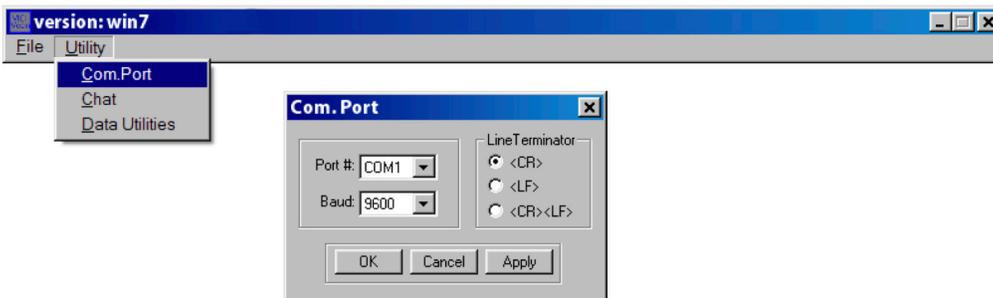# VCOM SOFTWARE USER GUIDE
Technical Note 618

Vcom is a simple serial port utility that can be used to send a sequence of text strings at timed intervals. The times and associated text strings are stored in method (.mth) files. It is also possible to send individual strings, entered using the keyboard, and view any reply.

Vcom was developed for use with the Valco Serial Valve Interface (SVI) and micro-electric actuators, but can be utilized with any device designed to respond to ASCII commands transmitted from a PC via a serial port. Refer to the appropriate manual for a listing of the com port command strings for the device you are using.

SELECTING A SERIAL PORT

Open a serial port by selecting **Utility > Com.Port** from the menu. The next time the program is run,

the selected serial port will be opened automatically.

FIGURE 1: Selecting a Com. port

CREATING A NEW FILE

If you are creating a new method file, select **File > New** from the menu. Enter the times and the command strings into the edit box in the method window as described in "Editing a file," below.

FIGURE 2: Creating a new method file

OPENING A FILE

If you wish to run an existing method file, open it my selecting **File > Open** from the menu.

EDITING A FILE

Entering the Edit Mode

To enter the edit mode, click the **Edit** radio button under **Mode**.

Entering a Time

VCom can meter intervals as small as a tenth of a second. Times can be entered in three formats: (1) hours:minutes:seconds, (2) minutes:seconds, or (3) seconds. Times entered in formats (2) or (3) will be rendered to format (1) when you exit the edit mode.

A comma or semicolon can be used instead of a colon—they will be changed to colons when the file is rendered. The period is re- served to serve as a decimal point for entering tenths of a second.

It is not necessary to enter the times in order. The entries will be sorted into the proper time-based sequence when you exit the edit mode.

All of these conditions are illustrated in **Figures 3** and **4**.

NOTE: The absolute timing accuracy of VCom is dependent on the accuracy of the system clock, the system hardware speed, and the system load. Temporary timing delays that can be caused by operating system loads (such as extended hard disk access) are not accumulative.

Examples:

20	= 20 seconds into the method run
20.1	= 20.1 seconds into the run
1;30,4	= 1 hour and 30 minutes and 4 seconds into the run
01:30:04	= 1 hour and 30 minutes and 4 seconds into the run

Entering a Command

The command is entered after the corresponding time, separated from the time by a space. Refer to your device's documentation for the appropriate commands. A time can be entered with no corresponding command. This is most often done when the last time entered is a wait, or in chromatographic terms, a "soak" time.

NOTE: Multiple commands can be entered for the same time stamp. They will be executed as quickly as the serial port can transmit them.
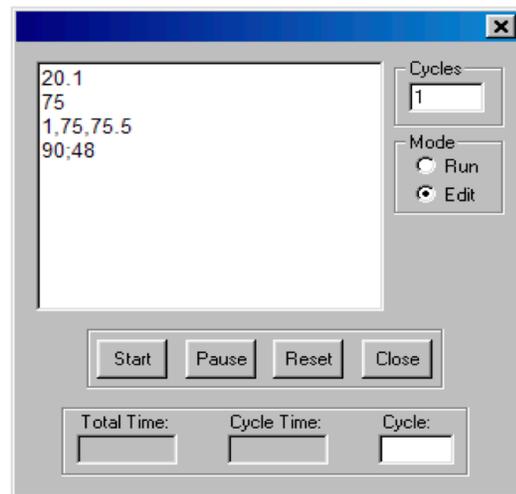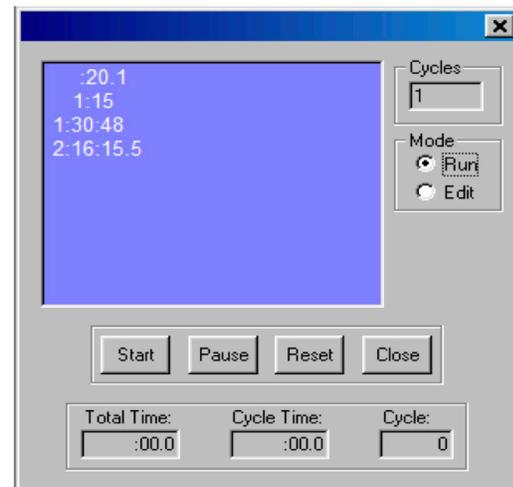
FIGURE 3: Times as entered

FIGURE 4: Same times as rendered by VCom

Example Method

With a two position injector and a four position selector, both on electric actuators:

:02	**1goa**	At 2 seconds into the run, the two position actuator, set with an ID of '1', is instructed to 'go' to Position 'A'.
:04	**2cw3**	At 4 seconds into the run, the multi-position actuator, set with an ID of '2', is instructed to move in a clockwise direction to position '3'.
:08	**1gob**	At 8 seconds into the run, the two position actuator ('1') is told to 'go' to position 'B'.
:12	**2cc1**	At 12 seconds into the run, the multi-position actuator ('2) is instructed to go move in a counterclockwise position to position '1'.

Number of Runs

Enter the number of times the method is to be run in the **Cycles** box.

Saving the Method File

Exit the edit mode by selecting the **Run** button. Then save the file by selecting **File > Save or File > Save as**.

RUNNING THE METHOD

The method can now be started by clicking the **Start** button. The next command(s) to be sent will be highlighted in the edit window.
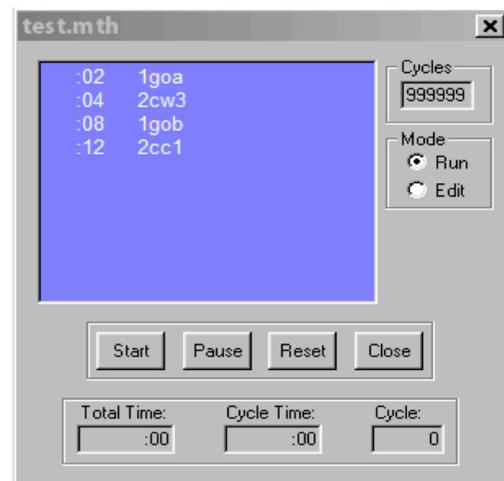
The **Pause** button is self-explanatory. While the method is paused, the number of cycles can be altered, if desired. When all of the method cycles have been completed, it is possible to change the total cycle count and continue the method from this point by clicking the **Start** button.

The **Reset** button halts execution of the method and resets the time and cycle count.

CHAT MODE

Individual commands can be sent using the chat mode. From the menu, select **Utility > Chat**. Type a command into the box labeled **out**:, then click the **send** button or press the enter key. The command will be sent and the reply will appear in the box labeled **in:**. This function can be useful for initializing actuators.

FIGURE 5: Example method

DATA UTILITIES

Creating a Log of Data Received

1. Select **Utility > Data Utilities** from the menu.

2. Clip the **Open** button. In the Open dialog box, select a log file or type in a name for a new file, then click **Open**.

3. In the Data Utilities dialog box, click the **Log to file: On** radio button, then click the **X** to close out of the window.

Stop on text

The method will stop if a return contains the text entered in this field.

Example: VICI uses this feature in house for testing micro-electric actuators. If the multi-position micro-electric actuator doesn't position properly, "position near" is returned.

1. Click **Utilities > Data utilities**.

2. Type "near" in the text box under **Stop on text**.

3. Click **Apply**, then **OK**.

The test method will stop when there is a positioning failure.