

AERONET Cimel Web Connect for Cimel Triple Sunphotometer (TS)

The AERONET Cimel TS connect program provides a more efficient option for users to download from the Cimel Sun/sky radiometer and transfer these data automatically to the AERONET server.

Requirements

Minimum Requirements:

- Windows PC (version XP or greater)
- Computer with a native serial com port or USB-to-Serial com port adapter
Note: cimelTS_https_connect only uses the “DCP” serial port (not the USB port on the Cimel TS control box)
- Cimel PhotoGetData must be turned off
- CimelTS control box DCP parameter is set to “Off”

**Note: AERONET-provided netbooks must be connected by a power surge protector

Desired Requirements:

- Windows PC (version 7 or greater)
- Computer connected to the Internet
- If using a USB-to-Serial adapter, avoid using other USB devices requiring power from the USB port (e.g., Internet modems)

Setup Cimel Connect without proxy

Instructions:

1. Verify the minimum requirements above have been met.
2. Download the cimelTS_https_connect.exe software from the AERONET web site:
https://aeronet.gsfc.nasa.gov/CIMEL_CONNECT/cimelTS_https_connect.exe (to download version 2.9 or greater)
3. Place the file anywhere in the computer. (e.g., Desktop, My Documents, or you can make special folder just for it).
4. Connect the Cimel TS control box to the com port using a serial cable. Then double-click the cimelTS_https_connect.exe to start program. The program will search for the active com port with a Cimel TS box connected.

That is all. The program will make a folder “TS_comX” (where X is the com number) and place all files in that folder. The program will also try to upload the data to the AERONET server for processing if the Internet is available from the computer.

Please send all questions/problems in the software setup to Ilya.Slutsker@nasa.gov and David.Giles@nasa.gov.

```
C:\Users\Aeronet\Desktop\cimelTS_https_connect.exe
[com9] STA(D) size = 17 time : 08:04:2015,14:18:07
Retrieved 4 records, new stop time will be : 08:04:2015,14:21:15
com9 Received Header, Cimel 890 Eprom SP81000101
[com9] STA(A) size = 17 time : 08:04:2015,14:27:07
[com9] NSU size = 132 time : 08:04:2015,14:24:15
[com9] STA(A) size = 17 time : 08:04:2015,14:24:07
[com9] CCS size = 140 time : 08:04:2015,14:22:38
Retrieved 4 records, new stop time will be : 08:04:2015,14:27:07
com9 Received Header, Cimel 890 Eprom SP81000101
[com9] NSU size = 132 time : 08:04:2015,14:30:15
[com9] STA(A) size = 17 time : 08:04:2015,14:30:07
[com9] NSU size = 132 time : 08:04:2015,14:27:15
Retrieved 3 records, new stop time will be : 08:04:2015,14:30:15
com9 Received Header, Cimel 890 Eprom SP81000101
[com9] NSU size = 132 time : 08:04:2015,14:36:15
[com9] STA(A) size = 17 time : 08:04:2015,14:36:07
[com9] NSU size = 132 time : 08:04:2015,14:33:15
[com9] STA(A) size = 17 time : 08:04:2015,14:33:07
Retrieved 4 records, new stop time will be : 08:04:2015,14:36:15
com9 Received Header, Cimel 890 Eprom SP81000101
[com9] STA(A) size = 17 time : 08:04:2015,14:42:07
[com9] NSU size = 132 time : 08:04:2015,14:39:15
[com9] STA(A) size = 17 time : 08:04:2015,14:39:07
Retrieved 3 records, new stop time will be : 08:04:2015,14:42:07
```

Figure 1 This log window shows data successfully received by cimelTS_https_connect from the Cimel TS control box.

**For multiple active com ports on the computer

- Alternatively, you can use the Command Prompt (Start->Run->cmd) and change directory to the location of cimelTS_https_connect.exe and type the following command:
cimelTS_https_connect.exe comX
where X is the com port number the program will use to acquire Cimel data

Questions/Answers:

Q. Does the computer really need to be connected to Internet?

A. The computer does not have to be connected to Internet. If it is connected, the data will be automatically uploaded for processing. If it is not, the data will stay on the TS_com directory, and you will need to manually submit them. If you can connect the computer to Internet, the program will attempt submitting the data itself.

Q. How often are data collected from the Cimel TS control box?

A. The PC will attempt to connect every 5 minutes to the Cimel TS and collect any new available data from the instrument. The program will create files with extension .K8 making files for each hour and one daily file. All of the files will remain in the TS_comX folder. If the file is successfully submitted, the extension will change to .K9 (the hourly files will be removed and daily files retained).

Q. What is the procedure of operation, collection and transmission of data?

A. If Cimel TS is set to AUTO mode and performing measurements, the computer is connected to the Internet, PC serial port is connected to the Cimel TS, and cimelTS_https_connect is running, then the rest should be done automatically.

Q. Can I collect data from Cimel TS one time per week?

A. Yes, you can. The files with extension .K8 or .K9 on the TS_com directory can be emailed to us for processing. The easiest way to transfer data is to connect the PC to the Internet, then restart cimelTS_https_connect. The program will discover the Internet connection and it will try to upload all the .K8 files from the TS_com directory at one minute after the hour (hh:01).

Q. Do I need to use the Task Manager?

A. No. However, the task manager running a cimelTS_https_connect script can be used to wake the computer (e.g., hourly) if the system experiences frequent power outages.

Troubleshooting: Data does not transfer from the Cimel TS control box to the PC

- Check the serial cable is firmly connected to the control box and PC.
- Check for damage on the serial cable.
- The serial cable length should not exceed 40m, otherwise, signal loss may result.
- If using a USB-to-Serial Adapter, verify the adapter is recognized as a “com port” in the Windows Device Manager and proper drivers are installed for the adapter. Reconnecting the USB-to-Serial adapter will allow Windows to properly install and recognize the device. If other devices are connected by USB, disconnect all of them until only the USB-to-Serial adapter is connected and test the connection again. Occasionally, a USB port or the USB-to-Serial adapter may not function properly; it is best to try another computer to determine whether the USB port or the USB-to-Serial adapter functions properly.

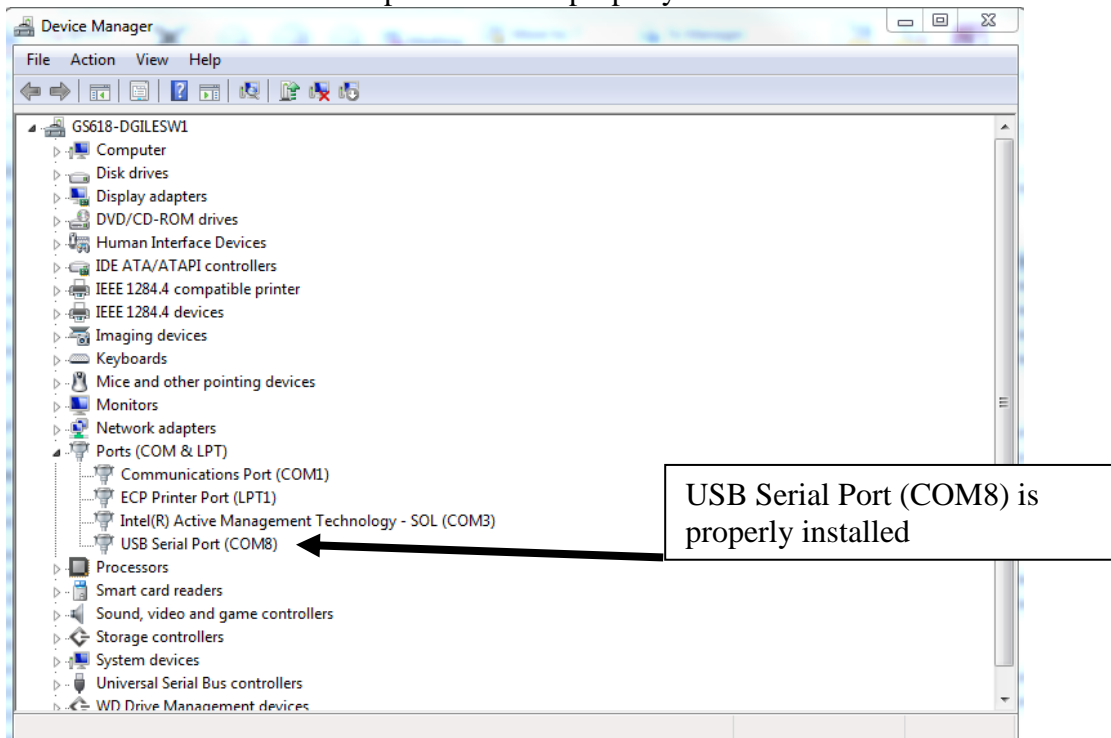


Figure 2 This window shows the Windows Device Manager and a successfully installed COM port with a USB-to-Serial Device (COM8) and a native Serial port (COM1) on the PC