## **Maxc Operations**

by Edward R. Fiala, Charles M. Geschke, Edward Taft, and Ronald L. Weaver

Maxc Document 18.7 April 20, 1984

This document describes many of the commonly used procedures for Maxc operation, as well as a number of uncommon procedures used during system debugging and maintenance. This is intended primarily as a reference document for system personnel. However, in the absence of system personnel, any user should be able to restart Maxc from a Tenex crash using the procedure outlined in Section 2.

XEROX
PALO ALTO RESEARCH CENTER
3333 Coyote Hill Road / Palo Alto / California 94304

	Section	1	Page
1.	Introduction		
	1.1	Overview of the Maxc System	1
	1.2	A Word on Terminals and Consoles	2
2.	Tenex (	Crashes	3
3.	Power V	Up	10
4.	Power I	Down	11
5.	Loading the PDP-10 Emulator		
6.	Starting	g Tenex	13
7.	Stoppin	ng Tenex	14
8.	AltIO		16
	8.1.	Calling AltIO	16
	8.2.	AltIO Commands	17
9.	Maxc2 Midas Operation		20
	9.1.	Starting Midas	20
	9.2.	Midas Display	20
	9.3.	Midas Command Menu	21
	9.4.	Keyboard	23
	9.5.	Command Files	24
	9.6.	Loading Programs	26
	9.7.	Dumping Microprograms	27
	9.8.	Tenex Microcode	27
	9.9. 9.10.	Power On-Off Testing Through the Maintenance Interface	27
	9.10.	Testing Through the Maintenance Interface	29
10.	Operati	ing Tenex Microcode from Midas	31
11.	Interpre	eting Checker Failures	33
12.	Using N	Micro-Exec	34
	12.1.	Tenex Disk Structure	34
	12.2.	Micro-Exec Command Descriptions	35
	12.3.	Micro-Exec Command Summary	40
13.	Hardware Diagnostic and Maintenance Procedures		
	13.1.	Running Microprocessor Diagnostics	42
	13.2.	Running PDP-10 Diagnostics	44
	13.3. 13.4.	Memory Maintenance Disk Maintenance	45 47
	13.4. 13.5.	TM	47
	10.0.	1171	<del>1</del> 2

ii Table of Contents Maxc Operations

	13.6.	MemBash	49	
	13.7.	SMIDiag	49	
	13.8.	AITest	49	
14.	Recove	ry from Checkdsk Errors	50	
15.	Bsys Operation			
	15.1.	Backup Procedures	53	
	15.2.	Incremental Dumps	54	
	15.3.	Full Dumps	55	
	15.4.	Full Backup to Tape	57	
	15.5.	Continuing Interrupted Dumps	57	
	15.6.	Restoring Files from Backup	57	
	15.7.	Restoring the Entire File System	58	
	15.8.	Archive Procedures	59	
	15.9.	Organization of the Archive Tapes	60	
	15.10.	Archiving Files to Tape	60	
	15.11.	Retrieving Files from Tape	62	
16.	Content	ts of the Alto Disk	64	
17.	Softwar	re Maintenance Procedures	65	
	17.1.	Midas	65	
	17.2.	AltIO	65	
	17.3.	TM, MemBash, SMIDiag, Alto Microcode	66	
	17.4.	Tenex and Diagnostic Microcode	66	
	17.5.	Tenex	66	
18.	Local M	Memory Chip Charts	67	
18. 19.	Creating and Destroying Maxc Accounts			
	19.1.	Obtaining a Maxe Account	68	
	19.2.	General Information About Maxc Directories	68	
	19.3.	The E <sup>c</sup> CREATE AND E <sup>c</sup> PRINT Commands	72	
	19.4.	Creating a Maxc Directory	75	
	19.5	Editing the Grapevine Data Base	77	
	19.6.	Changing the Password and Other Modifications to Directories	78	
	19.7.	Destroying a Maxc Account	79	
	19.8.	Operations on MESSAGE.TXT Files	80	
	19.9.	Reinstantiating a Destroyed Directory	81	
	19.10.	Retrieving Archived Files for Defunct Directories	82	
	19.11.	Printing Accounting Information	82	
20.	Miscellaneous Maxc Room Procedures			
	20.1.	Updating the Arpanet Host Name Table	83	
	20.2.	Periodic deletion of SYSTEM files	84	
	20.3.	Changing PARC-GUEST Password	84	
	20.4	Before doing a FORCED ARCHIVE	84	

20.5 Deleting an ]ARCHIVE-DIRECTORY[ 85 20.6 Creating New TapeServer Disk 85 20.7 Brownie [MAXC] directories to [Indigo] monthly 85 21. 86 **Appendix** 21.1. Files Comprising this document 86 21.2. Changing and Printing this document 87 Figure 1 (Old Bipolar Card Chip Changing Map) 90 Figure 2 (New Bipolar Card Chip Changing Map) 91 Figure 3 (MAXC Computer Memory Board Location) 92 Figure 4 (MAXC Memory Board Chip Location) 93 Figure 5 (MAXC Bipolar Memory Chip Data Table) 94 Figure 6 (Application for PA Registry, Mailbox, Maxc Login, or Ivy Directory [Xerox Palo Alto employees only]) 95 **Figure 7** (Files-only account protection guide) 96 97 Figure 8 (Application for MAXC Files-Only Directory) Figure 9 (Application for MAXC Login Directory [Non-Xerox and 98 Xerox employees not at PARC or Palo Alto SDD/SD])

Table of Contents

99

107

iii

**Maxc Operations** 

MAXC Bug Strings

MAXC Room Power Down/Up Procedure