

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 02/06/22 PAGE 2			
0000				1	#KPASW	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	*	@ERM EXP-N				
				1347+		PRINT ON				
				1348	*	@DIR EXP-N				
				1468+		PRINT ON				
				1469	*	@SPF EXP-N				
			1932+		PRINT ON					
			</							

#KPASW - READ KEYWORD MODULE

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	VER 15, MOD 00	02/06/22	PAGE	4
		1935		*****				
		1936	*	5703-XM1	COPYRIGHT IBM CORP. 1970			*
		1937	*		REFER TO INSTRUCTIONS ON COPYRIGHT NOTICE, 120-2083			*
		1938	*					*
		1939		*****				
		1940	*	STATUS -				*
		1941	*	VERSION 1 MODIFICATION 0				*
		1942	*					*
		1943	*	FUNCTION				*
		1944	*	#KPASW WILL CHANGE THE CURRENT PASSWORD TO THE NEW PASSWORD				*
		1945	*	SPECIFIED BY THE COMMAND. THE NEW PASSWORD REPLACES THE OLD				*
		1946	*	PASSWORD IN THE PASSWORD DIRECTORY AND ALL REFERENCES TO THE				*
		1947	*	OLD PASSWORD ARE REJECTED.				*
		1948	*					*
		1949	*	ENTRY POINTS				*
		1950	*	ENTRY TO #KPASW IS #KPASW.				*
		1951	*					*
		1952	*	INPUT				*
		1953	*	INPUT TO #KPASW IS IN THE FORM OF PARAMETERS IN THE INPUT LINE				*
		1954	*	BUFFER.				*
		1955	*					*
		1956	*	OUTPUT				*
		1957	*	OUTPUT FROM #KPASW IS THE NEW PASSWORD IN THE CURRENT DISK				*
		1958	*	PASSWORD DIRECTORY.				*
		1959	*					*
		1960	*	EXTERNAL REFERENCES				*
		1961	*	\$XRSAB - INDEX REGISTER SAVE AREA.				*
		1962	*	\$CAERR - LOCATION OF THE ERROR CODE INDICATOR.				*
		1963	*	SCANIT - ENTRY POINT TO THE DELIMITER SCAN ROUTINE.				*
		1964	*	SALPH8 - ENTRY TO ALPHAMERIC CHARACTER CHECKER SUBROUTINE.				*
		1965	*	\$FILIB - LOCATION OF THE FILE LIBRARY ADDRESS.				*
		1966	*	\$CAERK - ENTRY TO THE SYSTEM ERROR PROGRAM.				*
		1967	*	DL2RAD - LOCATION TO SAVE BASE ADDRESS.				*
		1968	*	DL2ICS - ENTRY TO TWO SURFACE DISK IOCS.				*
		1969	*	TSMLES - DATA MANAGEMENT COMMON SAVE AREA.				*
		1970	*	\$PASWD - LOCATION OF THE CURRENT PASSWORD.				*
		1971	*	SGETDB - ENTRY TO THE GET USER BLOCK ROUTINE.				*
		1972	*	\$CARPL - ENTRY TO THE SYSTEM FOR NORMAL RETURN.				*
		1973	*					*
		1974	*	EXITS, NORMAL				*
		1975	*	NORMAL EXIT FROM ?KPASW IS \$CARPL.				*
		1976	*					*
		1977	*	EXITS, ERROR				*
		1978	*	THE ERROR EXIT FROM #KPASW IS TO \$CAERK. THE ERROR CODE				*
		1979	*	INDICATING THE TYPE OF ERROR ENCOUNTERED IS PLACED IN \$CAERR.				*
		1980	*					*
		1981	*	TABLES/WORK AREAS				*
		1982	*	* TSMLES IS USED TO COMMUNICATE WITH THE ASSOCIATED SUBROUTINES.				*
		1983	*	* THE NEW PASSWORD IS SAVED AT KPAPSW OVER THE EXECUTABLE CODE				*
		1984	*	WHICH IS NOT USED AFTER THE COMMAND HAS BEEN SYNTAX CHECKED.				*
		1985	*					*
		1986	*	ATTRIBUTES				*
		1987	*	RELOCATABLE.				*
		1988	*					*
		1989	*	CHARACTER CODE DEPENDENCY				*
		1990	*	THE OPERATION OF THIS MODULE DEPENDS UPON AS INTERNAL				*

#KPASW - READ KEYWORD MODULE

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE STATEMENT	VER 15, MOD 00 02/06/22 PAGE 5
				1991	*	REPRESENTATION OF THE EXTERNAL CHAR SET WHICH IS EQUIVALENT	*
				1992	*	TO THE ONE USED AT ASSEMBLY TIME. THE CODING HAS BEEN ARRANGED	*
				1993	*	SO THAT REDEFINITION OF THE CHARACTER CONSTANTS, BY REASSEMBLY,	*
				1994	*	WILL RESULT IN A CORRECT MODULE FOR THE NEW DEFINITIONS.	*
				1995	*		*
				1996	*	*NOTES	*
				1997	*	ERROR PROCEDURES	*
				1998	*	* THE ERROR CODE FOR THE APPROPRIATE MESSAGE IS PLACED IN	*
				1999	*	\$CAERR AND A BRANCH IS THEN TAKEN TO \$CAERK.	*
				2000	*		*
				2001	*	REGISTER USAGE	*
				2002	*	* REGISTER @BR IS USED AS A BASE REGISTER AND IS USED TO	*
				2003	*	ADDRESS THE EXECUTABLE CODE FOR #KPASW.	*
				2004	*	* REGISTER @XR IS NOT USED OTHER THAN TO SYNTAX CHECK THE	*
				2005	*	COMMAND.	*
				2006	*		*
				2007	*	SAVE/RESTORED AREAS	*
				2008	*	N/A.	*
				2009	*		*
				2010	*	MODIFICATION CONSIDERATIONS	*
				2011	*	N/A.	*
				2012	*		*
				2013	*	REQUIRED MODULES	*
				2014	*	@SYSEQ - SYSTEM SOFTWARE EQUATES.	*
				2015	*	@FXDEQ - SYSTEM FIXED EQUATES.	*
				2016	*	@DIREQ - DATA MANAGEMENT LIBRARY EQUATES.	*
				2017	*	ERMEQ - ERROR MESSAGE EQUATE MACRO.	*
				2018	*	SGETDB - GET USER DIRECTORY SUBROUTINE.	*
				2019	*	DL2CD - 2 SURFACE DISK IOCS MACRO.	*
				2020	*	TSMLES - DATA MANAGEMENT COMMON SAVE AREA.	*
				2021	*	SCACD - DELIMITER SCAN MACRO.	*
				2022	*	SALPHA - ALPHAMERIC CHARACTER CHECKER SUBROUTINE.	*
				2023	*		*
				2024	*	OTHER	*
				2025	*	NONE	*
				2026	*	*****	*
0C00				2027		ORG X'0C00'	
				2028	*	HDR #KPASW PROGRAM NAME	
				2029	*	*****	
				2030	*	PROGRAM HEADER FOR DISK LOAD	
				2031	*	*****	
				2032	*	*#\$KPAS EQU X'0220' DISK ADDR OF #KPASW	
				2033	*	*#\$KPA EQU X'0C00' CORE LOAD ADDRESS OF #KPASI4	
				2034	*	*#\$@KPA EQU 005 SECTOR CNT OF #KPASW	
0C00				2035		ORG \$\$\$KPA CORE LOAD ADDRESS	
		0C00		2036		\$\$\$\$\$ EQU * FIRST LOCATION IN PROGRAM	
0C00 7BD2D7C1E2E6		0C05		2037		DC CL6'#KPASW' PROGRAM NAME	
0C06 0D		0C06		2038		DC IL1'013' PROGRAM NUMBER OF #KPASW	
		0C07		2039		#KPAS EQU * ENTRY POINT TO PROGRAM	
				2040		*** END OF EXPANSION ***	
		0C3E		2042		USING KPA010,@BR	
0C07 35 02 03C7				2043		L \$XRSV,@XR INPUT BUFFER POINTER	
0C0B BD 60 00				2044		CLI @ZERO(,@XR),@MINUS CHECK FOR VALID DELIMITER	
0C0E 3C 18 03CD				2045		MVI \$CAERR,@E139 INVALID DELIMITER	
0C12 F2 81 31				2046		JE KPA040 IF EQUAL TAKE ERROR EXIT	

#KPASW - READ KEYWORD MODULE

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	02/06/22	PAGE	6
	0C15	3C	10	03CD	2047		MVI \$CAERR,@E130				REQUIRED PARAMETER MISSING
	0C19	BD	1E	00	2048		CLI @ZERO(,@XR),@EOS				IF EOS NO PARAMETERS
	0C1C	F2	81	27	2049		JE KPA040				GO TO ERROR EXIT
	0C1F	C0	87	0E71	2051		B SCANIT				GO MOVE THE POINTER
	0C23	F2	82	20	2052		JL KPA040				ERROR CONDITION RETURN
	0C26	C0	87	0EB2	2054		B SALPH8				DECODE NEW PASSWORD
	0C2A	F2	82	19	2055		JL KPA040				ERROR RETURN
	0C2D	3C	12	03CD	2056		MVI \$CAERR,@E133				TO MANY PARAMETERS
	0C31	BD	1E	00	2057		CLI @ZERO(,@XR),@EOS				MUST BE END OF LINE
	0C34	F2	01	0F	2058		JNE KPA040				ERROR RETURN
	0C37	3D	00	03D9	2059		CLI \$FILIB-1,@ZERO				TEST IF LOGGED ON USER
	0C3B	F2	01	0C	2060		JNE KPA050				GO PROCESS
	0C3E	3C	21	03CD	2061	KPA010	MVI \$CAERR,@E200				NO PASSWORD OR DISK
	0C42	35	02	0C42	2062	KPA030	L KPA030,@XR				CLOBBER UP ARROW
	0C46	C0	87	0469	2063	KPA040	B \$CAERK				ERROR RETURN TO SYSTEM
	0C4A	0C	01	0E41 03DA	2064	KPA050	MVC DL2RAD,\$FILIB				LIBRARY BASE ADDR
	0C50	C0	87	0DA9	2065		B DL2ICS				READ PASSWORD DIRECTORY
	0C54	0CB3			0C55 2066		DC AL2(KPADPL)				DIRECTORY DPL
					0C55 2067	KPAPSW	EQU *-1				SAVE AREA FOR NEW PASSWORD
	0C56	C2	01	0C3E	2069		LA KPA010,@BR				SET BASE ADDR
	0C5A	4C	07	17 0F78	2070		MVC KPAPSW(##LPEN,@BR),SALPHR+##LPEN-1				HOLD NEW PASSWORD
	0C5F	0C	07	0E50 042D	2071		MVC SMPSWD(##LPEN),\$PASWD				SET CURRENT PASSWORD
	0C65	3A	10	0E42	2072		SBN SMIND1,SM1PDS				PASSWORD SEARCH
	0C69	0C	01	0E5C 03DA	2073		MVC SMBFDA,\$FILIB(@DADDR)				SET UP LIBRARY ADDR
	0C6F	C0	87	0D1D	2074		B SGETDB				SEARCH FOR PASSWORD ONLY
	0C73	38	08	0E42	2076		TBN SMIND1,SM1PNF				INSURE PASSWORD
	0C77	3C	99	03CD	2077		MVI \$CAERR,@E552				TRAGIC ERROR
	0C7B	D0	10	04	2078		BT KPA030(,@BR)				ERROR EXIT
	0C7E	4C	01	5C 0E6A	2079		MVC KPAPEA(@CADDR,@BR),SMPEAD				SAVE CURRENT PASSWOR CADDR
	0C83	1C	07	0E50 17	2080		MVC SMPSWD(##LPEN),KPAPSW(,@BR)				
	0C88	C0	87	0D1D	2081		B SGETDB				LOOK FOR NEW PASSWORD
	0C8C	38	08	0E42	2083		TBN SMIND1,SM1PNF				CHECK IF DUPLICATE
	0C90	3C	5A	03CD	2084		MVI \$CAERR,@E380				DUPLICATE PASSWORD
	0C94	D0	90	04	2085		BF KPA030(,@BR)				ERROR
	0C97	C2	02	0000	2086	KPA140	LA *-*,@XR				POINTER TO PREVIOUS ENTRY
					0C9A 2087	KPAPEA	EQU KPA140+@OP1				CADDR PREVIOUS ENTRY POINTER
	0C9B	8C	07	07 0E50	2088		MVC ##DPEN(##LPEN,@XR),SMPSWD				MOVE NEW PASSWORD INTO OLD
	0CA0	7C	02	75	2089		MVI KPADPL(,@BR),@DPUT				CHANGE SEEK TO WRITE
	0CA3	C0	87	0DA9	2090		B DL2ICS				WRITE DIRCTY
	0CA7	0CB3			0CA8 2091		DC AL2(KPADPL)				DPL
	0CA9	0C	07	042D 0E50	2092		MVC \$PASWD,SMPSWD(##LPEN)				CHANGE CURRENT USER PASSWORD
	0CAF	C0	87	04A1	2093		B \$CARPL				RETURN
	0CB3	00			0CB3 2094	KPADPL	DC AL1(@DPOS)				OP CODE
	0CB4	0001			0CB5 2095		DC AL2(##LN)				DISPLACE PAST NULL
	0CB6	04			0CB6 2096		DC AL1(##LP)				SECTOR COUNT
	0CB7	0E71			0CB8 2097		DC AL2(SMPDB1)				BUFFER CADDR
	0CB9				0D1C 2098	KPATCH	DS CL100				PATCH AREA
					2099	*					
					2100	*	\$GETD				

SGETDB - GET USER DIRECTORY BLOCK ROUTINE

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	VER 15, MOD 00 02/06/22 PAGE 7
		2102+	*****		
		2103+	*	5703-XM1 COPYRIGHT IBM CORP. 1970	*
		2104+	*	REFER TO INSTRUCTIONS ON COPY RIGHT NOTICE, 120-2083	*
		2105+	*		*
		2106+	*****		
		2107+	*	STATUS	*
		2108+	*	VERSION 1 MODIFICATION 0	*
		2109+	*		*
		2110+	*	FUNCTION	*
		2111+	*	* SGETDB PROVIDES TWO PRIMARY FUNCTIONS. IT WILL SEARCH THE	*
		2112+	*	PASSWORD DIRECTORY FOR A SPECIFIED PASSWORD ONLY, OR IF	*
		2113+	*	INDICATED WILL GO AND READ IN THE FIRST USER BLOCK ASSOCIATED	*
		2114+	*	WITH THAT PASSWORD.	*
		2115+	*	* IF THE PASSWORD SEARCH ONLY IS REQUESTED A SWITCH IS SET TO	*
		2116+	*	INHIBIT READING THE DIRECTORY ON SUBSEQUENT ENTRIES.	*
		2117+	*	* THE ERROR CODE FOR PASSWORD NOT FOUND IS ALWAYS SET IN \$CAERR.	*
		2118+	*	IF THE PASSWORD IS OR IS NOT FOUND THE INDICATOR IN SMIND1 IS	*
		2119+	*	SET APPROPRIATELY.	*
		2120+	*		*
		2121+	*	ENTRY POINTS	*
		2122+	*	SGETDB - ENTRY TO SEARCH PASSWORD DIRECTORY AND GET	*
		2123+	*	ASSOCIATED USER DIRECTORY. THE CALLING SEQUENCE IS	*
		2124+	*	AS FOLLOWS:	*
		2125+	*	B SGETDB	*
		2126+	*		*
		2127+	*	INPUT	*
		2128+	*	* THE BASE ADDRESS OF THE LIBRARY MUST BE IN SM1FDA IN TSMLES.	*
		2129+	*	* THE PASSWORD MUST BE IN SMPSWD.	*
		2130+	*	* IF THE PASSWORD DIRECTORY IS TO BE SEARCHED ONLY, THEN SM1PDS	*
		2131+	*	IN SMIND1 MUST BE SET TO 1. IF THE FIRST USER DIRECTORY BLOCK	*
		2132+	*	ASSOCIATED WITH THE SPECIFIED PASSWORD IS TO BE READ IN THEN	*
		2133+	*	THEN SM1PDS MUST BE SET TO 0.	*
		2134+	*		*
		2135+	*	OUTPUT	*
		2136+	*	* IF THE SPECIFIED PASSWORD IS FOUND THE ADDRESS OF THE LEFT BYTE	*
		2137+	*	OF THE ENTRY IS PLACED IN SMPEAD, SM1PNF IN SMIND1 IS SET TO 0.	*
		2138+	*	AND THE USER DIRECTORY RDADDR IS PLACED IN SMFUDA.	*
		2139+	*	* IF THE USER DIRECTORY WAS REQUESTED, THE READ OPERATION IS	*
		2140+	*	STARTED BUT NO WAIT IS PERFORMED. THE USER DIRECTORIES OVERLAY	*
		2141+	*	THE PASSWORD DIRECTORIES IN CORE.	*
		2142+	*	* IF THE SPECIFIED PASSWORD WAS NOT FOUND SM1PNF, IS SET TO 1 AND	*
		2143+	*	THE ADDRESS FOR THE NEXT AVAILABLE ENTRY IS IN SMPEAD.	*
		2144+	*		*
		2145+	*	EXTERNAL REFERENCES	*
		2146+	*	\$CAERR - LOCATION FOR SYSTEM ERROR CODE	*
		2147+	*	SMIND1 - DATA MANAGEMENT INDICATOR	*
		2148+	*	DL2RAD - LOCATION OF FILE PHYSICAL BASE ADDRESS	*
		2149+	*	SMBFDA - LOCATION OF LIBRARY BASE ADDRESS	*
		2150+	*	DL2ICS - ENTRY TO DISK I/O ROUTINE	*
		2151+	*	\$DISKN - ENTRY TO SYSTEM DISK IOCS	*
		2152+	*	\$WAITF - LOCATION OF COMMON I/O WAIT FUNCTION	*
		2153+	*	SMPSWD - LOCATION PASSWORD ARGUMENT	*
		2154+	*	SMPEAD - LOCATION OF PASSWORD ENTRY ADDRESS	*
		2155+	*	SMFUDA - LOCATION OF USER DIRECTORY RDADDR	*
		2156+	*		*
		2157+	*	EXITS, NORMAL	*

SGETDB - GET USER DIRECTORY BLOCK ROUTINE

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	VER 15, MOD 00 02/06/22 PAGE 8
			2158+*	NORMAL EXIT IS TO THE FIRST INSTRUCTION FOLLOWING THE BRANCH	*
			2159+*	TO SGETDB	*
			2160+*		*
			2161+*	EXITS, ERROR	*
			2162+*	NONE	*
			2163+*		*
			2164+*	TABLES/WORKAREAS	*
			2165+*	NONE	*
			2166+*		*
			2167+*	ATTRIBUTES	*
			2168+*	RELOCATABLE	*
			2169+*	REUSABLE	*
			2170+*		*
			2171+*	CHARACTER CODE DEPENDENCY	*
			2172+*	THE OPERATION OF THIS MODULE DOES NOT DEPEND UPON A PARTICULAR	*
			2173+*	INTERNAL REPRESENTATION OF THE EXTERNAL CHARACTER SET.	*
			2174+*		*
			2175+*	NOTES	*
			2176+*	ERROR PROCEDURES	*
			2177+*	THE ERROR CODE FOR PASSWORD NOT FOUND IS ALWAYS SET BUT SGETDB	*
			2178+*	DETECTS NO PARTICULAR ERROR. THE CONDITION AS TO IF THE	*
			2179+*	PASSWORD WAS OR WAS NOT FOUND IS INDICATED HOWEVER.	*
			2180+*		*
			2181+*	REGISTER USAGE	*
			2182+*	@BR AND @XR1 ARS SAVED AND RESTORED. @BR IS USED AS A BASE	*
			2183+*	REGISTER AND @XR IS USED AS AN INDEX TO THE PASSWORD DIRCTY.	*
			2184+*	@ARR IS USED TO PROVIDE THE RETURN ADDRESS.	*
			2185+*		*
			2186+*	SAVED/RESTORED AREAS	*
			2187+*	NONE	*
			2188+*		*
			2189+*	MODIFICATION CONSIDERATIONS	*
			2190+*	IN USING SGETDB THE USER MUST TAKE INTO CONSIDERATION THAT	*
			2191+*	SGETDB DOES NOT WAIT FOR THE USER DIRECTORY BLOCK TO BE IN	*
			2192+*	CORE BEFORE RETURNING.	*
			2193+*		*
			2194+*	REQUIRED MODULES	*
			2195+*	@SYSEQ - SYSTEM SOFTWARE EQUATES	*
			2196+*	@FXDEQ - NUCLEUS EQUATES	*
			2197+*	@DIREQ - LIBRARY DIRECTORY EQUATES	*
			2198+*	DL2ICS - DISK IOCS	*
			2199+*	TSMLES - DATA MANAGEMENT COMMUNICATIONS AREA	*
			2200+*		*
			2201+*	OTHER	*
			2202+*	NONE	*
			2203+*	*****	*
			2204+*	SGETDB ENTER BASE,SGETDB,EXIT,SGE90,@BR,@XR,@ARR	*
		0D1D	2205+*	USING SGETDB,@BR	BASE ADDRESS SPECIFICATION
		0D1D	2206+*	SGETDB EQU *	MODULE ENTRY POINT
0D1D 34 01 0D95			2207+*	ST SGE900+@OP1,@BR	SAVE @BR
0D21 C2 01 0D1D			2208+*	LA SGETDB,@BR	LOAD BASE REGISTER
0D25 74 02 7C			2209+*	ST SGE901+@OP1(,@BR),@XR	SAVE @XR
0D28 74 08 80			2210+*	ST SGE902+@OP1(,@BR),@ARR	SAVE RETURN ADDRESS
			2211+***	END OF EXPANSION ***	

0D2B 3C 23 03CD

2213+ MVI \$CAERR,@E210

PASSWORD NOT ON DISK

SGETDB - GET USER DIRECTORY BLOCK ROUTINE

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00 02/06/22 PAGE 9
	0D2F	3B	08	0E42	2214+	SBF	SMIND1,SM1PNF	INITIALIZE INDICATOR TO FOUND
	0D33	F2	80	15	2215+SGE050	JC	SGE055,@NOP	SET SWITCH FOR 2ND ENTRY
	0D36	7C	87	17	2216+	MVI	SGE050+@Q(,@BR),@UCB	TURN SWITCH ON FOR NEXT ENTRY
	0D39	0C	01	0E41 0E5C	2217+	MVC	DL2RAD,SMBFDA	STUFF IN THE BASE ADDR
	0D3F	C0	87	0DA9	2218+	B	DL2ICS	CALL DISK I/O ROUTINE
	0D43	0D9E			0D44 2219+	DC	AL2(SGEDPL)	POINTER TO PARAMETER LIST
	0D45	C0	87	0025	2220+	B	\$DISKN	WAIT FOR DIRCTY TO LOAD
	0D49	057F			0D4A 2221+	DC	AL2(\$WAITF)	WAIT FOR DIRCTY
	0D4B	75	02	86	2223+SGE055	L	SGEDPL+@DBFR2(,@BR),@XR	PASSWORD BUFFER CADDR
	0D4E	6C	00	89 00	2224+	MVC	SGECNT(1,@BR),##DPHC(,@XR)	ENTRY COUNT TO WORK
	0D52	E2	02	04	2225+	LA	##DPE1(,@XR),@XR	BUMP TO FIRST PASSWORD
					2226+*			
	0D55	2D	07	0E50 07	2227+SGE060	CLC	SMPSWD(##LPEN),##DPEN(,@XR)	LOOK AT PSWD ENTRY
	0D5A	F2	81	0E	2228+	JE	SGE070	FOUND THE PSWD
	0D5D	E2	02	0C	2229+	LA	##LPE(,@XR),@XR	BUMP TO LOOK AT NEXT ENTRY
	0D60	5F	00	89 8B	2230+	SLC	SGECNT(1,@BR),SGEC01(,@BR)	DECR ENTRY COUNT
	0D64	D0	01	38	2231+	BNE	SGE060(,@BR)	BACK FOR LOOK AT ENTRY
	0D67	3A	08	0E42	2232+	SBN	SMIND1,SM1PNF	NOT FOUND INDICATOR
					2233+*			
					2234+*		THE PASSWORD OR THE END OF THE DIRCTY HAS BEEN FOUND,	
					2235+*		SAVE THE POINTERS.	
					2236+*			
	0D6B	34	02	0E6A	2237+SGE070	ST	SMPEAD,@XR	SAVE ENTRY ADDRESS
	0D6F	2C	01	0E6C 09	2238+	MVC	SMFUDA(@DADDR),##DPEA(,@XR)	POSSIBLE USER DADDR OF BLK
	0D74	38	10	0E42	2239+	TBN	SMIND1,SM1PDS	TEST SEARCH BIT ONLY ON
	0D78	F2	10	17	2240+	JT	SGE900	SEARCH ONLY SO EXIT
	0D7B	7D	00	89	2241+	CLI	SGECNT(,@BR),@ZERO	TEST COUNT IF ENTRY FOUND
	0D7E	F2	81	11	2242+	JE	SGE900	JUMP IF NOT FOUND
	0D81	6C	01	83 09	2243+SGE080	MVC	SGEDPL+@DSAD(@DADDR,@BR),##DPEA(,@XR)	BLK ADDR TO DPL
	0D85	C0	87	0DA9	2244+	B	DL2ICS	CALL TO READ USER DIRCTY
	0D89	0D9E			0D8A 2245+	DC	AL2(SGEDPL)	POINTER TO PARAMETER LIST
					2246+*			
	0D8B	7C	80	17	2247+	MVI	SGE050+@Q(,@BR),@NOP	TURN OFF SKIP INSTR
	0D8E	5C	01	83 88	2248+	MVC	SGEDPL+@DSAD(@DADDR,@BR),SGERAD(,@BR)	RESTORE DSAD PSWD
					2249+*			
					2250+*SGE900	EXIT	@BR,@XR,,RETURN	
	0D92	C2	01	0000	2251+SGE900	LA	*-*,@BR	RESTORE OBR
	0D96	C2	02	0000	2252+SGE901	LA	*-*,@XR	RESTORE OXR
	0D9A	C0	87	0000	2253+SGE902	B	*-*	RETURN TO CALLING PROGRAM
					2254+***		END OF EXPANSION ***	
					2255+*			
					2256+*		DPL TO READ IN THE PASSWORD DIRCTY	
					2257+*			
					2258+*SGEDPL \$DPL	FUNC-@DGET,DADDR-##RP,CNT-##LP,CADDR-SMPDB1		
					0D9E 2259+SGEDPL	EQU	*	DISK PARAMETER
	0D9E	01			0D9E 2260+	DC	AL1(@DGET)	REQUESTED FUNCTION
	0D9F	0001			0DA0 2261+	DC	AL2(##RP)	DISK ADDRESS
	0DA1	04			0DA1 2262+	DC	AL1(##LP)	SECTOR COUNT
	0DA2	0E71			0DA3 2263+	DC	AL2(SMPDB1)	BUFFER ADDRESS
					2264+***		END OF EXPANSION ***	
	0DA4	0001			0DA5 2266+SGERAD	DC	AL2(##RP)	RELATIVE DADDR OF DIRCTY
	0DA6				0DA6 2267+SGECNT	DS	CL1	SAVE AREA FOR ENTRY COUNT
	0DA7	0001			0DA8 2268+SGEC01	DC	IL2'1'	CONSTANT 1 FOR ADDR MODIFCATION

DL2ICS - TWO TRACK LOGICAL IOCR

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	VER 15, MOD 00	02/06/22	PAGE 11
		2275+	*****				
		2276+*	5703-XM1	COPYRIGHT IBM CORP 1970			*
		2277+*		REFER TO INSTRUCTIONS ON COPYRIGHT NOTICE. 120-2083			*
		2278+*					*
		2279+	*****				*
		2280+*	STATUS -				*
		2281+*	VERSION 1	MODIFICATION 0			*
		2282+*					*
		2283+*	FUNCTION				*
		2284+*	*	DL2ICS CONVERTS A RELATIVE DISK ADDRESS TO A PHYSICAL DISK			*
		2285+*		ADDRESS AND COMBINES IT WITH A BASE ADDRESS PLACED IN DL2RAD			*
		2286+*		BY THE CALLER.			*
		2287+*	*	THE RELATIVE DISK ADDRESS IS A TWO BYTE CYLINDER SECTOR COUNT			*
		2288+*		IN THE CALLERS DISK PARAMETER LIST (DPL).			*
		2289+*	*	THE COUNT IS A CYLINDER SECTOR DISPLACEMENT FROM THE BASE			*
		2290+*		ADDRESS PLACED IN DL2RAD			*
		2291+*	*	DL2ICS IS USED TO PROCESS DATA ON THE FIXED OR REMOVABLE DISK			*
		2292+*		ON EITHER DRIVE AND PROVIDES THE INTERFACE TO \$DISKN.			*
		2293+*	*	THE PHYSICAL DISK ADDRESS IS PLACED IN A COPY OF THE USERS DPL			*
		2294+*		IN DL2ICS AND A CALL IS MADE TO \$DISKN TO PERFORM THE REQUESTED			*
		2295+*		OPERATION.			*
		2296+*					*
		2297+*	ENTRY POINTS				*
		2298+*	*	THE ENTRY IS DL2ICS. THE BASE REGISTER IS SAVED AND RESTORED			*
		2299+*		ON RETURN. THE INDEX REGISTER IS NOT USED.			*
		2300+*	*	THE FORMAT OF THE CALLING SEQUENCE IS AS FOLLOWS:			*
		2301+*	B	DL2ICS			*
		2302+*	DC	AL2(PARMLT)			*
		2303+*		WHERE PARMLT IS THE ADDR OF THE PARAMETER LIST TO BE PROCESSED.			*
		2304+*					*
		2305+*	INPUT				*
		2306+*	*	THE INPUT IS A TWO BYTE BASE DISK ADDRESS PLACED IN			*
		2307+*		DL2RAD AND A SIX BYTE DPL. THE SAME FORMAT AS THE DPL FOR			*
		2308+*		\$DISKN EXCEPT FOR THE DISK ADDRESS WHICH IS A RELATIVE CYLINDER			*
		2309+*		AND SECTOR DISPLACEMENT FROM THE BASE ADDRESS IN DL2RAD.			*
		2310+*					*
		2311+*	OUTPUT				*
		2312+*	NONE.				*
		2313+*					*
		2314+*	EXTERNAL REFERENCES				*
		2315+*		\$DISKN - ENTRY TO PHYSICAL DISK ROUTINE IS THE SYSTEM NUCLEUS.			*
		2316+*					*
		2317+*	EXITS, NORMAL				*
		2318+*		NORMAL - EXIT IS TO THE FIRST INSTRUCTION FOLLOWING THE POINTER			*
		2319+*		TO THE DPL. THE BASE REGISTER IS RESTORED. THE RETURN ADDRESS			*
		2320+*		IS THE ADDRESS RECALL REGISTER (ARR) +2.			*
		2321+*					*
		2322+*	EXITS, ERROR				*
		2323+*	NONE				*
		2324+*					*
		2325+*	TABLES/WORK AREAS				*
		2326+*	*	THE CONSTANTS AND WORK AREAS RESIDE AT THE END OF THE EXECUTABLE			*
		2327+*		CODE AND ARE REFERENCED BY A DISPLACEMENT RELATIVE TO THE VALUE			*
		2328+*		IN INDEX REGISTER 1 (@BR).			*
		2329+*	*	DL2SEC AND DL2SAD ARE EQUATED TO OPERAND LOCATIONS IN THE			*
		2330+*		EXECUTABLE CODE TO ELIMINATE EXCESS WORKING STORAGE.			*

DL2ICS - TWO TRACK LOGICAL IOCR

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00 02/06/22 PAGE 12
			2331+	*		*
			2332+	*	ATTRIBUTES	*
			2333+	*	* DL2ICS IS REUSABLE	*
			2334+	*		*
			2335+	*	CHARACTER CODE DEPENDENCY	*
			2336+	*	THE OPERATION OF THIS MODULE DOES NOT DEPEND UPON A PARTICULAR	*
			2337+	*	INTERNAL REPRESENTATION OF THE EXTERNAL CHARACTER SET.	*
			2338+	*		*
			2339+	*	NOTES	*
			2340+	*	ERROR PROCEDURES	*
			2341+	*	NONE	*
			2342+	*		*
			2343+	*	REGISTER USAGE	*
			2344+	*	INDEX REGISTER 1 (@BR) IS SAVED AND RESTORED. THIS REGISTER IS	*
			2345+	*	USED DURING EXECUTION. REGISTER 2 (@BR) IS NOT USED.	*
			2346+	*		*
			2347+	*	SAVED/RESTORED AREAS	*
			2348+	*	NONE	*
			2349+	*		*
			2350+	*	MODIFICATION CONSIDERATIONS	*
			2351+	*	NONE	*
			2352+	*		*
			2353+	*	REQUIRED MODULES	*
			2354+	*	@SYSEQ - COMMON SYSTEM EQUATES.	*
			2355+	*	@FXDEQ - SYSTEM NUCLEUS ADDRESSES AND INDICATORS VALUES EQUATES	*
			2356+	*		*
			2357+	*	OTHER	*
			2358+	*	DL2ICS MAY BE USED TO CONVERT THE DISK ADDRESS ONLY AND NOT TO	*
			2359+	*	CALL \$DISKN IF THE USER MOVES A UCB CODE TO DL2SWH.	*
			2360+	*	THIS OPTION IS NOT STANDARD USAGE.	*
			2361+	*	*****	*
		0DAD	2362+		USING DL2000,@BR	ESTABLISH ADDRESSABILITY
			2363+	*		
		0001	2364+	DL2E01 EQU	X'01'	FIELD LENGTH OF 1
		0002	2365+	DL2E02 EQU	X'02'	FIELD LENGTH OF 2
		0018	2366+	DL2E18 EQU	X'18'	HEX TRACK SECTOR COUNT
		0060	2367+	DL2E60 EQU	X'60'	PHYSICAL SECTOR COUNT
		0083	2368+	DL2TSD EQU	X'83'	MASK OFF TRACK SPINDLE DISK
		007C	2369+	DL2E7C EQU	X'7C'	MASK OUT SECTOR COUNT
		0DA9	2370+	DL2ICS EQU	*	ENTRY POINT
	0DA9 34 01 0E2A		2371+	ST	DL2900+@OP1,@BR	SAVE OLD BASE
		0DAD	2372+	DL2000 EQU	*	START PROCESSING
	0DAD C2 01 0DAD		2373+	LA	DL2000,@BR	SET BASE ADDRESS
	0DB1 76 08 8A		2374+	A	DL2C01(,@BR),@ARR	BUMP TO RIGHT BYTE OF ADDR
	0DB4 74 08 14		2375+	ST	DL2001+@DOP2(,@BR),@ARR	ADDR OF PARAM
	0DB7 76 08 8A		2376+	A	DL2C01(,@BR),@ARR	BUMP TO RETURN ADDR
	0DBA 74 08 81		2377+	ST	DL2910+@OP1(,@BR),@ARR	SAVE RETURN ADDR
			2378+	*		
	0DBD 4C 01 1D 0000		2379+	DL2001 MVC	DL2002+@DOP2(@DADDR,@BR),*-*	SETUP ADDR OF DPL
	0DC2 5E 01 1D 8C		2380+	ALC	DL2002+@DOP2(@CADDR,@BR),DL2C05(,@BR)	DUMP TO RIGHT END
	0DC6 4C 05 92 0000		2381+	DL2002 MVC	DL2DPL(@DPLNG,@BR),*-*	MOVE USER DPL TO WORK AREA
	0DCB 5F 00 8F 86		2382+	DL2005 SLC	DL2LST+@DSAD(DL2E01,@BR),DL2C48(,@BR)	ADJUST SCTR/CYL
	0DCF F2 82 07		2383+	JM	DL2006	GO TO RESTORE TO CONTINUE
	0DD2 5E 00 8E 8A		2384+	ALC	DL2LST+@DCYL(DL2E01,@BR),DL2C01(,@BR)	BUMP CYLINDER COUNT
	0DD6 D0 87 1E		2385+	B	DL2005(,@BR)	BACK FOR NEXT CYLINDER
	0DD9 5E 00 8F 86		2386+	DL2006 ALC	DL2LST+@DSAD(DL2E01,@BR),DL2C48(,@BR)	RESTORE POSITIVE

DL2ICS - TWO TRACK LOGICAL IOCR

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER	MOD	00	02/06/22	PAGE	13
					2387+*								
					2388+*		GET THE LOGICAL SECTOR FROM THE DPL. THE NUMBER IS LEFT ADJUSTED						
					2389+*		TO COMAE IT MTN THE POINTER ESTABLISHED PRIOR TO AN ENTRY.						
	0DDD	5C	00	1D	8F	2390+	MVC DL2SEC(DL2E01,@BR),DL2LST+@DSAD(,@BR) GET SECTOR NUMBER						
	0DE1	7C	00	8F		2391+	MVI DL2LST+@DSAD(,@BR),@ZERO CLEAR SECTOR BYTE						
					2392+*								
					2393+*		MOVE THE RELATIVE START TO THE DFL						
					2394+*								
	0DE4	5E	01	8F	94	2395+	ALC DL2LST+@DSAD(DL2E02,@BR),DL2RAD(,@BR) DL2RAD TO DPL						
	0DE8	7D	18	1D		2396+	CLI DL2SEC(,@BR),DL2E18 IS COUNT OVER A TRACK						
	0DEB	F2	82	08		2397+	JL DL2008 NO GO CHANGE A PHYSICAL ADOR						
	0DEE	5E	01	8F	85	2398+	ALC DL2LST+@DSAD(DL2E02,@BR),DL2K80(,@BR) BUMP TRACK VALUE						
	0DF2	5F	00	1D	88	2399+	SLC DL2SEC(1,@BR),DL2K18(,@BR) DECR BY TRACK VALUE						
	0DF6	5E	00	1D	1D	2400+DL2008	ALC DL2SEC(1,@BR),DL2SEC(,@BR) SHIFT LEFT 1						
	0DFA	5E	00	1D	1D	2401+	ALC DL2SEC(1,@BR),DL2SEC(,@BR) SHIFT LEFT						
	0DFE	5C	00	14	8F	2402+	MVC DL2SAD(DL2E01,@BR),DL2LST+@DSAD(,@BR) GET SECTOR ADDRESS						
					2403+*								
					2404+*		ZERO OUT THE SECTOR COUNT AND LEAVE THE DISK. SPINDLE AND						
					2405+*		TRACK BITS AS IS TO BE RE INSERTED AFTER THE SECTOR HAS BEEN						
					2406+*		LOCATES.						
					2407+*								
	0E02	7B	7C	8F		2408+	SBF DL2LST+@DSAD(,@BR),DL2E7C TURN OFF						
	0E05	7B	83	14		2409+	SBF DL2SAD(,@BR),DL2TSD OFF TRACK SPINDLE DISK						
	0E08	5E	00	14	1D	2410+	ALC DL2SAD(DL2E01,@BR),DL2SEC(,@BR) COMBINE SECTOR COUNTS						
	0E0C	7D	60	14		2411+DL2010	CLI DL2SAD(,@BR),DL2E60 TEST IF TRACK CROSSED						
	0E0F	F2	82	08		2412+	JL DL2100						
					2413+*								
					2414+*		INCREMENT TRACK BIT. OVERFLOW INTO THE CYLINDER COUNT.						
					2415+*								
	0E12	5E	01	8F	85	2416+	ALC DL2LST+@DSAD(DL2E02,@BR),DL2K80(,@BR)						
	0E16	5F	00	14	83	2417+	SLC DL2SAD(1,@BR),DL2K60(,@BR) DECR BY TRACK VALUE						
					2418+*								
	0E1A	5E	00	8F	14	2419+DL2100	ALC DL2LST+@DSAD(1,@BR),DL2SAD(,@BR) INSERT SECTOR COUNT						
					2420+*								
	0E1E	F2	80	06		2421+DL2110	JC DL2900,@NOP CONVERSION SWITCH						
					0E1F	2422+DL2SWH	EQU DL2110+@Q ADDR OF Q CODE FOR SWITCH						
	0E21	C0	87	0025		2423+	B \$DISKN GO PROCESS I/O						
	0E25	0E3A				0E26	2424+	DC AL2(DL2LST) ADDRESS OF DPL					
	0E27	C2	01	0000		2425+DL2900	LA *-*,@BR RESTORE CALLERS BASE						
	0E2B	C0	87	0000		2426+DL2910	B *-*						
					2427+*****								
					2428+*		CONSTANTS						
					2429+*****								
	0E2F	0060			0E30	2430+DL2K60	DC XL2'0060' SECTOR COUNT OF 24 LEFT ADJUSTD						
	0E31	0080			0E32	2431+DL2K80	DC XL2'0080' BIT FOR INCREMENTING TRACK						
	0E33	30			0E33	2432+DL2C48	DC IL1'48' CYLINDER VALUE FOR 1 DISK						
	0E34	0018			0E35	2433+DL2K18	DC XL2'18' HEX SECTORS PER TRACK						
	0E36	0001			0E37	2434+DL2C01	DC IL2'1' CONSTANT FOR REGISTER MODE						
	0E38	0005			0E39	2435+DL2C05	DC IL2'5' DISP TO RIGHT END OF DPL						
					2436+*****								
					2437+*		WORK AREA						
					2438+*****								
					0E3A	2439+DL2LST	EQU * LIST HIGH END						
	0E3A				0E3F	2440+DL2DPL	DS CL(@DPLNG) WORKING DPL						
					0E3C	2441+DL2PHY	EQU DL2LST+@DSAD POINTER TO PHYSICAL DADDR						
					0DC1	2442+DL2SAD	EQU DL2001+@DOP2 SAVE SECTOR BYTE FROM DPI						

DL2ICS - TWO TRACK LOGICAL IOCR

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	02/06/22	PAGE 14
0E40		0DCA	2443	+DL2SEC EQU	DL2002+@DOP2			
		0E41	2444	+DL2RAD DS	CL(@DADDR)			
		0E42	2445	+DL2END EQU	*			
			2446	+	***			
			2447	*				
			2448	*	TSMLES			
			2449	*	*****			
			2450	*	5703-XM1			
			2451	*				
			2452	*				
			2453	*	*****			
			2454	*	STATUS			
			2455	*	VERSION 1 MODIFICATION 0			
			2456	*				
			2457	*	FUNCTION			
			2458	*	TSMLES PROVIDES A COMMON SET OF BUFFERS AND WORK AREAS FOR DATA			
			2459	*	MANAGEMENT KEYWORDS AND THERE ASSOCIATED SUBROUTINES. THE WORK			
			2460	*	AREAS PROVIDE A COMMON COMMUNICATION BETWEEN SUBROUTINES THAT			
			2461	*	PERFORM A VARIETY OF FUNCTIONS WITH THE LIBRARY. THIS ELIMINATES			
			2462	*	A LARGE AMOUNT OF CUMBERSOME PARAMETER PASSING.			
			2463	*				
			2464	*	ENTRY POINTS			
			2465	*	N/A			
			2466	*				
			2467	*	INPUT			
			2468	*	N/A			
			2469	*				
			2470	*	OUTPUT			
			2471	*	N/A			
			2472	*				
			2473	*	EXTERNAL REFERENCES			
			2474	*	N/A			
			2475	*				
			2476	*	EXITS, NORMAL			
			2477	*	N/A			
			2478	*				
			2479	*	EXITS, ERROR			
			2480	*	N/A			
			2481	*				
			2482	*	TABLES/WORKAREAS			
			2483	*	N/A			
			2484	*				
			2485	*	ATTRIBUTES			
			2486	*	N/A			
			2487	*				
			2488	*	CHARACTER CODE DEPENDENCY			
			2489	*	N/A			
			2490	*				
			2491	*	NOTES			
			2492	*	ERROR PROCEDURES			
			2493	*	N/A			
			2494	*	REGISTER USAGE			
			2495	*	N/A			
			2496	*	SAVED/RESTORED AREAS			
			2497	*	N/A			
			2498	*	MODIFICATION CONSIDERATIONS			

DL2ICS - TWO TRACK LOGICAL IOCR

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00 02/06/22 PAGE 15
		2499	*		N/A	*
		2500	*		REQUIRED MODULES	*
		2501	*		N/A	*
		2502	*		OTHER	*
		2503	*		N/A	*
		2504	*		*****	*
		0E42	2505	SMALES EQU	*	START OF MANAGEMENT AREA
		0E42	2506	SMIND1 EQU	SMALES	INDICTATOR BYTE
		0E48	2507	SMVOID EQU	SMIND1+6	SPECIFIED VOLUME ID SAVE AREA
		0E50	2508	SMPSWD EQU	SMVOID+8	SPECIFIED PASSWORD SAVE AREA
		0E58	2509	SMFNAM EQU	SMPSWD+8	SPECIFIED FILENAME SAVE AREA
		0E5A	2510	SMUDEA EQU	SMFNAM+2	FILENAME DIRCTY ENTRY ADDR
		0E5C	2511	SMBFDA EQU	SMUDEA+2	DADDR OF FILE LIBRARY
		0E5E	2512	SMUDBA EQU	SMBFDA+2	CADDR OF ACTIVE BUFFER ADDR
		0E60	2513	SMNULT EQU	SMUDBA+2	TOTAL OF NULL SECTORS AVAILABLE
		0E62	2514	SMNDEA EQU	SMNULT+2	NULL DIRCTY ENTRY ADDR
		0E64	2515	SMNSCT EQU	SMNDEA+2	COUNT OF NULL SECTORS REQUIRED
		0E66	2516	SMNETD EQU	SMNSCT+2	CADDR NEW ENTRY TO NULL DIRCTY
		0E68	2517	SMUPEN EQU	SMNETD+2	CADDR NEW USER DIRCTY ENTRY
		0E6A	2518	SMPEAD EQU	SMUPEN+2	CADDR PASSWORD ENTRY
		0E6C	2519	SMFUDA EQU	SMPEAD+2	REL DADDR FIRST USER DIRCTY BLK
		0E6E	2520	SMNDBA EQU	SMFUDA+2	NULL DIRCTY BUFFER CORE ADOR
		0E70	2521	SMDAAD EQU	SMNDBA+2	DAADR OF ACTIVE DIRCTY
		0080	2522	SM1FNE EQU	X'80'	SRCHFN INDR NAME NOT FOUND
		0040	2523	SM1NPD EQU	X'40'	PACK INDR NULL DIRCTY FULL
		0020	2524	SM1STN EQU	X'20'	STORIN PACK INDICATOR BIT
		0010	2525	SM1PDS EQU	X'10'	SGETDB SEARCH ONLY FLAG
		0008	2526	SM1PNF EQU	X'08'	SGETDB PASSWORD NOT FOUND
		0E71	2527	SMPDB1 EQU	SMDAAD+1	PASSWORD DIRCTY BUFFER
		0E71	2528	SMPIBS EQU	SMPDB1	SVOLID TEMP SAVE INPUT BUFFER
		0E71	2529	SMUDB1 EQU	SMPDB1	USER DIRCTY BLOCK1 BUFFER
		1071	2530	SMUDB2 EQU	SMUDB1+512	USER DIRCTY BLOCK2 BUFFER
		1271	2531	SMAEND EQU	SMUDB2+512	END OF SMALES AREA
		2532	*			
0E42		2533		ORG	SMIND1	
0E42 00		0E42 2534		DC	IL1'0'	SET INDICATOR BYTE TO ZERO
0E71		2535		ORG	SMPDB1	
		2536	*		\$CANI	

SCANIT - DELIMETER SCAN MODULE

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	VER 15, MOD 00 02/06/22 PAGE 16
		2538+		*****	
		2539+	*	5703-XM1 COPYRIGHT IBM CORP. 1970	*
		2540+	*	REFER TO INSTRUCTIONS ON COPYRIGHT NOTICE, 120-2083	*
		2541+	*		*
		2542+	*	*****	*
		2543+	*	STATUS	*
		2544+	*	VERSION 1 MODIFICATION 0	*
		2545+	*		*
		2546+	*	FUNCTION	*
		2547+	*	THE FUNCTION OF SCANIT IS TO SCAN PAST VALID DELIMITERS AND	*
		2548+	*	RETURN A POINTER TO THE FIRST CHARACTER THAT'S NOT A DELIMITER.	*
		2549+	*		*
		2550+	*	ENTRY POINTS	*
		2551+	*	* THE ENTRY POINT IS SCANIT.	*
		2552+	*	* THE CALLING SEQUENCE IS AS FOLLOWS:	*
		2553+	*	B SCANIT	*
		2554+	*	WITH REGISTER 2 (@XR) POINTING TO THE FIRST CHARACTER TO BE	*
		2555+	*	EXAMINED.	*
		2556+	*		*
		2557+	*	INPUT	*
		2558+	*	NONE	*
		2559+	*		*
		2560+	*	OUTPUT	*
		2561+	*	NONE	*
		2562+	*		*
		2563+	*	EXTERNAL REFERENCES	*
		2564+	*	\$CAERR - ERROR CODE SAVE AREA	*
		2565+	*		*
		2566+	*	EXITS, NORMAL	*
		2567+	*	NORMAL EXIT FROM SCANIT IS TO THE BYTE FOLLOWING THE BRANCH TO	*
		2568+	*	SCANIT IN THE CALLING ROUTINE. THE PSR (REGISTER 4) WILL CONTAIN	*
		2569+	*	A ZERO IF NO DELIMITERS WERE FOUND OR A HIGH CONDITION IF ONE OR	*
		2570+	*	MORE DELIMITERS WERE SCANNED.	*
		2571+	*		*
		2572+	*	EXITS, ERROR	*
		2573+	*	ERROR EXIT FROM SCANIT IS TO THE BYTE FOLLOWING THE BRANCH TO	*
		2574+	*	SCANIT IN THE CALLING ROUTINE. THE PSR WILL CONTAIN A LOW	*
		2575+	*	CONDITION.	*
		2576+	*		*
		2577+	*	TABLES/WORKAREAS	*
		2578+	*	* SCACNT - AREA CONTAINING NUMBERS OF DELIMITERS SCANNED	*
		2579+	*	* SCAMMA - LOC WHERE SCACOM MAY BE MOVED IF ONE COMMA IS ALSO	*
		2580+	*	TO BE CONSIDERED A DELIMITER. MOVING SCACOF BACK INTO SCAMMA	*
		2581+	*	INDICATES THAT ONLY BLANKS SHOULD BE CONSIDERED DELIMITERS.	*
		2582+	*		*
		2583+	*	ATTRIBUTES	*
		2584+	*	RELOCATABLE AND RE-USABLE	*
		2585+	*		*
		2586+	*	CHARACTER CODE DEPENDENCY	*
		2587+	*	THE OPERATION OF THIS MODULE DOES NOT DEPEND UPON A PARTICULAR	*
		2588+	*	INTERNAL REPRESENTATION OF THE EXTERNAL CHARACTER SET.	*
		2589+	*		*
		2590+	*	NOTES	*
		2591+	*	ERROR PROCEDURES	*
		2592+	*	THE ONLY ERROR CONDITION DETECTED BY SCANIT IS THE CASE WHERE	*
		2593+	*	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 02/06/22 PAGE 17

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2594+*      CALLING ROUTINE, @PSR WILL BE SET TO A LOW CONDITION, THE      *
2595+*      ERROR CODE IS SET IN $CAERR, AND MG WILU BE POINTING TO THE      *
2596+*      CARRIAGE-RETURN CHARACTER.                                       *
2597+*                                                                 *
2598+*      REGISTER USAGE                                                    *
2599+*      REGISTER 2 (@XR) IS USED AS A POINTER ACROSS THE AREA BEING      *
2600+*      SCANNED FOR DELIMITERS.                                           *
2601+*                                                                 *
2602+*      SAVED/RESTORED AREAS                                              *
2603+*      UPON ENTRY TO SCANIT, REGISTER 8 (@ARR) IS SAVED AND USED AS      *
2604+*      THE RETURN ADDRESS.                                               *
2605+*                                                                 *
2606+*      MODIFICATION CONSIDERATIONS                                       *
2607+*      NONE                                                                *
2608+*                                                                 *
2609+*      REQUIRED MODULES                                                    *
2610+*      * @SYSEQ - COMMON SYSTEM EQUATES                                  *
2611+*      * @FXDEQ - FIXED NUCLEUS ADDRESSES EQUATES                        *
2612+*                                                                 *
2613+*      OTHER                                                                *
2614+*      SCANIT IS INITIALIZED TO BYPASS BLANKS ONLY. IF SCACOM IS          *
2615+*      MOVED TO SCAMMA, ONE COMMA WILL BE SCANNED ALONG WITH BLANKS.      *
2616+*      THE INSTRUCTION TO DO THIS IS AS FOLLOWS:                         *
2617+*      MVI    SCAMMA,SCACOM                                               *
2618+*                                                                 *
2619+*      TO DROP THE COMMA FROM ITS DELIMITER STATUS, SCACOF SHOULD BE      *
2620+*      MOVED TO SCAMMA, USING THE FOLLOWING INSTRUCTION:                  *
2621+*      MVI    SCAMMA,SCACOF                                              *
2622+*                                                                 *
2623+*****
2625+*
2626+*      EQUATES USED IN THIS SUBROUTINE
2627+*
0001 2628+SCAINC EQU    1          TO INCREMENT POINTER
0001 2629+SCACOM EQU    @BNE       SWITCH TO ALLOW SCANNING COMMA
0087 2630+SCACOF EQU    @UCB       SWITCH TO SET OFF THE INDICATON
2631+*      * FOR SCANNING A COMMA
0E71 2632+SCANIT EQU    *          ENTRY POINT TO THIS SUBROUTINE
0E71 34 08 0EAD 2633+      ST      SCA500+@OP1,@ARR      SAVE RETURN ADDRESS
0E75 34 02 0EAF 2634+      ST      SCASVE,@XR           SAVE POINTER VALUE
0E79 3C 04 03CD 2635+      MVI     $CAERR,@@E110        SET ERROR CODE
0E7D F2 87 03  2636+      J       SCA200                GO TO PROCESS
0E80 E2 02 01  2637+SCA100 LA     SCAINC(,@XR),@XR      INCREMENT POINTER TO NEXT CHAR
0E83 BD 40 00  2638+SCA200 CLI    0(,@XR),@BLANK       IS THIS CHAR BLANK ?
0E86 C0 81 0E80 2639+      BE      SCA100                YES, FETCH NEXT ONE
0E8A BD 6B 00  2640+      CLI     0(,@XR),@COMMA        IS IT A COMMA ?
0E8D F2 87 10  2641+SCA250 JC     SCA400,@UCB          UCS TO RETURN -- OR NOP IF
2642+*      * SCAMMA IS ACTIVE AND CHAR
0E90 E2 02 01  2643+SCA300 LA     SCAINC(,@XR),@XR      INCREMENT POINTER TO NEXT CHAR
0E93 BD 40 00  2644+      CLI     0(,@XR),@BLANK       IS THIS CHAR A BLANK ?
0E96 C0 81 0E90 2645+      BE      SCA300                YES, FETCH NEXT ONE
0E9A BD 1F 00  2646+      CLI     0(,@XR),@EOS+1        IS THIS EOS ?
0E9D F2 82 0A  2647+      JL      SCA500                IF NOT, SKIP ERROR ROUTINE
0EA0 34 02 0EB1 2648+SCA400 ST     SCACNT,@XR          SAVE NEW POINTER VALUE

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SCANIT - DELIMETER SCAN MODULE

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	02/06/22	PAGE 18
	0EA4	0F 01	0EB1 0EAF		2649+	SLC	SCACNT(2),SCASVE			SET PSR TO EQUAL IF POINTER
					2650+*					* NOT ADVANCED
	0EAA	C0 87	0000		2651+SCA500	B	*-*			YES, RETURN
				0E8E	2652+SCAMMA	EQU	SCA250+@Q			TO SET SCAN COMMA INDICATOR
					2653+*					
					2654+*		SAVE AREA			
					2655+*					
	0EAE			0EAE	2656+SCASV1	EQU	*			FIRST BYTE OF SCASVE
	0EAF			0EAF	2657+SCASVE	DS	CL2			ORIGINAL POINTER VALUE SAVE
	0EB0			0EB1	2658+SCACNT	DS	CL2			SAVE AREA FOR TOTAL CHAR SCAN
					2659+***			END OF SCANIT		***
					2660 *					
					2661 *	\$ALPH				

SALPHA - SYNTAX CHECKER MODULE

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	VER 15, MOD 00	02/06/22	PAGE 19
2663+				*****			
2664+	*	5703-XM1		COPYRIGHT IBM CORP. 1970			*
2665+	*			REFER TO INSTRUCTIONS ON COPYRIGHT NOTICE, 120-2083			*
2666+	*						*
2667+	*			*****			*
2668+	*			STATUS			*
2669+	*			VERSION 1 MODIFICATION 0			*
2670+	*						*
2671+	*			FUNCTION			*
2672+	*			THE FUNCTION OF SALPHA IS TO SYNTAX CHECK AN 8 CHARACTER OR 6			*
2673+	*			CHARACTER ALPHAMERIC PARAMETER DETERMINED BY THE ENTRY POINT,			*
2674+	*			SALPH8 OR SALPH6 RESPECTIVELY. ENTRY AT SALPHA IMPLIES A REQUEST			*
2675+	*			THAT THE FIRST CHARACTER BE ALPHABETIC. A SYNTACTICALLY CORRECT			*
2676+	*			PARAMETER WILL BE SAVED AT SALPHR (LEFTMOST BYTE ADDRESS), THE			*
2677+	*			COUNT OF THE NUMBER OF VALID CMARACTERS, IF NEEDED, IS FOOD IN			*
2678+	*			SALCNT. UPON ENTRY, SALPHA REQUIRES INDEX RESISTER 2 (OM TO BE			*
2679+	*			ADDRESSING THE FIRST CHARACTER 0, THE PARAMETER TO BE SYNTAX			*
2680+	*			CHECKED. UPON NORMAL RETURN INDEX REGISTER 2 (@XR) WILL BE			*
2681+	*			ADDRESSING THE FIRST NON-DELIMITER FOLLOWING THE PARAMETER (NOTE			*
2682+	*			INPUT),			*
2683+	*						*
2684+	*			ENTRY POINTS			*
2685+	*			* SALPH8 - ENTRY POINT TO SYNTAX CHECK AN EIGHT CHARACTER			*
2686+	*			ALPHAMERIC PARAMETER WHOSE FIRST CHARACTER MUST BE			*
2687+	*			ALPHABETIC.			*
2688+	*			* SALPH6 - ENTRY POINT TO SYNTAX CHECK A SIX CHARACTER			*
2689+	*			ALPHAMERIC PARAMETER WHICH HAS NO RESTRICTIONS ON			*
2690+	*			THE TYPE OF THE FIRST CHARACTER. (NOTE MODIFICA-			*
2691+	*			TION CONSIDERATIONS)			*
2692+	*						*
2693+	*			INPUT			*
2694+	*			UPON ENTRY TO SALPHA, AT EITHER ENTRY POINT, INDEX REGISTER 2			*
2695+	*			(@XR) SHOULD BE ADDRESSING THE LEFTMOST CHARACTER OF THE PARAMETER			*
2696+	*			TO BE SYNTAX CHECKED. ALSO, THE SWITCH 'SCAMMA' IN SCANIT SHOULD			*
2697+	*			BE SET FOR THE TYPE OF DELIMITER SCAN REQUESTED AFTER THE SYNTAX			*
2698+	*			CHECK. (IE. BLANKS ONLY OR BLANKS WITH 1 COMMA).			*
2699+	*						*
2700+	*			OUTPUT			*
2701+	*			OUTPUT FROM SALPHA INCLUDES THE SYNTAX CHECKED PARAMETER AT SALPHR			*
2702+	*			(LEFTMOST BYTE OF SAVE AREA) AND THE COUNT OF VALID CHARACTERS			*
2703+	*			IN SALCNT, AND INDEX REGISTER 2 (@XR) WILL BE POINTING AT THE			*
2704+	*			FIRST NON-DELIMITER AFTER THE PARAMETER. THE ONLY EXCEPTION TO			*
2705+	*			THIS IS UPON DETECTION OF AN ERROR (SEE ERROR EXITS AND PROC.)			*
2706+	*						*
2707+	*			EXTERNAL REFERENCES			*
2708+	*			SCANIT - DELIMITER SCAN MODULE			*
2709+	*			\$CAERR - ADDR IN SYSTEM NUCLEUS-ERROR CODE SAVE AREA			*
2710+	*						*
2711+	*			EXITS, NORMAL			*
2712+	*			NEXT SEQUENTIAL INSTRUCTION IN CALL ROUTINE WITH INDEX			*
2713+	*			REGISTER 2 (@XR) POINTING TO THE NEXT NON-DELIMITER			*
2714+	*			FOLLOWING THE PARAMETER AND WITH A NON-LOW CONDITION CODE			*
2715+	*			IN THE PROGRAM STATUS RESISTER (@PSR),			*
2716+	*						*
2717+	*			EXITS, ERROR			*
2718+	*			NEXT SEQUENTIAL INSTRUCTION IN CALL ROUTINE WILH INDEX			*

SALPHA - SYNTAX CHECKER MODULE

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	VER 15, MOD 00 02/06/22 PAGE 20
		2719+*		REGISTER 2 (@XR) POINTING TO THE LEFTMOST CHARACTER OF THE	*
		2720+*		INVALID PARAMETER AND WITH A LOW CONDITION CODE IN THE	*
		2721+*		PROGRAM STATUS REGISTER (@PSR),	*
		2722+*			*
		2723+*		TABLES/WORK AREAS	*
		2724+*		ALL OF THE CONSTANTS AND WORK AREAS IN SALPHA ARE LOCATED AT THE	*
		2725+*		END OF THE MODULE AND ARE ADDRESSED BY INDEX REGISTER 1 (RBR).	*
		2726+*			*
		2727+*		ATTRIBUTES	*
		2728+*		REUSABLE, RELOCATABLE	*
		2729+*			*
		2730+*		CHARACTER CODE DEPENDENCY	*
		2731+*		CHARACTER CODE DEPENDENCY CLASS - E	*
		2732+*		THE OPERATION OF THIS MODULE DEPENDS UPON THE FOLLOWING PROPERTIES	*
		2733+*		OF THE INTERNAL REPRESENTATION OF THE EXTERNAL CHARACTER SET:	*
		2734+*		* THE FOLLOWING SPECIAL ALPHABETIC CHARACTERS ARE PART OF	*
		2735+*		@SYSEQ AND ARE SPECIFICALLY COMPARED FOR:	*
		2736+*		* @DOLAR	*
		2737+*		* @NUMBR	*
		2738+*		* @ASIGN	*
		2739+*		* THE REMAINING-ALPHABETIC CHARACTERS ARE DEFINED TO BE	*
		2740+*		INCLUSIVELY IN THE RANGE DEFINED BY THE FOLLOWING IN @SYSEQ:	*
		2741+*		* @CHARA	*
		2742+*		* @CHARZ	*
		2743+*			*
		2744+*		THE DECIMAL NUMBERS FALL INTO THE CATEGORY OF BEING GREATER	*
		2745+*		THAN AN @CHARZ (IE. THIS IS DEFAULTED TO BY CHECKING METHOD)	*
		2746+*		THE SPECIFIC INSTRUCTIONS WHICH REQUIRE MODIFICATION IF THESE	*
		2747+*		PROPERTIES OF THE CHARACTER SET ARE CHANGED MAY BE IDENTIFIED BY:	*
		2748+*		* SAL200 - FOR THE THREE SPECIAL CHARACTERS	*
		2749+*		* SAL250 - FOR THE REMAINING ALPHABETIC RANGE	*
		2750+*		* SAL425 - BRANCHES 'TO' THIS LOCATION IMPLY DEFAULT TO NUMERIC	*
		2751+*			*
		2752+*		NOTES	*
		2753+*		ERROR PROCEDURES	*
		2754+*		THE FOLLOWING ERROR CONDITIONS WILL RESULT IN AN ERROR CODE	*
		2755+*		BEING SET IN \$CAERR AND AN ERROR EXIT BEING MADE (SEE EDITS,	*
		2756+*		ERROR):	*
		2757+*		* A NON-ALPHABETIC FIRST CHARACTER WHEN ENTRY WAS AT	*
		2758+*		SALPH8.	*
		2759+*		* A NON-ALPHAMERIC CHARACTER EMBEDDED IN A PARAMETER WHICH	*
		2760+*		SALPH8 WAS CALLED TO CHECK.	*
		2761+*		* A NON-ALPHAMERIC CHARACTER BEING FIRST OR EMBEDDED IN A	*
		2762+*		PARAMETER WHICH SALPH6 WAS CALLED TO CHECK.	*
		2763+*		* A PARAMETER OF GREATER THAN EIGHT CHARACTERS WHEN ENTRY	*
		2764+*		WAS AT SALPH8.	*
		2765+*		* A PARAMETER OF GREATER THAN SIX CHARACTERS WHEN ENTRY	*
		2766+*		WAS AT SALPH6.	*
		2767+*			*
		2768+*		REGISTER USAGE	*
		2769+*		INDEX REGISTER 1 (@BR) IS USED AS A BASE REGISTER THROUGHOUT	*
		2770+*		THE EXECUTION OF THE MODULE. IT IS SAVED FOR THE CALL PROGRAM	*
		2771+*		UPON ENTRY AND RESTORED UPON EXIT.	*
		2772+*		INDEX REGISTER 2 (@XR) IS USED AS A PARAMETER PASSING REGISTER.	*
		2773+*		UPON ENTRY IT CONTAINS THE ADDRESS OF THE LEFTMOST BYTE OF	*
		2774+*		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 02/06/22 PAGE 21
		2775+*		ADDRESS OR THE FIRST NON-DELIMITER FOLLOWING THE PARAMETEP.	*
		2776+*		(NOTE ERROR EXITS AND PROCEDURES),	*
		2777+*			*
		2778+*		SAVED/RESTORED AREAS	*
		2779+*		NONE	*
		2780+*			*
		2781+*		MODIFICATION CONSIDERATIONS	*
		2782+*		BECAUSE OF ITS CHARACTER CODE DEPENDENCY AND PARAMETER LENGTH	*
		2783+*		QUALIFICATIONS, ONE MUST TAKE SPECIAL CARE IN MODIFYING SALPHA,	*
		2784+*		ESPECIALLY THE CONSTANTS AND WORK AREAS AND THEIR RE-INITIAL,	*
		2785+*		IZATION. SALPHA IS MOST COMMONLY USED TO SYNTAX FILENAMES,	*
		2786+*		PASSWORDS, AND VOL-IDS AND IS THEREFORE USED BY THE MODULE	*
		2787+*		SUFFER (FILE SPECIFICATION SYNTAX CHECKER). THEREFORE, ANY	*
		2788+*		SIGNIFICANT CHANGE IN SALPHA WILL REQUIRE AN INVESTIGATION	*
		2789+*		into ITS USE AND IMPACT ON SUFFER.	*
		2790+*		SPECIAL NOTE: AN IRREGULAR USE OF SALPHA WHICH CAN BE	*
		2791+*		EFFECTED IS THE SYNTAY CHECK OF A PARAMETER WITH A MAXIMUM	*
		2792+*		OF 10 CHARACTERS. THIS IS DONE BY MODIFYING THE Q-CODE OF	*
		2793+*		THE INSTRUCTION AT SAL450 PRIOR TO ENTRANCE AT SALPH6, WITH	*
		2794+*		X'0A' OR ITS EQUIVALENT. (NOTE: ONE SUCH MODULE WHICH	*
		2795+*		USES THIS OPTION IS UINITL)	*
		2796+*			*
		2797+*		REQUIRED MODULES	*
		2798+*		SCANIT - DELIMITER SCAN ROUTINE	*
		2799+*		@DIREQ - SYSTEM LIBRARY DIRECTORY EQUATES	*
		2800+*		@ERMEQ - ERROR MESSAGE EQUATES	*
		2801+*		@FXDEQ - COMMON CORE LOCATIONS WITHIN THE SYSTEM NUCLEUS	*
		2802+*		@SYSEQ - COMMON SYSTEM SOFTWARE EQUATES	*
		2803+*			*
		2804+*		OTHER	*
		2805+*		N/A	*
		2806+*		*****	*
		2808+*		*****	*
		2809+*			*
		2810+*		SALPNA MODULE EQUATES	*
		2811+*			*
		2812+*		*****	*
	0008	2813+	SALCT8 EQU	##LUEN	COUNT COMPARE FIELD
		2814+*			
	0006	2815+	SALCT6 EQU	@VOLID	COUNT COMPARE FIELD
		2817+*		*****	*
		2818+*			*
		2819+*		INITIALIZATION OF MODULE	*
		2820+*			*
		2821+*		*****	*
		2823+*	SALPH8 ENTER CHECK		FILENAME OR PASSWORD
	0EB2	2824+	SALPH8 EQU	*	MODULE ENTRY POINT
		2825+***	END OF EXPANSION	***	
0EB2 3A 80 0F6D		2827+	SBN	SALIDR,SAL008	SET ON SALPH8 INDR
		2828+*			
		2829+*	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 02/06/22 PAGE 22

			0ED2	2830+	USING	SALBSE,@BR	BASE ADDRESS SPECIFICATION
			0EB6	2831+SALPH6	EQU	*	MODULE ENTRY POINT
0EB6	34	01	0F68	2832+	ST	SALND0+@OP1,@BR	SAVE ABA
0EBA	C2	01	0ED2	2833+	LA	SALBSE,@BR	LOAD BASE RESISTER
0EBE	74	08	9A	2834+	ST	SALND2+@OP1(,@BR),@ARR	SAVE RETURN ADDRESS
				2835+***	END OF EXPANSION	***	
0EC1	74	02	34	2837+	ST	SAL375+@OP1(,@BR),@XR	SAVE ERROR POINTER
				2839+*****			
				2840+*			*
				2841+*		INITIALIZE WORK AREAS AND VARIABLE INSTRUCTIONS	*
				2842+*			*
				2843+*****			
0EC4	7C	40	A8	2844+SAL100	MVI	SALPR7(,@BR),@BLANK	BLANK OUT SALPAR FOR PROCESSING
0EC7	5C	08	A7 A8	2845+	MVC	SALPR6(##LPEN+@B1,@BR),SALPR7(,@BR)	
0ECB	7C	00	9C	2846+	MVI	SALCNT(,@BR),@ZERO	ZERO OUT COUNTER
0ECE	5C	01	63 AA	2847+	MVC	SAL525+@OP1(2,@BR),SALPHS(,@BR)	MODIFY MOVE OF CHARACTER
				2849+*****			
				2850+*			*
				2851+*		CHECK EBCDIC CHARACTERS	*
				2852+*			*
				2853+*****			
				2854+*			
			0ED2	2855+SALBSE	EQU	*	MODULE BASE ADDR
0ED2	BD	5B	00	2856+SAL200	CLI	@ZERO(,@XR),@DOLAR	IS IT A '\$' ?
0ED5	F2	81	32	2857+	JE	SAL400	YES, PROCESS CHARACTER
0ED8	BD	7B	00	2858+	CLI	@ZERO(,@XR),@NUMBR	IS IT A '#' ?
0EDB	F2	81	2C	2859+	JE	SAL400	YES, PROCESS CHARACTER
0EDE	BD	7C	00	2860+	CLI	@ZERO(,@XR),@ASIGN	IS IT A '@' ?
0EE1	F2	81	26	2861+	JE	SAL400	YES, PROCESS CHARACTER
				2862+*			
0EE4	BD	C1	00	2863+	CLI	@ZERO(,@XR),@CHARA	IS IT AN ALPHA (A-Z) ?
0EE7	F2	82	53	2864+SAL250	JL	SAL750	NO, CHECK FOR DELIMITERS
0EEA	BD	E9	00	2865+	CLI	@ZERO(,@XR),@CHARZ	IS IT AN ALPHA (A-Z) ?
0EED	F2	04	1A	2866+	JNH	SAL400	YES, PROCESS CHARACTER
0EF0	78	80	9B	2867+	TBN	SALIDR(,@BR),SAL008	ENTERED AT SALPH8 ?
0EF3	F2	90	17	2868+	JF	SAL425	NO, CHECK IF NUMERIC
				2869+*			
0EF6	78	01	9B	2870+	TBN	SALIDR(,@BR),SALFST	WAS FIRST CHAR FOUND ALPHA ?
0EF9	3C	00	03CD	2871+	MVI	\$CAERR,@@E100	ALPHA CHAR REQUIRED--ERROR
0EFD	F2	10	0D	2872+	JT	SAL425	YES, CONTINUE
0F00	75	04	16	2873+SAL350	L	SALERR(,@BR),@PSR	LOAD ERROR CODE - LOW
0F03	C2	02	0000	2874+SAL375	LA	*-*,@XR	RESTORE ERROR POINTER
0F07	F2	87	58	2875+	J	SAL800	TAKE ERROR FAIT
				2877+*****			
				2878+*			*
				2879+*		PROCESS ALPHAMERIC CHARACTER	*
				2880+*			*
				2881+*****			
0F0A	7A	01	9B	2882+SAL400	SBN	SALIDR(,@BR),SALFST	SET ON ALPHA :NOR
				2883+*			
0F0D	5E	00	9C 9E	2884+SAL425	ALC	SALCNT(1,@BR),SAL001(,@BR)	ADD 1 TO CHARACTER COUNTER
0F11	78	80	9B	2885+	TBN	SALIDR(,@BR),SAL008	WAS ENTRY AT SALPH8 ?

SALPHA - SYNTAX CHECKER MODULE

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00 02/06/22 PAGE 23
0F14	D0	90	52	2886+	BF		SAL450(,@BR)	NO, CHECK COUNT FOR VALUE OF SIX
0F17	7D	08	9C	2887+	CLI		SALCNT(,@BR),##LPEN	HAS COUNT EXCEEDED 8 ?
0F1A	3C	02	03CD	2888+	MVI		\$CAERR,@E102	PASSWORD/FILENAME LENGTH ERROR
0F1E	D0	84	2E	2889+	BH		SAL350(,@BR)	YES, TAKE ERROR EXIT
0F21	F2	87	0A	2890+	J		SAL500	NO, CONTINUE PROCESSING
0F24	7D	06	9C	2891+	CLI	SAL450	SALCNT(,@BR),@VOLID	HAS COUNT EXCEEDED 6 ?
0F27	3C	03	03CD	2892+	MVI		\$CAERR,@E103	INVALID VOL-ID LENGTH
0F2B	D0	84	2E	2893+	BH		SAL350(,@BR)	YES, TAKE ERROR EXIT
				2895+*				
				2896+*			MODIFY MOVE OF CHARACTER	
				2897+*				
0F2E	5E	01	63 9E	2898+	ALC	SAL500	SAL525+@OP1(2,@BR),SAL001(,@BR)	
0F32	2C	00	0000 00	2899+	MVC	SAL525	*-*,@ZERO(1,@XR)	MOVE CHARACTER TO OUTPUT AREA
0F37	E2	02	01	2900+	LA		@B1(,@XR),@XR	INCREMENT XR BY I
0F3A	D0	87	00	2901+	B		SAL200(,@BR)	CHECK NEXT CHARACTER
				2903+*****				
				2904+*				*
				2905+*			CHECK ERRORS AND BYPASS DELIMITERS	*
				2906+*				*
				2907+*****				
0F3D	7D	00	9C	2908+	CLI	SAL750	SALCNT(,@BR),@ZERO	ANY VALID CHARACTERS ?
0F40	3C	10	03CD	2909+	MVI	SAL755	\$CAERR,@E130	REQUIRED PARAM MISSING
0F44	F2	01	17	2910+	JNE		SAL775	YES, BYPASS DELIMITERS, EYIT
0F47	BD	1E	00	2911+	CLI		@ZERO(,@XR),@EOS	IS IT EOS ?
0F4A	F2	81	0E	2912+	JE		SAL760	YES, ERROR EVIL
0F4D	78	80	9B	2913+	TBN		SALIDR(,@BR),SAL008	ENTERED AT SALPH8 ?
0F50	3C	00	03CD	2914+	MVI		\$CAERR,@E100	ALPHABETIC CHAR REQUIRED
0F54	F2	10	04	2915+	JT		SAL760	ERROR EYIT
0F57	3C	01	03CD	2916+	MVI		\$CAERR,@E101	ALPHAMERIC CHAR REQUIRED
0F5B	D0	87	2E	2917+	B	SAL760	SAL350(,@BR)	ERROR EYIT
0F5E	C0	87	0E71	2918+	B	SAL775	SCANIT	BYPASS DELIMITERS
				2920+*****				
				2921+*				*
				2922+*			SET OFF INDICATORS FOR POSSIBLE SALDHA RE-ENTRY	*
				2923+*				*
				2924+*****				
0F62	7C	00	9B	2925+	MVI	SAL800	SALIDR(,@BR),@ZERO	
				2927+*****				
				2928+*				*
				2929+*			END OF MODULE PROCESSING	*
				2930+*				*
				2931+*****				
				2932+*	SALND	EXIT	@BR,,RETURN	EXIT
0F65	C2	01	0000	2933+	SALND0	LA	*-*,@BR	RESTORE @BR
0F69	C0	87	0000	2934+	SALND2	B	*-*	RETURN TO CALLING PROGRAM
				2935+***			END OF EXPANSION ***	
				2937+*****				
				2938+*				*
				2939+*			DATA CONSTANTS, BUFFERS, AND WORK AREAS	*
				2940+*				*
				2941+*****				

SALPHA - SYNTAX CHECKER MODULE

ERR LOC		OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00		02/06/22	PAGE	24
0F6D			0F6D	2942+	SALIDR	DS CL1					1 BYTE OF FLAGS
0F6D				2943+		ORG *-1					
0F6D	00		0F6D	2944+		DC XL1'00'					INITIALIZED TO ZERO
			0080	2946+	SAL008	EQU X'80'					ENTRY POINT INDICATOR
				2947+	*						* 0 - ENTERED AT SALPH6
				2948+	*						* 1 - ENTERED AT SALPH8
			0001	2949+	SALFST	EQU X'01'					FIRST CHARACTER IS ALPHA / INDR
				2950+	*						* 0 - CHARACTER IS NOT ALPHA
				2951+	*						* 1 - CHARACTER IS ALPHA
0F6E			0F6E	2952+	SALCNT	DS CL1					BYTE CHARACTER COUNTER
0F6E				2953+		ORG *-1					
0F6E	00		0F6E	2954+		DC XL1'00'					INITIALIZED TO ZERO
0F6F	0001		0F70	2955+	SAL001	DC XL2'0001'					COUNTER INCREMENT
			0F71	2956+	SALPHR	EQU *					
0F71			0F7A	2957+		DS CL(##LUEN+2*@B1)					SYNTAX SAVE UNIT
0F7B	0F70		0F7C	2958+	SALPHS	DC AL2(SALPHR-1)					ADDR FOR MODIFYING MOVE
			0F7A	2959+	SALPR7	EQU SALPHR+##DPEN+2*@B1					ADDR IN SALPHR FOR CLANKINS
			0F79	2960+	SALPR6	EQU SALPHR+##DPEN+@B1					* OUT THE FIELD
			0EE8	2961+	SALERR	EQU SAL250+@Q					ADDR ERROR CODE FOR LOAD
				2962+	***						END OF SALPHA ***
				2963	*						
				2964		PRINT ON					
			FFFF	2965		END					
TOTAL STATEMENTS IN ERROR IN THIS ASSEMBLY =							0				

CROSS REFERENCE

VER 15, MOD 00 02/06/22 PAGE 25

SYMBOL	LEN	VALUE	DEFN	REFERENCES
\$\$\$\$\$	001	0C00	2036	
\$\$\$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	
\$\$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
\$\$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
\$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
\$BUFPT	001	03E3	0489	0490

CROSS REFERENCE

VER 15, MOD 00 02/06/22 PAGE 26

SYMBOL	LEN	VALUE	DEFN	REFERENCES
\$CABLD	001	04B4	0562	0563
\$CAERK	001	0469	0539	0542 2063
\$CAERR	001	03CD	0287	0289 2045* 2047* 2056* 2061* 2077* 2084* 2213* 2635* 2871* 2888* 2892*
				2909* 2914* 2916*
\$CAIPL	001	049D	0558	0560
\$CALLI	001	0008	0479	
\$CARDI	001	0001	0250	
\$CARPL	001	04A1	0560	0562 2093
\$CIENT	001	0483	0549	0550
\$CIEXT	001	0480	0548	0549
\$CIMSK	001	0476	0545	0548
\$CISUS	001	0496	0553	0558
\$CLBFR	001	0010	0437	
\$CMDKY	001	0008	0349	
\$CMODE	001	0002	0399	
\$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	
\$CRTSP	001	0008	0369	
\$CRTUP	001	0001	0366	
\$CRUSH	001	0080	0475	
\$CSDPL	001	050E	0574	0575
\$C0001	001	0464	0531	0537
\$DATE	001	043A	0512	0513
\$DBGUF	001	03E0	0474	0483
\$DBLOK	001	0001	0424	
\$DFDET	001	03E8	0495	0496
\$DISKN	001	0025	0226	2220 2423
\$DKERR	001	0008	0405	
\$DKSIZ	001	03D7	0449	0457 0498
\$DK100	001	0001	0451	
\$DK200	001	0002	0452	
\$DK400	001	0004	0453	
\$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	
\$ERMAD	001	0472	0544	0545
\$ERPND	001	0004	0402	
\$ERRCT	001	03CF	0303	
\$ERRPG	001	03CE	0291	
\$ERSFL	001	0035	0296	
\$ERSTK	001	0030	0294	
\$ER050	001	0363	0232	

CROSS REFERENCE

VER 15, MOD 00 02/06/22 PAGE 27

SYMBOL	LEN	VALUE	DEFN	REFERENCES
\$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 2059 2064 2073
\$FITIN	001	0010	0385	
\$FUIND	001	0020	0414	
\$GUFIO	001	0583	0607	0608
\$GUFIR	001	0008	0259	
\$HISTE	001	042E	0510	0511
\$HIST1	001	0435	0511	0512
\$HRDER	001	0020	0355	
\$INDR1	001	03D4	0371	0397
\$INDR2	001	03D5	0397	0422
\$INDR3	001	03D6	0422	0449
\$INLNO	001	03CF	0289	0291 0303 0310
\$INRPT	001	0020	0267	
\$IOIND	001	03D2	0338	0364
\$IOPGS	001	0010	0478	
\$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	
\$KYBSY	001	0010	0264	
\$LDRTN	001	0571	0602	
\$LEVEL	001	03DF	0472	0474
\$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	
\$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
\$NWRKF	001	0080	0445	
\$NWRKR	001	0040	0442	
\$PASWD	001	042D	0509	0510 2071 2092*
\$PAUSD	001	04BA	0563	0565
\$PAUSE	001	0002	0333	
\$PGMDT	001	0020	0388	
\$PGMST	001	0010	0352	

CROSS REFERENCE

VER 15, MOD 00 02/06/22 PAGE 28

SYMBOL	LEN	VALUE	DEFN	REFERENCES
\$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
\$RMGRN	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
\$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
\$VOLR1	001	03F6	0503	0504
\$VOLR2	001	0406	0505	0506
\$WAITF	001	057F	0605	0607 2221
\$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 2043
\$ZTRAD	001	05A2	0611	
\$12K	001	0004	0466	
\$16CKY	001	0008	0468	
\$16K	001	0002	0465	
\$22IMP	001	0001	0463	
###BL	001	0000	1793	
###CK	001	0000	1921	

CROSS REFERENCE

SYMBOL LEN VALUE DEFN REFERENCES VER 15, MOD 00 02/06/22 PAGE 29

####CN 001 0000 1889
####CO 001 0000 1681
####CS 001 0000 1741
####DR 001 0000 1485
####ER 001 0000 1685
####FS 001 0000 1781
####IN 001 0000 1925
####PW 001 0000 1929
####RS 001 0000 1761
####SA 001 0000 1749
####SS 001 0000 1745
####VU 001 0600 1705
####0T 001 0700 1477
####1T 001 0000 1481
####BCO 001 0600 1493
####BOV 001 0800 1765
####DPR 001 0700 1501
####DRE 001 0889 1517
####DSP 001 2800 1537
####ECM 001 0C00 1797
####EFK 001 0C00 1817
####ERR 001 0C00 1789
####EXM 001 0C00 1677
####FIL 001 0E00 1757
####FIS 001 0E00 1753
####FML 001 0200 1885
####FMS 001 0200 1725
####GRA 001 0889 1649
####GUF 001 0C00 1785
####INL 001 0600 1865
####INS 001 0600 1489
####KAL 001 0C00 1653
####KCA 001 0C00 1869
####KCH 001 0C00 1621
####KCN 001 0C00 1737
####KCT 001 0C00 1589
####KDE 001 0C00 1585
####KDI 001 0D00 1665
####KDN 001 0C00 1573
####KDO 001 0E00 1669
####KED 001 0C00 1509
####KEN 001 0C00 1513
####KEX 001 0C00 1533
####KGO 001 0C00 1505
####KHE 001 0C00 1689
####KKE 001 0C00 1917
####KLI 001 0C00 1593
####KLL 001 0920 1893
####KLO 001 0C00 1597
####KME 001 0D00 1577
####KMO 001 0C00 1521
####KNA 001 0C00 1633
####KOV 001 0E00 1553
####KPA 001 0C00 1529
####KPO 001 0C00 1617
####KPR 001 0C00 1641

2035

CROSS REFERENCE

VER 15, MOD 00 02/06/22 PAGE 30

SYMBOL	LEN	VALUE	DEFN	REFERENCES
\$\$\$KRE	001	0C00	1561	
\$\$\$KRL	001	0700	1657	
\$\$\$KRM	001	0C00	1525	
\$\$\$KRN	001	0700	1545	
\$\$\$KRO	001	0D00	1549	
\$\$\$KRS	001	0C00	1873	
\$\$\$KRU	001	0C00	1569	
\$\$\$KRV	001	0800	1661	
\$\$\$KSA	001	0C00	1605	
\$\$\$KSE	001	0E00	1645	
\$\$\$KSO	001	0C20	1697	
\$\$\$KSS	001	0C00	1629	
\$\$\$KSV	001	0980	1625	
\$\$\$KSY	001	0C00	1637	
\$\$\$KWI	001	0C00	1565	
\$\$\$KWR	001	0C00	1557	
\$\$\$LOA	001	0600	1497	
\$\$\$MIP	001	0C00	1693	
\$\$\$SDS	001	0C00	1805	
\$\$\$SFF	001	0E00	1809	
\$\$\$SFL	001	0F00	1801	
\$\$\$SFO	001	1500	1773	
\$\$\$SFS	001	0C00	1769	
\$\$\$SPA	001	0C00	1609	
\$\$\$SPO	001	0806	1613	
\$\$\$SPS	001	0C00	1601	
\$\$\$STR	001	1600	1777	
\$\$\$TDC	001	1000	1581	
\$\$\$TSY	001	1000	1541	
\$\$\$TVK	001	0FC0	1717	
\$\$\$UAL	001	0C00	1733	
\$\$\$UAT	001	0900	1829	
\$\$\$UCD	001	0900	1837	
\$\$\$UCN	001	0C00	1821	
\$\$\$UCP	001	0700	1825	
\$\$\$UDE	001	0C00	1841	
\$\$\$UDI	001	0C00	1845	
\$\$\$UEX	001	0C00	1729	
\$\$\$UIN	001	0C00	1833	
\$\$\$UPA	001	0C00	1813	
\$\$\$UPO	001	0C00	1881	
\$\$\$UPT	001	0C00	1877	
\$\$\$VCR	001	2000	1673	
\$\$\$VLO	001	0600	1709	
\$\$\$VOD	001	0600	1713	
\$\$\$VVM	001	0000	1721	
\$\$\$VXI	001	0600	1701	
\$\$\$ZDU	001	1100	1853	
\$\$\$ZLB	001	1100	1897	
\$\$\$ZLO	001	1100	1857	
\$\$\$ZLV	001	0F00	1913	
\$\$\$ZL1	001	0F00	1901	
\$\$\$ZL2	001	0F00	1905	
\$\$\$ZL3	001	0C00	1909	
\$\$\$ZTR	001	1000	1849	
\$\$\$ZUT	001	0C00	1861	

CROSS REFERENCE

SYMBOL LEN VALUE DEFN REFERENCES VER 15, MOD 00 02/06/22 PAGE 31

##BLN	001	18D4	1792
##CKT	001	2118	1920
##CNF	001	2000	1888
##COR	001	0800	1680
##CSA	001	1000	1740
##DRT	001	0000	1484
##ERM	001	0928	1684
##FSP	001	1880	1780
##INV	001	212C	1924
##PWR	001	2300	1928
##RSP	001	1780	1760
##SAV	001	1180	1748
##SSA	001	1128	1744
##VUF	001	0B08	1704
##0TR	001	0000	1476
##1TR	001	0080	1480
##@BL	001	0001	1794
##@CK	001	0004	1922
##@CN	001	0001	1890
##@CO	001	003A	1682
##@CS	001	003A	1742
##@DR	001	0008	1486
##@ER	001	0032	1686
##@FS	001	0030	1782
##@IN	001	003A	1926
##@PW	001	00C0	1930
##@RS	001	0030	1762
##@SA	001	0108	1750
##@SS	001	0001	1746
##@VU	001	0002	1706
##@0T	001	0018	1478
##@1T	001	0018	1482
##@BCO	001	0018	1494
##@BOV	001	0018	1766
##@DPR	001	0005	1502
##@DRE	001	0001	1518
##@DSP	001	0004	1538
##@ECM	001	0006	1798
##@EFK	001	0002	1818
##@ERR	001	0003	1790
##@EXM	001	0003	1678
##@FIL	001	0009	1758
##@FIS	001	0009	1754
##@FML	001	0052	1886
##@FMS	001	0052	1726
##@GRA	001	0003	1650
##@GUF	001	0010	1786
##@INL	001	0010	1866
##@INS	001	0010	1490
##@KAL	001	000F	1654
##@KCA	001	000C	1870
##@KCH	001	000C	1622
##@KCN	001	0010	1738
##@KCT	001	0009	1590
##@KDE	001	0010	1586
##@KDI	001	0005	1666

CROSS REFERENCE

SYMBOL LEN VALUE DEFN REFERENCES VER 15, MOD 00 02/06/22 PAGE 32

#\$@KDN	001	0010	1574	
#\$@KDO	001	000C	1670	
#\$@KED	001	000E	1510	
#\$@KEN	001	0006	1514	
#\$@KEX	001	0003	1534	
#\$@KGO	001	0002	1506	
#\$@KHE	001	000C	1690	
#\$@KKE	001	0006	1918	
#\$@KLI	001	0011	1594	
#\$@KLL	001	0001	1894	
#\$@KLO	001	0008	1598	
#\$@KME	001	0003	1578	
#\$@KMO	001	0004	1522	
#\$@KNA	001	0008	1634	
#\$@KOV	001	0009	1554	
#\$@KPA	001	0005	1530	
#\$@KPO	001	000D	1618	
#\$@KPR	001	0009	1642	
#\$@KRE	001	0002	1562	
#\$@KRL	001	0004	1658	
#\$@KRM	001	0003	1526	
#\$@KRN	001	0003	1546	
#\$@KRO	001	000A	1550	
#\$@KRS	001	000A	1874	
#\$@KRU	001	0003	1570	
#\$@KRV	001	000D	1662	
#\$@KSA	001	0011	1606	
#\$@KSE	001	0004	1646	
#\$@KSO	001	0005	1698	
#\$@KSS	001	000B	1630	
#\$@KSV	001	0002	1626	
#\$@KSY	001	000F	1638	
#\$@KWI	001	0002	1566	
#\$@KWR	001	0002	1558	
#\$@LOA	001	0013	1498	
#\$@MIP	001	000D	1694	
#\$@SDS	001	0004	1806	
#\$@SFF	001	0008	1810	
#\$@SFL	001	0005	1802	
#\$@SFO	001	0003	1774	
#\$@SFS	001	0011	1770	
#\$@SPA	001	0004	1610	
#\$@SPO	001	0003	1614	
#\$@SPS	001	0001	1602	
#\$@STR	001	0002	1778	
#\$@TDC	001	0003	1582	
#\$@TSY	001	0003	1542	
#\$@TVK	001	0001	1718	
#\$@UAL	001	0011	1734	
#\$@UAT	001	000C	1830	
#\$@UCD	001	000B	1838	
#\$@UCN	001	0009	1822	
#\$@UCP	001	000F	1826	
#\$@UDE	001	000E	1842	
#\$@UDI	001	0008	1846	
#\$@UEX	001	000E	1730	

CROSS REFERENCE

SYMBOL LEN VALUE DEFN REFERENCES VER 15, MOD 00 02/06/22 PAGE 33

#\$@UIN	001	000F	1834
#\$@UPA	001	0004	1814
#\$@UPO	001	0005	1882
#\$@UPT	001	0012	1878
#\$@VCR	001	0008	1674
#\$@VLO	001	0002	1710
#\$@VOD	001	0016	1714
#\$@VVM	001	0030	1722
#\$@VXI	001	0002	1702
#\$@ZDU	001	0008	1854
#\$@ZLB	001	0002	1898
#\$@ZLO	001	000C	1858
#\$@ZLV	001	0006	1914
#\$@ZL1	001	0007	1902
#\$@ZL2	001	000D	1906
#\$@ZL3	001	000A	1910
#\$@ZTR	001	0001	1850
#\$@ZUT	001	0014	1862
#\$BCOM	001	0080	1492
#\$BOLV	001	1780	1764
#\$DPRI	001	014C	1500
#\$DREA	001	0200	1516
#\$DSPL	001	0240	1536
#\$ECMA	001	1900	1796
#\$EFKE	001	1990	1816
#\$ERRP	001	18C0	1788
#\$EXMS	001	07D4	1676
#\$FILN	001	1724	1756
#\$FIST	001	1700	1752
#\$FMLN	001	1E00	1884
#\$FMST	001	0D00	1724
#\$GRAP	001	0690	1648
#\$GUFU	001	1880	1784
#\$INLN	001	1C84	1864
#\$INST	001	0020	1488
#\$KALL	001	06A4	1652
#\$KCAL	001	1CC4	1868
#\$KCHA	001	053C	1620
#\$KCND	001	0F80	1736
#\$KCTL	001	03BC	1588
#\$KDEL	001	035C	1584
#\$KDIS	001	0744	1664
#\$KDNT	001	0300	1572
#\$KDOV	001	0780	1668
#\$KEDI	001	0188	1508
#\$KENA	001	01C4	1512
#\$KEXT	001	0234	1532
#\$KGOS	001	0180	1504
#\$KHEL	001	0A30	1688
#\$KKEY	001	2100	1916
#\$KLIS	001	0400	1592
#\$KLLA	001	2004	1892
#\$KLOG	001	0444	1596
#\$KMER	001	030C	1576
#\$KMOU	001	0204	1520
#\$KNAM	001	05C0	1632

CROSS REFERENCE

VER 15, MOD 00 02/06/22 PAGE 34

SYMBOL	LEN	VALUE	DEFN	REFERENCES
#\$KOV	001	0290	1552	
#\$KPAS	001	0220	1528	
#\$KPOO	001	0508	1616	
#\$KPRT	001	063C	1640	
#\$KREA	001	02BC	1560	
#\$KRLA	001	0700	1656	
#\$KRMO	001	0214	1524	
#\$KRNU	001	0280	1544	
#\$KROV	001	028C	1548	
#\$KRSU	001	1D24	1872	
#\$KRUN	001	02CC	1568	
#\$KRVL	001	0710	1660	
#\$KSAV	001	0488	1604	
#\$KSET	001	0680	1644	
#\$KSOV	001	0AC8	1696	
#\$KSSP	001	0594	1628	
#\$KSVL	001	058C	1624	
#\$KSYM	001	0600	1636	
#\$KWID	001	02C4	1564	
#\$KWRI	001	02B4	1556	
#\$LOAD	001	0100	1496	
#\$MIPP	001	0A80	1692	
#\$SDSY	001	192C	1804	
#\$SFFI	001	193C	1808	
#\$SFLO	001	1918	1800	
#\$SFOV	001	1844	1772	
#\$SFSY	001	1800	1768	
#\$SPAC	001	04CC	1608	
#\$SPOV	001	04DC	1612	
#\$SPSY	001	0484	1600	
#\$STRO	001	1850	1776	
#\$TDCK	001	0350	1580	
#\$TSYK	001	0250	1540	
#\$TVKB	001	0BAC	1716	
#\$UALL	001	0F00	1732	
#\$UATR	001	1A38	1828	
#\$UCDI	001	1AD8	1836	
#\$UCNF	001	19B8	1820	
#\$UCPL	001	19DC	1824	
#\$UDEL	001	1B24	1840	
#\$UDIS	001	1B5C	1844	
#\$UEXL	001	0EA8	1728	
#\$UINI	001	1A88	1832	
#\$UPAC	001	1980	1812	
#\$UPOV	001	1D24	1880	
#\$UPTF	001	1D5C	1876	
#\$VCRT	001	07B4	1672	
#\$VLOA	001	0B80	1708	
#\$VODK	001	0B88	1712	
#\$VVMR	001	0C00	1720	
#\$VXIT	001	0B00	1700	
#\$ZDUM	001	1BA4	1852	
#\$ZLBM	001	2008	1896	
#\$ZLOA	001	1BC4	1856	
#\$ZLVR	001	20B0	1912	
#\$ZL1M	001	2010	1900	

CROSS REFERENCE

SYMBOL LEN VALUE DEFN REFERENCES VER 15, MOD 00 02/06/22 PAGE 35

#\$ZL2M	001	2030	1904	
#\$ZL3M	001	2088	1908	
#\$ZTRA	001	1B9C	1848	
#\$ZUTM	001	1C14	1860	
##DNEA	001	0001	1398	
##DNEF	001	0003	1399	
##DNER	001	0005	1400	
##DNE1	001	0004	1397	
##DNHC	001	0000	1394	
##DNHR	001	0003	1396	
##DNHY	001	0001	1395	
##DPEA	001	0009	1372	2238 2243
##DPEN	001	0007	1371	2088* 2227 2959 2960
##DPER	001	000B	1373	
##DPE1	001	0004	1370	2225
##DPHC	001	0000	1368	2224
##DPHR	001	0003	1369	
##DUEA	001	0009	1383	
##DUED	001	0012	1388	
##DUEF	001	000B	1384	
##DUEH	001	002B	1389	
##DUEI	001	000C	1385	
##DUEL	001	000F	1387	
##DUEN	001	0007	1382	
##DUER	001	0031	1390	
##DUES	001	000D	1386	
##DUE1	001	000C	1381	
##DUHA	001	0001	1377	
##DUHB	001	0003	1378	
##DUHC	001	0004	1379	
##DUHR	001	000B	1380	
##LAAA	001	0002	1409	
##LAHC	001	0001	1408	
##LN	001	0001	1437	2095
##LNE	001	0006	1443	
##LNEF	001	0002	1441	
##LNEZ	001	0002	1442	
##LNH	001	0004	1440	
##LNHY	001	0001	1438	
##LNHZ	001	0002	1439	
##LP	001	0004	1413	2096 2262
##LPE	001	000C	1418	2229
##LPEN	001	0008	1415	2070 2070 2071 2080 2088 2092 2227 2845 2887
##LPEZ	001	0002	1416	
##LPH	001	0004	1417	
##LPHZ	001	0003	1414	
##LU	001	0002	1422	
##LUE	001	0032	1433	
##LUED	001	0003	1430	
##LUEF	001	0002	1426	
##LUEH	001	0019	1431	
##LUEI	001	0001	1427	
##LUEL	001	0002	1429	
##LUEN	001	0008	1425	2813 2957
##LUES	001	0001	1428	
##LUEZ	001	0006	1432	

CROSS REFERENCE

VER 15, MOD 00 02/06/22 PAGE 36

SYMBOL	LEN	VALUE	DEFN	REFERENCES
##LUH	001	000C	1424	
##LUHZ	001	0007	1423	
##MNHM	001	002A	1466	
##MPHM	001	0055	1451	
##MUEG	001	0020	1458	
##MUEK	001	0040	1457	
##MUEO	001	0004	1461	
##MUEP	001	0080	1456	
##MUER	001	0008	1460	
##MUEV	001	0002	1462	
##MUEX	001	0010	1459	
##MUHM	001	000A	1455	
##RN	001	0000	1357	
##RP	001	0001	1358	2261 2266
##R1	001	0007	1360	
##R2	001	0005	1359	
#KPAS	001	0C07	2039	
#KPASW	001	0000	0001	
@@E001	001	0000	1259	1261
@@E003	001	0001	1261	1263
@@E004	001	0002	1263	1265
@@E005	001	0003	1265	1267
@@E006	001	0004	1267	1269
@@E007	001	0005	1269	1271
@@E008	001	0006	1271	1273
@@E009	001	0007	1273	1275
@@E010	001	0008	1275	1277
@@E011	001	0009	1277	1279
@@E012	001	000A	1279	1281
@@E013	001	000B	1281	1283
@@E014	001	000C	1283	1285
@@E015	001	000D	1285	1287
@@E016	001	000E	1287	1289
@@E017	001	000F	1289	1291
@@E018	001	0010	1291	1293
@@E019	001	0011	1293	1295
@@E020	001	0012	1295	1297
@@E021	001	0013	1297	1299
@@E023	001	0014	1299	1301
@@E024	001	0015	1301	1303
@@E025	001	0016	1303	1305
@@E026	001	0017	1305	1307
@@E027	001	0018	1307	1309
@@E028	001	0019	1309	1311
@@E029	001	001A	1311	1313
@@E030	001	001B	1313	1315
@@E031	001	001C	1315	1317
@@E032	001	001D	1317	1319
@@E035	001	001E	1319	1321
@@E036	001	001F	1321	1323
@@E037	001	0020	1323	1325
@@E038	001	0021	1325	1327
@@E039	001	0022	1327	1329
@@E040	001	0023	1329	1331
@@E041	001	0024	1331	1333
@@E042	001	0025	1333	1335

CROSS REFERENCE

SYMBOL LEN VALUE DEFN REFERENCES VER 15, MOD 00 02/06/22 PAGE 37

@@E043	001	0026	1335	1337	
@@E044	001	0027	1337	1339	
@@E045	001	0028	1339	1341	
@@E046	001	0029	1341	1343	
@@E060	001	002A	1343	1345	
@@E080	001	002B	1345		
@@E100	001	0000	0731	0733	2871 2914
@@E101	001	0001	0733	0735	2916
@@E102	001	0002	0735	0737	2888
@@E103	001	0003	0737	0739	2892
@@E110	001	0004	0739	0741	2635
@@E112	001	0005	0741	0743	
@@E113	001	0006	0743	0745	
@@E114	001	0007	0745	0747	
@@E115	001	0008	0747	0749	
@@E116	001	0009	0749	0751	
@@E117	001	000A	0751	0753	
@@E120	001	000B	0753	0755	
@@E122	001	000C	0755	0757	
@@E123	001	000D	0757	0759	
@@E124	001	000E	0759	0761	
@@E129	001	000F	0761	0763	
@@E130	001	0010	0763	0765	2047 2909
@@E131	001	0011	0765	0767	
@@E133	001	0012	0767	0769	2056
@@E134	001	0013	0769	0771	
@@E135	001	0014	0771	0773	
@@E136	001	0015	0773	0775	
@@E137	001	0016	0775	0777	
@@E138	001	0017	0777	0779	
@@E139	001	0018	0779	0781	2045
@@E142	001	0019	0781	0783	
@@E143	001	001A	0783	0785	
@@E150	001	001B	0785	0787	
@@E151	001	001C	0787	0789	
@@E160	001	001D	0789	0791	
@@E162	001	001E	0791	0793	
@@E163	001	001F	0793	0795	
@@E164	001	0020	0795	0797	
@@E200	001	0021	0797	0799	2061
@@E205	001	0022	0799	0801	
@@E210	001	0023	0801	0803	2213
@@E211	001	0024	0803	0805	
@@E212	001	0025	0805	0807	
@@E213	001	0026	0807	0809	
@@E215	001	0027	0809	0811	
@@E216	001	0028	0811	0813	
@@E217	001	0029	0813	0815	
@@E220	001	002A	0815	0817	
@@E221	001	002B	0817	0819	
@@E222	001	002C	0819	0821	
@@E223	001	002D	0821	0823	
@@E225	001	002E	0823	0825	
@@E226	001	002F	0825	0827	
@@E227	001	0030	0827	0829	
@@E228	001	0031	0829	0831	

CROSS REFERENCE

VER 15, MOD 00 02/06/22 PAGE 38

SYMBOL	LEN	VALUE	DEFN	REFERENCES
@@E229	001	0032	0831	0833
@@E230	001	0033	0833	0835
@@E232	001	0034	0835	0837
@@E234	001	0035	0837	0839
@@E237	001	0036	0839	0841
@@E240	001	0037	0841	0843
@@E241	001	0038	0843	0845
@@E242	001	0039	0845	0847
@@E248	001	003A	0847	0849
@@E249	001	003B	0849	0851
@@E250	001	003C	0851	0853
@@E251	001	003D	0853	0855
@@E252	001	003E	0855	0857
@@E253	001	003F	0857	0859
@@E254	001	0040	0859	0861
@@E255	001	0041	0861	0863
@@E256	001	0042	0863	0865
@@E300	001	0043	0865	0867
@@E301	001	0044	0867	0869
@@E302	001	0045	0869	0871
@@E303	001	0046	0871	0873
@@E304	001	0047	0873	0875
@@E305	001	0048	0875	0877
@@E308	001	0049	0877	0879
@@E310	001	004A	0879	0881
@@E315	001	004B	0881	0883
@@E316	001	004C	0883	0885
@@E320	001	004D	0885	0887
@@E325	001	004E	0887	0889
@@E330	001	004F	0889	0891
@@E335	001	0050	0891	0893
@@E338	001	0051	0893	0895
@@E340	001	0052	0895	0897
@@E350	001	0053	0897	0899
@@E351	001	0054	0899	0901
@@E352	001	0055	0901	0903
@@E360	001	0056	0903	0905
@@E361	001	0057	0905	0907
@@E362	001	0058	0907	0909
@@E371	001	0059	0909	0911
@@E380	001	005A	0911	0913 2084
@@E390	001	005B	0913	0915
@@E400	001	005C	0915	0917
@@E410	001	005D	0917	0919
@@E415	001	005E	0919	0921
@@E417	001	005F	0921	0923
@@E420	001	0060	0923	0925
@@E430	001	0061	0925	0927
@@E432	001	0062	0927	0929
@@E433	001	0063	0929	0931
@@E450	001	0064	0931	0933
@@E451	001	0065	0933	0935
@@E460	001	0066	0935	0937
@@E461	001	0067	0937	0939
@@E464	001	0068	0939	0941
@@E465	001	0069	0941	0943

CROSS REFERENCE

VER 15, MOD 00 02/06/22 PAGE 39

SYMBOL	LEN	VALUE	DEFN	REFERENCES
@@E466	001	006A	0943	0945
@@E467	001	006B	0945	0947
@@E469	001	006C	0947	0949
@@E470	001	006D	0949	0951
@@E471	001	006E	0951	0953
@@E473	001	006F	0953	0955
@@E474	001	0070	0955	0957
@@E475	001	0071	0957	0959
@@E476	001	0072	0959	0961
@@E477	001	0073	0961	0963
@@E478	001	0074	0963	0965
@@E479	001	0075	0965	0967
@@E480	001	0076	0967	0969
@@E481	001	0077	0969	0971
@@E482	001	0078	0971	0973
@@E483	001	0079	0973	0975
@@E484	001	007A	0975	0977
@@E485	001	007B	0977	0979
@@E486	001	007C	0979	0981
@@E487	001	007D	0981	0983
@@E488	001	007E	0983	0985
@@E489	001	007F	0985	0987
@@E490	001	0080	0987	0989
@@E491	001	0081	0989	0991
@@E492	001	0082	0991	0993
@@E493	001	0083	0993	0995
@@E494	001	0084	0995	0997
@@E495	001	0085	0997	0999
@@E496	001	0086	0999	1001
@@E497	001	0087	1001	1003
@@E498	001	0088	1003	1005
@@E500	001	0089	1005	1007
@@E501	001	008A	1007	1009
@@E530	001	008B	1009	1011
@@E531	001	008C	1011	1013
@@E535	001	008D	1013	1015
@@E540	001	008E	1015	1017
@@E541	001	008F	1017	1019
@@E542	001	0090	1019	1021
@@E543	001	0091	1021	1023
@@E544	001	0092	1023	1025
@@E545	001	0093	1025	1027
@@E546	001	0094	1027	1029
@@E547	001	0095	1029	1031
@@E548	001	FFFF	1235	
@@E549	001	0096	1031	1033
@@E550	001	0097	1033	1035
@@E551	001	0098	1035	1037
@@E552	001	0099	1037	1039 2077
@@E553	001	009A	1039	1041
@@E554	001	009B	1041	1043
@@E555	001	009C	1043	1045
@@E556	001	009D	1045	1047
@@E558	001	009E	1047	1049
@@E570	001	009F	1049	1051
@@E571	001	00A0	1051	1053

CROSS REFERENCE

VER 15, MOD 00 02/06/22 PAGE 40

SYMBOL	LEN	VALUE	DEFN	REFERENCES
@@E572	001	00A1	1053	1055
@@E573	001	00A2	1055	1057
@@E574	001	00A3	1057	1059
@@E575	001	FFFF	1237	
@@E578	001	00A4	1059	1061
@@E579	001	FFFF	1239	
@@E580	001	FFFF	1241	
@@E585	001	00A5	1061	1063
@@E595	001	FFFF	1243	
@@E597	001	FFFF	1245	
@@E598	001	FFFF	1247	
@@E600	001	00A6	1063	1065
@@E601	001	00A7	1065	1067
@@E602	001	00A8	1067	1069
@@E603	001	00A9	1069	1071
@@E604	001	00AA	1071	1073
@@E606	001	00AB	1073	1075
@@E607	001	00AC	1075	1077
@@E608	001	00AD	1077	1079
@@E609	001	00AE	1079	1081
@@E610	001	00AF	1081	1083
@@E611	001	00B0	1083	1085
@@E612	001	00B1	1085	1087
@@E613	001	00B2	1087	1089
@@E614	001	00B3	1089	1091
@@E700	001	00B4	1091	1093
@@E701	001	00B5	1093	1095
@@E710	001	00B6	1095	1097
@@E712	001	00B7	1097	1099
@@E713	001	00B8	1099	1101
@@E714	001	00B9	1101	1103
@@E715	001	00BA	1103	1105
@@E716	001	00BB	1105	1107
@@E717	001	00BC	1107	1109
@@E718	001	00BD	1109	1111
@@E720	001	00BE	1111	1113
@@E721	001	00BF	1113	1115
@@E723	001	00C0	1115	1117
@@E724	001	00C1	1117	1119
@@E725	001	00C2	1119	1121
@@E726	001	00C3	1121	1123
@@E727	001	00C4	1123	1125
@@E728	001	00C5	1125	1127
@@E729	001	00C6	1127	1129
@@E730	001	00C7	1129	1131
@@E732	001	00C8	1131	1133
@@E752	001	00C9	1133	1135
@@E753	001	00CA	1135	1137
@@E754	001	00CB	1137	1139
@@E755	001	00CC	1139	1141
@@E756	001	00CD	1141	1143
@@E757	001	00CE	1143	1145
@@E758	001	00CF	1145	1147
@@E759	001	00D0	1147	1149
@@E760	001	00D1	1149	1151
@@E761	001	00D2	1151	1153

CROSS REFERENCE

VER 15, MOD 00 02/06/22 PAGE 41

SYMBOL	LEN	VALUE	DEFN	REFERENCES
@@E762	001	00D3	1153	1155
@@E763	001	00D4	1155	1157
@@E764	001	00D5	1157	1159
@@E765	001	00D6	1159	1161
@@E766	001	00D7	1161	1163
@@E767	001	00D8	1163	1165
@@E768	001	00D9	1165	1167
@@E769	001	00DA	1167	1169
@@E770	001	00DB	1169	1171
@@E771	001	00DC	1171	1173
@@E772	001	00DD	1173	1175
@@E773	001	00DE	1175	1177
@@E774	001	00DF	1177	1179
@@E775	001	00E0	1179	1181
@@E776	001	00E1	1181	1183
@@E777	001	00E2	1183	1185
@@E778	001	00E3	1185	1187
@@E779	001	00E4	1187	1189
@@E780	001	00E5	1189	1191
@@E781	001	00E6	1191	1193
@@E782	001	00E7	1193	1195
@@E783	001	00E8	1195	1197
@@E784	001	00E9	1197	1199
@@E785	001	00EA	1199	1201
@@E786	001	00EB	1201	1203
@@E790	001	00EC	1203	1205
@@E791	001	00ED	1205	1207
@@E792	001	00EE	1207	1209
@@E793	001	00EF	1209	1211
@@E794	001	00F0	1211	1213
@@E795	001	00F1	1213	1215
@@E796	001	00F2	1215	1217
@@E797	001	00F3	1217	1219
@@E798	001	00F4	1219	1221
@@E800	001	FFFF	1249	
@@E801	001	FFFF	1251	
@@E802	001	FFFF	1253	
@@E803	001	FFFF	1255	
@@E804	001	FFFF	1257	
@@E900	001	00F5	1221	1223
@@E901	001	00F6	1223	1225
@@E902	001	00F7	1225	1227
@@E903	001	00F8	1227	1229
@@E905	001	00F9	1229	1231
@@E906	001	00FA	1231	1233
@@E910	001	00FB	1233	
@ARR	001	0008	0016	2210 2374* 2375 2376* 2377 2633 2834
@ASIGN	001	007C	0071	2860
@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	2638 2644 2844
@BM	001	0082	0054	

CROSS REFERENCE																
SYMBOL	LEN	VALUE	DEFN	REFERENCES	VER 15, MOD 00 02/06/22 PAGE 42											
@BNE	001	0001	0046	2629												
@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	2042	2069*	2070	2078	2079	2080	2085	2089	2205	2207	2208*	2209	
				2210	2216	2223	2224	2230	2230	2231	2241	2243	2247	2248	2248	
				2251*	2362	2371	2373*	2374	2375	2376	2377	2379	2380	2380	2381	
				2382	2382	2384	2384	2385	2386	2386	2390	2390	2391	2395	2395	
				2396	2398	2398	2399	2399	2400	2400	2401	2401	2402	2402	2408	
				2409	2410	2410	2411	2416	2416	2417	2417	2419	2419	2425*	2830	
				2832	2833*	2834	2837	2844	2845	2845	2846	2847	2847	2867	2870	
				2873	2882	2884	2884	2885	2886	2887	2889	2891	2893	2898	2898	
				2901	2908	2913	2917	2925	2933*							
@BT	001	0010	0051													
@BZ	001	0081	0055													
@B1	001	0001	0063	2845	2900	2957	2959	2960								
@CADDR	001	0002	0142	2079	2380											
@CARDL	001	0060	0087	0644												
@CHARA	001	00C1	0072	2863												
@CHARF	001	00C6	0073													
@CHARR	001	00D9	0074													
@CHARZ	001	00E9	0075	2865												
@CLOFF	001	0010	0094													
@CLON	001	0011	0093													
@COMMA	001	006B	0066	2640												
@CPLUS	001	004E	0079													
@DADDR	001	0002	0140	2073	2238	2243	2248	2379	2444							
@DBFR1	001	0004	0129													
@DBFR2	001	0005	0130	2223												
@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	2384*												
@DD2	001	0003	0030													
@DGET	001	0001	0134	2260												
@DOLAR	001	005B	0068	2856												
@DOP2	001	0004	0028	2375*	2379*	2380*	2442	2443								
@DPLNG	001	0006	0132	2381	2440											
@DPOS	001	0000	0133	2094												
@DPUT	001	0002	0135	2089												
@DSAD	001	0002	0127	2243*	2248*	2382*	2386*	2390	2391*	2395*	2398*	2402	2408*	2416*	2419*	
				2441												
@DSBCY	001	0004	0106													
@DSCS1	001	0000	0107													

CROSS REFERENCE

VER 15, MOD 00 02/06/22 PAGE 43

SYMBOL	LEN	VALUE	DEFN	REFERENCES
@DTRSZ	001	0018	0085	
@DVBCY	001	0007	0108	
@DVRFY	001	0031	0136	
@DWAIT	001	00FF	0137	
@DWBCY	001	0005	0103	
@DWSIZ	001	00C0	0105	
@DWTB1	001	0003	0104	
@DZERO	001	00F0	0064	
@D1	001	0002	0026	
@EOF	001	001C	0077	
@EOFTC	001	0075	0162	
@EOS	001	001E	0076	2048 2057 2646 2911
@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	
@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	2044
@NOP	001	0080	0040	2215 2247 2421
@NUMBR	001	007B	0070	2858
@OPD2	001	0004	0029	
@OP1	001	0003	0027	2087 2207* 2209* 2210* 2371* 2377* 2633* 2832* 2834* 2837* 2847* 2898*
@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	2873*
@PWAIT	001	00FF	0158	
@P1IAR	001	0020	0018	
@P2IAR	001	0040	0019	
@Q	001	0001	0024	2216* 2247* 2422 2652 2961

CROSS REFERENCE

VER 15, MOD 00 02/06/22 PAGE 44

SYMBOL	LEN	VALUE	DEFN	REFERENCES
@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	2216 2630 2641
@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	
@VMTRL	001	0001	0111	
@VOLID	001	0006	0091	2815 2891
@VQ	001	0001	0025	
@WSFIT	001	0500	0101	
@WSTBL	001	0503	0102	
@XR	001	0002	0014	2043* 2044 2048 2057 2062* 2086* 2088 2209 2223* 2224 2225 2225* 2227 2229 2229* 2237 2238 2243 2252* 2634 2637 2637* 2638 2640 2643 2643* 2644 2646 2648 2837 2856 2858 2860 2863 2865 2874* 2899 2900 2900* 2911
@ZERO	001	0000	0062	2044 2048 2057 2059 2241 2391 2846 2856 2858 2860 2863 2865
DL2C01	002	0E37	2434	2899 2908 2911 2925
DL2C05	002	0E39	2435	2374 2376 2384
DL2C48	001	0E33	2432	2380
DL2DPL	006	0E3F	2440	2382 2386
DL2END	001	0E42	2445	2381*
DL2E01	001	0001	2364	2382 2384 2386 2390 2402 2410
DL2E02	001	0002	2365	2395 2398 2416
DL2E18	001	0018	2366	2396
DL2E60	001	0060	2367	2411
DL2E7C	001	007C	2369	2408
DL2ICS	001	0DA9	2370	2065 2090 2218 2244
DL2K18	002	0E35	2433	2399
DL2K60	002	0E30	2430	2417

CROSS REFERENCE

VER 15, MOD 00 02/06/22 PAGE 45

SYMBOL	LEN	VALUE	DEFN	REFERENCES
DL2K80	002	0E32	2431	2398 2416
DL2LST	001	0E3A	2439	2382* 2384* 2386* 2390 2391* 2395* 2398* 2402 2408* 2416* 2419* 2424 2441
DL2PHY	001	0E3C	2441	
DL2RAD	002	0E41	2444	2064* 2217* 2395
DL2SAD	005	0DC1	2442	2402* 2409* 2410* 2411 2417* 2419
DL2SEC	005	0DCA	2443	2390* 2396 2399* 2400 2400* 2401 2401* 2410
DL2SWH	003	0E1F	2422	
DL2TSD	001	0083	2368	2409
DL2000	001	0DAD	2372	2362 2373
DL2001	005	0DBD	2379	2375* 2442
DL2002	005	0DC6	2381	2379* 2380* 2443
DL2005	004	0DCB	2382	2385
DL2006	004	0DD9	2386	2383
DL2008	004	0DF6	2400	2397
DL2010	003	0E0C	2411	
DL2100	004	0E1A	2419	2412
DL2110	003	0E1E	2421	2422
DL2900	004	0E27	2425	2371* 2421
DL2910	004	0E2B	2426	2377*
KPADPL	001	0CB3	2094	2066 2089* 2091
KPAPEA	004	0C9A	2087	2079*
KPAPSW	001	0C55	2067	2070* 2080
KPATCH	100	0D1C	2098	
KPA010	004	0C3E	2061	2042 2069
KPA030	004	0C42	2062	2062 2078 2085
KPA040	004	0C46	2063	2046 2049 2052 2055 2058
KPA050	006	0C4A	2064	2060
KPA140	004	0C97	2086	2087
SALBSE	001	0ED2	2855	2830 2833
SALCNT	001	0F6E	2952	2846* 2884* 2887 2891 2908
SALCT6	001	0006	2815	
SALCT8	001	0008	2813	
SALERR	003	0EE8	2961	2873
SALFST	001	0001	2949	2870 2882
SALIDR	001	0F6D	2942	2827* 2867 2870 2882* 2885 2913 2925*
SALND0	004	0F65	2933	2832*
SALND2	004	0F69	2934	2834*
SALPHR	001	0F71	2956	2070 2958 2959 2960
SALPHS	002	0F7C	2958	2847
SALPH6	001	0EB6	2831	
SALPH8	001	0EB2	2824	2054
SALPR6	001	0F79	2960	2845*
SALPR7	001	0F7A	2959	2844* 2845
SAL001	002	0F70	2955	2884 2898
SAL008	001	0080	2946	2827 2867 2885 2913
SAL100	003	0EC4	2844	
SAL200	003	0ED2	2856	2901
SAL250	003	0EE7	2864	2961
SAL350	003	0F00	2873	2889 2893 2917
SAL375	004	0F03	2874	2837*
SAL400	003	0F0A	2882	2857 2859 2861 2866
SAL425	004	0F0D	2884	2868 2872
SAL450	003	0F24	2891	2886
SAL500	004	0F2E	2898	2890
SAL525	005	0F32	2899	2847* 2898*

CROSS REFERENCE

VER 15, MOD 00 02/06/22 PAGE 46

SYMBOL	LEN	VALUE	DEFN	REFERENCES
SAL750	003	0F3D	2908	2864
SAL755	004	0F40	2909	
SAL760	003	0F5B	2917	2912 2915
SAL775	004	0F5E	2918	2910
SAL800	003	0F62	2925	2875
SCACNT	002	0EB1	2658	2648* 2649*
SCACOF	001	0087	2630	
SCACOM	001	0001	2629	
SCAINC	001	0001	2628	2637 2643
SCAMMA	003	0E8E	2652	
SCANIT	001	0E71	2632	2051 2918
SCASVE	002	0EAF	2657	2634* 2649
SCASV1	001	0EAE	2656	
SCA100	003	0E80	2637	2639
SCA200	003	0E83	2638	2636
SCA250	003	0E8D	2641	2652
SCA300	003	0E90	2643	2645
SCA400	004	0EA0	2648	2641
SCA500	004	0EAA	2651	2633* 2647
SGECNT	001	0DA6	2267	2224* 2230* 2241
SGEC01	002	0DA8	2268	2230
SGEDPL	001	0D9E	2259	2219 2223 2243* 2245 2248*
SGEEND	001	0DA9	2270	
SGERAD	002	0DA5	2266	2248
SGETDB	001	0D1D	2206	2074 2081 2205 2208
SGE050	003	0D33	2215	2216* 2247*
SGE055	003	0D4B	2223	2215
SGE060	005	0D55	2227	2231
SGE070	004	0D6B	2237	2228
SGE080	004	0D81	2243	
SGE900	004	0D92	2251	2207* 2240 2242
SGE901	004	0D96	2252	2209*
SGE902	004	0D9A	2253	2210*
SMAEND	001	1271	2531	
SMALES	001	0E42	2505	2506
SMBFDA	001	0E5C	2511	2073* 2217 2512
SMDAAD	001	0E70	2521	2527
SMFNAM	001	0E58	2509	2510
SMFUDA	001	0E6C	2519	2238* 2520
SMIND1	001	0E42	2506	2072* 2076 2083 2214* 2232* 2239 2507 2533
SMNDBA	001	0E6E	2520	2521
SMNDEA	001	0E62	2514	2515
SMNETD	001	0E66	2516	2517
SMNSCT	001	0E64	2515	2516
SMNULT	001	0E60	2513	2514
SMPDB1	001	0E71	2527	2097 2263 2528 2529 2535
SMPEAD	001	0E6A	2518	2079 2237* 2519
SMPIBS	001	0E71	2528	
SMPSWD	001	0E50	2508	2071* 2080* 2088 2092 2227 2509
SMUDBA	001	0E5E	2512	2513
SMUDB1	001	0E71	2529	2530
SMUDB2	001	1071	2530	2531
SMUDEA	001	0E5A	2510	2511
SMUPEN	001	0E68	2517	2518
SMVOID	001	0E48	2507	2508
SM1FNE	001	0080	2522	

[illegible]

START ADDRESS	CATEGORY	NAME AND ENTRY	CODE LENGTH HEXADECIMAL	DECIMAL
0C00	0	#KPASW	0F7D	3965
OL100 I	THE TOTAL CORE USED BY #KPASW IS 3965 DECIMAL.			
OL101 I	THE START CONTROL ADDRESS OF THIS MODULE IS 0C00.			
OL104 I	TOTAL NUMBER OF LIBRARY SECTORS REQUIRED IS 16			
	NAME-#KPASW,PACK-R1R1R1,UNIT-R1,RETAIN-P,LIBRARY-O			