

# Powerline Network

*Instant Networks for Internet Access...and More!*



## QUICK SETUP GUIDE

for

### ETHERNET BRIDGE M58

**PLEASE NOTE:**

**THE M58 IS A VERY NEW MODEL AND ST&T HAVEN'T YET HAD TIME TO REWRITE THEIR CONFIGURATION APPLICATION. WHEN INSTALLING PLEASE SELECT THE M53 AS THE MODEL NUMBER: THE M58 AND M53 ARE THE SAME PRODUCT JUST A DIFFERENT PLASTIC CASE ☺**

[www.solwiseforum.co.uk](http://www.solwiseforum.co.uk)

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October 16, 2003

**ST&T**

# Powerline Network

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## Preface

This document describes installation of the ST&T Powerline Network products.

Please read this document before installing the product.

# Powerline Network

## Table of Contents

<b>1</b>	<b>Important Safety Instructions .....</b>	<b>4</b>
<b>2</b>	<b>The first thing you need to know.....</b>	<b>5</b>
<b>3</b>	<b>Initial Installation of your PLC Ethernet Bridge (Model M58) .....</b>	<b>7</b>
3.1	Software installation.....	7
3.2	To uninstall the Software.....	8
3.3	Product Configuration.....	9
<b>4</b>	<b>Adding extra PLC devices to your HomePlug network.....</b>	<b>15</b>

### 1 Important Safety Instructions

This product is intended for connection to the AC power line. For installation instructions, refer to the Installation section. For removing the device, refer to the Unplug section. The following precautions should be taken when using this product.

- Please read all instructions before installing and operating this product.
- Please keep all instructions for later reference.
- Please follow all warnings and instructions marked on the product.
- **Unplug the AC coupler from the wall outlet before cleaning. Use a damp cloth for cleaning. DO NOT use liquid cleaners or aerosol cleaners.**
- **DO NOT** operate this product near water.
- This product should **never** be placed near or over a radiator, or heat register.
- This product relies on the building's electrical installation for short-circuit (over current) protection.
- Ensure that a fuse or circuit breaker **no larger than 120 VAC 15A or 230 VAC 6A** is used on the phase conductors (all current-carrying conductors).
- **DO NOT** allow anything to rest on the product interconnect cords. **DO NOT** locate this product where people may walk on the cords.
- Because the ST&T PLC product sends data over the powerline, it is recommended that you plug directly into a power outlet. Do not plug the device into a UPS or power strip with surge protection. The ST&T PLC product has its own power filter for protection against surges.
- **Only** a qualified technician should service this product. Opening or removing covers may result in exposure to dangerous voltage points or other risks.
- Unplug the AC coupler from the wall outlet and refer the product to qualified service personnel for the following conditions:
  - When the interconnect cords are damaged or frayed.
  - If liquid has been spilled into the product.
  - If the product has been exposed to rain or water.
  - If the product does not operate normally when the operating instructions are followed.
  - If the product exhibits a distinct change in performance.

## 2 The first thing you need to know

The first thing you need to know before you begin to install...

### 1. Before installing, make sure your PC meets these requirements for hardware installation:

- Microsoft Windows\* 98SE, ME, 2000 or XP OS
- Pentium® 166 MHz processor, equivalent or higher
- Resource on your PC
  - At least one free Ethernet port for Ethernet bridge M58
- Hard disk: 30 MB free hard drive space
- Memory: 64 MB RAM or higher
- CD-ROM drive

### 2. Your PC must not be configured for another network. This means that:

- **No network clients** except for Microsoft Network\*, Client for Netware\* Networks, or Microsoft Family Logon\* are installed
- **No network services** except file and printer sharing for Microsoft Networks or Personal Web Server\* are installed
- **No network protocols** except Microsoft's TCP/IP, IPX/SPX, NetBEUI, or Net BIOS support for IPX/SPX are installed

### 3. Network installation requires two steps:

1. Install the software and adaptor
2. For each PC to be added to the network, repeat the process

### 4. Installation Note

Please verify that no other Encryption Management Utilities are installed before installing this product. If other utilities are installed, uninstall them and restart before installing this software.

### 5. During installation, Windows may need some files that were not installed on your PC. Use the Windows CD that precisely matches the version of Windows on the PC.

**Caution:** Using the wrong Windows CD will corrupt Windows on your PC.

### 6. Check that you have the following parts for each PC on the network:

1. Hardware and Software
2. Ethernet Cable (CAT 5)

# Powerline Network

## **7. Limitation of the PLC device.**

To meet the safety regulation, the longest distance between powerline carrier devices will be limited at 100 meter. More than 100 meter will cause the signal reduction or data loss. ST&T Ethernet bridge (M58) are for in-house use only.

### 3 Initial Installation of your PLC Ethernet Bridge (Model M58)

This section covers the procedures to do a fresh setup and configuration of your PLC network.

**Important:** After receiving the PLC ETH Bridge M58 units please check for any shipping damages on the carton and the system unit before proceeding with any installations. Inspect the cartons for any obvious damage before unpacking.

#### 3.1 Software installation

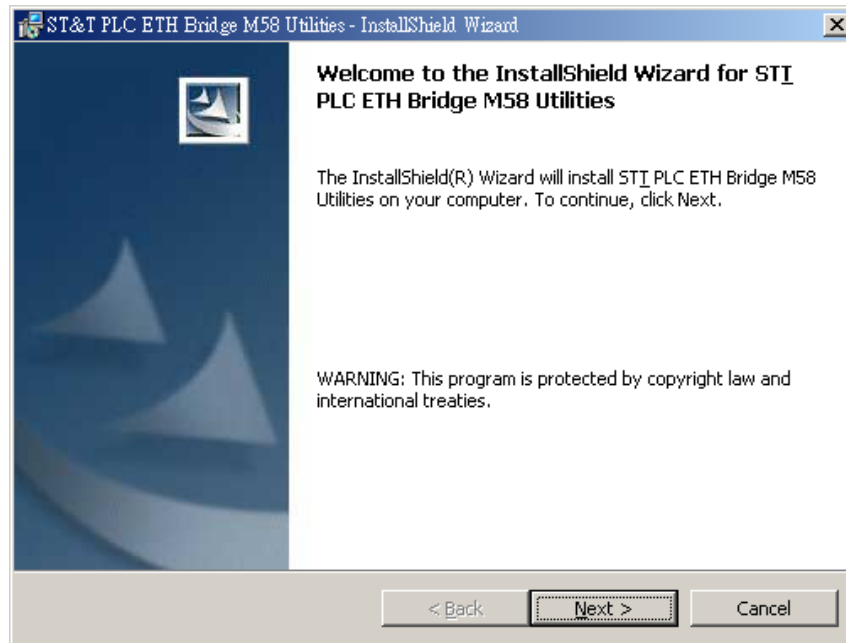
Before connecting the PLC devices to your network you must first of all install the PLC Management utility. This will enable you to control your PLC network and the network encryption passwords.

Please verify that no other Encryption Management Utilities are installed before installing this product. If other utilities are installed, uninstall them and restart before installing this software.

**Ensure that you have correctly configured your network settings for your computers and LAN cards before starting to install your PLC network.**

1. Insert the Setup utility CD-ROM into the computer's CD-ROM drive. The setup page should show automatically. Select "**Powerline ETH Bridge M58**" Page, and setup "**The ST&T-M58 Utility**". If it does not, click the **Start** button and choose **Run**. In the box that appears, enter **D:\software\M58\setup.exe** (Where D is the letter of your CD-ROM drive).
2. The CD will launch an installation utility similar to that shown in Figure 2. Click the **Next** button to continue

## Powerline Network



3. Follow the instruction in the installation utility.

**Windows 2000 users:** Windows will inform you that there was no digital signature found. Click the **Yes** button to proceed with the installation.

**Windows XP users:** Windows will notify you that the software has not passed Windows Logo testing. Click the **Continue Anyway** button.

4. When prompted by the Install Utility, Plug in your first PLC ETH Bridge M58.

To plug in the PLC ETH Bridge M58, you need to:

- Plug the PLC ETH Bridge M58 into an AC outlet.
- Plug the supplied ETH cable into the PLC ETH Bridge M58 and an available ETH port on your PC (or via a hub or switch to which your PC is connected).

5. Click the **Finish** button to exit the installation utility
6. You may be asked to restart your computer. Click the **Yes** button to restart now, or click the **No** button to restart later

The installation of the PLC Management utility is complete.

### 3.2 To uninstall the Software

To uninstall the software, follow these easy steps:

1. Insert the Setup utility CD-ROM into the computer's CD-ROM drive. The setup page should show automatically.

Select "**Powerline ETH Bridge M58**" Page, and setup "**The ST&T-M58 Utility**".

2. It will detect the existing software on your machine and ask you whether you want to modify, repair or remove the

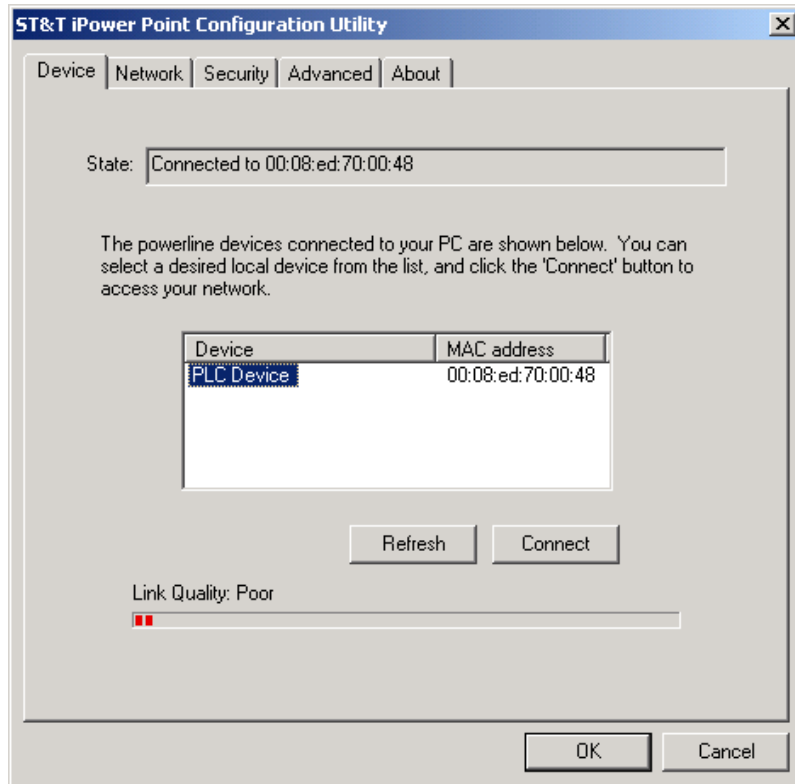
# Powerline Network

software. Select **Remove**.

3. Click **Yes** when the utility asks you to reboot the machine.

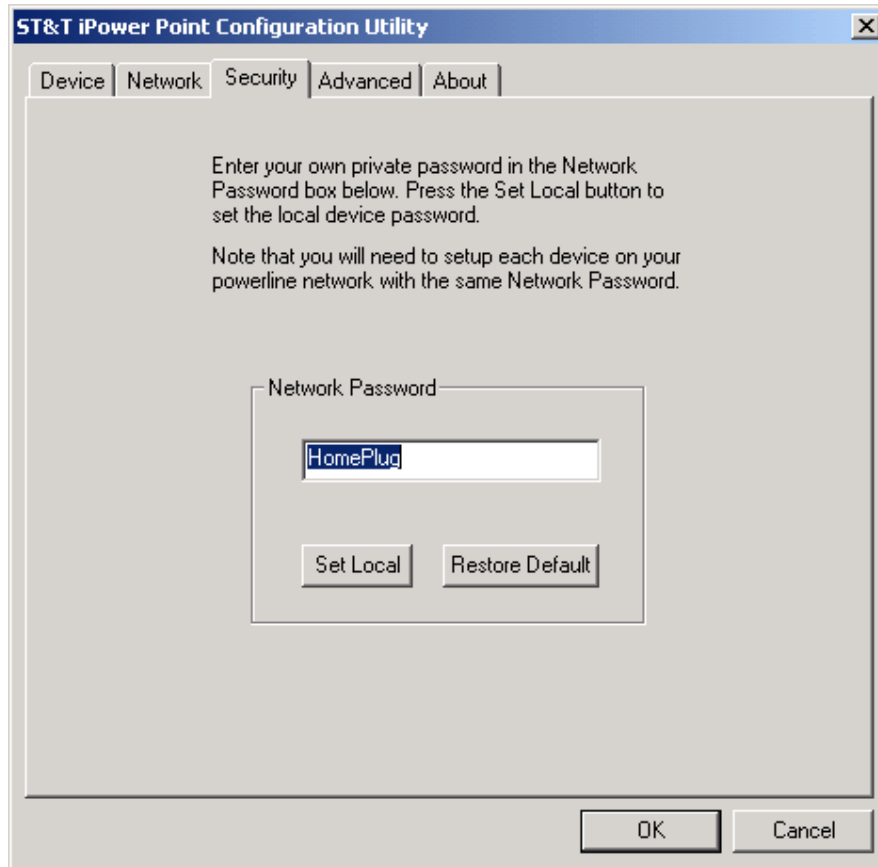
### 3.3 Product Configuration

After correctly doing the management software installation (as detailed above) start the management software application.



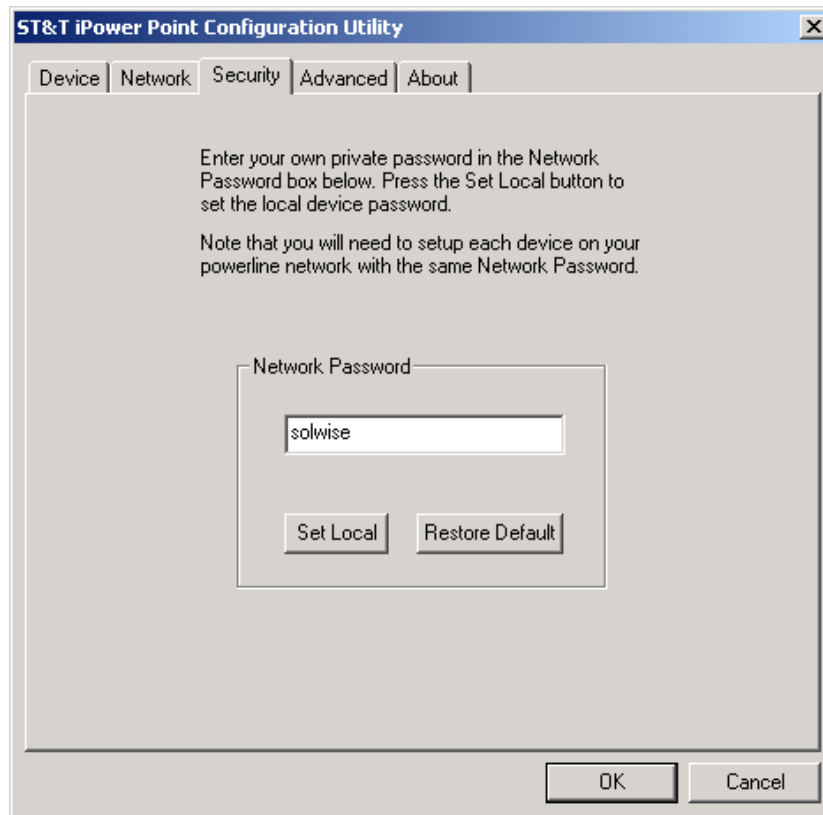
As soon as the programme starts it should automatically scan for the nearest PLC device on you LAN network. E.g. as shown above. If no PLC Device is located ensure that the LAN connection to the M58 is correct and also that the M58 is correctly connected to your mains power. After checking click on Refresh and the device should be located. Next goto the Security page:

## Powerline Network



This shows the current network password stored in the Local PLC device (i.e. the device shown on the 'Device' screen). This is the network security password used by the DES encryption on the Local device. In order for a network of PLC devices to communicate with each other they must all have the same network password: Please note this entry is case sensitive. The default entry is HomePlug. To improve security you are advised to change the network password to your own value. For example, below shows the setting changed to 'solwise'...

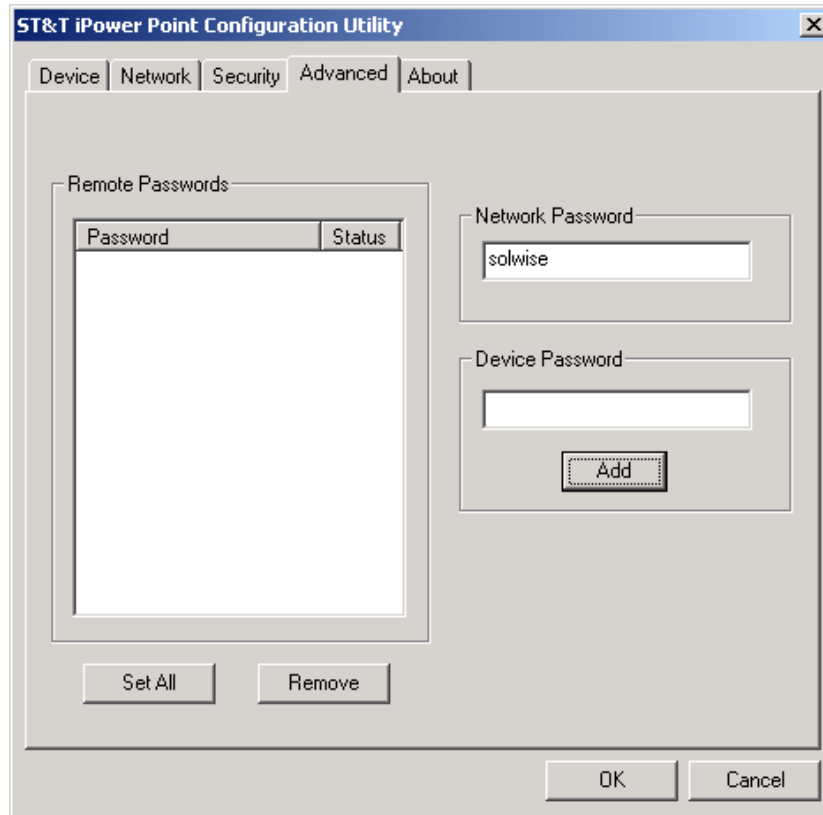
## Powerline Network



Change the password and click on 'Set Local' to alter the stored value. You have now changed the network password for the Local device.

Next goto Advanced...

## Powerline Network



This screen allows you to add **other** PLC devices to your PLC network i.e. the Remote M58's i.e **NOT THE LOCAL DEVICE**. You **ONLY** set the remote devices this way.

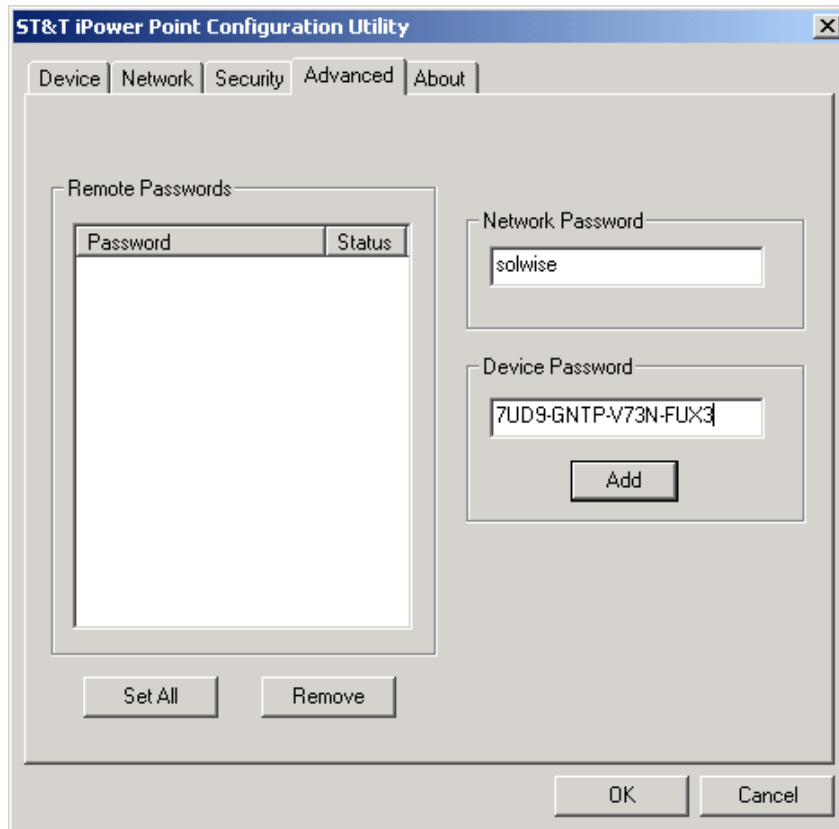
Now connect your other PLC devices to the mains power.

To add the other PLC devices to your PLC network you need to enter the device passwords to the list. Every PLC device has it's own device password which is set by the manufacturer and this is given on the underside of the M58:

## Powerline Network

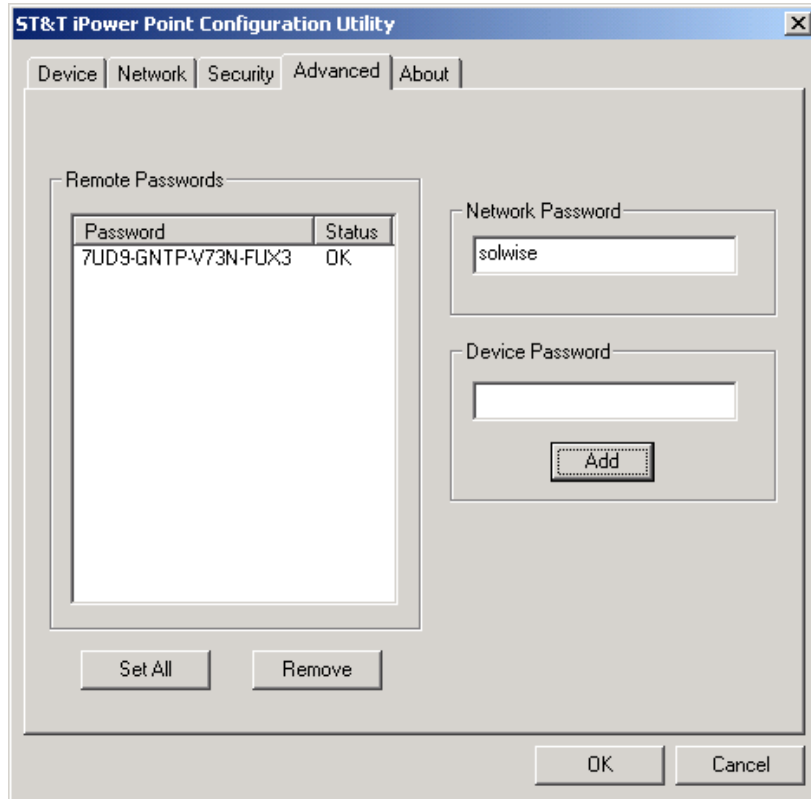


Enter the device passwords into the Device Password field on the Advanced page and click on Add...



The device should then be added to the list box...

# Powerline Network

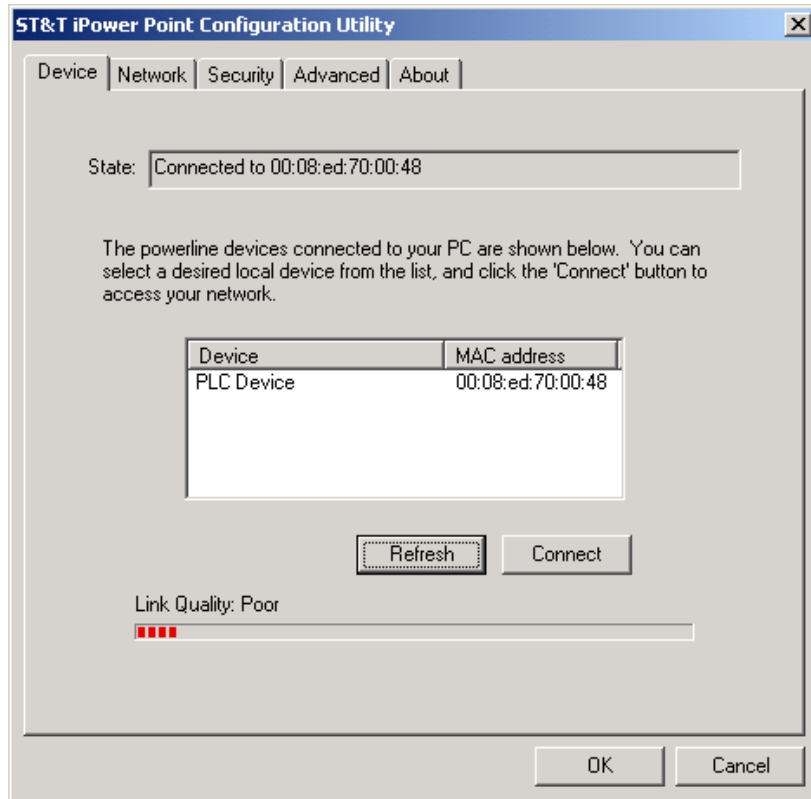


After you have added all your PLC devices to the list you should then click on 'Set All'. This will then set all the PLC devices to the same network password as you have chosen for the Local Device.

That completes setup of your PLC network and it's now ready to use.

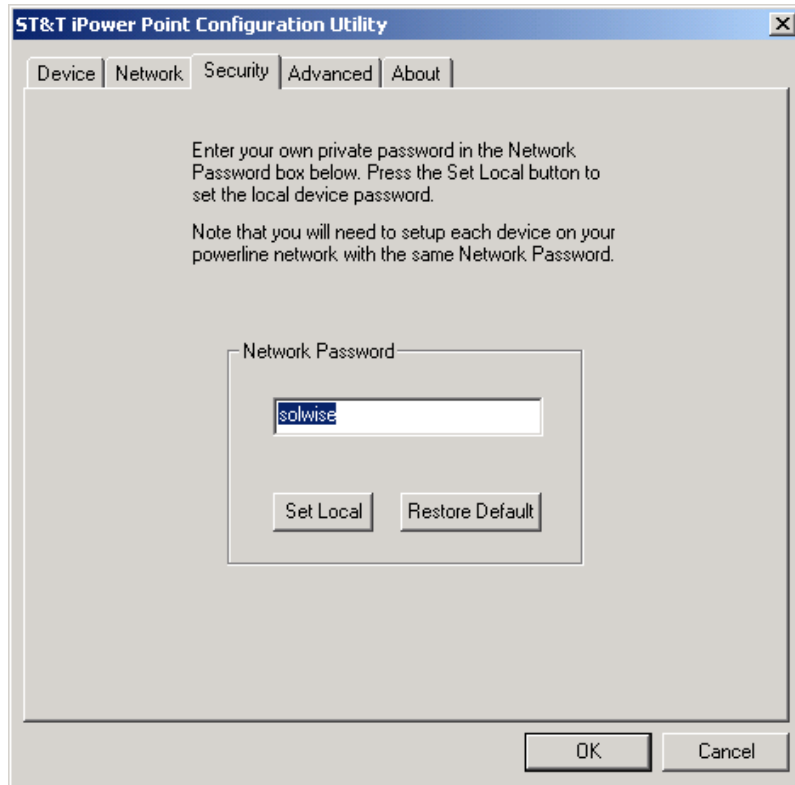
### 4 Adding extra PLC devices to your HomePlug network

As above, start the management utility and ensure the application correctly locates the nearest PLC device.



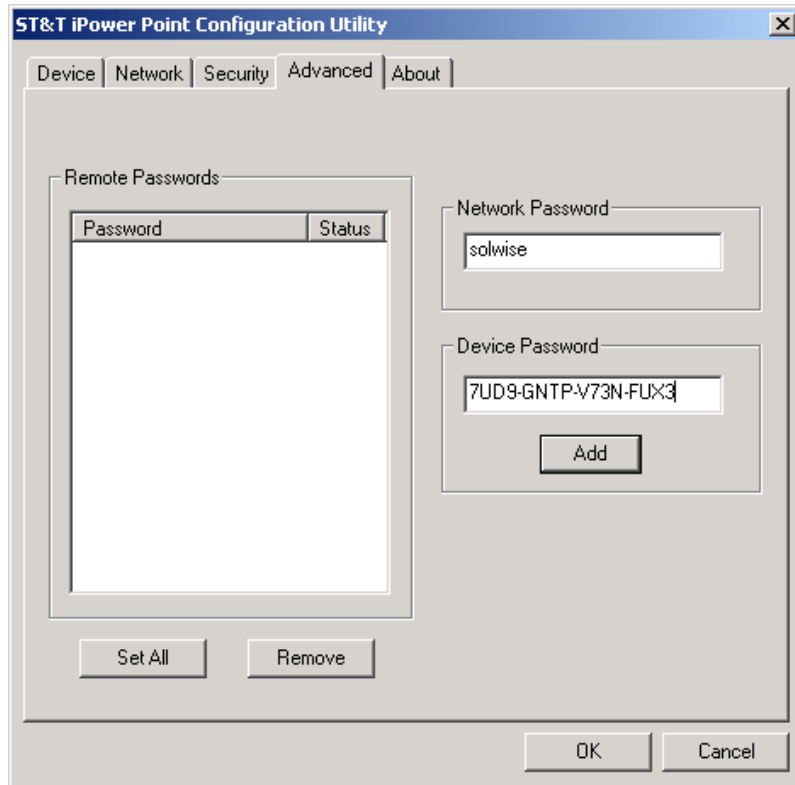
If this happens to be the extra PLC device your are trying to install then all you need to do is goto the Network page and then alter the network password to the same entry as set on the other PLC devices (e.g. solwise):

# Powerline Network



To add new remote devices to your PLC LAN goto the Advanced screen and add the new device to the list by entering it's password (as detailed above):

# Powerline Network



Then do 'Set All' to change the network password of the extra devices.  
That completes setup of the extra PLC devices.