

TECH MEMO



a working paper

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ABSTRACT

The release of the "BLOCK" capability of QUUP, modification of the LISP and LISPED programs, new command for Program LIBRY, announcement of the User's Guide to PLANIT, change of time, and the schedule of coming holidays are included for the benefit of all Q-32 users.

1. DAYLIGHT SAVING TIME

Daylight saving time goes into effect in Santa Monica 30 April.

2. SDC HOLIDAY SCHEDULE

Since Q-32 Time-Sharing does not operate on holidays, please note this list of dates for the SDC Holiday Schedule for the remainder of 1967:

Tue., 30 May
Mon., 3 Jul*
Tue., 4 Jul
Mon., 4 Sep
Thu., 23 Nov
Mon., 25 Dec

3. BLOCK CAPABILITY IN QUUP

The BLOCK feature specified in TM-3404 has been incorporated in QUUP. It works exactly as defined in TM-3404 except that the command to revert to QUUP's normal format is "UNBLOCK" rather than "RESTORE". A new User's Manual is in preparation and will be published early in May.

* The company's floating holiday for 1967 will be on Monday, 3 July, to provide a four-day weekend for employees.

4. NEW COMMAND FOR PROGRAM LIBRY

At any time LIBRY asks for input, the command, CNL, may be entered. The command causes control to be returned to the beginning of the program, the tapes will remain filed, and ENTER OPTION DESIRED will be sent by the program. This command is especially useful when tape problems occur resulting in the message TNSTAT ERROR TYPE A CHARACTER. In this case, a correction may not be known but the process may be started over ty typing CNL.

5. PLANIT USERS DOCUMENTATION

For the benefit of PLANIT users, TM-3055/001/00 is now available through the regular Document Distribution channels. This User's Guide to PLANIT describes the PLANIT command SAVE, which is used to preserve lessons created with PLANIT. The Program LIBRY which may be used to transfer these lessons from disc to magnetic tape is also described and illustrated. Additional considerations during the lesson building, saving, and storing phases are presented in the Appendix of TM-3055/001/00.

6. CHANGES TO LISP AND LISPED

Both the LISP and LISPED programs have been modified as of April, 1967, to utilize pseudo-addresses to represent "small" integers and "small" positive octals.

An integer int in the range $-177777_8 \leq \text{int} \leq 200000_8$ is represented by the address $\text{int} + 600000_8$, while an octal oct in the range $0 \leq \text{oct} \leq 177777_8$ is represented by the address $\text{oct} + 200000_8$. The following advantages are obtained:

1. Approximately 200 additional cells of freespace are available in an empty LISP or LISPED system.
2. For each "small" number in the data being used by the user, an additional three cells of storage are used. *small*
3. Garbage collection is less frequent and is slightly faster.
4. $-\emptyset$ is avoided in arithmetic.
5. EQ works on "small" numbers and is equivalent to *EQN.
6. "Small" numbers can be used as names of properties or property lists. *became PROP, GET, etc member use EQ rather than EQU AL*
7. Since the compiler uses small numbers, compilation is slightly faster.

The new number handling is, so far as is known, compatible with all user programs. (At least no complaints have been heard in the last month in which LISP

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and LISPED have been operating using the small numbers).

On small test programs, the small numbers have produced running speeds which ranged from 1-30% faster. For programs that use integers and are garbage collector limited, the improvement could be spectacular.

If a LISP or LISPED user wishes to convert a saved copy of the system to use small numbers, a symbolic file exists that can be used to convert via the LOADEXP function. It will be the second physical file on Reel 1404.

Any comments or complaints on this item should be referred to S. Kameny on Extention 6055.

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SDC Distribution List (Contd):

F. Matranga	9217	G. S. Stanton (10)	PAR
J. J. McCafferty	LEX	T. B. Steel	9024
J. F. McDonald	24133	E. A. Stefferud	9734
R. J. Meeker	9615	R. H. Sterneck	2620
B. B. Moore	ROME	Anne Summerfield	2031
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C. J. Mosmann	3730	Kathy Theting	1329
E. P. Myer (10)	8413	R. A. Totschek	3747
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L. F. Page	5250	E. A. Waller	FLSCH
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J. Rosenbaum	9526		
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H. Sackman	9731		
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R. Savitt	5115		
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D. V. Schorre	2330		
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S. S. Shaffer	9730		
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Maryann Shaw	2030		
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H. F. Silberman	9518		
R. Simmons	9439		
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