

mTRAN

**Temperature / Humidity and Temperature
Transmitter Series Configuration Utility**

User Guide

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1. Revision History

mTRAN V 1.0.0.0

Feb 12, 2013

Initial release

mTRAN V 1.0.1.0

Jun 29, 2013

Add TT7S11 Product.

mTRAN V 1.0.1.1

Oct 14, 2014

Make common software for TT7S and MAS-AI-U-08-D Products.

mTRAN V 1.0.2.1

Dec 30, 2016

O/P calibration added separately.

mTRAN V 1.0.3.1

Oct 11, 2017

Update software for Device Additional Features

mTRAN V 1.0.4.1

June 12, 2018

Update Software for Addition of TT7S12D

mTRAN V 1.0.5.1

August 03, 2018

Update Software for Changes in Input Types supported by TT7S Devices

mTRAN V 1.0.6.1

Dec 13, 2018

Update Input Calibration Part without decimal point and add table to check range easily
Change TT7S12D to TT7S10-D/XP

mTRAN V 1.0.7.1

Dec 16, 2019

Changed Zero, Span, InLO, InHI for TT7S10-D/XP. Updated Ambient Temperature Range for
Negative Ambient Temperature. Changed B-TC Range for TT Models

mTRAN V 1.0.8.1

XYZ AB, 2022

Humidity and Temperature Transmitter Model Added

2. Introduction

mTRAN is Windows Based Software used to Monitor, Configure and Calibrate **TT7S Models, HT7S12 Models and 8 channel Linearized RTD/TC modules** that are in close proximity. The intuitive graphical user interface of the mTRAN configuration tool virtually eliminates the need for operator training after installation on a PC.

3. Software Installation Guide

3.1 System Requirement

Before you install the application verify that you have at least the following:

Hardware:

| | |
|----------------------------|---|
| Computer Processor: | Pentium III/Celeron 866 MHz (or equivalent) or later (32-bit) Recommended (Pentium 4M (or equivalent) or later (32-bit)) Pentium 4 G1 (or equivalent) or later (64-bit) |
| Memory: | 1 GB RAM (recommended 2 GB) and 1.8GHz processor or better |
| Hard Disk Space: | 5 GB of available hard disk space |
| Screen Resolution: | Resolution should be set at 1280 x 768 Pixels (recommended 1366 x 768) |
| Color Palette: | Software contains 16-bit color graphics. It requires a minimum color palette setting of 16-bit color. |

Software:

| | |
|--------------------------|--|
| Operating System: | Windows 10/8.1*/7 SP1** Windows Server 2012 R2* Windows Server 2008 R2 SP1** |
|--------------------------|--|

* Software installs VC2015 Runtime and .NET 4.7.1. Windows 8.1 and Windows Server 2012 R2 require Microsoft updates to support these items. Refer to Microsoft KB2919442 and KB2919355 for more information about how to install these updates.

** Software is signed with a SHA-256 certificate. Windows 7 SP1, Windows Embedded Standard 7 SP1, and Windows Server 2008 R2 SP1 require Microsoft updates to support SHA-256. Refer to Microsoft KB3033929 for more information about how to install this security update.

Additional Software Requirement:

Acrobat Reader 10 or higher version
Microsoft .NET Framework 4.7.1 or higher version required
Microsoft Visual C++ 2015(x86) Redistributable Package

Note: The following list describes restrictions for using software on windows:

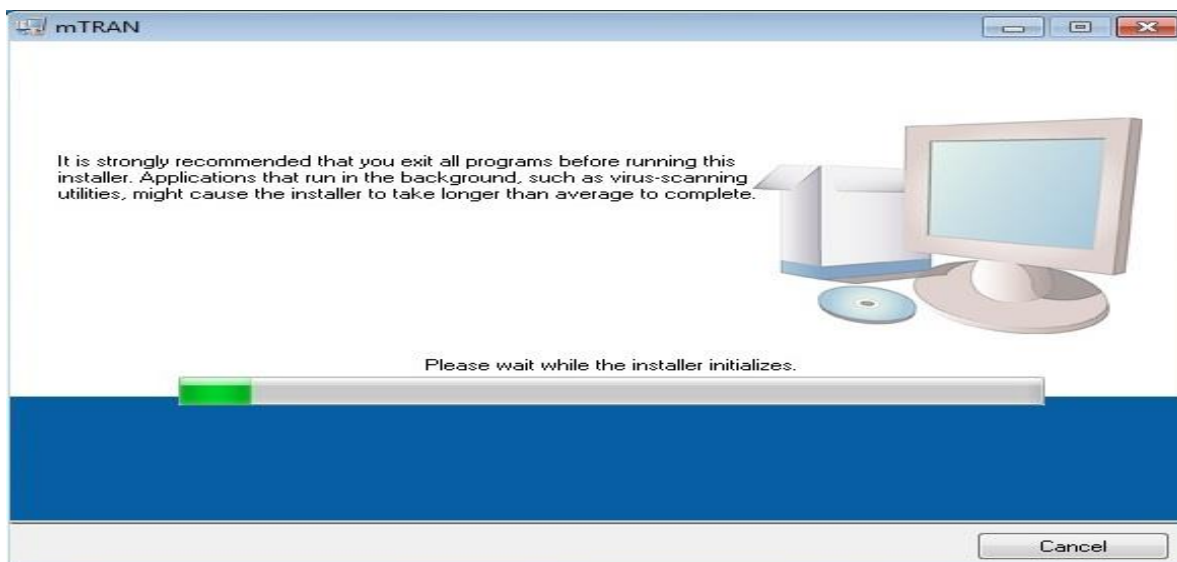
- You cannot access software using a guest account on windows.
- Although the software is designed to work with the windows operating systems listed above, software cannot guarantee operation on OS's no longer supported by Microsoft support life cycle policy.
- If Windows Update is enabled, the installation process might hang if Windows Update interferes with the installation of Microsoft Visual C++ Redistributable Package.
- If you purchased this software, use the installation media that shipped with your purchase to install this software.
- Software does not support and will not install or run on windows 2000 / NT / Me / 98 / 95 / XP / windows vista / Windows 7 RTM (with no service pack).

3.2 mTRAN Installation

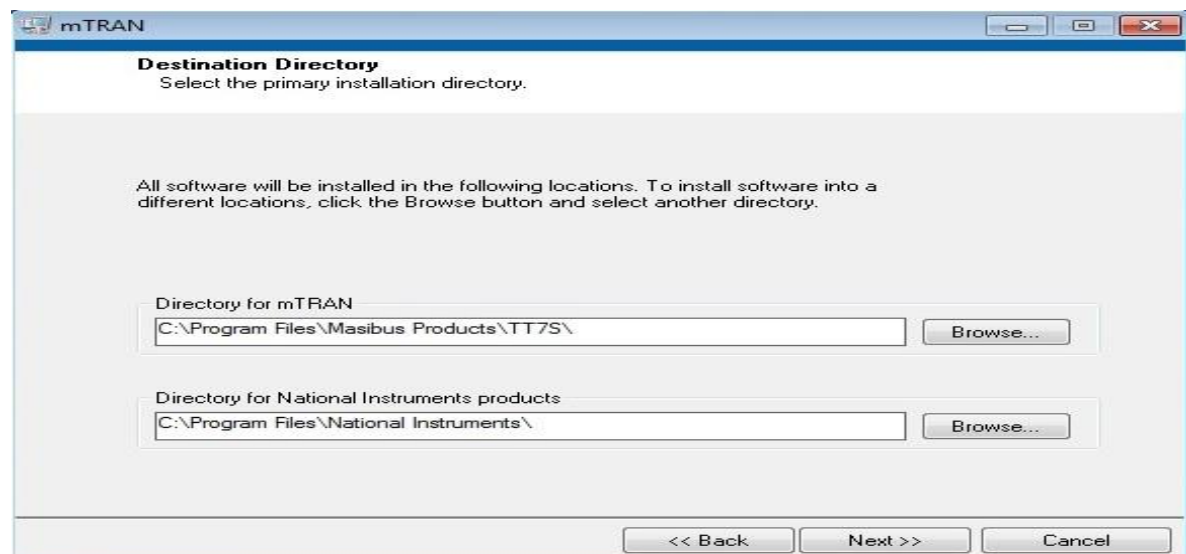
1. To install the software, Download '**mTRAN**' from Masibus Website. The setup.exe file is available in the Setup\Volume\directory as shown in below image.

| Name | Date modified | Type | Size |
|--------------|--------------------|-----------------------|----------|
| bin | 11-Oct-17 12:53 PM | File folder | |
| license | 11-Oct-17 12:53 PM | File folder | |
| supportfiles | 11-Oct-17 12:53 PM | File folder | |
| nidist.id | 11-Oct-17 12:29 PM | ID File | 1 KB |
| setup.exe | 25-Oct-16 4:30 PM | Application | 1,430 KB |
| setup.ini | 11-Oct-17 12:29 PM | Configuration sett... | 19 KB |

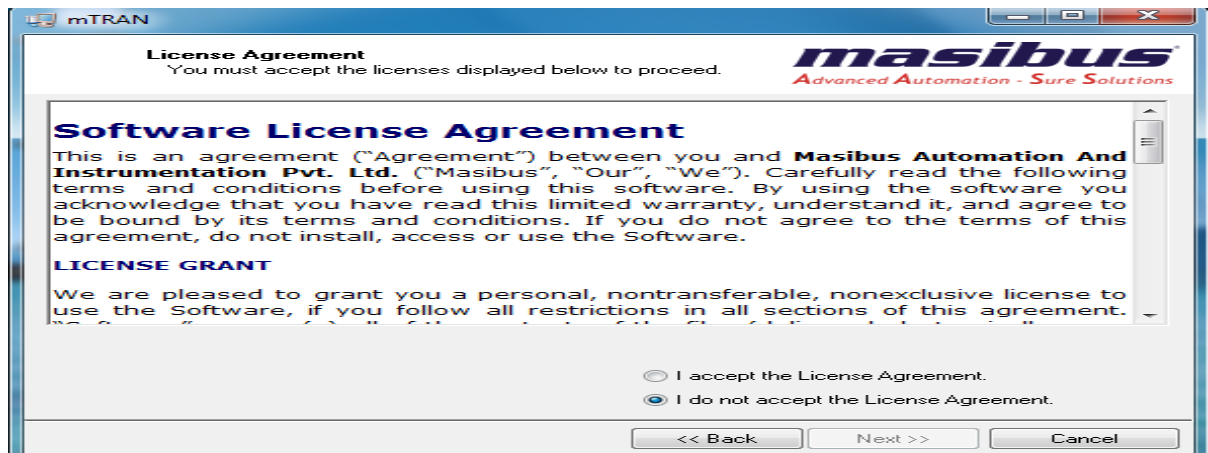
2. The '**mTRAN**' screen will appear in a moment (shown below).
3. Select **Next** at the '**mTRAN**' screen (shown below).



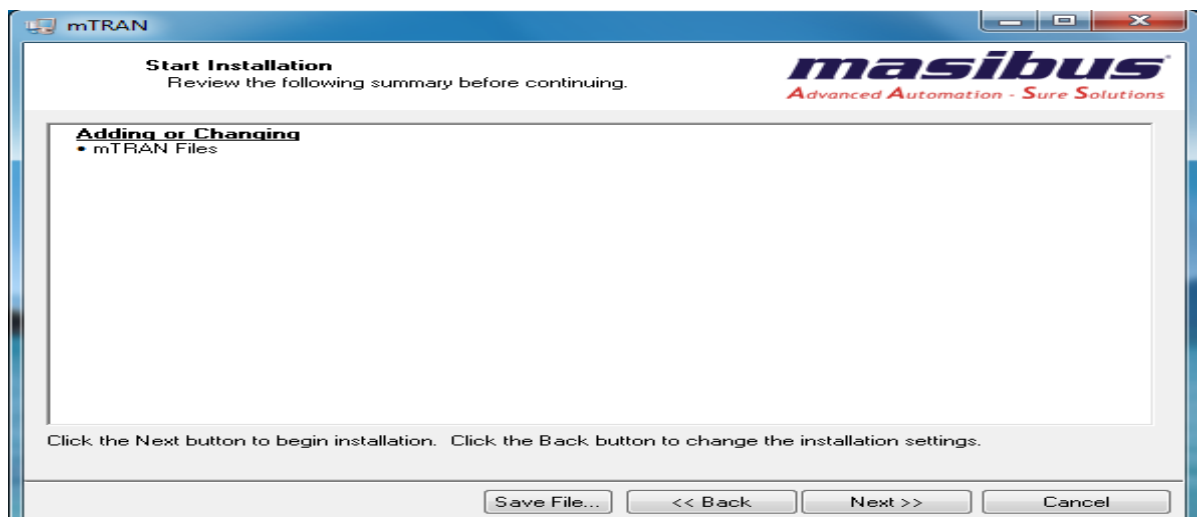
4. On the '**Destination Directory**' screen, click **Next**. The user can change the installer folder, if required. It is recommended to keep it at the default.



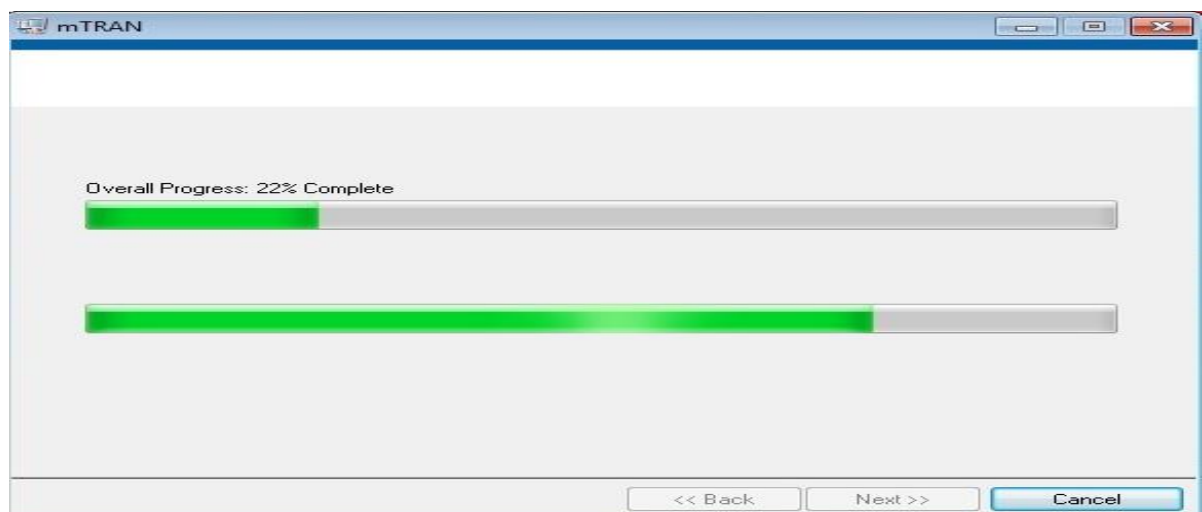
5. Installer will appear masibus and national instruments software license agreements. Read the license agreement and accept it.



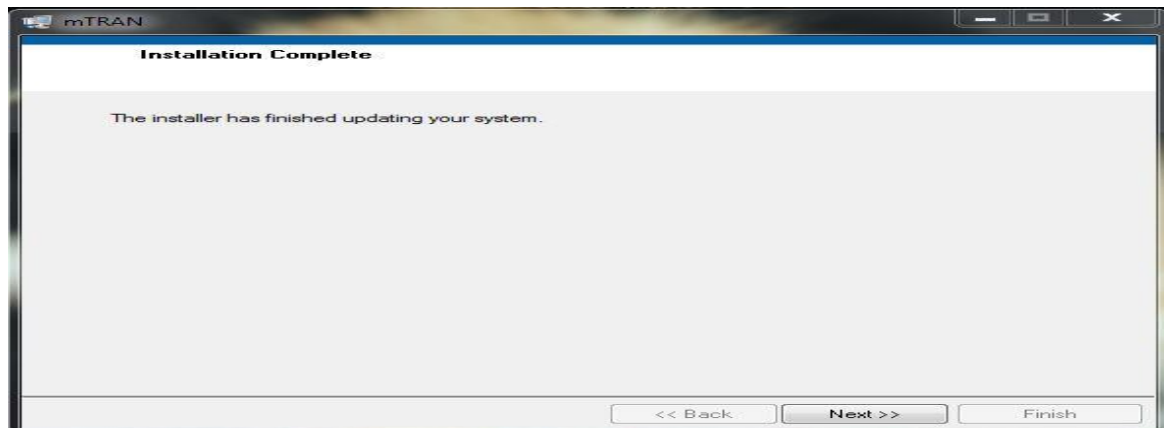
6. Click **Next** on “Start Installation” Screen to begin the Installation.



7. Files are now installing and validating in selected destination folder.
8. This process will take a few minutes.



9. After software have been installed successfully then screen appears shown as below.
10. Click **Next** on “Installation Complete” Screen to begin the driver Installation.



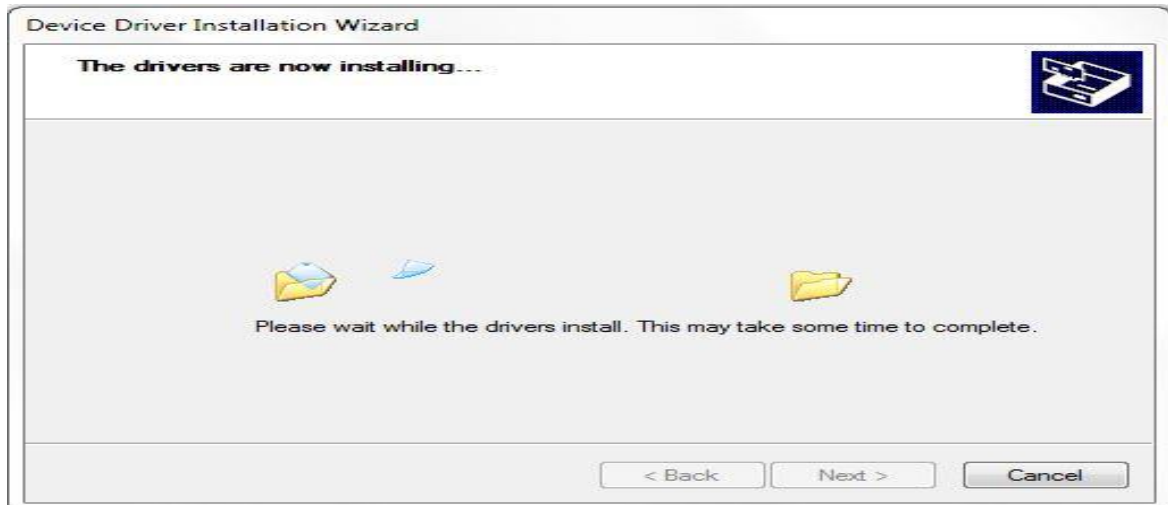
11. Screen as shown below appears for FTDI CDM driver installation. Click **Extract** to unpack version 2.10.00 of FTDI's windows driver package and launch the installer.



12. Click **Next** on “Device Driver Installation Wizard” Screen for driver Installation.



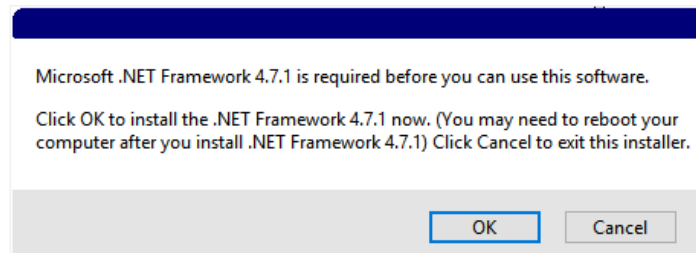
13. Drivers are now installing. This process will take a few minutes.



14. After drivers have been installed successfully then finish screen shown as below appears. Click on “**Finish**” to complete driver installation.



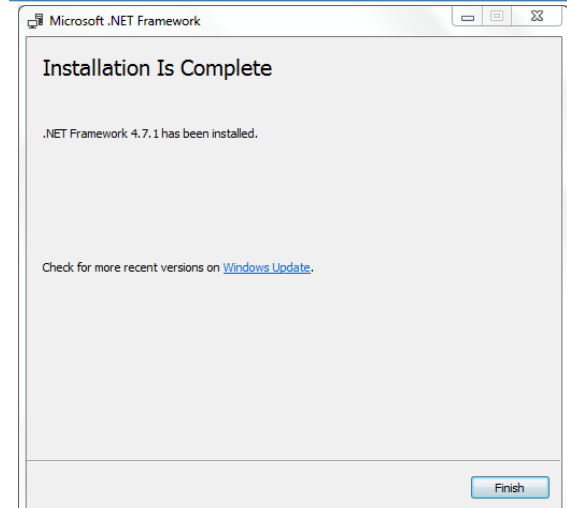
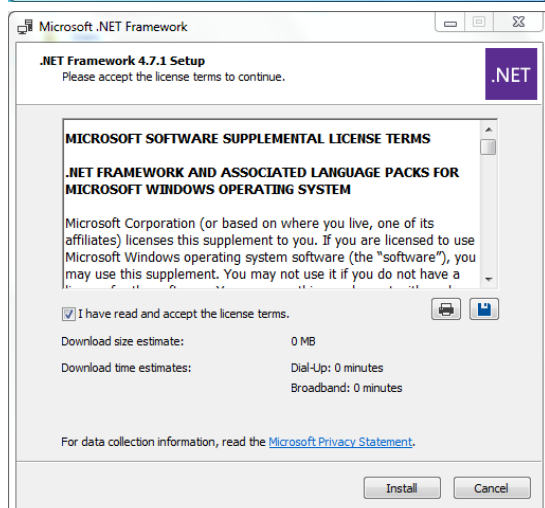
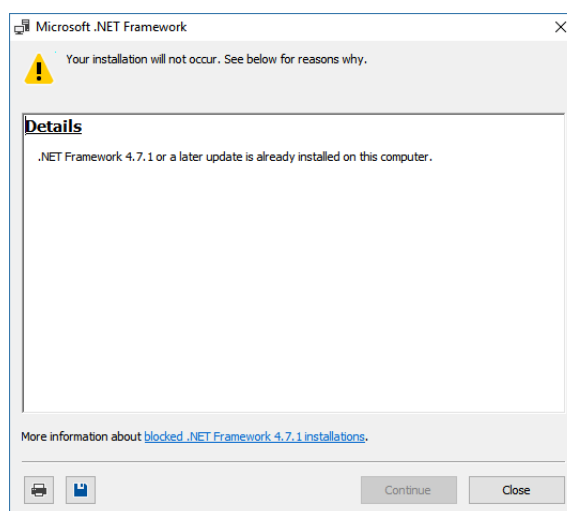
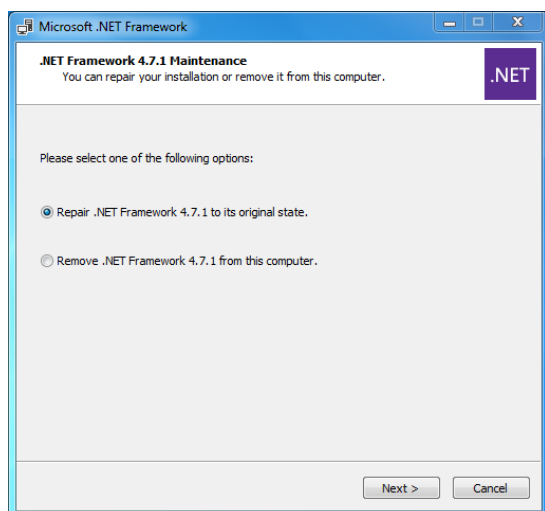
15. After clicking “**Finish**” button, driver installer setup program will install .NET Framework 4.7.1



16. User need to select **OK** to install .NET Framework or **Cancel** to discard.

17. If the .Net 4.7.1 Framework has already been installed and you attempt to run the install .Net 4.7.1 Framework, a window asking to repair or remove the .Net 4.7.1 Framework will appear. It is recommended to select the **Cancel** button when this page appears. If the higher version of .NET

Framework is present in the client PC, then it will automatically proceed to the next level OR may be promote as a warning as shown. It is recommended to select the **Cancel** button when this page appears. If user click **OK** button, setup will execute and extract to a suitable place.



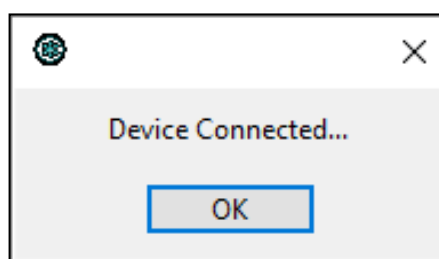
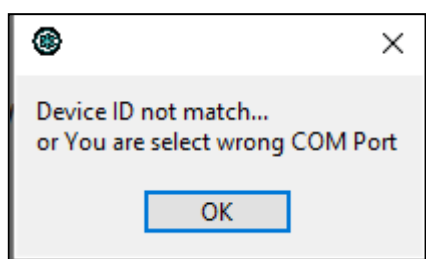
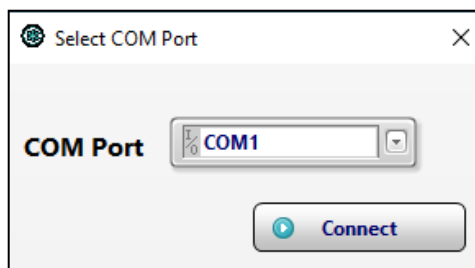
18. Installer will appears Microsoft software license term. Read the license and accept it and click on **Install**. When the Installation Is Complete screen appears, click **Finish** to exit the wizard.

19. You may be prompt to restart your computer dialog box when mTRAN software have been successfully install. Click on **Restart**. It is recommended to restart your system after installation to update DLL that is loaded in one or more process that are required by windows or make changes to the registry.

4. Software Operational Manual

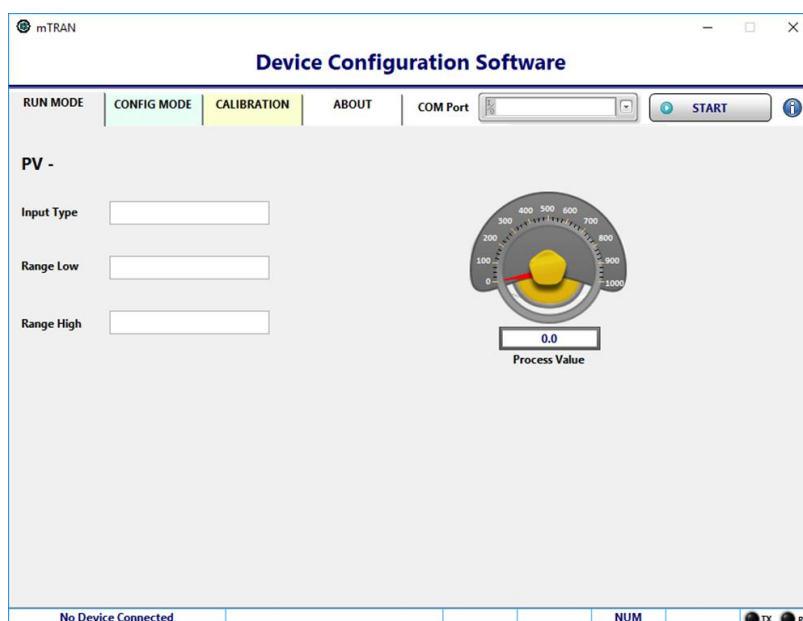
4.1 Device Detection Mode

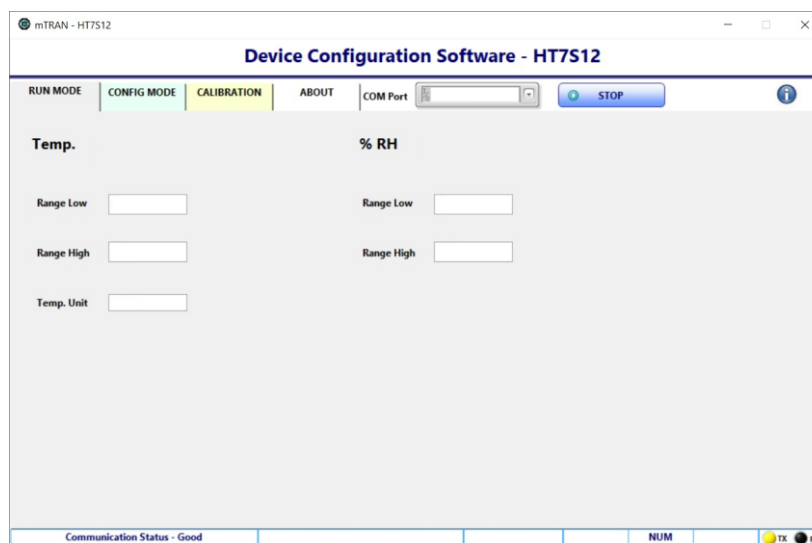
The Device Detection mode is used to select the COM Port from Dropdown Window. User can press connect button after selection of right COM Port. If the wrong COM Port selected, Error shows, "Wrong COM Port Selected / Device Not Connected". If the right COM Port is selected, Pop up window shows "Device connected" message, and it will redirect to RUN Mode after click on OK Button.



4.2 Run Mode

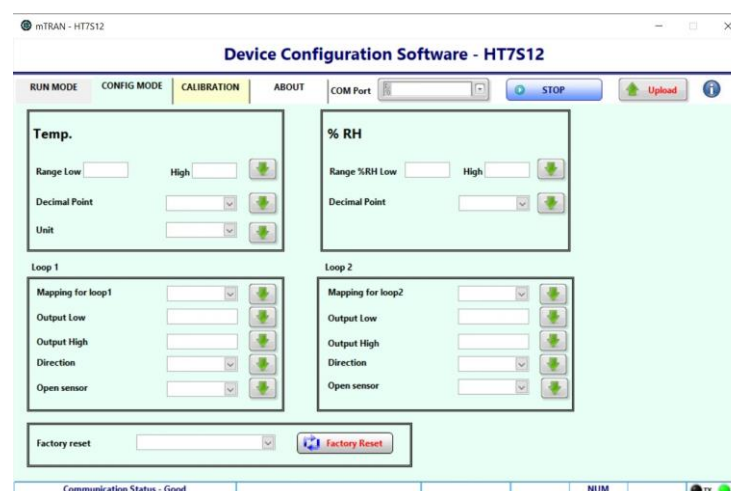
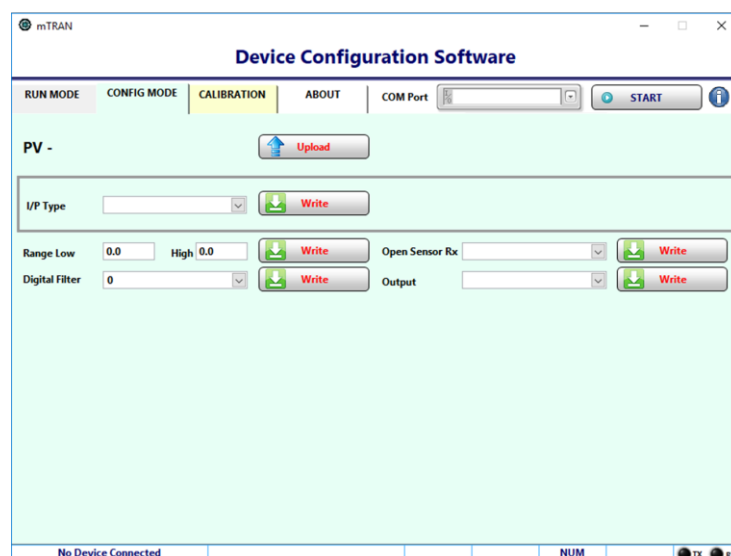
Run Mode displays process values, Input Types, Range Low, Range High, Ambient Temperature, Start and Stop communication buttons are available in the screen. And User Can Start/Stop communication.





4.3 Configuration Mode

In configuration mode user can set all configurable parameters given in Device.



After successfully write/download, the status message displays in status box.

4.4 Calibration Mode

In calibration mode user can calibrate connected Device.

Device Configuration Software

RUN MODE | CONFIG MODE | **CALIBRATION** | ABOUT | COM Port: [COM1] [START]

PV -

AMB CAL: 0 [Write]

I/P CAL Zero: 0 [Write]

I/P CAL Span: 0 [Write]

☐ O/P CAL Zero ☐ O/P CAL Span ☒ Exit

O/P CAL Zero: 0.000 [Write]

O/P CAL Span: 0.000 [Write]

| Input Type | Input Cal. Range |
|---------------------------------------|------------------|
| E - TYPE TC | -2000 to 10000 |
| J - TYPE TC | -2000 to 12000 |
| K - TYPE TC | -2000 to 13700 |
| T - TYPE TC | -2000 to 4000 |
| B - TYPE TC | 4500 to 18000 |
| R - TYPE TC | 0 to 17500 |
| S - TYPE TC | 0 to 17500 |
| N - TYPE TC | -2000 to 13000 |
| RTD - 3 Wire, RTD - 4 Wire | -2000 to 8500 |
| Linear (0 - 75 mV, 0 - 500 mV) | -1999 to 9999 ** |
| Potentiometer (2.5K POT / Resistance) | -1999 to 9999 ** |

* All values must be enter without decimal point in input calibration
For ex. to calibrate at 102.5 OR 10.25, user have to enter 1025

** For Linear & Potentiometer Input Type, Input Cal. Range depends on PV Low & PV High Range configured in device

No Device Connected | NUM | TX RX

Device Configuration Software - HT7512

RUN MODE | CONFIG MODE | **CALIBRATION** | ABOUT | COM Port: COM4 [STOP]

Temp. **% RH**

Temp. Offset: [] [Write]

Temp. Gain: [] [Write]

RH. Offset: [] [Write]

RH. Gain: [] [Write]

Loop 1 **Loop 2**

☐ O/P CAL Zero ☐ O/P CAL Span ☒ Exit

O/P CAL Zero: 0.000 [Write]

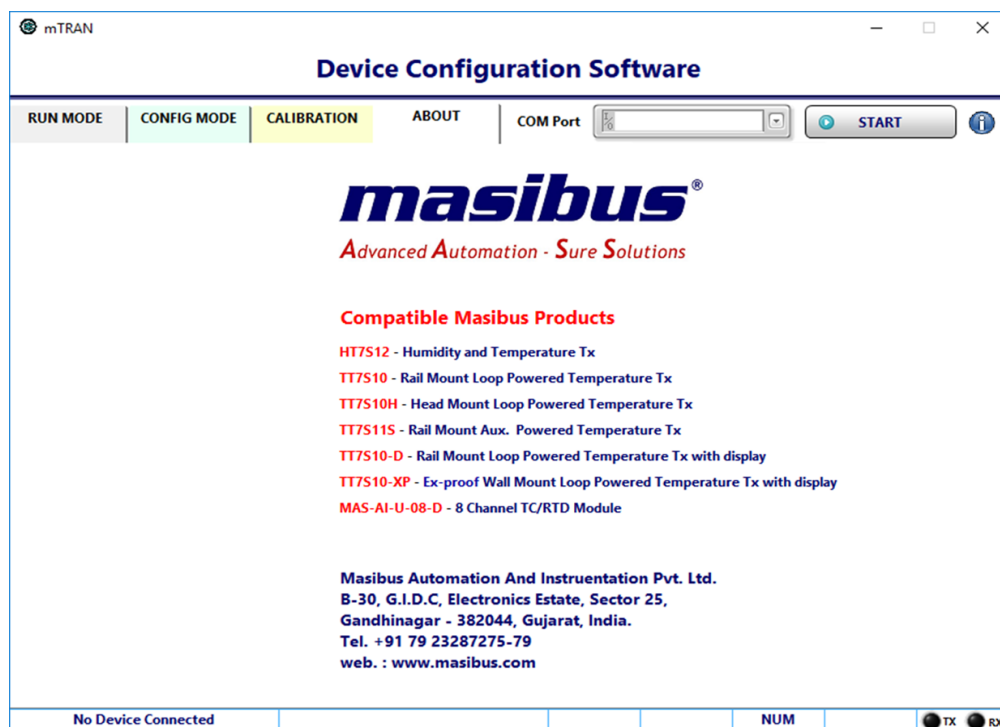
O/P CAL Span: 0.000 [Write]

Communication Status - Good | NUM | TX RX

After successfully write/download, the status message displays in status box.

4.5 About

This screen shows about software version. As shown in figure mTRAN is used to configure TT7S10, TT7S10-H, TT7S11S, TT7S10-D, TT7S10-XP, HT7S12 and MAS-AI-U-08-D.



5. USB Driver Installation Guide

If drivers are not successfully installed automatically than you can install the drivers manually.

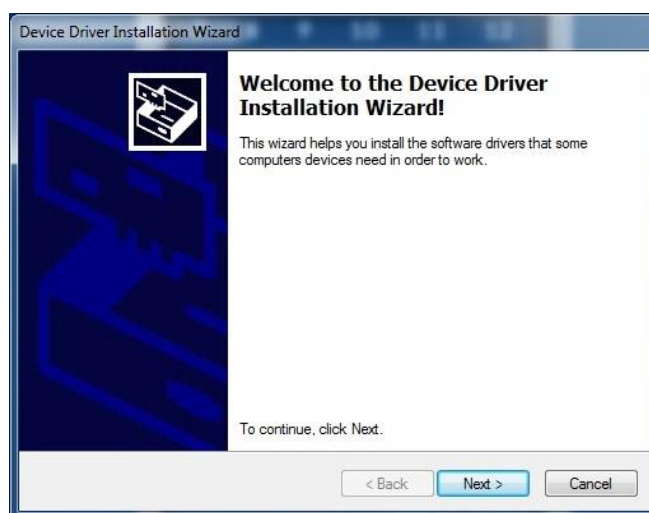
Driver Installation Guide (USB232):

The CD-ROM provided with the kit should be inserted into the CD-ROM drive of the PC prior to plugging in the device. Plug in your device. This should bring up a "**Found New Hardware**" Notification. In CD-ROM drive, there is one folder named "mTRAN Driver". Double Click on mTRAN Driver Folder. In this Folder, One file appear as "CDM v2.10.00 WHQL Certified". Run this file by Double Clicking on it.

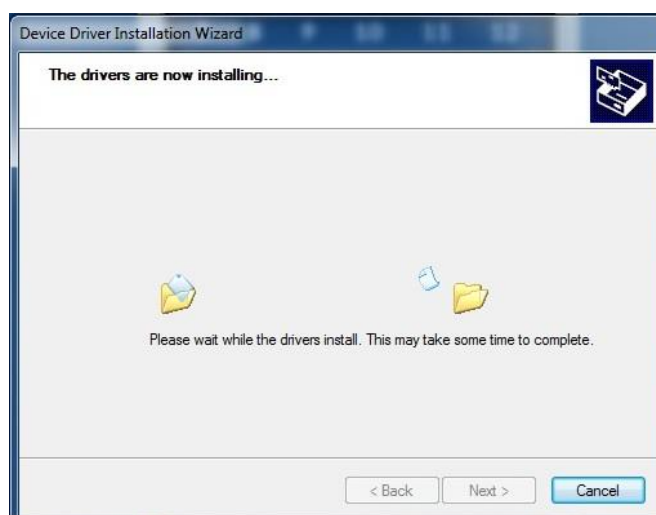
Screen as shown below appears for FTDI CDM driver installation. Click Extract to unpack version 2.10.00 of FTDI's windows driver package and launch the installer.



Click Next on “Device Driver Installation Wizard” Screen for driver Installation.



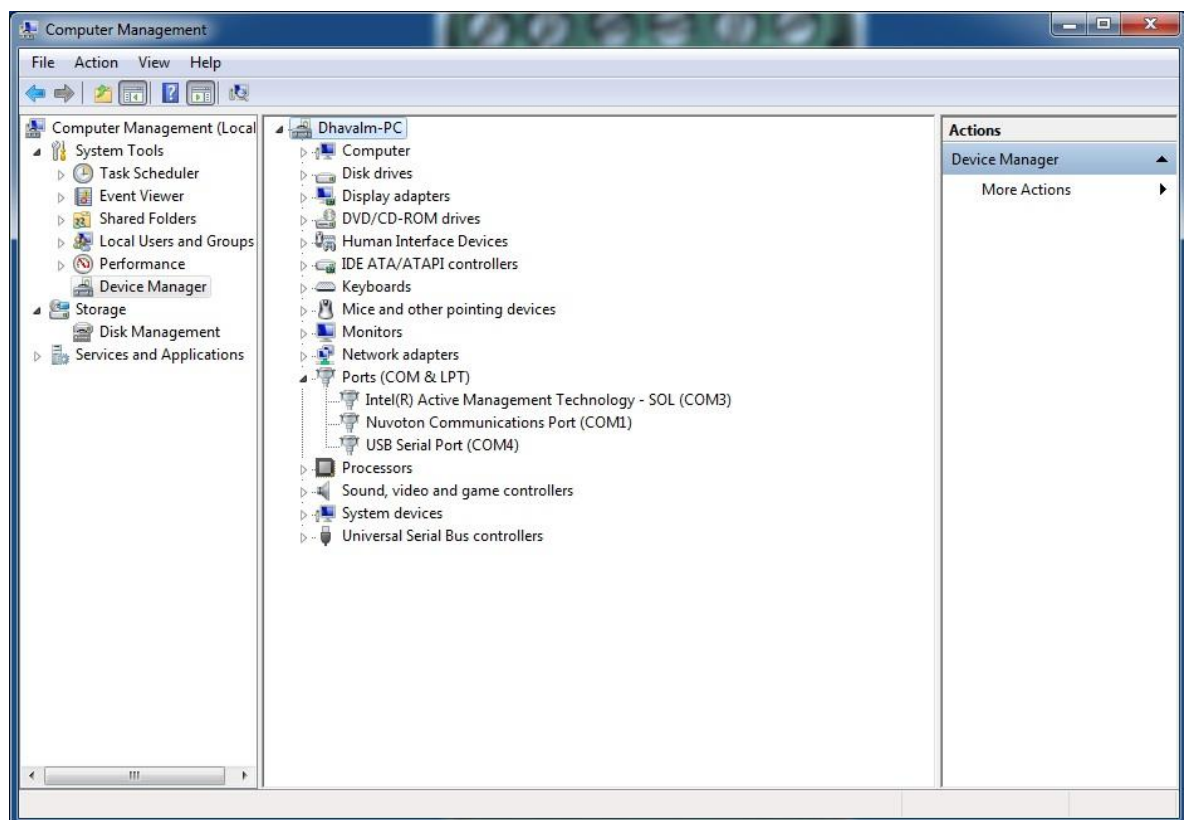
Drivers are now being installed. This process will take a few minutes.



After drivers have been installed successfully the finish screen shown as below appears. Click on "**Finish**" to complete driver installation.



After Installation is complete please check the Device manager settings as shown below mark showing of "**USB Serial PORT**"



In **Device Manager**, User can change the COM port number of a USB serial port. From **Device Manager**, select "**View devices by type**", then "Ports (COM & LPT)". Select the **USB serial port** and click **Properties**. Select the "**Port Settings**" tab, and then click **Advanced**. Choose the required COM port number from the list and click **OK**.

Notes:

If a modem is attached to the USB serial port when the port number is changed, it will continue to work under the new port number.

If a modem had been attached to the USB serial port but was not attached when the port number was changed, it will not work when re-attached under the new port number. In this case, the modem must be removed from the system and re-installed.

In general, if there are devices in the system which has been attached previously to the USB serial port, they may not work after the port number has been changed. If this is true, remove the device from the system and re-install it.

6. Contact Information

For further information described in this manual, please contact at
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