iOptron .NET ASCOM 2.4 and Remote Control Panel

iOptron .NET ASCOM driver 2.4 provides a connection between an iOptron EQ mount and a computer through a serial cable. This version covers the following iOptron mount:

- iEQ30/iEQ45 with 8407 hand controller (connecting via RS232 port on the mount)
- ZEQ25/SmartEQ/SmartEQ Pro (connecting via serial port on the 8408 hand controller)

The following hardware and software are needed to perform the job:

- ASCOM Platform 6. Download and install it from http://www.ascom-standards.org.

- iOptron Telescope .NET ASCOM Drive. Download and install it from http://www.ioptron.com, under Support directory.

- Make sure you computer has Microsoft .NET Framework 3.5 SP1 or up is installed.

- Buy/download planetarium software and install it.

- RS232 cable (for iEQ30/iEQ45 mount) or RS232-RJ9 cable (for ZEQ25 or SmartEQ mount)

- USB to RS232 converter and driver. If your computer does not equip a RS232 port (a 9-pin D-shaped connector) except the USB port, you need to buy a USB to RS232 converter, form a computer hardware store or on-line.

1. Find the serial port (COM port) number from your computer:

In order to enable planetarium software to control the mount, the communication between the PC and the mount has to be established.
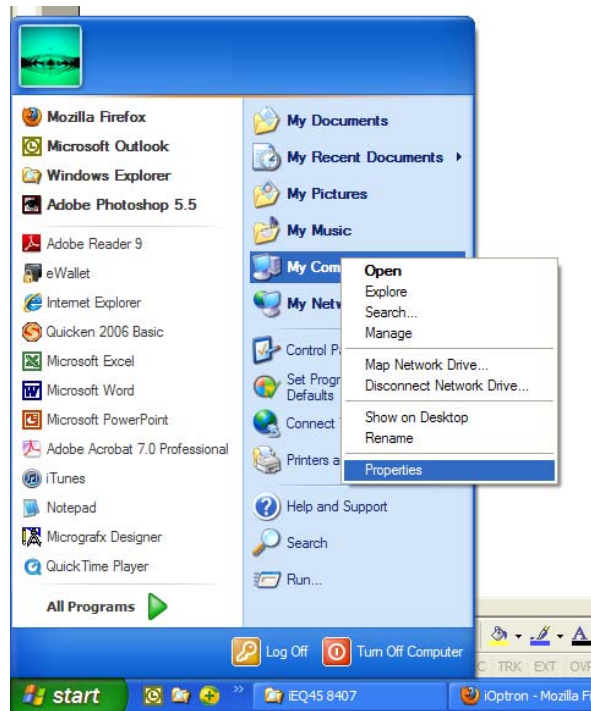
The first step is to find the COM port number. If your computer has a RS232 port, (9-pin D-shape male connector on the back, next to the 25 pin printer connector), the default assigned number is COM1.

If your computer only has USB ports, like most laptops do, you need a USB to COM converter to convert one USB port to a COM port. Here are two examples of USB2COM converters.
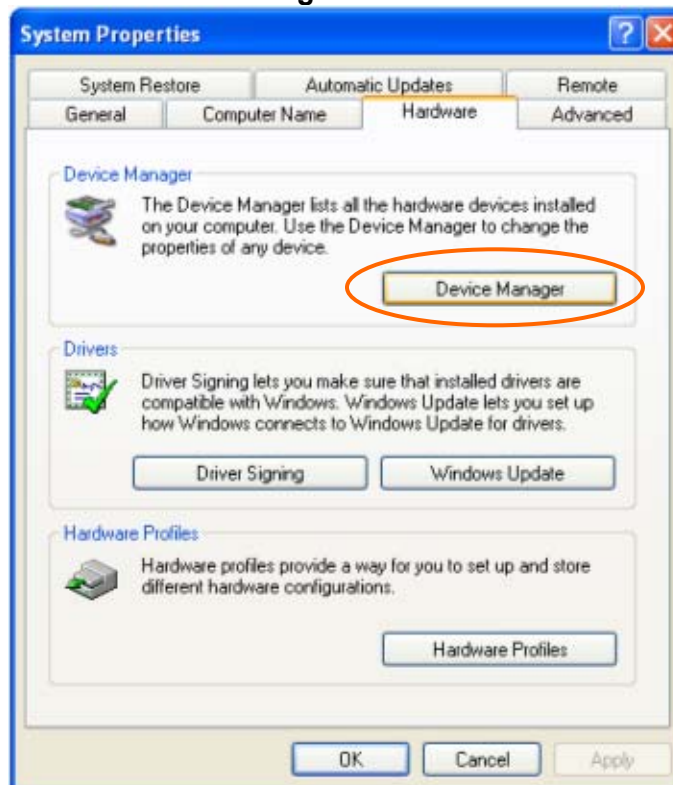

After install the USB2COM driver that comes with the device, click on **Start** located on the left bottom corner of your compute screen. Move the mouse to **My Computer** and right click on it.
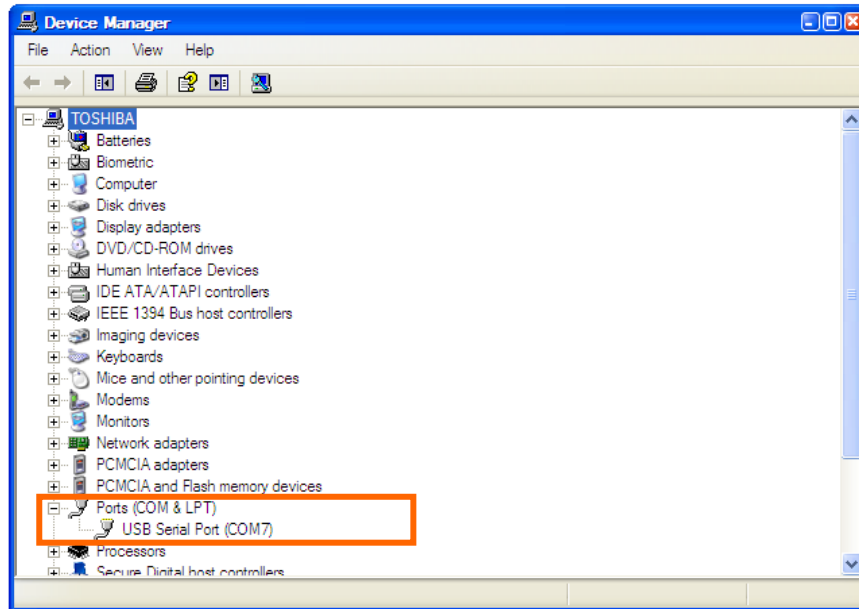
Move the mouse down and click on **Properties** (Or find **Device Manager** in other Windows operation system):

Click on **Hardware** and select **Device Manager**.

Double click on **Ports (COM & LPT),** find out the COM number and write it down (in the following figure, the USB2COM converter uses a Prolific chipset and the assigned port number is COM7)
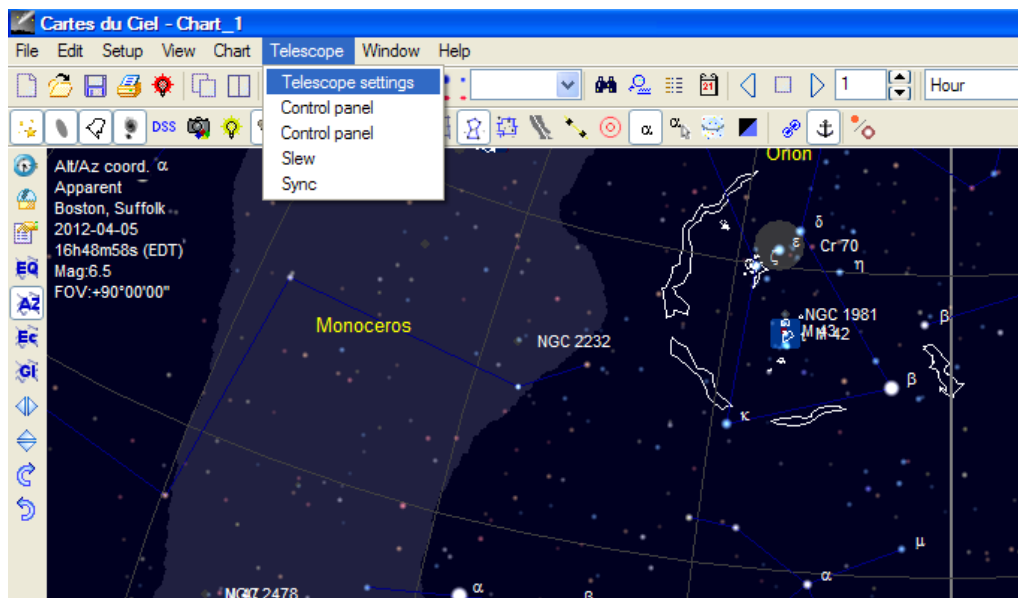

Connect your PC and iEQ45 mount using supplied RS232 cable. Turn the mount power on.
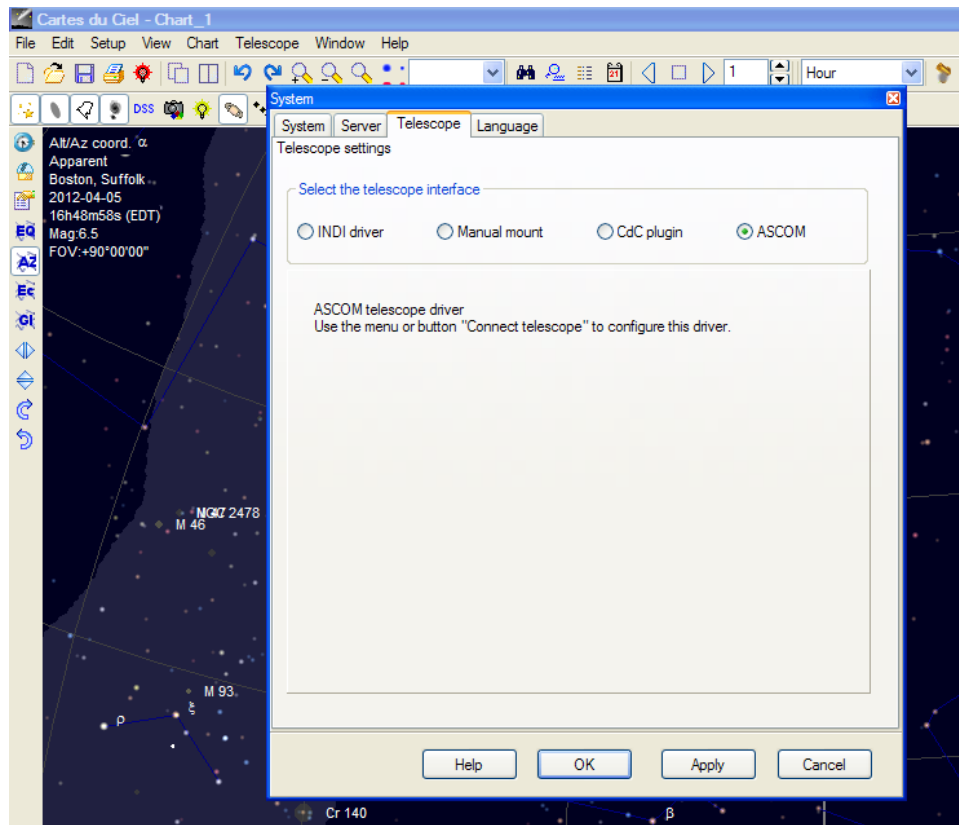
2. Establish the ASCOM connection between the mount and the planetarium software:

As a general instruction, a freeware planetarium software, *Cartes du Ciel*, is used as an example. Please refer to you own software manual for detailed operation.
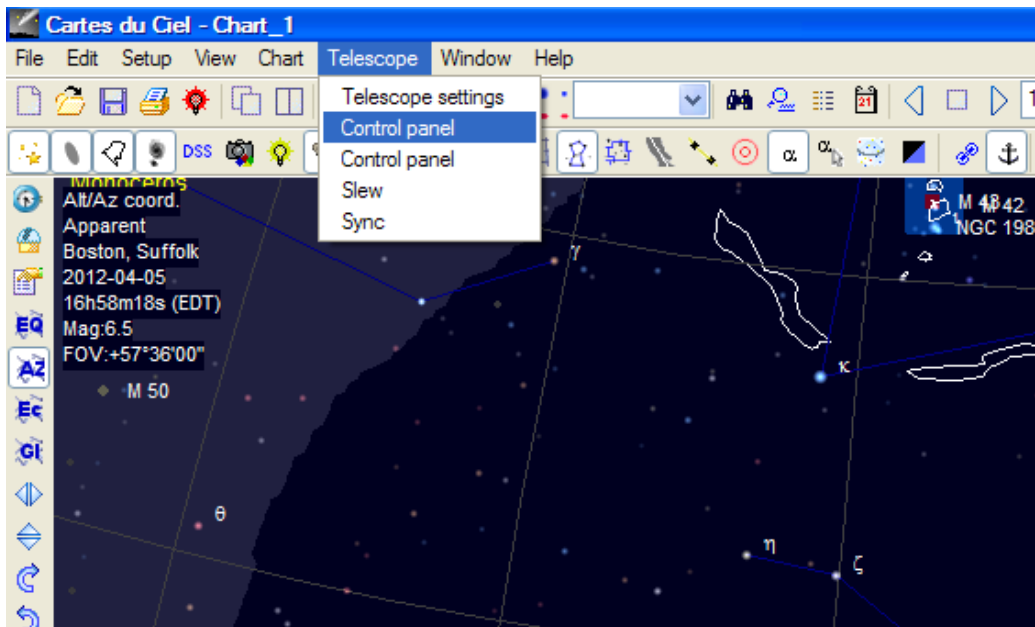
1. Open *Cartes du Ciel*. Select **Telescope settings** in **Telescope** pull-down manual.
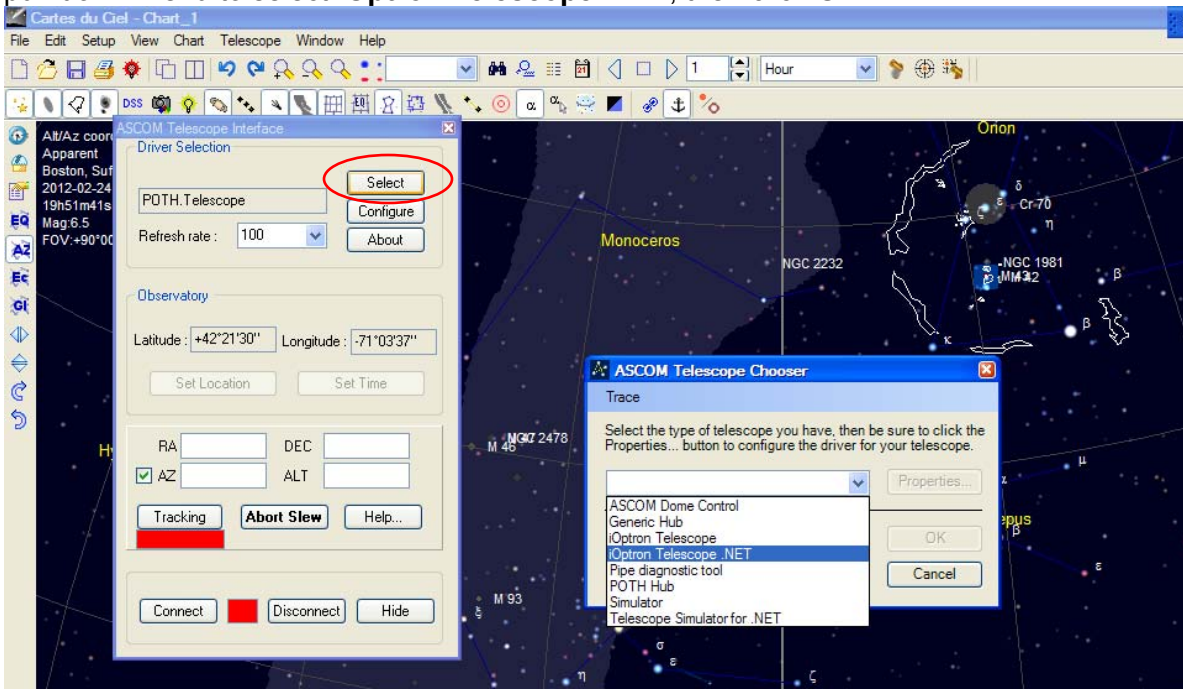
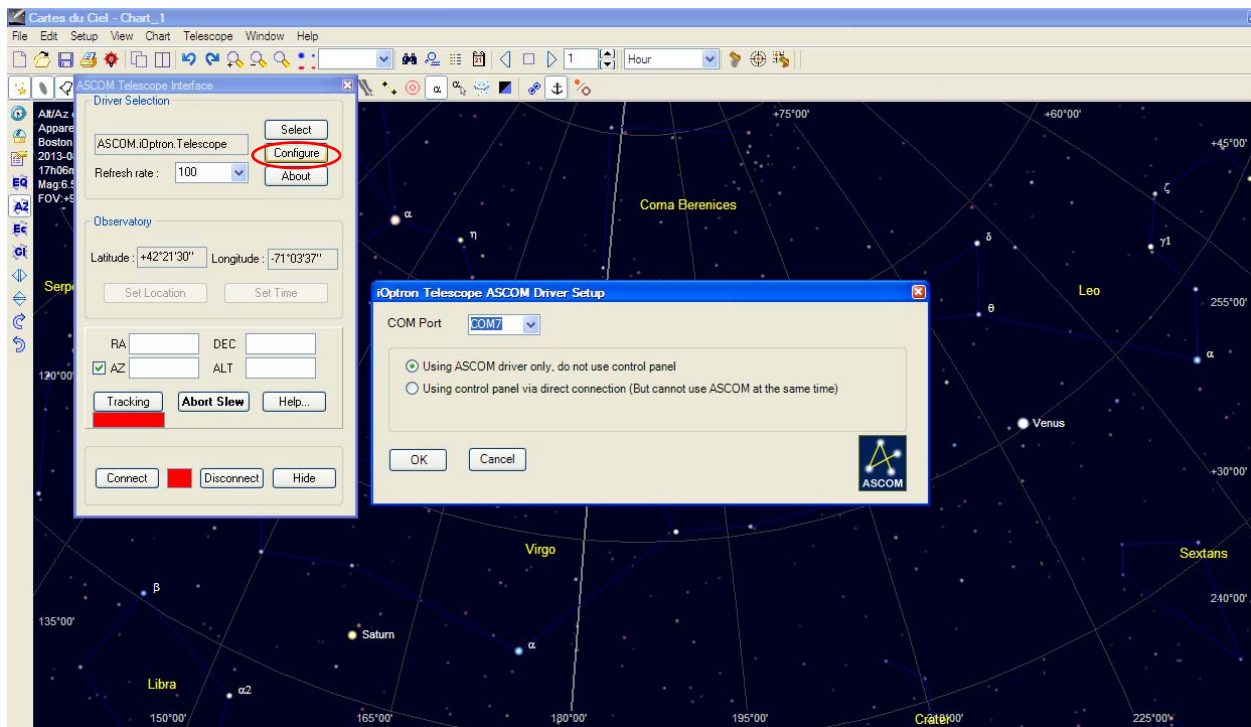2. Select **ASCOM** as the telescope interface and click **OK**.

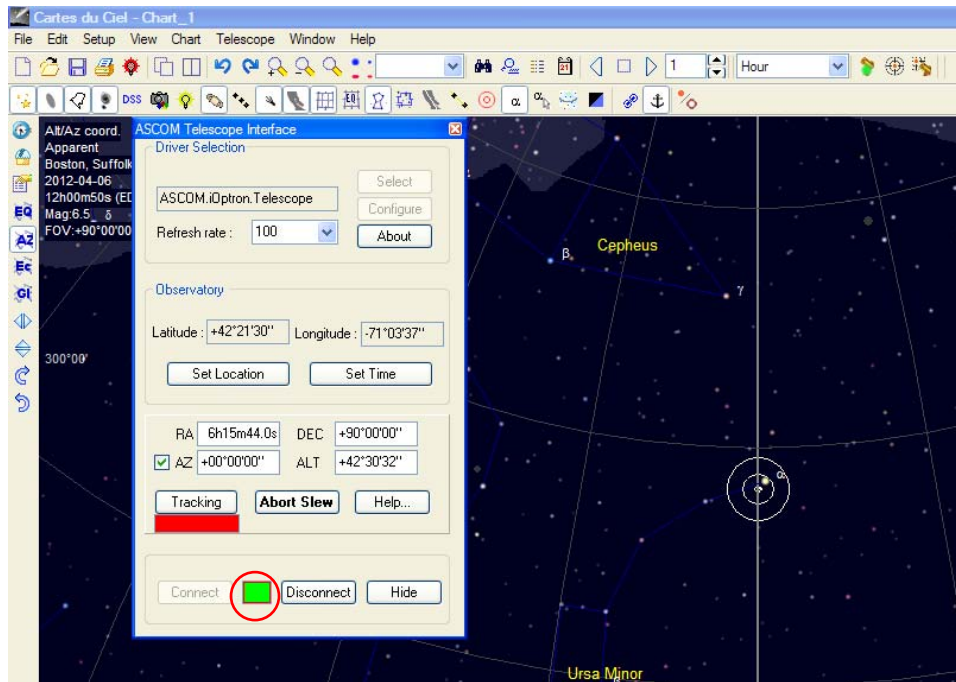3. Select **Control panel** in **Telescope** pull-down manual.

4. Click on **Select** button, an **ASCOM Telescope Chooser** window will pop-up. Click on the pull-down menu to select **iOptron Telescope .NET**, then click **OK**.

5. Click on **Configure**. In **iOptron Telescope ASCOM Driver Setup** pop-up window, select COM7 port from the **COM Port** pull-down menu. Select "Using ASCOM driver" and Click OK.
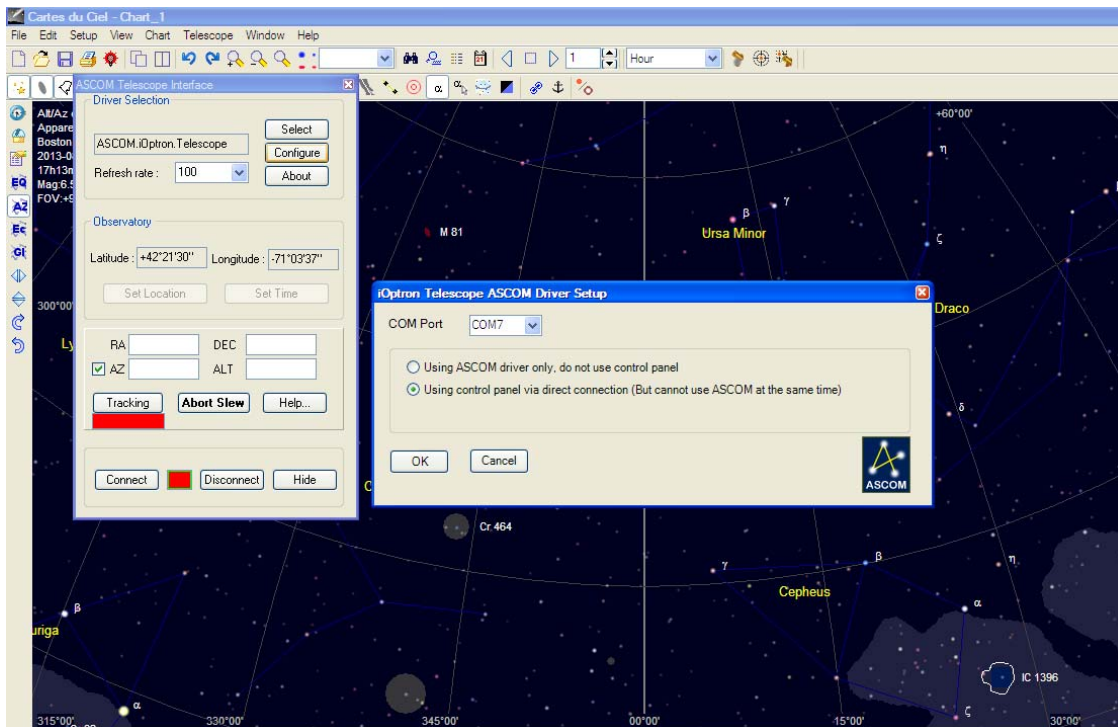
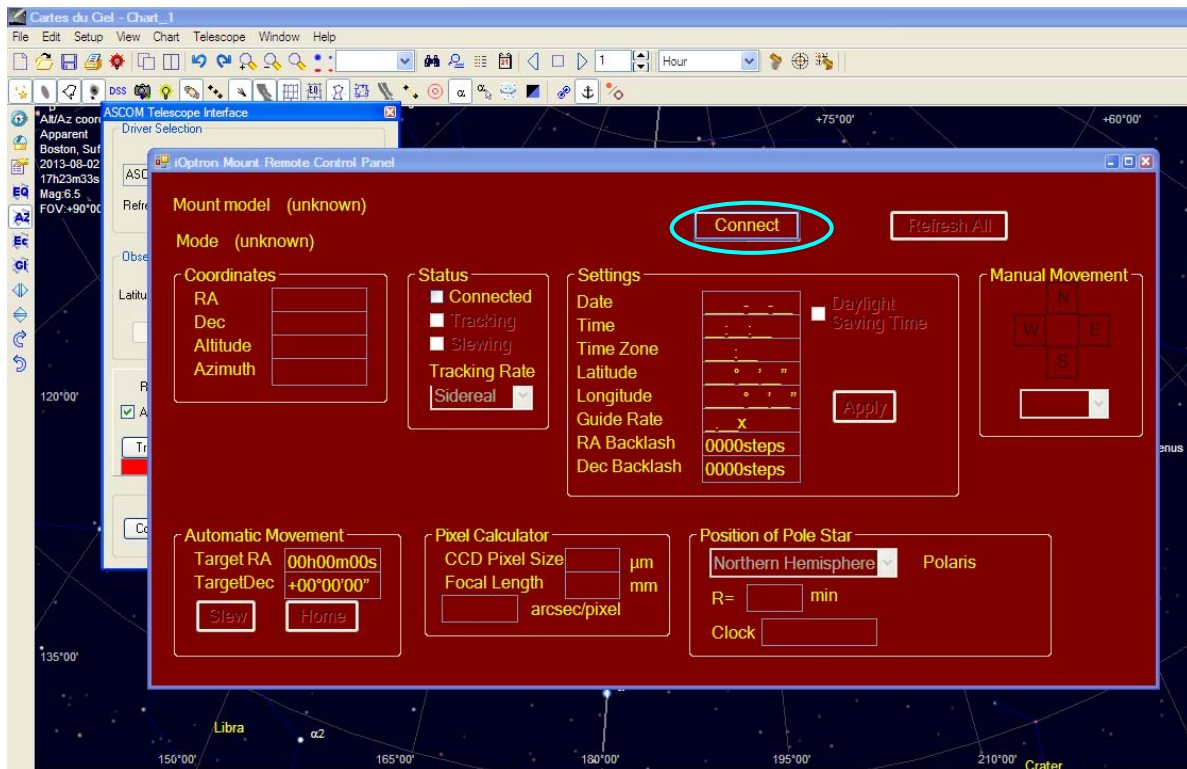6. Click **Connect** button. The RED status square will change to GREEN. Now you are ready to GOTO and tracking.

3. Use Remote Control Panel:

You also can use remote control panel to direct control the mount. Follow Steps 1-4 above. At Step 5, select COM7. Select "Using control panel" and click OK.

Click "Connect".

The Remote Control Panel will connect to the mount. Now you can set the parameters, slew and goto.