



# *TA Instruments* *Installing TAM Assistant Software™*

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## Installation Instructions

This document describes how to install an upgraded version of TAM Assistant 3.x on a computer.

**TAM III installations are not yet supported for 3.0 release but will be in a future release.**

Before installing the TAM Assistant software, you should ensure that the computer system meets the specifications described in the appropriate Site Preparation Guide.



The following Microsoft components are automatically installed as part of TAM Assistant software installation: .NET 6.0.

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## *Important Note about Updating TAM Assistant Software*

If the presently-installed TAM Assistant Software version is lower than 1.0, the upgrade process will involve additional changes to the system hardware and software components which must be performed by a TA Instruments Service Engineer. Do not attempt to follow these installation instructions, as they may render the instrument inoperable. Contact TA Instruments to arrange for a service appointment.

## *Requirements*

### Host computer minimum hardware requirements

- Windows 10 Professional or higher
- 8 gig or more of RAM
- 100 gig or more free hard drive space
- High resolution monitor 1920 x 1080 or higher

### TAM III embedded computer minimum hardware requirements

- AIMB-501 motherboard
- Windows 10 IoT (to be installed by a Field Service Engineer)
- 8 gig or more of RAM

Windows® 10 is a registered trademark of the Microsoft Corporation.

- 100 gig or more free hard drive space
- High resolution monitor 1920 x 1080 or higher with a VGA connection
- Extra hard drive (for possibility to downgrade)

## ***Basic Steps for Installation***

Follow the steps below to install your software on the computer that is to be connected to a TAM IV instrument.

If you are not logged into Windows with Administrator rights, log out and log into Windows with Administrator rights.

- 1 End all running TAM Assistant applications.
- 2 Install the latest Windows updates.
- 3 Install Adobe Acrobat Reader (if required) to read pdf documentation file.
- 4 Uninstall older versions of TAM Assistant.
- 5 Install the TAM Assistant software.
- 6 Connect to an instrument.

## ***Detailed Installation Instructions***

### **(1) End all running TAM Assistant applications**

End any running experiments and close TAM Assistant.

### **(2) Install Microsoft Operating System Critical Updates**

If you don't have the required versions of these packages, they can be obtained through the Microsoft website (at [www.Microsoft.com/downloads](http://www.Microsoft.com/downloads)) or by using the Microsoft Windows Update mechanism (accessed through the Start menu or by accessing <http://update.Microsoft.com>).



It is critical to install the latest Windows Update or the devices may not load properly.

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### **(3) Install Adobe Acrobat Reader**

All of the manuals, application notes, etc. supplied by TA Instruments are supplied in Adobe PDF format. If your computer doesn't have Adobe Acrobat Reader already installed, you will need to install it to view these files on your computer.

## (4) Uninstall Older Versions of TAM Assistant Software

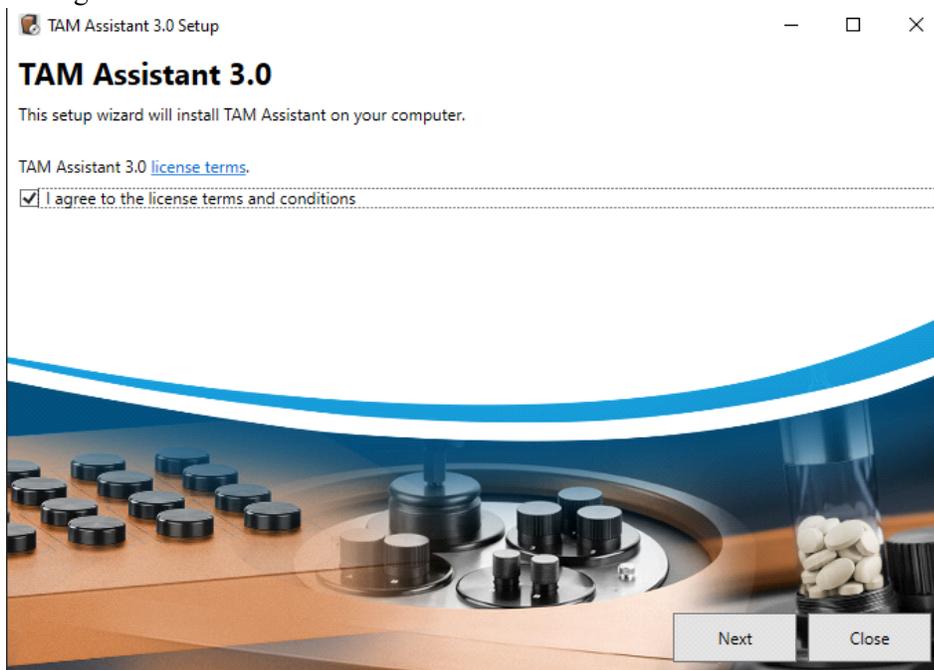
If you have a previous version of TAM Assistant Software on your computer, you will need to uninstall the software before you install the new version. To do this:

- 1 Type “Uninstall” in the search bar.
- 2 Select the **Add or Remove Programs** app.
- 3 Under **Apps & Features**, browse to **TAM Assistant**, and then click it and select **Uninstall**.

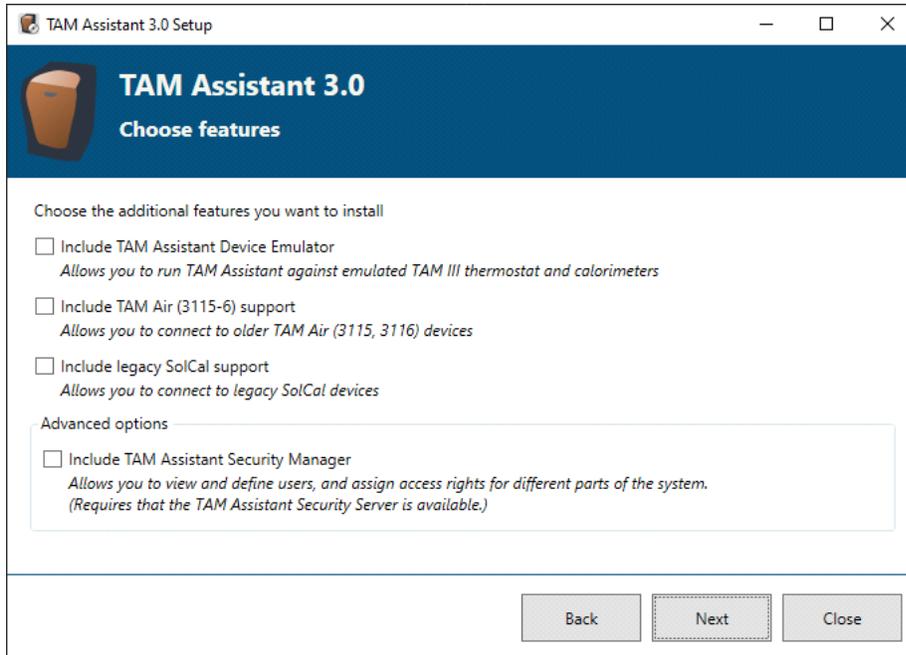
## (5) Install TAM Assistant Software

If starting the installation from a CD, browse to the executable file (there is only one) on your CD and run it, or download it from <https://www.tainstruments.com/support/software-downloads-support/downloads/>

- 1 Agree to the license terms and conditions and then click **Next**.

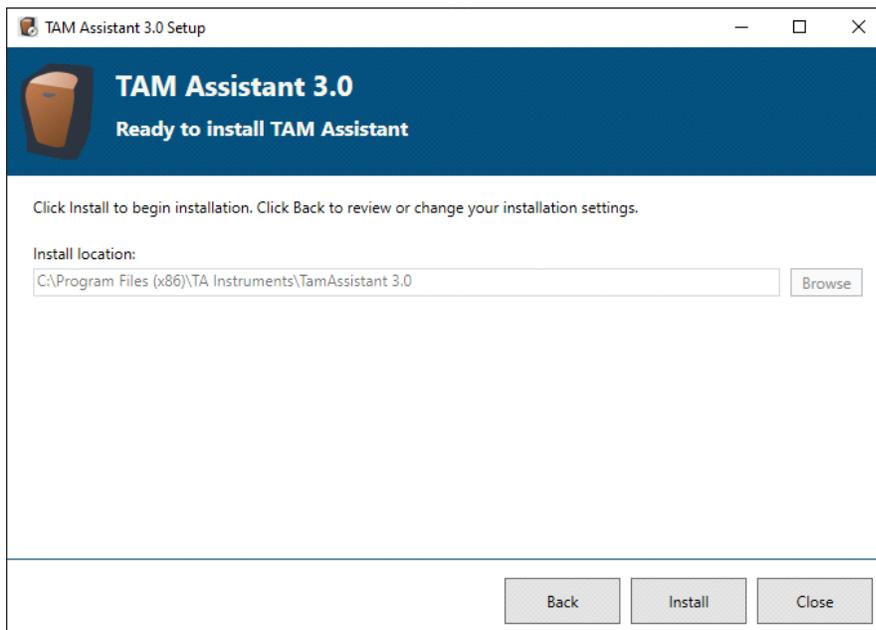


2 Choose which features to install and then click **Next**.

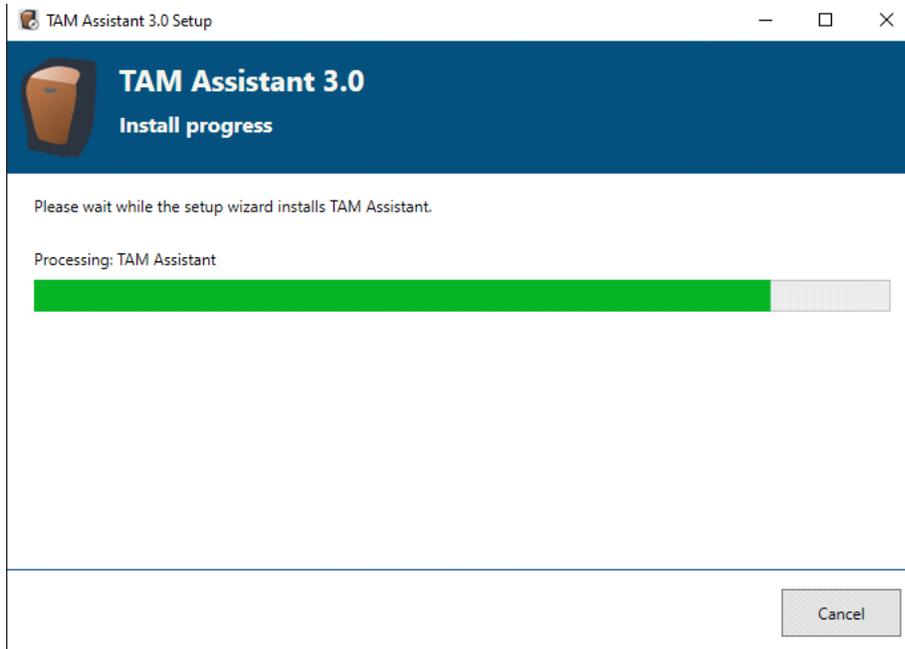


- **TAM Assistant Device Emulator:** Is used to emulate different types of devices. Install if you want to try the program without connecting to a real instrument.
- **TAM Air Legacy (3115-6) support:** Select this option to connect to a legacy TAM Air instrument (the legacy TAM Air will have an external Omron thermostat controller attached).
- **Include Legacy SolCal support:** Select this option to connect to a SolCal instrument using an older TAM III Accessory Interface.
- **TAM Assistant Security Manager:** Only needs to be installed if the TAM Assistant security system is used. For more information see the TAM Assistant security documentation.

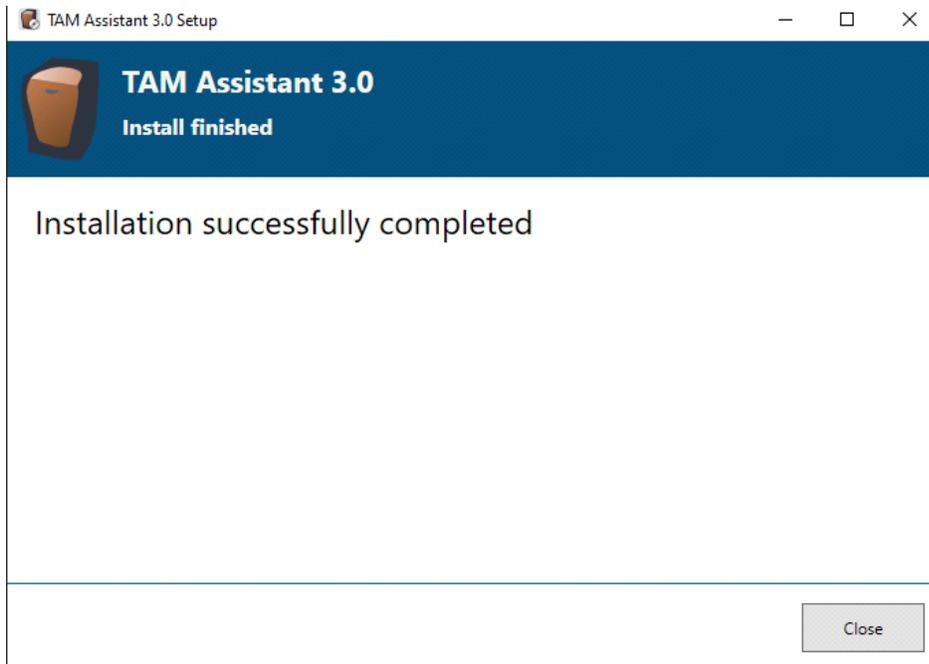
3 Determine the installation location. We recommend that the default path is used. Click **Install** to begin the installation.



4 Wait while TAM Assistant is installed.



5 Click **Close**. TAM Assistant is now installed.



If you selected the option to include TAM Air support, follow the instructions listed in “Connecting TAM Air to the Computer” in the document “Installing TAM Air Software.”

## Installed programs

After the installation, TAM Assistant 3.0 has been installed on the computer and is found under **Start > Programs**.

- **TAM Assistant**

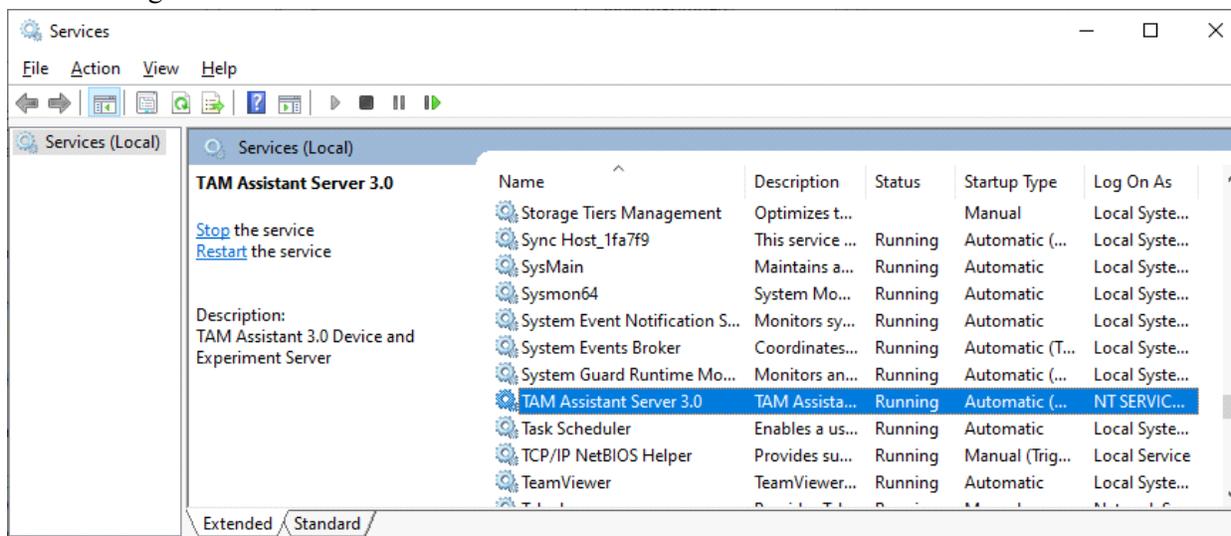
This program is used to run TAM Assistant in normal mode and to connect to supported instruments such as TAM IV, TAM III, TAM Air, TAM III Accessory Interface, and TAM IV Accessory Interface.

The following optional components are also found in the **Start** menu if they were selected to be installed.

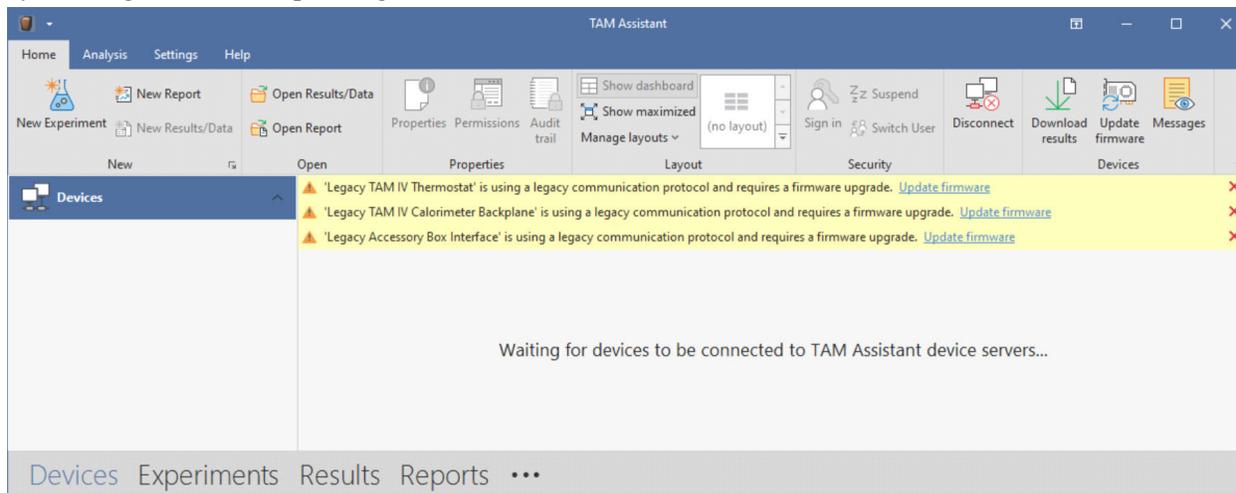
- **TAM Assistant Extras/Device Emulator**  
This program can be used to run an emulator that simulates calorimetric experiments. The data collection frequency can be sped up to reduce the response time. This mode is useful for training purposes to learn about the different functions of the TAM Assistant software.
- **TAM Assistant Extras/TAM Assistant Security Manager**  
The security manager is used to view and define TAM Assistant security settings. For more information see the TAM Assistant Security documentation.

## (5) Connect to a TAM IV Instrument

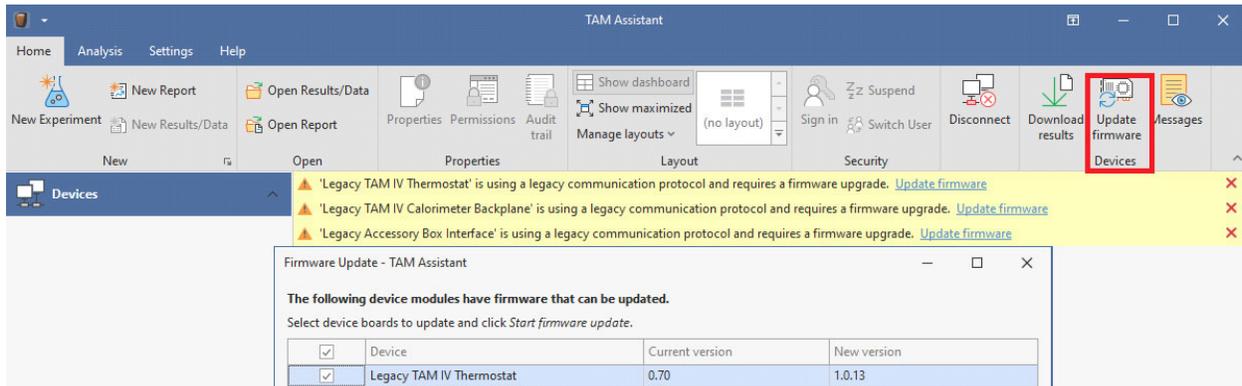
After the software installation is complete, the TAM Assistant Server 3.0 service automatically starts. This service differs from the service in 2.x in that it is always running, even when the TAM Assistant software is not running.



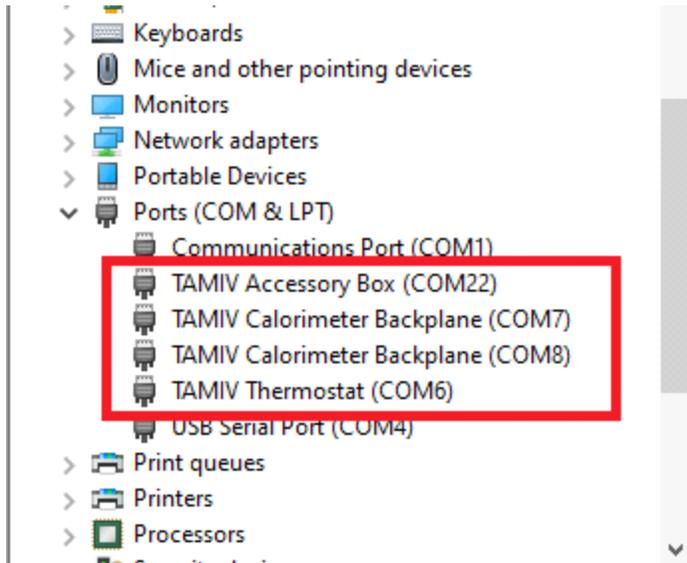
Switch on the power to the TAM IV and connect a USB cable from the PC to the instrument. TAM Assistant automatically detects firmware upgrades. The firmware can be updated on each individual device by clicking on the corresponding link as shown below.



It can also be installed on all devices with a single click via the **Update Firmware Devices** button shown below.



Verify device communication is properly setup by launching **Device Manager** (type Device Manager in your search bar) and checking the **Ports** group. A separate COM port is setup for the TAM IV thermostat, TAM Air thermostat (not shown in this example), each calorimeter backplane, and the TAM IV Accessory Interface as shown below:



## (6) Connect to a TAM III Instrument

The TAM III instrument must be upgraded by a field engineer to the Windows 10 IoT operating system. If the embedded computer has an outdated motherboard, the entire embedded computer must be replaced with a newer one. Older display monitors must be replaced with a high resolution 1920 x 1080 monitor with a VGA connection.

## Installing and Setting Up the Solution Calorimeter (SolCal) Features in TAM Assistant

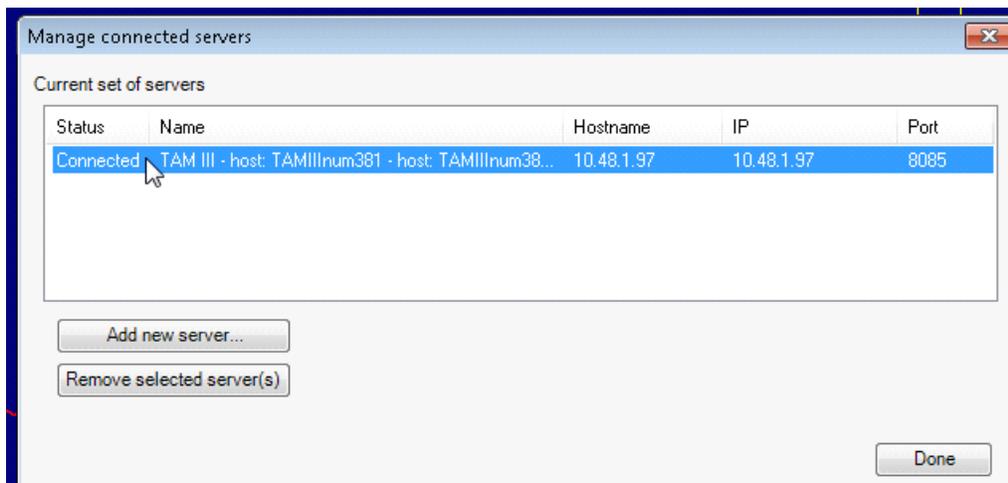
The TAM III Accessory box can be connected to the external computer via a USB connection on the back or a serial port.

- TAM III and SolCal: The Accessory box that contains the SolCal electronics must be connected to the external computer. The SolCal only shows up as a device on the external computer and not on the embedded software on the TAM III.
- TAM IV and SolCal: The Accessory box is connected directly to the computer that runs TAM Assistant.

For assistance with upgrading TAM Assistant and connecting your SolCal, please contact your local service representative.

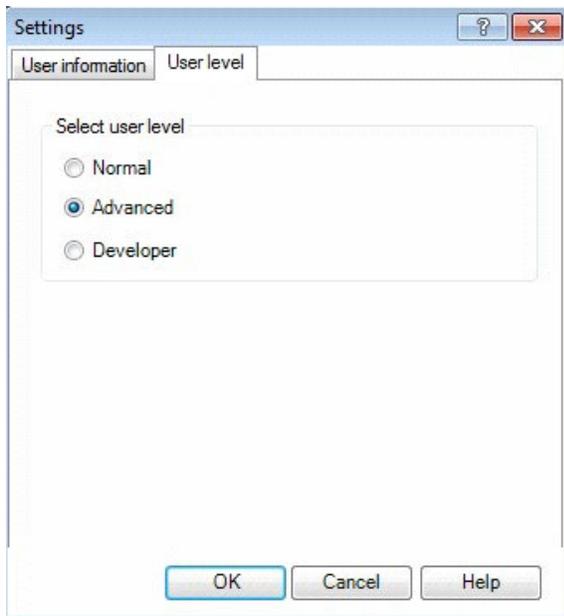
TAM Assistant can be downloaded from [www.tainstruments.com/support](http://www.tainstruments.com/support) > **Software Downloads**.

- 1 **TAM III only:** For a SolCal install in TAM III install you must disconnect the TAM III from the external computer. This is done from the main menu. Select **Settings > Configure connections**.

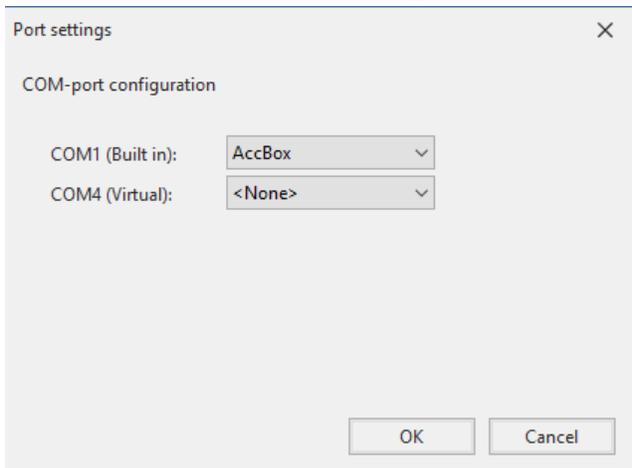


- 2 **TAM III only:** Note the IP address for the reconnection. Click to highlight the TAM III and then click **Remove selected server(s)**.

- 3 **TAM III and TAM IV:** After the installation is complete, power on the instruments and connect them to the host computer. This allows the drivers to load, then start the TAM Assistant software. From the main menu, select **Settings > User Information**, then select the **User level** tab and change the user level to **Advanced**.

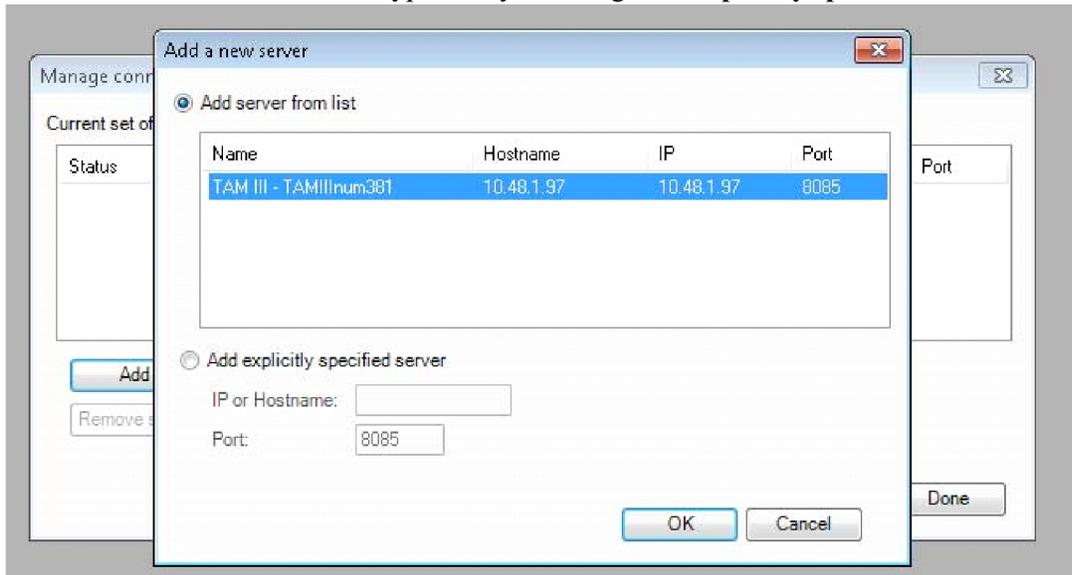


- 4 From the Main menu, select **Settings > Port Settings**. If you are using a USB connection to connect your SolCal to the host computer, select the first available COM port (COM1 if connecting using a serial cable). Using that COM port, select **AccBox** and click **OK**.

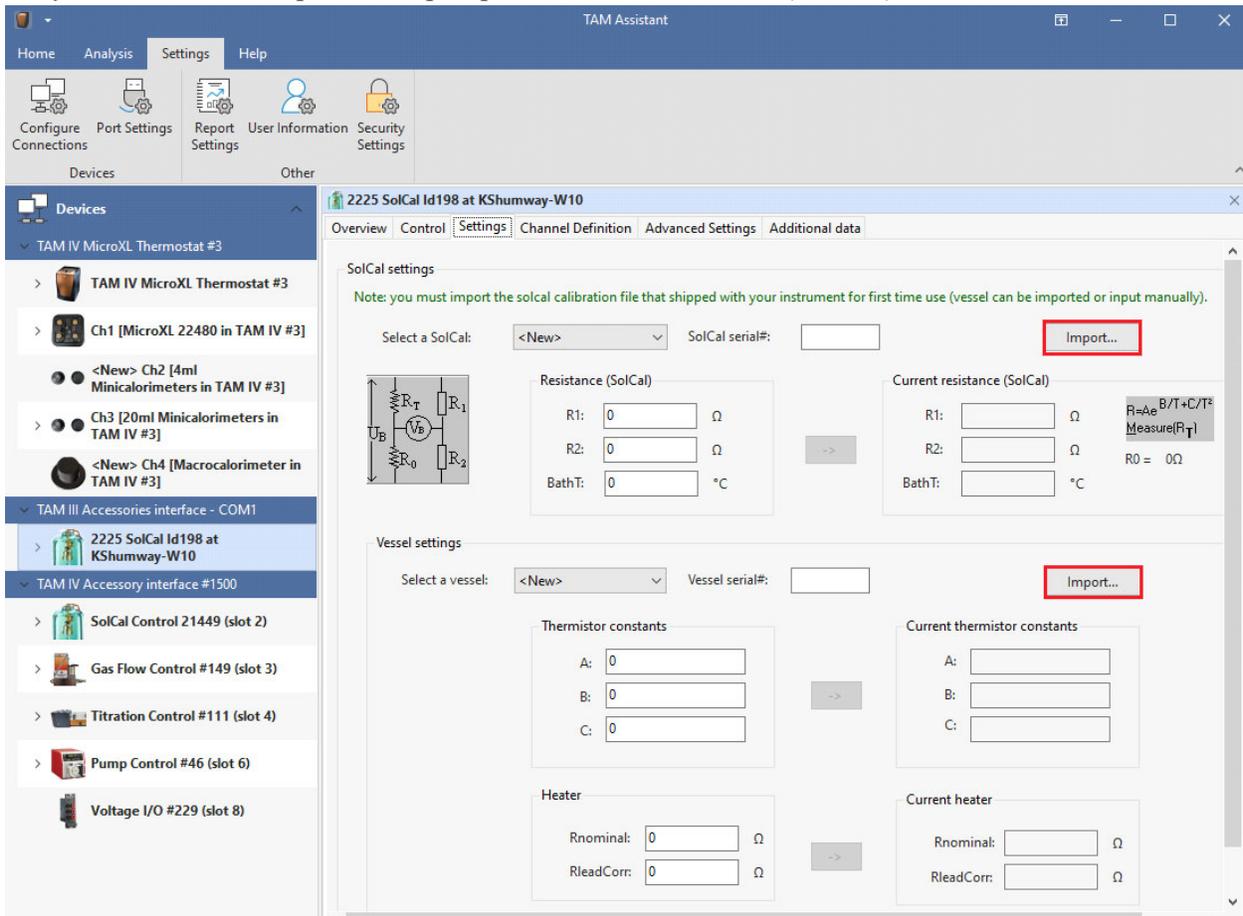


- 5 After a minute or two, the SolCal device displays in the TAM Assistant.

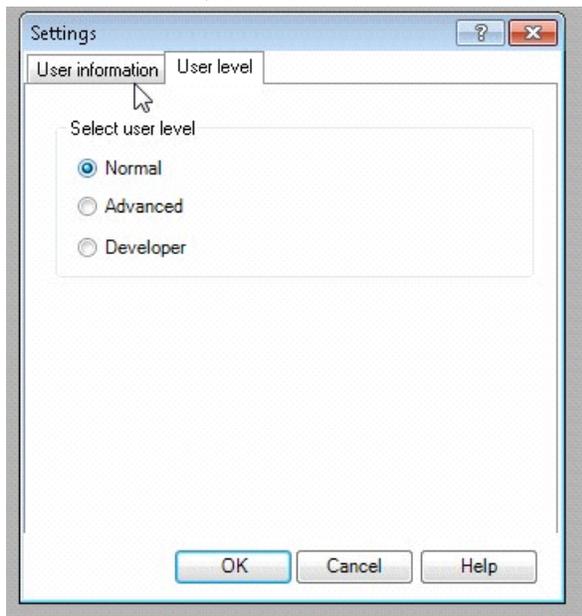
- 6 **TAM III only:** Connect back to TAM III. From the Main menu select **Settings > Configure connections**. Click **Add new server**. If the TAM III does not automatically display in the list, the IP address noted earlier can be typed in by selecting **Add explicitly specified server**.



- 7 **TAM III and TAM IV:** Click on the device and select the **Settings** tab. You will need to have your SolCal calibration files stored somewhere locally on your host computer hard drive. Click **Import** and browse to your SolCal calibration file (unit\*.dat). Click **OK** to import the settings that are specific to your SolCal. Then repeat the import process for the vessel file (vsl\*.dat).



- 8 Once this is completed, revert back to **Normal** user level. From the Main menu, select **Settings > User Information**, then select the **User level** tab and change the user level to **Normal**.



Your SolCal software is now ready for use.