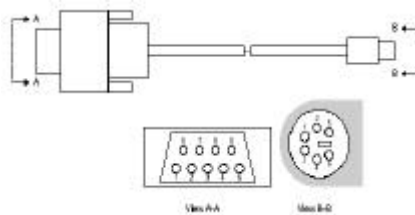


3M Canoga Detector

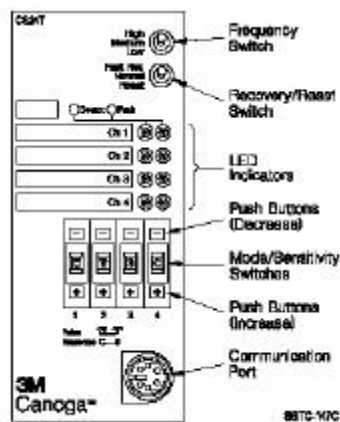
Basic Software Instructions

3M's Canoga is a hardware board compatible with current signal controllers. The Canoga is a signal processing device that performs the functions of a typical counter/classifier data box. It can process inputs from both regular inductive loops as well as 3M microloops. The latter are an unintrusive or less intrusive form of in-pavement loops. They can be attached underneath viaducts or inserted through a single latitudinal bore under the pavement. This text covers the basics of connecting loops to the Canoga and Canoga to a (portable) PC for data viewing.

- 1) The Canoga has two wiring harnesses. Take the wiring harness with the loop and the power cable connected to the harness, and connect that to Channel 1 on the Canoga. Then, plug in the other harness into Channel 2 on the Canoga.
- 2) Locate the RS232 serial cable, as shown below.

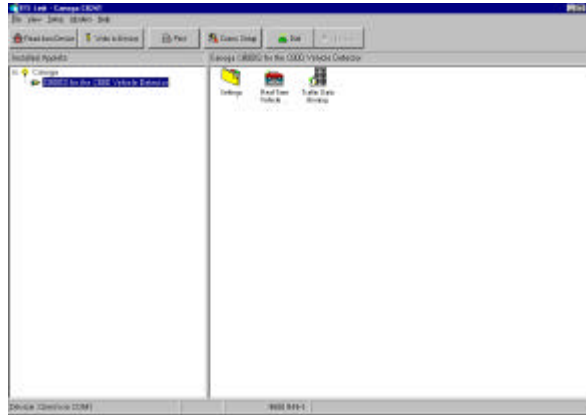


- a. Connect the round side to the Canoga's communication port.



- b. Connect the serial plug to an open serial port on the computer.
- 4) On the PC, load "ITS Link" : Start Menu / Programs / 3M ITS Link / ITS Link

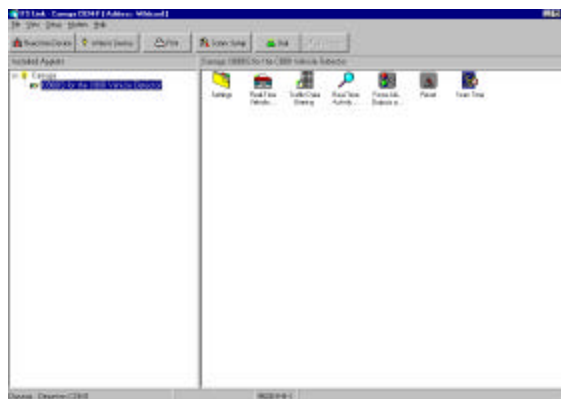
- 5) After the program is loaded, click on the link to “C800IS for the C800 Vehicle Detector” underneath “Installed Applets” and “Canoga”, as shown below:



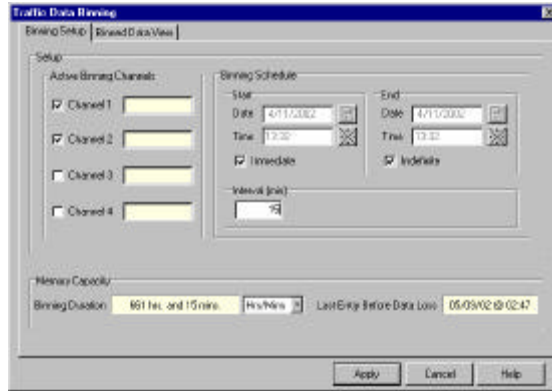
- 6) Then click on “Read from Device.” This will bring up a window on which check the box “Use Wildcard Address” and “Ok.”



- 7) The computer is now connected to the Canoga device and more options should appear on the left hand side of the screen as shown below.



- 8) To get **volume samples**, select “Traffic Data Binning” to get the window shown below.



Use the “Binning Setup” tab to set the:

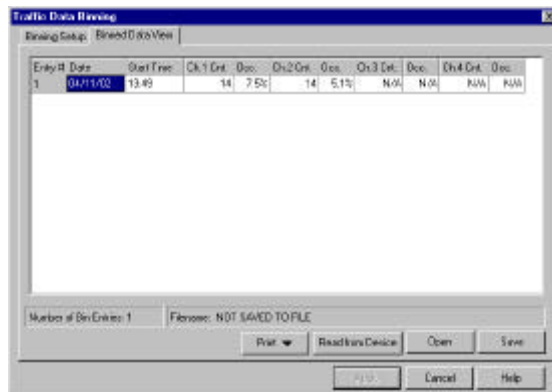
- i. Active Channels (the Device has two channels, 1 and 2 that are usable).
- ii. The time for Collection Intervals (under “Interval(min)”).
- iii. Schedule the device to start and stop by inputting a start date/time and end date/time.
- iv. This screen also shows the amount of data that can be stored; this is under “Memory Capacity.”

Click on “Apply” for the changes to take effect. The device is now set up for Binning volume counts. If the boxes to start “Immediately” and end “Indefinitely” under “Binning Schedule” were checked, then the device has begun to collect data.

To view the data, Click on the tab marked “Binned Data View”, then click on “Read from Device”. If you get a message like the one below, then the interval time has not yet passed, and no data is available to display.



Otherwise, the following screen will appear.



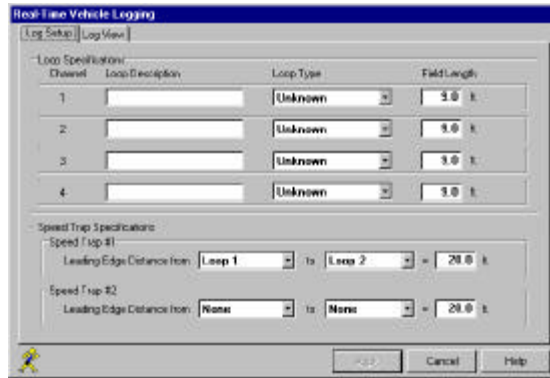
On this screen, the following data appear:

- a) Entry #: This is the entry number based on how many intervals have passed.
- b) Start Time: This is the time that the interval started.
- c) Ch.1 Cnt. & Occ.: This is the volume count and occupancy percentage during the interval from Channel 1.
- d) Ch.2 Cnt & Occ.: This is the volume count and occupancy percentage during the interval from Channel 2.
- e) Channel 3 and 4 are not available.

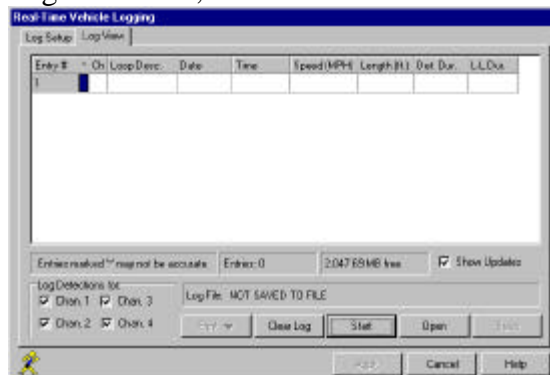
These binned data can be saved into a file by clicking on “Save”, or can be printed by clicking on “Print.” Previously saved data can be viewed and printed by clicking on “Open.”

9) To get **speed samples**:

- a. Select “Real-Time Vehicle Logging”. The window shown below will appear.



- b. Click on the “Log Setup” tab. Then under “Speed Trap Specifications,” on “Speed Trap #1”, set the “Leading Edge Distance” for **Loop 1** to **Loop 2** = the actual distance between the two loops in ft. Click “Apply”
- c. Click on the “Log View” tab, to view the screen below and click “Start”.



In the software version available to the UH-Traffic Lab, speed counts are not stored, and they need to be recorded from the screen or saved or printed. As cars pass from loop 1 to loop 2, the detections and corresponding speed appear on the computer screen as shown below.

Entry #	Ch.	Loop Desc.	Date	Time	Speed (MPH)	Length (ft.)	Det. Dur.	L-L Dur.
2	1		4/11/02	2:15:48 PM	0.216	..
3	2		4/11/02	2:15:48 PM	89	17	0.198	0.154
4	1		4/11/02	2:15:48 PM	0.208	..
5	2		4/11/02	2:15:50 PM	109	29	0.237	0.129
6	1		4/11/02	2:15:51 PM	0.208	..
7	2		4/11/02	2:15:51 PM	101	20	0.198	0.128

The explanations for the labels at the top are as follows:

- a) Entry #: Number of entry
- b) Ch.: The channel triggered
- c) Loop Desc.: If a description was given for the loop station, it will appear here.
- d) Date & Time: Date and time the channel was triggered.
- e) Speed(MPH): Speed of the vehicle in miles per hour.
- f) Length(ft.): Length of the vehicle, should only appear under channel two.
- g) Det. Dur.: How long a vehicle was detected on the channel (loop). This is an elapsed time measure in seconds.
- h) L-L Dur.: The Loop to Loop Duration, the amount of time the vehicle took to move from loop 1 to loop 2.

Click on “Stop” to stop collecting. This log can be saved or printed by clicking the appropriate buttons on the screen. “Open” brings up a stored log file. To start a new log, click on “Clear Log” and then “Start.”