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TM-890/012/00

# TECHNICAL MEMORANDUM

(TM Series)

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Utility System Programming Proposal	SYSTEM
Proposal for Modifications to the OSCON System	DEVELOPMENT
By	CORPORATION
C. L. Hill	2500 COLORADO AVE.
27 March 1963	SANTA MONICA
Approved	CALIFORNIA
J. B. Munson	

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This document is one of a series of TM-890 volumes established for Utility System Programming proposals.

Comments on this document must be received by 22 April 1963 to be reflected in the final design criteria.

Proposal for Modifications to the OSCON System

The following are proposed modifications to the OSCON 160-A peripheral processing system which would alleviate the inadequacies, errors and discrepancies that presently exist in OSCON. One of the primary concerns displayed in these proposals is more ease in operation of the system. Also of concern is the need to make OSCON a more complete system by bringing into it additional routines which would enlarge the scope of OSCON's activities and effectiveness.

The modifications fall into two categories; those modifications which will effect major changes to the entire system and those modifications that are in the nature of additions and corrections.

A. Major Changes to the System

1. Determine and implement a method to eliminate the present multiple calls for similar routines with different I/O configurations. Hopefully this may be done in such a way that a need for several different master tapes would be eliminated. This would involve in some way the operator telling OSCON what I/O equipment is available for its use.
2. Make all core dump routines and loading routines relocatable. This should increase the effectiveness and usefulness of these routines.

## B. Additions and Corrections

1. Modify the Clear Core (CLR) routine so that it will not clear the area of core in Bank 1 that is used by OSCON control.
2. Modify CARDS, DUMP and DUMPA to operate basically in Bank 1, assuming that Bank 0 is the primary bank used by object programs. These changes are related to the modification described above in A,2.
3. Replace the present GCT with a new version, GCT2, which allows for updating a master tape. The modifications described above in A,1 may necessitate the writing of an entirely new GCT routine.
4. Add TPDUMP, which is a program to dump magnetic tapes.
5. Add DUMPBC, which dumps core onto cards in OSAS binary format.
6. Replace the present OSAS configurations with one basic assembly program (the present OSASAT) and include the entire OSAS system to allow the option of using any possible OSAS I/O configuration.
7. Replace DPT with a new version that has the automatic check-sum option.
8. Modify DUMPA (Core to 1612) to suppress lines of all zeros.
9. Modify DUMP (Core to 166) to dump Banks 2 and 3. Also modify to accept typewriter input.
10. Replace the Teletype to Paper Tape translator (TELPRT) with the new version, "TELTRANS." This new routine corrects the errors that TELPRT now has with the additional provision of using the 161 typewriter for the output listing.

27 March 1963

-3-

TM-890/012/00

(last page)

11. Replace present TTPA with new version with a log capability.
12. Modify all routines that destroy any or all of the bootstrap or the control program to restore these portions of core.
13. Modify those routines that are considered to be "one-shot" operations to return to control upon their completion.
14. Add CARDS routines for the 088 and the 167.
15. Replace present TTC with new version with a log capability.
16. Replace present VERIFY with new version with a log capability.
17. Replace present PTDUP with new version, which has a verify capability.
18. Add SENPAP, which prestores a paper tape onto magnetic tape in 1604 format, and generates a paper tape from magnetic tape.
19. Add routines for flex paper tape to symbolic cards and vice versa.

27 March 1963

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