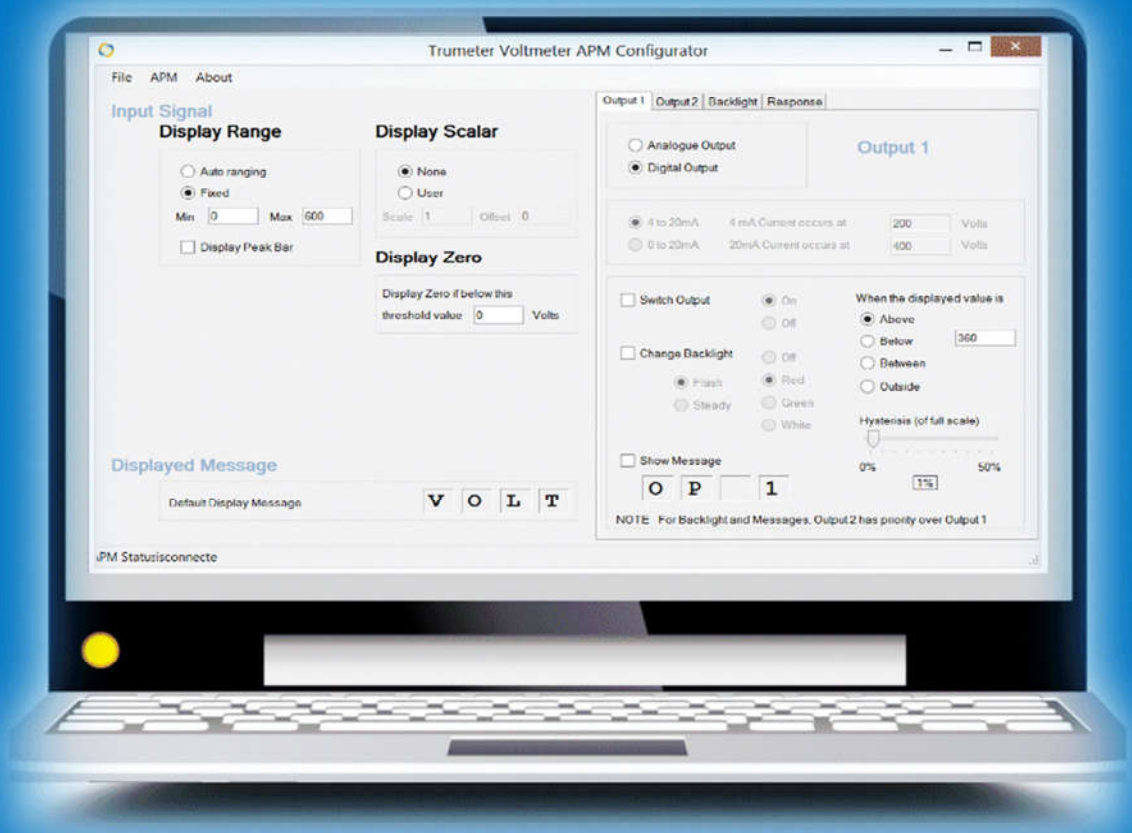
trumeter
innovation by design

trumeter



APM Configurator Installation Guide



Go to www.truAPM.com for further information

Revised / Reprinted April 2015
Manual Issue no. 1.05

Copyright © 2013-2015 Trumeter Technologies Ltd. All rights reserved.

Trumeter Technologies Ltd owns the copyright to this Manual. You may not reproduce or distribute any part of this publication in any form or by any means, electronic or mechanical, including photocopying, recording or any other information storage or retrieval system, without prior permission in writing from Trumeter Technologies Ltd.

General Sales and Service contact information:

UK / Europe office Trumeter Technologies Ltd Trumeter House Europa Business Park Barcroft Street, Bury, BL9 5BT United Kingdom Email: sales.uk@trumeter.com	North America Office Trumeter Company Inc. (USA) 702 S. Military Trail Deerfield Beach, Florida FL 33442, USA Tel: +1 954 725 6699 Email: sales.usa@trumeter.com	Asia Pacific Distributor Innovative Design Technologies Sdn. Bhd Lot 5881, Lorong Iks Bukit Minyak 1 Taman Perindustrian Iks, 14000 Bukit Tengah Penang, Malaysia Web: www.idtworld.com Tel: + 604 5015700 Email: info@idtworld.com

For more information about our company and products, please visit our web site.

Contents

Introduction **1**
Key Features 1
Minimum system requirements **1**
How to install the software **2**
Stage 1: Register and download the APM Device Selector software 2
Initial setup – test and connect 6
Stage 2: Download the APM Configurator Software 7
Download Updates for Offline Use 13
Troubleshooting **15**
Technical Support **17**
Contacting the Help Desk 17
Find the Version numbers 17
Appendix /Reference **19**
CE Conformity 19
EC Declaration of Conformity 20
Index **21**
For your own Notes **22**

Record of document updates

Issue	Document update record	Updated by	Date	Approved by
1.02	Draft first issue	Philip Tory, Authorgraphic	22 July 14	–
1.05	Approved for release	Philip Tory, Authorgraphic	30 Apr 2015	Nick Hughes

Introduction

The Trumeter APM Configurator software allows you to programme and download individual custom configurations onto your APM meters. You can set the range, display colour, warning levels etc. Custom configurations are stored in non-volatile Flash Memory.

APM Configurator runs on almost any PC running Windows XP, Vista, 7 or 8, 32-bit or 64-bit.

Key Features



APM meters feature the following:

- High accuracy
- Digital and analogue displays
- High contrast, excellent visibility
- Wide-angle display – no parallax errors
- Set points to trigger an alarm display if a preset threshold is reached, e.g. change colour, flash and/or give a message
- "Output" models (AXO) can switch a signal to external devices or equipment when the threshold is reached.

Through the **APM Configurator software** you can configure:

- The screen background colour;
- Flash or change the backlight colour, and display on-screen messages at a user-defined setpoint (trigger threshold);
- Bar graph scale: positive, centre zero or negative, and more;
- 4-character programmable display. Show a default label/message, or show the Span and Offset (applied to the input signal).

For more information, see **www.truapm.com**.

Minimum system requirements

The APM Configurator software installs directly onto a Windows-based PC. It is not intended to install over a network or run from a server. The APM Configurator software needs:

- a PC or laptop running **Windows** XP, Vista, 7 or 8 operating system, 32- or 64-bit
- Microsoft **.NET Framework**. (If you don't have this, you can download it from www.microsoft.com/net).
- A spare **USB 2.0 port**
- An internet connection for initial software installation and updates.
- A **USB cable** with **Type A** to **Type B** connectors:



How to install the software

Each model of APM meter (Volts, Amps, Frequency, etc) has its own specific **APM Configurator software**, therefore there are two stages to the installation process.

Stage 1: Firstly, you download the **APM Device Selector** software from our web site and install it on your target PC.

Stage 2: Next you use the APM Device Selector to detect your APM device(s), so that it can then download the correct **APM Configurator software** for your device(s).

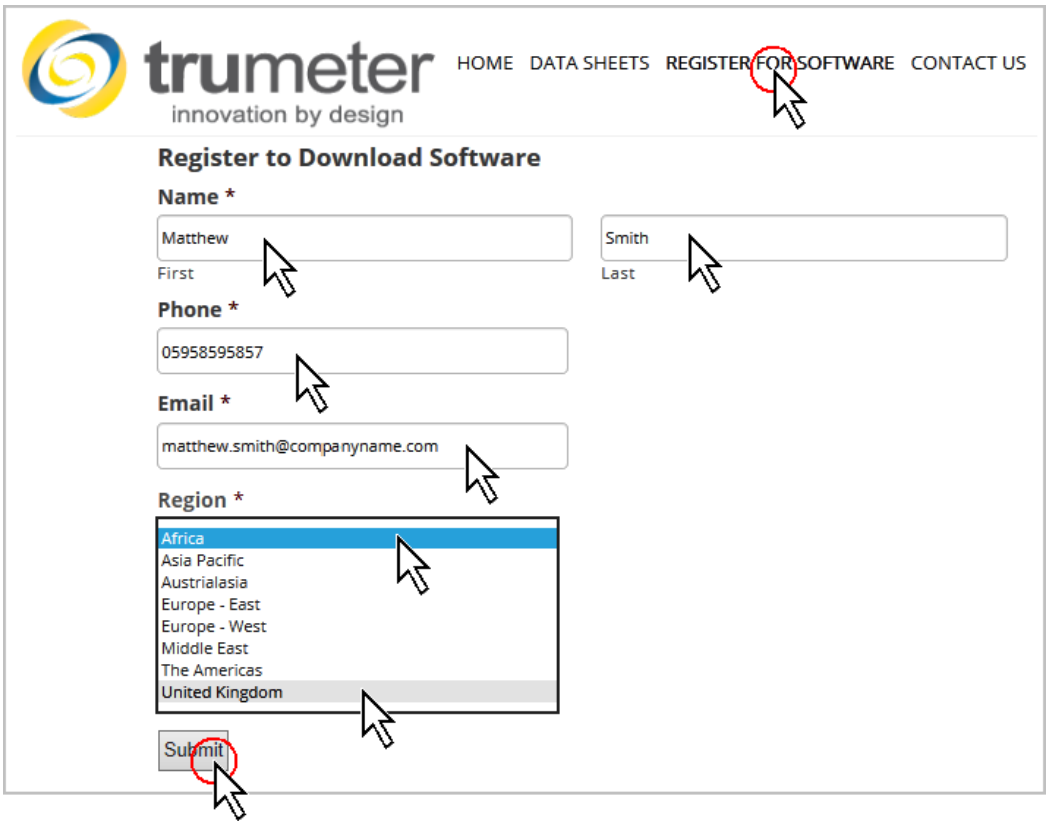
Stage 1: Register and download the APM Device Selector software

www.truapm.com website > REGISTER FOR SOFTWARE > ...

You need an internet connection so that you can download the APM Device Selector software from our web site.

- We recommend that you go into Windows Explorer, and create a suitable folder where you can save the installation file and any future updates.
- To download the software, open an internet browser and go to **www.truapm.com**.
- At the top right of the screen, click on **REGISTER FOR SOFTWARE**. (For smaller screen resolutions, look for "**Menu**" on the orange bar at the top. Click on this and then select **Register for Software**.)

The **Register to Download Software** screen appears:

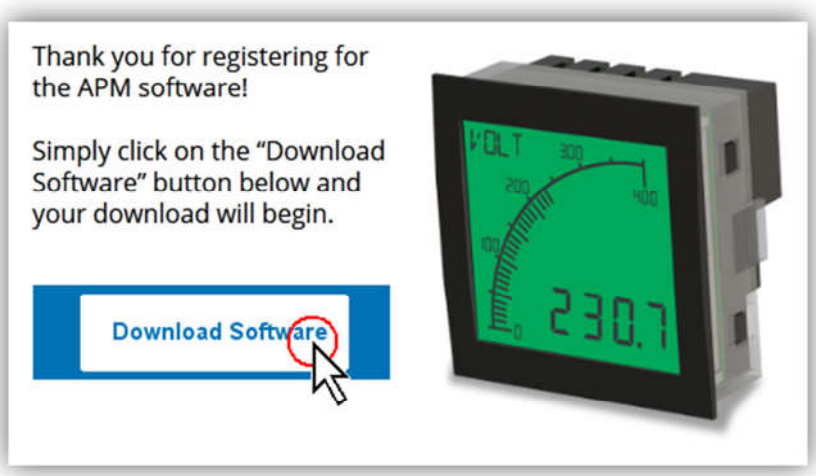


- Fill in your contact details, select your region, and then click the **Submit** button.

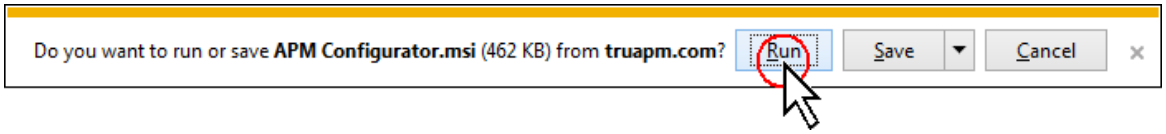
Use the Download Link from our email

Our system then sends you an email with a download link.

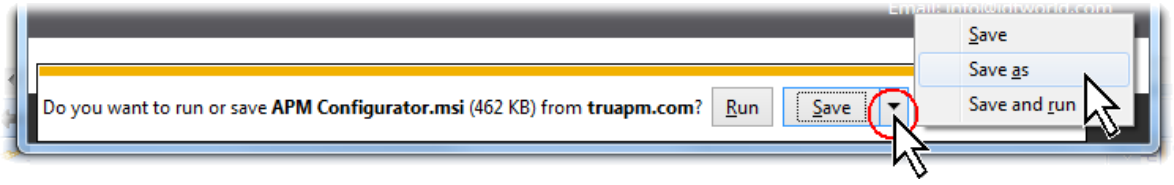
- Open the email and click the link. This takes you a download page on our web site:



- Click the **Download Software** button, and then click **Run**:



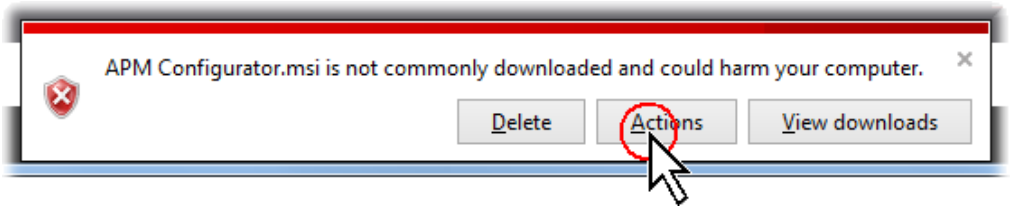
(If you prefer to save a copy onto your PC, select **Save as**, and save the file to a convenient place on your computer:



)

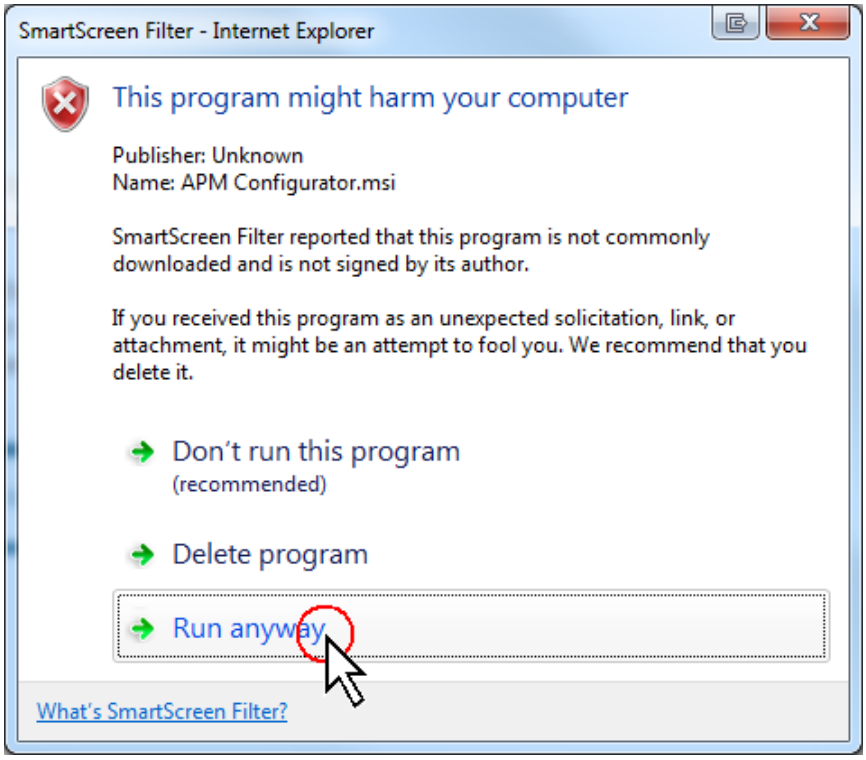
The file **APM Configurator.msi** is less than 500 Kb, so it will not take long to download.

- If you see this **warning message** (or similar): "APM Configurator.msi is not commonly downloaded…" etc –



– then click on the **Actions** button.

The **SmartScreen Filter** (or similar) may appear:

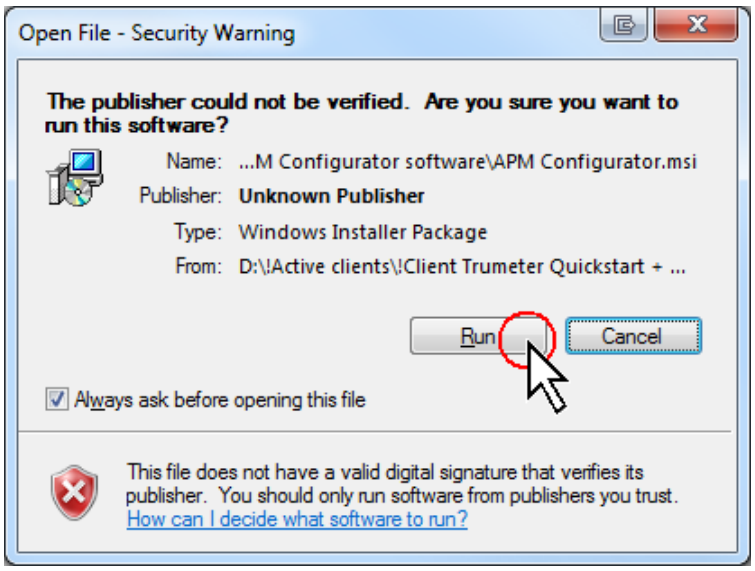


- Click on **Run anyway**. This will start the installation process.
- Alternatively, if you saved the file to disk, go to Windows Explorer, navigate to where you saved the file. Double-click on the **APM Configurator.msi** file.

This installs **stage 1**, the **APM Device Selector**.

Installing...

- If you see a **Security Warning** message like this: "**The publisher could not be verified. Are you sure you want to run this software**?" –

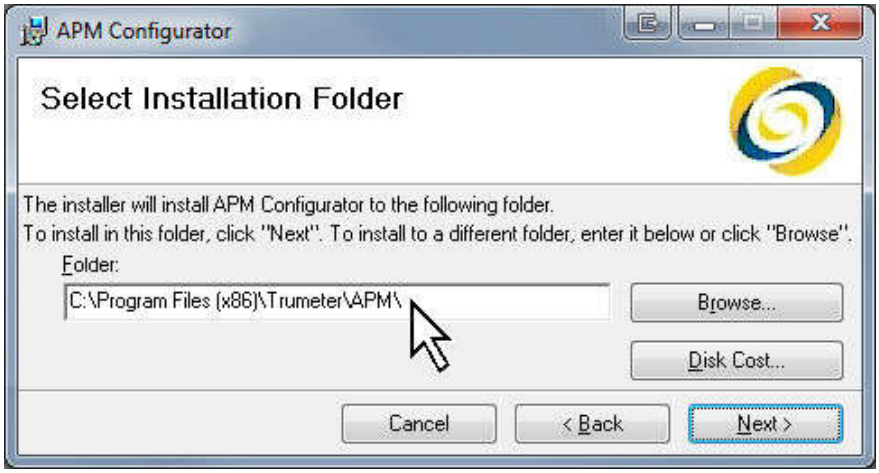


– then click **Run**.

The **APM Configurator Setup Wizard** screen appears:



- Click **Next**. The **Select Installation Folder** screen appears:



- Now you can select the installation folder. Unless you need to choose a different folder, we recommend that you leave it as the default setting shown. If you want to save it elsewhere, click **Browse** and find the required location.
- Click **Next**, and the **Confirm installation** screen appears.
- Click **Next**, and the **Installing APM Configurator** screen appears. The process may take about 30 seconds to install. Wait for it to finish.

When it has finished, the **Installation Complete** screen appears.

- Click **Close**.

Check for .NET Framework updates

Now use **Windows Update** to check for any critical updates to the **.NET Framework**.

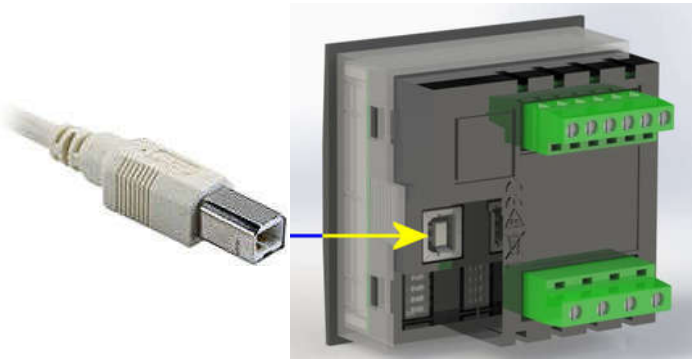
- For example, in Windows 7, go to the **Start** button, click **All Programs**, and then click **Windows Update**;
- or find it in **Windows Start > Control Panel > Windows Update**.

This completes the first stage installation of the APM Device Selector. You will install the APM Configurator shortly.

Initial setup – test and connect

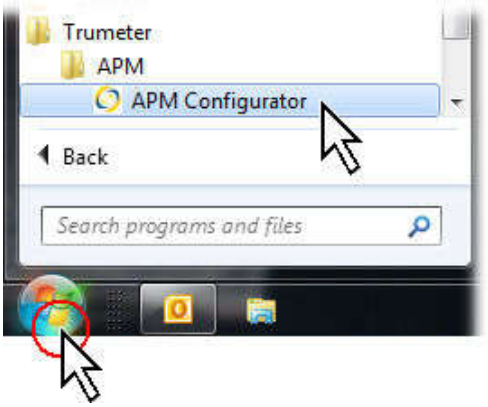
Next, test the installation. You will need a **USB cable** with Type A and Type B connectors at either end.

- Plug the USB cable between the APM meter and a spare USB port on the PC.

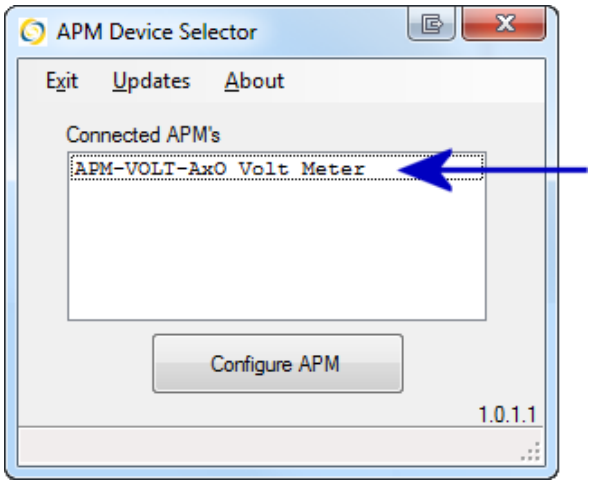


- On the PC, click on the APM Configurator 

icon on your desktop.
- Otherwise, go to **Start button > All Programs > Trumeter > APM > APM Configurator**:



The **APM Device Selector** screen opens:



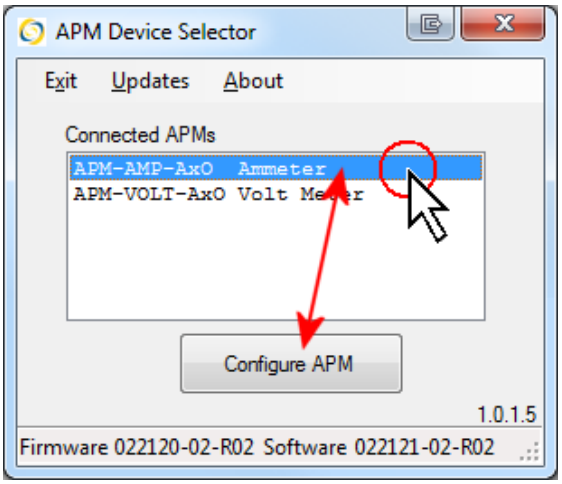
Here you will see the detected APM meter(s).

If you have other APM meters connected via different USB ports, you will see them here.

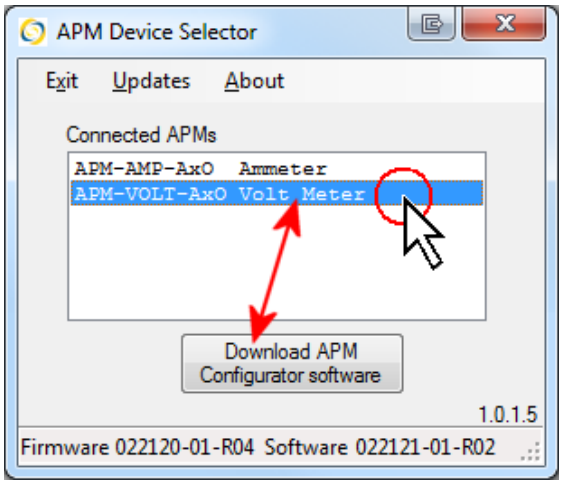
If you see the above screen, showing “Configure APM” then the Device Selector software has installed OK, and is working— it has detected the meter.

Understanding the screen display

If you have more than one APM connected to different USB ports on the computer, they will appear on the screen. This example shows two APMs connected. One already has its Configurator downloaded and is ready to run, while the other has not, so it is ready to download:



The APM Configurator software is already downloaded for this meter, so the button shows "Configure APM".



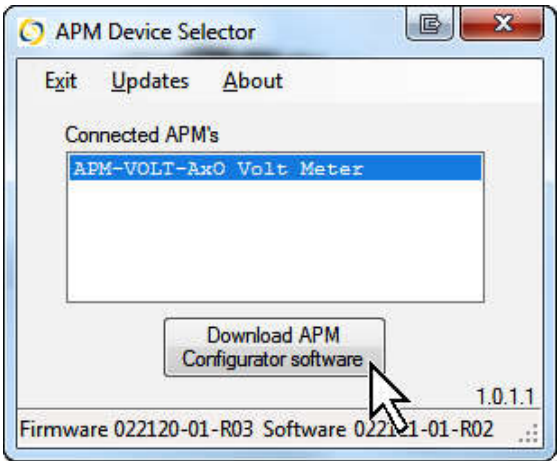
The APM Configurator software has not been downloaded for this meter, so the button shows "Download APM Configurator software".

At the bottom of the screen, you can see the version of the Firmware installed in the selected meter, and the corresponding Configurator software required.

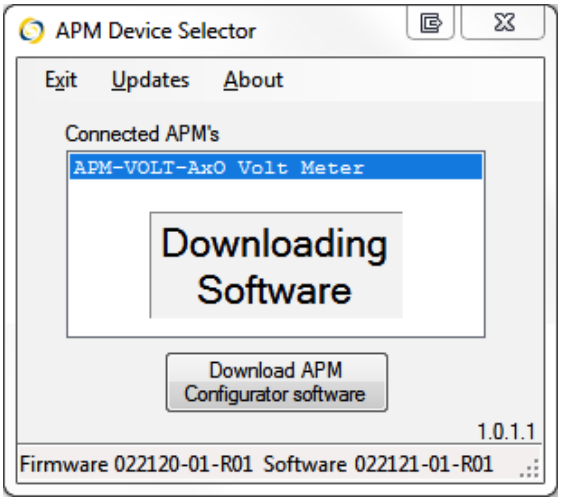
Stage 2: Download the APM Configurator Software

The first time you install the Device Selector on this PC, you will then need to download the APM Configurator software for the connected meter, as follows:

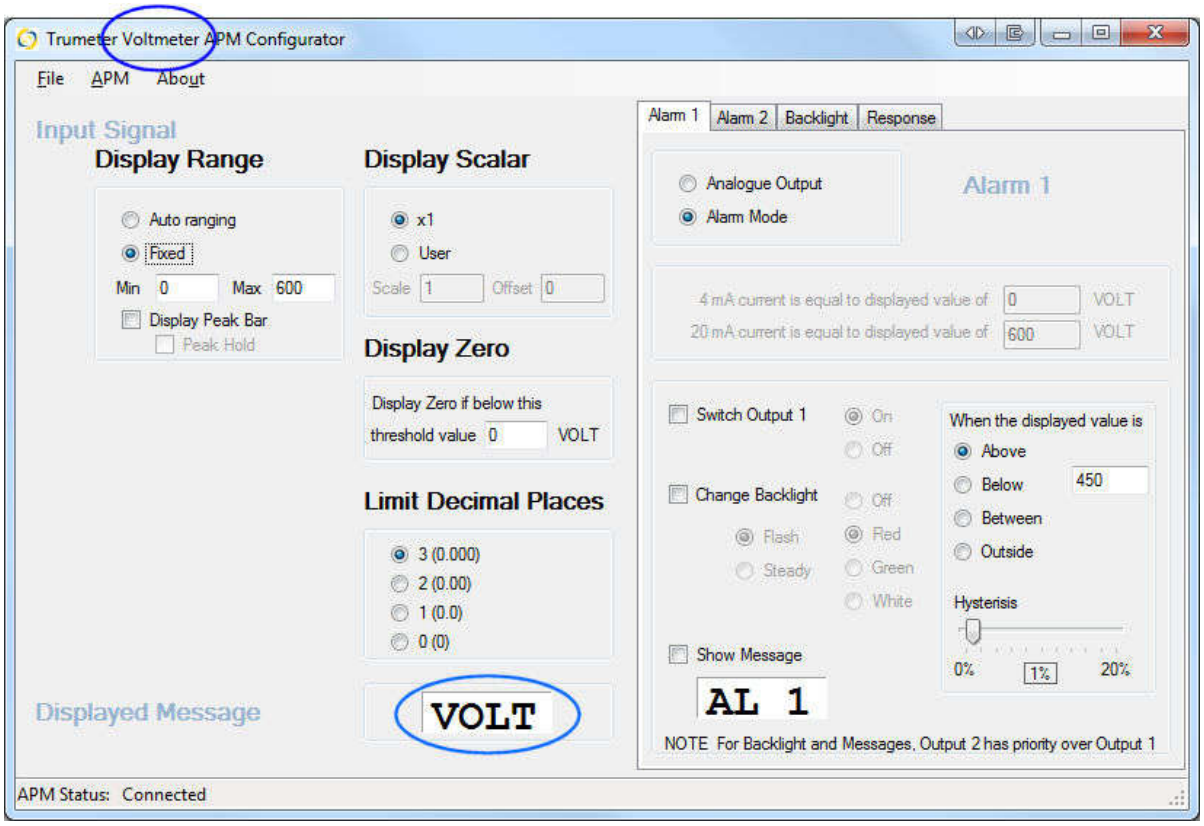
- With the APM device selected, click the **Download APM Configurator software** button:



The system then connects to the APM server via the internet, and downloads the corresponding APM Configurator software for the device – in this example, a Voltmeter:



After a few seconds, the **APM Configurator screen** opens for that meter. The type of meter "Voltmeter" shows at the top of the screen, and **VOLT** in bold, lower down the screen:



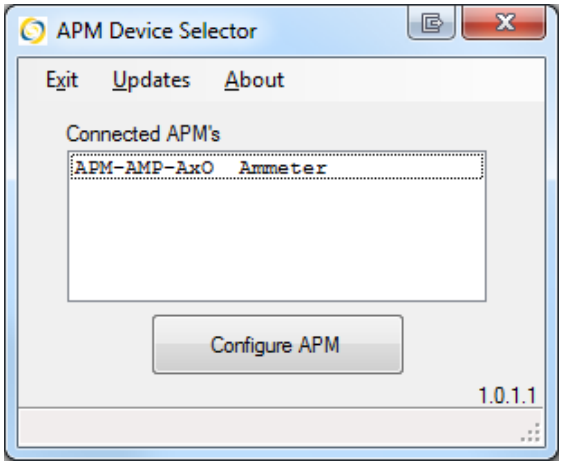
This example is for a Voltmeter.

Install for the next Meter Type

Suppose you also need to configure another meter type, such as an Ammeter. Leave the APM Configurator window open.

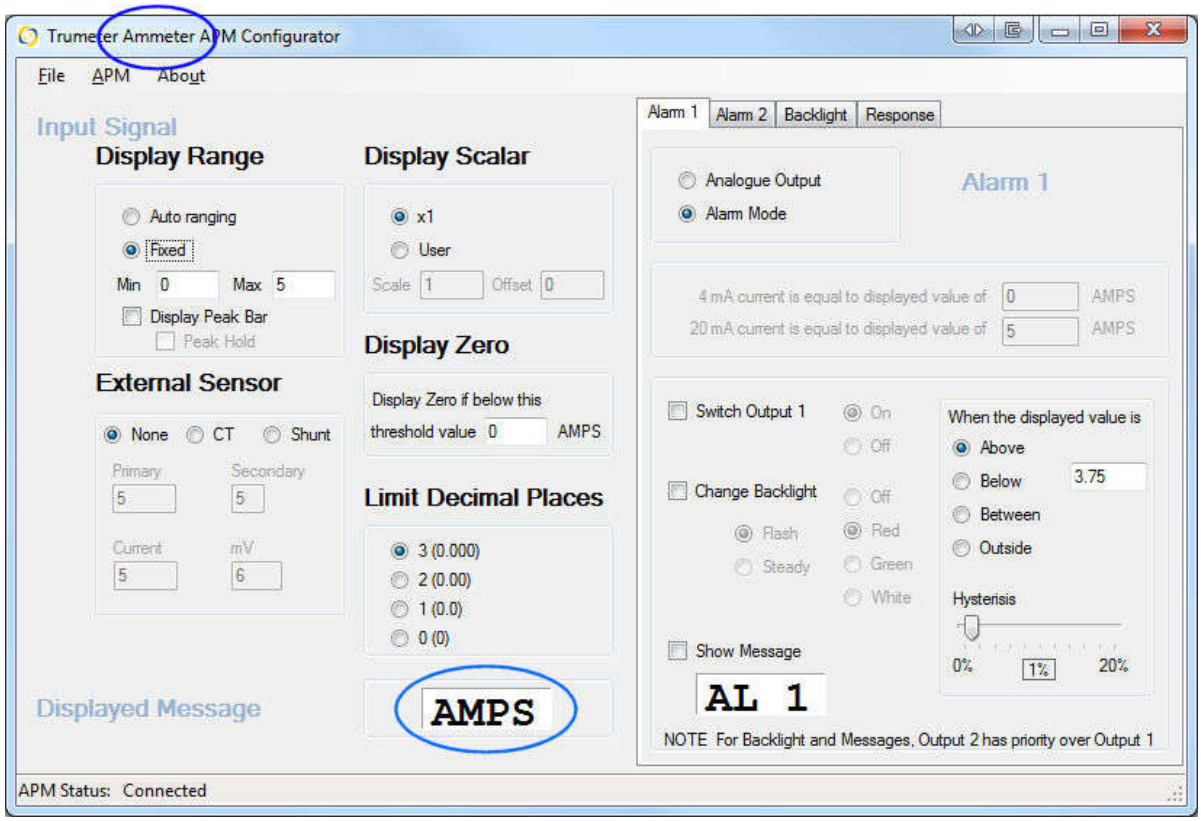
- Unplug the USB cable from the voltmeter and plug it into the ammeter.

In a few seconds, the **APM Device Selector** display changes to indicate the new meter type—in this example, an **Ammeter**:



- As before, click to select the meter, and then click the **Configure APM** button.

This downloads the Ammeter interface. Then the **APM Configurator screen** opens, indicating at the top that this is for an Ammeter, and **AMPS** lower down the screen:

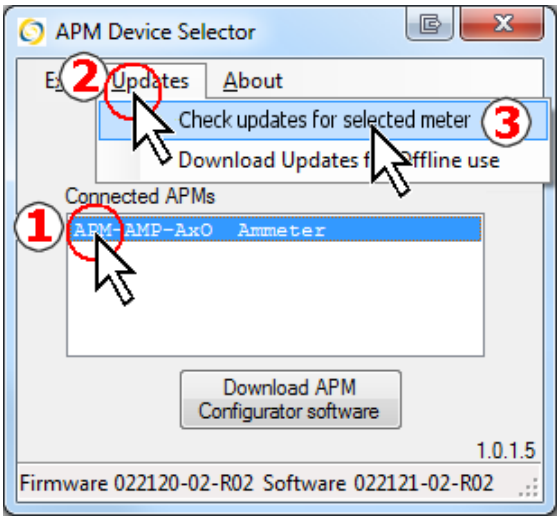


This example APM Configurator screen is for an Ammeter.

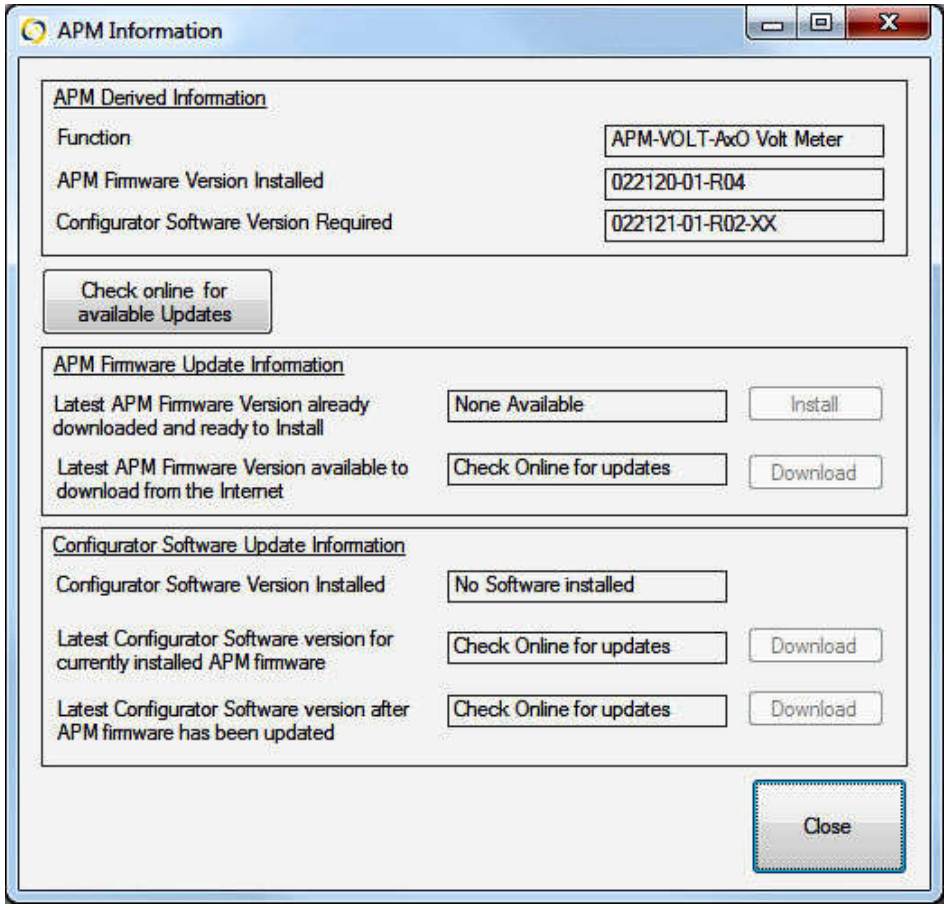
What Software Updates are available for my meter?

It is good practice to **check for updates** from time to time—there may be updates available for each meter type that you have. You may already have downloaded updates that are stored on the PC, or there may be more recent updates available now.

- Go to the **APM Device Selector** screen.
- (1) Click to select the required meter.
- (2) select **menu > Updates >**
  (3) **Check for updates**:



- The **APM Information** screen appears:



Example

APM Derived Information	This shows you information about the selected APM meter: (a) Function: e.g. Voltmeter, Ammeter, Frequency meter, and whether it has a **setpoint** (threshold) **O**utput signal (**AXO**) or **N**o output signal (**AXN**) (b) The version of the firmware installed in the meter (c) The version of the APM Configurator software required for this meter.
Check online for available Updates button	• Connect to the internet. • Click the **Check for available Updates** button. This checks online for any new software, and will display the information in the device **Firmware Update** and Configurator **Software Update** boxes.

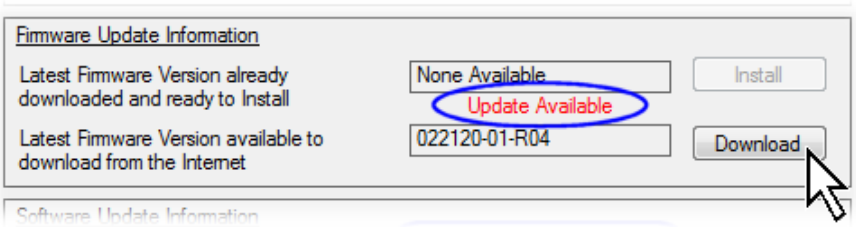
Firmware Update Information

After you click the **Check for available Updates** button, this shows you:

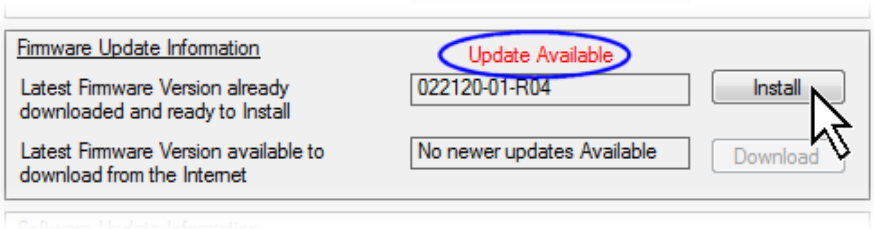
(a) if the latest firmware version is saved on the PC but waiting to be installed;

(b) if there is a newer firmware version waiting to be downloaded from our web site.

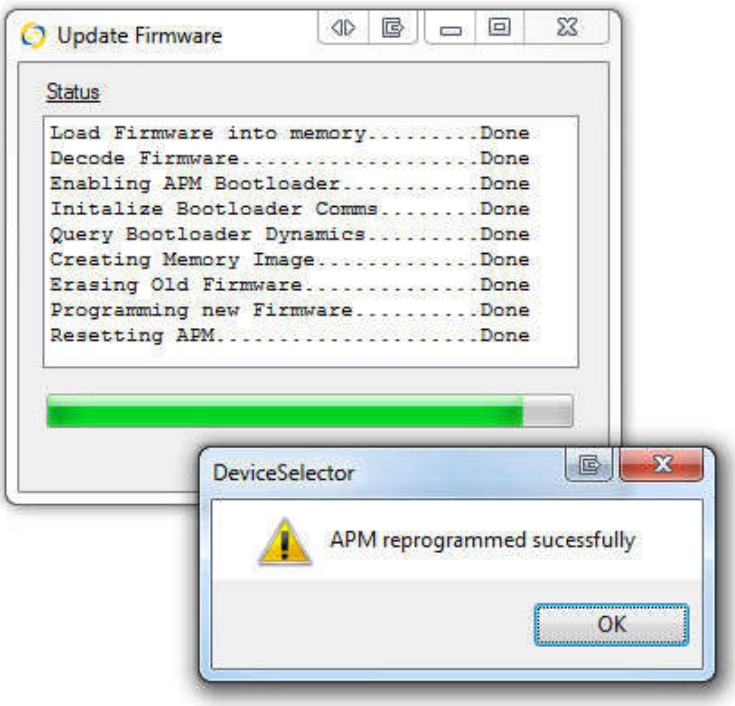
For example:



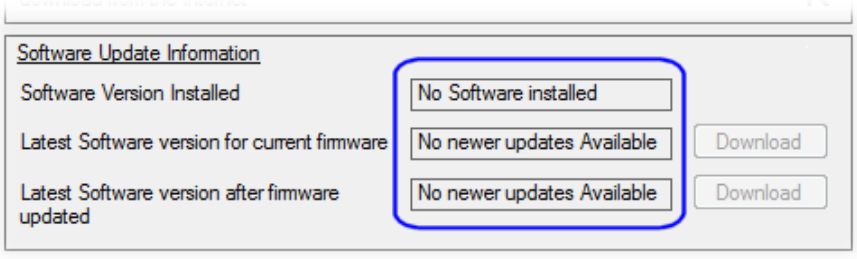
- If there is a download available, click the **Download** button. The software downloads, and a red message **Update Available** appears.
- Click the **Install** button:



The firmware now updates. This may take up to 30 seconds or more:



- Click **OK** to finish.

Software Update Information	After you click the **Check for available Updates** button, the screen shows you: (a) the version of the installed APM Configurator software; (b) if there is a copy of the latest APM Configurator software already downloaded onto the PC and waiting to be installed; (c) if there is a newer version waiting to be downloaded from our web site. For example: 

Download Updates for Offline Use

APM Device Selector > menu > Updates > Download Updates for Offline Use

You can use the APM Configurator software where there is **no internet connection**, such as in a factory. To do this, you would download the required software onto a laptop, which you can then take to the factory. Then you would run the APM software offline to configure the APM meters there.

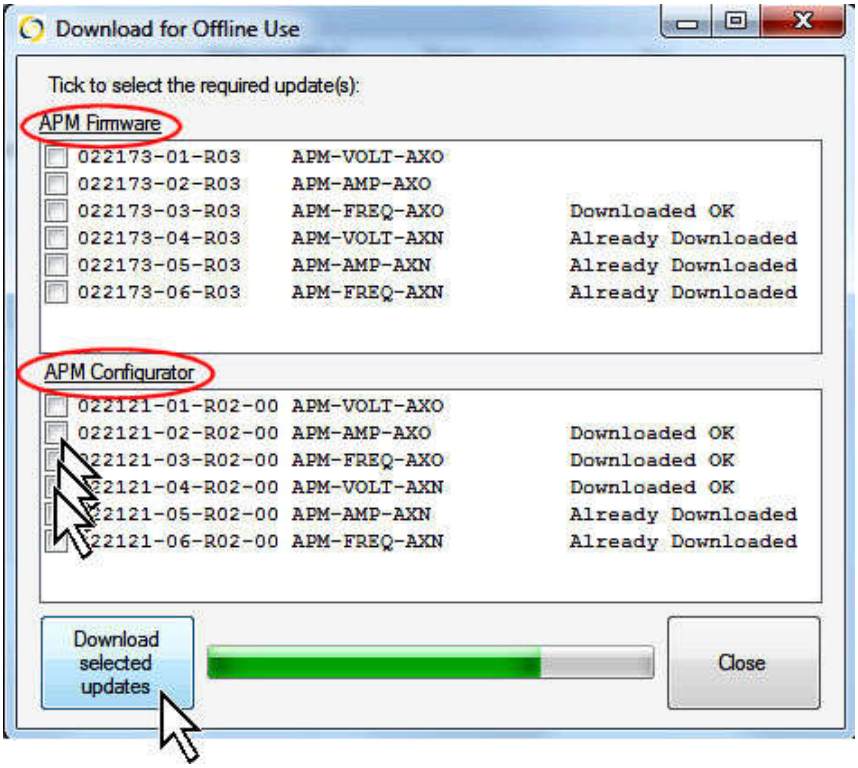
Note: You can pre-download the software updates whether there is a meter connected or not.

To download the files:

- Connect your computer to the internet.
- Open the **APM Device Selector** screen, and select **menu > Updates > Download for Offline Use**.
- Click to tick the checkboxes for those modules that you need to download.
  Note: **AXO** means these models have **setpoint outputs** (threshold trigger points).
  AXN means these models have **no setpoint outputs**.

Scenario: In this example, suppose you have a voltmeter, an ammeter and a frequency meter, each with setpoint outputs (AXO version). You would need to download APM Firmware and APM Configurator software to suit.

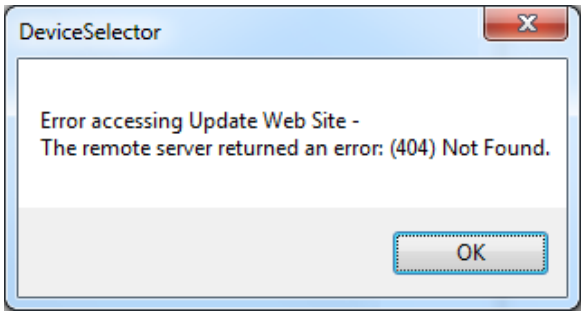
The **Download for Offline Use** screen shows that certain Configurator modules for the voltmeter and ammeter were downloaded previously and are already on your PC:



- Select what you need and then click **Download selected updates**. The software should download within a few seconds.
- As each module completes its download, the checkbox clears its tick and the screen shows **Downloaded OK** to confirm.
- When it has finished downloading the updates, click **Close** to continue. The files are installed in the main **software installation path**, which you can see at **menu > Help > About > About APM Configurator**. They will be ready for use when you operate offline to configure the APMs.

Troubleshooting

1. Error message when you try to download the APM Device Selector software



Error message: "**Error accessing Update Web Site** – The remote server returned an error: **(404) Not Found**"

- If this happens, check your internet connection. For example, can you still navigate through web sites via the browser?
- In **Device Selector**, click **OK** and try again.

If you still see the error message:

- Click **OK**, close the APM Device Selector, and then open it and try again.

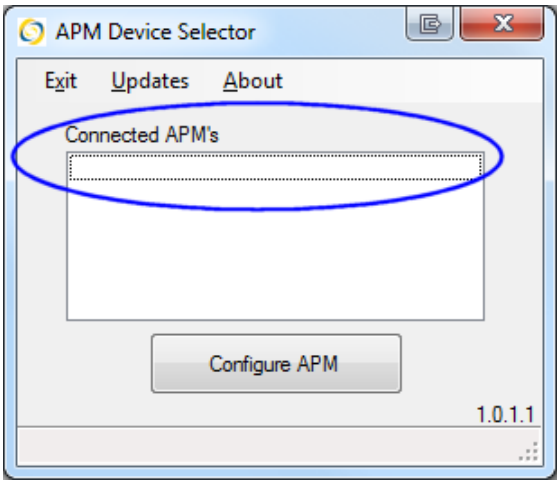
If you still have problems:

- Check your Firewall, Anti-virus and User Security settings.
- Reboot the PC and try again.
- Ask your IT department for help.

2. No device connected?

When you start the APM Device Selector, the screen is blank – nothing appears to be connected.

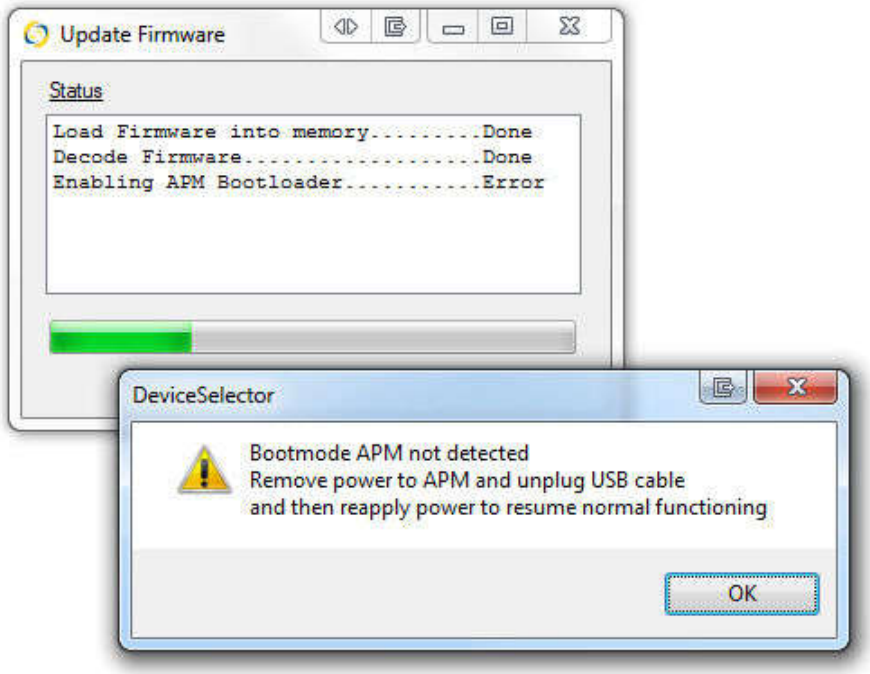
- Check that you have connected an APM meter.
- Check the USB connector cable. Unplug and reconnect each end, in case there is a bad connection. The APM meter type should show within a few seconds.
- If there is still no display, close the APM Device Selector, open it again. Check the cable.
- Try a different connector cable or a different meter, to help you diagnose the problem.



No devices showing...

3. Bootmode APM not detected

While updating the firmware, there is an **Error message** "**Bootmode APM not detected**":



Error message – Bootmode APM not detected

- Remove power to the APM meter.
- Unplug the USB cable.
- Re-apply power, re-connect the APM meter and try again.

Technical Support

Contacting the Help Desk

Please use this Help Guide first

If you have a problem with installing or running the APM Configurator, please look in this manual first, to see whether your question is answered here.

If you cannot resolve the issue, please **contact your supplier**.

If it still cannot be resolved, email **Trumeter Customer Service** at info@trumeter.com.

They may ask for the firmware and software version numbers – see below.

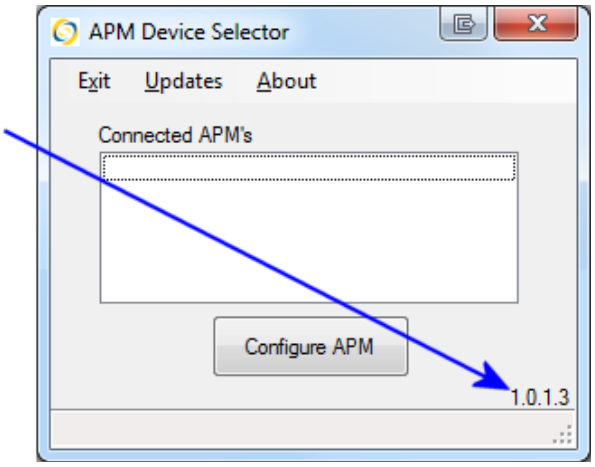
Find the Version numbers

Technical Support may ask you for the various APM firmware and software versions.

APM Device Selector version

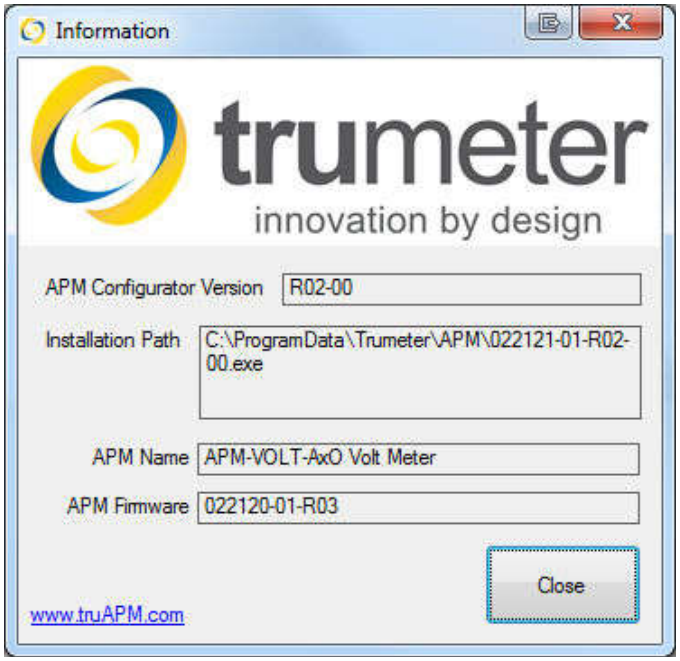
- Open the **APM Device Selector**.

  The Device Selector software version number shows at the bottom right of the screen:



APM Configurator version

- Open the **APM Configurator** and select **menu > About > About APM Configurator**:



The **Information** screen shows you:

- the **APM Configurator version**
- the **Installation Path** on this PC
- The **APM Name**—the model name or type of APM meter, e.g. APM-VOLT-AXO Voltmeter
- The **APM Firmware version**.

Appendix /Reference

CE Conformity

Trumeter APM panel meters conform to CE requirements In accordance with **EN ISO 17050-1:2010**. This applies to model numbers:

APM-VOLT-APO; APM-VOLT-ANO; APM-VOLT-APN; APM-VOLT-ANN;
APM-APM-APO; APM-AMP-ANO; APM-AMP-APN; APM-AMP-ANN;
APM-FREQ-APO; APM-FREQ-ANO; APM-FREQ-APN; APM-FREQ-ANN.

These conform to:

Reference	Title, Edition (date)
IEC 61010-1:	Safety requirements for electrical equipment for measurement, control, and laboratory use 3.0 (2010-06)
IEC 61326-1	EMC requirements for equipment designed for measurement, control and laboratory use 2.0 (2012-07)
IEC 61000-4-2	Electrostatic discharge (ESD) immunity test 2.0 (2008-12)
IEC 61000-4-3	Radiated, radio frequency, electromagnetic field immunity test 3.2 (2010-04)
IEC 61000-4-4	Electrical fast transient/burst immunity test 3.0 (2012-04)
IEC 61000-4-5	Surge immunity test 3.0 (2014-05)
IEC 61000-4-6	Immunity to conducted disturbances, induced by radio frequency fields 4.0 (2013-10)
IEC 61000-4-8	Power frequency magnetic field immunity tests 2.0 (2009-09)
IEC 61000-4-11	Immunity to voltage dips, interruptions and variations. 2.0 (2004-03)
CISPR-11	Conducted and Radiated Emissions 5.1 (2010-05)

Please see the **EC Declaration of Conformity** on page 20.

EC Declaration of Conformity

trumeter
innovation by design

EC Declaration of Conformity

In accordance with EN ISO 17050-1:2010

We Trumeter Technologies Ltd
of Trumeter House
Hornby Street
Bury
Lancs
England
BL9 5BW

in accordance with the following Directives:

2006/95/EC	The Low Voltage Directive (LVD)
2004/108/EC	The Electromagnetic Compatibility Directive (EMC)
2011/65/EU	The Restriction of Hazardous Substances Directive (RoHS 2)

hereby declare under our sole responsibility that:

Equipment	APM Panel Meter
Model number(s)	APM-VOLT-APO; APM-VOLT-ANO; APM-VOLT-APN; APM-VOLT-ANN; APM-APM-APO; APM-AMP-ANO; APM-AMP-APN; APM-AMP-ANN; APM-FREQ-APO; APM-FREQ-ANO; APM-FREQ-APN; APM-FREQ-ANN;

are in conformity with the applicable requirements of the following documents:

Reference	Title	Edition (Date)
IEC 61010-1	Safety requirements for electrical equipment for measurement, control, and laboratory use	3.0 (2010-06)
IEC 61326-1	EMC requirements for equipment designed for measurement, control and laboratory use	2.0 (2012-07)
IEC 61000-4-2	Electrostatic discharge (ESD) immunity test	2.0 (2008-12)
IEC 61000-4-3	Radiated, radio-frequency, electromagnetic field immunity test	3.2 (2010-04)
IEC 61000-4-4	Electrical fast transient/burst immunity test	3.0 (2012-04)
IEC 61000-4-5	Surge immunity test	3.0 (2014-05)
IEC 61000-4-6	Immunity to conducted disturbances, induced by radio-frequency fields	4.0 (2013-10)
IEC 61000-4-8	Power frequency magnetic field immunity tests	2.0 (2009-09)
IEC 61000-4-11	Immunity to voltage dips, interruptions and variations.	2.0 (2004-03)
CISPR-11	Conducted and Radiated Emissions	5.1 (2010-05)

I hereby declare that the equipment named above has been designed to comply with the relevant sections of the above referenced specifications. The unit complies with all applicable Essential Requirements of the Directives.

Signed by: .....

Name: Jeff Allen
Position: Technical Director
Done at Bury
On 25th June 2014

CE 14

Document number: DOC5600
(issue 1)

Trumeter Technologies Ltd
Trumeter House
Europa Business Park
Barcroft Street
Bury BL9 5BT
Registration number: 7115948

tel +44 (0)161 705 4317
fax +44 (0)161 705 4319
email info@trumeter.com
web www.trumeter.com

innovation by design

Index

.NET Framework 1
.NET Framework updates 5
404 Not Found 15
About APM Configurator 14, 18
Actions button 3
APM Configurator screen 8, 9
APM Configurator Setup Wizard 5
APM Configurator software 1, 7
APM Configurator version 18
APM Configurator.msi is not commonly downloaded 3
APM Derived Information 11
APM Device Selector screen 6
APM Device Selector version 17
APM firmware version 18
APM Information screen 10
APM meters 1
APM name 18
Appendix 19
Available Updates 13
AXN no output signal 11, 13
AXO output signal 11, 13
Bootmode APM not detected 16
cannot see device 15
CE Conformity 19
Check for available updates 12, 13
check for updates 10
Configurator Setup Wizard screen 5
Configurator version 18
Configure APM 9
Confirm installation screen 5
Contact Help Desk 17
Contents 1
Customer Service 17
Declaration of Conformity 20
Device Selector version 17
Document update record 1
Download APM Configurator Software 7
Download for Offline Use 13, 14
Download Link from our email 3
Download selected updates 14
Download Software button 3
Downloading software 8
EC Declaration of Conformity 20
Email Download Link 3
EN ISO 17050 19
Error accessing Update Web Site 15
Error message 15, 16
Error messages 15
Features 1
Firmware Update 11
Firmware Update Information 12
How to install the software 2
Information (About) screen 18
Initial setup 6
Install for next meter type 9
Installation Complete screen 5
Installation Folder screen 5
Installation path 14, 18
Installing APM Configurator screen 5
internet connection 13
Introduction 1
Key Features 1
Loaded 14
Minimum system requirements 1
No device connected? 15
no internet connection 13
Offline Use 13
publisher could not be verified 4
Record of document updates 1
Reference 19
Register and download 2
Register to Download Software screen 2
Run anyway 4
Security Warning message 4
Select Installation Folder screen 5
setpoint outputs 11, 13
Setup Wizard screen 5
SmartScreen Filter 4
software installation path 14
Software Update Information 13
Software Updates 10, 11
Stage 1 installation 2
Stage 2 installation 7
system requirements 1
Technical Support 17
Test and Connect 6
Troubleshooting 15
Trumeter Customer Service 17
Update Available 12
Updates for Offline Use 13
Updates, check 13
USB 2.0 port 1
USB cable 1, 6
Version - APM Configurator 18
Version numbers 17
warning message 3
Windows operating system 1
Windows Update 5

For your own Notes

——— End ———