

SPD-35
PH-37 "MEND" on-line security.

4/20/68

Step	Instruction	Address	Comment	Octal	Step
00			→ Copy etc. 3000-		00
01					01
02					02
03	Offset				03
04	Addresses.				04
05					05
06					06
07					07
10	JSBR	IZ 1652	PUT title + MEND		10
11	P= 2700-				11
12	JSBR	IZ 1670	FETCH Copy Overlay. (Insert at 3000-)		12
13	P= 000002				13
14	P= 0/0205		Module No. 005		14
15	NOOP				15
16	NOOP				16
17	JSBR	0400	Display status of processor.		17
20	JSBR	IZ 1670	SP15T "PROCESS"		20
21	P= 2776-				21
22	JUMP	0017	No.		22
23	JSBR	IZ 1635	GET PASSWORD		23
24	P= 011300				24
25	LDB	Z 0032	→ OS completed.		25
26	BNP				26
27	JUMP	0035	No Central Block.		27
30	LDA	IZ B	= No. of Disc Pairs in System.		30
31	APOS				31
32	JUMP	0035			32
33	P= 0				33
34	JUMP	0040	Continue.		34
35	JSBR	IZ 1652	PUT "NO PROCESSOR"		35
36	P= 2736-				36
37	JUMP	Z 1402	to "NO PROCESSOR"		37
40	STA	0076	No. of Disc Pairs.		40
41	STA	0077	Counter		41
42	LDA	Z 0040	Current Task No.		42
43	CHSA/COMPST				43
44	STA	IZ B	Indicate "MEND" in progress.		44
45	INCB				45
46	STB	0061	→ 1st Field in Central Block.		46
47	JUMP	0060			47
50					50
51					51
52					52
53					53
54					54
55					55
56					56
57					57
60	JSBR	0100	Process being processed + NEXT PHIR		60
61	P=				61
62	LDA	0061			62
63	ADA	Z 0203			63
64	STA	0061			64
65	DESZ	0057	Counter		65
66	JUMP	0060	Outward jump		66
67	NOOP				67
70	LDA	0076	} Port No. of Disc Pairs		70
	STA	IZ 0032			71
72	JSBR	IZ 1667	Start Central Section		72
73	JSBR	IZ 1652	PRINT "Registration Completed"		73
74	P= 27204-				74
75	JUMP	Z 1402	to "NO PROCESSOR"		75
76			No. of Disc Pairs in system (Same Prod)		76
77			Counter		77

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Step	Instruction	Address	Comment	Octal	Step
00	*ENTRY		Process Data	←ISA→	00
01	LDB	I 0100	→ Word 1 of Field		01
02	LDA	I2 B	= Word 1 of Field		02
03	ANEG				03
04	JUMP	0130	Slave is OK		04
05	STB	0177	→ Fault Indicator + SHAVE fault		05
06	STA	0115	Master Data No.		06
07	INCB				07
10	LDA	I2 B	= Word 2 of Field		10
11	APOS				11
12	JSR	I2 1777	HALT (Master & Slave both unit fault)		12
13	STA	0116	Slave Data No.		13
14	JSR	0200	Copy Master to Slave		14
15	P1 = /		Master Data No.		15
16	P2 = /		Slave Data No.		16
17	JUMP	0160			17
20					20
21					21
22					22
23					23
24					24
25					25
26					26
27					27
30	STA	0141	Master Data No.		30
31	INCB				31
32	LDA	I2 B	= Word 2 of Field		32
33	ANEG				33
34	JUMP	0163	Master is OK for		34
35	STB	0177	→ Fault Indicator + MASTER fault		35
36	STA	0140	Slave Data No.		36
37	JSR	0200	Copy Slave to Master		37
40	P1 = /		Slave Data No.		40
41	P2 = /		Master Data No.		41
42	JUMP	0160			42
43					43
44					44
45					45
46					46
47					47
50					50
51					51
52					52
53					53
54					54
55					55
56					56
57					57
60	LDA	I 0177	at end of copy		60
61	OLSA		Clear fault indicator		61
62	STA	I 0177			62
63	JMSZ	0100			63
64	JUMP	I 0100	Return		64
65					65
66					66
67					67
70					70
71					71
72					72
73					73
74					74
75					75
76					76
77			→ Fault Indicator	/	77

Step	Instruction	Address	Comment	Octal	Step
00	* ENTRY		COPY	← BA →	00
01	LDA	I 0200	= Source Dec No.		01
02	ANDA	Z 1752	Bottom Byte		02
03	STA	0256			03
04	STA	0254			04
05	STA	0272			05
06	INSZ	0200			06
07	LDA	I 0200	= Target Dec No.		07
10	JUMP	0253	Patch.		10
11	STA	0260			11
12	STA	0266			12
13	JUMP	0250			13
14	JSR	JL 1612	Call → 050E		14
15	R=2761-				15
16	JSR	JL 1653	Flash "Begin of" data		16
17	R=2747-				17
20	JSR	1000	Copy (Start 0 → 37)		20
21	R=2256-				21
22	JSR	1000	Copy (Start 41 → 87)		22
23	R=2264-				23
24	JSR	1000	Copy (Start 80 → end)		24
25	R=2272-				25
26	INSZ	0200			26
27	JUMP	I 0200	Return		27
30	"				30
31					31
32					32
33					33
34					34
35					35
36					36
37					37
40					40
41					41
42					42
43					43
44					44
45					45
46					46
47					47
50	STA	0274			50
51	CASA			(Jump 0213)	51
52	JUMP	0214			52
53	ANDA	Z 1752	Bottom Byte	(Jump 0210)	53
54	CASA/CORSA		(Protection Overlap)		54
55	JUMP	0211			55
56					56
57					57
60			Copy 0 → 37		60
61					61
62					62
63					63
64					64
65					65
66			Copy 41 → 87		66
67					67
70					70
71					71
72					72
73					73
74			Copy 80 → end		74
75					75
76					76
77					77

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Step	Instruction	Address	Comment	Octal	Step
00	*ENTRY		Display Status on	← BA →	00
01	LDA	I 0032	= No. of Discs in System.		01
02	APOS				02
03	JUMP	I 0400	Return.		03
04	AND				04
05	JUMP	I 0400	Return.		05
06	STA	0476	Counter		06
07	JSBR	I 1652	PUT Variable Addr.		07
10	R=2500-				10
11	LDA	Z 0032	→ Counter Block		11
12	INCA				12
13	STA	0477			13
14	JSBR	0420	Display	→ NEXT field.	14
15	DESZ	0476	Counter		15
16	JUMP	0414	Auto Var		16
17	→ JUMP	I 0400	Return.		17
20	*ENTRY		Variable	← BA →	20
21	LDA	I 0477	= 1st word		21
22	LDB	0474	→ "IN"		22
23	APOS				23
24	LDB	0475	→ "OUT"		24
25	→ STB	0450	Slave Status		25
26	CHSA				26
27	JSBR	I 1612	Master Disc Un. → KCI I		27
30	R=2520-				30
31	INVSZ	0477			31
32	LDA	I 0477	= 2 nd word		32
33	LDB	0474	→ "IN"		33
34	APOS				34
35	LDB	0475	→ "OUT"		35
36	→ STB	0444	Master Status		36
37	CHSA				37
40	JSBR	I 1612	Slave Disc Un. → KCI I		40
41	R=2526-				41
42	INVSZ	0477			42
43	JSBR	I 1741	Block 6 Var Master Status		43
44	R=				44
45	R=2523½-				45
46	R=3 chns.				46
47	JSBR	I 1741	Block 6 Var Slave Status		47
50	R=				50
51	R=2531½-				51
52	R=3 chns.				52
53	JUMP	0471	Block 1		53
54	LDA	I 0477	= 3 rd word		54
55	INVSZ	0477	→ Next block.		55
56	AND		Full		56
57	JUMP	I 0420	Return, Not in Mem.		57
60	→ JSBR	I 1605	Var. Vector Address → VSC I		60
61	R=2541-				61
62	JSBR	I 1652	PUT Var. Vector Address		62
63	R=2540-				63
64	JUMP	I 0420	Return.		64
65					65
66					66
67					67
70					70
71	JSBR	I 1652	PUT Status (Var 0453)		71
72	R=2517½-				72
73	JUMP	0454			73
74			→ "IN"	2575-	74
75			→ "OUT"	2576½-	75
76			Counter		76
77			→ AND Var.		77

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Step	Instruction	Address	Comment	Octal	Step
00			CR LF		00
01			- -		01
02			M A		02
03			S T		03
04			E R		04
05			- -		05
06			SP SP		06
07			- -		07
10			- S		10
11			L A		11
12			V E		12
13			- -		13
14			NUL		14
15					15
16					16
17			CR		17
20			Matrix		20
21					21
22					22
23			SP		23
24			in/out		24
25			SP SP		25
26					26
27			store		27
30					30
31			SP		31
32			in/out.		32
33			NUL		33
34					34
35					35
36					36
37					37
40			SP SP		40
41					41
42					42
43			Vector Addr.		43
44					44
45			NUL		45
46					46
47					47
50					50
51					51
52					52
53					53
54					54
55					55
56					56
57					57
60					60
61					61
62					62
63					63
64					64
65					65
66					66
67					67
70					70
71					71
72					72
73					73
74					74
75			S I N		75
76			L SP O		76
77			L U T		77

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Step	Instruction	Address	Comment	Octal	Step
00			CR M		00
01			E N		01
02			D SP		02
03			O N		03
04			- L		04
05			I N		05
			E -		06
			S E		07
10			C U		10
11			R I		11
12			T Y		12
13			ML CR		13
14			P R		14
15			O C		15
16			E S		16
17			S ?		17
20			ML CR		20
21			SO BEL		21
22			R E		22
23			C E		23
24			N E		24
25			R A		25
26			T I		26
27			O N		27
30			SP C		30
31			G M		31
32			P L		32
33			F T		33
34			E D		34
35			SI ML		35
36			SP SP		36
37			BEL IV		37
40			O SP		40
41			P R		41
42			O C		42
43			E S		43
44			S I		44
45			N G		45
46			ML ML		46
47			CR SO		47
50			BEL R		50
51			E G		51
52			E N		52
53			E R		53
54			H T		54
55			I N		55
56			G SP		56
57			D I		57
60			S C		60
61			SP		61
62					62
63					63
64			SI		64
65			SP ML		65
66					66
67					67
70					70
71					71
72					72
73					73
74					74
75			Po 01700		75
76			SPLIT "PROCESS!"	300400	76
77			L 27134-		77