

OPTIONS NODECK,LIST,XREF,NOREL,OBJ(P)

THE LIST OF OPTIONS USED DURING THIS ASSEMBLY IS-- NODECK,LIST,XREF,NOREL,OBJ

ERR	LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	22/12/23	PAGE	2
0000			1	#KMOUN	START	0				
			2		PRINT	ON,NODATA				
			3	*	@SYS	EXP-N				
			214+		PRINT	ON				
			215	*	@FXD	EXP-N				
			620+		PRINT	ON				
			621	*	@CAN	EXP-N				
			724+		PRINT	ON				
			725	*	@VOL	EXP-N				
			763+		PRINT	ON				
			764	*	@CY0	EXP-N				
			837+		PRINT	ON				
			838	*	@WKA	EXP-N				
			908+		PRINT	ON				
			909	*	@DIR	EXP-N				
			1029+		PRINT	ON				
			1030	*	@SPF	EXP-N				
			1493+		PRINT	ON				
			1494	*	@ERM	EXP-N				
			2116+		PRINT	ON				

#KMOUN -- MOUNT KEYWORD MODULE

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	VER 15, MOD 00 22/12/23 PAGE 3
		2118		*****	
		2119	*	5703-XM1 COPYRIGHT IBM CORP. 1970	*
		2120	*	REFER TO INSTRUCTIONS ON COPY RIGHT NOTICE, 120-2083	*
		2121	*		*
		2122		*****	
		2123	*	*STATUS	*
		2124	*	VERSION 1 MODIFICATION 0	*
		2125	*		*
		2126	*	*FUNCTION	*
		2127	*	KMOUNT PERFORMS THE FUNCTION REQUIRED BY THE MOUNT SYSTEM COMMAND	*
		2128	*	THIS COMMAND NOTIFIES THE SYSTEM THAT A DISK PACK IS BEING MOUNTED	*
		2129	*	ON ONE OF THE TWO REMOVABLE DRIVES.	*
		2130	*		*
		2131	*	*ENTRY POINTS	*
		2132	*	THE ONLY ENTRY TO KMOUNT IS TO THE FIRST INSTRUCTION OF THE	*
		2133	*	PROGRAM.	*
		2134	*		*
		2135	*	*INPUT	*
		2136	*	INPUT TO KMOUNT IS THE COMMAND LINE IN THE INPUT LINE BUFFER AND	*
		2137	*	THE VOLUME LABEL SECTOR ON THE SPECIFIED DISK.	*
		2138	*		*
		2139	*	*OUTPUT	*
		2140	*	N/A	*
		2141	*		*
		2142	*	*EXTERNAL REFERENCES	*
		2143	*	THE FOLLOWING ARE EXTERNAL REFERENCES MADE IN KMOUNT:	*
		2144	*	* \$NUCBS - ADDRESS OF START OF NUCLEUS	*
		2145	*	* \$XRSAB - @XR SAVE AREA	*
		2146	*	* \$DKSIZ - NUCLEUS BYTE WHICH TELLS DISK CONFIGURATION	*
		2147	*	* \$VOLID - ADDRESS OF LEFTMOST BYTE OR NUCLEUS VOLUME ID TABLE	*
		2148	*	* \$INDR3 - BYTE WHICH CONTAINS WORKAREA INDICATOR	*
		2149	*	* \$CIMS - INQUIRY REQUEST BYTE	*
		2150	*	* \$CARPL - ENTRY TO LOAD #GUFUD UPON SUCCESSFUL MOUNT	*
		2151	*	* \$CAERR - ERROR CODE SAVE AREA	*
		2152	*	* \$CAERK - EXIT TO LOAD THE ERROR PROGRAM, #ERRPG	*
		2153	*	* MINITL - ENTRY TO MODULE TO CHECK FOR DISK INITIALIZATION	*
		2154	*	* SALPHG - ENTRY TO MODULE TO CHECK VOLUME ID SPECIFICATION	*
		2155	*	* SCANIT - ENTRY TO DELIMITER SCAN MODULE	*
		2156	*	* SUTOBA - ENTRY TO MODULE TO CHECK WORKAREAS AC SYSTEM MODE	*
		2157	*	* SUTERR - ERROR EXIT FROM SUTOBA	*
		2158	*		*
		2159	*	*EXITS,NORMAL	*
		2160	*	NORMAL EXIT FROM KMOUNT IS TO \$CARPL TO LOAD #GUFUD.	*
		2161	*		*
		2162	*	*EXITS,ERROR	*
		2163	*	ERROR EXIT FROM KMOUNT IS TO \$CAERK TO LOAD TO LOAD #ERRPS, WITH	*
		2164	*	THE ERROR CODE SET IN SCAERR.	*
		2165	*		*
		2166	*	*TABLES/WORKAREAS	*
		2167	*	ONE-SECTOR BUFFER TO CONTAIN VOLUME LABEL SECTOR.	*
		2168	*		*
		2169	*	*ATTRIBUTES	*
		2170	*	RELOCATABLE	*
		2171	*		*
		2172	*	*HARACTER CODE DEPENDENCY	*
		2173	*	NONE	*

#KMOUN -- MOUNT KEYWORD MODULE

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	VER 15, MOD 00	22/12/23	PAGE	4
		2174	*					*
		2175	*	*NOTES				*
		2176	*	ERROR PROCEDURES				*
		2177	*	UPON DETECTION OF A SYNTAX ERROR, KMOUNT INSURES THAT @XR IS				*
		2178	*	REFERENCING THE INVALID CHARACTER. FOR NON-SYNTAX ERRORS, @XR				*
		2179	*	MAY BE POINTING ANYWHERE EXCEPT TO THE INPUT LINE BUFFER.				*
		2180	*	FOR EITHER KIND OF ERROR, THE ERROR CODE IS SET IN \$CAERR AND				*
		2181	*	EXIT IS MADE TO \$CAERK.				*
		2182	*					*
		2183	*	REGISTER USAGE				*
		2184	*	* REGISTER 1 (@BR) IS USED AS BASE REGISTER FOR ADDRESSABILITY				*
		2185	*	WITH \$NUCBS (START OF NUCLEUS) USED AS THE BASE ADDRESS.				*
		2186	*	* REGISTER 2 (@XR) IS USED TO POINT ACROSS THE INPUT BUFFER.				*
		2187	*					*
		2188	*	SAVED/RESTORED AREAS				*
		2189	*	NONE				*
		2190	*					*
		2191	*	MODIFICATION CONSIDERATIONS				*
		2192	*	NONE				*
		2193	*					*
		2194	*	REQUIRED MODULES				*
		2195	*	* KMOUNT REQUIRES THE USE OF THE FOLLOWING EQUATE MODULES:				*
		2196	*	* @SYSEQ - COMMON SYSTEM EQUATES				*
		2197	*	* @FXDEQ - NUCLEUS FIXED ADDRESSES EQUATES				*
		2198	*	* @CANEQ - FIXED CORE LOCATIONS OUTSIDE NUCLEUS EQUATES				*
		2199	*	* @VOLEQ - VOLUME LABEL EQUATES				*
		2200	*	* @WKAEQ - SYSTEM WORKAREA EQUATES				*
		2201	*	* @SPFEQ - SYSTEM PROGRAM FILE EQUATES- FOR #GUFUD & #ERRPG				*
		2202	*	* @DIREQ - DIRECTORY EQUATES				*
		2203	*	* @ERMEQ - ERROR MESSAGE EQUATES (SELECTED ERROR CODES)				*
		2204	*	* KMOUNT ALSO REQUIRES THE FOLLOWING SOURCE MODULES:				*
		2205	*	* SCANIT - DELIMITER SCAN MODULE				*
		2206	*	* MINITL - MODULE TO TEST DISK FOR INIALIZATION				*
		2207	*	* SUTOBA - MODULE TO CHECK WORKAREAS ANC SYSTEM MODE				*
		2208	*	* SALPHA - MODULE TO SYNTAX CHECK THE DISK LABEL				*
		2209	*					*
		2210	*	OTHER				*
		2211	*	NONE				*
		2212	*	*****				*

#KMOUN -- MOUNT KEYWORD MODULE

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	22/12/23	PAGE	5
				05FF	2214	KMOUNT EQU *	START OF MOUNT KEYWORD PROGRAM				
					2215	*					
					2216	* HDR #KMOUN,1					
					2217	*****					
					2218	* PROGRAM HEADER FOR DISK LOAD					
					2219	*****					
					2220	*#\$KMOU EQU X'0204'	DISK ADDR OF #KMOUN				
					2221	*#\$KMO EQU X'0C00'	CORE LOAD ADDRESS OF #KMOUN				
					2222	*#\$@KMO EQU 004	SECTOR CNT OF #KMOUN				
0C00					2223	ORG #\$\$\$KMO	CORE LOAD ADDRESS				
	0C00			2224	\$\$\$\$\$ EQU *		FIRST LOCATION IN PROGRAM				
0C00	7BD2D4D6E4D5		0C05	2225	DC CL6'#KMOUN'		PROGRAM NAME				
0C06	0B		0C06	2226	DC IL1'011'		PROGRAM NUMBER OF #KMOUN				
			0C07	2227	\$KMOUN EQU *		ENTRY POINT TO PROGRAM				
				2228	*** END OF EXPANSION ***						
0C07	F2 87 FE			2229	J KMO010		SKIP TO PROD ENTRY POINT				
				2230	* MVDEL		SCRATCH FILE WIPEOUT MACRO				

#KMOUN -- MOUNT KEYWORD MODULE

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	22/12/23	PAGE	6
					2232	*****					
					2233	*	MVDELE - SCRATCH FILE ENTRIES DELETE ROUTINE				
					2234	*****					
					2235	*					
					2236	*	EQUATES REQUIRED FOR MVDELE				
					2237	*					
				000F	2238	MVDMOF EQU	X'0F'				BITS USED FOR DRIVES TO TEST
				0001	2239	MVDMK1 EQU	X'01'				INITIAL VALUE FOR DRIVE TO TEST
				000F	2240	MVDCNT EQU	15				NUMBER OF SECTORS IN VTOC
				01FC	2241	MVDNUM EQU	X'01FC'				DISP TO # OF SCRATCH FILES
				01FB	2242	MVDSC1 EQU	X'01FB'				DISP TO 1ST OF S FILE INFO
				0013	2243	MVDFIT EQU	X'13'				F1 DISP TO FILE TYPE.
				0090	2244	MVDMVF EQU	X'90'				MULTI-VOLUME FILE TYPE
				0060	2245	MVDMVD EQU	X'60'				MULTI-VOLUME FILE TYPE BITS OFF
				0002	2246	MVDCHN EQU	2				DISP TO CHAIN ADDRESS
				0002	2247	MVDTWO EQU	2				LENGTH OF 2
				003F	2248	MVDFIL EQU	63				FORMAT 1 LENGTH-1
				0005	2249	MVDLEN EQU	5				LENGTH OF SCRATCH FILE INFO
					2250	*	EQUATES USED TO SET U MVPPRM FOR MVDELE				
				0001	2251	MVDRR1 EQU	X'01'				DRIVE R1 BIT OF MVDPRM
				0002	2252	MVDRF1 EQU	X'02'				DRIVE F1 BIT OF MVDPRM
				0004	2253	MVDRR2 EQU	X'04'				DRIVE R2 BIT OR MVDPRM
				0008	2254	MVDRF2 EQU	X'08'				DRIVE F2 BIT OF MVDPRM
				000C	2255	MVDI10 EQU	12				SIZE OR ERROR MSG STACK SAVED
					2257	*****					
					2258	*	ENTRY POINT TO MODULE MVDELE				*
					2259	*****					
				0C0A	2260	MVDELE EQU	*				MVDELE ENTRY POINT
				0C1A	2261	USING	MVD050,@BR				SET BASE ADDRESS
0C0A	F2	80	0D		2262	MVD025 JC	MVD050,@NOP				1-5
0C0D	C2	01	0C1A		2263	LA	MVD050,@BR				LOAD BASE RESISTER
0C11	0C	0B	0613 1C0B		2264	MVC	\$\$INLN+MVDI10(MVDI10),\$\$ERSK+MVDI10-1				SAVE ERROR MSGS
0C17	F2	87	1B		2265	J	MVD060				JUMP ON ENTRY
0C1A	C0	87	0025		2266	MVD050 B	\$DISKN				1-5
0C1E	057F			0C1F	2267	DC	AL2(\$WAITF)				1-5
0C20	5E	00	1C 1C		2268	ALC	MVDMASK(,@BR),MVDMASK(1,@BR)				MOVE MASK LEFT ONE BYTE 1-5
0C24	5E	00	C9 CF		2269	ALC	MVDSEC(1,@BR),MVDONE(,@BR)				INCR SECTOR FOR NEXT DRIVE 1-5
0C28	79	0F	1C		2270	MVD055 TBF	MVDMASK(,@BR),MVDMOF				TEST OF MORE S FILES POSSIBLE
0C2B	0C	0B	1C0B 0613		2271	MVC	\$\$ERSK+MVDI10-1(MVDI10),\$\$INLN+MVDI10				RESTORE ERROR MSGS
					2272	*	\$CARPL MAY BE CHANGED TO \$CAIPL OR \$CAERK BY #MIPPE, #KMOUN OR #UINIT				
0C31	C0	10	04A1		2273	MVD057 BT	\$CARPL				BR OUT IF ALL FILES PROCESSED
0C35	78	00	D9		2274	MVD060 TBN	MVDPRM(,@BR),*-*				TEST OF DRIVE NEEDS FILE CHECK
0C38	3C	87	0C0D		2275	MVI	MVD025+@OP1,@UCB				1-5
0C36					2276	ORG	MVD060+@Q				INITIALIZE
0C36	01			0C36	2277	DC	AL1(MVDMK1)				R1 DISK
0C3C					2278	ORG					
0C3C	D0	90	00		2279	BF	MVD050(,@BR)				NO - GO BACK AND CHECK NEXT ONE
0C3F	C0	87	0025		2280	B	\$DISKN				ACCESS DISK TO INPUT VTOC
0C43	0CE1			0C44	2281	DC	AL2(MVDDPL)				DISK DPL ADDR
0C45	C0	87	0025		2282	B	\$DISKN				ACCESS 6FSK
0C49	057F			0C4A	2283	DC	AL2(\$WAITF)				OR OPERATION COMPLETE
					2284	*					
					2285	*	TEST IF ANY SCRATCH FILES EXIST				
					2286	*					
0C4B	3D	00	0F04		2287	CLI	MVDBUF+MVDNUM,0				TEST IF ZERO S FILES...

#KMOUN -- MOUNT KEYWORD MODULE

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	22/12/23	PAGE	7
	0C4F	D0	81	00	2288	BE	MVD050(,@BR)				NO S FILES - BRANCH BACK
					2289	*					
					2290	*	SCRATCH FILE WIPEOUT				
					2291	*					
	0C52	4C	01	D8 0F03	2292	MVC	MVDADR(@DADDR,@BR),MVDSC1+MVDBUF				SAVE PNTR TO F1
	0C57	0F	04	0F06 0F06	2293	SLC	MVDSC1+MVDBUF+MVDLEN-2,MVDSC1+MVDLEN-2+MVDBUF(MVDLEN)				
					2294	*					* ZERO OUT SCRATCH FILE INFO
	0C5D	5C	01	D6 D8	2295	MVD100 MVC	MVDISP(@CADDR,@BR),MVDADR(,@BR)				MOVE TO CALL ADDR
	0C61	5E	01	D5 D5	2296	ALC	MVDADD(MVDTWO,@BR),MVDADD(,@BR)				SHIFT LEFT
	0C65	5E	01	D5 D5	2297	ALC	MVDADD(MVDTWO,@BR),MVDADD(,@BR)				SHIFT LEFT ANOTHER BIT
	0C69	58	02	D5 D5	2298	MNZ	MVDADD(,@BR),MVDADD(,@BR)				MOVE NUMERIC BITS
	0C6D	58	01	D5 D4	2299	MZN	MVDADD(,@BR),MVDADD-1(,@BR)				MOVE ZONE BITS
	0C71	7C	00	D4	2300	MVI	MVDADD-1(,@BR),@ZERO				ZERO OUT PRECEEDING BYTE
	0C74	5F	01	D6 CE	2301	SLC	MVDISP(@CADDR,@BR),MVDLGT(,@BR)				ADJUST ADDR
	0C78	D2	02	EE	2302	LA	MVDBUF(,@BR),@XR				SET XR TO BUFFER
	0C7B	76	02	D6	2303	A	MVDISP(,@BR),@XR				INCREMENT XR TO F1
	0C7E	B8	90	13	2304	TBN	MVDFIT(,@XR),MVDMVF				TEST FOR MULTI-VOLUME FILE
	0C81	F2	90	06	2305	JF	MVD150				NO MVF - TAKE JUMP
	0C84	B9	60	13	2306	TBF	MVDFIT(,@XR),MVDMVD				TEST THAT OTHER BITS ARE OFF
	0C87	F2	10	3D	2307	JT	MVD200				MULTI-VOLUME FILE WIPEOUT BR
	0C8A	6C	01	D8 02	2308	MVD150 MVC	MVDADR(MVDTWO,@BR),MVDCHN(,@XR)				SAVE NEXT F1 PT
	0C8E	AF	3E	3F 3F	2309	SLC	MVDFIL(MVDFIL,@XR),MVDFIL(,@XR)				ZERO F1
					2310	*					
					2311	*	SET TAG FILENAME TO ZERO				
					2312	*					
	0C92	6C	00	D3 00	2313	MVC	MVDTAG(1,@BR),0(,@XR)				SAVE TAG
	0C96	5E	00	D3 D3	2314	ALC	MVDTAG(1,@BR),MVDTAG(,@BR)				DOUBLE TAG
	0C9A	5C	01	97 D3	2315	MVC	MVDTGS(MVDTWO,@BR),MVDTAG(,@BR)				MOVE TAG
	0C9E	5E	01	97 97	2316	ALC	MVDTGS(MVDTWO,@BR),MVDTGS(,@BR)				DOUBLE
	0CA2	5E	01	97 97	2317	ALC	MVDTGS(MVDTWO,@BR),MVDTGS(,@BR)				DOUBLE
	0CA6	5E	01	97 D3	2318	ALC	MVDTGS(MVDTWO,@BR),MVDTAG(,@BR)				ADD TO SET TAG*10
	0CAA	5E	01	97 D1	2319	ALC	MVDTGS(@CADDR,@BR),MVDTAD(,@BR)				ADJUST TAG ADDR
	0CAE	3C	00	0000	2320	MVD175 MVI	*-*,0				ZERO S FILE NAME OF X'20'
					2321	*					
					2322	*	TEST OR LAST SCRATCH FILE AND GO BACK IF NOT				
					2323	*					
	0CB2	7D	00	D8	2324	CLI	MVDADR(,@BR),0				TEST FOR LAST S FILE OF CHAIN
	0CB5	D0	01	43	2325	BNE	MVD100(,@BR)				RETURN BR OF MORE S FILES
	0CB8	7C	02	C7	2326	MVI	MVDFNC(,@BR),@DPUT				SET FUNCTION CODE FOR WRITE
	0CBB	C0	87	0025	2327	B	\$DISKN				WRITE VTOC BACK TO DISK
	0CBF	0CE1			2328	DC	AL2(MVDDPL)				DPL FOR WRITE
	0CC1	7C	01	C7	2329	MVI	MVDFNC(,@BR),@DGET				SET FUNCTION CODE BACK TO READ
	0CC4	D0	87	00	2330	B	MVD050(,@BR)				RETURN TO TEST FOR MORE FILES
					2331	*					
					2332	*	MULTI-VOLUME FILE WIPEOUT				
					2333	*					
	0CC7	4D	01	D8 17FA	2334	MVD200 CLC	MVDADR(MVDTWO,@BR),MVDMF1+MVDCHN				RIGHT F7 ?
	0CCC	F2	01	09	2335	JNE	MVD225				JUMP TO ZERO OTHER F7
	0CCF	0F	3F	1837 1837	2336	SLC	MVDMF1+MVDFIL(MVDFIL+1),MVDMF1+MVDFIL				ZERO OUT FIRST F7
	0CD5	D0	87	70	2337	B	MVD150(,@BR)				return to PRoCESSing fl's
	0CD8	0F	3F	1877 1877	2338	MVD225 SLC	MVDMF2+MVDFIL(MVDFIL+1),MVDMF2+MVDFIL				ZERO OUT 2ND F7
	0CDE	D0	87	70	2339	B	MVD150(,@BR)				RETURN TO T1 PROCESSING
					2340	*					
					2341	*	READ VTOC DPL				
					2342	*					
	0CE1				2343	MVDDPL EQU	*				DISK PARAMETER LIST

#KMOUN -- MOUNT KEYWORD MODULE

ERR LOC OBJECT CODE ADDR STMT SOURCE STATEMENT VER 15, MOD 00 22/12/23 PAGE 8

0CE1	01		0CE1	2344		DC	AL1(@DGET)	REQUESTED FUNCTION
0CE2	0024		0CE3	2345		DC	AL2(#VTCR1)	DISK ADDRESS
0CE4	0F		0CE4	2346		DC	XL1'0F'	SECTOR COUNT
0CE5	0D08		0CE6	2347		DC	AL2(MVDBUF)	BUFFER ADDRESS
				2348	*			
				2349	*		CONSTANTS AND WORKAREAS USED BY MVDELE	
				2350	*			
0CE7	09		0CE7	2351	MVDHXB	DC	IL1'09'	LOWEST SECTOR # OF A F1
0CE8	3F		0CE8	2352	MVDLGT	DC	AL1(MVDFIL)	F1 LENGTH - 1
0CE9	01		0CE9	2353	MVDONE	DC	XL1'01'	ONE
0CEA	0D04		0CEB	2354	MVDTAD	DC	AL2(MVDBUF-@DADDR-@DADDR)	TAG ADDRESS
0CEC	00		0CEC	2355		DC	XL1'00'	ZERO BYTE MUST PRECEED TAG SAVE
0CED			0CED	2356	MVDTAG	DS	CL1	TAG SAVE AREA
0CEE	00		0CEE	2357		DC	XL1'00'	ZERO BYTE MUST PRECEED DADDR
0CEF			0CEF	2358	MVDADD	DS	CL1	SECTOR ADDR PT FOR CORE
0CF0			0CF0	2359	MVDISP	DS	CL1	DISPLACEMENT TO F1
0CF1			0CF2	2360	MVDADR	DS	CL2	SEC/DISP OF FORMAT 1
0CF3			0CF3	2361	MVDPRM	DS	CL1	PARAMETER SHOWS DRIVES TO BE
				2362	*			* TESTED R1,F1,R2,F2 ARE
				2363	*			* BITS 4-7 RESPECTIVELY.
0CF3				2364		ORG	MVDPRM	INITIALIZE
0CF3	00		0CF3	2365		DC	XL1'00'	SET PARAMETER TO ZERO
0CF4			0D07	2366	\$\$\$\$\$Q	DS	CL20	PATCH AREA FOR MVDELE
				2367	*		VTOC BUFFER BEGINS HERE AND IS 15 SECTORS LONG	
			0D08	2368	MVDBUF	EQU	*	
			0C36	2369	MVDMSK	EQU	MVD060+@Q	DISK INDICATOR
			0CB1	2370	MVDTGS	EQU	MVD175+@OP1	ADDR OF INDEX ASSOC WITH TAG
			17F8	2371	MVDMF1	EQU	MVDBUF+2800	MVF#1:12*256+128=2800
			1838	2372	MVDMF2	EQU	MVDMF1+64	MVF#2=F7 DISP WITHIN BFR
			0CE1	2373	MVDFNC	EQU	MVDDPL	FUNCTION CODE BYTE OF DPL
			0CE3	2374	MVDSEC	EQU	MVDDPL+2	DISK SECTOR ADDR IN DPL
				2375	*****			
				2376	*		END OF MODULE MVDELE	
				2377	*****			
				2378	***		END OF EXPANSION ***	
0D08	C2 01 03C0			2380	KMO010	LA	\$NUCBS,@BR	LOAD BASE REGISTER WITH ADDR
			03C0	2381		USING	\$NUCBS,@BR	* OF START OF NUCLEUS
0D0C	3A 01 0CF3			2382		SBN	MVDPRM,MVDRR1	SET FOR R1
				2383	*			
0D10	75 02 07			2384		L	\$XRSAB(,@BR),@XR	PT XR TO BYTE FOLLOWING KEYWORD
				2385	*			
				2386	*		CHECK DISK SPECIFICATION	
				2387	*			
0D13	C0 87 0E17			2388		B	SCANIT	BYPASS BLANKS
0D17	F2 81 AC			2389		JZ	KMO600	IF NO BLANKS HERE SCANNED, SET
				2390	*			* ERROR CODE AND EXIT
0D1A	3C 01 0E34			2391		MVI	SCAMMA,SCACOM	SET SCANIT INDR TO ALLOW COMMA
0D1E	C0 87 0F3A			2392		B	SALPH6	CHECK FOR SYNTACTICALLY VALID
				2393	*			* VOLUME ID
0D22	F2 82 E2			2394		JL	KMO900	IF VOL-ID WAS INV, CALL ERR PROG
				2395	*			
0D25	BD 1E 00			2396		CLI	KMO000(,@XR),@EOS	IS NEXT CHAR EOS ?
0D28	F2 81 51			2397		JE	KMO200	IF YES, DEFAULT TO 'R1' SPEC
				2398	*			
0D2B	8D 01 01 0E0D			2399	KMO100	CLC	KMO001(,@XR),KMOSR1(KMOLN2)	IS PAREM = R'01' ?

#KMOUN -- MOUNT KEYWORD MODULE

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	22/12/23	PAGE 9
	0D30	F2	81	2C	2400	JE	KMO175			YES, JUMP TO CHECK \$VOLID ENTRY
					2401	*				
	0D33	8D	01	01 0E0F	2402	CLC	KMO001(, @XR), KMOSR2(KMOLN2)			ELSE, IS PARAM = 'R2' ?
	0D38	F2	01	A1	2403	JNE	KMO700			IF NOT, INV PARAM ERROR
	0D3B	3C	04	0CF3	2404	MVI	MVDPRM, MVDRR2			SET FOR R2
					2405	*				
	0D3F	7D	04	17	2406	CLI	\$DKSIZ(, @BR), \$DK400			IS DRIVE 2 ON SYSTEM ?
	0D42	F2	04	9D	2407	JNH	KMO725			IF NOT, SET ERROR CODE
					2408	*				
	0D45	0E	00	0D7E 0E10	2409	KMO150 ALC	KMO200+@D1(KMOL1B), KMOVR2			SET SW TO INDICATE R2
	0D4B	3A	02	0E13	2410	SBN	KMODPL+KMOBY2, KMOMR2			SET R2 INDR IN DPL
	0D4F	3C	87	0D93	2411	MVI	KMO250+@Q, @UCB			SET SW TO BYPASS TESTING MODE
	0D53	0E	00	0DB3 0E10	2412	ALC	KMO400+@D1(KMOL1B), KMOVR2			ADJUST ADDR IN \$VOLID FOR R2
	0D59	0E	00	0DB8 0E10	2413	ALC	KMO450+@D1(KMOL1B), KMOVR2			ADJUST ADDR IN \$VOLID FOR R2
					2414	*				
	0D5F	34	02	0DD8	2415	KMO175 ST	KMO675+@OP1, @XR			SAVE XR IN CASE INV PARAM
	0D63	E2	02	02	2416	LA	KMOLN2(, @XR), @XR			INDR XR PAST 'R1' OR 'R2'
					2417	*				
	0D66	C0	87	0E17	2418	B	SCANIT			BYPASS BLANKS AND COMMA
	0D6A	F2	84	09	2419	JH	KMO180			IF CHARS SCANNED, CHECK FOR EOS
	0D6D	F2	82	97	2420	JL	KMO900			IF ERR IN SCANIT, CALL ERR PROG
					2421	*				
	0D70	BD	1E	00	2422	CLI	KMO000(, @XR), @EOS			EOS FOLLOW PARAM (NO SPACE) ?
	0D73	F2	01	62	2423	JNE	KMO675			NO, RESTORE XR, 'INV PARAM' ERR
					2424	*				
	0D76	BD	1E	00	2425	KMO180 CLI	KMO000(, @XR), @EOS			XR POINTING TO EOS ?
	0D79	F2	01	6C	2426	JNE	KMO750			IF NOT, SET ERR CODE FOR 'TOO
					2427	*				* MANY PARAMETERS'
					2428	*				
					2429	*	CHECK \$VOLID FOR A VACANCY			
					2430	*				
	0D7C	7D	00	36	2431	KMO200 CLI	\$VOLID+*-*(, @BR), @ZERO			IS SVOLID ENTRY FOR SPEC DISK=0
	0D7F	F2	01	79	2432	JNE	KMO800			IF NOT, SET ERR CODE FOR 'DIDN'T
					2433	*				* 'DIDN'T DO A REMOVE'
					2434	*				
					2435	*	READ VOLUME LABEL			
					2436	*				
	0D82	C0	87	0E58	2437	B	MINITL			READ VOLUME LABEL
	0D86	F2	82	7B	2438	JL	KMO870			CALL ERR PROG IF NOT INITLZED
					2439	*				
	0D89	0D	05	1108 0FFA	2440	CLC	KMOBFR+\$#TLBL(KMOLVL), SALPHR+KMOLVL-1			IS VOL-ID IN VOLUME
					2441	*				* LBL=VOL-ID SPEC ?
	0D8F	F2	01	6F	2442	JNE	KMO850			IF NOT, SET ERROR CODE FOR 'VOL
					2443	*				* ID INCORRECT FOR SPEC DISK'
	0D92	F2	80	19	2444	KMO250 JC	KMO375, @NOP			IF 42, MOVE VOL-ID TO CORE
					2445	*				
	0D95	38	40	11FF	2446	TBN	KMOBFR+\$#TIDR, \$#TWR1			IS THERE A WORK AREA ON R1 ?
	0D99	F2	90	0F	2447	JF	KMO300			IF NOT, SET SNWRKR OH
					2448	*				
	0D9C	0D	00	11D7 03DF	2449	CLC	KMOBFR+\$#TWAL, \$LEVEL(1)			JUMP IF WRONG REL LEVEL
	0DA2	F2	01	06	2450	JNE	KMO300			SET INDR FOR WORK AREA PRESENT
	0DA5	7B	40	16	2451	SBF	\$INDR3(, @BR), \$NWRKR			GO MOVE VOL-ID TO CORE TABLE
	0DA8	F2	87	03	2452	J	KMO375			
					2453	*				
	0DAB	7A	40	16	2454	KMO300 SBN	\$INDR3(, @BR), \$NWRKR			SET INDR FON NO WOW AREA

#KMOUN -- MOUNT KEYWORD MODULE

ERR LOC OBJECT CODE ADDR STMT SOURCE STATEMENT VER 15, MOD 00 22/12/23 PAGE 10

```

2456 *
2457 *      MOVE VOLUME-ID AND DADDR OF LIBRARY FILE
2458 *      TO CORE-RESIDENT TABLE
2459 *
0DAE 7C 80 B6      2460 KMO375 MVI    $CIMSK(, @BR), KMOMIR      MASK INQUIRY REQUEST
2461 *
0DB1 4C 05 3B 0FFA 2462 KMO400 MVC    $VOLID+KMODSV+*-* (, @BR), SALPHR+KMOLVL-1(KMOLVL)
2463 *
0DB6 4C 00 3C 11FD 2464 KMO450 MVC    $VOLID+KMODSD+*-* (, @BR), KMOBFR+$#TLAD-1(1)
2465 *
2466 *      EXIT
2467 *
0DBB 7B 20 16      2468          SBF    $INDR3(, @BR), $MOUNT      SET INDR TO ALLOW 'MOUNT'
2469 *                      * ONLY OFF
0DBE C0 87 0ECA      2470          B      SUTOBA      ATTEMPT TO ENTER BASIC MODE
0DC2 C0 87 0C0A      2471          B      MVDELE      GO WIPE OUT SCRATCH FILES
2472 *
2473 *      SET ERROR CODES AND CALL ERROR PROGRAM
2474 *
0DC6 BD 1E 00      2475 KMO600 CLI    KMO000(, @XR), @EOS      XR POINTING TO EOS ?
0DC9 F2 01 06      2476          JNE   KMO650      NO, INVALID DELIMITER ERROR
2477 *
0DCC 7C 10 0D      2478          MVI    $CAERR(, @BR), @@E130      SET ERR CODE- 'REQ PARM MISSING'
0DCF F2 87 35      2479          J      KMO900      CALL ERROR PROGRAM
2480 *
0DD2 7C 18 0D      2481 KMO650 MVI    $CAERR(, @BR), @@E139      SET ERR CODE- 'INV DELIM'
0DD5 F2 87 2F      2482          J      KMO900      CALL ERROR PRCSRAM
2483 *
0DD8 C2 02 0000    2484 KMO675 LA      *-*, @XR      RESTORE XR TO FIRST OF PARAM
0DDC 7C 11 0D      2485 KMO700 MVI    $CAERR(, @BR), @@E131      SET ERR CODE- 'INV PARAM'
0DDF F2 87 25      2486          J      KMO900      CALL ERROR PROGRAM
2487 *
0DE2 7C 39 0D      2488 KMO725 MVI    $CAERR(, @BR), @@E242      SET ERR CODE- 'D2 NOT ON SYSTEM'
0DE5 F2 87 1C      2489          J      KMO870      INCR X AND CALL ERROR PROGRAM
2490 *
0DE8 7C 12 0D      2491 KMO750 MVI    $CAERR(, @BR), @@E133      SET ERR CODE- 'TOO MANY PARMS'
0DEB F2 87 19      2492          J      KMO900      CALL ERROR PR6AAM
2493 *
0DEE 0C 01 0C34 0E0B 2494 KMO775 MVC    MVD057+@OP1, KMOERR(@CADDR)  SET RETURN ADDR IN MVDELE
0DF4 D2 02 00      2495          LA      KMO000(, @BR), @XR      INCR XR OUTSIDE INPUT BUFFER
0DF7 C0 87 0C0A      2496          B      MVDELE      GO DELETE SCRATCH FILES
0DFB 7C 59 0D      2497 KMO800 MVI    $CAERR(, @BR), @@E371      SET ERR CODE- 'DIDN'T DO REMOVE'
0DFE F2 87 03      2498          J      KMO870      INCR XR AND CALL ERR PROG
2499 *
0E01 7C 28 0D      2500 KMO850 MVI    $CAERR(, @BR), @@E216      SET ERR CODE- 'VOLID INCORRECT'
0E04 D2 02 00      2501 KMO870 LA      KMO000(, @BR), @XR      INCR XR OUTSIDE INPUT BUFFER
0E07 D0 87 A9      2502 KMO900 B      $CAERK(, @BR)      CALL ERROR PROGRAM
2503 *
2504 *      ERROR EXIT FROM SUTOBA
2505 *
0DEE 2506 SUTERR EQU KMO775      ERROR EXIT FOR SUTOBA

```

#KMOUN -- MOUNT KEYWORD MODULE

ERR LOC OBJECT CODE ADDR STMT SOURCE STATEMENT VER 15, MOD 00 22/12/23 PAGE 11

2508 *
2509 * EQUATES USED BY KMOUNT
2510 *

0000 2511 KMO000 EQU 0 ZERO DISP FOR XR
0001 2512 KMO001 EQU 1 DISP OF ONE FOR XR
0002 2513 KMOLN2 EQU 2 LENGTH OF 'R1' OR 'R2'
0001 2514 KMOL1B EQU 1 LENGTH CODE OF ONE BYTE
0001 2515 KMOONE EQU 1 LENGTH OF ONE SECTOR
0000 2516 KMOCY0 EQU 0 CYLINDER ZERO
0008 2517 KMOSC2 EQU 8 SECTOR TWO
0002 2518 KMOBY2 EQU 2 DISP TO 2ND BYTE OF DADDR - DPL
0008 2519 KMODVL EQU 8 DISP TO RIGHT BYTE OF VOL LABEL
0006 2520 KMOLVL EQU \$TLBL-\$TVOL LENGTH OF VOLUME LABEL
0080 2521 KMOMIR EQU @NOP MASK FOR INQUIRY REQUEST
0002 2522 KMOMR2 EQU X'02' MASK INDR FUR R2 IN DPL
0005 2523 KMODSV EQU 5 DISP TO RIGHT BYTE OF VOL-ID IN
2524 * * NUCLEUS TABLE
0006 2525 KMODSD EQU 6 DISP TO LEFT BYTE OF DADDR OF
2526 * * FILE LIBRARY NUCLEUS TABLE.
2527 *
2528 * CONSTANTS USED IN KMOUNT
2529 *

0E0A 0469 0E0B 2530 KMOERR DC AL2(\$CAERK) ERROR PROD ENTRY POINT
0E0C D9F1 0E0D 2531 KMOSR1 DC CL(KMOLN2)'R1' CHARACTER CONSTANT FOR 'R1'
0E0E D9F2 0E0F 2532 KMOSR2 DC CL(KMOLN2)'R2' CHARACTER CONSTANI FOR 'R2'
0E10 10 0E10 2533 KMOVR2 DC XL(KMOL1B)'10' DISP OF \$VOLR2 FROM \$VOLR1
2534 *KMODPL DPL FUNC=@DGET,CYL=KMOCY0,SCTR=KMOSC2,CNT=KMOONE,CADDR=KMOBFR
0E11 2535 KMODPL EQU * DISK PARAMETER LIST
0E11 01 0E11 2536 DC AL1(@DGET) REQUESTED FUNCTION
0E12 00 0E12 2537 DC AL1(KMOCY0) CYLINDER ADDRESS
0E13 08 0E13 2538 DC AL1(KMOSC2) HEAD/SECTOR/DRIVEF/DISK SPEC
0E14 01 0E14 2539 DC AL1(KMOONE) SECTOR COUNT
0E15 1100 0E16 2540 DC AL2(KMOBFR) BUFFER ADDRESS
2541 *** END OF EXPANSION ***
0E11 2542 MINDPL EQU KMODPL DPL TO READ VOL LBL - FOR MINITL

SCANIT - DELIMETER SCAN MODULE

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	VER 15, MOD 00	22/12/23	PAGE 13
		2546+		*****			
		2547+	*	5703-XM1 COPYRIGHT IBM CORP. 1970			*
		2548+	*	REFER TO INSTRUCTIONS ON COPYRIGHT NOTICE, 120-2083			*
		2549+	*				*
		2550+		*****			*
		2551+	*	STATUS			*
		2552+	*	VERSION 1 MODIFICATION 0			*
		2553+	*				*
		2554+	*	FUNCTION			*
		2555+	*	THE FUNCTION OF SCANIT IS TO SCAN PAST VALID DELIMITERS AND			*
		2556+	*	RETURN A POINTER TO THE FIRST CHARACTER THAT'S NOT A DELIMITER.			*
		2557+	*				*
		2558+	*	ENTRY POINTS			*
		2559+	*	* THE ENTRY POINT IS SCANIT.			*
		2560+	*	* THE CALLING SEQUENCE IS AS FOLLOWS:			*
		2561+	*	B SCANIT			*
		2562+	*	WITH REGISTER 2 (@XR) POINTING TO THE FIRST CHARACTER TO BE			*
		2563+	*	EXAMINED.			*
		2564+	*				*
		2565+	*	INPUT			*
		2566+	*	NONE			*
		2567+	*				*
		2568+	*	OUTPUT			*
		2569+	*	NONE			*
		2570+	*				*
		2571+	*	EXTERNAL REFERENCES			*
		2572+	*	\$CAERR - ERROR CODE SAVE AREA			*
		2573+	*				*
		2574+	*	EXITS, NORMAL			*
		2575+	*	NORMAL EXIT FROM SCANIT IS TO THE BYTE FOLLOWING THE BRANCH TO			*
		2576+	*	SCANIT IN THE CALLING ROUTINE. THE PSR (REGISTER 4) WILL CONTAIN			*
		2577+	*	A ZERO IF NO DELIMITERS WERE FOUND OR A HIGH CONDITION IF ONE OR			*
		2578+	*	MORE DELIMITERS WERE SCANNED.			*
		2579+	*				*
		2580+	*	EXITS, ERROR			*
		2581+	*	ERROR EXIT FROM SCANIT IS TO THE BYTE FOLLOWING THE BRANCH TO			*
		2582+	*	SCANIT IN THE CALLING ROUTINE. THE PSR WILL CONTAIN A LOW			*
		2583+	*	CONDITION.			*
		2584+	*				*
		2585+	*	TABLES/WORKAREAS			*
		2586+	*	* SCACNT - AREA CONTAINING NUMBERS OF DELIMITERS SCANNED			*
		2587+	*	* SCAMMA - LOC WHERE SCACOM MAY BE MOVED IF ONE COMMA IS ALSO			*
		2588+	*	TO BE CONSIDERED A DELIMITER. MOVING SCACOF BACK INTO SCAMMA			*
		2589+	*	INDICATES THAT ONLY BLANKS SHOULD BE CONSIDERED DELIMITERS.			*
		2590+	*				*
		2591+	*	ATTRIBUTES			*
		2592+	*	RELOCATABLE AND RE-USABLE			*
		2593+	*				*
		2594+	*	CHARACTER CODE DEPENDENCY			*
		2595+	*	THE OPERATION OF THIS MODULE DOES NOT DEPEND UPON A PARTICULAR			*
		2596+	*	INTERNAL REPRESENTATION OF THE EXTERNAL CHARACTER SET.			*
		2597+	*				*
		2598+	*	NOTES			*
		2599+	*	ERROR PROCEDURES			*
		2600+	*	THE ONLY ERROR CONDITION DETECTED BY SCANIT IS THE CASE WHERE			*
		2601+	*	A CARRIAGE-RETURN CODE FOLLOWS A COMMA. UPON RETURN TO THE			*

SCANIT - DELIMETER SCAN MODULE

ERR LOC OBJECT CODE ADDR STMT SOURCE STATEMENT VER 15, MOD 00 22/12/23 PAGE 14

```

2602+*      CALLING ROUTINE, @PSR WILL BE SET TO A LOW CONDITION, THE      *
2603+*      ERROR CODE IS SET IN $CAERR, AND MG WILU BE POINTING TO THE      *
2604+*      CARRIAGE-RETURN CHARACTER.                                       *
2605+*                                                                *
2606+*      REGISTER USAGE                                                    *
2607+*      REGISTER 2 (@XR) IS USED AS A POINTER ACROSS THE AREA BEING      *
2608+*      SCANNED FOR DELIMITERS.                                           *
2609+*                                                                *
2610+*      SAVED/RESTORED AREAS                                              *
2611+*      UPON ENTRY TO SCANIT, REGISTER 8 (@ARR) IS SAVED AND USED AS      *
2612+*      THE RETURN ADDRESS.                                               *
2613+*                                                                *
2614+*      MODIFICATION CONSIDERATIONS                                       *
2615+*      NONE                                                                *
2616+*                                                                *
2617+*      REQUIRED MODULES                                                    *
2618+*      * @SYSEQ - COMMON SYSTEM EQUATES                                  *
2619+*      * @FXDEQ - FIXED NUCLEUS ADDRESSES EQUATES                        *
2620+*                                                                *
2621+*      OTHER                                                                *
2622+*      SCANIT IS INITIALIZED TO BYPASS BLANKS ONLY. IF SCACOM IS          *
2623+*      MOVED TO SCAMMA, ONE COMMA WILL BE SCANNED ALONG WITH BLANKS.      *
2624+*      THE INSTRUCTION TO DO THIS IS AS FOLLOWS:                         *
2625+*      MVI    SCAMMA,SCACOM                                                *
2626+*                                                                *
2627+*      TO DROP THE COMMA FROM ITS DELIMITER STATUS, SCACOF SHOULD BE      *
2628+*      MOVED TO SCAMMA, USING THE FOLLOWING INSTRUCTION:                  *
2629+*      MVI    SCAMMA,SCACOF                                                *
2630+*                                                                *
2631+*****
2633+*
2634+*      EQUATES USED IN THIS SUBROUTINE
2635+*
0001 2636+SCAINC EQU    1          TO INCREMENT POINTER
0001 2637+SCACOM EQU    @BNE       SWITCH TO ALLOW SCANNING COMMA
0087 2638+SCACOF EQU    @UCB       SWITCH TO SET OFF THE INDICATON
2639+*      * FOR SCANNING A COMMA
0E17 2640+SCANIT EQU    *          ENTRY POINT TO THIS SUBROUTINE
0E17 34 08 0E53 2641+      ST      SCA500+@OP1,@ARR      SAVE RETURN ADDRESS
0E1B 34 02 0E55 2642+      ST      SCASVE,@XR           SAVE POINTER VALUE
0E1F 3C 04 03CD 2643+      MVI     $CAERR,@E110          SET ERROR CODE
0E23 F2 87 03   2644+      J       SCA200                GO TO PROCESS

0E26 E2 02 01   2646+SCA100 LA     SCAINC(,@XR),@XR      INCREMENT POINTER TO NEXT CHAR
0E29 BD 40 00   2647+SCA200 CLI    0(,@XR),@BLANK        IS THIS CHAR BLANK ?
0E2C C0 81 0E26 2648+      BE     SCA100                YES, FETCH NEXT ONE
2649+*
0E30 BD 6B 00   2650+      CLI    0(,@XR),@COMMA          IS IT A COMMA ?
0E33 F2 87 10   2651+SCA250 JC     SCA400,@UCB            UCS TO RETURN -- OR NOP IF
2652+*      * SCAMMA IS ACTIVE AND CHAR
0E36 E2 02 01   2653+SCA300 LA     SCAINC(,@XR),@XR      INCREMENT POINTER TO NEXT CHAR
0E39 BD 40 00   2654+      CLI    0(,@XR),@BLANK        IS THIS CHAR A BLANK ?
0E3C C0 81 0E36 2655+      BE     SCA300                YES, FETCH NEXT ONE
2656+*

```

SCANIT - DELIMETER SCAN MODULE

ERR	LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	22/12/23	PAGE 15
0E40	BD	1F 00		2657+	CLI	0(,@XR),@EOS+1			IS THIS EOS ?
0E43	F2	82 0A		2658+	JL	SCA500			IF NOT, SKIP ERROR ROUTINE
				2659+*					
0E46	34	02 0E57		2660+	ST	SCACNT,@XR			SAVE NEW POINTER VALUE
0E4A	0F	01 0E57 0E55		2661+	SLC	SCACNT(2),SCASVE			SET PSR TO EQUAL IF POINTER
				2662+*					* NOT ADVANCED
0E50	C0	87 0000		2663+	B	*-*			YES, RETURN
			0E34	2664+	EQU	SCAMMA EQU SCA250+@Q			TO SET SCAN COMMA INDICATOR
				2665+*					
				2666+*					
				2667+*					SAVE AREA
			0E54	2668+	EQU	*			FIRST BYTE OF SCASVE
0E54			0E55	2669+	DS	CL2			ORIGINAL POINTER VALUE SAVE
0E56			0E57	2670+	DS	CL2			SAVE AREA FOR TOTAL CHAR SCAN
				2671+*					END OF SCANIT
				2672+***		END OF EXPANSION ***			
				2673 *					
				2674 *		*****			
				2675 *		5703-XM1 COPYRIGHT IBM CORP. 1970			*
				2676 *		REFER TO INSTRUCTIONS ON COPYRIGHT NOTICE, 120-2083			*
				2677 *					*
				2678 *		*****			
				2679 *		STATUS			*
				2680 *		VERSION 1 MODIFICATION 0			*
				2681 *					*
				2682 *		FUNCTION			*
				2683 *		*			*
				2684 *		* MINITL IS USE FOR ACCESSING THE VOLUME LABEL SECTOR OF AN			*
				2685 *		UNKNOWN DISK.			*
				2686 *		* HARD DISK ERRORS ARE TRAPPED SO THAT AN UNINITIALIZED DISK			*
				2687 *		WILL NOT RESULT IN SYSTEM FAILURE.			*
				2688 *		* IF THE DISK HAS BEEN INITIALIZED, THE VOLUME LABEL SECTOR IS			*
				2689 *		CHECKED FOR VALIDITY. AN INVALID VOLUME LABEL WILL RESULT IN			*
				2690 *		THE DISK BEING CONSIDERED UNINITIALIZED.			*
				2691 *					*
				2692 *		ENTRY POINTS			*
				2693 *		THE ONLY ENTRY POINT IS AT LOCATION MINITL. A DPL FOR READING			*
				2694 *		THE VOLUME LABEL MUST BE PROVIDED. THE CALLING SEQUENCE IS			*
				2695 *		B MINITL			*
				2696 *		INPUT			*
				2697 *		* A SIX BYTE DPL FOR READING THE VOLUME LABEL MUST BE PROVIDED			*
				2698 *		BY THE CALLING PROGRAM AT LOCATION MINDPL. SINCE A CHECK			*
				2699 *		FOR VOLUME LABEL INTEGRITY IS PERFORMED BY MINITL, THE DPL			*
				2700 *		SHOULD SPECIFY VOLUME LABEL DISK ADDRESS ONLY.			*
				2701 *		* A 256 BYTE SECTOR I/O BUFFER MUST BE PROVIDED BY THE CALLING			*
				2702 *		PROGRAM AT LOCATION MINBUF. UPON NORMAL RETURN FROM MINITL,			*
				2703 *		THE VOLUME LABEL SECTOR WILL BE PRESENT IN THE BUFFER.			*
				2704 *					*
				2705 *		OUTPUT			*
				2706 *		* AN INDICATOR IN THE PSR WILL BE SET INDICATING DISK			*
				2707 *		INITIALIZATTON STATUS. A 'LOW' PSR CONDITION INDICATES THAT			*
				2708 *		THE DISK HAS NOT BEEN INITIALIZED.			*
				2709 *		* THE VOLUME LABEL SECTOR WILL BE PRESENT AT LOCATION MINBUF			*
				2710 *		UPON RETURN UNLESS THE PSR IS SET 'LOW'.			*
				2711 *					*
				2712 *		EXTERNAL REFERENCES			*

SCANIT - DELIMETER SCAN MODULE

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	VER 15, MOD 00 22/12/23 PAGE 16
		2713	*	\$KE130 - ADDRESS OF DKDISK HARD ERROR EMIT. THIS INSTRUCTION	*
		2714	*	IS MODIFIED TO EFFECT RETURN TO MINITL ON HARD	*
		2715	*	DISK ERRORS.	*
		2716	*	MINDPL - LOCATION OF REQUIRED DPL,	*
		2717	*	MINBUF - LOCATION OF SECTOR I/O BUFFER.	*
		2718	*	\$IOIND - I/O STATUS INDICATORS.	*
		2719	*	\$INDR2 - CONTAINS I/O ERROR INDICATOR.	*
		2720	*	\$CAERR - LOCATION OF ERRPG4 ERROR MESSAGE CODE.	*
		2721	*	\$WAITF - CHECK ERRORS DPL.	*
		2722	*	\$C0001 - LOCATION OF 2 BYTE CONSTANT OF 1.	*
		2723	*	\$ERLOG - ADDRESS OF ERROR LOGGING ENTRY. THIS ADDRESS IS	*
		2724	*	RESTORED TO THE INSTRUCTION REFERENCED BY \$KE130	*
		2725	*	UPON EXIT.	*
		2726	*		*
		2727	*	*EXITS,NORMAL	*
		2728	*	NORMAL EXIT IS TO THE INSTRUCTION FOLLOWING THE CALLING	*
		2729	*	INSTRUCTION. THE PSR WILL RE SET 'HIGH'.	*
		2730	*		*
		2731	*	*EXITS, ERROR	*
		2732	*	ERROR EXIT IS THE SAME AS FOR NORMAL EXCEPT THAT THE PSR WILL	*
		2733	*	BE SET 'LOW' AND THE CORRESPONDING ERROR CODE WILL BE SET AT	*
		2734	*	\$CAERR.	*
		2735	*		*
		2736	*	*TABLES/WORK AREAS	*
		2737	*	N/A	*
		2738	*		*
		2739	*	*ATTRIBUTES	*
		2740	*	RELOCATABLE	*
		2741	*	ASSEMBLED WITH CALLING PROGRAM.	*
		2742	*		*
		2743	*	*CHARACTER CODE DEPENDENCY	*
		2744	*	N/A	*
		2745	*		*
		2746	*	*NOTES	*
		2747	*	ERROR PROCEDURES	*
		2748	*	MINITL MODIFIES THE HARD ERROR EXIT IN DKDISK TO EFFECT A	*
		2749	*	RETURN WHEN A DISK IS UNINITIALIZED. IN ADDITION, IF THE VOLUME	*
		2750	*	LABEL IS SUCESSFULLY READ, 'VOL' IS CHECKED FOR PRESENCE IN	*
		2751	*	THE FIRST THREE BYTES OF THE SECTOR. IF 'VOL' IS MISSING, OR	*
		2752	*	THE HARD ERROR EXIT IS TAKEN, THE CORRESPONDING ERROR MESSAGE	*
		2753	*	INDICATOR (@@E543-@@E546) IS PLACED AT \$CAERR AND THE PSR	*
		2754	*	SET 'LOW'.	*
		2755	*		*
		2756	*	REGISTER USAGE	*
		2757	*	N/A	*
		2758	*		*
		2759	*	SAVED/RESTORED AREAS	*
		2760	*	N/A	*
		2761	*		*
		2762	*	MODIFICATION CONSIDERATIONS	*
		2763	*	MINITL ASSUMES THAT THE INSTRUCTION AT \$KE130 IS AN UNBASED,	*
		2764	*	UNCONDITIONAL BRANCH TO \$ERLOG AND THAT THIS INSTRUCTION IS	*
		2765	*	THE TERMINAL EXIT FROM DKDISK UPON DETECTING A HARD DISK ERROR.	*
		2766	*	MODIFICATIONS TO THIS INSTRUCTION IN DKDISK WILL REQUIRE A	*
		2767	*	CHANGE OR REWRITE OF THE ERROR DETECTING PORTION OF MINITL.	*
		2768	*	ERROR CODES @@E543-@@E545 WERE ASSUMED TO BE CONTIGUOUS IN	*

SCANIT - DELIMETER SCAN MODULE

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER	15,	MOD	00	22/12/23	PAGE	17
				2769	*		VALUE AND MEANING. CHANGES IN THIS AREA WILL REQUIRE CODE							*
				2770	*		CHANGES TO MINITL.							*
				2771	*									*
				2772	*		REQUIRED MODULES							*
				2773	*		@SYSEQ - GENERAL SYSTEM EQUATES.							*
				2774	*		@FXDEQ - NUCLEUS LOCATION EQUATES.							*
				2775	*		@M543,@@E544,@@E545,@@E546 - ERROR MESSAGE EQUATES.							*
				2776	*									*
				2777	*		OTHER							*
				2778	*		N/A							*
				2779	*		*****							*

SCANIT - DELIMETER SCAN MODULE

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	22/12/23	PAGE 18
					2781	*****	*****			
					2782	*MINITL	ENTER EXIT-MIN20,@BR,@XR,@ARR			
				0E58	2783	MINITL	EQU *			MODULE ENTRY POINT
0E58	34	01	0EBA		2784		ST MIN200+@OP1,@BR			SAVE @BR
0E5C	34	02	0EBE		2785		ST MIN201+@OP1,@XR			SAVE @XR
0E60	34	08	0EC2		2786		ST MIN202+@OP1,@ARR			SAVE RETURN ADDRESS
					2787	***	END OF EXPANSION ***			
0E64	0C	01	01D8	0EC6	2789	MVC	\$KE130+@OP1,MINERP(@CADDR)			SET HARD ERROR TRAP
					2790	*	DISK MINDPL,WAIT			
0E6A	C0	87	0025		2791	B	\$DISKN			PERFORM PHYSICAL DISK OP
0E6E	0E11			0E6F	2792	DC	AL2(MINDPL)			DPL ADDRESS
0E70	C0	87	0025		2793	B	\$DISKN			WAIT AND CHECK DISK ERRORS
0E74	057F			0E75	2794	DC	AL2(\$WAITF)			WAIT DPL ADDRESS
					2795	***	END OF EXPANSION ***			
0E76	35	02	0E16		2797	L	MINDPL+@DBFR2,@XR			POINT TO VOL-LABEL BUFFER
0E7A	8D	02	02	0EC9	2798	CLC	2(3,@XR),MINVOL			CHECK FOR VALID VOL LABEL
0E7F	F2	01	07		2799	JNE	MIN100			ASSUME UNINITIALIZED IF BAD -
0E82	3D	00	0464		2800	CLI	\$C0001,@ZERO			SET HIGH PSR
0E86	F2	87	28		2801	J	MIN150			GO EXIT
					2802	*				
					2803	*	ENTRY FROM DISK HARD ERROR ROUTINE			
					2804	*				
0E89	3B	20	03D2		2805	MIN100	SBF \$IOIND,\$HRDER			TURN OFF HARD ERROR INDQ
0E8D	3B	04	03D5		2806		SBF \$INDR2,\$ERPND			DON'T LOG THE ERROR
0E91	3C	91	03CD		2807		MVI \$CAERR,@E543			SET POSSIBLE R1 NOT INITIALIZED
0E95	38	01	0E13		2808		TBN MINDPL+@DSAD,MINMKR			IS IT THE FIXED DISK ?
0E99	F2	90	04		2809		JF MIN110			TEST FOR DRIVE 2 IF NO
0E9C	3C	93	03CD		2810		MVI \$CAERR,@E545			SET F1 ERROR MSG
0EA0	38	02	0E13		2811	MIN110	TBN MINDPL+@DSAD,MINMK2			IS IT DRIVE 2 ?
0EA4	F2	90	06		2812		JF MIN120			GO EXIT IF NO
0EA7	0E	00	03CD	0464	2813		ALC \$CAERR(1),\$C0001			SET DRIVE 2 MSGS
0EAD	3D	FF	0464		2814	MIN120	CLI \$C0001,@DWAIT			SET LOW PSR
0EB1	0C	01	01D8	0EC4	2815	MIN150	MVC \$KE130+@OP1(@CADDR),MINAC1			RESTORE DKDISK HARD ERROR
					2817	*MIN20	EXIT @BR,@XR,RETURN			
0EB7	C2	01	0000		2818	MIN200	LA *-*,@BR			RESTORE @BR
0EBB	C2	02	0000		2819	MIN201	LA *-*,@XR			RESTORE @XR
0EBF	C0	87	0000		2820	MIN202	B *-*			RETURN TO CALLING PROGRAM
					2821	***	END OF EXPANSION ***			
0EC3	0345			0EC4	2823	MINAC1	DC AL2(\$ERLOG)			NORMAL DKDISK HARD ERROR EXIT
0EC5	0E89			0EC6	2824	MINERP	DC AL2(MIN100)			SPECIAL HARD ERROR TRAP ENTRY
				0002	2825	MINMK2	EQU X'02'			DRIVE 2 DISK BIT
				0001	2826	MINMKR	EQU X'01'			REMOVABLE/FINED DISK BIT
0EC7	E5D6D3			0EC9	2827	MINVOL	DC CL3'VOL'			VOL LABEL INDR
					2828	*****	*****			

SCANIT - DELIMETER SCAN MODULE

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	VER 15, MOD 00 22/12/23 PAGE 19
		2830		*****	*
		2831	*	5703-XM1 COPYRIGHT IBM CORP. 1970	*
		2832	*	REFER TO INSTRUCTIONS ON COPYRIGHT NOTICE, 120-2083	*
		2833	*		*
		2834		*****	*
		2835	*	*STATUS	*
		2836	*	VERSION 1 MODIFICATION 0	*
		2837	*		*
		2838	*	*FUNCTION	*
		2839	*	SUTOBA IS RESPONSIBLE FOR CHANGING THE APPROPRIATE INDICATORS AND	*
		2840	*	DISK ADDRESSES FOR #GUFUD AND #ERRPG, DEPENDING ON THE STATUS OF	*
		2841	*	THE NUCLEUS WORKAREA INDICATORS: \$NWRKR AND \$NWRFT.	*
		2842	*		*
		2843	*	*ENTRY POINTS	*
		2844	*	* THE ENTRY POINT IS SUTOBA.	*
		2845	*	* THE CALLING SEQUENCE IS AS FOLLOWS:	*
		2846	*	B SUTOBA	*
		2847	*		*
		2848	*	*INPUT	*
		2849	*	INPUT TO SUTOBA IS THE STATUS OF \$NWRKR AND \$NWRFT, THE WORKAREA	*
		2850	*	INDICATORS.	*
		2851	*		*
		2852	*	*OUTPUT	*
		2853	*	OUTPUT FROM SUTOBA IS THE CORRECT SYSTEM MODE AND THE CORRECT	*
		2854	*	DISK ADDRESSES OF #GUFUD AND #ERRPG IN THE NUCLEUS SET.	*
		2855	*		*
		2856	*	*EYTERWAL REFERENCES	*
		2857	*	* \$CAERR - ERROR CODE SAVE AREA	*
		2858	*	* \$INDR3 - NUCLEUS BYTE CONTAINING \$NWRKR AND \$NWRKF, THE	*
		2859	*	WORKAREA INDICATORS	*
		2860	*	* \$INDR2 - NUCLEUS BYTE CONTAINING \$CMODE. SYSTEM MODE INDICATOR	*
		2861	*	* \$GUFIO - LOCATION IN NUCLEUS OF DISK ADDRESS OF #GUFUD	*
		2862	*	* \$EQMAD - LOCATION IN NUCLEUS OF DISK ADDRESS OF #ERRPG	*
		2863	*	* \$BSADR - SYSTEM PROGRAM FILE BASE ADDRESS	*
		2864	*	* #@GUFU - WORKAREA ADDRESS OF #GUFUD	*
		2865	*	* #@ERRP - WORKAREA ADDRESS OF #ERRPG	*
		2866	*	* #SGUFU - SYSTEM PROGRAM FILE ADDRESS OF #GUFUD	*
		2867	*	* #SERRP - SYSTEM PROGRAM FILE ADDRESS OF #ERRPG	*
		2868	*		*
		2869	*	*EXITS,NORMAL	*
		2870	*	NORMAL EXIT FROM SUTOBA IS TO THE BYTE FOLLOWING THE BRANCH TO	*
		2871	*	SUTOBA IN THE CALLING ROUTINE.	*
		2872	*		*
		2873	*	*EXITS, ERROR	*
		2874	*	ERROR EXIT FROM SUTOBA IS TO THE USER-DEFINED LABEL, SUTERR.	*
		2875	*		*
		2876	*	*TABLES/NORKAREAS	*
		2877	*	NONE	*
		2878	*		*
		2879	*	*ATTRIBUTES	*
		2880	*	RELOCATABLE AND RE-USABLE	*
		2881	*		*
		2882	*	*CHARACTER CODE DEPENDENCY	*
		2883	*	THE OPERATION OF THIS MODULE DOES NOT DEPEND UPON A PARTICULAR	*
		2884	*	INTERNAL REPRESENTATION OF THE ETTETNAI. CHARACTER SET.	*
		2885	*		*

SCANIT - DELIMETER SCAN MODULE

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00 22/12/23 PAGE 20
			2886	*NOTES		*
			2887	* ERROR PROCEDURES		*
			2888	* SUTOBA DETECTS AN ERROR CONDITION IF THE SYSTEM MODE UPON ENTRY		*
			2889	* IS BASIC AND THE CALLING ROUTINE HAS DELETED THE WOREAREA ON		*
			2890	* EITHER R1 OR F1, WHEN THIS OCCURS, SUTOBA PLACES THE SYSTEM IN		*
			2891	* UTILITY MODE AND EXITS TO THE USER-DEFINED LABEL, SUTERR,		*
			2892	* WITH THE APPROPRIATE ERROR CODE SET IN \$CAERR.		*
			2893	*		*
			2894	* REGISTER USAGE		*
			2895	* REGISTER 8 (@ARR) IS SAVED UPON ENTRY TO SUTOBA AND IS USED AS		*
			2896	* THE RETURN ADDRESS TO THE CALLING ROUTINE.		*
			2897	*		*
			2898	* SAVED/RESTORED AREAS		*
			2899	* NONE		*
			2900	*		*
			2901	* MODIFICATION CONSIDERATIONS		*
			2902	* NONE		*
			2903	*		*
			2904	* REQUIRED MODULES		*
			2905	* @SYSEQ - COMMON SYSTEM EQUATES		*
			2906	* @FXDEQ - NUCLEUS FIXED ADDRESS EQUATES		*
			2907	* @SPFEQ - SYSTEM PROGRAM FILE EQUATES FOR #GUFUD AND #ERRPG		*
			2908	* @ERMEQ - ERROR MESSAGE EQUATES (SELECTED ERROR CODES)		*
			2909	* @WKAEQ - SYSTEM WOREAREA EQUATES		*
			2910	*		*
			2911	* OTHER		*
			2912	* NONE		*
			2913	*****		
			2915	*		
			2916	*	SWITCH TO BASIC MODE	
			2917	*		
		0ECA	2918	SUTOBA EQU *	ENTRY POINT FOR SUTOBA	
0ECA	34 08 0F2C		2919	ST SUT500+@OP1,@ARR	SAVE USERS RETURN ADDRESS	
			2920	*		
0ECE	3C A1 03CD		2921	MVI \$CAERR,@E572	NO WA ON F1-UTIL ENTERED ERR	
0ED2	39 80 03D6		2922	TBF \$INDR3,\$NWRKF	IS A WORK AREA ON FIXED DISK ?	
0ED6	F2 90 0B		2923	JF SUT100	IF NOT, JUMP TO SET ERROR CODE	
			2924	*		
0ED9	39 40 03D6		2925	TBF \$INDR3,\$NWRKR	IS A WORK AREA ON REMOVABLE DK ?	
0EDD	F2 10 12		2926	JT SUT200	IF YES, SKIP SETTING ERROR CODE	
			2927	*		
0EE0	3C A2 03CD		2928	MVI \$CAERR,@E573	NO WA ON R1-UTIL ENTERED ERR	
0EE4	38 02 03D5		2929	SUT100 TBN \$INDR2,\$CMODE	IS THIS BASIC MODE ?	
0EE8	F2 90 1A		2930	JF SUT300	NO, GO PUT USER IN UTILITY MOE	
			2931	*		
0EEB	3C 87 0F26		2932	MVI SUT400+@Q,@UCB	ELSE, SET SW TO TAKE ERROR EXIT	
0EEF	F2 87 13		2933	J SUT300	JUMP INTO UTILITY SECTION	
			2934	*		
0EF2	3A 02 03D5		2935	SUT200 SBN \$INDR2,\$CMODE	SET BASIC MODE INDR ON	
0EF6	0C 01 0582 0F2F		2936	MVC \$GUFIO-1(@DADDR),SUTWGU	STORE WORK FILE ADDRESSES OF	
0EFC	0C 01 0471 0F31		2937	MVC \$ERMAD-1(@DADDR),SUTWER	* GUFUDI AND ERRPGM IN NUCLEUS	
0F02	F2 87 20		2938	J SUT400	RETURN TO CALLING ROUTINE	
			2939	*		
			2940	*	SWITCH TO UTILITY MODE	
			2941	*		

SCANIT - DELIMETER SCAN MODULE

ERR LOC OBJECT CODE ADDR STMT SOURCE STATEMENT VER 15, MOD 00 22/12/23 PAGE 21

0F05	3B 02 03D5		2942	SUT300	SBF	\$INDR2,\$CMODE	SET UTILITY MODE INDR ON
			2943	*			
0F09	0E 01 0F33 0587		2944		ALC	SUTPGU(@DADDR), \$BSADR	INCR PROD FILE ADDRESSES OF
0F0F	0E 01 0F35 0587		2945		ALC	SUTPER(@DADDR), \$BSADR	* GUFUDI AND ERRPGM BY 4BSADR
			2946	*			
0F15	0C 01 0582 0F33		2947		MVC	\$GUFIO-1(@DADDR), SUTPGU	STORE INCREMENTED ADDRESSES OF
0F1B	0C 01 0471 0F35		2948		MVC	\$ERMAD-1(@DADDR), SUTPER	* GUFUDI AND ERRPGM IN NUCLEUS
			2949	*			
0F21	31 10 0F2D		2950		LIO	SUTCL1,@CLOFF	TURN OFF COMMAND LIGHT ONE
0F25	C0 80 0DEE		2951	SUT400	BC	SUTERR,@NOP+*-*	IF BASIC DESIRED AND UTILITY
			2952	*			* ENTERED. GO TO SUTERR
0F29	C0 87 0000		2953	SUT500	B	*-*	ELSE, RETURN TO USER
			2954	*			
			2955	*		CONSTANTS AND SAVE AREAS IN SOMA	
			2956	*			
0F2D	01	0F2D	2957	SUTCL1	DC	IL1'1'	KEY NO. FOR COMMAND LIGHT ONE
0F2E	0401	0F2F	2958	SUTWGU	DC	AL(@DADDR) (@GUFU)	SET UP CONSTANTS WHOSE ADDRESS
0F30	0441	0F31	2959	SUTWER	DC	AL(@DADDR) (@ERRP)	* IS THE WORK AREA ADDRESS
			2960	*			
		0F32	2961	SUT600	EQU	*	START OF GUFUDI SPF ADDR
0F32		0F33	2962	SUTPGU	DS	AL(@DADDR)	AREA TO CONTAIN SYSTEM PROGRAM
0F32			2963		ORG	SUT600	* FILE DISK ADDRESS OF GUFUDI,
0F32	1880	0F33	2964		DC	AL(@DADDR) (\$GUFU)	* INITIALLY
			2965	*			
		0F34	2966	SUT700	EQU	*	START OR ERRPSM SPF ADDR
0F34		0F35	2967	SUTPER	DS	AL(@DADDR)	AREA TO CONTAIN SYSTEM PROGRAM.
0F34			2968		ORG	SUT700	* FILE DISK ADDRESS OF ERRPGM
0F34	18C0	0F35	2969		DC	AL(@DADDR) (\$ERRP)	* INITIALLY
			2970	*****			
			2971	*		\$ALPH	

SALPHA - SYNTAX CHECKER MODULE

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	VER 15, MOD 00 22/12/23 PAGE 22
2973+				*****	*
2974+	*	5703-XM1		COPYRIGHT IBM CORP. 1970	*
2975+	*			REFER TO INSTRUCTIONS ON COPYRIGHT NOTICE, 120-2083	*
2976+	*				*
2977+				*****	*
2978+	*			STATUS	*
2979+	*			VERSION 1 MODIFICATION 0	*
2980+	*				*
2981+	*			FUNCTION	*
2982+	*			THE FUNCTION OF SALPHA IS TO SYNTAX CHECK AN 8 CHARACTER OR 6	*
2983+	*			CHARACTER ALPHAMERIC PARAMETER DETERMINED BY THE ENTRY POINT,	*
2984+	*			SALPH8 OR SALPH6 RESPECTIVELY. ENTRY AT SALPHA IMPLIES A REQUEST	*
2985+	*			THAT THE FIRST CHARACTER BE ALPHABETIC. A SYNTACTICALLY CORRECT	*
2986+	*			PARAMETER WILL BE SAVED AT SALPHR (LEFTMOST BYTE ADDRESS), THE	*
2987+	*			COUNT OF THE NUMBER OF VALID CMARACTERS, IF NEEDED, IS FOOD IN	*
2988+	*			SALCNT. UPON ENTRY, SALPHA REQUIRES INDEX RESISTER 2 (OM TO BE	*
2989+	*			ADDRESSING THE FIRST CHARACTER 0, THE PARAMETER TO BE SYNTAX	*
2990+	*			CHECKED. UPON NORMAL RETURN INDEX REGISTER 2 (@XR) WILL BE	*
2991+	*			ADDRESSING THE FIRST NON-DELIMITER FOLLOWING THE PARAMETER (NOTE	*
2992+	*			INPUT),	*
2993+	*				*
2994+	*			ENTRY POINTS	*
2995+	*			* SALPH8 - ENTRY POINT TO SYNTAX CHECK AN EIGHT CHARACTER	*
2996+	*			ALPHAMERIC PARAMETER WHOSE FIRST CHARACTER MUST BE	*
2997+	*			ALPHABETIC.	*
2998+	*			* SALPH6 - ENTRY POINT TO SYNTAX CHECK A SIX CHARACTER	*
2999+	*			ALPHAMERIC PARAMETER WHICH HAS NO RESTRICTIONS ON	*
3000+	*			THE TYPE OF THE FIRST CHARACTER. (NOTE MODIFICA-	*
3001+	*			TION CONSIDERATIONS)	*
3002+	*				*
3003+	*			INPUT	*
3004+	*			UPON ENTRY TO SALPHA, AT EITHER ENTRY POINT, INDEX REGISTER 2	*
3005+	*			(@XR) SHOULD BE ADDRESSING THE LEFTMOST CHARACTER OF THE PARAMETER*	*
3006+	*			TO BE SYNTAX CHECKED. ALSO, THE SWITCH 'SCAMMA' IN SCANIT SHOULD	*
3007+	*			BE SET FOR THE TYPE OF DELIMITER SCAN REQUESTED AFTER THE SYNTAX	*
3008+	*			CHECK. (IE. BLANKS ONLY OR BLANKS WITH 1 COMMA).	*
3009+	*				*
3010+	*			OUTPUT	*
3011+	*			OUTPUT FROM SALPHA INCLUDES THE SYNTAX CHECKED PARAMETER AT SALPHR*	*
3012+	*			(LEFTMOST BYTE OF SAVE AREA) AND THE COUNT OF VALID CHARACTERS	*
3013+	*			IN SALCNT, AND INDEX REGISTER 2 (@XR) WILL BE POINTING AT THE	*
3014+	*			FIRST NON-DELIMITER AFTER THE PARAMETER. THE ONLY EXCEPTION TO	*
3015+	*			THIS IS UPON DETECTION OF AN ERROR (SEE ERROR EXITS AND PROC.)	*
3016+	*				*
3017+	*			EXTERNAL REFERENCES	*
3018+	*			SCANIT - DELIMITER SCAN MODULE	*
3019+	*			\$CAERR - ADDR IN SYSTEM NUCLEUS-ERROR CODE SAVE AREA	*
3020+	*				*
3021+	*			EXITS, NORMAL	*
3022+	*			NEXT SEQUENTIAL INSTRUCTION IN CALL ROUTINE WITH INDEX	*
3023+	*			REGISTER 2 (@XR) POINTING TO THE NEXT NON-DELIMITER	*
3024+	*			FOLLOWING THE PARAMETER AND WITH A NON-LOW CONDITION CODE	*
3025+	*			IN THE PROGRAM STATUS RESISTER (@PSR),	*
3026+	*				*
3027+	*			EXITS, ERROR	*
3028+	*			NEXT SEQUENTIAL INSTRUCTION IN CALL ROUTINE WILH INDEX	*

SALPHA - SYNTAX CHECKER MODULE

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	VER 15, MOD 00 22/12/23 PAGE 23
		3029+*		REGISTER 2 (@XR) POINTING TO THE LEFTMOST CHARACTER OF THE	*
		3030+*		INVALID PARAMETER AND WITH A LOW CONDITION CODE IN THE	*
		3031+*		PROGRAM STATUS REGISTER (@PSR),	*
		3032+*			*
		3033+*		TABLES/WORK AREAS	*
		3034+*		ALL OF THE CONSTANTS AND WORK AREAS IN SALPHA ARE LOCATED AT THE	*
		3035+*		END OF THE MODULE AND ARE ADDRESSED BY INDEX REGISTER 1 (RBR).	*
		3036+*			*
		3037+*		ATTRIBUTES	*
		3038+*		REUSABLE, RELOCATABLE	*
		3039+*			*
		3040+*		CHARACTER CODE DEPENDENCY	*
		3041+*		CHARACTER CODE DEPENDENCY CLASS - E	*
		3042+*		THE OPERATION OF THIS MODULE DEPENDS UPON THE FOLLOWING PROPERTIES	*
		3043+*		OF THE INTERNAL REPRESENTATION OF THE EXTERNAL CHARACTER SET:	*
		3044+*		* THE FOLLOWING SPECIAL ALPHABETIC CHARACTERS ARE PART OF	*
		3045+*		@SYSEQ AND ARE SPECIFICALLY COMPARED FOR:	*
		3046+*		* @DOLAR	*
		3047+*		* @NUMBR	*
		3048+*		* @ASIGN	*
		3049+*		* THE REMAINING-ALPHABETIC CHARACTERS ARE DEFINED TO BE	*
		3050+*		INCLUSIVELY IN THE RANGE DEFINED BY THE FOLLOWING IN @SYSEQ:	*
		3051+*		* @CHARA	*
		3052+*		* @CHARZ	*
		3053+*			*
		3054+*		THE DECIMAL NUMBERS FALL INTO THE CATEGORY OF BEING GREATER	*
		3055+*		THAN AN @CHARZ (IE. THIS IS DEFAULTED TO BY CHECKING METHOD)	*
		3056+*		THE SPECIFIC INSTRUCTIONS WHICH REQUIRE MODIFICATION IF THESE	*
		3057+*		PROPERTIES OF THE CHARACTER SET ARE CHANGED MAY BE IDENTIFIED BY:	*
		3058+*		* SAL200 - FOR THE THREE SPECIAL CHARACTERS	*
		3059+*		* SAL250 - FOR THE REMAINING ALPHABETIC RANGE	*
		3060+*		* SAL425 - BRANCHES 'TO' THIS LOCATION IMPLY DEFAULT TO NUMERIC	*
		3061+*			*
		3062+*		NOTES	*
		3063+*		ERROR PROCEDURES	*
		3064+*		THE FOLLOWING ERROR CONDITIONS WILL RESULT IN AN ERROR CODE	*
		3065+*		BEING SET IN \$CAERR AND AN ERROR EXIT BEING MADE (SEE EDITS,	*
		3066+*		ERROR):	*
		3067+*		* A NON-ALPHABETIC FIRST CHARACTER WHEN ENTRY WAS AT	*
		3068+*		SALPH8.	*
		3069+*		* A NON-ALPHAMERIC CHARACTER EMBEDDED IN A PARAMETER WHICH	*
		3070+*		SALPH8 WAS CALLED TO CHECK.	*
		3071+*		* A NON-ALPHAMERIC CHARACTER BEING FIRST OR EMBEDDED IN A	*
		3072+*		PARAMETER WHICH SALPH6 WAS CALLED TO CHECK.	*
		3073+*		* A PARAMETER OF GREATER THAN EIGHT CHARACTERS WHEN ENTRY	*
		3074+*		WAS AT SALPH8.	*
		3075+*		* A PARAMETER OF GREATER THAN SIX CHARACTERS WHEN ENTRY	*
		3076+*		WAS AT SALPH6.	*
		3077+*			*
		3078+*		REGISTER USAGE	*
		3079+*		INDEX REGISTER 1 (@BR) IS USED AS A BASE REGISTER THROUGHOUT	*
		3080+*		THE EXECUTION OF THE MODULE. IT IS SAVED FOR THE CALL PROGRAM	*
		3081+*		UPON ENTRY AND RESTORED UPON EXIT.	*
		3082+*		INDEX REGISTER 2 (@XR) IS USED AS A PARAMETER PASSING REGISTER.	*
		3083+*		UPON ENTRY IT CONTAINS THE ADDRESS OF THE LEFTMOST BYTE OF	*
		3084+*		PARAMETER TO BE SYNTAX CHECKED AND UPON EXIT IT CONTAINS THE	*

SALPHA - SYNTAX CHECKER MODULE

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	VER 15, MOD 00 22/12/23 PAGE 24
		3085+*		ADDRESS OR THE FIRST NON-DELIMITER FOLLOWING THE PARAMETEP.	*
		3086+*		(NOTE ERROR EXITS AND PROCEDURES),	*
		3087+*			*
		3088+*		SAVED/RESTORED AREAS	*
		3089+*		NONE	*
		3090+*			*
		3091+*		MODIFICATION CONSIDERATIONS	*
		3092+*		BECAUSE OF ITS CHARACTER CODE DEPENDENCY AND PARAMETER LENGTH	*
		3093+*		QUALIFICATIONS, ONE MUST TAKE SPECIAL CARE IN MODIFYING SALPHA,	*
		3094+*		ESPECIALLY THE CONSTANTS AND WORK AREAS AND THEIR RE-INITIAL,	*
		3095+*		IZATION. SALPHA IS MOST COMMONLY USED TO SYNTAX FILENAMES,	*
		3096+*		PASSWORDS, AND VOL-IDS AND IS THEREFORE USED BY THE MODULE	*
		3097+*		SUFFER (FILE SPECIFICATION SYNTAX CHECKER). THEREFORE, ANY	*
		3098+*		SIGNIFICANT CHANGE IN SALPHA WILL REQUIRE AN INVESTIGATION	*
		3099+*		INTO ITS USE AND IMPACT ON SUFFER.	*
		3100+*		SPECIAL NOTE: AN IRREGULAR USE OF SALPHA WHICH CAN BE	*
		3101+*		EFFECTED IS THE SYNTAY CHECK OF A PARAMETER WITH A MAXIMUM	*
		3102+*		OF 10 CHARACTERS. THIS IS DONE BY MODIFYING THE Q-CODE OF	*
		3103+*		THE INSTRUCTION AT SAL450 PRIOR TO ENTRANCE AT SALPH6, WITH	*
		3104+*		X'0A' OR ITS EQUIVALENT. (NOTE: ONE SUCH MODULE WHICH	*
		3105+*		USES THIS OPTION IS UINITL)	*
		3106+*			*
		3107+*		REQUIRED MODULES	*
		3108+*		SCANIT - DELIMITER SCAN ROUTINE	*
		3109+*		@DIREQ - SYSTEM LIBRARY DIRECTORY EQUATES	*
		3110+*		@ERMEQ - ERROR MESSAGE EQUATES	*
		3111+*		@FXDEQ - COMMON CORE LOCATIONS WITHIN THE SYSTEM NUCLEUS	*
		3112+*		@SYSEQ - COMMON SYSTEM SOFTWARE EQUATES	*
		3113+*			*
		3114+*		OTHER	*
		3115+*		N/A	*
		3116+*		*****	*
		3118+*		*****	*
		3119+*			*
		3120+*		SALPHA MODULE EQUATES	*
		3121+*			*
		3122+*		*****	*
		0008 3123+	SALCT8 EQU	##LUEN	COUNT COMPARE FIELD
		3124+*			
		0006 3125+	SALCT6 EQU	@VOLID	COUNT COMPARE FIELD
		3127+*		*****	*
		3128+*			*
		3129+*		INITIALIZATION OF MODULE	*
		3130+*			*
		3131+*		*****	*
		3133+*	SALPH8 ENTER CHECK		FILENAME OR PASSWORD
0F36		3134+*	SALPH8 EQU	*	MODULE ENTRY POINT
		3135+*	***	END OF EXPANSION ***	
0F36 3A 80 0FF1		3137+*	SBN	SALIDR,SAL008	SET ON SALPH8 INDR
		3138+*			
		3139+*	SALPH6 ENTER BASE-SALBSE,	EXIT-SALND,@BR,,@ARR	VOL-ID CHECK

SALPHA - SYNTAX CHECKER MODULE

ERR LOC OBJECT CODE ADDR STMT SOURCE STATEMENT VER 15, MOD 00 22/12/23 PAGE 25

			0F56	3140+	USING	SALBSE,@BR	BASE ADDRESS SPECIFICATION
			0F3A	3141+SALPH6	EQU	*	MODULE ENTRY POINT
0F3A	34	01	0FEC	3142+	ST	SALND0+@OP1,@BR	SAVE ABA
0F3E	C2	01	0F56	3143+	LA	SALBSE,@BR	LOAD BASE RESISTER
0F42	74	08	9A	3144+	ST	SALND2+@OP1(,@BR),@ARR	SAVE RETURN ADDRESS
				3145+***	END OF	EXPANSION ***	
0F45	74	02	34	3147+	ST	SAL375+@OP1(,@BR),@XR	SAVE ERROR POINTER
				3149+*****			*
				3150+*			*
				3151+*		INITIALIZE WORK AREAS AND VARIABLE INSTRUCTIONS	*
				3152+*			*
				3153+*****			*
0F48	7C	40	A8	3154+SAL100	MVI	SALPR7(,@BR),@BLANK	BLANK OUT SALPAR FOR PROCESSING
0F4B	5C	08	A7 A8	3155+	MVC	SALPR6(##LPEN+@B1,@BR),SALPR7(,@BR)	
0F4F	7C	00	9C	3156+	MVI	SALCNT(,@BR),@ZERO	ZERO OUT COUNTER
0F52	5C	01	63 AA	3157+	MVC	SAL525+@OP1(2,@BR),SALPHS(,@BR)	MODIFY MOVE OF CHARACTER
				3159+*****			*
				3160+*			*
				3161+*		CHECK EBCDIC CHARACTERS	*
				3162+*			*
				3163+*****			*
				3164+*			*
			0F56	3165+SALBSE	EQU	*	MODULE BASE ADDR
0F56	BD	5B	00	3166+SAL200	CLI	@ZERO(,@XR),@DOLAR	IS IT A '\$' ?
0F59	F2	81	32	3167+	JE	SAL400	YES, PROCESS CHARACTER
0F5C	BD	7B	00	3168+	CLI	@ZERO(,@XR),@NUMBR	IS IT A '#' ?
0F5F	F2	81	2C	3169+	JE	SAL400	YES, PROCESS CHARACTER
0F62	BD	7C	00	3170+	CLI	@ZERO(,@XR),@ASIGN	IS IT A '@' ?
0F65	F2	81	26	3171+	JE	SAL400	YES, PROCESS CHARACTER
				3172+*			*
0F68	BD	C1	00	3173+	CLI	@ZERO(,@XR),@CHARA	IS IT AN ALPHA (A-Z) ?
0F6B	F2	82	53	3174+SAL250	JL	SAL750	NO, CHECK FOR DELIMITERS
0F6E	BD	E9	00	3175+	CLI	@ZERO(,@XR),@CHARZ	IS IT AN ALPHA (A-Z) ?
0F71	F2	04	1A	3176+	JNH	SAL400	YES, PROCESS CHARACTER
0F74	78	80	9B	3177+	TBN	SALIDR(,@BR),SAL008	ENTERED AT SALPH8 ?
0F77	F2	90	17	3178+	JF	SAL425	NO, CHECK IF NUMERIC
				3179+*			*
0F7A	78	01	9B	3180+	TBN	SALIDR(,@BR),SALFST	WAS FIRST CHAR FOUND ALPHA ?
0F7D	3C	00	03CD	3181+	MVI	\$CAERR,@@E100	ALPHA CHAR REQUIRED--ERROR
0F81	F2	10	0D	3182+	JT	SAL425	YES, CONTINUE
0F84	75	04	16	3183+SAL350	L	SALERR(,@BR),@PSR	LOAD ERROR CODE - LOW
0F87	C2	02	0000	3184+SAL375	LA	*-*,@XR	RESTORE ERROR POINTER
0F8B	F2	87	58	3185+	J	SAL800	TAKE ERROR FAIT
				3187+*****			*
				3188+*			*
				3189+*		PROCESS ALPHAMERIC CHARACTER	*
				3190+*			*
				3191+*****			*
0F8E	7A	01	9B	3192+SAL400	SBN	SALIDR(,@BR),SALFST	SET ON ALPHA :NOR
				3193+*			*
0F91	5E	00	9C 9E	3194+SAL425	ALC	SALCNT(1,@BR),SAL001(,@BR)	ADD 1 TO CHARACTER COUNTER
0F95	78	80	9B	3195+	TBN	SALIDR(,@BR),SAL008	WAS ENTRY AT SALPH8 ?

SALPHA - SYNTAX CHECKER MODULE

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	22/12/23	PAGE	26
0F98	D0	90	52		3196+	BF	SAL450(,@BR)				NO, CHECK COUNT FOR VALUE OF SIX
0F9B	7D	08	9C		3197+	CLI	SALCNT(,@BR),##LPEN				HAS COUNT EXCEEDED 8 ?
0F9E	3C	02	03CD		3198+	MVI	\$CAERR,@E102				PASSWORD/FILENAME LENGTH ERROR
0FA2	D0	84	2E		3199+	BH	SAL350(,@BR)				YES, TAKE ERROR EXIT
0FA5	F2	87	0A		3200+	J	SAL500				NO, CONTINUE PROCESSING
0FA8	7D	06	9C		3201+	SAL450 CLI	SALCNT(,@BR),@VOLID				HAS COUNT EXCEEDED 6 ?
0FAB	3C	03	03CD		3202+	MVI	\$CAERR,@E103				INVALID VOL-ID LENGTH
0FAF	D0	84	2E		3203+	BH	SAL350(,@BR)				YES, TAKE ERROR EXIT
					3205+*						
					3206+*		MODIFY MOVE OF CHARACTER				
					3207+*						
0FB2	5E	01	63 9E		3208+	SAL500 ALC	SAL525+@OP1(2,@BR),SAL001(,@BR)				
0FB6	2C	00	0000 00		3209+	SAL525 MVC	*-*,@ZERO(1,@XR)				MOVE CHARACTER TO OUTPUT AREA
0FBB	E2	02	01		3210+	LA	@B1(,@XR),@XR				INCREMENT XR BY I
0FBE	D0	87	00		3211+	B	SAL200(,@BR)				CHECK NEXT CHARACTER
					3213+*****						
					3214+*						*
					3215+*		CHECK ERRORS AND BYPASS DELIMITERS				*
					3216+*						*
					3217+*****						
0FC1	7D	00	9C		3218+	SAL750 CLI	SALCNT(,@BR),@ZERO				ANY VALID CHARACTERS ?
0FC4	3C	10	03CD		3219+	SAL755 MVI	\$CAERR,@E130				REQUIRED PARAM MISSING
0FC8	F2	01	17		3220+	JNE	SAL775				YES, BYPASS DELIMITERS, EYIT
0FCB	BD	1E	00		3221+	CLI	@ZERO(,@XR),@EOS				IS IT EOS ?
0FCE	F2	81	0E		3222+	JE	SAL760				YES, ERROR EVIL
0FD1	78	80	9B		3223+	TBN	SALIDR(,@BR),SAL008				ENTERED AT SALPH8 ?
0FD4	3C	00	03CD		3224+	MVI	\$CAERR,@E100				ALPHABETIC CHAR REQUIRED
0FD8	F2	10	04		3225+	JT	SAL760				ERROR EYIT
0FDB	3C	01	03CD		3226+	MVI	\$CAERR,@E101				ALPHAMERIC CHAR REQUIRED
0FDF	D0	87	2E		3227+	SAL760 B	SAL350(,@BR)				ERROR EYIT
0FE2	C0	87	0E17		3228+	SAL775 B	SCANIT				BYPASS DELIMITERS
					3230+*****						
					3231+*						*
					3232+*		SET OFF INDICATORS FOR POSSIBLE SALDHA RE-ENTRY				*
					3233+*						*
					3234+*****						
0FE6	7C	00	9B		3235+	SAL800 MVI	SALIDR(,@BR),@ZERO				
					3237+*****						
					3238+*						*
					3239+*		END OF MODULE PROCESSING				*
					3240+*						*
					3241+*****						
0FE9	C2	01	0000		3242+*	SALND EXIT	@BR,@RETURN				EXIT
0FED	C0	87	0000		3243+	SALND0 LA	*-*,@BR				RESTORE @BR
					3244+	SALND2 B	*-*				RETURN TO CALLING PROGRAM
					3245+***	END OF EXPANSION	***				
					3247+*****						
					3248+*						*
					3249+*		DATA CONSTANTS, BUFFERS, AND WORK AREAS				*
					3250+*						*
					3251+*****						

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	22/12/23	PAGE	27
	0FF1			0FF1	3252+	SALIDR	DS	CL1		1	BYTE OF FLAGS
	0FF1				3253+		ORG	*-1			
	0FF1	00		0FF1	3254+		DC	XL1'00'			INITIALIZED TO ZERO
				0080	3256+	SAL008	EQU	X'80'			ENTRY POINT INDICATOR
					3257+	*				*	0 - ENTERED AT SALPH6
					3258+	*				*	1 - ENTERED AT SALPH8
				0001	3259+	SALFST	EQU	X'01'			FIRST CHARACTER IS ALPHA / INDR
					3260+	*				*	0 - CHARACTER IS NOT ALPHA
					3261+	*				*	1 - CHARACTER IS ALPHA
	0FF2			0FF2	3262+	SALCNT	DS	CL1			BYTE CHARACTER COUNTER
	0FF2				3263+		ORG	*-1			
	0FF2	00		0FF2	3264+		DC	XL1'00'			INITIALIZED TO ZERO
	0FF3	0001		0FF4	3265+	SAL001	DC	XL2'0001'			COUNTER INCREMENT
				0FF5	3266+	SALPHR	EQU	*			
	0FF5			0FFE	3267+		DS	CL(##LUEN+2*@B1)			SYNTAX SAVE UNIT
	0FFF	0FF4		1000	3268+	SALPHS	DC	AL2(SALPHR-1)			ADDR FOR MODIFYING MOVE
				0FFE	3269+	SALPR7	EQU	SALPHR+##DPEN+2*@B1			ADDR IN SALPHR FOR CLANKINS
				0FFD	3270+	SALPR6	EQU	SALPHR+##DPEN+@B1			* OUT THE FIELD
				0F6C	3271+	SALERR	EQU	SAL250+@Q			ADDR ERROR CODE FOR LOAD
					3272+	***			END OF SALPHA		***
					3273	*					
					3274	*		PATCH			
					3275	*****					
					3276	*		PATCH AREA 1			
					3277	*****					
					3278	*		CALCULATE AREA LEFT IN THIS SECTOR			
					3279	*					
	1100			1001	3280	\$\$\$\$L1	EQU	*			START PATCH AREA 1
					3281		ORG	*,256,0			SET LOC CNTR TO NEXT SECTOR
				1100	3282	\$\$\$\$T1	EQU	*			DEFINE ADDR OF SCTR BNDRY
	1001				3283		ORG	\$\$\$\$L1			SET LOC CNTR OF START
					3284	*					* OF PATCH AREA
	1001			10FF	3285	\$\$\$\$\$1	DS	CL(\$\$\$\$T1-\$\$\$\$L1)			PATCH AREA
					3286	*****					
					3287	***		END OF EXPANSION			***
				1100	3289	KMOBFR	EQU	*			BUFFER FOR VOLUME LABEL
					3290			PRINT ON			
				FFFF	3291			END			
TOTAL STATEMENTS IN ERROR IN THIS ASSEMBLY = 0											

CROSS REFERENCE

VER 15, MOD 00 22/12/23 PAGE 28

SYMBOL	LEN	VALUE	DEFN	REFERENCES
\$\$\$\$\$	001	0C00	2224	
\$\$\$\$\$Q	020	0D07	2366	
\$\$\$\$\$1	255	10FF	3285	
\$\$\$\$\$L1	001	1001	3280	3283 3285
\$\$\$\$\$T1	001	1100	3282	3285
\$\$\$\$CMD	001	0020	0659	
\$\$\$\$DAT	001	0040	0658	
\$\$\$\$EPL	001	0091	0655	
\$\$\$\$ERN	001	0080	0709	
\$\$\$\$FUN	001	0010	0660	
\$\$\$\$NLN	001	00A0	0705	
\$\$\$\$STD	001	0081	0654	
\$\$BNLN	001	0605	0635	0637
\$\$CDBS	001	08C0	0685	
\$\$CDND	001	0666	0644	
\$\$CDRD	001	0890	0683	0685
\$\$CKEY	001	0603	0633	
\$\$CKFF	001	0B3D	0665	
\$\$COFF	001	0B44	0664	
\$\$CSNS	001	209C	0694	
\$\$DATB	001	0BBF	0666	
\$\$EOSA	001	0AFE	0663	
\$\$ERSK	001	1C00	0704	2264 2271*
\$\$FITS	001	1D00	0712	
\$\$FLIB	001	06FF	0711	
\$\$ILEN	001	0601	0629	0631 0635
\$\$ILHD	001	0600	0627	0629
\$\$INLN	001	0607	0642	0644 0646 2264* 2271
\$\$INND	001	06FA	0646	
\$\$KBDT	001	09E1	0653	0657
\$\$KBSN	001	09E2	0657	0662
\$\$KLD1	001	0600	0717	
\$\$KLD2	001	0700	0719	
\$\$KLD3	001	0C00	0721	
\$\$LPOS	001	09EB	0662	
\$\$PCNT	001	07E9	0678	
\$\$PLYN	001	2004	0692	
\$\$PRES	001	0890	0651	0653 0663 0664 0665 0666 0683
\$\$PRFL	001	2143	0696	
\$\$PRNT	001	0707	0672	0673 0677 0678
\$\$PRTN	001	0782	0673	
\$\$PSIO	001	07CE	0677	
\$\$PYCD	001	2200	0698	
\$\$PYMP	001	2000	0690	0692 0694 0696 0698
\$\$SLIB	001	1C00	0707	
\$\$TPCD	001	0606	0637	0642
\$\$UPAR	001	0602	0631	0633
\$\$WSPB	001	1E00	0710	
\$\$XIND	001	06FF	0708	0711
\$\$ZERO	001	0000	0223	0224 0226 0227 0228 0232 0690
\$#TALT	001	0075	0737	
\$#TBIS	001	00FC	0749	
\$#TCET	001	0069	0736	
\$#TCYL	001	005C	0735	
\$#THAD	001	00F2	0741	
\$#THEL	001	0004	0761	

CROSS REFERENCE

VER 15, MOD 00 22/12/23 PAGE 29

SYMBOL	LEN	VALUE	DEFN	REFERENCES
\$#THVT	001	00F0	0740	
\$#TIDR	001	00FF	0751	2446
\$#TLAD	001	00FE	0750	2464
\$#TLBL	001	0008	0732	2440 2520
\$#TLIB	001	00F8	0746	
\$#TLIF	001	0010	0759	
\$#TLSZ	001	00F7	0745	
\$#TOID	001	005B	0734	
\$#TPAD	001	00F6	0744	
\$#TPFL	001	0008	0760	
\$#TPSZ	001	00F4	0743	
\$#TPTF	001	00F3	0742	
\$#TRES	001	00D7	0753	
\$#TSUS	001	00EF	0739	
\$#TSYM	001	0080	0756	
\$#TSYS	001	00FA	0748	
\$#TUSE	001	00A8	0738	
\$#TVOL	001	0002	0731	2520
\$#TVTC	001	000A	0733	
\$#TWAL	001	00D7	0752	2449
\$#TWF1	001	0020	0758	
\$#TWRK	001	00F9	0747	
\$#TWR1	001	0040	0757	2446
\$ABORT	001	0010	0336	
\$BASIC	001	0080	0394	
\$BIGCD	001	0080	0470	
\$BLDPL	001	0579	0603	0605
\$BLNOE	001	0569	0593	
\$BLOAD	001	0522	0584	0586 0589 0602 0603
\$BLRTN	001	0550	0592	0593
\$BRSAV	001	03C5	0281	0282
\$BSADR	001	0587	0608	0610 2944 2945
\$BUFPT	001	03E3	0489	0490
\$CABLD	001	04B4	0562	0563
\$CAERK	001	0469	0539	0542 2502 2530
\$CAERR	001	03CD	0287	0289 2478* 2481* 2485* 2488* 2491* 2497* 2500* 2643* 2807* 2810* 2813* 2921* 2928* 3181* 3198* 3202* 3219* 3224* 3226*
\$CAIPL	001	049D	0558	0560
\$CALLI	001	0008	0479	
\$CARDI	001	0001	0250	
\$CARPL	001	04A1	0560	0562 2273
\$CIENT	001	0483	0549	0550
\$CIEXT	001	0480	0548	0549
\$CIMSK	001	0476	0545	0548 2460*
\$CISUS	001	0496	0553	0558
\$CLBFR	001	0010	0437	
\$CMDKY	001	0008	0349	
\$CMODE	001	0002	0399	2929 2935 2942
\$CONFIG	001	03DD	0462	0472
\$CRPOS	001	03E2	0488	0489
\$CRTAD	001	044D	0527	0528
\$CRTAV	001	0002	0343	
\$CRTDN	001	0002	0367	
\$CRTIN	001	03D3	0364	0371
\$CRTNO	001	0004	0346	
\$CRTPU	001	0004	0368	

CROSS REFERENCE

VER 15, MOD 00 22/12/23 PAGE 30

SYMBOL	LEN	VALUE	DEFN	REFERENCES
\$CRTSP	001	0008	0369	
\$CRTUP	001	0001	0366	
\$CRUSH	001	0080	0475	
\$CSDPL	001	050E	0574	0575
\$C0001	001	0464	0531	0537 2800 2813 2814
\$DATE	001	043A	0512	0513
\$DBGUF	001	03E0	0474	0483
\$DBLOK	001	0001	0424	
\$DFDET	001	03E8	0495	0496
\$DISKN	001	0025	0226	2266 2280 2282 2327 2791 2793
\$DKERR	001	0008	0405	
\$DKSIZ	001	03D7	0449	0457 0498 2406
\$DK100	001	0001	0451	
\$DK200	001	0002	0452	
\$DK400	001	0004	0453	2406
\$DK600	001	0008	0454	
\$DK800	001	0010	0455	
\$DPLSV	001	0449	0523	0525
\$DTNMB	001	0040	0270	
\$DTRDR	001	0040	0358	
\$ENDNU	001	0600	0617	0627 0651 0672 0708 0717 0719 0721
\$ERDPL	001	046F	0542	0544
\$ERFIL	001	0040	0297	
\$ERHRD	001	0004	0429	
\$ERKEY	001	0080	0301	
\$ERLOG	001	0345	0231	2823
\$ERMAD	001	0472	0544	0545 2937* 2948*
\$ERPND	001	0004	0402	2806
\$ERRCT	001	03CF	0303	
\$ERRPG	001	03CE	0291	
\$ERSFL	001	0035	0296	
\$ERSTK	001	0030	0294	
\$ER050	001	0363	0232	
\$ER1N2	001	0050	0299	
\$EXADR	001	0517	0577	0579
\$EXCMD	001	0001	0331	
\$EXFTR	001	043B	0513	0518
\$FCIND	001	0010	0409	
\$FDIND	001	0040	0416	
\$FEARR	001	0004	0224	
\$FEMAP	001	0588	0610	0611
\$FILIB	001	03DA	0460	0461
\$FITIN	001	0010	0385	
\$FUIND	001	0020	0414	
\$GUFIO	001	0583	0607	0608 2936* 2947*
\$GUFIR	001	0008	0259	
\$HISTE	001	042E	0510	0511
\$HIST1	001	0435	0511	0512
\$HRDER	001	0020	0355	2805
\$INDR1	001	03D4	0371	0397
\$INDR2	001	03D5	0397	0422 2806* 2929 2935* 2942*
\$INDR3	001	03D6	0422	0449 2451* 2454* 2468* 2922 2925
\$INLNO	001	03CF	0289	0291 0303 0310
\$INRPT	001	0020	0267	
\$IOIND	001	03D2	0338	0364 2805*
\$IOPGS	001	0010	0478	

CROSS REFERENCE

VER 15, MOD 00 22/12/23 PAGE 31

SYMBOL	LEN	VALUE	DEFN	REFERENCES
\$IOYES	001	0002	0253	
\$IPLDV	001	05FF	0614	0617
\$IRKEY	001	0020	0477	
\$KEYBD	001	03E1	0483	0488
\$KEYCD	001	03C3	0247	0281
\$KEYDT	001	0040	0391	
\$KE090	001	00DE	0227	
\$KE130	001	01D5	0228	2789* 2815*
\$KMOUN	001	0C07	2227	
\$KYBSY	001	0010	0264	
\$LDRTN	001	0571	0602	
\$LEVEL	001	03DF	0472	0474 2449
\$LIST	001	0002	0426	
\$LMRGN	001	03C1	0242	0244
\$LNPTR	001	0080	0361	
\$LOADB	001	054A	0586	
\$LOADR	001	051A	0579	0582
\$LPRIO	001	03EA	0496	
\$LPROS	001	03E5	0491	0493
\$LPRP3	001	03E4	0490	0491
\$MOUNT	001	0020	0440	2468
\$MPDWN	001	0001	0340	
\$NEXTB	001	03E6	0493	0494
\$NEXTL	001	03E7	0494	0495
\$NOENB	001	0008	0432	
\$NOLST	001	0004	0256	
\$NUCBS	001	03C0	0239	0240 2380 2381
\$NWRKF	001	0080	0445	2922
\$NWRKR	001	0040	0442	2451 2454 2925
\$PASWD	001	042D	0509	0510
\$PAUSD	001	04BA	0563	0565
\$PAUSE	001	0002	0333	
\$PGMDT	001	0020	0388	
\$PGMST	001	0010	0352	
\$PKERT	001	0419	0507	0509
\$PLST1	001	0454	0528	0529
\$PLST2	001	045B	0529	0530
\$PLST3	001	0462	0530	0531
\$PRDEV	001	044B	0525	0527
\$PRESN	001	0002	0376	
\$PROCI	001	0001	0373	
\$PRPOS	001	03C2	0244	0247
\$PSDBR	001	04FA	0568	
\$PSDXR	001	04F2	0567	0568
\$PSTEP	001	0004	0334	
\$PSTMT	001	0008	0335	
\$PTCH1	001	03F5	0498	0502
\$READY	001	0080	0418	
\$REORD	001	0040	0476	
\$RLOAD	001	051E	0582	0584
\$RMRGN	001	03C0	0240	0242
\$RSTR	001	04D6	0565	0567 0569 0574
\$RUNIT	001	0001	0312	
\$SFAID	001	050D	0570	
\$SPRNT	001	0465	0537	0539
\$SRTRN	001	04FE	0569	0570

CROSS REFERENCE

SYMBOL LEN VALUE DEFN REFERENCES VER 15, MOD 00 22/12/23 PAGE 32

\$STEPT	001	0002	0313	
\$SWPCR	001	0511	0575	0577
\$TABLN	001	03CB	0284	0287
\$TFLOW	001	0008	0319	
\$TRACE	001	0004	0314	
\$TRALL	001	0010	0320	
\$TROVR	001	054E	0589	0592
\$TRUNK	001	0080	0272	
\$TRVAR	001	0020	0321	
\$UNMSK	001	048D	0550	0553
\$USRDR	001	03DC	0461	0462
\$VMDEF	001	0080	0325	
\$VOLF1	001	03FE	0504	0505
\$VOLF2	001	040E	0506	
\$VOLID	001	03F6	0502	0503 0507 2431 2462* 2464*
\$VOLR1	001	03F6	0503	0504
\$VOLR2	001	0406	0505	0506
\$WAITF	001	057F	0605	0607 2267 2283 2794
\$WFDEF	001	0040	0519	
\$WFLOK	001	0008	0382	
\$WFNME	001	0443	0518	0523
\$WSIND	001	0004	0379	
\$XIND1	001	03D0	0310	0329
\$XIND2	001	03D1	0329	0338
\$XIND3	001	03D8	0457	0460
\$XPREC	001	0040	0322	
\$XRSAB	001	03C7	0282	0284 2384
\$ZTRAD	001	05A2	0611	
\$12K	001	0004	0466	
\$16CKY	001	0008	0468	
\$16K	001	0002	0465	
\$22IMP	001	0001	0463	
###BL	001	0000	1354	
###CK	001	0000	1482	
###CN	001	0000	1450	
###CO	001	0000	1242	
###CS	001	0000	1302	
###DR	001	0000	1046	
###ER	001	0000	1246	
###FS	001	0000	1342	
###IN	001	0000	1486	
###PW	001	0000	1490	
###RS	001	0000	1322	
###SA	001	0000	1310	
###SS	001	0000	1306	
###VU	001	0600	1266	
###0T	001	0700	1038	
###1T	001	0000	1042	
###BCO	001	0600	1054	
###BOV	001	0800	1326	
###DPR	001	0700	1062	
###DRE	001	0889	1078	
###DSP	001	2800	1098	
###ECM	001	0C00	1358	
###EFK	001	0C00	1378	
###ERR	001	0C00	1350	

CROSS REFERENCE

SYMBOL LEN VALUE DEFN REFERENCES VER 15, MOD 00 22/12/23 PAGE 33

###EXM 001 0C00 1238
###FIL 001 0E00 1318
###FIS 001 0E00 1314
###FML 001 0200 1446
###FMS 001 0200 1286
###GRA 001 0889 1210
###GUF 001 0C00 1346
###INL 001 0600 1426
###INS 001 0600 1050
###KAL 001 0C00 1214
###KCA 001 0C00 1430
###KCH 001 0C00 1182
###KCN 001 0C00 1298
###KCT 001 0C00 1150
###KDE 001 0C00 1146
###KDI 001 0D00 1226
###KDN 001 0C00 1134
###KDO 001 0E00 1230
###KED 001 0C00 1070
###KEN 001 0C00 1074
###KEX 001 0C00 1094
###KGO 001 0C00 1066
###KHE 001 0C00 1250
###KKE 001 0C00 1478
###KLI 001 0C00 1154
###KLL 001 0920 1454
###KLO 001 0C00 1158
###KME 001 0D00 1138
###KMO 001 0C00 1082
###KNA 001 0C00 1194
###KOV 001 0E00 1114
###KPA 001 0C00 1090
###KPO 001 0C00 1178
###KPR 001 0C00 1202
###KRE 001 0C00 1122
###KRL 001 0700 1218
###KRM 001 0C00 1086
###KRN 001 0700 1106
###KRO 001 0D00 1110
###KRS 001 0C00 1434
###KRU 001 0C00 1130
###KRV 001 0800 1222
###KSA 001 0C00 1166
###KSE 001 0E00 1206
###KSO 001 0C20 1258
###KSS 001 0C00 1190
###KSV 001 0980 1186
###KSY 001 0C00 1198
###KWI 001 0C00 1126
###KWR 001 0C00 1118
###LOA 001 0600 1058
###MIP 001 0C00 1254
###SDS 001 0C00 1366
###SFF 001 0E00 1370
###SFL 001 0F00 1362
###SFO 001 1500 1334

2223

CROSS REFERENCE

VER 15, MOD 00 22/12/23 PAGE 34

SYMBOL	LEN	VALUE	DEFN	REFERENCES
####SFS	001	0C00	1330	
####SPA	001	0C00	1170	
####SPO	001	0806	1174	
####SPS	001	0C00	1162	
####STR	001	1600	1338	
####TDC	001	1000	1142	
####TSY	001	1000	1102	
####TVK	001	0FC0	1278	
####UAL	001	0C00	1294	
####UAT	001	0900	1390	
####UCD	001	0900	1398	
####UCN	001	0C00	1382	
####UCP	001	0700	1386	
####UDE	001	0C00	1402	
####UDI	001	0C00	1406	
####UEX	001	0C00	1290	
####UIN	001	0C00	1394	
####UPA	001	0C00	1374	
####UPO	001	0C00	1442	
####UPT	001	0C00	1438	
####VCR	001	2000	1234	
####VLO	001	0600	1270	
####VOD	001	0600	1274	
####VVM	001	0000	1282	
####VXI	001	0600	1262	
####ZDU	001	1100	1414	
####ZLB	001	1100	1458	
####ZLO	001	1100	1418	
####ZLV	001	0F00	1474	
####ZL1	001	0F00	1462	
####ZL2	001	0F00	1466	
####ZL3	001	0C00	1470	
####ZTR	001	1000	1410	
####ZUT	001	0C00	1422	
##BLN	001	18D4	1353	
##CKT	001	2118	1481	
##CNF	001	2000	1449	
##COR	001	0800	1241	
##CSA	001	1000	1301	
##DRT	001	0000	1045	
##ERM	001	0928	1245	
##FSP	001	1880	1341	
##INV	001	212C	1485	
##PWR	001	2300	1489	
##RSP	001	1780	1321	
##SAV	001	1180	1309	
##SSA	001	1128	1305	
##VUF	001	0B08	1265	
##0TR	001	0000	1037	
##1TR	001	0080	1041	
##@BL	001	0001	1355	
##@CK	001	0004	1483	
##@CN	001	0001	1451	
##@CO	001	003A	1243	
##@CS	001	003A	1303	
##@DR	001	0008	1047	

CROSS REFERENCE

SYMBOL LEN VALUE DEFN REFERENCES VER 15, MOD 00 22/12/23 PAGE 35

#\$@#ER	001	0032	1247	
#\$@#FS	001	0030	1343	
#\$@#IN	001	003A	1487	
#\$@#PW	001	00C0	1491	
#\$@#RS	001	0030	1323	
#\$@#SA	001	0108	1311	
#\$@#SS	001	0001	1307	
#\$@#VU	001	0002	1267	
#\$@#0T	001	0018	1039	
#\$@#1T	001	0018	1043	
#\$@BCO	001	0018	1055	
#\$@BOV	001	0018	1327	
#\$@DPR	001	0005	1063	
#\$@DRE	001	0001	1079	
#\$@DSP	001	0004	1099	
#\$@ECM	001	0006	1359	
#\$@EFK	001	0002	1379	
#\$@ERR	001	0003	1351	
#\$@EXM	001	0003	1239	
#\$@FIL	001	0009	1319	
#\$@FIS	001	0009	1315	
#\$@FML	001	0052	1447	
#\$@FMS	001	0052	1287	
#\$@GRA	001	0003	1211	
#\$@GUF	001	0010	1347	
#\$@INL	001	0010	1427	
#\$@INS	001	0010	1051	
#\$@KAL	001	000F	1215	
#\$@KCA	001	000C	1431	
#\$@KCH	001	000C	1183	
#\$@KCN	001	0010	1299	
#\$@KCT	001	0009	1151	
#\$@KDE	001	0010	1147	
#\$@KDI	001	0005	1227	
#\$@KDN	001	0010	1135	
#\$@KDO	001	000C	1231	
#\$@KED	001	000E	1071	
#\$@KEN	001	0006	1075	
#\$@KEX	001	0003	1095	
#\$@KGO	001	0002	1067	
#\$@KHE	001	000C	1251	
#\$@KKE	001	0006	1479	
#\$@KLI	001	0011	1155	
#\$@KLL	001	0001	1455	
#\$@KLO	001	0008	1159	
#\$@KME	001	0003	1139	
#\$@KMO	001	0004	1083	
#\$@KNA	001	0008	1195	
#\$@KOV	001	0009	1115	
#\$@KPA	001	0005	1091	
#\$@KPO	001	000D	1179	
#\$@KPR	001	0009	1203	
#\$@KRE	001	0002	1123	
#\$@KRL	001	0004	1219	
#\$@KRM	001	0003	1087	
#\$@KRN	001	0003	1107	

CROSS REFERENCE

SYMBOL LEN VALUE DEFN REFERENCES VER 15, MOD 00 22/12/23 PAGE 36

#\$@KRO	001	000A	1111	
#\$@KRS	001	000A	1435	
#\$@KRU	001	0003	1131	
#\$@KRV	001	000D	1223	
#\$@KSA	001	0011	1167	
#\$@KSE	001	0004	1207	
#\$@KSO	001	0005	1259	
#\$@KSS	001	000B	1191	
#\$@KSV	001	0002	1187	
#\$@KSY	001	000F	1199	
#\$@KWI	001	0002	1127	
#\$@KWR	001	0002	1119	
#\$@LOA	001	0013	1059	
#\$@MIP	001	000D	1255	
#\$@SDS	001	0004	1367	
#\$@SFF	001	0008	1371	
#\$@SFL	001	0005	1363	
#\$@SFO	001	0003	1335	
#\$@SFS	001	0011	1331	
#\$@SPA	001	0004	1171	
#\$@SPO	001	0003	1175	
#\$@SPS	001	0001	1163	
#\$@STR	001	0002	1339	
#\$@TDC	001	0003	1143	
#\$@TSY	001	0003	1103	
#\$@TVK	001	0001	1279	
#\$@UAL	001	0011	1295	
#\$@UAT	001	000C	1391	
#\$@UCD	001	000B	1399	
#\$@UCN	001	0009	1383	
#\$@UCP	001	000F	1387	
#\$@UDE	001	000E	1403	
#\$@UDI	001	0008	1407	
#\$@UEX	001	000E	1291	
#\$@UIN	001	000F	1395	
#\$@UPA	001	0004	1375	
#\$@UPO	001	0005	1443	
#\$@UPT	001	0012	1439	
#\$@VCR	001	0008	1235	
#\$@VLO	001	0002	1271	
#\$@VOD	001	0016	1275	
#\$@VVM	001	0030	1283	
#\$@VXI	001	0002	1263	
#\$@ZDU	001	0008	1415	
#\$@ZLB	001	0002	1459	
#\$@ZLO	001	000C	1419	
#\$@ZLV	001	0006	1475	
#\$@ZL1	001	0007	1463	
#\$@ZL2	001	000D	1467	
#\$@ZL3	001	000A	1471	
#\$@ZTR	001	0001	1411	
#\$@ZUT	001	0014	1423	
#\$BCOM	001	0080	1053	
#\$BOLV	001	1780	1325	
#\$DPRI	001	014C	1061	
#\$DREA	001	0200	1077	

CROSS REFERENCE

VER 15, MOD 00 22/12/23 PAGE 37

SYMBOL	LEN	VALUE	DEFN	REFERENCES
#\$DSPL	001	0240	1097	
#\$ECMA	001	1900	1357	
#\$EFKE	001	1990	1377	
#\$ERRP	001	18C0	1349	2969
#\$EXMS	001	07D4	1237	
#\$FILN	001	1724	1317	
#\$FIST	001	1700	1313	
#\$FMLN	001	1E00	1445	
#\$FMST	001	0D00	1285	
#\$GRAP	001	0690	1209	
#\$GUFU	001	1880	1345	2964
#\$INLN	001	1C84	1425	
#\$INST	001	0020	1049	
#\$KALL	001	06A4	1213	
#\$KCAL	001	1CC4	1429	
#\$KCHA	001	053C	1181	
#\$KCND	001	0F80	1297	
#\$KCTL	001	03BC	1149	
#\$KDEL	001	035C	1145	
#\$KDIS	001	0744	1225	
#\$KDNT	001	0300	1133	
#\$KDOV	001	0780	1229	
#\$KEDI	001	0188	1069	
#\$KENA	001	01C4	1073	
#\$KEXT	001	0234	1093	
#\$KGOS	001	0180	1065	
#\$KHEL	001	0A30	1249	
#\$KKEY	001	2100	1477	
#\$KLIS	001	0400	1153	
#\$KLLA	001	2004	1453	
#\$KLOG	001	0444	1157	
#\$KMER	001	030C	1137	
#\$KMOU	001	0204	1081	
#\$KNAM	001	05C0	1193	
#\$KOVN	001	0290	1113	
#\$KPAS	001	0220	1089	
#\$KPOO	001	0508	1177	
#\$KPRT	001	063C	1201	
#\$KREA	001	02BC	1121	
#\$KRLA	001	0700	1217	
#\$KRMO	001	0214	1085	
#\$KRNU	001	0280	1105	
#\$KROV	001	028C	1109	
#\$KRSU	001	1D24	1433	
#\$KRUN	001	02CC	1129	
#\$KRVL	001	0710	1221	
#\$KSAV	001	0488	1165	
#\$KSET	001	0680	1205	
#\$KSOV	001	0AC8	1257	
#\$KSSP	001	0594	1189	
#\$KSVL	001	058C	1185	
#\$KSYM	001	0600	1197	
#\$KWID	001	02C4	1125	
#\$KWRI	001	02B4	1117	
#\$LOAD	001	0100	1057	
#\$MIPP	001	0A80	1253	

CROSS REFERENCE

SYMBOL LEN VALUE DEFN REFERENCES VER 15, MOD 00 22/12/23 PAGE 38

##SDSY 001 192C 1365
##SFFI 001 193C 1369
##SFLO 001 1918 1361
##SFOV 001 1844 1333
##SFSY 001 1800 1329
##SPAC 001 04CC 1169
##SPOV 001 04DC 1173
##SPSY 001 0484 1161
##STRO 001 1850 1337
##TDCK 001 0350 1141
##TSYK 001 0250 1101
##TVKB 001 0BAC 1277
##UALL 001 0F00 1293
##UATR 001 1A38 1389
##UCDI 001 1AD8 1397
##UCNF 001 19B8 1381
##UCPL 001 19DC 1385
##UDEL 001 1B24 1401
##UDIS 001 1B5C 1405
##UEXL 001 0EA8 1289
##UINI 001 1A88 1393
##UPAC 001 1980 1373
##UPOV 001 1D24 1441
##UPTF 001 1D5C 1437
##VCRT 001 07B4 1233
##VLOA 001 0B80 1269
##VODK 001 0B88 1273
##VVMR 001 0C00 1281
##VXIT 001 0B00 1261
##ZDUM 001 1BA4 1413
##ZLBM 001 2008 1457
##ZLOA 001 1BC4 1417
##ZLVR 001 20B0 1473
##ZL1M 001 2010 1461
##ZL2M 001 2030 1465
##ZL3M 001 2088 1469
##ZTRA 001 1B9C 1409
##ZUTM 001 1C14 1421
##DNEA 001 0001 0959
##DNEF 001 0003 0960
##DNER 001 0005 0961
##DNE1 001 0004 0958
##DNHC 001 0000 0955
##DNHR 001 0003 0957
##DNHY 001 0001 0956
##DPEA 001 0009 0933
##DPEN 001 0007 0932
##DPER 001 000B 0934
##DPE1 001 0004 0931
##DPHC 001 0000 0929
##DPHR 001 0003 0930
##DUEA 001 0009 0944
##DUED 001 0012 0949
##DUEF 001 000B 0945
##DUEH 001 002B 0950
##DUEI 001 000C 0946

3269 3270

CROSS REFERENCE

SYMBOL LEN VALUE DEFN REFERENCES VER 15, MOD 00 22/12/23 PAGE 39

##DUEL 001 000F 0948
##DUEN 001 0007 0943
##DUER 001 0031 0951
##DUES 001 000D 0947
##DUE1 001 000C 0942
##DUHA 001 0001 0938
##DUHB 001 0003 0939
##DUHC 001 0004 0940
##DUHR 001 000B 0941
##LAAA 001 0002 0970
##LAHC 001 0001 0969
##LN 001 0001 0998
##LNE 001 0006 1004
##LNEF 001 0002 1002
##LNEZ 001 0002 1003
##LNH 001 0004 1001
##LNHY 001 0001 0999
##LNHZ 001 0002 1000
##LP 001 0004 0974
##LPE 001 000C 0979
##LPEN 001 0008 0976
##LPEZ 001 0002 0977
##LPH 001 0004 0978
##LPHZ 001 0003 0975
##LU 001 0002 0983
##LUE 001 0032 0994
##LUED 001 0003 0991
##LUEF 001 0002 0987
##LUEH 001 0019 0992
##LUEI 001 0001 0988
##LUEL 001 0002 0990
##LUEN 001 0008 0986
##LUES 001 0001 0989
##LUEZ 001 0006 0993
##LUH 001 000C 0985
##LUHZ 001 0007 0984
##MNHM 001 002A 1027
##MPHM 001 0055 1012
##MUEG 001 0020 1019
##MUEK 001 0040 1018
##MUEO 001 0004 1022
##MUEP 001 0080 1017
##MUER 001 0008 1021
##MUEV 001 0002 1023
##MUEX 001 0010 1020
##MUHM 001 000A 1016
##RN 001 0000 0918
##RP 001 0001 0919
##R1 001 0007 0921
##R2 001 0005 0920
#@#BAD 001 0455 0862
#@#IO1 001 0459 0870
#@#IO2 001 045D 0871
#@#TAT 001 0941 0898
#@#TBA 001 09A1 0902
#@#TFS 001 0941 0896

3155 3197

3123 3267

CROSS REFERENCE

VER 15, MOD 00 22/12/23 PAGE 40

SYMBOL	LEN	VALUE	DEFN	REFERENCES
#@#TSY	001	0941	0900	
#@#VFP	001	0700	0888	
#@#VLP	001	093D	0891	
#@#WDB	001	050C	0883	
#@#WFT	001	0500	0881	
###BA	001	0001	0863	
###IO	001	0001	0875	
###SC	001	0002	0872	
###TA	001	0010	0899	
###TB	001	0010	0903	
###TS	001	0005	0901	
###TW	001	0020	0897	
###VM	001	0100	0892	
###WD	001	00BD	0884	
###WF	001	0003	0882	
###04	001	0004	0874	
###08	001	0008	0873	
###BOV	001	0018	0851	
###ECM	001	0006	0865	
###ERR	001	0003	0859	
###GUF	001	0010	0855	
###LDS	001	0002	0861	
###SDS	001	0004	0857	
###SFF	001	0008	0869	
###SFL	001	0005	0867	
###SFO	001	0005	0877	
###SFS	001	0011	0853	
###VSF	001	0010	0905	
###VSL	001	000F	0906	
###VTR	001	0001	0890	
#@BOVL	001	0400	0850	
#@CORS	001	0005	0812	
#@ECMA	001	0481	0864	
#@ERRP	001	0441	0858	2959
#@GUFU	001	0401	0854	2958
#@LDSV	001	044D	0860	
#@MVSD	001	0001	0820	
#@NERO	001	0003	0814	
#@OBRA	001	0002	0816	
#@PTFL	001	0006	0835	
#@PTFS	001	0001	0834	
#@SDSY	001	04AD	0856	
#@SFFI	001	04BD	0868	
#@SFLO	001	0499	0866	
#@SFOV	001	04C4	0876	
#@SFSY	001	0480	0852	
#@VCNT	001	0002	0832	
#@VLAB	001	0001	0827	
#@VLSD	001	0001	0818	
#@VSFI	001	09A1	0904	
#@VTRL	001	0708	0889	
#@WAF1	001	0401	0849	
#@WAR1	001	0400	0848	
#CNDIS	001	0001	0787	
#CNFIG	001	0005	0823	
#CORSV	001	0010	0811	

CROSS REFERENCE

VER 15, MOD 00 22/12/23 PAGE 41

SYMBOL	LEN	VALUE	DEFN	REFERENCES
#DKEXT	001	0002	0794	
#FIGSC	001	0001	0824	
#HISCT	001	0006	0801	
#HISDX	001	0003	0796	
#HISLN	001	0008	0793	0794
#HISN1	001	0003	0799	
#HISN2	001	0005	0800	
#HISTC	001	0007	0803	
#HISTN	001	0009	0805	
#HISTQ	001	0000	0797	
#HISTR	001	0001	0798	
#HISTS	001	0008	0804	
#HISTV	001	000F	0806	
#HSEND	001	0007	0802	
#HSENT	001	0001	0795	
#IOSDR	001	0019	0822	
#KMOUN	001	0000	0001	
#MVSDR	001	000D	0819	
#NEROV	001	009C	0813	
#OBRAD	001	001D	0815	
#PKCNT	001	0002	0780	
#PKMRW	001	002B	0781	
#PKRDD	001	0003	0778	
#PKRTD	001	0003	0777	
#PKRTL	001	0004	0784	
#PKVRD	001	000B	0782	
#PKVWD	001	0007	0783	
#PKWTD	001	0001	0779	
#PTFDA	001	00DC	0833	
#RDWTL	001	0004	0785	
#SDRDK	001	0011	0821	
#VLSDR	001	000C	0817	
#VLTBE	001	0008	0772	
#VOLF1	001	0009	0825	
#VOLNG	001	0006	0770	0772 0794
#VOLOC	001	0005	0771	
#VOLR1	001	0008	0826	
#VTCF1	001	0025	0829	
#VTCF2	001	0027	0831	
#VTCR1	001	0024	0828	2345
#VTCR2	001	0026	0830	
@@E001	001	0000	2028	2030
@@E003	001	0001	2030	2032
@@E004	001	0002	2032	2034
@@E005	001	0003	2034	2036
@@E006	001	0004	2036	2038
@@E007	001	0005	2038	2040
@@E008	001	0006	2040	2042
@@E009	001	0007	2042	2044
@@E010	001	0008	2044	2046
@@E011	001	0009	2046	2048
@@E012	001	000A	2048	2050
@@E013	001	000B	2050	2052
@@E014	001	000C	2052	2054
@@E015	001	000D	2054	2056
@@E016	001	000E	2056	2058

CROSS REFERENCE

VER 15, MOD 00 22/12/23 PAGE 42

SYMBOL	LEN	VALUE	DEFN	REFERENCES
@@E017	001	000F	2058	2060
@@E018	001	0010	2060	2062
@@E019	001	0011	2062	2064
@@E020	001	0012	2064	2066
@@E021	001	0013	2066	2068
@@E023	001	0014	2068	2070
@@E024	001	0015	2070	2072
@@E025	001	0016	2072	2074
@@E026	001	0017	2074	2076
@@E027	001	0018	2076	2078
@@E028	001	0019	2078	2080
@@E029	001	001A	2080	2082
@@E030	001	001B	2082	2084
@@E031	001	001C	2084	2086
@@E032	001	001D	2086	2088
@@E035	001	001E	2088	2090
@@E036	001	001F	2090	2092
@@E037	001	0020	2092	2094
@@E038	001	0021	2094	2096
@@E039	001	0022	2096	2098
@@E040	001	0023	2098	2100
@@E041	001	0024	2100	2102
@@E042	001	0025	2102	2104
@@E043	001	0026	2104	2106
@@E044	001	0027	2106	2108
@@E045	001	0028	2108	2110
@@E046	001	0029	2110	2112
@@E060	001	002A	2112	2114
@@E080	001	002B	2114	
@@E100	001	0000	1500	1502 3181 3224
@@E101	001	0001	1502	1504 3226
@@E102	001	0002	1504	1506 3198
@@E103	001	0003	1506	1508 3202
@@E110	001	0004	1508	1510 2643
@@E112	001	0005	1510	1512
@@E113	001	0006	1512	1514
@@E114	001	0007	1514	1516
@@E115	001	0008	1516	1518
@@E116	001	0009	1518	1520
@@E117	001	000A	1520	1522
@@E120	001	000B	1522	1524
@@E122	001	000C	1524	1526
@@E123	001	000D	1526	1528
@@E124	001	000E	1528	1530
@@E129	001	000F	1530	1532
@@E130	001	0010	1532	1534 2478 3219
@@E131	001	0011	1534	1536 2485
@@E133	001	0012	1536	1538 2491
@@E134	001	0013	1538	1540
@@E135	001	0014	1540	1542
@@E136	001	0015	1542	1544
@@E137	001	0016	1544	1546
@@E138	001	0017	1546	1548
@@E139	001	0018	1548	1550 2481
@@E142	001	0019	1550	1552
@@E143	001	001A	1552	1554

CROSS REFERENCE

SYMBOL LEN VALUE DEFN REFERENCES VER 15, MOD 00 22/12/23 PAGE 43

@@E150	001	001B	1554	1556	
@@E151	001	001C	1556	1558	
@@E160	001	001D	1558	1560	
@@E162	001	001E	1560	1562	
@@E163	001	001F	1562	1564	
@@E164	001	0020	1564	1566	
@@E200	001	0021	1566	1568	
@@E205	001	0022	1568	1570	
@@E210	001	0023	1570	1572	
@@E211	001	0024	1572	1574	
@@E212	001	0025	1574	1576	
@@E213	001	0026	1576	1578	
@@E215	001	0027	1578	1580	
@@E216	001	0028	1580	1582	2500
@@E217	001	0029	1582	1584	
@@E220	001	002A	1584	1586	
@@E221	001	002B	1586	1588	
@@E222	001	002C	1588	1590	
@@E223	001	002D	1590	1592	
@@E225	001	002E	1592	1594	
@@E226	001	002F	1594	1596	
@@E227	001	0030	1596	1598	
@@E228	001	0031	1598	1600	
@@E229	001	0032	1600	1602	
@@E230	001	0033	1602	1604	
@@E232	001	0034	1604	1606	
@@E234	001	0035	1606	1608	
@@E237	001	0036	1608	1610	
@@E240	001	0037	1610	1612	
@@E241	001	0038	1612	1614	
@@E242	001	0039	1614	1616	2488
@@E248	001	003A	1616	1618	
@@E249	001	003B	1618	1620	
@@E250	001	003C	1620	1622	
@@E251	001	003D	1622	1624	
@@E252	001	003E	1624	1626	
@@E253	001	003F	1626	1628	
@@E254	001	0040	1628	1630	
@@E255	001	0041	1630	1632	
@@E256	001	0042	1632	1634	
@@E300	001	0043	1634	1636	
@@E301	001	0044	1636	1638	
@@E302	001	0045	1638	1640	
@@E303	001	0046	1640	1642	
@@E304	001	0047	1642	1644	
@@E305	001	0048	1644	1646	
@@E308	001	0049	1646	1648	
@@E310	001	004A	1648	1650	
@@E315	001	004B	1650	1652	
@@E316	001	004C	1652	1654	
@@E320	001	004D	1654	1656	
@@E325	001	004E	1656	1658	
@@E330	001	004F	1658	1660	
@@E335	001	0050	1660	1662	
@@E338	001	0051	1662	1664	
@@E340	001	0052	1664	1666	

CROSS REFERENCE

SYMBOL LEN VALUE DEFN REFERENCES VER 15, MOD 00 22/12/23 PAGE 44

@@E350	001	0053	1666	1668	
@@E351	001	0054	1668	1670	
@@E352	001	0055	1670	1672	
@@E360	001	0056	1672	1674	
@@E361	001	0057	1674	1676	
@@E362	001	0058	1676	1678	
@@E371	001	0059	1678	1680	2497
@@E380	001	005A	1680	1682	
@@E390	001	005B	1682	1684	
@@E400	001	005C	1684	1686	
@@E410	001	005D	1686	1688	
@@E415	001	005E	1688	1690	
@@E417	001	005F	1690	1692	
@@E420	001	0060	1692	1694	
@@E430	001	0061	1694	1696	
@@E432	001	0062	1696	1698	
@@E433	001	0063	1698	1700	
@@E450	001	0064	1700	1702	
@@E451	001	0065	1702	1704	
@@E460	001	0066	1704	1706	
@@E461	001	0067	1706	1708	
@@E464	001	0068	1708	1710	
@@E465	001	0069	1710	1712	
@@E466	001	006A	1712	1714	
@@E467	001	006B	1714	1716	
@@E469	001	006C	1716	1718	
@@E470	001	006D	1718	1720	
@@E471	001	006E	1720	1722	
@@E473	001	006F	1722	1724	
@@E474	001	0070	1724	1726	
@@E475	001	0071	1726	1728	
@@E476	001	0072	1728	1730	
@@E477	001	0073	1730	1732	
@@E478	001	0074	1732	1734	
@@E479	001	0075	1734	1736	
@@E480	001	0076	1736	1738	
@@E481	001	0077	1738	1740	
@@E482	001	0078	1740	1742	
@@E483	001	0079	1742	1744	
@@E484	001	007A	1744	1746	
@@E485	001	007B	1746	1748	
@@E486	001	007C	1748	1750	
@@E487	001	007D	1750	1752	
@@E488	001	007E	1752	1754	
@@E489	001	007F	1754	1756	
@@E490	001	0080	1756	1758	
@@E491	001	0081	1758	1760	
@@E492	001	0082	1760	1762	
@@E493	001	0083	1762	1764	
@@E494	001	0084	1764	1766	
@@E495	001	0085	1766	1768	
@@E496	001	0086	1768	1770	
@@E497	001	0087	1770	1772	
@@E498	001	0088	1772	1774	
@@E500	001	0089	1774	1776	
@@E501	001	008A	1776	1778	

CROSS REFERENCE

SYMBOL LEN VALUE DEFN REFERENCES VER 15, MOD 00 22/12/23 PAGE 45

@@E530	001	008B	1778	1780	
@@E531	001	008C	1780	1782	
@@E535	001	008D	1782	1784	
@@E540	001	008E	1784	1786	
@@E541	001	008F	1786	1788	
@@E542	001	0090	1788	1790	
@@E543	001	0091	1790	1792	2807
@@E544	001	0092	1792	1794	
@@E545	001	0093	1794	1796	2810
@@E546	001	0094	1796	1798	
@@E547	001	0095	1798	1800	
@@E548	001	FFFF	2004		
@@E549	001	0096	1800	1802	
@@E550	001	0097	1802	1804	
@@E551	001	0098	1804	1806	
@@E552	001	0099	1806	1808	
@@E553	001	009A	1808	1810	
@@E554	001	009B	1810	1812	
@@E555	001	009C	1812	1814	
@@E556	001	009D	1814	1816	
@@E558	001	009E	1816	1818	
@@E570	001	009F	1818	1820	
@@E571	001	00A0	1820	1822	
@@E572	001	00A1	1822	1824	2921
@@E573	001	00A2	1824	1826	2928
@@E574	001	00A3	1826	1828	
@@E575	001	FFFF	2006		
@@E578	001	00A4	1828	1830	
@@E579	001	FFFF	2008		
@@E580	001	FFFF	2010		
@@E585	001	00A5	1830	1832	
@@E595	001	FFFF	2012		
@@E597	001	FFFF	2014		
@@E598	001	FFFF	2016		
@@E600	001	00A6	1832	1834	
@@E601	001	00A7	1834	1836	
@@E602	001	00A8	1836	1838	
@@E603	001	00A9	1838	1840	
@@E604	001	00AA	1840	1842	
@@E606	001	00AB	1842	1844	
@@E607	001	00AC	1844	1846	
@@E608	001	00AD	1846	1848	
@@E609	001	00AE	1848	1850	
@@E610	001	00AF	1850	1852	
@@E611	001	00B0	1852	1854	
@@E612	001	00B1	1854	1856	
@@E613	001	00B2	1856	1858	
@@E614	001	00B3	1858	1860	
@@E700	001	00B4	1860	1862	
@@E701	001	00B5	1862	1864	
@@E710	001	00B6	1864	1866	
@@E712	001	00B7	1866	1868	
@@E713	001	00B8	1868	1870	
@@E714	001	00B9	1870	1872	
@@E715	001	00BA	1872	1874	
@@E716	001	00BB	1874	1876	

CROSS REFERENCE

VER 15, MOD 00 22/12/23 PAGE 46

SYMBOL	LEN	VALUE	DEFN	REFERENCES
@@E717	001	00BC	1876	1878
@@E718	001	00BD	1878	1880
@@E720	001	00BE	1880	1882
@@E721	001	00BF	1882	1884
@@E723	001	00C0	1884	1886
@@E724	001	00C1	1886	1888
@@E725	001	00C2	1888	1890
@@E726	001	00C3	1890	1892
@@E727	001	00C4	1892	1894
@@E728	001	00C5	1894	1896
@@E729	001	00C6	1896	1898
@@E730	001	00C7	1898	1900
@@E732	001	00C8	1900	1902
@@E752	001	00C9	1902	1904
@@E753	001	00CA	1904	1906
@@E754	001	00CB	1906	1908
@@E755	001	00CC	1908	1910
@@E756	001	00CD	1910	1912
@@E757	001	00CE	1912	1914
@@E758	001	00CF	1914	1916
@@E759	001	00D0	1916	1918
@@E760	001	00D1	1918	1920
@@E761	001	00D2	1920	1922
@@E762	001	00D3	1922	1924
@@E763	001	00D4	1924	1926
@@E764	001	00D5	1926	1928
@@E765	001	00D6	1928	1930
@@E766	001	00D7	1930	1932
@@E767	001	00D8	1932	1934
@@E768	001	00D9	1934	1936
@@E769	001	00DA	1936	1938
@@E770	001	00DB	1938	1940
@@E771	001	00DC	1940	1942
@@E772	001	00DD	1942	1944
@@E773	001	00DE	1944	1946
@@E774	001	00DF	1946	1948
@@E775	001	00E0	1948	1950
@@E776	001	00E1	1950	1952
@@E777	001	00E2	1952	1954
@@E778	001	00E3	1954	1956
@@E779	001	00E4	1956	1958
@@E780	001	00E5	1958	1960
@@E781	001	00E6	1960	1962
@@E782	001	00E7	1962	1964
@@E783	001	00E8	1964	1966
@@E784	001	00E9	1966	1968
@@E785	001	00EA	1968	1970
@@E786	001	00EB	1970	1972
@@E790	001	00EC	1972	1974
@@E791	001	00ED	1974	1976
@@E792	001	00EE	1976	1978
@@E793	001	00EF	1978	1980
@@E794	001	00F0	1980	1982
@@E795	001	00F1	1982	1984
@@E796	001	00F2	1984	1986
@@E797	001	00F3	1986	1988

CROSS REFERENCE																
SYMBOL	LEN	VALUE	DEFN	REFERENCES	VER 15, MOD 00 22/12/23 PAGE 47											
@@E798	001	00F4	1988	1990												
@@E800	001	FFFF	2018													
@@E801	001	FFFF	2020													
@@E802	001	FFFF	2022													
@@E803	001	FFFF	2024													
@@E804	001	FFFF	2026													
@@E900	001	00F5	1990	1992												
@@E901	001	00F6	1992	1994												
@@E902	001	00F7	1994	1996												
@@E903	001	00F8	1996	1998												
@@E905	001	00F9	1998	2000												
@@E906	001	00FA	2000	2002												
@@E910	001	00FB	2002													
@ARR	001	0008	0016	2641	2786	2919	3144									
@ASIGN	001	007C	0071	3170												
@ASTER	001	005C	0069													
@BCRDL	001	0050	0088													
@BE	001	0081	0043													
@BF	001	0090	0052													
@BH	001	0084	0041													
@BL	001	0082	0042													
@BLANK	001	0040	0065	2647	2654	3154										
@BM	001	0082	0054													
@BNE	001	0001	0046	2637												
@BNH	001	0004	0044													
@BNL	001	0002	0045													
@BNM	001	0002	0057													
@BNOL	001	0020	0050													
@BNOZ	001	0008	0049													
@BNP	001	0004	0056													
@BNZ	001	0001	0058													
@BOL	001	00A0	0048													
@BOZ	001	0088	0047													
@BP	001	0084	0053													
@BR	001	0001	0013	2261	2263*	2268	2268	2269	2269	2270	2274	2279	2288	2292	2295	
				2295	2296	2296	2297	2297	2298	2298	2299	2299	2300	2301	2301	
				2302	2303	2308	2313	2314	2314	2315	2315	2316	2316	2317	2317	
				2318	2318	2319	2319	2324	2325	2326	2329	2330	2334	2337	2339	
				2380*	2381	2384	2406	2431	2451	2454	2460	2462	2464	2468	2478	
				2481	2485	2488	2491	2495	2497	2500	2501	2502	2784	2818*	3140	
				3142	3143*	3144	3147	3154	3155	3155	3156	3157	3157	3177	3180	
				3183	3192	3194	3194	3195	3196	3197	3199	3201	3203	3208	3208	
				3211	3218	3223	3227	3235	3243*							
@BT	001	0010	0051													
@BZ	001	0081	0055													
@B1	001	0001	0063	3155	3210	3267	3269	3270								
@CADDR	001	0002	0142	2295	2301	2319	2494	2789	2815							
@CARDL	001	0060	0087	0644												
@CHARA	001	00C1	0072	3173												
@CHARF	001	00C6	0073													
@CHARR	001	00D9	0074													
@CHARZ	001	00E9	0075	3175												
@CLOFF	001	0010	0094	2950*												
@CLON	001	0011	0093													

CROSS REFERENCE

SYMBOL	LEN	VALUE	DEFN	REFERENCES	VER 15, MOD 00	22/12/23	PAGE	48
@DADDR	001	0002	0140	2292 2354 2354 2936 2937 2944 2945 2947 2948 2958 2959 2962 2964 2967 2969				
@DBFR1	001	0004	0129					
@DBFR2	001	0005	0130	2797				
@DCALK	001	0001	0081					
@DCBCY	001	0009	0115					
@DCBT1	001	0050	0117					
@DCNT	001	0003	0128					
@DCST1	001	0040	0116					
@DCTRL	001	0000	0125					
@DCYL	001	0001	0126					
@DD2	001	0003	0030					
@DGET	001	0001	0134	2329 2344 2536				
@DOLAR	001	005B	0068	3166				
@DOP2	001	0004	0028					
@DPLNG	001	0006	0132					
@DPOS	001	0000	0133					
@DPUT	001	0002	0135	2326				
@DSAD	001	0002	0127	2808 2811				
@DSBCY	001	0004	0106					
@DSCS1	001	0000	0107					
@DSIVF	001	0003	0138					
@DSPIN	001	0002	0131					
@DTRSZ	001	0018	0085					
@DVBCY	001	0007	0108					
@DVRFY	001	0031	0136					
@DWAIT	001	00FF	0137	2814				
@DWBCY	001	0005	0103					
@DWSIZ	001	00C0	0105					
@DWTB1	001	0003	0104					
@DZERO	001	00F0	0064					
@D1	001	0002	0026	2409* 2412* 2413*				
@EOF	001	001C	0077					
@EOFTC	001	0075	0162					
@EOS	001	001E	0076	2396 2422 2425 2475 2657 3221				
@FDDBC	001	0000	0195					
@FDE1	001	000C	0200					
@FDFNA	001	000B	0198					
@FDHLN	001	0002	0208					
@FDLNC	001	0002	0193					
@FDNSC	001	0003	0210					
@FDSD	001	0000	0206					
@FLACE	001	0009	0197					
@FLDBC	001	0001	0196					
@FLENT	001	0004	0201					
@FLFNA	001	0002	0199					
@FLHLN	001	0002	0209					
@FLLNC	001	0002	0194					
@FLNSC	001	0001	0211					
@FLSD	001	0001	0207					
@HDRLN	001	0007	0092	0672				
@IAR	001	0010	0017					
@INDEX	001	0001	0156	0157				
@INST3	001	0003	0032					
@INST4	001	0004	0033					
@INST5	001	0005	0034					

CROSS REFERENCE

VER 15, MOD 00 22/12/23 PAGE 49

SYMBOL	LEN	VALUE	DEFN	REFERENCES
@INST6	001	0006	0035	
@I1IAR	001	00C0	0020	
@LINSZ	001	00F4	0084	0646
@MAPEN	001	0005	0089	
@MINCR	001	2000	0083	
@MINUS	001	0060	0080	
@NOP	001	0080	0040	2262 2444 2521 2951
@NUMBR	001	007B	0070	3168
@OPD2	001	0004	0029	
@OP1	001	0003	0027	2275* 2370 2415* 2494* 2641* 2784* 2785* 2786* 2789* 2815* 2919* 3142* 3144* 3147* 3157* 3208*
@OP2	001	0005	0031	
@PCTRL	001	0000	0149	
@PDATA	001	0003	0151	
@PGCSZ	001	0020	0082	0083
@PPLNG	001	0004	0148	
@PRCNT	001	0001	0150	
@PRETR	001	00C0	0154	
@PRINT	001	0040	0152	0154
@PSR	001	0004	0015	3183*
@PWAIT	001	00FF	0158	
@P1IAR	001	0020	0018	
@P2IAR	001	0040	0019	
@Q	001	0001	0024	2276 2369 2411* 2664 2932* 3271
@REGL	001	0002	0012	
@RETRN	001	0080	0153	0154
@RLDWN	001	004F	0159	
@RTRNC	001	0080	0161	
@SBLN	001	0005	0170	
@SBLNL	001	0002	0184	
@SCTSZ	001	0100	0100	
@SDFLN	001	0007	0090	
@SDF0	001	0000	0166	
@SDF1	001	0001	0167	
@SDF2	001	0002	0168	
@SDF3	001	0003	0169	
@SECCY	001	0030	0086	
@SIST	001	0001	0181	
@SLASH	001	0061	0067	
@SLAST	001	0002	0183	
@SMIDL	001	0003	0182	
@SNULL	001	0080	0173	
@SONLY	001	0000	0180	
@STEXT	001	0007	0172	
@STYPE	001	0006	0171	
@TBCNT	001	0000	0160	
@TBLEF	001	0010	0155	0157
@TBLIX	001	0011	0157	
@UCB	001	0087	0039	2275 2411 2638 2651 2932
@UPARW	001	005A	0078	
@VADDR	001	0002	0141	
@VENTA	001	0056	0113	
@VMDDV	001	00FE	0114	
@VMFD1	001	0000	0109	
@VMFD2	001	0001	0110	
@VMRS3	001	0002	0112	

CROSS REFERENCE

VER 15, MOD 00 22/12/23 PAGE 50

SYMBOL	LEN	VALUE	DEFN	REFERENCES
@VMTRL	001	0001	0111	
@VOLID	001	0006	0091	3125 3201
@VQ	001	0001	0025	
@WSFIT	001	0500	0101	
@WSTBL	001	0503	0102	
@XR	001	0002	0014	2302* 2303* 2304 2306 2308 2309 2309 2313 2384* 2396 2399 2402 2415 2416 2416* 2422 2425 2475 2484* 2495* 2501* 2642 2646 2646* 2647 2650 2653 2653* 2654 2657 2660 2785 2797* 2798 2819* 3147 3166 3168 3170 3173 3175 3184* 3209 3210 3210* 3221
@ZERO	001	0000	0062	2300 2431 2800 3156 3166 3168 3170 3173 3175 3209 3218 3221 3235
KMOBFR	001	1100	3289	2440 2446 2449 2464 2540
KMOBY2	001	0002	2518	2410*
KMOCY0	001	0000	2516	2537
KMODPL	001	0E11	2535	2410* 2542
KMODSD	001	0006	2525	2464*
KMODSV	001	0005	2523	2462*
KMODVL	001	0008	2519	
KMOERR	002	0E0B	2530	2494
KMOLN2	001	0002	2513	2399 2402 2416 2531 2532
KMOLVL	001	0006	2520	2440 2440 2462 2462
KMOL1B	001	0001	2514	2409 2412 2413 2533
KMOMIR	001	0080	2521	2460
KMOMR2	001	0002	2522	2410
KMOONE	001	0001	2515	2539
KMOSC2	001	0008	2517	2538
KMOSR1	002	0E0D	2531	2399
KMOSR2	002	0E0F	2532	2402
KMOUNT	001	05FF	2214	
KMOVR2	001	0E10	2533	2409 2412 2413
KMO000	001	0000	2511	2396 2422 2425 2475 2495 2501
KMO001	001	0001	2512	2399 2402
KMO010	004	0D08	2380	2229
KMO100	005	0D2B	2399	
KMO150	006	0D45	2409	
KMO175	004	0D5F	2415	2400
KMO180	003	0D76	2425	2419
KMO200	003	0D7C	2431	2397 2409*
KMO250	003	0D92	2444	2411*
KMO300	003	0DAB	2454	2447 2450
KMO375	003	0DAE	2460	2444 2452
KMO400	005	0DB1	2462	2412*
KMO450	005	0DB6	2464	2413*
KMO600	003	0DC6	2475	2389
KMO650	003	0DD2	2481	2476
KMO675	004	0DD8	2484	2415* 2423
KMO700	003	0DDC	2485	2403
KMO725	003	0DE2	2488	2407
KMO750	003	0DE8	2491	2426
KMO775	006	0DEE	2494	2506
KMO800	003	0DFB	2497	2432
KMO850	003	0E01	2500	2442
KMO870	003	0E04	2501	2438 2489 2498
KMO900	003	0E07	2502	2394 2420 2479 2482 2486 2492
MINAC1	002	0EC4	2823	2815
MINDPL	001	0E11	2542	2792 2797 2808 2811

CROSS REFERENCE

VER 15, MOD 00 22/12/23 PAGE 51

SYMBOL	LEN	VALUE	DEFN	REFERENCES
MINERP	002	0EC6	2824	2789
MINITL	001	0E58	2783	2437
MINMKR	001	0001	2826	2808
MINMK2	001	0002	2825	2811
MINVOL	003	0EC9	2827	2798
MIN100	004	0E89	2805	2799 2824
MIN110	004	0EA0	2811	2809
MIN120	004	0EAD	2814	2812
MIN150	006	0EB1	2815	2801
MIN200	004	0EB7	2818	2784*
MIN201	004	0EBB	2819	2785*
MIN202	004	0EBF	2820	2786*
MVDADD	001	0CEF	2358	2296 2296* 2297 2297* 2298 2298* 2299 2299* 2300*
MVDADR	002	0CF2	2360	2292* 2295 2308* 2324 2334
MVDBUF	001	0D08	2368	2287 2292 2293 2293* 2302 2347 2354 2371
MVDCHN	001	0002	2246	2308 2334
MVDCNT	001	000F	2240	
MVDDPL	001	0CE1	2343	2281 2328 2373 2374
MVDELE	001	0C0A	2260	2471 2496
MVDFIL	001	003F	2248	2309 2309 2309* 2336 2336 2336* 2338 2338 2338* 2352
MVDFIT	001	0013	2243	2304 2306
MVDFNC	001	0CE1	2373	2326* 2329*
MVDHXB	001	0CE7	2351	
MVDISP	001	0CF0	2359	2295* 2301* 2303
MVDI10	001	000C	2255	2264 2264 2264* 2271 2271 2271*
MVDLEN	001	0005	2249	2293 2293 2293*
MVDLGT	001	0CE8	2352	2301
MVDMF1	001	17F8	2371	2334 2336 2336* 2372
MVDMF2	001	1838	2372	2338 2338*
MVDMK1	001	0001	2239	2277
MVDMOF	001	000F	2238	2270
MVDMSK	003	0C36	2369	2268 2268* 2270
MVDMVD	001	0060	2245	2306
MVDMVF	001	0090	2244	2304
MVDNUM	001	01FC	2241	2287
MVDONE	001	0CE9	2353	2269
MVDPRM	001	0CF3	2361	2274 2364 2382* 2404*
MVDRF1	001	0002	2252	
MVDRF2	001	0008	2254	
MVDRR1	001	0001	2251	2382
MVDRR2	001	0004	2253	2404
MVDSC1	001	01FB	2242	2292 2293 2293*
MVDSEC	001	0CE3	2374	2269*
MVDTAD	002	0CEB	2354	2319
MVDTAG	001	0CED	2356	2313* 2314 2314* 2315 2318
MVDTGS	004	0CB1	2370	2315* 2316 2316* 2317 2317* 2318* 2319*
MVDTWO	001	0002	2247	2296 2297 2308 2315 2316 2317 2318 2334
MVD025	003	0C0A	2262	2275*
MVD050	004	0C1A	2266	2261 2262 2263 2279 2288 2330
MVD055	003	0C28	2270	
MVD057	004	0C31	2273	2494*
MVD060	003	0C35	2274	2265 2276 2369
MVD100	004	0C5D	2295	2325
MVD150	004	0C8A	2308	2305 2337 2339
MVD175	004	0CAE	2320	2370
MVD200	005	0CC7	2334	2307

CROSS REFERENCE

VER 15, MOD 00 22/12/23 PAGE 52

SYMBOL	LEN	VALUE	DEFN	REFERENCES
MVD225	006	0CD8	2338	2335
SALBSE	001	0F56	3165	3140 3143
SALCNT	001	0FF2	3262	3156* 3194* 3197 3201 3218
SALCT6	001	0006	3125	
SALCT8	001	0008	3123	
SALERR	003	0F6C	3271	3183
SALFST	001	0001	3259	3180 3192
SALIDR	001	0FF1	3252	3137* 3177 3180 3192* 3195 3223 3235*
SALND0	004	0FE9	3243	3142*
SALND2	004	0FED	3244	3144*
SALPHR	001	0FF5	3266	2440 2462 3268 3269 3270
SALPHS	002	1000	3268	3157
SALPH6	001	0F3A	3141	2392
SALPH8	001	0F36	3134	
SALPR6	001	0FFD	3270	3155*
SALPR7	001	0FFE	3269	3154* 3155
SAL001	002	0FF4	3265	3194 3208
SAL008	001	0080	3256	3137 3177 3195 3223
SAL100	003	0F48	3154	
SAL200	003	0F56	3166	3211
SAL250	003	0F6B	3174	3271
SAL350	003	0F84	3183	3199 3203 3227
SAL375	004	0F87	3184	3147*
SAL400	003	0F8E	3192	3167 3169 3171 3176
SAL425	004	0F91	3194	3178 3182
SAL450	003	0FA8	3201	3196
SAL500	004	0FB2	3208	3200
SAL525	005	0FB6	3209	3157* 3208*
SAL750	003	0FC1	3218	3174
SAL755	004	0FC4	3219	
SAL760	003	0FDF	3227	3222 3225
SAL775	004	0FE2	3228	3220
SAL800	003	0FE6	3235	3185
SCACNT	002	0E57	2670	2660* 2661*
SCACOF	001	0087	2638	
SCACOM	001	0001	2637	2391
SCAINC	001	0001	2636	2646 2653
SCAMMA	003	0E34	2664	2391*
SCANIT	001	0E17	2640	2388 2418 3228
SCASVE	002	0E55	2669	2642* 2661
SCASV1	001	0E54	2668	
SCA100	003	0E26	2646	2648
SCA200	003	0E29	2647	2644
SCA250	003	0E33	2651	2664
SCA300	003	0E36	2653	2655
SCA400	004	0E46	2660	2651
SCA500	004	0E50	2663	2641* 2658
SUTCL1	001	0F2D	2957	2950
SUTERR	006	0DEE	2506	2951
SUTOBA	001	0ECA	2918	2470
SUTPER	002	0F35	2967	2945* 2948
SUTPGU	002	0F33	2962	2944* 2947
SUTWER	002	0F31	2959	2937
SUTWGU	002	0F2F	2958	2936
SUT100	004	0EE4	2929	2923
SUT200	004	0EF2	2935	2926

[illegible]

SUT300	004	0F05	2942	2930	2933
SUT400	004	0F25	2951	2932*	2938
SUT500	004	0F29	2953	2919*	
SUT600	001	0F32	2961	2963	
SUT700	001	0F34	2966	2968	

```
OL105 I THE CODE LENGTH OF #KMOUN IS 4352 DECIMAL.
OL103 I TOTAL NUMBER OF LIBRARY SECTORS REQUIRED IS 7
      NAME-#KMOUN,PACK-R1R1R1,UNIT-R1,RETAIN-P,LIBRARY-R,CATEGORY-000
```

START ADDRESS	CATEGORY	NAME AND ENTRY	CODE LENGTH	HEXADECIMAL	DECIMAL
---------------	----------	----------------	-------------	-------------	---------

```
0C00      0      #KMOUN      1100      4352
```

OL100	I	THE TOTAL CORE USED BY #KMOUN IS 4352 DECIMAL.
OL101	I	THE START CONTROL ADDRESS OF THIS MODULE IS 0C00.
OL104	I	TOTAL NUMBER OF LIBRARY SECTORS REQUIRED IS 18 NAME-#KMOUN,PACK-R1R1R1,UNIT-R1,RETAIN-P,LIBRARY-O