

Installing the USB Serial Port Device Driver

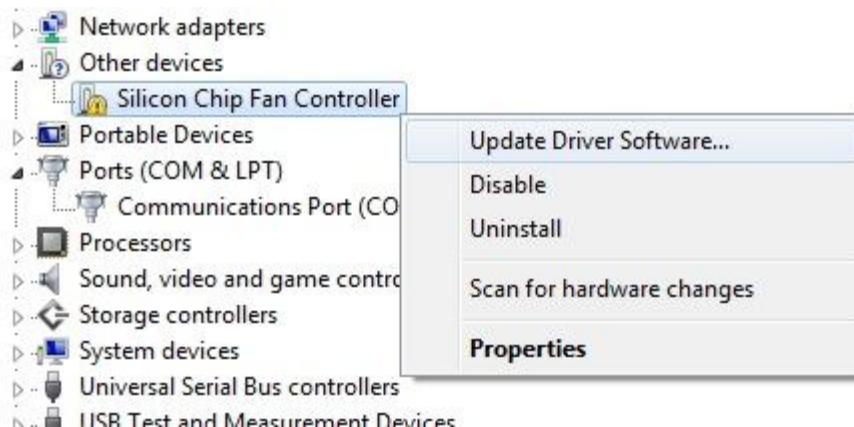
Geoff Graham (<http://geoffg.net>)

This device driver will work with Windows XP, Vista and Windows 7 in both 32 and 64 bit modes. For Windows 8 the operating system must be instructed to accept uncertified drivers.

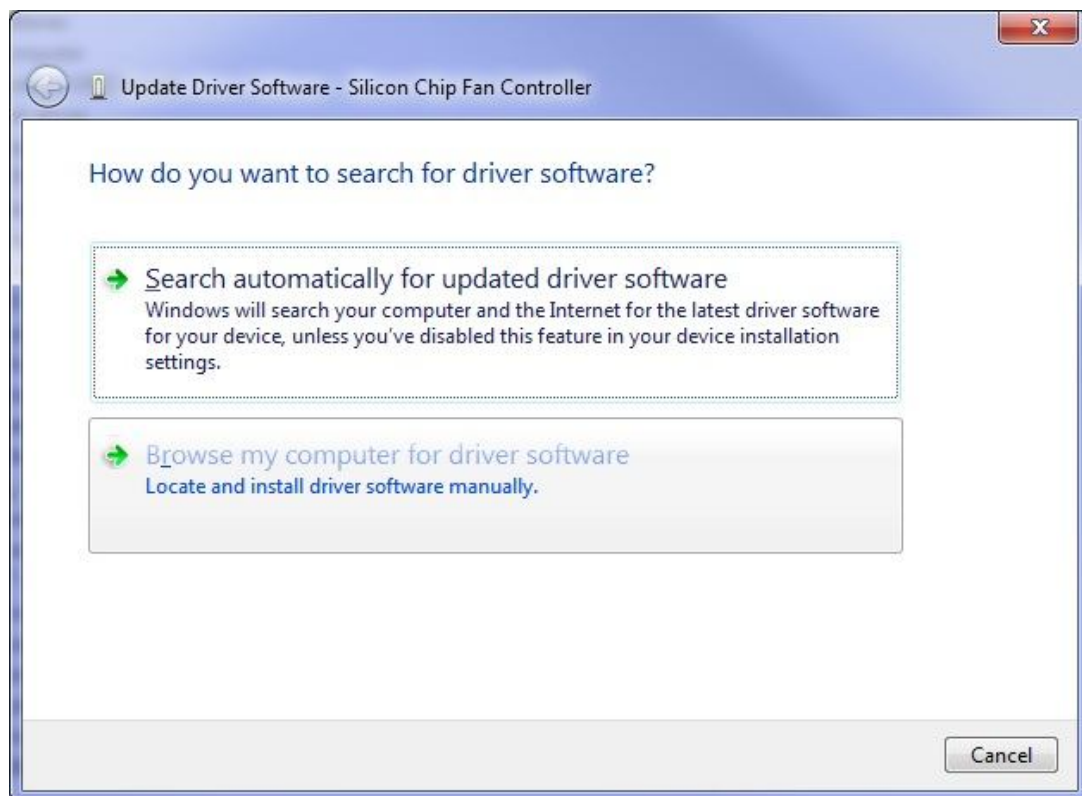
For Windows 8.0 and 8.1 first refer to the Windows 8 section at the end of this document.

Download the driver and unzip the files into a temporary folder. The method of installing the software varies between versions of Windows but essentially, when you plug the computer running MMBasic into an USB port the operating system will prompt for a driver. You should then point it to the temporary folder and install from there.

If, for some reason, you are not prompted to install the driver you can navigate to Device Manager and you should see an entry under Other Devices called "Maximite". Right click on that and select Update Driver Software (the example below is using a differently named device).



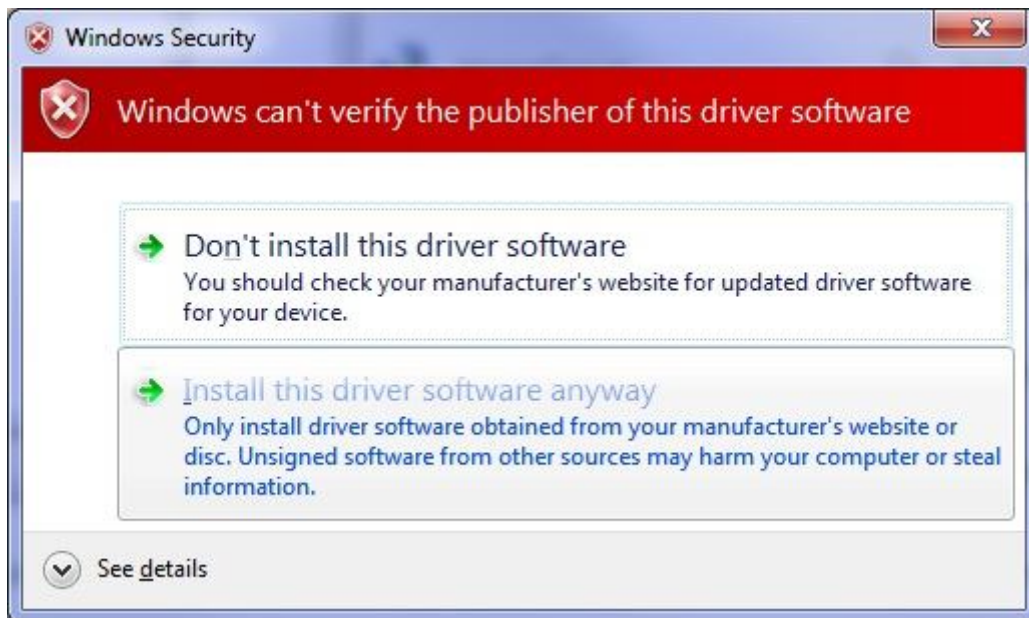
Select "Browse my computer for driver software".



Select the location of the files that you have unzipped:



Select “Install this driver software anyway”:



After processing you should receive confirmation:



After you have successfully installed the driver you should see the computer running MMBasic listed in Device Manager under Ports (COM and LPT) as “Communications Port - Silicon Chip USB Serial Port”. Take note of the COM port number allocated by the operating system, you will need this when configuring your terminal emulator.



Windows 8

The driver does not install in Windows 8 unless the operating system is instructed to install "uncertified" drivers. It would be good if the Silicon Chip Driver could be certified for Windows 8 but certification costs a lot of money and for a free product this is not feasible.

To install the driver the operating system must be rebooted and, as part of the reboot sequence, instructed to load uncertified drivers. The following instructions provide an abbreviated step by step description of the process.

Note: If you have BitLocker enabled (eg, on a Surface Pro 3) you must have the recovery key before you start. For details go to <http://windows.microsoft.com/recoverykeyfaq>

Installing Silicon Chip drivers under Windows 8.0

Move cursor to top right of screen
then roll and down and click on settings (ie, the Settings charm)
Click on power
Then on "Change PC settings"
Click on "General"
Scroll display on right down to Advanced Startup
And click on "Restart Now "
After the PC restarts click on trouble shoot
Select "Advanced Options"
Click on "Startup Settings"
Click on "Restart"
Wait for PC to start up again
Select disabled driver signature enforcement by pressing 7
Wait for the PC to boot up.
Install the Silicon Chip driver as per the instructions in the start of this document.
After it installs correctly restart the PC to return to normal driver signature enforcement mode.

Installing Silicon Chip drivers under Windows 8.1

Move cursor to top right of screen
then roll and down and click on Settings (ie, the Settings charm)
Then on "Change PC settings"
Click on "Update and Recovery"
Click on "Recovery"
Click on "Restart Now" under "Advanced Startup"
Click on "Troubleshoot" on the "Choose an Option Screen"
Select "Advanced Options"
Click on "Startup Settings"
Click on the "Restart" button. There may be a delay while your PC restarts.
Select disabled driver signature enforcement by pressing 7
Wait for the PC to boot up.
Install the Silicon Chip driver as per the instructions in the start of this document.
After it installs correctly restart the PC to return to normal driver signature enforcement mode.

The Silicon Chip driver and installation procedure has not been tested on Windows 10 and it is likely that the process will be even more difficult as Microsoft appear to be intent on preventing uncertified certified drivers to be installed.

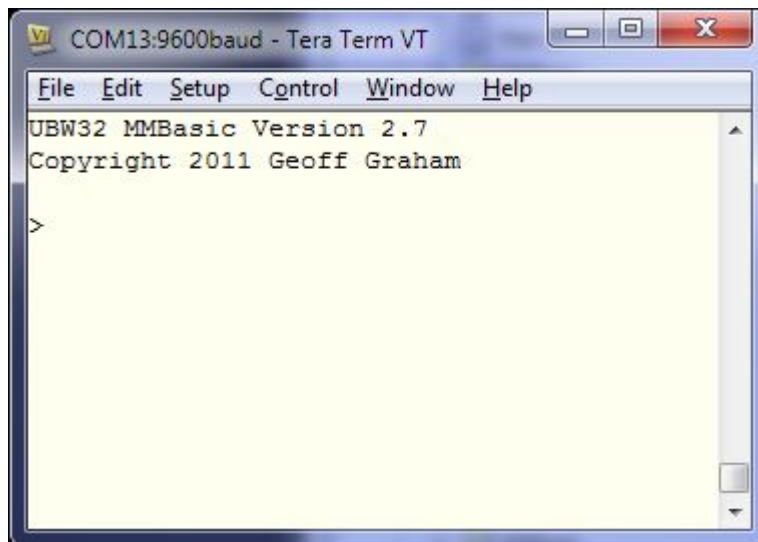
Tera Term Setup

MMBasic creates a virtual serial port over USB so that you can communicate with it from a Windows, Linux or Macintosh computer using nothing more than the USB port.

The communications protocol used is the CDC (Communication Device Class) protocol and there is native support for this in Linux (the cdc-acm driver) and Apple OS/X. Macintosh users can refer to the document "Using Serial Over USB on the Macintosh" on <http://geoffg.net/maximite.html>. The rest of this tutorial assumes that you are using a computer running Windows XP, Vista or 7.

To communicate with MMBasic over this virtual serial port you need to use a terminal emulator. This is a program that emulates the old fashioned VT100 terminal over a serial communications link. There are quite a few free emulators that you can use but I recommend Tera Term.

1. You should download Tera Term from <http://en.sourceforge.jp/projects/ttssh2/releases/> and install it. These instructions are based on version 4.71.
2. Make sure that the USB cable is plugged into your PC and that you know the COM number.
3. When you run Tera Term for the first time you will get a dialog box asking you to select the type of connection. Select serial and select the correct COM number. You should then see the MMBasic prompt as shown below:



4. Before you start using Tera Term you need to make a few changes to the setup:

Select **Setup -> Terminal...**

Set the terminal size to 80 x 36.

Untick the tick box labelled "term size = win size".

Tick the box labelled "auto window resize".

Select **Setup -> Serial Port...**

Make sure that the port matches the COM number representing the Maximite.

In the box for the "transmit delay msec/line" enter 50. Leave the other box with zero in it.

You do not have to bother with the baud rate or any other settings.

Select **Setup -> Save Setup...**

Save the setup as TERATERM.INI in the Tera Term installation directory overwriting the file there.