Elan 1v5 on Apple Macintosh

User's Guide.

This document describes the peculiarities of running the Elan Programming Environment on Apple Macintosh. It explains how to install Elan 1v5,how to call it and how to use some special features.

Setting up Elan 1v5.

Elan 1v5 can run on any MacIntosh having more than 128K of memory. It is a standard application called by double clicking on its icon. The application file can reside in any folder on any disk, but during its loading and initialization, the system folder should be readily accesible. Otherwise, because of loading of system resources, the system disk will be repeatedly prompted for. Should this situation arise, it may be helpful to note that pressing Command-Shift-1 and Command-Shift-2 ejects the disk in the internal and the external drive, respectively.

Special Features.

The "exectime" function returns time in 1/100ths of a second, since the last call to "exectime" or the start of the program execution.

Files associated with Elan 1v5.

The precompiled library file "prelbin.bin" should reside in the same folder as Elan 1v5. Files containg Elan source programs can be accessed in any folder on any volume. They have the file type 'text', which also allows direct editing (and printing!) with the standard text editors (e.g. MacWrite or MDS Edit or QEdit). When using MacWrite, Carriage Returns should be interpreted as Paragraph breaks.

Elan Window.

Elan 1v5 uses a standard non-growing document window. It can be dragged around the screen. The size of the window is fixed, but can be modified (for example to adapt it to the mega-screen) by directly manipulating its corresponding resource in the Elan application file. This is easily done with resource editors, such as REdit or ResEdit.
Text is drawn in "monaco 9" font, allowing normally for 26 lines of 80 characters. Screen contents is not restored, so overlapping alerts, dialogs and possibly other windows destroy it, but desk accessories do not. Since Elan quite often redraws its text screen completely this is usually not a nuisance. To force the screen to be redrawn one can simply enter a "l(ist)" or "s(how)" command.

User interface.

Two interfaces are provided. One is completely standard and employs only keyboard entries for commands. The other employs the mouse for selection of menu items, for interaction with Standard File Dialogs and for text cursor movement when editing. Users having the older version of the keyboard, without cursor movement keys, are forced to use the mouse for cursor positioning. On the other hand, the "y(es)" and "n(o)" responses have no menu equivalents and have to be typed in. In effect, both methods of interacting with the Mac must be employed.

Keyboard Command Interface.

Typeahead is allowed. Keys are echoed when they are seen by Elan. The Backspace key deletes the character under the cursor or, if the cursor is at end of the line, last character on the line.

The interrupt signal is issued by pressing the usual Command-Period key combination. During heavy computations its action may be delayed for about 4 seconds.

The standard Command-Q (for Quit) entry is also recognized. It is, however, equivalent to a plain "q". It always requires a confirmation.

Mouse Command Interface.

When running Elan1 Environment, five pull-down Menues are available at the top of the screen. The Apple Menu is standard. Its "About" item contains some on-line help information. The Edit Menu is not used by Elan. It is provided for compatibility with Desk Accessories. The File Menu can be used to select a r(ead) or w(rite) command, invoking a File Dialog to specify the file. It contains also the entry for Interrupt, which is equivalent to Command-Period keyin and the entry for Quit command, according to Mac tradition.

During heavy computation the mouse click may be easily missed. To get the systems attention one should patiently keep the mouse button down for several (about 4) seconds. The Print Screen entry is disabled in this version. For hints on how to obtain a screen hardcopy, see the last section of this document.

The Command Menu contains entries for all single-letter Elan commands. All of them are enabled regardless of the current mood, so it is possible to select an inappropriate command. In this case the command letter will be simply inserted into the input stream. It can be deleted using the Backspace key.

The Cursor Menu is useful for scrolling the screen up and down on MacIntoshes equipped with keyboards without cursor keys.

In Edit mood, the mouse can be used to move the text cursor. A mouse click will move the cursor to the character pointed to.

Accessing files and folders.

When starting the Elan Programming Environment, the current drive and folder are set to the folder containing Elan. In response to the filename ("name:") prompt of the r(ead) and w(rite) commands one may enter a simple filename or a pathname. A simple filename refers to a file in the current folder. Full pathname can be used to refer to a file in any folder on any drive. Hierarchical File System volumes are supported. The syntax of pathnames is best illustrated by examples. Assume that the volume "pjotr" contains a folder "elan1v5" which contains separate folders with Elan examples in Dutch and English:

"pjotr:elan1v5:demoGB:therapy" - refers to the file "therapy" in the folder "demoGB", which is a subfolder of "elan1v5" on volume "pjotr" regardless of the current folder.

":demoGB:therapy" - would refer to the same file if current folder was "elan1v5".

":::demoNL:therapy" - would refer to the same file if current folder was "demoGB". Two consecutive colons refer to the parent folder, then the third one to a subfolder.

To abandon a read or write command, use Command-Period.

To read or write a file, one can also select the appropriate commands from the menu and follow a Standard File Dialog.

The folder that was accessed last will be used as default for the next operation. The "Clear" item in the File menu restores the default folder setting to the one used at startup. Note that it also performs the clear operation without asking for confirmation.

The filename extension, if explicitly mentioned, will be honored. The default filename extension is ".e".

Graphics.

Drawing is performed in the same window as the text interaction. Normal character i/o is allowed also in the graphics mode, but some text cursor anomalies may occur, e.g. the cursor box will remain visible at the end of every line. Normally there is no text cursor in graphics mode.
A special function for echo-less character reading is provided, however, so an Elan program can perform the echoing itself, circumventing the cursor problem. The function, defined in the "turtle" package as "TEXT PROC get char" does just that, returning the next character key pressed and echoing it in a safe way. See also "get text" and "get int".
When scrolling, the drawing will scroll, too. This makes tracing difficult, but it is possible to trace a short refinement in graphics mode.

Screen Printing.

To obtain a hardcopy of the screen, press the "3" key while holding down the Command and Shift keys together. This will create a MacPaint file, that can be subsequently edited and printed using MacPaint or FullPaint.
The screen snapshot file will contain all of the Mac screen, not only the Elan window.
The Command-Shift-4 should produce a screen hardcopy directly on the printer, but it does not.