

K145 Monitor Windows Application

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Introduction

There really is very little to this application. All the “heavy lifting”, i.e., working with the com port, is done by a VB class RS232.vb that is provided for [download](#) directly from Microsoft. They provide the class because “...the .NET Framework does not support direct control of the Comm Port...” I should note that the copy of the class used in my program is not direct from Microsoft but rather was part of another simple VB com port app written by [Oleg Andrisan](#) (this class appears to be identical to that provided by Microsoft).

I have run the application on W2K and XP. It should also run on Me and 98 as long as the Microsoft .Net Framework is installed ([available](#) for download at no cost from the Microsoft website). This framework is “recommended” by the Microsoft online system [update](#) so, if you follow Microsoft’s recommendations, the .Net Framework should already be on you machine (Microsoft describes a simple procedure for checking whether the .Net Framework is installed [here](#)).

Installation

Installation is quite simple. It uses the program redistribution facilities supplied as part of Visual Studio. It may be uninstalled using Control Panel>Add/ Remove Programs.

Running the Program

The program may be launched via Start>Programs>K145 Monitor. On launch (and only once), the program probes for the availability of com1, com2, com3, and com4. If one is being used, it is essential to plug in the USB to serial port “converter” prior to launching the program (Fig. 1).

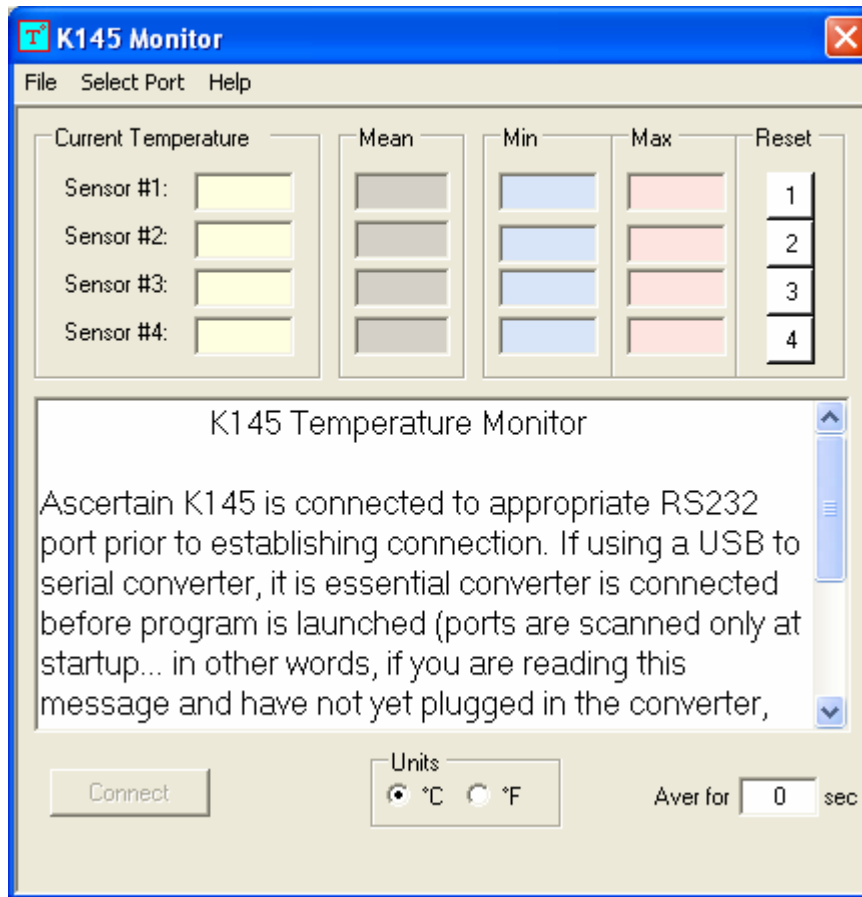


Figure 1. Screen as it appears on launching the program. If a USB to serial “converter” is used, it’s essential it be plugged in prior to launching the program in order for it to be probed and detected.

Specify the com port to which the K145 is attached from the “Select Port” pull down (only ports detected during initial probing will be selectable although com1 through com4 will be listed). Once the com port is specified, the “Connect” button will become available (Fig. 2).

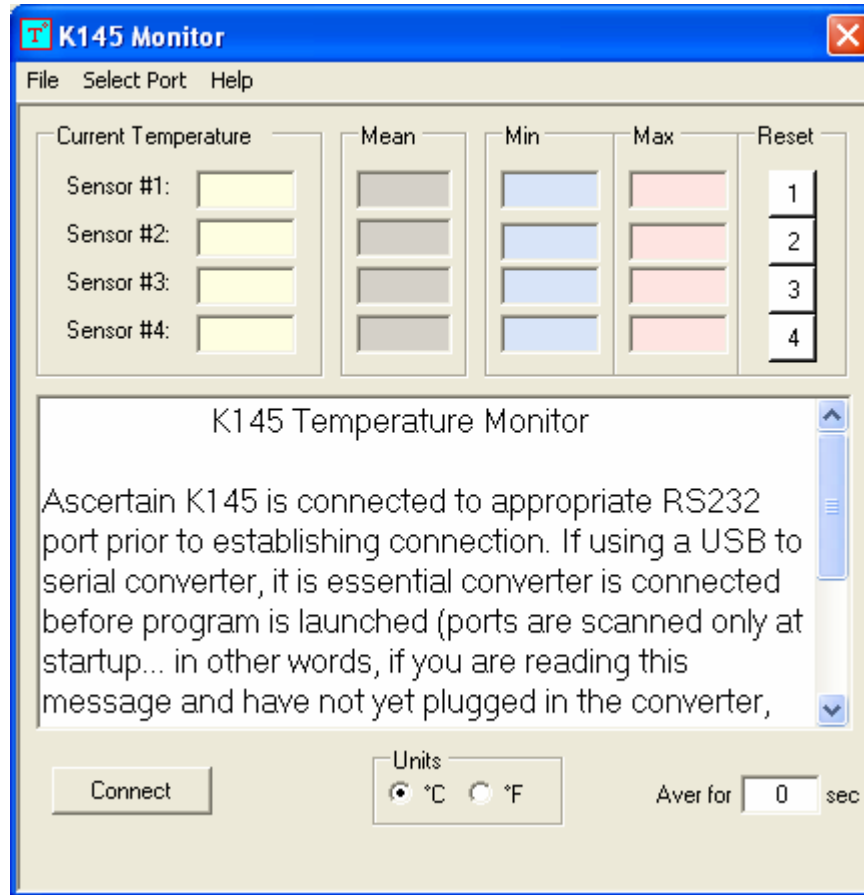


Figure 2. Screen as it appears on launching the program. If a USB to serial “converter” is used, it’s essential it be plugged in prior to launching the program in order for it to be probed and detected.

Enter the number of seconds to over which temperature measurements are to be averaged in the lower right box. The PIC appears to be programmed to output temperatures at a rate of one sensor temperature per second so any averaging period of less than one second will default to one second.

Click the “Connect” button to start receiving data (Fig. 3). The first line received specifies the PIC program version and the temperature units (should be Celsius unless a jumper was attached during kit assembly). New readings can be read in Celsius or Fahrenheit by click the appropriate radio buttons in the lower center.

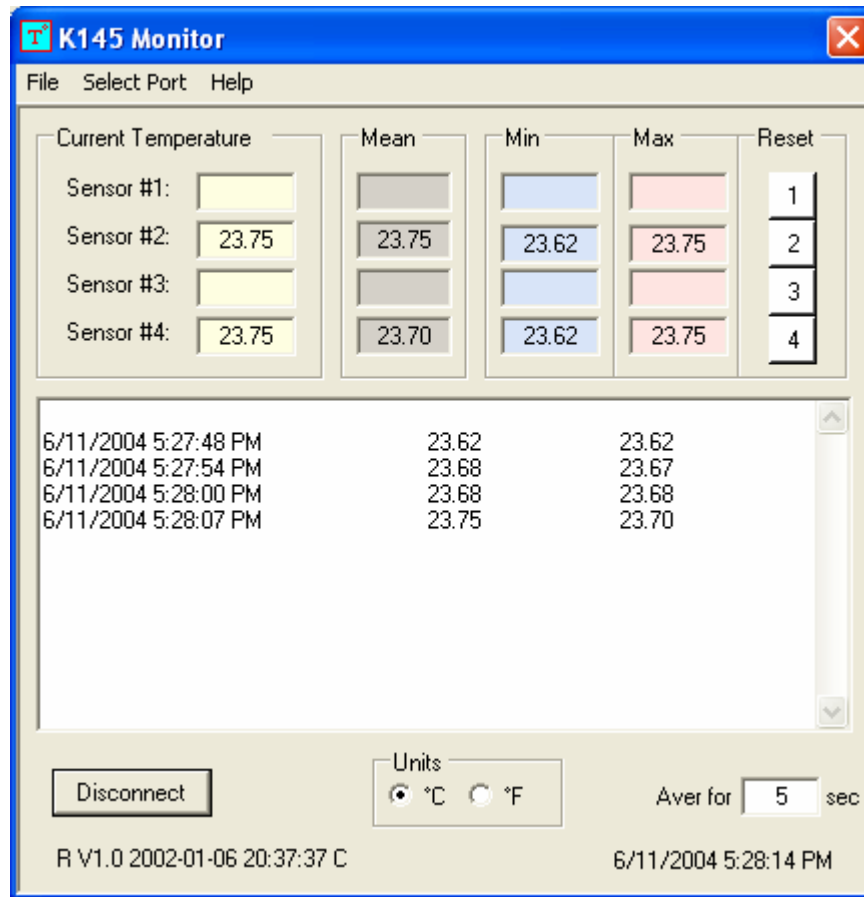


Figure 3. Once connected, displays the PIC version and the temperature units.

The display windows shows the average temperature over the averaging interval specified for all of the sensors connected (all sensors will appear in order of the K145 port number to which they are attached). The minimum and maximum temperatures received for each sensor will be displayed in the appropriate location (Fig. 3). The maximum and minimum temperatures may be reset with the "reset" buttons (labeled 1 through 4).