboard is the time the application accesses the Ethernet device (iServer) and gets the reading back, so it might have a minor difference from the records you saved in the SD card in the SD device.

Note: The Dashboard web-server is running as Windows services in the background and it runs automatically after computer/server reboot. If any unexpected error occurs, we suggest you restart the services by going to Start->OMEGA Engineering->Omega Dashboard and clicking “Install Services”.