

Quick Setup: Getting started with your MTi or MTx

Please, read these instructions before connecting and using MTi/MTx for the first time.

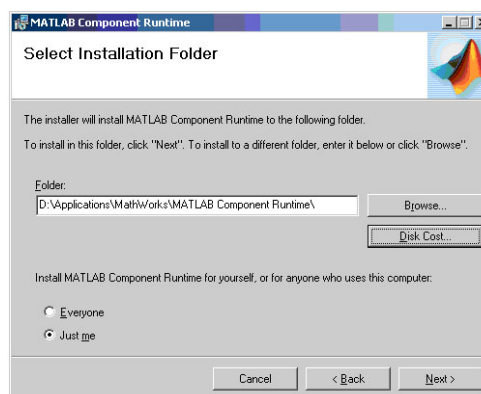
Contents MTi/MTx Development Kit

The MTi/MTx Development Kit contains the following items:

- **MTi or MTx**
- Device individual calibration certificate
- **USB-serial data and power cable, 5 meters (CA-USB2/ CA-USB2x/ CA-USB4x / CA-USB6)**
- MTi and MTx User Manual and Technical Documentation [MT0100P]
- MTi and MTx Low-level Communication Documentation [MT0101P]
- **MT Software Development Kit CD-ROM**
 - o MT Software (PC Windows 2000/XP)
 - o MT Communication C++ class (C++ source code)
 - o MotionTracker object, COM object API (Windows)
 - o Example source code (C/C++, MATLAB, LabVIEW, VisualBasic)
 - o Magnetic Field Mapper add-on (PC Windows 2000/XP)
 - o MT SDK documentation [MT0200P]
 - o MT Software documentation [MT0201P]
 - o MT Magnetic Field Mapper Documentation [MT0202P]
- **A letter with your individual software license code**
- This MTi and MTx Quick Setup sheet

Step 1: Software Setup

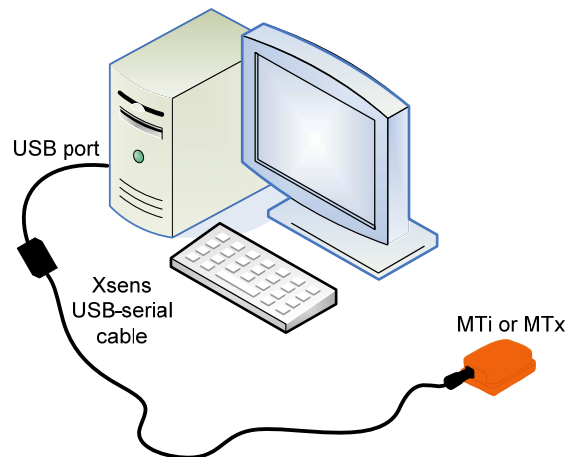
- Use the CD to run the **MT SDK Installer** (setup.exe) as a user with '**Administrator**' or '**Power User**' rights if you install on Windows NT/2000/XP. During installation, you will be asked for your **individual registration number**, which can be found in the letter accompanying the product.
- The Installer will also install the drivers for the **Xsens USB-serial Converter**.
- The installer will also install the MATLAB Component Runtime (MCR), which is only needed for the Xsens Magnetic Field Mapper Software. It is advised you install the MCR when indicated. A dialog as shown below will guide you through the process.



- After completing "Step 2: Hardware Setup" we advise to run the "MT Software", see "Step 3: First Use".

Step 2: Hardware Setup

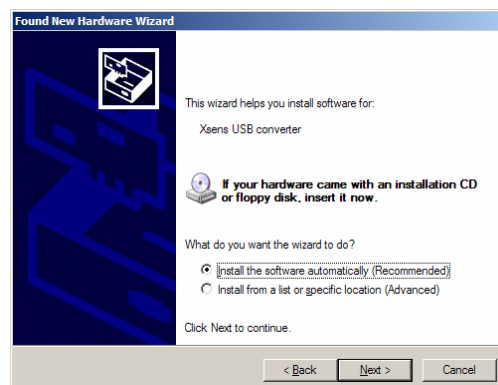
- Connect your MTi / MTx with the cable to a free PC USB port (USB 1.1 or higher), see the following scheme:



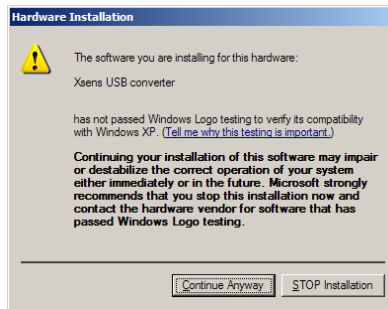
- The Xsens USB-serial cable requires 2 drivers to be installed. The procedure for each driver is the same. The following devices will be installed:
 1. Xsens USB converter
 2. Xsens Virtual COM port
- Below the procedure is explained with number 1 as example.
- After connecting the Xsens USB Converter to the PC, Windows will start the “Found New Hardware Wizard”.



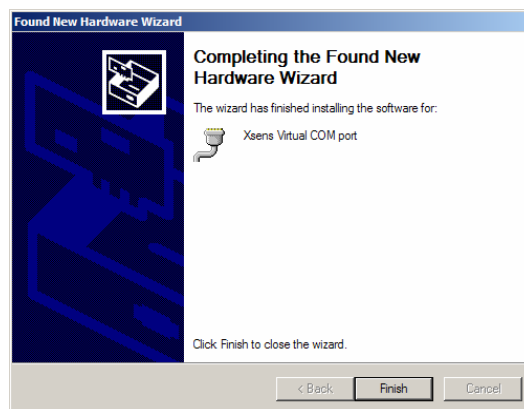
- Select “No, not this time”.
- The “Found New Hardware Wizard” detects the “Xsens USB converter”. Select “Install the software automatically (Recommended)”.



- Click “Continue Anyway” on the “Hardware Installation” prompt on the Windows Logo testing.



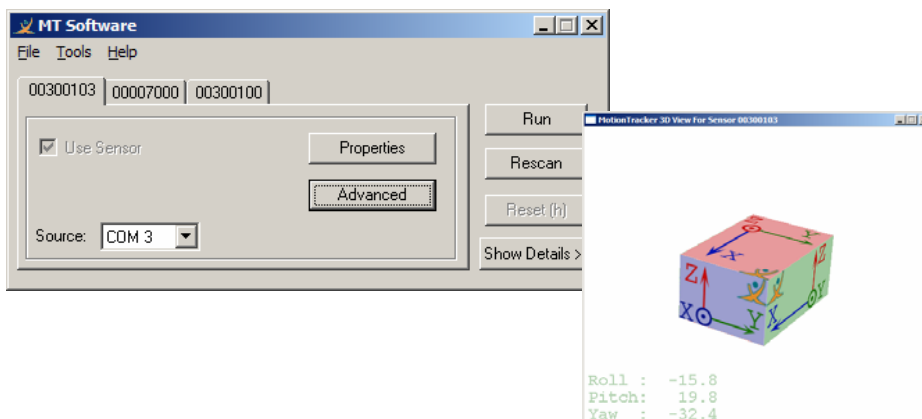
- The “Xsens USB Converter” is now installed.



- Repeat these steps for the “Xsens Virtual COM port”.
- Now the Xsens USB-serial cable is ready for use.

Step 3: First use

- Make sure the MTi/MTx is connected to your PC, then run the MT Software
- The easiest way to check if the MotionTracker is running and configured correctly is **to view the 3D representation* of the MT9 in the MT9 Software.**
 - ➔ In the Tools menu ➔ Options, select 3D View.
- When you have set the 3D view and output options to your satisfaction, use ‘Run’ to start a measurement. For optimal operation it is advised that the MT9's remain **quasi-static (no motion) for 5 s after pushing ‘Run’.**



* Please make sure your PC's Graphics Card meets the requirements for 3D graphical output (refer to System Requirements in the **MT Software Manual**).

Installed Documentations

For a quick reference on what to do next, please read the following:

Getting Started with the MT Software

The easiest way to get started with your MTi or MTx is to use the **MT Software**. This easy to use software with familiar Windows user interface lets you view 3D orientation in real-time, log ASCII data files, change and view various device settings and properties. It is an easy way to get to know and to demonstrate the capabilities of the MTi and MTx miniature inertial measurement units.

→Please refer to the **MT Software User Manual** for more information on this topic!

Interface through COM-object API

If you want to develop a software application that uses the MTi or MTx you can consider using the COM-object API (MTObj.DLL) which provides easy to use function calls to obtain data from the sensor or to change settings. The COM-object takes care of the hardware communication interfacing and it is an easy way to get (soft) real-time performance. Both polling and events based methods are supported.

→Please refer to the **MT Software Development Kit Documentation** for more information on this topic!

NOTE: This provides backwards compatibility of your software developed for the MT9-B

Direct low-level communication with MTi or MTx

Direct interfacing with the MTi or MTx (RS-232/422/485) is the natural choice if you are looking for full-control, maximum flexibility and/or have hard real-time performance requirements. The MTi/MTx's low power embedded DSP does all the calculations/calibration, you just retrieve the data from the COM-port using the MTi/MTx binary communication protocol using with streaming (free-running) mode or request mode. Even this part is made easy for you by the inclusion of the source code (C++) of the MT Communication C++ class in the MT SDK. Example C/C++ application code should get you quickly started on your development platform of choice.

*You will find links to all installed files in Windows **Start Menu** → **Programs** → **Xsens***

Support

If you have any questions and require support, please visit the support section on <http://www.xsens.com>. You can also contact us via e-mail on support@xsens.com, or telephone (+31 534 836 444) and ask for the Support Team.

Xsens Technologies B.V.
www.xsens.com

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