CS617 Chapter 09

Chapter 09 | VT - Virtual Terminal User's Guide

A practical guide to the four-line viewer | Casio PB-2000C

VT is a mode, not a separate welcome screen

VT means Virtual Terminal. It lets the calculator browse a larger document through its small LCD. The document has **24 virtual rows of 80 characters**; the screen displays **four rows and a 32-character horizontal window** at a time.

Important: VT normally **does not announce itself** with a title or splash. Choosing a menu action that opens a report, example library or tape can place you directly into VT. You are still inside the same ROM application; you are simply viewing one of its documents.

Exactly how to enter VT

ROM program	Select or press	What opens in VT
MREVAL	Launcher **`[lib1]`**	First read-only example document
MREVAL	Launcher **`[lib2]`**	Second read-only example document
MREVAL	From **`[eval]`**, press **F1**	Historical results tape (with recall controls)
MathROM	**`[run]`** for the selected function	Native result/report view
MathROM	**`[all]`**	Sweep/report pages
MathABI	**`[pi]`**, **`[cnvr]`**, or **`[cmp]`**	Corresponding return-witness report

Not VT: MREVAL's `[eval]` text editor, MathROM's `[select]` picker and `[info]` page, and MathABI's initial menu. The visible screen can resemble VT because the same LCD is used; the menu choice is the reliable clue. MathROM may also open a report from other function-test flows.

VT control card

Key or command	What it does
UP / DOWN	Move the selected virtual line; the display follows
LEFT / RIGHT	Move among the document's horizontal windows
`t`	Top of document (row 1); plain `t` **does not transmit**
`b`	Bottom of document (last full four-row window)
`s` or **`:s`**	Show viewer position/status
`:l`, then row number, **EXE**	Jump to a virtual row from 1 through 24
`:t`	Transmit the currently displayed document through the configured serial service
Q or **`:q`**	Leave VT and return control to the enclosing application
MENU / BRK	Leave VT through the application's menu or recovery route

To enter a command, press **:**, then the command letter. The prompt is temporary and appears in the bottom LCD line. The letters **:c**, **:e**, **:h**, and **:v** are **application-dependent**. For example, in MREVAL's library VT, **EXE** or **:c** copies the chosen example to the editor; in its tape VT they recall an entry. **:e** requests tape erase with confirmation only in the writable tape context; it cannot erase either library document. **:v** is not needed for ordinary browsing.

Three ROM splash mockups

These are **schematic four-row LCD mockups of the three documented ROM programs**, based on their startup-source wording. They are not photographic captures. Internal implementation version words are omitted from the VT descriptions for a consistent public vocabulary. **A splash is not the same thing as entering VT**: it appears at program launch, while VT appears after the menu actions described above.

MathROM - native library test program

INITIAL SPLASH / MATHROM

```
Xandrian Labs
MathROM
PB-2000C / CS617
```

After the splash, the **[select] [run] [info] [all]** launcher appears. **[run]** and **[all]** open report documents using VT; **[info]** is an ordinary information screen.

MREVAL - interactive math explorer

INITIAL SPLASH / MREVAL

```
Xandrian Labs
CS617 - Chapter 09
MathROM-EVAL
VT ROM examples
```

After the splash, **[eval] [lib1] [lib2]** appears. **[lib1]** and **[lib2]** immediately open VT without a VT-specific announcement. **F1** from [eval] opens the results tape in VT.

MathABI - return-witness probe

INITIAL SPLASH / MATHABI

```
XANDRIAN LABS
MATHABI
NATIVE MATHROM ABI
VT EVIDENCE ROM
```

After the splash, the menu offers **[pi] [cnvr] [cmp] [reset]**. Selecting one of the first three performs the corresponding probe and opens its report in VT. **[reset]** does not open VT.

A first visit to MREVAL's VT

1. From MREVAL, choose **[lib1]**. You are already in VT, even though no VT banner appears.
2. Press **DOWN** several times and **RIGHT** to explore the document viewport. Press **t** to return to row 1.

3. Select the `add(12,5)` line and press **EXE**. It is copied into `[eval]` for inspection; **the calculation has not run**.
4. Press **EXE** in the normal editor to execute the expression. Press **F1** to browse the results tape through VT.
5. Use **Q** to leave VT. Use `:t` only if the configured serial destination is ready to receive a document.

Remember: VT's navigation is shared, but the *meaning of selecting a line* comes from the enclosing program. A report viewer, an example library and the tape are not interchangeable documents.

Companion publications

- **MREVAL: Explore the Native Math Library**
- **Native MathROM Field Guide**
- **Native MathROM: 23 Function Contracts**

Praeteritum ad futurum servamus.