

The Univac Corporation

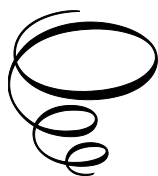
The Univac Corporation:

In from the Beginning

By

Stephen H. Kaisler

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By Stephen H. Kaisler

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TABLE OF CONTENTS

List of Figures.....	xvi
List of Tables.....	xxi
Acknowledgement.....	xxv
Introduction	1
Chapter One.....	5
Overview of Univac	
Chapter Two	7
Univac 1105	
2.1 System Architecture.....	10
2.1.1 Magnetic Core Memory	10
2.1.2 Processor Registers	10
2.1.3 Magnetic Drum Memory.....	11
2.1.4 I/O System	11
2.1.5 Tape Buffering	11
2.2 Instruction Set.....	13
2.3 UNIVAC 1105 System Software.....	14
2.4 UNIVAC 1105 Assessment	15
Chapter Three	16
UNIVAC 1107	
3.1 UNIVAC 1107 System Architecture	18
3.1.1 Control Memory.....	20
3.1.2 Index Registers.....	21
3.1.3 Arithmetic Registers	22
3.1.4 Input-Output Access Control Registers.....	22
3.1.5 R Registers	22
3.2 Main Memory	23
3.3 Interrupt System.....	26
3.4 Indexing Unit	28

3.5 I/O Facilities	28
3.5.1 Channel Request	29
3.6 Mass Storage.....	30
3.7 Operator Console	30
3.8 EXEC II Operating System.....	31
3.8.1 EXEC II Components	32
3.8.2 Real-Time Clock	33
3.8.3 Job Processing	34
3.8.4 Executive Control Language.....	34
3.8.5 Initial Loading	37
3.8.6 EXEC II Assessment.....	37
3.9 SLEUTH II	38
3.9.1 Coding Format	40
3.9.2 Assembler Directives	41
3.9.3 Macro-Instructions	44
3.9.4 SLEUTH II Assessment.....	45
3.10 System Software	46
3.10.1 LIBRARIAN.....	46
3.10.2 CLAMP	48
3.11 Case Western Reserve University.....	49
3.12 UNIVAC 1107 Assessment	52
Chapter Four.....	53
UNIVAC 1100 Computers	
4.1 UNIVAC 1100 Series	53
4.2 UNIVAC 1100 System Configuration.....	56
4.2.1 Instruction Processors	57
4.2.2 I/O Processors	57
4.2.4 I/O Information Words.....	60
4.2.5 Main Storage Units	61
4.3 UNIVAC 1100 Registers	62
4.3.1 Accumulators	62
4.3.2 R Registers	62
4.3.3 Index Registers.....	63
4.3.4 Indirect Addressing	64
4.3.5 Access Control Registers	64
4.3.6 I/O Access Control Registers	64
4.3.7 Real-Time Clock Register.....	66
4.3.8 Repeat Counter.....	66
4.3.9 Mask Register	67
4.3.10 Mapping Registers To Main Memory.....	67

4.4 Processor State Register.....	68
4.5 Guard Mode	70
4.6 UNIVAC 1100 Addressing.....	71
4.7 UNIVAC 1100 Process Management.....	74
4.8 Interrupt Handling.....	74
4.9 One's Complement Arithmetic	75
4.10 UNIVAC 1100 Architecture Assessment	75
Chapter Five	77
UNIVAC 1100 Series Instructions	
5.1 Arithmetic Formats.....	79
5.2 Fixed Point Arithmetic Instructions.....	80
5.3 Floating Point Arithmetic Instructions.....	81
5.4 Logical Instructions	83
5.5 Transfer Instructions.....	83
5.6 Index Register Instructions	84
5.7 Shift Instructions.....	85
5.8 Conditional Jump Instructions	86
5.9 Test or Skip Instructions	88
5.10 Search Instructions.....	89
5.11 Unconditional Jump Instructions	91
5.12 I/O Instructions	92
5.13 Executive System Control Instructions.....	93
5.14 UNIVAC 1100 Instruction Set Assessment.....	95
Chapter Six	97
UNIVAC 1108	
6.1 System Configuration	99
6.2 Central Processor.....	100
6.2.1 Control Registers.....	100
6.2.2 Arithmetic Section	100
6.2.3 Storage Protection	100
6.2.4 Diagnostic Support.....	101
6.3 Main Memory	101
6.4 I/O Control Section.....	104
6.4.1 ISI Mode	104
6.4.2 ESI Mode	106
6.4.3 Control Words.....	107
6.5 Operator Console	107
6.5.1 Operator Control Panel	108
6.5.2 UNIVAC 4009 Display Console.....	111

6.5.3 PAGEWRITER Printer	113
6.6 Communications Subsystem	113
6.6.1 Communications Terminal Module Controller	113
6.6.1 Communications Terminal Modules	114
6.7 UNIVAC 1106	115
6.7.1 System Architecture	117
6.7.2 Operating System	117
6.8 UNIVAC 1108 Software	117
6.8.1 RALPH	117
6.8.2 @Ed	118
6.8.3 NELIAC	118
6.9 Early 1108 Applications	119
6.10 UNIVAC 1108 Assessment	120
Chapter Seven	121
UNIVAC 1108 Multiprocessor System	
7.1 Central Processor Units	122
7.2 Input/Output Controllers	123
7.3 Main Storage	123
7.3.1 Multi-Module Access Unit	123
7.3.2 Multiple Processor Adapter	124
7.3.3 Shared Peripherals Interface	126
7.3.4 Availability Control Unit	126
7.4 Auxiliary Storage	127
7.5 Executive Control	128
7.6 UNIVAC Array Processor	128
7.7 UNIVAC 1108 and the University of Maryland	129
Chapter Eight	131
UNIVAC 1110 System	
8.1 Command Arithmetic Unit	133
8.1.1 Address Formation Section	134
8.1.2 General Register Stack	136
8.1.3 Arithmetic Section	138
8.1.4 Conditional Jump Section	139
8.1.5 Instruction Stacking	139
8.2 Additional Instructions	140
8.3 Control Section	141
8.3.1 Processor State Register	141
8.3.1 Memory Descriptor Table	141
8.3.2 Diagnostic Support	142

8.3.3 Interrupts	143
8.4 Main Storage Unit.....	143
8.4.1 Multi-Module Access.....	143
8.4.2 Primary Memory	144
8.4.3 Extended Memory.....	144
8.4.4 Storage Protection	144
8.4.5 Relative Addressing.....	146
8.4.6 Character Addressing.....	146
8.5 I/O Access Unit.....	146
8.6 System Console	148
8.7 System Partitioning Unit.....	148
8.8 UNIVAC 1100 Processors.....	148
8.9 System Software	149
8.10 UNIVAC 1110 Assessment.....	150
Chapter Nine.....	151
UNIVAC 1100/80 and 1100/90	
9.1 1100/80 Computer System.....	151
9.1.1 UNIVAC 1100/80 System Architecture	152
9.1.2 Central Arithmetic Unit.....	153
9.1.3 1100/80 System Maintenance Unit	155
9.1.4 Main Storage	155
9.1.5 Storage Interface Unit	156
9.1.6 I/O Access Unit.....	158
9.1.7 Control and System Consoles	159
9.1.8 System Transition Unit	160
9.2 Additional Instructions	161
9.2.1 Byte Instructions	161
9.2.2 Executive Control Instructions.....	165
9.2.3 Bank Descriptor Selection Instructions.....	168
9.2.4 Miscellaneous Instructions.....	168
9.3 UNIVAC 1100/80 Addressing.....	170
9.3.1 The Designator Register.....	170
9.4 Cache/Disk System.....	174
9.5 UNIVAC 494 Emulator.....	174
9.6 Scientific Accelerator Module	175
9.7 Array Processing Options	175
9.7.1 Array Process Subsystem (APS).....	175
9.7.2 Floating Point Subsystems (FPS).....	178
9.8 UNIVAC 1100/90.....	180
9.8.1 UNIVAC 1100/90 System Architecture	182

9.8.2 1100/90 Cache/Disk System	186
9.8.3 Integrated Scientific Processor.....	188
9.8.4 Scalar Module	193
9.8.5 Vector Module	195
9.8.6 Scientific Processor Storage Unit.....	196
9.8.7 Program Execution.....	196
9.8.8 ISP Programming	199
9.8.9 Cooling System.....	201
9.8.10 Subsystem Access Unit.....	201
9.8.11 Univac 1100/90 Assessment	201
Chapter Ten	203
UNIVAC 1100/60 and 1100/70	
10.1 UNIVAC 1100/60 System Architecture	203
10.1.1 System Support Processor.....	204
10.1.2 Main Memory	204
10.1.3 I/O Unit	204
10.1.4 Microcode Accelerator.....	205
10.1.5 Array Processors	205
10.1.6 I/O Devices	205
10.2 Attached Virtual Processor	205
10.3 UNIVAC 1100/70.....	206
10.4 UNIVAC 1100/72.....	207
10.5 UNIVAC 1100/60 System Software.....	208
10.6 Assessment	209
Chapter Eleven	210
EXEC 8 Operating System	
11.1 EXEC 8 Functional Objectives	210
11.2 Operating Modes.....	211
11.2.1 Batch Processing.....	211
11.2.2 Demand Processing.....	212
11.2.3 Real-Time Processing	212
11.3 File Concept.....	212
11.3.1 Program Files	214
11.4 EXEC 8 Components.....	214
11.4.1 File Control	215
11.4.2 Mass Storage Allocation	216
11.4.3 File Protection.....	217
11.5 Program Protection	218
11.6 Job Processing	218

11.7.2 Task Processing.....	220
11.7.3 Program Protection	222
11.7.4 Shared Address Space.....	223
11.8 Executive Control Language.....	223
11.8.1 EXEC 8 Scheduling Commands	223
11.8.2 EXEC 8 Processor Commands.....	225
11.8.3 Standard Processor Options	229
11.9 The Supervisor.....	229
11.10 Executive Requests	231
11.10.1 Activity Registration ERs	231
11.10.2 Termination ERs	232
11.10.3 Reentrant ERs	232
11.10.4 Dynamic Facility ERs	233
11.11 Symbionts	234
11.12 OS 2200	236
11.13 Exec 8 and the University of Maryland	236
11.14 EXEC 8 Assessment	237
Chapter Twelve	238
UNIVAC System Software	
12.1 Programming Languages	238
12.1.1 FORTRAN Compilers	238
12.1.2 COBOL Compiler	242
12.1.3 Assembler	242
12.1.4 ALGOL Compiler	252
12.1.5 PLUS.....	257
12.1.6 BASIC.....	259
12.2 Applications Software.....	259
12.2.1 FMPS	259
12.2.2 Sort/Merge Package	259
12.3 System Utilities.....	260
12.3.1 FURPUR	260
12.3.2 ED	261
12.3.3 DOC	261
12.3.4 The Collector.....	268
12.3.5 Other Processors	270
12.4 Distributed Transaction Processing	271
12.5 DMS 1100.....	272
12.5.1 Data Definition Language	273
12.5.2 Data Manipulation Language	276
12.5.3 Data Dictionary System	277

12.5.4 Data Management Routine.....	278
12.5.5 DMS 1100 Assessment	278
Chapter Thirteen.....	279
SPERRY 2200 Series	
13.1 Sperry 2200/200.....	281
13.2 Sperry 2200/400.....	281
13.3 Sperry 2200/600.....	282
13.4 Sperry 2200/600ES.....	282
13.4.1 System Architecture	283
13.4.2 Instruction Processor.....	283
13.4.3 Main Storage Unit.....	284
13.4.4 I/O Complex.....	284
13.4.5 System Support Processor.....	284
13.4.6 Subsystem Access Unit.....	285
13.4.7 Subsystem Power Controller.....	285
13.5 System Partitioning.....	285
13.6 System Software	285
13.6.1 CMS 1100	286
13.7 Sperry 2200/900.....	287
13.8 ClearPath IX Series.....	288
Chapter Fourteen	289
UNIVAC 1000 Series	
14.1 UNIVAC 1004-I	290
14.2 UNIVAC 1004-II.....	290
14.3 UNIVAC 1004-III.....	291
14.3.1 1004 Programming.....	293
14.3.2 The Connection Panel	295
14.4 UNIVAC 1005.....	309
14.4.1 System Architecture	309
14.4.2 Program Control Section.....	311
14.4.3 Data and Storage Control Section	311
14.4.4 Arithmetic Section	311
14.4.5 I/O Control Section	312
14.4.6 Main Memory	312
14.4.7 Operator Controls and Indicators	314
14.4.8 Programming the UNIVAC 1005	316
14.5 UNIVAC 1050.....	319
14.5.1 UNIVAC 1050 System Architecture.....	321
14.5.2 Central Processor	321

14.5.3 Main Storage	322
14.5.4 I/O Channels	322
14.5.5 Programming the UNIVAC 1050	323
14.5.6 UNIVAC 1050 Instruction Set	326
14.6 UNIVAC 1000 Series Assessment	334
Chapter Fifteen	335
UNIVAC 9000 Series	
15.1 UNIVAC 9000 Instruction Set	336
15.2 UNIVAC 9200	337
15.3 UNIVAC 9300	341
15.3.1 UNIVAC 9200 II and 9300 II	343
15.3.2 Programming Utility Routines	343
15.3.3 Univac 9200/9300 Assessment	344
15.4 UNIVAC 9400	345
15.4.1 Central Processor	345
15.4.2 System Peripherals	346
15.4.3 Operating System	347
15.4.4 System Software	347
15.4.5 UNIVAC 9480	348
15.4.6 UNIVAC 9400 Assessment	349
15.5 UNIVAC 9700	350
15.5.1 9700 System Architecture	350
15.5.2 Processor Main Control	351
15.5.3 Control Storage	351
15.5.4 Processor Architecture	352
15.6 UNIVAC 9000 Software	353
15.7 Univac Series 90	353
15.6.1 Series 90 System Architecture	353
15.6.2 Low End Series 90 Machines	354
15.6.3 UNIVAC 90/60 to UNIVAC 90/80	355
15.6.4 Low-end Series 90 System Software	359
15.6.5 Series 90 Programming Languages	362
15.6.6 High-End Series 90 System Software	362
15.8 System 80	364
15.8.1 Central Processor	364
15.8.2 Integrated Disk Processor	365
15.8.3 System 80 Peripherals	365
15.9 Series 9000/90 Assessment	367

Chapter Sixteen	368
UNIVAC 1100 Peripherals	
16.1 Flying Head Drums.....	368
16.1.1 The FH-432 and FH-1782 Drum Subsystems.....	369
16.1.2 The FH-880 Magnetic Drum System.....	370
16.2 The FASTRAND II Drum Storage System	371
16.3 Fixed Head Disc Systems	373
16.3.1 8405 Fixed-Head Disc.....	373
16.3.2 UNIVAC 8433/8434 Disc Storage.....	374
16.4 UNISERVO Magnetic Tape Subsystems.....	376
16.4.1 UNISERVO 20 Magnetic Tape Subsystem	378
16.4.2. UNISERVO 12 Magnetic Tape Subsystem	378
16.4.3 UNISERVO 16 Magnetic Tape Subsystem	379
16.5 High-Speed Printer Subsystem	379
16.6 Card Reader Subsystem.....	381
Chapter Seventeen.....	382
Communications Systems	
17.1 Data Communications Systems	382
17.2 Distributed Communications Processor.....	383
17.2.1 Communications Processor.....	385
17.2.2 I/O Processor.....	386
17.2.3 DCP/40 Assessment.....	388
17.3 Communications/Symbiont Processor.....	388
17.3.1 C/SP Hardware.....	390
17.3.2 C/SP Software.....	397
17.3.3 Host Software.....	397
17.3.4 C/SP Software Architecture	398
17.3.5 C/SP Program Development	400
17.4 C/SP GPCC Channel	401
17.5 General Communications System.....	403
Chapter Eighteen	404
COBOL	
18.1 Early COBOL	405
18.2 Univac COBOL Offerings	405
18.3 COBOL Program Structure.....	405
18.3.1 Identification Division	406
18.3.2 ENVIRONMENT DIVISION.....	407
18.3.3 Data Division	408
18.3.4 Procedure Division.....	411

18.4 COBOL Assessment	415
Chapter Nineteen	417
Sperry Univac Assessment	
19.1 1100 Series Summary	417
19.2 A Successful Computer Family	418
19.3 Multiprocessor Systems	419
19.4 Communications Support.....	419
19.5 EXEC 8.....	419
19.6 Database Systems	420
19.7 Peripherals	420
19.8 Ingesting RCA	420
19.9 The Varian Acquisition.....	421
19.10 The Merger with Burroughs Corporation	422
Exercises for the Reader.....	425
Glossary	427
References	429
Index	436

LIST OF FIGURES

I-1	UNIVAC Family Tree
2-1	UNIVAC 1105 Console
2-2	UNIVAC 1105 Computer System
2-3	UNIVAC 1105 Computer System
2-4	Program Control Register Format
2-5	Tape Buffering Structure
3-1	UNIVAC 1107 Computer System – Conceptual View
3-2	UNIVAC 1107 Logic Circuit Plugged into a Connector Block
3-3	UNIVAC 1107 System Architecture
3-4	UNIVAC 1107 Control Memory Layout
3-5	Index Register Format
3-6	UNIVAC 1107 Core Memory Layout
3-7	UNIVAC 1107 Addressing
3-8	UNIVAC 1107 Instruction Format
3-9.	EXEC II MTOD\$ Format
3-10	SLEUTH II Assembly Coding Form
3-11	Instruction Format
3-12	Label Field Example
3-13	Macro-instruction Example
3-14	Macro Generator Example
3-15	CASE UNIVAC 1107 Computer Room
4-1	UNIVAC 1100/82 System Architecture
4-2	UNIVAC 1100 ACR Format
4-3	Storage Limit Register
4-4	UNIVAC 11xx Index Register Format
4-5	I/O Access Control Register Format
4-6	ESI Identifier Word
4-7	Real-Time Clock Register
4-8	Repeat Counter
4-9	UNIVAC 1100 Series General Register Set Mapping
4-10	UNIVAC 1100 Processor State Register Format
4-11	Relative-to-Physical Address Translation
4-12	Segment Descriptor Table Use in Address Translation

- 5-1 UNIVAC 1100 Series Instruction Format
- 5-2 Operand Address Formation in UNIVAC 1100 Series
- 5-3 Integer Format
- 5-4 Single Precision Floating Point Format
- 5-5 Double Precision Floating Point Format
- 5-6 I/O Control Word
- 5-7 A Test-And Set Example

- 6-1 UNIVAC 1108 Console
- 6-2 UNIVAC 1108 Storage Limits Register
- 6-3 UNIVAC 1108 Addressing Structure
- 6-4 UNIVAC 1108 Segment Selection Algorithm
- 6-5 I/O Access Control Word Format
- 6-6 ESI Mode Control Word
- 6-7 UNIVAC 1108 Operator Console
- 6-8 UNIVAC 1108 Operator Control Panel
- 6-9 Display Console System Architecture
- 6-10 UNIVAC 4009 CRT Display Unit
- 6-11 PAGEWRITER Printer
- 6-12 Univac 1106 System Configuration

- 7-1 UNIVAC 1108 Multiprocessor System Architecture
- 7-2 UNIVAC 1108MP Multi-Module Access Unit
- 7-3 MMA and MPA System Configuration

- 8-1 UNIVAC 1110 System
- 8-2 Basic UNIVAC 1110 System Configuration
- 8-3 UNIVAC 1110 Physical Address Structure
- 8-4a UNIVAC 1110 General Register Stack – Upper Half
- 8-4b UNIVAC 1110 General Register Stack – Lower Half
- 8-5 UNIVAC 1110 Instruction Execution
- 8-6 UNIVAC 1110 Processor State Register
- 8-7 UNIVAC 1110 MDP Format
- 8-8 UNIVAC 1110 Storage Limits Register Format
- 8-9 IOAU Structure

- 9-1 UNIVAC 1100/80 Maximum Configuration
- 9-2 1100/80 SDR Structure
- 9-3 UNIVAC 1100/80 IOAU Configuration
- 9-4 UNIVAC 1100/80 Control Console
- 9-5 J-Register Format
- 9-6 SRS A Register Format

- 9-7 TRA Packet Structure
- 9-8 Designator Register Format
- 9-9 UNIVAC Array Processor System
- 9-10 APU Architecture
- 9-11 VAST Processing Flow
- 9-12 UNIVAC 1100/90 Front Cover
- 9-13 UNIVAC 1100/90 System
- 9-14 UNIVAC 1100/90 System Architecture
- 9-15 UNIVAC 1100/90 Operator Console
- 9-16 1100/90 Operator console
- 9-17 IP System Architecture
- 9-18 ISP Scalar Module Architecture
- 9-19 ISP Vector Module Architecture
- 9-20 ISP Mailbox Structure

- 10-1 UNIVAC 1100 Multiprocessor Systems Architecture

- 11-1 EXEC 8 Run Execution

- 12-1 Simulated Recursion in RALPH
- 12-2 A Useful PROC
- 12-3 SNAP\$ Packet Structure
- 12-4 ALGOL Syntax Specified as a Grammar
- 12-5 Sample Document
- 12-6 Line Editing Directives
- 12-7 Correct Sample Document
- 12-8 Record Definition Example
- 12-9 Set Definition Example

- 13-1 Sperry 2200/200 Computer System
- 13-2 Sperry 2200/400 Computer System
- 13-3 CMS 1100 Environment

- 14-1 UNIVAC 1004-II System
- 14-2 UNIVAC 1004 Model III Magnetic Tape System
- 14-3 UNISERVO Tape Drives
- 14-4 UNIVAC 1004 Connection Panel
- 14-5 UNIVAC 1005 System Architecture
- 14-6 UNIVAC 1005 – I/O Buffer Allocations
- 14-7 1005 Central Control Panel
- 14-8 1005 Operator Display Panel

- 14-9 UNIVAC 1005 Instruction Format
- 14-10a UNIVAC 1005 Extended System Code Card, Side 1
- 14-10b UNIVAC 1005 Extended System Code Card, Side 2
- 14-11 UNIVAC 1050 System
- 14-12 UNIVAC 1050-II Operator's Station
- 14-13 UNIVAC 1050 Operator's Console
- 14-14 UNIVAC 1050 Tetrad Storage Map
- 14-15 UNIVAC 1050 Instruction Format

- 15-1 UNIVAC 9200 Advertisement
- 15-2 UNIVAC 9200 Systems Processor
- 15-3 9200 Operator Console
- 15-4 UNIVAC 9200 System Architecture
- 15-5 UNIVAC 9300
- 15-6 UNIVAC 9400 System
- 15-7 UNIVAC 9400 Computer System
- 15-8 UNIVAC 9400 Disk System
- 15-9 UNIVAC 9480 Configuration
- 15-10 UNIVAC 9700 System Architecture
- 15-11 UNIVAC Model 90-30
- 15-12 UNIVAC Model 90/70
- 15-13 UNIVAC Model 90/60 Operator Console
- 15-14 System 80 Configuration

- 16-1 FH-880 Schematic
- 16-2 A FASTRAND II Unit
- 16-3 8405 UNIVAC Fixed-Head Disc Drive
- 16-4 UNIVAC 8433 Disc Storage Subsystem
- 16-5 UNIVAC 8434 Disk Storage Subsystem
- 16-6 UNIVAC 0768 High-Speed Printer
- 16-7 UNIVAC 0716 Card Reader

- 17-1 DCP/40 Communications System
- 17-2 DCP/40 System Configuration
- 17-3 Communications Symbiont Processor
- 17-4 C/SP System Configuration
- 17-5 C/SP Program Status Word Format
- 17-6 C/SP Storage – Fixed Area
- 17-7 C/SP Software Architecture

- 18-1 COBOL Program Structure

18-2	IDENTIFICATION DIVISION Example
18-3	ENVIRONMENT DIVISION Example
18-4	Sample Data Description
18-5	COBOL Procedure Division Example

LIST OF TABLES

2-1	UNIVAC 1105 – Basic Characteristics
2-2	UNIVAC 1105 Transmit Commands
2-3	UNIVAC 1105 Arithmetic Commands
2-4	UNIVAC 1105 Jump and Stop Commands
3-1	UNIVAC 1107 – Basic Characteristics
3-2	Designated R Registers
3-3	UNIVAC 1107 Internal Interrupts
3-4	EXEC II Commands
3-5	SLEUTH II Assembly Statement Fields
3-6	Selected Assembler Directives
3-7	LIBRARIAN Maintenance Functions
4-1	UNIVAC 11xx/2200 – Basic Characteristics
4-2	Types of I/O Information Words
4-3	UNIVAC 1100 R Registers
4-4	I/O ACR Fields
4-5	G Field Input and Output Values
4-6	PSR D-field Bit Description
5-1	Fixed Point Arithmetic Instructions
5-2	Floating Point Arithmetic Instructions
5-3	Logical Instructions
5-4	Transfer Instructions
5-5	Index Register Instructions
5-6	Shift Instructions
5-7	Conditional Jump Instructions
5-8	Test or Skip Instructions
5-9	Search Instructions
5-10	Unconditional Jump Instructions
5-11	I/O Instructions
5-12	Executive System Control Instructions
6-1	UNIVAC 1108 II Characteristics
6-2	IO ACR Fields

6-3	G Field Input and Output Values
6-4	Operator Control Panel Elements
6-5	UNIVAC 1106 – Basic Characteristics
7-1	FH Magnetic Drum Series Characteristic
8-1	UNIVAC 1110 – Basic Characteristics
8-2	CAU Characteristics
8-3	Memory Descriptor Word Fields
8-4	PIRR Values
9-1	J-Register Field Description
9-2	UNIVAC 1110 Byte Manipulation Instructions
9-3	UNIVAC 1110 Byte/Binary Conversion Instructions
9-4	UNIVAC 1110 Decimal Arithmetic Instructions
9-5	Executive Control Instructions
9-6	Bank Descriptor Selection Instructions
9-7	Miscellaneous Instructions
9-8	DR Field Description
9-9	APS Microcode Vector Algorithms
9-10	ISP IP Programmable Registers
9-11	IP Instrumentation
9-12	ISP Faults
9-13	HSR Contents
9-14	ISP Control Block Structure
9-15	ISP Support Software
10-1	Selected UNIVAC 1100/70 Characteristics
11-1	EXEC 8 Components
11-2	After Task Termination Processing
11-3	Scheduling Control Statements
11-4	EXEC 8 Processor Commands
11-5	Some EXEC 8 Standard Processor Options
11-6	Activity Registration ERs
11-7	Termination ERs
11-8	Reentrant Routine ERs
11-9	Dynamic Facility ERs
11-10	Symbiont I/O Executive Requests
11-11	Symbiont Control Executive Requests

- 12-1 FORTRAN V Extensions and Enhancements
- 12-2 FORTRAN V Compiler Phases
- 12-3 Assembler Directives
- 12-4 Univac Deviations from Standard ALGOL
- 12-5 Univac Extensions to Standard ALGOL
- 12-6 FUR/PUR Commands
- 12-7 Selected DOC Processor Options
- 12-8 Title Control Directives
- 12-9 Listing Control Directives
- 12-10 Collector Options
- 12-11 Collector Control Statements

- 13-1 SPERRY 2200 Series Technology Evolution
- 13-2 2200/600ES System Configurations

- 14-1 UNIVAC 1004-II – Basic Characteristics
- 14-2 1004 Logical Processes
- 14-3 I/O Functions
- 14-4 Hub Sections
- 14-5 Sample Wiring Descriptions
- 14-6 UNIVAC 1005 Basic Characteristics
- 14-7 UNIVAC 1005 System Registers
- 14-8 UNIVAC 1005 Indicators
- 14-9 UNIVAC 1050 Model III – Basic Characteristics
- 14-10 Arithmetic Operation Indicators
- 14-11 UNIVAC 1050 I/O Channel Functions
- 14-12 Assembly Directives
- 14-13 UNIVAC 1050 Instruction Abbreviations
- 14-14 Data Transfer Instructions
- 14-15 Arithmetic Instructions
- 14-16 Comparison Indicators
- 14-17 Comparison Instructions
- 14-18 Sequence Control Instructions
- 14-19 Conversion and Edit Instructions
- 14-20 Block Transfer Instructions
- 14-21 Logical Instructions
- 14-22 Shift Instructions

- 15-1 UNIVAC 9000 Series – Basic Characteristics
- 15-2 UNIVAC 9200/9300 – Basic Characteristics
- 15-3 Programming Utility Routines

15-4	UNIVAC Series 90 – Basic Characteristics
15-5	Some VS/9 Commands
16-1	FH-xx System Characteristics
16-2	UNISERVO Magnetic Tape Subsystem Characteristics
16-3	Later UNISERVO Magnetic Tape Characteristics
16-4	Selected High –Speed Printer Characteristics
17-1	Selected DCS Features
17-2	C/SP – Basic Characteristics
17-3	C/SP Channel Types
17-4	C/SP Software Elements
17-5	C/SP Development Programs
17-6	CLT Functions
18-1	COBOL Data Structures
18-2	Selected Type Descriptors
18-3	Selected COBOL-74 Verbs

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INTRODUCTION

The Sperry Gyroscope Corporation (Sperry) was formed by Elmer Ambrose Sperry in 1910. Originally focused on making gyroscopes and other navigational equipment for ships, the company soon entered a period of expansion, acquiring the Vickers Corporation, which manufactured hydraulic systems, in 1937 and New Holland, a manufacturer of farm machinery, in 1941. By the end of World War II, Sperry had broadened its offerings to include navigational and radar systems for ships and planes. By the early 1950s, Sperry had accumulated considerable expertise in electronics and much wealth. With an eye on the company's continued diversification into related industries, Harry Vickers, Sperry's President, led the drive to acquire Remington Rand to gain entry into the computer industry. The company became known as Sperry Rand when the merger was completed in 1955 (Gray and Smith 2004).

The Univac Division of Remington Rand was formed as a result of the merger of the Eckert-Mauchly Computer Corporation and Engineering Research Associates. The history of these two firms was discussed in Volume I: *Birthing the Computer: From Relays to Vacuum Tubes*. Its first computers, the UNIVAC 1101/1102/1103 machines, were derived from the ERA 1101. A second generation of machines followed – notably the UNIVAC SS80/SS90 and the UNIVAC 418 and 490 series. These were discussed in Volume II: *Birthing the Computer: From Drums to Cores*. That volume also discussed further the history of the Remington Rand Corporation.

The UNIVAC 1103 was the first computing machine with significant commercial sales. It set the 36-bit word as standard for the UNIVAC 1100 series. The UNIVAC 1103 used vacuum tubes for computational circuits and a magnetic drum for its main memory. Both of these were soon to become obsolete as transistors became more reliable. Univac realized that its machines had to be viable in several markets – scientific, commercial, and interactive/real-time. This gave it an advantage over IBM, who it perceived to be its main competitor.

Thereafter, Univac used the 11xx designation for its mainframes up through the 1100/90 family. It then introduced the 2200 family with significantly enhanced performance. The UNIVAC 1104 was a 30-bit machine based on the UNIVAC 1103 that was designed and built for Westinghouse Electric in 1957 for the BOMARC program. It never entered

Univac developed the 10x0 series systems as standalone, card-oriented processors at the low end similar to and competing with the IBM 1400 series of machines. Generally, these systems were often used for card-to-tape and offline printing systems for the larger UNIVAC 1100 mainframes.

Univac needed an entry-level system for small firms since it could not downsize the low-end models of the 1100 series. In this range, the low-end system/360 and System/370 systems were seen as the main competitors. Initially, Univac developed its 9000 series machines to be the competitors to the low-end IBM models.

When RCA decided to exit the computer manufacturing market, it sold its computer division to Univac. Univac relabeled the RCA machines as the Series 70 processors. However, after evaluating the high-end Spectra 70 machines, it decided to discontinue the 9000 series, and re-engineered and relabeled the low-end RCA machines as the Series 70. Sperry acquired Varian's computer division which manufactured the Vxx family of minicomputers. These will be discussed in a forthcoming volume entitled *Minicomputer Systems: The Second Tier – Prime, Varian, and Harris*.

By the mid-1980s, IBM was siphoning customers from both Univac and Burroughs, its two main competitors. This was partially due to IBM's strong market position, but also through corporate mergers where the larger company typically was an IBM shop. The junior partner in the merger then converted to IBM to be compatible with its larger partner. Such was the case when US Air swallowed Piedmont Airlines. Another factor was IBM's deep pockets that allowed it to invest heavily in the development of new processors and peripherals with advanced technology. Neither Univac nor Burroughs could keep up with IBM's innovation on their own (Gray and Smith 2007).

By 1985, Sperry had several tough years and "was viewed by the industry pundits as ripe for acquisition". Burroughs approached Sperry about a direct acquisition. After almost two years of negotiations, Burroughs agreed to buy Sperry for \$78 per share. The merger was completed in September 1986. A contest was held to name the new company. It was won by Christian Machen of Burroughs' Atlanta office. The new company was named Unisys, which he said stood for Universal Information Systems. Unisys has always claimed it was not an acronym, but Sperry old-timers said it stood for *Univac Is Still Your Supplier*.

Note: RCA is discussed in a forthcoming volume: *The Other Dwarves: RCA, SDS/Xerox, and NCR*.

Note: Honeywell, the other major mainframe manufacturer (and the 'H' in BUNCH) is described in a forthcoming volume: *Mainframe Computer Systems: Honeywell Corporation*.

Note: Varian Corporation's minicomputer families are described in a forthcoming volume: *Minor Minicomputer Vendors: Prime, Varian and Harris*

Note: In this volume I use K to mean 1024 words or bytes. Thus, 64K words means 65,536 words. I think this is much clearer than saying 65K. The documentation uses 65K to mean 65,536 words which is not correct.

Note: In the tables, if there is a blank entry, then I was unable to discern from the available documentation and technical literature a value for that attribute or feature.

Note: Because there were several name changes to the corporation during the years 1960 until the 1990s, all references have been listed under 'Univac', but may be mentioned by the then-current name. For example, the COBOL-74 PRM is known as Sperry 2017cq, but will be found under Univac 2017cq.