



AN004 – Networking and Accessing WebBricks

WebBrick Application Notes

Introduction

A WebBrick is a network connected control and automation product designed around the principle of 'local control – global intelligence'. This means it is an independent control unit, but can interact with a global unit providing extra intelligence. This application note provides a detailed guide on how to set up a WebBrick on the home network and access its web interface.

Hardware Setup

The following components are required for the hardware setup of this application:

- 12.6V to 18V power supply delivering a minimum of 250mA
- PC with Ethernet Network Card
- Ethernet Switch/Router
- CAT5 Network cables
- CAT5 Crossover cable (optional)

Please refer to the table in the appendix for a list of commonly used components for most of the above.

The following section will describe how to connect the WebBrick to a power supply and to an Ethernet switch/router. A basic understanding of electronics and networking is expected throughout the application note.

Power Connections:

1. Connect the positive output of a suitable power supply to the terminal marked "12V In" on the WebBrick.
2. Connect the negative/ground output of the power supply to the "Gnd In" terminal on the WebBrick.

Network Connection:

1. Connect one end of a CAT5 network lead to the router/switch you are using.
2. Connect the other end to the CAT5 socket on the WebBrick.

If no router or switch is available it is possible to use a CAT5 crossover cable and connect the PC directly to the WebBrick.

Once all the connections to the WebBrick have been made as described the WebBrick power supply can be switched on.

To access a WebBrick's web interface one has to enter the WebBrick's IP address in the address bar of their preferred browser. The default IP address of the WebBrick is 10.100.100.100 and the subnet it is operating on is 255.255.255.0. It is only possible to open a WebBrick's web interface, if your PC can access the IP address range the WebBrick is using. When using Windows XP or Vista this is only the case if the PC's IP address is in the same range (i.e. if the WebBricks address is 10.100.100.100 the PC has to have an IP address starting 10.100.100).

The next section will describe how you find out what the IP address of your PC is and how to set the WebBrick's IP address to be in the same range.

Changing IP Address

There are two common ways of changing the WebBrick's IP address. The first one is via the WebBrick's own web interface and requires the PC to use the same IP address range as well as be on the same subnet. Alternatively the WebBrickMon can be used. The WebBrickMon is a standalone windows application and can be found on the distribution CD. Its primary purpose is to locate your WebBrick on your network and set its IP address. When using the WebBrickMon it is not required that the PC is using the same IP address range.

Setting the IP address using Web Interface

To set the WebBrick's IP address via its web interface the PC's network settings have to be configured to use the same IP address range and subnet as the WebBrick. The following steps will guide you through the procedure of ensuring your PC is configured correctly.

Windows XP:

1. Click on Start -> Control Panel -> Network Connections
2. Right click on the 'Local Area Connection' and select 'Status'.
3. Switch to the 'Support' tab (at the top).
4. If your IP address is not 10.100.100.xxx (where xxx is a number between 0 and 255) and your subnet mask not 255.255.255.0 please continue with step 5, otherwise proceed to the next section.
5. Make a note of your IP address so you can set the WebBrick to operate in the same range.
6. Select the 'General' tab (at the top) and click on 'Properties'.
7. In the box titled 'This connection uses the following items' select 'Internet Protocol (TCP/IP)' and click 'Properties'.
8. If 'Obtain an IP address automatically' as well as 'Obtain DNS server address automatically' are ticked then proceed to the next step, otherwise make note of the current settings before changing the settings.
9. Select 'Use the following IP address' and type in an IP address in the correct range, i.e. starting with 10.100.100. The last 3 digits may be any number between 0 and 255 except 100, since this address is used by the WebBrick.
10. Enter the subnet mask 255.255.255.0.
11. The other fields are of no importance, click 'Ok' to save your settings.
12. Click 'Ok' again.

Windows Vista:

1. Click on Start -> Control Panel -> Network and Sharing Centre.
2. On the left hand side click on 'Manage network connections'
3. Double click on 'Local Area Connection' and click 'Details...'
4. If your IPv4 IP address is not 10.100.100.xxx (where xxx is a number between 0 and 255) and your IPv4 subnet

mask not 255.255.255.0 please continue with step 6, otherwise proceed to the next section.

5. Make a note of your IP address so you can set the WebBrick to operate in the same range.
6. Click on 'Close' and then select 'Properties'.
7. In the box titled 'This connection uses the following items' select 'Internet Protocol Version 4 (TCP/IPv4)' and click on 'Properties'.
8. If 'Obtain an IP address automatically' as well as 'Obtain DNS server address automatically' are ticked then proceed to the next step, otherwise make note of the current settings before changing the settings.
9. Select 'Use the following IP address' and type in an IP address in the correct range, i.e. starting with 10.100.100. The last 3 digits may be any number between 0 and 255 except 100, since this address is used by the WebBrick.
10. Enter the subnet mask 255.255.255.0.
11. The other fields are of no importance, click 'Ok' to save your settings.
12. Click 'Ok' again.

Accessing the Web Interface:

Once your IP address is set to one in the 10.100.100 range open your web browser and type the WebBrick's IP address (by default: <http://10.100.100.100/>) in the address bar. This should open the WebBrick's main page in the browser (see figure 2).

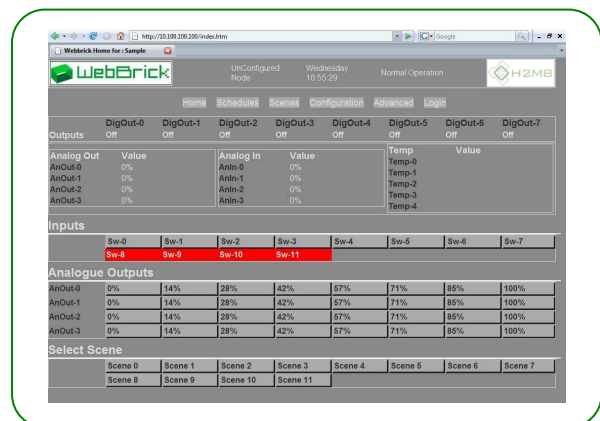


Figure 2: WebBrick's Main Page

To change the IP address you need to be logged into the WebBrick. This is done by selecting the login page from the menu and entering the installer password. By default this password is **installer**.

Once logged in a new menu item (Configure Server) will appear. Select this and enter the new IP address (for example: 192.168.1.100) in the correct 4 boxes and click 'Save' (see figure 3).

IP Address 192
IP1 168
IP2 1
IP3 100
Save

Figure 3: Changing IP Address

The WebBrick will change its IP address as soon as you click 'Save'. This means your browser is likely to show you the message 'Page cannot be displayed'. In order to access the WebBrick again you will now have to change your network settings in Windows back to the ones you originally used. This means reversing what you have done in steps 7 to 12 in the previous section.

After having changed the IP address you should be able to use a browser and navigate to the WebBrick web interface by typing in the new IP address (for example: <http://192.168.1.100>).

Setting the IP address using WebBrickMon

In case you do not know the IP address of your WebBrick, or prefer not to change your IP address in Windows, then you should use WebBrickMon. You may also want to use WebBrickMon if you previously tried to set the IP via the web interface, but now cannot access your WebBrick on the address you thought it was set to.

When WebBrickMon is started you will see something similar to figure 4.

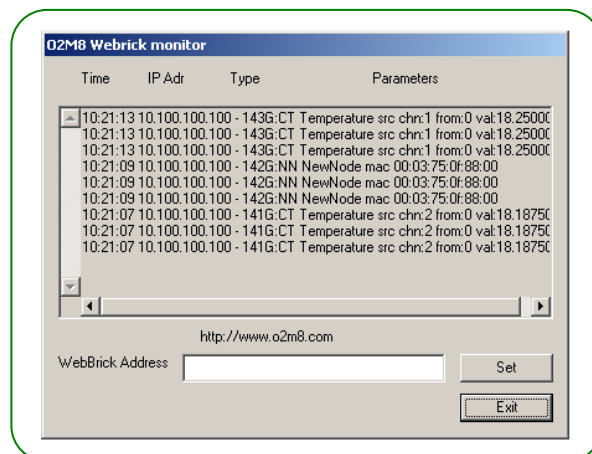


Figure 4: WebBrickMon

If your WebBrick is on and connected to the network WebBrickMon will show you the messages coming from your WebBrick. If you are using the same IP range as the WebBrick, then you can use a web browser to access the WebBrick's interface. But if, for example, you use an IP address starting with 192.168.1 and are receiving events from a WebBrick with the IP address 10.100.100.100, as in figure 3, then you will have to change the WebBrick's IP address by entering a new one in the box labeled 'WebBrick Address' and press 'Set'. Soon after you should see that the IP address, from which the WebBrick events are received, has changed (see figure 4).

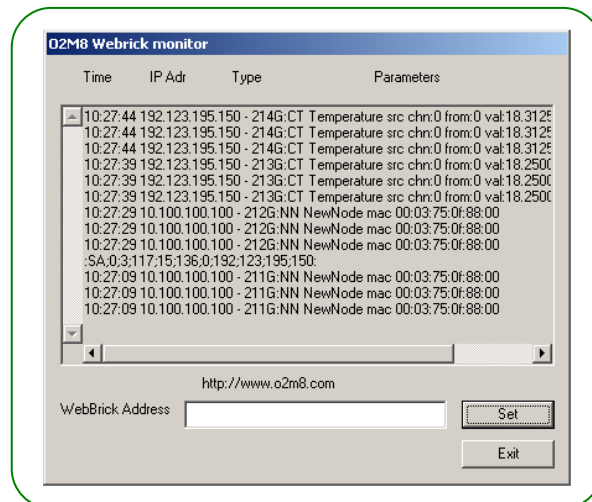


Figure 3: WebBrickMon

Related Documents

AN 001 – Switching Mains

AN 002 – Dimming Mains Lights

AN 003 – Controlling Curtain Motors

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