



IM5210 Hanwell Synergy

Management Tool



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Document History

Document Number: IM5210

Issue No.	Issue Date	Changes	By
1	15/04/2013	First Issue	IB
2	23/04/2015	SR2/Wiznet Board Config Utility	CRB

1 Prerequisites

'Synergy Management Tool' must be installed on a Microsoft Windows PC or Server; minimum operating system requirement is Windows 7, either x86 or x64; or Windows Server 2008, either x86 or x64.

The host machine must have a DVD player and at least one free USB port.

2 Installation

The Management Tool is intended to be installed on an administrators PC. It will need to know the location of the Synergy database and have the necessary windows access rights as explained in the installation documentation. As many instances as required may be installed without further licensing implications.

The Management Tool is installed from the main Synergy Installer dialog. Run Install.exe from the DVD and select 'Install Synergy Management Tools', if required deselect 'Install Synergy Server Components'; select next and follow the on screen instructions.

If you are installing the Management Tool on a machine that does not host the Microsoft SQL Server used by Synergy, you will need to enter your correct Synergy SQL Server details on the 'Synergy Database Information' dialog.

When run for the first time, or run by a new user, the Management Tool will request a username and password to access the Synergy database, username is 'Management' password is 'tn3M0g7H'.

3 Overview

The Synergy Management Tool is intended primarily for system supervisors and expert users.

It provides a physical link to the database, allowing hardware devices to be configured and associated with an existing Synergy system. It also provides low-level access to data which will be significantly faster than that which can be achieved via a web browser.

Once a device has been added to Synergy via the Web Interface the Management Tool can be used to perform configuration tasks on that device such as Synchronising, Calibrating and Merging.

This tool currently provides the capability to perform the following tasks:

- Synchronising USB Devices
- Calibrating USB Devices
- Merging USB Devices
- SR2 Configuration
- SR2 Network Configuration
- Wood Watch Configuration
- AE Device Configuration
- Current Clamp Configuration
- View a graphical representation of sensor data
- View a tabular representation sensor data

4 Using the Management Tool

4.1 Starting

The 'Synergy Management Tool' is accessed via the desktop icon or via the start menu.

4.2 Selecting Sensors

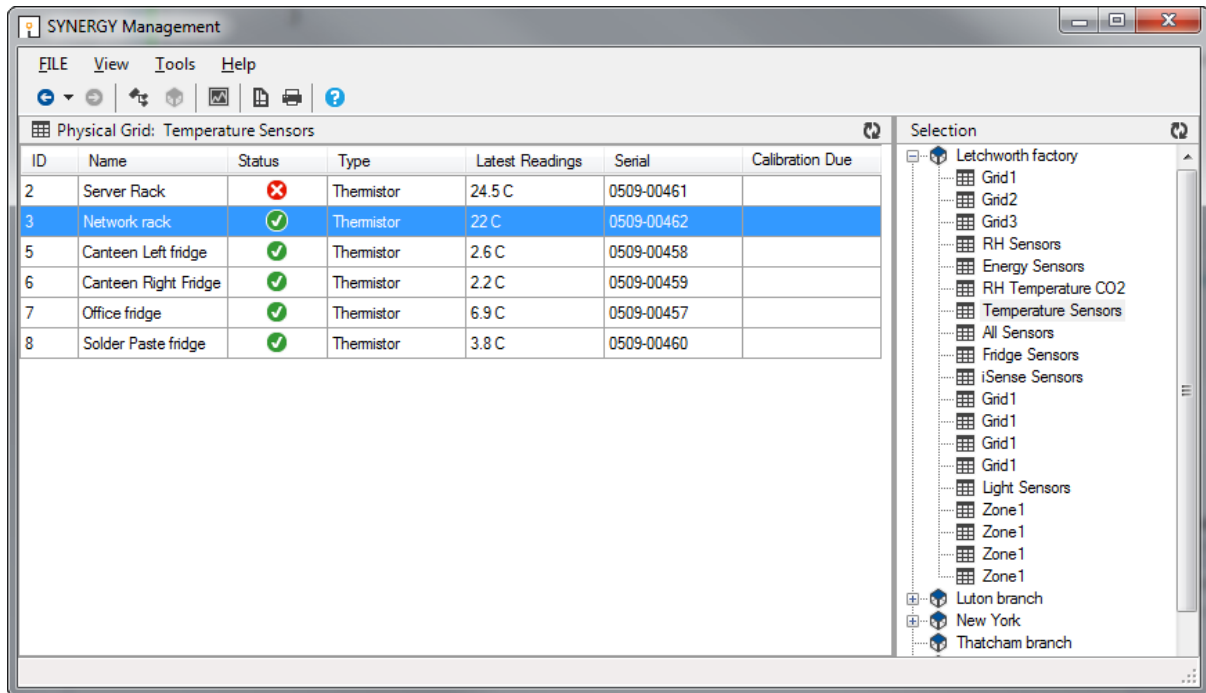


Figure 1

Once the application has loaded, sensors can be browsed by navigating Sites and Groups; to switch the view mode between Sites and Groups either select the corresponding View menu option or click the appropriate tool bar button.

Sites and groups can be navigated by; using the tree view to the right of the screen, using the 'Next Grid' and 'Last Grid' options in the View menu or using the Back and Forward tool buttons in the top left of the screen as seen.

Sensors are selected by simply clicking on them.

5 Browsing Data

If data is available for a sensor it can be viewed by right clicking it and selecting the 'View Graphical Data Option' this will result in a graph window being displayed Figure 2.

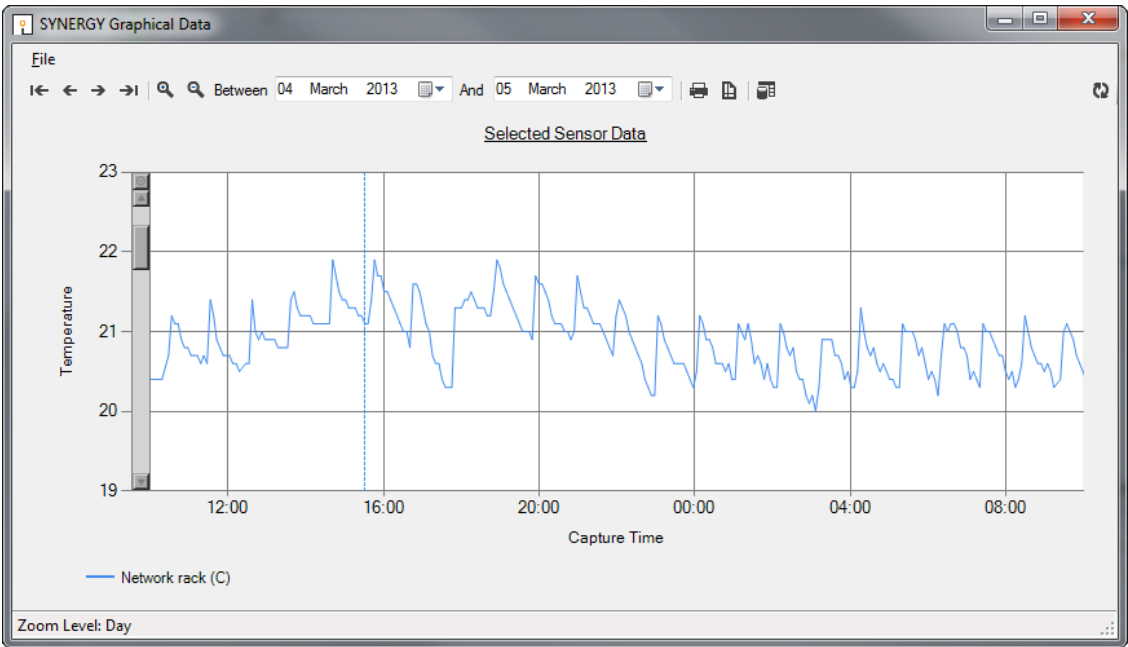


Figure 2

The graph window is used to navigate graphical data and allows zooming and date selection as well as printing using the tool buttons and menu. Tabular data as displayed in Figure 3 can be accessed from this window and will show the selected data in textual form.

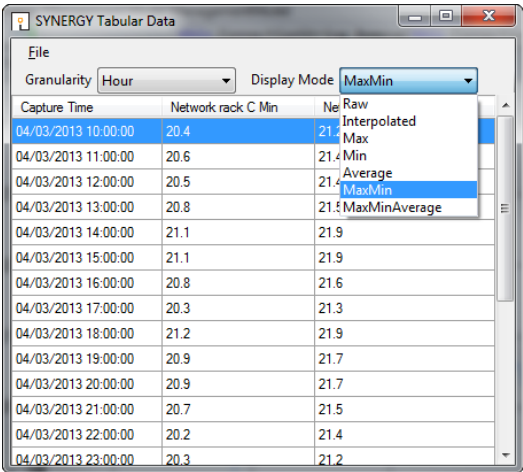


Figure 3

Tabular data can be displayed using a number of options. The granularity option allows selection of a grouped data or ungrouped data. When the granularity option is not set to none it is possible to display the data in a number of different ways these can be selected from the Display mode drop down shown in Figure 3.

Synergy differs from RadioLog in that the data is saved stamped to the exact arrival time rather than tied to the closest logging interval. Whilst this is technically correct it makes viewing of the data problematic in some respects, so the re-sampling options can be very useful.

6 Performing Tasks

6.1 Synchronising Sensors

The Synchronise process will take data from a connected USB device and update the Serial Number and Calibration details to Synergy, at the same time as setting the physical transmit ID of the device.

To Synchronise a sensor first ensure that it is plugged in using a USB cable and then select the correct sensor using the management tool. Once the sensor is selected right click on it and select 'Sync Selected Sensor' from the menu that appears and you should see a window as shown in Figure 4.

The sensor selected must match the physical device or the program will not complete

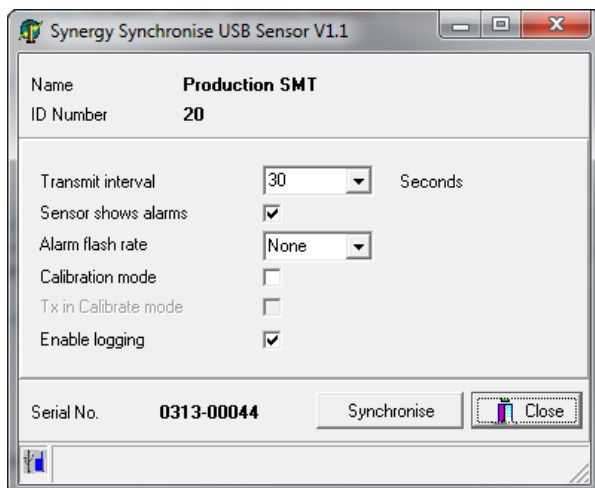


Figure 4

When the Synchronise window has completed loading and all the fields are populated click the Synchronise button and follow the instructions given until it reports that the synchronise is complete. Once the complete close the window to finish and update the Synergy database.

6.2 Calibrating Sensors

The calibration process takes sensor calibration settings from the synergy database and loads them into a selected sensor.

To calibrate a sensor first ensure that it is plugged in using a USB cable and then select the correct sensor using the management tool. Once the sensor is selected right click on it and select 'Calibrate Selected Sensor' from the menu that appears and you should see a window as shown in Figure 5. The Sensor serial number and type must match, or the program will not complete.

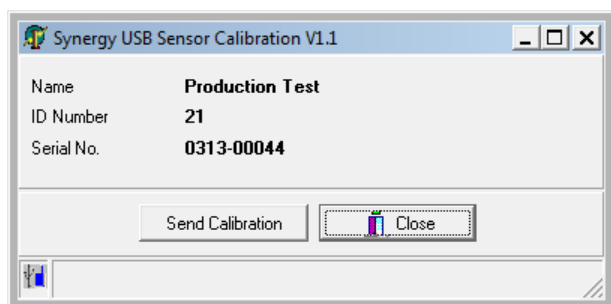


Figure 5

When the Calibration window has completed loading and all the fields are populated click the Send Calibration button and follow the instructions given until it reports that the calibration is complete.

6.3 Merging Sensors

The Merge process allows logged data to be downloaded from a connected sensor and added to Synergy.

To merge a sensors' data, first ensure that it is plugged in using a USB cable and then select the correct sensor using the management tool. Once the sensor is selected right click on it and select 'Merge Selected Sensor' from the menu that appears and you should see a window as shown in Figure 6.

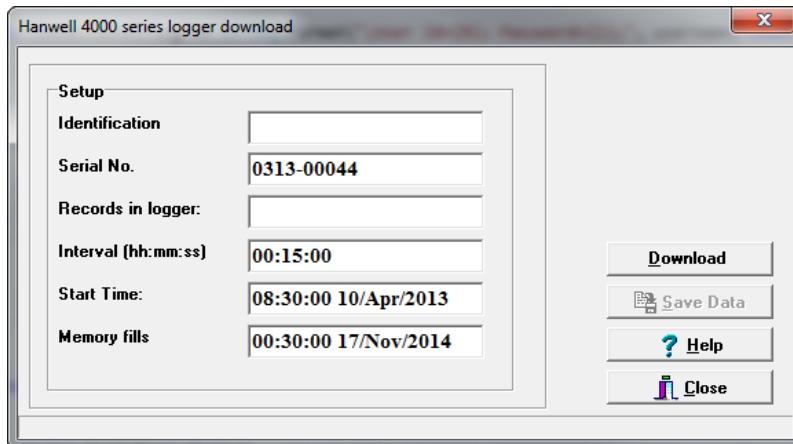


Figure 6

When the merge window has completed loading click the download button and follow the instructions given until it reports that the download is complete. Once the download is complete close the window to finish and update the Synergy database.

6.4 SR2 Configuration

To configure an SR2 follow the instructions below. For additional information, see Synergy User Manual document number IM5208.

Select a sensor using the management tool that uses the desired SR2. Once the sensor is selected right click on it and select 'Setup SR2' from the menu that appears and you should see a window as shown in Figure 7.

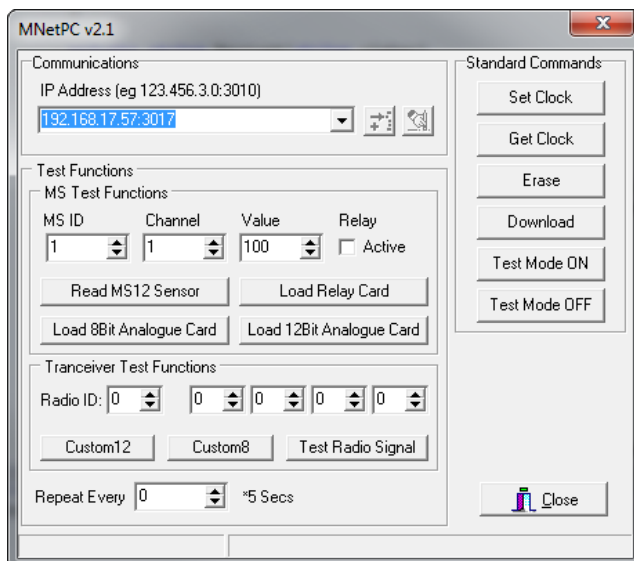


Figure 7

This window allows the system administrator to initialise and debug SR2 operation.

6.4.1 SR2 Clock & Erasing Memory

The Smart Receiver has an on-board clock used for time/date stamping data. In Synergy most date time values, including data values are stored as Greenwich Mean Time, (GMT); setting the clock from one of the Management Tools will automatically set the SR2 clock to GMT.

Note: RadioLog uses local time to store data; which is why an SR2 cannot be shared between a Synergy and RadioLog installation.

Ideally, you should set the clock so that the time is in synch with Synergy Server time: if it is out of synch you may get false Elapsed Time Alarms.

Use the **IP Address** drop down, (see Figure 7 above), to select the required SR2 by IP address; then click **Set Clock** to set the SR2 clock.

The SR2 time can be checked by clicking **Get Clock**, to display the SR2's current date time in the status bar; note the SR2 time will be displayed as Greenwich Mean Time, (GMT).

On Initial installation, an SR2 should have its memory erased. Click **Erase** to erase the selected SR2's memory.

Repeat the steps in this section, as required, for all SR2's in the **IP Address** drop down.

6.5 SR2 Network Configuration

To perform network configuration for SR2s Select 'SR2 Network Configuration' from the tools Menu and you should see a window similar to the one shown in Figure 8.

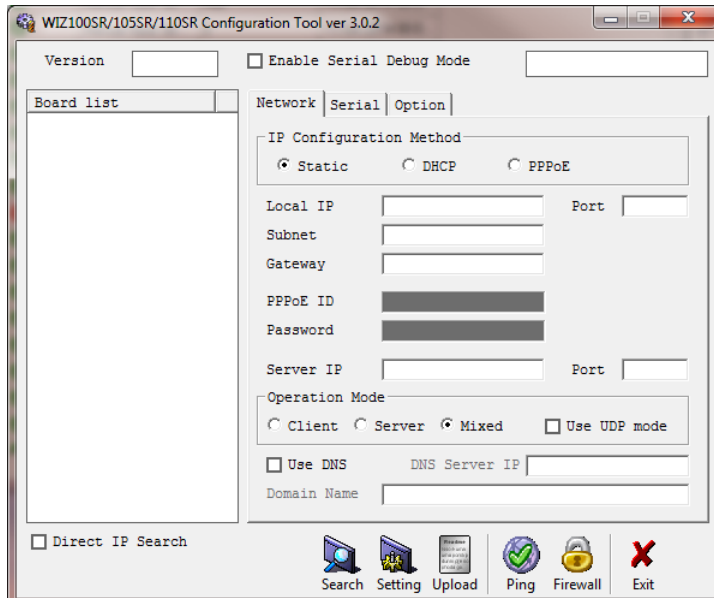


Figure 8

This form is intended for system setup/debug only.

6.5.1 Configuring the Smart Receiver on a Network

The Hanwell Smart Receiver(s) must be configured before use. This is normally done on the network but in some instances it may be necessary to connect to the Smart Receiver(s) directly.

Before the Smart Receiver(s) can be configured, fixed IP addresses should be assigned to each unit by the network manager. You should also know the Subnet and Gateway addresses. The Smart Receiver should be connected to the network using a straight-through network lead (supplied). Use the following steps to assign the IP addresses to the Smart Receiver(s):

6.5.1.1 Step 1

Run the Synergy Management Tool, see Synergy Management Tool instruction manual (document number IM5210).

6.5.1.2 Step 2

Select Tools from the main toolbar and then click on SR2 Network Configuration. Click on Search to start searching the network for connected SR2's.

6.5.1.3 Step 3

The program will search for any SR's on the network; all SR's found will be displayed in the Board List. If there are no SR2's found you will need to get the IT department to check the network. The SR2's can be connected directly to a laptop using a crossover cable to confirm their operation.

6.5.1.4 Step 4

Click once on a unit in the **Board List** to select it.

Enter the **Network Configuration** details as specified by your network manager and or as found on the Synergy Pre-requisites document (document number GD5209). This consists of the following:

- **Local IP**
- **Subnet**
- **Gateway**
- **Server IP** (should be set to match the Local IP address)
- **Port**

The **Port** details can be found on the Synergy Pre-requisites document (document number GD5209), IMC recommend using the default **Port** 10992 for all **SR2's**.

6.5.1.5 Step 5

Enter additional **Configuration** details as follows:

Set the **Network Mode** to the option **Server Mode**.

Check the following options are **NOT** ticked:

- Enable Serial Debug Mode
- Enable DHCP Mode
- Use UDP Mode

6.5.1.6 Step 6

Click on the **Serial Configuration** tab and check it is as follows:

Smart Receiver Setting	
Speed	115200
Parity	None
Data Bit	8
Stop Bit	1
Flow Ctrl	CTS / RTS

6.5.1.7 Step 7

To program the **SR2** click on **Setup**.

Repeat steps 3 to 7 for any additional SR'2 on the network.

6.6 Wood Watch Configuration

To configure a Wood Watch device ensure that the device is plugged in using a USB cable then select 'Wood Watch Configuration' from the tools Menu and you should see a window similar to the one shown in Figure 9.

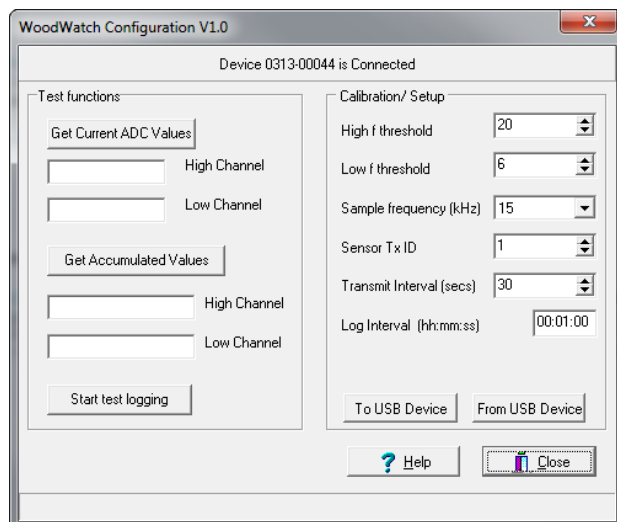


Figure 9

See the wood watch manual for detailed explanation.

6.7 Current Clamp Configuration

To configure a Current Clamp device ensure that the device is plugged in using a USB cable then select 'Current Clamp Configuration' from the tools Menu and you should see a window similar to the one shown in Figure 10.

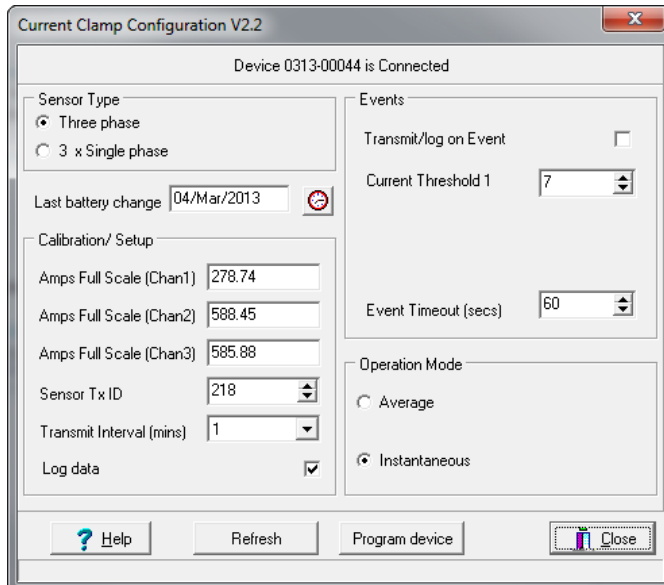


Figure 10

See the current clamp documentation manual for detailed explanation.

6.8 AE Device Configuration

See the AE device documentation for full explanation.