

TO: Distribution
FROM: M.L. Goudy
DATE: 30 April 1973
SUBJECT: Target Table of Contents for Model 6180 MOSN's

Currently, MOSN's which apply to Multics system operation on the Multics Series Model 6180 are being revised. This MOSN describes the proposed renumbering system for these MOSN's, so that they can be incorporated into the Multics Operators Handbook.

MOSN's will have a "Dewey decimal" number which indicates its logical position in the Operators Handbook. Since this Operators Handbook is in the dynamic state of being drafted it will change from time to time. If you should write a new MOSN, please contact Max Goudy, Honeywell at 575 Technology Square, Cambridge, Mass. (Ext. 219), so it can be incorporated in the appropriate place in the Operators Handbook. Thank you.

The following is a list of MOSN's applicable to operation on the 6180 (and currently being revised) with their new numbers under the Multics Operators Handbook. The old MOSN numbers where applicable are listed after the title, so you can file them in under the new numbering scheme if they are not yet re-published at the time of receipt of this MOSN.

MULTICS OPERATORS HANDBOOK
Outline and Table of Contents

- 1. PREFACE
- 1.0 Target Table of Contents
- 1.1 Introduction
- 1.2 System Overview (for Operators)
- 1.2.1 OPERATOR RESPONSIBILITIES
- 1.2.2 SUMMARY OF MULTICS

- 2. OPERATORS GUIDELINES
- 2.1 Using This Document
- 2.2 Index

- 3. SYSTEM DEFINITION
- 3.1 Hardware *
- 3.2 Software
- 3.2.1 OPERATING SYSTEM HIERARCHY
- 3.2.1.1 Hardcore
- 3.2.1.2 SSS/DEV Libraries
- 3.2.1.3 Other Libraries
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- 3.2.3 SALVAGER
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- 4. CONFIGURING THE SYSTEM
- 4.1 Relationship between Multics Operation and Configuration
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- 4.1.2 OPERATION WITH VARYING MULTICS CONFIGURATION (MOSN 132)
- 4.2 Switch Settings (MOSN 210)
- 4.2.1 SWITCHES USED BY MULTICS (MOSN 240)
- 4.2.2 INTERRUPT CELL ASSIGNMENTS (MOSN 224)
- 4.2.3 CHANNEL ASSIGNMENTS FOR PERIPHERAL DEVICES (MOSN 255)
- 4.3 Configuration Deck (BOS CONFIG Cards) (MOSN 230)**
- 4.4 Communications and I/O Processors Operation
- 4.4.1 OPERATION OF THE IOM (MOSN 216)
- 4.4.2 OPERATING THE DATANET 355 (MOSN 222)
- 4.4.3 OPERATION OF THE BULK STORE (MOSN 258)
- 4.5 Clock Operation
- 4.5.1 SETTING THE CALENDAR CLOCK (MOSN 45)

* This Section is supported in large part by material in Appendix A of The Multics Operators Handbook (MOH).

** Also incorporates MOSN's: 234, 235, 239, 247, 250.

5.	<u>BOS (Operators Guide to BOS)</u>	(MOSN 231)
5.1	<u>Relation of BOS to Multics</u>	(MOSN 231)
5.2	<u>Bootloading BOS</u>	(MOSN 231)
5.3	<u>BOS Commands</u>	(MOSN 231)
6.	<u>MULTICS OPERATION</u>	
6.1	<u>Check List and Suggested Daily Procedures</u>	
6.2	<u>Start UP</u>	
6.2.1	OVERVIEW OF STARTUP	
6.2.2	OPERATING THE INITIALIZER AND ANSWERING SERVICE	(MOSN 271)
6.3	<u>Shutdown</u>	
6.3.1	OVERVIEW OF SHUTDOWN	
6.3.2	CONDITIONS UNDER WHICH IT IS PERFORMED	
6.3.3	INSTRUCTIONS FOR PERFORMING A SHUTDOWN	(MOSN 271)*
6.4	<u>Daemons</u>	
6.4.1	OVERVIEW	
6.4.2	CONSOLELESS DAEMONS	(MOSN 270)
6.4.3	I/O DAEMON OPERATION	(MOSN 255)
6.4.4	OPERATING THE ARPA NETWORK DAEMON	(MOSN 233)
6.5	<u>Monitoring</u>	
6.5.1	CHECKLIST OF ITEMS TO MONITOR DURING NORMAL SYSTEM OPERATION	
6.5.2	METERING COMMANDS	
6.6	<u>Dynamic Reconfiguration in Multics</u>	(MOSN 160)
6.7	<u>Helpful Hints for Multics System Operators</u>	
7.	<u>SYSTEM BACKUP</u>	
7.1	<u>Overview of Multics System Storage Backup and Retrieval</u>	
7.2	<u>Incremental Backup</u>	(MOSN 157)
7.3	<u>Reloader</u>	(MOSN 170)
7.4	<u>Complete Dumps</u>	(MOSN 156)
7.5	<u>Retrieval</u>	(MOSN 219)
7.6	<u>Other Dumps</u>	
7.6.1	DATANET 355 DUMPER	(MOSN 251)
7.6.2	BOS DUMP COMMAND (FDUMPS)	
8.	<u>I/O DEVICE OPERATION</u>	
8.1	<u>I/O Daemon Operation</u>	(MOSN 263)
8.1.1	TWO CHANNEL OPERATION OF THE (DSU-270)	(MOSN 171)
8.2	<u>Printer Operation</u>	
8.2.1	VFU PRINTER TAPE	(MOSN 147)
8.3	<u>Card Reader Punch Operation</u>	
8.3.1	CARD INPUT	
8.3.1.1	Date Deletion of Card Input	(MOSN 120)
8.3.2	CARD OUTPUT	

*In part.

8.4	<u>Tape Operations</u>	(MOSN 140)
8.4.1	7-TRACK	
8.4.2	9-TRACK	
8.4.3	TAPE HANDLING AND FILING PROCEDURES *	(MOSN 236)
9.	<u>CRASH RECOVERY</u>	
9.1	<u>Crash Symptoms</u>	
9.2	<u>Salvager</u>	(MOSN 246)
9.3	<u>Emergency Shutdown (ESD)</u>	
9.4	<u>Procedures During a Crash</u>	
9.4.1	INSTRUCTIONS TO HELP OPERATORS RECOVER FROM CRASHES	
9.4.2	ACTION TO BE TAKEN IN THE EVENT OF A "CATASTROPHIC CRASH"	
10.	<u>TROUBLES (ABNORMAL SYSTEM OPERATING CONDITIONS)</u>	
10.1	<u>Emergencies</u>	
10.1.1	TROUBLE WHILE DOING A SAVE	(MOSN 39)
10.1.2	MEMORY READ PROCEDURES FOR PARITY ERRORS	(MOSN 111)
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10.1.4	ERRORS WHILE PROCESSING FDUMPS	(MOSN 181)
10.1.5	PROBLEMS RETURNING TO BOS	
10.1.6	DUMPING FROM THE DATANET 355	
10.1.7	HOW TO DUMP BOS	(MOSN 149)
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10.2.1	INITIALIZER MESSAGES	
10.2.2	IOM STATUS CODES	
10.2.3	DATANET 355 STATUS CODES	
10.2.4	BULK STORE ERROR AND STATUS CODES	(MOSN 229)
10.2.5	DISK STATUS CODES	(MOSN 132)
10.2.6	I/O SYSTEM MESSAGES	(MOSN)
10.2.7	MESSAGES FROM bootstrap1	
10.3	<u>Hardware Troubles</u>	
10.3.1	Component Failure Symptoms	
10.3.2	New Tape Dim Recovery Procedures	(MOSN 236)
10.3.3	Initiating Test and Diagnostics Programs	
10.4	<u>Command-Set Timax</u>	
11.	<u>TERMINALS</u>	
11.1	<u>Answer back</u>	
11.2	<u>Interface Requirements</u>	

*To be backed up by information in detail in Appendix B)

APPENDIX A: HARDWARE DESCRIPTIONS FOR OPERATORS

INTRODUCTION (HOW TO USE APPENDIX AND ITS SCOPE)

PROCESSOR

DISPLAY
SWITCHES

MEMORY

DISPLAY
SWITCHES

IOM

DISPLAY
SWITCHES

DATANET 355

DISPLAY
SWITCHES

HSLA

LSLA

BULK STORE

DISPLAY
SWITCHES

CARD- READER/PUNCH

PRINTER

TAPES

9-TRACK
7-TRACK

TERMINALS

HARDWIRES
AUDIO_COUPLED

APPENDIX B: TAPE HANDLING AND FILING PROCEDURES

LABELS

TAPE REGISTRATION
TAPE MANAGEMENT FOR USERS

BACKUP TAPES

INCREMENTAL BACKUP
COMPLETE DUMP TAPES

SYSTEM TAPES

MULTICS SYSTEM TAPES
SALVAGER TAPES
SAVE TAPES

USER TAPES

ASSIGNED USER TAPES
SCRATCH TAPES

BOS TAPES

APPENDIX C: RUNCOMS

BOS RUNCOMS

(MOSN 241)