MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Project MAC

Artificial Intelligence Project
Memo 83

Memorandum MAC-M-248
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OBSOLETE

SEE MEMO. 118 (Revised) "PDP-6 Software Update" Donald Eastlake.

To: Project MAC Participants
From: Peter Samson
Subject: Use of MACIMP

MACIMP is a PDP-6 program which can load from DECtape to core memory, dump core onto DECtape, or verify a previously dumped file against memory. Normally, just before it loads, it clears all of memory to ∅ (except itself and locations ∅ through 37); and, in general, it does not dump locations containing ∅. (It also does not dump itself, or locations ∅ through 37.) In this way, a short program uses only a few blocks on tape. MACIMP uses the MAC PDP-6 file structure and directory scheme, and writes files in mode 1.

To start MACIMP, put the tape MACIMP SYSTEM on unit 1 and press READ IN with TA = ∅. If this has no effect, try TA = 1 or 2. If these fail, put the paper tape MACIMP in the reader and START, TA = 2∅. If the loader at 2∅ is absent, load the MACIMP paper tape like the RIM Loader Loader.

To tell MACIMP which tape unit to use, type the unit number followed by ALT MODE. The ALT MODE will be echoed as $. Initially MACIMP is set to use the DECtape it was loaded off; the tape number need be specified only to change it.

To load a program off the currently selected tape, the following commands are available: (␣ is a space, ↵ is a carriage return, and Ⓢ is an ALT MODE.) Just before loading, all load commands set location 4∅ to ∅.

SUBNM1␣SUBNM2↵	clears core, loads program SUBNM1 SUBNM2, goes to starting address of program loaded.
IⓈSUBNM1␣SUBNM2↵	clears core, loads program, sets starting address, stays in MACIMP.
MⓈSUBNM1␣SUBNM2↵	does not clear core, loads program, sets starting address, stays in MACIMP.
TⓈSUBNM1␣SUBNM2↵	DDT 34∅∅∅ should be in core when this command is given; the program SUBNM1 SUBNM2 should be in SBLK mode. Core is cleared except for DDT, the program is loaded, the symbols for the program are added to DDT's symbol table, and control goes to DDT.
NⓈSUBNM1␣SUBNM2↵	Same as TⓈ but does not clear any core.

To set the starting address, type it as an octal number followed by ALT MODE. The starting address must be greater than 7. To go to the current

starting address, type C(↵). To dump core, type D(↵)SUBNM1␣SUBNM2(↵) . If another SUBNM1 SUBNM2 exists on that tape, it is deleted. The new file will be in DUMP mode. The current starting address is written as the starting address of the dumped program.

The command K(↵)SUBNM1␣SUBNM2(↵) deletes SUBNM1 SUBNM2 from the file directory, but does not write the modified directory onto tape. That is accomplished by dumping.

The command F(↵) causes a printout of the file directory of the current tape. The first column is the mode, according to the following table; the second column is the first subname; next comes the second subname.

MODE	CHARACTER PRINTED
ASCII	␣
DUMP	!
SELK	"
RELOC	#

To check for agreement between memory and a file on tape, type I(↵)SUBNM1␣SUBNM2(↵) . A bell will be typed if they disagree.

In general, MACIMP will type out a bell for any error it detects: other than 1 unit of the selected number; checksum error on reading; disagreement on I(↵); no symbols found for T(↵); file not in directory for read; not enough room on tape or in file directory for dump.

The program uses 37176 through 37377 for temporary storage (including file directory) and sits in 374@@ through 37757. The entry point is 374@@. MACIMP leaves @ in 37176.