

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 23/06/22 PAGE 2		
0000				1		#KCNDI	START 0			
				2	*		* @CNFEQ - CONFIGURATION EQUATES		*	
				3	*		* @VMDEQ - VIRTUAL MEMORY DIRECTORY EQUATES		*	
				4			PRINT ON,NODATA			
				5	*		@SYS EXP-N			
				216+			PRINT ON			
				217	*		@FXD EXP-N			
				622+			PRINT ON			
				623	*		@CNF EXP-N			
				736+			PRINT ON			
				737	*		@HDW EXP-N			
				922+			PRINT ON			
				923	*		@CY0 EXP-N			
				996+			PRINT ON			
				997	*		@CAN EXP-N			
				1100+			PRINT ON			
				1101	*		@WKA EXP-N			
				1171+			PRINT ON			
				1172	*		@VMD EXP-N			
				1293+			PRINT ON			
				1294	*		@SPF EXP-N			
				1757+			PRINT ON			
				1758	*		@ERM EXP-N			
				2380+			PRINT ON			

#KCNDI - DISPLAY CURRENT SYSTEM CONDITION

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		2382		*****				
		2383	*	5703-XM1 COPYRIGHT IBM CORP. 1970				*
		2384	*	REFER TO INSTRUCTIONS ON COPY RIGHT NOTICE, 120-2083				*
		2385	*					*
		2386		*****				*
		2387	*	*STATUS				*
		2388	*	VERSION 1 MODIFICATION 0				*
		2389	*					*
		2390	*	*FUNCTION				*
		2391	*	KCNDIT PROCESSES THE CONDITION SYSTEM COMMAND, CONDITION CAUSES				*
		2392	*	SOME OF THE CURRENT SYSTEM STATUS INFORMATION TO BE PRINTED,				*
		2393	*					*
		2394	*	*ENTRY POINTS				*
		2395	*	THE ONLY ENTRY POINT TO KCNDIT IS THE FIRST BYTE OF THE PROGRAM,				*
		2396	*	LABELLED #KCNDI.				*
		2397	*					*
		2398	*	*INPUT				*
		2399	*	NONE				*
		2400	*					*
		2401	*	*OUTPUT				*
		2402	*	LIST OF STATUS INFORMATION ON THE SYSTEM OUTPUT DEVICE OR THE				*
		2403	*	OPTIONAL OUTPUT DEVICE SPECIFIED.				*
		2404	*					*
		2405	*	*EXTERNAL REFERENCES				*
		2406	*	* \$NUCBS - STARTING ADDRESS OF NUCLEUS				*
		2407	*	* \$FILIB - DADDR OF FILE LIBRARY				*
		2408	*	* \$XRSV - REGISTER 2 (@XR) SAVE AREA				*
		2409	*	* \$VOLID - ADDR OF LEFT BYTE OF VOL ID TABLE. \$VOLR1, \$VOLF1,				*
		2410	*	\$VOLR2, AND \$VOLF2 ARE RESPECTIVE ADDRESSES OF THE				*
		2411	*	VOL ID'S FOR R1, F1, R2 AND F2.				*
		2412	*	* \$DKSIZ - ADDRESS OR DISK CONFIGURATION BYTE				*
		2413	*	* \$BSADR - ADDRESS OF DISK RELOCATION FACTOR				*
		2414	*	* \$PASWD - ADDRESS OF EIGHT-BYTE PASSWORD				*
		2415	*	* \$CAERR - ERROR CODE SAVE AREA				*
		2416	*	* \$DATE - ADDRESS OF RIGHT BYTE OF 3-BYTE DATE FIELD				*
		2417	*	* \$WFNME - ADDRESS OF WORKFILE NAME				*
		2418	*	* \$LMRGN - ADDRESS OF PRINTER LEFT MARGIN				*
		2419	*	* \$RMRGN - ADDRESS OF PRINTER RIGHT MARGIN				*
		2420	*	* \$CMODE - INDICATOR IN NUCLEUS BYTE, \$INDR2, FOR BASIC MODE				*
		2421	*	* \$DISKN - ENTRY TO DISK IOCS				*
		2422	*	* \$WFLOK - FILE PROTECTED INDICATOR IN NUCLEUS BYTE, \$INDR1				*
		2423	*	* \$CARPL - EXIT TO LOAD #GUFUD ON COMPLETION OF PRINT-OUT				*
		2424	*	* \$LIST - IND IN NUCLEUS BYTE, \$INDR3, TO CAUSE DEPRESSION OF				*
		2425	*	ROLL-DOWN KEY TO BE IGNORED				*
		2426	*	* \$\$FITS - ADDRESS OF FILE INDEX TABLE				*
		2427	*	* SCANIT - ENTRY TO DELIMITER SCAN MODULE				*
		2428	*	* SCKOUT - ENTRY TO MODULE TO SYNTAX-CHECK OUTPUT SPECIFICATION				*
		2429	*	* SCKDEV - ENTRY TO MODULE TO CHECK THE SPECIFIED OUTPUT DEVICE				*
		2430	*	* DSVPRI - ENTRY TO MODULE WHICH INTERFACES WITH DLPRNT TO SAVE				*
		2431	*	OR PRINT A LINE OF INFORMATION				*
		2432	*	* C2DEC5 - ENTRY TO MODULE TO CONVERT BINARY TO DECIMAL				*
		2433	*	* DLPRNT - ENTRY TO MODULE TO PRINT THE CURRENT LINE				*
		2434	*					*
		2435	*	*EXITS, NORMAL				*
		2436	*	NORMAL EXIT FROM KCNDIT IS TO \$CARPL TO LOAD #GUFUD				*
		2437	*					*

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ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	VER 15, MOD 00 23/06/22 PAGE 4
		2438	*	*EXITS, ERROR	*
		2439	*	* ERROR EXIT FROM KCNDIT IS TO \$CAERK TO LOAD #ERRPG, WITH THE	*
		2440	*	* APPROPRIATE ERROR CODE SET IN \$CAERR.	*
		2441	*		*
		2442	*	*TABLES/WORKAREAS	*
		2443	*	* * ONE SECTOR BUFFER TO CONTAIN THE I/O SECTOR.	*
		2444	*	* * ONE SECTOR BUFFER TO CONTAIN THE SUSPENDED PROGRAM STATUS	*
		2445	*	* SECTOR.	*
		2446	*	* * ONE SECTOR BUFFER FOR DLPRNT.	*
		2447	*	* * ONE SECTOR BUFFER FOR DSVPRI.	*
		2448	*	* * APPROXIMATELY 1100 BYTES REQUIRED FOR MESSAGE TABLE.	*
		2449	*		*
		2450	*	*ATTRIBUTES	*
		2451	*	* RELOCATABLE	*
		2452	*		*
		2453	*	*CHARACTER CODE DEPENDENCY	*
		2454	*	* NONE	*
		2455	*		*
		2456	*	*NOTES	*
		2457	*	* ERROR PROCEDURES	*
		2458	*	* ON DETECTION OF A SYNTAX ERROR, KCNDIT SETS @XR TO REFERENCE	*
		2459	*	* THE INVALID CHARACTER, LEAVES THE ERROR CODE IN \$CAERR, AND	*
		2460	*	* EXITS TO \$CAERK. FOR NON-SYNTAX ERRORS, THE ERROR CODE IS SET	*
		2461	*	* IN \$CAERR, @XR IS REFERENCING ANYTHING EXCEPT THE INPUT LINE	*
		2462	*	* BUFFER, AND EXIT IS MADE TO \$CAERK.	*
		2463	*		*
		2464	*	* REGISTER USAGE	*
		2465	*	* @XR IS USED AS A BASE REGISTER WITH THE BASE ADDRESS SET TO	*
		2466	*	* THE START OF THE NUCLEUS, AFTER THE INPUT LINE IS FOUND TO BE	*
		2467	*	* SYNTACTICALLY VALID.	*
		2468	*		*
		2469	*	* SAVED/RESTORED AREAS	*
		2470	*	* NONE	*
		2471	*		*
		2472	*	* MODIFICATION CONSIDERATIONS	*
		2473	*	* NONE	*
		2474	*		*
		2475	*	* REQUIRED MODULES	*
		2476	*	* THE FOLLOWING EQUATE MODULES MUST BE ASSEMBLED WITH KCNDIT:	*
		2477	*	* * @SYSEQ - COMMON SYSTEM EQUATES	*
		2478	*	* * @FXDEQ - NUCLEUS ADDRESSES AND INDICATORS	*
		2479	*	* * @CANEQ - SYSTEM LOCATION EQUATES	*
		2480	*	* * @WKAEQ - SYSTEM WORKAREA DISK ADDRESS EQUATES	*
		2481	*	* * @CY0EQ - CYLINDER ZERO EQUATES	*
		2482	*	* * @CNFEQ - CONFIGURATION EQUATES	*
		2483	*	* * @HDWEQ - HARDWARE I/O EQUATES	*
		2484	*	* * @VMDEQ - VIRTUAL MEMORY DIRECTORY EQUATES	*
		2485	*	* * @SPFEQ - SYSTEM PROGRAM FILE EQUATE FOR ##SSAV	*
		2486	*	* * @ERMEQ - ERROR MESSAGE EQUATES (SELECTED ERRORS)	*
		2487	*	* THE FOLLOWING SOURCE MODULES MUST BE ASSEMBLED WITH KCNDIT:	*
		2488	*	* * C2DEC5 - CONVERT BINARY TO DECIMAL MODULE	*
		2489	*	* * \$CKOUT - CHECK OUTPUT SPECIFICATION	*
		2490	*	* * DLPRNT - ROUTINE TO PRINT THE CURRENT LINE	*
		2491	*	* * DSVPRI - INTERFACE WITH DLPRNT TO SAVE OR PRINT A LINE	*
		2492	*	* * SCANIT - DELIMITER SCAN MODULE	*
		2493	*		*

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				05FF	2498	KCNDIT EQU *	CONDITION KEYWORD PROGRAM	
					2499	*		
					2500	* HDR #KCNDI,2	SEVEN-BYTE PROGRAM HEADER	
					2501	*****		
					2502	* PROGRAM HEADER FOR DISK LOAD	*	
					2503	*****		
					2504	*#\$KCND EQU X'0F80'	DISK ADDR OF #KCNDI	
					2505	*#\$KCN EQU X'0C00'	CORE LOAD ADDRESS OF #KCNDI	
					2506	*#\$@KCN EQU 016	SECTOR CNT OF #KCNDI	
	0C00				2507	ORG #\$\$\$KCN	CORE LOAD ADDRESS	
		0C00			2508	\$\$\$\$\$ EQU *	FIRST LOCATION IN PROGRAM	
	0C00	7BD2C3D5C4C9		0C05	2509	DC CL6'#KCNDI'	PROGRAM NAME	
	0C06	3F		0C06	2510	DC IL1'063'	PROGRAM NUMBER OF #KCNDI	
				0C07	2511	#KCND EQU *	ENTRY POINT TO PROGRAM	
					2512	*** END OF EXPANSION ***		
					2513	*		
	0C07	C0 87 1162			2514	B KCN030	START ROUTINE	
					2515	*		
					2516	* MTEXT @@M020=@PRETR,@@M021=@PRINT,@@M022=@PRINT,@@M023=@PRINT,		
					2517	* @@M024=@PRINT,@@M025=@PRETR,@@M026=@PRETR,@@M027=@PRINT,		
					2518	* @@M028=@PRETR,@@M029=@PRETR,@@M030=@PRINT,@@M031=@PRINT,		
					2519	* @@M032=@PRINT,@@M033=@PRETR,@@M034=@PRETR,@@M035=@PRETR,		
					2520	* @@M036=@PRINT,@@M037=@PRINT,@@M038=@PRINT,@@M039=@PRINT,		
					2521	* @@M040=@PRETR,@@M041=@PRETR,@@M042=@PRINT,@@M043=@PRETR,		
					2522	* @@M044=@PRETR,@@M045=@PRETR,@@M046=@PRETR,@@M047=@PRETR,		
					2523	* @@M048=@PRINT,@@M049=@PRINT,@@M050=@PRINT,@@M051=@PRINT,		
					2524	* @@M052=@PRETR,@@M053=@PRINT,@@M054=@PRETR,@@M055=@PRINT,		
					2525	* @@M056=@PRETR,@@M057=@PRETR,@@M058=@PRETR,@@M059=@PRINT,		
					2526	* @@M060=@PRETR,@@M061=@PRINT,@@M062=@PRINT,@@M063=@PRINT,		
					2527	* @@M064=@PRINT,@@M065=@PRINT,@@M066=@PRINT,@@M066=@PRINT,		
					2528	* @@M068=@PRINT,@@M069=@PRINT,@@M070=@PRINT,@@M071=@PRINT,		
					2529	* @@M072=@PRINT,@@M073=@PRINT,@@M074=@PRINT,@@M075=@PRINT,		
					2530	* @@M076=@PRINT,@@M077=@PRINT,@@M078=@PRINT,@@M079=@PRINT,		
					2531	* @@M088=@PRINT,@@M089=@PRINT,@@M090=@PRINT,@@M091=@PRETR,		
					2532	* @@M093=@PRINT,@@M094=@PRINT,PATCH=218		
					2534	*****		
					2535	* PPL'S AND TEXT FOR MESSAGE	*	
					2536	*****		
	0C0B	C0		0C0B	2537	@@M020 DC AL1(@PRETR)	PRINT CONTROL FUNCTION	
	0C0C	31		0C0C	2538	DC IL1'49'	LENGTH OF MESSAGE	
	0C0D	0D0F		0C0E	2539	DC AL(@CADDR)(@@T020)	ADDR OF MESSAGE	
					2540	*		
	0C0F	40		0C0F	2541	@@M021 DC AL1(@PRINT)	PRINT CONTROL FUNCTION	
	0C10	31		0C10	2542	DC IL1'49'	LENGTH OF MESSAGE	
	0C11	0D40		0C12	2543	DC AL(@CADDR)(@@T021)	ADDR OR MESSAGE	
					2544	*		
	0C13	40		0C13	2545	@@M022 DC AL1(@PRINT)	PRINT CONTROL FUNCTION	
	0C14	0E		0C14	2546	DC IL1'14'	LENGTH OF MESSAGE	
	0C15	0D71		0C16	2547	DC AL(@CADDR)(@@T022)	ADDR OF MESSAGE	
					2548	*		
	0C17	40		0C17	2549	@@M023 DC AL1(@PRINT)	PRINT CONTROL FUNCTION	
	0C18	0D		0C18	2550	DC IL1'13'	LENGTH OF MESSAGE	
	0C19	0D7F		0C1A	2551	DC AL(@CADDR)(@@T023)	ADDR OF MESSAGE	
					2552	*		
	0C1B	40		0C1B	2553	@@M024 DC AL1(@PRINT)	PRINT CONTROL FUNCTION	

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	0C1C	07		0C1C	2554	DC	IL1 '07'				LENGTH OF MESSAGE
	0C1D	0D8C		0C1E	2555	DC	AL (@CADDR) (@@T024)				ADDR OF MESSAGE
				2556	*						
	0C1F	C0		0C1F	2557	@@M025 DC	AL1 (@PRETR)				PRINT CONTROL FUNCTION
	0C20	12		0C20	2558	DC	IL1 '18'				LENGTH OF MESSAGE
	0C21	0D93		0C22	2559	DC	AL (@CADDR) (@@T025)				ADDR OF MESSAGE
				2560	*						
	0C23	C0		0C23	2561	@@M026 DC	AL1 (@PRETR)				PRINT CONTROL FUNCTION
	0C24	14		0C24	2562	DC	IL1 '20'				LENGTH OF MESSAGE
	0C25	0DA5		0C26	2563	DC	AL (@CADDR) (@@T026)				ADDR OF MESSAGE
				2564	*						
	0C27	C0		0C27	2565	@@M027 DC	AL1 (@PRETR)				PRINT CONTROL FUNCTION
	0C28	18		0C28	2566	DC	IL1 '24'				LENGTH OF MESSAGE
	0C29	0DB9		0C2A	2567	DC	AL (@CADDR) (@@T027)				ADDR OF MESSAGE
				2568	*						
	0C2B	C0		0C2B	2569	@@M028 DC	AL1 (@PRETR)				PRINT CONTROL FUNCTION
	0C2C	14		0C2C	2570	DC	IL1 '20'				LENGTH OF MESSAGE
	0C2D	0DD1		0C2E	2571	DC	AL (@CADDR) (@@T028)				ADDR OF MESSAGE
				2572	*						
	0C2F	C0		0C2F	2573	@@M029 DC	AL1 (@PRETR)				PRINT CONTROL FUNCTION
	0C30	15		0C30	2574	DC	IL1 '21'				LENGTH OF MESSAGE
	0C31	0DE5		0C32	2575	DC	AL (@CADDR) (@@T029)				ADDR OF MESSAGE
				2576	*						
	0C33	40		0C33	2577	@@M030 DC	AL1 (@PRINT)				PRINT CONTROL FUNCTION
	0C34	0A		0C34	2578	DC	IL1 '10'				LENGTH OF MESSAGE
	0C35	0DFA		0C36	2579	DC	AL (@CADDR) (@@T030)				ADDR OF MESSAGE
				2580	*						
	0C37	40		0C37	2581	@@M031 DC	AL1 (@PRINT)				PRINT CONTROL FUNCTION
	0C38	0C		0C38	2582	DC	IL1 '12'				LENGTH OF MESSAGE
	0C39	0E04		0C3A	2583	DC	AL (@CADDR) (@@T031)				ADDR OF MESSAGE
				2584	*						
	0C3B	40		0C3B	2585	@@M032 DC	AL1 (@PRINT)				PRINT CONTROL FUNCTION
	0C3C	0A		0C3C	2586	DC	IL1 '10'				LENGTH OF MESSAGE
	0C3D	0E10		0C3E	2587	DC	AL (@CADDR) (@@T032)				ADDR OF MESSAGE
				2588	*						
	0C3F	C0		0C3F	2589	@@M033 DC	AL1 (@PRETR)				PRINT CONTROL FUNCTION
	0C40	0A		0C40	2590	DC	IL1 '10'				LENGTH OF MESSAGE
	0C41	0E1A		0C42	2591	DC	AL (@CADDR) (@@T033)				ADDR OF MESSAGE
				2592	*						
	0C43	C0		0C43	2593	@@M034 DC	AL1 (@PRETR)				PRINT CONTROL FUNCTION
	0C44	0E		0C44	2594	DC	IL1 '14'				LENGTH OF MESSAGE
	0C45	0E24		0C46	2595	DC	AL (@CADDR) (@@T034)				ADDR OF MESSAGE
				2596	*						
	0C47	C0		0C47	2597	@@M035 DC	AL1 (@PRETR)				PRINT CONTROL FUNCTION
	0C48	12		0C48	2598	DC	IL1 '18'				LENGTH OF MESSAGE
	0C49	0E32		0C4A	2599	DC	AL (@CADDR) (@@T035)				ADDR OF MESSAGE
				2600	*						
	0C4B	40		0C4B	2601	@@M036 DC	AL1 (@PRINT)				PRINT CONTROL FUNCTION
	0C4C	15		0C4C	2602	DC	IL1 '21'				LENGTH OF MESSAGE
	0C4D	0E44		0C4E	2603	DC	AL (@CADDR) (@@T036)				ADDR OF MESSAGE
				2604	*						
	0C4F	40		0C4F	2605	@@M037 DC	AL1 (@PRINT)				PRINT CONTROL FUNCTION
	0C50	14		0C50	2606	DC	IL1 '20'				LENGTH OF MESSAGE
	0C51	0E59		0C52	2607	DC	AL (@CADDR) (@@T037)				ADDR OF MESSAGE
				2608	*						
	0C53	40		0C53	2609	@@M038 DC	AL1 (@PRINT)				PRINT CONTROL FUNCTION

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	0C54	0B	0C54	2610		DC	IL1 '11'		LENGTH OF MESSAGE	
	0C55	0E6D	0C56	2611		DC	AL (@CADDR) (@@T038)		ADDR OF MESSAGE	
				2612	*					
	0C57	C0	0C57	2613	@@M039	DC	AL1 (@PRETR)		PRINT CONTROL FUNCTION	
	0C58	10	0C58	2614		DC	IL1 '16'		LENGTH OF MESSAGE	
	0C59	0E78	0C5A	2615		DC	AL (@CADDR) (@@T039)		ADDR OF MESSAGE	
				2616	*					
	0C5B	C0	0C5B	2617	@@M040	DC	AL1 (@PRETR)		PRINT CONTROL FUNCTION	
	0C5C	13	0C5C	2618		DC	IL1 '19'		LENGTH OF MESSAGE	
	0C5D	0E88	0C5E	2619		DC	AL (@CADDR) (@@T040)		ADDR OF MESSAGE	
				2620	*					
	0C5F	C0	0C5F	2621	@@M041	DC	AL1 (@PRETR)		PRINT CONTROL FUNCTION	
	0C60	20	0C60	2622		DC	IL1 '32'		LENGTH OF MESSAGE	
	0C61	0E9B	0C62	2623		DC	AL (@CADDR) (@@T041)		ADDR OF MESSAGE	
				2624	*					
	0C63	40	0C63	2625	@@M042	DC	AL1 (@PRINT)		PRINT CONTROL FUNCTION	
	0C64	0C	0C64	2626		DC	IL1 '12'		LENGTH OF MESSAGE	
	0C65	0EBB	0C66	2627		DC	AL (@CADDR) (@@T042)		ADDR OF MESSAGE	
				2628	*					
	0C67	C0	0C67	2629	@@M043	DC	AL1 (@PRETR)		PRINT CONTROL FUNCTION	
	0C68	05	0C68	2630		DC	IL1 '05'		LENGTH OF MESSAGE	
	0C69	0EC7	0C6A	2631		DC	AL (@CADDR) (@@T043)		ADDR OF MESSAGE	
				2632	*					
	0C6B	C0	0C6B	2633	@@M044	DC	AL1 (@PRETR)		PRINT CONTROL FUNCTION	
	0C6C	08	0C6C	2634		DC	IL1 '08'		LENGTH OF MESSAGE	
	0C6D	0ECC	0C6E	2635		DC	AL (@CADDR) (@@T044)		ADDR OF MESSAGE	
				2636	*					
	0C6F	C0	0C6F	2637	@@M045	DC	AL1 (@PRETR)		PRINT CONTROL FUNCTION	
	0C70	04	0C70	2638		DC	IL1 '04'		LENGTH OF MESSAGE	
	0C71	0ED4	0C72	2639		DC	AL (@CADDR) (@@T045)		ADDR OF MESSAGE	
				2640	*					
	0C73	C0	0C73	2641	@@M046	DC	AL1 (@PRETR)		PRINT CONTROL FUNCTION	
	0C74	11	0C74	2642		DC	IL1 '17'		LENGTH OF MESSAGE	
	0C75	0ED8	0C76	2643		DC	AL (@CADDR) (@@T046)		ADDR OF MESSAGE	
				2644	*					
	0C77	C0	0C77	2645	@@M047	DC	AL1 (@PRETR)		PRINT CONTROL FUNCTION	
	0C78	0F	0C78	2646		DC	IL1 '15'		LENGTH OF MESSAGE	
	0C79	0EE9	0C7A	2647		DC	AL (@CADDR) (@@T047)		ADDR OF MESSAGE	
				2648	*					
	0C7B	40	0C7B	2649	@@M048	DC	AL1 (@PRINT)		PRINT CONTROL FUNCTION	
	0C7C	16	0C7C	2650		DC	IL1 '22'		LENGTH OF MESSAGE	
	0C7D	0EF8	0C7E	2651		DC	AL (@CADDR) (@@T048)		ADDR OF MESSAGE	
				2652	*					
	0C7F	40	0C7F	2653	@@M049	DC	AL1 (@PRINT)		PRINT CONTROL FUNCTION	
	0C80	18	0C80	2654		DC	IL1 '24'		LENGTH OF MESSAGE	
	0C81	0F0E	0C82	2655		DC	AL (@CADDR) (@@T049)		ADDR OF MESSAGE	
				2656	*					
	0C83	40	0C83	2657	@@M050	DC	AL1 (@PRINT)		PRINT CONTROL FUNCTION	
	0C84	0E	0C84	2658		DC	IL1 '14'		LENGTH OF MESSAGE	
	0C85	0F26	0C86	2659		DC	AL (@CADDR) (@@T050)		ADDR OF MESSAGE	
				2660	*					
	0C87	40	0C87	2661	@@M051	DC	AL1 (@PRINT)		PRINT CONTROL FUNCTION	
	0C88	10	0C88	2662		DC	IL1 '16'		LENGTH OF MESSAGE	
	0C89	0F34	0C8A	2663		DC	AL (@CADDR) (@@T051)		ADDR OF MESSAGE	
				2664	*					
	0C8B	C0	0C8B	2665	@@M052	DC	AL1 (@PRETR)		PRINT CONTROL FUNCTION	

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	0C8C	22	0C8C	2666		DC IL1 '34'				LENGTH OF MESSAGE
	0C8D	0F44	0C8E	2667		DC AL (@CADDR) (@@T052)				ADDR OF MESSAGE
				2668	*					
	0C8F	40	0C8F	2669	@@M053	DC AL1 (@PRINT)				PRINT CONTROL FUNCTION
	0C90	15	0C90	2670		DC IL1 '21'				LENGTH OF MESSAGE
	0C91	0F66	0C92	2671		DC AL (@CADDR) (@@T053)				ADDR OF MESSAGE
				2672	*					
	0C93	C0	0C93	2673	@@M054	DC AL1 (@PRETR)				PRINT CONTROL FUNCTION
	0C94	0E	0C94	2674		DC IL1 '14'				LENGTH OF MESSAGE
	0C95	0F7B	0C96	2675		DC AL (@CADDR) (@@T054)				ADDR OF MESSAGE
				2676	*					
	0C97	C0	0C97	2677	@@M055	DC AL1 (@PRETR)				PRINT CONTROL FUNCTION
	0C98	0F	0C98	2678		DC IL1 '15'				LENGTH OF MESSAGE
	0C99	0F89	0C9A	2679		DC AL (@CADDR) (@@T055)				ADDR OF MESSAGE
				2680	*					
	0C9B	C0	0C9B	2681	@@M056	DC AL1 (@PRETR)				PRINT CONTROL FUNCTION
	0C9C	03	0C9C	2682		DC IL1 '03'				LENGTH OF MESSAGE
	0C9D	0FD9	0C9E	2683		DC AL (@CADDR) (@@T066)				ADDR OF MESSAGE
				2684	*					
	0C9F	C0	0C9F	2685	@@M057	DC AL1 (@PRETR)				PRINT CONTROL FUNCTION
	0CA0	04	0CA0	2686		DC IL1 '04'				LENGTH OF MESSAGE
	0CA1	0F9B	0CA2	2687		DC AL (@CADDR) (@@T057)				ADDR OF MESSAGE
				2688	*					
	0CA3	C0	0CA3	2689	@@M058	DC AL1 (@PRETR)				PRINT CONTROL FUNCTION
	0CA4	04	0CA4	2690		DC IL1 '04'				LENGTH OF MESSAGE
	0CA5	0F9F	0CA6	2691		DC AL (@CADDR) (@@T058)				ADDR OF MESSAGE
				2692	*					
	0CA7	C0	0CA7	2693	@@M060	DC AL1 (@PRETR)				PRINT CONTROL FUNCTION
	0CA8	0C	0CA8	2694		DC IL1 '12'				LENGTH OF MESSAGE
	0CA9	0FA3	0CAA	2695		DC AL (@CADDR) (@@T060)				ADDR OF MESSAGE
				2696	*					
	0CAB	40	0CAB	2697	@@M061	DC AL1 (@PRINT)				PRINT CONTROL FUNCTION
	0CAC	08	0CAC	2698		DC IL1 '08'				LENGTH OF MESSAGE
	0CAD	0FAF	0CAE	2699		DC AL (@CADDR) (@@T061)				ADDR OF MESSAGE
				2700	*					
	0CAF	40	0CAF	2701	@@M062	DC AL1 (@PRINT)				PRINT CONTROL FUNCTION
	0CB0	06	0CB0	2702		DC IL1 '06'				LENGTH OF MESSAGE
	0CB1	0FB7	0CB2	2703		DC AL (@CADDR) (@@T062)				ADDR OF MESSAGE
				2704	*					
	0CB3	40	0CB3	2705	@@M063	DC AL1 (@PRINT)				PRINT CONTROL FUNCTION
	0CB4	06	0CB4	2706		DC IL1 '06'				LENGTH OF MESSAGE
	0CB5	0FBD	0CB6	2707		DC AL (@CADDR) (@@T063)				ADDR OF MESSAGE
				2708	*					
	0CB7	40	0CB7	2709	@@M064	DC AL1 (@PRINT)				PRINT CONTROL FUNCTION
	0CB8	06	0CB8	2710		DC IL1 '06'				LENGTH OF MESSAGE
	0CB9	0FC3	0CBA	2711		DC AL (@CADDR) (@@T064)				ADDR OR MESSAGE
				2712	*					
	0CBB	40	0CBB	2713	@@M065	DC AL1 (@PRINT)				PRINT CONTROL FUNCTION
	0CBC	08	0CBC	2714		DC IL1 '08'				LENGTH OF MESSAGE
	0CBD	0FC9	0CBE	2715		DC AL (@CADDR) (@@T065)				ADDR OF MESSAGE
				2716	*					
	0CBF	40	0CBF	2717	@@M094	DC AL1 (@PRINT)				PRINT CONTROL FUNCTION
	0CC0	08	0CC0	2718		DC IL1 '08'				LENGTH OF MESSAGE
	0CC1	0FD1	0CC2	2719		DC AL (@CADDR) (@@T094)				ADDR OF MESSAGE
				2720	*					
	0CC3	40	0CC3	2721	@@M066	DC AL1 (@PRINT)				PRINT CONTROL FUNCTION

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	0CC4	08	0CC4	2722	DC	IL1 '08'			LENGTH OF MESSAGE
	0CC5	0FC9	0CC6	2723	DC	AL (@CADDR) (@@T065)			ADDR OF MESSAGE
				2724	*				
	0CC7	40	0CC7	2725	@@M067 DC	AL1 (@PRINT)			PRINT CONTROL FUNCTION
	0CC8	05	0CC8	2726	DC	IL1 '05'			LENGTH OF MESSAGE
	0CC9	0FE1	0CCA	2727	DC	AL (@CADDR) (@@T067)			ADDR OF MESSAGE
				2728	*				
	0CCB	40	0CCB	2729	@@M068 DC	AL1 (@PRINT)			PRINT CONTROL FUNCTION
	0CCC	07	0CCC	2730	DC	IL1 '07'			LENGTH OF MESSAGE
	0CCD	0FE6	0CCE	2731	DC	AL (@CADDR) (@@T068)			ADDR OF MESSAGE
				2732	*				
	0CCF	40	0CCF	2733	@@M069 DC	AL1 (@PRINT)			PRINT CONTROL FUNCTION
	0CD0	06	0CD0	2734	DC	IL1 '06'			LENGTH OF MESSAGE
	0CD1	0FED	0CD2	2735	DC	AL (@CADDR) (@@T069)			ADDR OF MESSAGE
				2736	*				
	0CD3	40	0CD3	2737	@@M070 DC	AL1 (@PRINT)			PRINT CONTROL FUNCTION
	0CD4	06	0CD4	2738	DC	IL1 '06'			LENGTH OF MESSAGE
	0CD5	0FFD	0CD6	2739	DC	AL (@CADDR) (@@T070)			ADDR OF MESSAGE
				2740	*				
	0CD7	40	0CD7	2741	@@M071 DC	AL1 (@PRINT)			PRINT CONTROL FUNCTION
	0CD8	06	0CD8	2742	DC	IL1 '06'			LENGTH OF MESSAGE
	0CD9	1003	0CDA	2743	DC	AL (@CADDR) (@@T071)			ADDR OF MESSAGE
				2744	*				
	0CDB	40	0CDB	2745	@@M072 DC	AL1 (@PRINT)			PRINT CONTROL FUNCTION
	0CDC	06	0CDC	2746	DC	IL1 '06'			LENGTH OF MESSAGE
	0CDD	1009	0CDE	2747	DC	AL (@CADDR) (@@T072)			ADDR OF MESSAGE
				2748	*				
	0CDF	40	0CDF	2749	@@M073 DC	AL1 (@PRINT)			PRINT CONTROL FUNCTION
	0CE0	05	0CE0	2750	DC	IL1 '05'			LENGTH OF MESSAGE
	0CE1	100F	0CE2	2751	DC	AL (@CADDR) (@@T073)			ADDR OF MESSAGE
				2752	*				
	0CE3	40	0CE3	2753	@@M074 DC	AL1 (@PRINT)			PRINT CONTROL FUNCTION
	0CE4	06	0CE4	2754	DC	IL1 '06'			LENGTH OF MESSAGE
	0CE5	1014	0CE6	2755	DC	AL (@CADDR) (@@T074)			ADDR OF MESSAGE
				2756	*				
	0CE7	40	0CE7	2757	@@M076 DC	AL1 (@PRINT)			PRINT CONTROL FUNCTION
	0CE8	07	0CE8	2758	DC	IL1 '07'			LENGTH OF MESSAGE
	0CE9	101F	0CEA	2759	DC	AL (@CADDR) (@@T076)			ADDR OF MESSAGE
				2760	*				
	0CEB	40	0CEB	2761	@@M077 DC	AL1 (@PRINT)			PRINT CONTROL FUNCTION
	0CEC	07	0CEC	2762	DC	IL1 '07'			LENGTH OF MESSAGE
	0CED	1030	0CEE	2763	DC	AL (@CADDR) (@@T077)			ADDR OF MESSAGE
				2764	*				
	0CEF	40	0CEF	2765	@@M078 DC	AL1 (@PRINT)			PRINT CONTROL FUNCTION
	0CF0	04	0CF0	2766	DC	IL1 '04'			LENGTH OF MESSAGE
	0CF1	1037	0CF2	2767	DC	AL (@CADDR) (@@T078)			ADDR OF MESSAGE
				2768	*				
	0CF3	40	0CF3	2769	@@M079 DC	AL1 (@PRINT)			PRINT CONTROL FUNCTION
	0CF4	04	0CF4	2770	DC	IL1 '04'			LENGTH OF MESSAGE
	0CF5	103B	0CF6	2771	DC	AL (@CADDR) (@@T079)			ADDR OF MESSAGE
				2772	*				
	0CF7	40	0CF7	2773	@@M088 DC	AL1 (@PRINT)			PRINT CONTROL FUNCTION
	0CF8	10	0CF8	2774	DC	IL1 '16'			LENGTH OF MESSAGE
	0CF9	103F	0CFA	2775	DC	AL (@CADDR) (@@T088)			ADDR OF MESSAGE
				2776	*				
	0CFB	40	0CFB	2777	@@M089 DC	AL1 (@PRINT)			PRINT CONTROL FUNCTION

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		0CFC	0D	0CFC	2778		DC	IL1'13'		LENGTH OF MESSAGE
		0CFD	104F	0CFE	2779		DC	AL(@CADDR) (@@T089)		ADDR OF MESSAGE
					2780	*				
		0CFF	40	0CFF	2781	@@M090	DC	AL1(@PRINT)		PRINT CONTROL FUNCTION
		0D00	0D	0D00	2782		DC	IL1'13'		LENGTH OF MESSAGE
		0D01	105C	0D02	2783		DC	AL(@CADDR) (@@T090)		ADDR OF MESSAGE
					2784	*				
		0D03	C0	0D03	2785	@@M091	DC	AL1(@PRETR)		PRINT CONTROL FUNCTION
		0D04	0D	0D04	2786		DC	IL1'13'		LENGTH OF MESSAGE
		0D05	1069	0D06	2787		DC	AL(@CADDR) (@@T091)		ADDR OF MESSAGE
					2788	*				
		0D07	40	0D07	2789	@@M092	DC	AL1(@PRINT)		PRINT CONTROL FUNCTION
		0D08	03	0D08	2790		DC	IL1'03'		LENGTH OF MESSAGE
		0D09	1076	0D0A	2791		DC	AL(@CADDR) (@@T092)		ADDR OF MESSAGE
					2792	*				
		0D0B	40	0D0B	2793	@@M093	DC	AL1(@PRINT)		PRINT CONTROL FUNCTION
		0D0C	0F	0D0C	2794		DC	IL1'15'		LENGTH OF MESSAGE
		0D0D	1079	0D0E	2795		DC	AL(@CADDR) (@@T093)		ADDR OF MESSAGE
					2796	*				
					2797	***		TEXT MESSAGES		
					2798	*				
				0D0F	2799	@@T020	EQU	*		LEFT BYTE OF MESSAGE
		0D0F	D5D640C3E4D9D9C5	0D3F	2800		DC	CL049'NO CURRENT PASSWORD OR CURRENT DISK LABEL DEFINED'		
				0D40	2801	@@T021	EQU	*		LEFT BYTE OF MESSAGE
		0D40	C3E4D9D9C5D5E340	0D70	2802		DC	CL049'CURRENT PASSWORD DEFINED AND CURRENT DISK LABEL: '		
				0D71	2803	@@T022	EQU	*		LEFT BYTE OF MESSAGE
		0D71	C3E4D9D9C5D5E340	0D7E	2804		DC	CL014'CURRENT DATE: '		
				0D7F	2805	@@T023	EQU	*		LEFT BYTE OF MESSAGE
		0D7F	D3C5C6E340D4C1D9	0D8B	2806		DC	CL013'LEFT MARGIN: '		
				0D8C	2807	@@T024	EQU	*		LEFT BYTE OF MESSAGE
		0D8C	E6C9C4E3C87A40	0D92	2808		DC	CL007'WIDTH: '		
				0D93	2809	@@T025	EQU	*		LEFT BYTE OF MESSAGE
		0D93	E2E8E2E3C5D440D4	0DA4	2810		DC	CL018'SYSTEM MODE: BASIC'		
				0DA5	2811	@@T026	EQU	*		LEFT BYTE OF MESSAGE
		0DA5	E2E8E2E3C5D440D4	0DB8	2812		DC	CL020'SYSTEM MODE: UTILITY'		
				0DB9	2813	@@T027	EQU	*		LEFT BYTE OF MESSAGE
		0DB9	E2E4E2D7C5D5C4C5	0DD0	2814		DC	CL024'SUSPENDED PROGRAM NAME: '		
				0DD1	2815	@@T028	EQU	*		LEFT BYTE OF MESSAGE
		0DD1	D5D640E2E4E2D7C5	0DE4	2816		DC	CL020'NO SUSPENDED PROGRAM'		
				0DE5	2817	@@T029	EQU	*		LEFT BYTE OF MESSAGE
		0DE5	E6D6D9D2C6C9D3C5	0DF9	2818		DC	CL021'WORKFILE INFORMATION: '		
				0DFA	2819	@@T030	EQU	*		LEFT BYTE OF MESSAGE
		0DFA	404040D5C1D4C57A	0E03	2820		DC	CL010' NAME: '		
				0E04	2821	@@T031	EQU	*		LEFT BYTE OF MESSAGE
		0E04	404040E2E3C1E3E4	0E0F	2822		DC	CL012' STATUS: '		
				0E10	2823	@@T032	EQU	*		LEFT BYTE OF MESSAGE
		0E10	404040E3E8D7C57A	0E19	2824		DC	CL010' TYPE: '		
				0E1A	2825	@@T033	EQU	*		LEFT BYTE OF MESSAGE
		0E1A	40D7D9D6E3C5C3E3	0E23	2826		DC	CL010' PROTECTED'		
				0E24	2827	@@T034	EQU	*		LEFT BYTE OF MESSAGE
		0E24	40D5D6E340D7D9D6	0E31	2828		DC	CL014' NOT PROTECTED'		
				0E32	2829	@@T035	EQU	*		LEFT BYTE OF MESSAGE
		0E32	C2C1E2C9C340D7D9	0E43	2830		DC	CL018'BASIC PROGRAM FILE'		
				0E44	2831	@@T036	EQU	*		LEFT BYTE OF MESSAGE
		0E44	D2C5E8C2D6C1D9C4	0E58	2832		DC	CL021'KEYBOARD DATA FILE - '		
				0E59	2833	@@T037	EQU	*		LEFT BYTE OF MESSAGE

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0E59	D7D9D6C7D9C1D440	0E6C	2834		DC	CL020'PROGRAM DATA FILE - '			
		0E6D	2835	@@T038	EQU	*			LEFT BYTE OF MESSAGE
0E6D	40404040D3C9D5C5	0E77	2836		DC	CL011' LINES: '			
		0E78	2837	@@T039	EQU	*			LEFT BYTE OF MESSAGE
0E78	40404040C4C9E2D2	0E87	2838		DC	CL016' DISK UNITS: '			
		0E88	2839	@@T040	EQU	*			LEFT BYTE OF MESSAGE
0E88	D5D640E6D6D9D2C6	0E9A	2840		DC	CL019'NO WORKFILE DEFINED'			
		0E9B	2841	@@T041	EQU	*			LEFT BYTE OF MESSAGE
0E9B	E6D6D9D2C6C9D3C5	0EBA	2842		DC	CL032'WORKFILE ALLOCATION INFORMATION: '			
		0EBB	2843	@@T042	EQU	*			LEFT BYTE OR MESSAGE
0EBB	40404040C4C5E5C9	0EC6	2844		DC	CL012' DEVICE: '			
		0EC7	2845	@@T043	EQU	*			LEFT BYTE OF MESSAGE
0EC7	40C3C1D9C4	0ECB	2846		DC	CL005' CARD'			
		0ECC	2847	@@T044	EQU	*			LEFT BYTE OF MESSAGE
0ECC	40D7D9C9D5E3C5D9	0ED3	2848		DC	CL008' PRINTER'			
		0ED4	2849	@@T045	EQU	*			LEFT BYTE OF MESSAGE
0ED4	40C3D9E3	0ED7	2850		DC	CL004' CRT'			
		0ED8	2851	@@T046	EQU	*			LEFT BYTE OF MESSAGE
0ED8	40C4C9E2D2404DD7	0EE8	2852		DC	CL017' DISK (PERMANENT)'			
		0EE9	2853	@@T047	EQU	*			LEFT BYTE OF MESSAGE
0EE9	40C4C9E2D2404DE2	0EF7	2854		DC	CL015' DISK (SCRATCH)'			
		0EF8	2855	@@T048	EQU	*			LEFT BYTE OF MESSAGE
0EF8	40404040D3D6E640	0F0D	2856		DC	CL022' LOW GET/PUT FILENAME: '			
		0F0E	2857	@@T049	EQU	*			LEFT BYTE OF MESSAGE
0F0E	40404040C4C9E2D2	0F25	2858		DC	CL024' DISK DATA FILENAME: '			
		0F26	2859	@@T050	EQU	*			LEFT BYTE OF MESSAGE
0F26	40404040D7C1E2E2	0F33	2860		DC	CL014' PASSWORD: '			
		0F34	2861	@@T051	EQU	*			LEFT BYTE OF MESSAGE
0F34	40404040C4C9E2D2	0F43	2862		DC	CL016' DISK LABEL: '			
		0F44	2863	@@T052	EQU	*			LEFT BYTE OF MESSAGE
0F44	D5D640E6D6D9D2C6	0F65	2864		DC	CL034'NO WORKFILE ALLOCATION INFORMATION'			
		0F66	2865	@@T053	EQU	*			LEFT BYTE OF MESSAGE
0F66	C3D6D5C6C9C7E4D9	0F7A	2866		DC	CL021'CONFIGURATION RECORD: '			
		0F7B	2867	@@T054	EQU	*			LEFT BYTE OF MESSAGE
0F7B	D3D6D5C740D7D9C5	0F88	2868		DC	CL014'LONG PRECISION'			
		0F89	2869	@@T055	EQU	*			LEFT BYTE OF MESSAGE
0F89	E2C8D6D9E340D7D9	0F97	2870		DC	CL015'SHORT PRECISION'			
		0F98	2871	@@T056	EQU	*			LEFT BYTE OF MESSAGE
0F98	40F8D2	0F9A	2872		DC	CL003' 8K'			
		0F9B	2873	@@T057	EQU	*			LEFT BYTE OF MESSAGE
0F9B	40F1F2D2	0F9E	2874		DC	CL004' 12K'			
		0F9F	2875	@@T058	EQU	*			LEFT BYTE OF MESSAGE
0F9F	40F1F6D2	0FA2	2876		DC	CL004' 16K'			
		0FA3	2877	@@T060	EQU	*			LEFT BYTE OF MESSAGE
0FA3	C4C9E2D240D3C1C2	0FAE	2878		DC	CL012'DISK LABELS: '			
		0FAF	2879	@@T061	EQU	*			LEFT BYTE OF MESSAGE
0FAF	404040D9F17A4040	0FB6	2880		DC	CL008' R1: '			
		0FB7	2881	@@T062	EQU	*			LEFT BYTE OF MESSAGE
0FB7	40D9F27A4040	0FBC	2882		DC	CL006' R2: '			
		0FBD	2883	@@T063	EQU	*			LEFT BYTE OF MESSAGE
0FBD	40C6F17A4040	0FC2	2884		DC	CL006' F1: '			
		0FC3	2885	@@T064	EQU	*			LEFT BYTE OF MESSAGE
0FC3	40C6F27A4040	0FC8	2886		DC	CL006' F2: '			
		0FC9	2887	@@T065	EQU	*			LEFT BYTE OF MESSAGE
0FC9	40C3C1D9C4F9F640	0FD0	2888		DC	CL008' CARD96 '			
		0FD1	2889	@@T094	EQU	*			LEFT BYTE OF MESSAGE

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0FD1	40C3C1D9C4F8F040	0FD8	2890		DC		CL008' CARD80 '			
		0FD9	2891	@@T066	EQU	*			LEFT BYTE OF MESSAGE	
0FD9	40D5D6C3C1D9C440	0FE0	2892		DC		CL008' NOCARD '			
		0FE1	2893	@@T067	EQU	*			LEFT BYTE OF MESSAGE	
0FE1	40C3D9E340	0FE5	2894		DC		CL005' CRT '			
		0FE6	2895	@@T068	EQU	*			LEFT BYTE OF MESSAGE	
0FE6	40D5D6C3D9E340	0FEC	2896		DC		CL007' NOCRT '			
		0FED	2897	@@T069	EQU	*			LEFT BYTE OF MESSAGE	
0FED	40F1F3D4D7404040	0FFC	2898		DC		CL016' 13MP '			
		0FFD	2899	@@T070	EQU	*			LEFT BYTE OF MESSAGE	
0FFD	40F2F2D4D740	1002	2900		DC		CL006' 22MP '			
		1003	2901	@@T071	EQU	*			LEFT BYTE OF MESSAGE	
1003	40F1F3D3D740	1008	2902		DC		CL006' 13LP '			
		1009	2903	@@T072	EQU	*			LEFT BYTE OF MESSAGE	
1009	40F2F2D3D740	100E	2904		DC		CL006' 22LP '			
		100F	2905	@@T073	EQU	*			LEFT BYTE OF MESSAGE	
100F	40F8C3D240	1013	2906		DC		CL005' 8CK '			
		1014	2907	@@T074	EQU	*			LEFT BYTE OF MESSAGE	
1014	40F1F6C3D2404040	101E	2908		DC		CL011' 16CK '			
		101F	2909	@@T076	EQU	*			LEFT BYTE OF MESSAGE	
101F	40F2C4F1F0F04040	102F	2910		DC		CL017' 2D100 '			
		1030	2911	@@T077	EQU	*			LEFT BYTE OF MESSAGE	
1030	40F2C4F2F0F040	1036	2912		DC		CL007' 2D200 '			
		1037	2913	@@T078	EQU	*			LEFT BYTE OF MESSAGE	
1037	40F3C440	103A	2914		DC		CL004' 3D '			
		103B	2915	@@T079	EQU	*			LEFT BYTE OF MESSAGE	
103B	40F4C440	103E	2916		DC		CL004' 4D '			
		103F	2917	@@T088	EQU	*			LEFT BYTE OF MESSAGE	
103F	40404040D5D640C9	104E	2918		DC		CL016' NO ID ON R1 '			
		104F	2919	@@T089	EQU	*			LEFT BYTE OF MESSAGE	
104F	40D5D640C9C440D6	105B	2920		DC		CL013' NO ID ON F1 '			
		105C	2921	@@T090	EQU	*			LEFT BYTE OF MESSAGE	
105C	40D5D640C9C440D6	1068	2922		DC		CL013' NO ID ON R2 '			
		1069	2923	@@T091	EQU	*			LEFT BYTE OF MESSAGE	
1069	40D5D640C9C440D6	1075	2924		DC		CL013' NO ID ON F2 '			
		1076	2925	@@T092	EQU	*			LEFT BYTE OF MESSAGE	
1076	40D2C2	1078	2926		DC		CL003' KB'			
		1079	2927	@@T093	EQU	*			LEFT BYTE OF MESSAGE	
1079	40404040C6C9D3C5	1087	2928		DC		CL015' FILE SIZE: '			
		2929	*							
		2930	*				PATCH AREA FOR MESSAGES			
		2931	*							
1088		1161	2932	\$\$\$\$\$1	DS		CL218		MSG EXPANSION PATCH AREA	
			2933	***			END OF EXPANSION ***			
1162	35 02 03C7		2935	KCN030	L		\$XRSAB,@XR		POINT XR TO BYTE AFTER KEYWORD	
			2936	*						
1166	BD 60 00		2937		CLI		KCN000(,@XR),KCNDSE		XR REF AN INVALID DASH ?	
1169	F2 81 22		2938		JE		KCN050		YES,SET INV DELIM' ERR CODE	
			2939	*						
116C	C0 87 1AFD		2940		B		SCANIT		BYPASS BLANKS	
1170	BD 1E 00		2941		CLI		KCN000(,@XR),@EOS		IS XR POINTING TO EOS ?	
1173	F2 81 20		2942		JE		KCN100		IF EOS, BEGIN PROCESSING KEYWORD	
			2943	*						
1176	C0 87 1802		2944		B		SCKOUT		CHECK OUTPUT SPECIFICATION	
117A	3C 11 03CD		2945		MVI		\$CAERR,@E131		SET 'INV PARAM' ERROR CODE	

#KCNDI - DISPLAY CURRENT SYSTEM CONDITION

ERR LOC		OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00		23/06/22	PAGE	14
117E	F2	04 11	2946		JNH	KCN070					
			2947	*							
1181	BD	1E 00	2948		CLI	@ZERO(,@XR),@EOS					
1184	F2	81 0F	2949		JE	KCN100					
			2950	*							
1187	3C	12 03CD	2951		MVI	\$CAERR,@@E133					
118B	F2	87 04	2952		J	KCN070					
			2953	*							
118E	3C	18 03CD	2954	KCN050	MVI	\$CAERR,@@E139					
1192	C0	87 0469	2955	KCN070	B	\$CAERK					

#KCNDI - DISPLAY CURRENT SYSTEM CONDITION

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	23/06/22	PAGE 15
					2957	*				
					2958	*	CHECK PASSWORD			
					2959	*				
1196	0C	02	179A	1D02	2960	KCN100	MVC KCNFIT+KCNLLN(KCNLLN+KCNLDU),\$\$FITS+KCNLLN		SAVE	FIT ITEMS
					2961	*				
119C	C2	02	03C0		2962		LA \$NUCBS,@XR		SET UP XR AS A	BASE REGISTER W/
				03C0	2963		USING \$NUCBS,@XR		* BASE ADDR=	BEGINNING OF SYSNUC
11A0	BB	02	16		2964		SBF \$INDR3(,@XR),\$LIST		SET IND TO	IGNORE 'ROLL-DOWN'
					2965	*				
11A3	C0	87	18A6		2966		B SCKDEV		CHECK OUTPUT	DEVICE
					2967	*				
11A7	3C	40	1802		2968		MVI KCNBUF,@BLANK		SET BLANK IN	BUFFER
11AB	C0	87	1B3E		2969		B DSVPRI		SKIP ONE	LINE
11AF	17B4			11B0	2970		DC AL(@CADDR)(KCNPPL)			
					2971	*				
11B1	BD	00	19		2972		CLI \$FILIB-1(,@XR),@ZERO		IS USER	LOGGED-ON ?
11B4	F2	01	09		2973		JNE KCN110		IF YES, SO	FIND DISK ABEL
					2974	*				
11B7	C0	87	1B3E		2975		B DSVPRI		PRINT 'NO	CURRENT PASSWORD OR
11BB	0C0B			11BC	2976		DC AL(@CADDR)(@@M020)		* CURRENT	DISK LABEL DEFINED'
11BD	F2	87	43		2977		J KCN180		SO FIND	DISK LABELS
					2978	*				
11C0	C0	87	1B3E		2979	KCN110	B DSVPRI		PRINT 'CURRENT	PASSWORD DEFINED
11C4	0C0F			11C5	2980		DC AL(@CADDR)(@@M021)		* AND CURRENT	DISK LABEL: '
					2981	*				
11C6	3C	C0	17B4		2982		MVI KCNPPL+@PCTRL,@PRETR		SET CONTROL	CODE IN PPL
11CA	3C	06	17B5		2983		MVI KCNPPL+@PRCNT,@VOLID		SET LENGTH	OF VOL-I0 IN PPL

#KCNDI - DISPLAY CURRENT SYSTEM CONDITION

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	23/06/22	PAGE 16
				2985	*					
				2986	*		SET APPROPRIATE VOLUME ID			
				2987	*					
11CE	B8	03	1A	2988		TBN	\$FILIB(, @XR), KCNDF2		IS F2 CURRENT BEING USED ?	
11D1	F2	90	08	2989		JF	KCN120		IF NOT, TEST F1	
11D4	2C	05	1807 53	2990		MVC	KCNBUF+@VOLID-1(@VOLID), \$VOLF2+@VOLID-1(, @XR)		MOVE F2 ID	
11D9	F2	87	4F	2991		J	KCN190			
				2992	*					
11DC	B8	01	1A	2993	KCN120	TBN	\$FILIB(, @XR), KCNDF1		IS F1 CURRENT BEING USED ?	
11DF	F2	90	08	2994		JF	KCN130		IF NOT, TEST R2	
11E2	2C	05	1807 43	2995		MVC	KCNBUF+@VOLID-1(@VOLID), \$VOLF1+@VOLID-1(, @XR)		MOVE F1 ID	
11E7	F2	87	13	2996		J	KCN150			
				2997	*					
11EA	B8	02	1A	2998	KCN130	TBN	\$FILIB(, @XR), KCNDR2		IS R2 CURRENT BEING USED ?	
11ED	F2	90	08	2999		JF	KCN140		IF NOT, MOVE IN F2 VOL-ID	
11F0	2C	05	1807 4B	3000		MVC	KCNBUF+@VOLID-1(@VOLID), \$VOLR2+@VOLID-1(, @XR)		MOVE R2 ID	
11F5	F2	87	05	3001		J	KCN150			
				3002	*					
11F8	2C	05	1807 3B	3003	KCN140	MVC	KCNBUF+@VOLID-1(@VOLID), \$VOLR1+@VOLID-1(, @XR)		MOVE R1 ID	
				3004	*					
11FD	C0	87	1B3E	3005	KCN150	B	DSVPRI		PRINT OUT DISK LABEL AT END	
1201	17B4			1202	3006	DC	AL(@CADDR) (KCNPPL)		* OF MESSAGE	

#KCNDI - DISPLAY CURRENT SYSTEM CONDITION

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00 23/06/22 PAGE 17
					3008	*		
					3009	*	GET ID AND LOCATION OF DISK ON SYSTEM.	
					3010	*		
1203	C0	87	1B3E		3011	KCN180	B DSVPRI	PRINT OUT DISK LABEL AT END
1207	0CA7			1208	3012		DC AL(@CADDR)(@M060)	
1209	3C	06	17B5		3013		MVI KCNPPL+@PRCNT,@VOLID	SET PPL TO PRINT 6-CHAR VOL ID
120D	3C	40	17B4		3014		MVI KCNPPL+@PCTRL,@PRINT	SET PPL TO PRINT ONLY
1211	BD	00	36		3015		CLI \$VOLR1(,@XR),@ZERO	IS THERE AN ID ON R1 ?
1214	F2	81	14		3016		JE KCN190	NO, SET 'NO ID' MSG
1217	C0	87	1B3E		3017		B DSVPRI	ELSE, PRINT 'R1: ' MSG
121B	0CAB			121C	3018		DC AL(@CADDR)(@M061)	
121D	2C	05	1807 3B		3019		MVC KCNBUF+@VOLID-1(@VOLID),\$VOLR1+@VOLID-1(,@XR)	MOVE R1 ID
1222	C0	87	1B3E		3020		B DSVPRI	PRINT R1 DISK LABEL
1226	17B4			1227	3021		DC AL(@CADDR)(KCNPPL)	
1228	F2	87	06		3022		J KCN200	GO CHECK R2
122B	C0	87	1B3E		3023	KCN190	B DSVPRI	PRINT 'NO ID ON R1' MSG
122F	0CF7			1230	3024		DC AL(@CADDR)(@M088)	
					3025	*		
1231	BD	08	17		3026	KCN200	CLI \$DKSIZ(,@XR),\$DK600	ARE R1, F1, R2 ON SYSTEM ?
1234	F2	84	12		3027		JH KCN220	BRANCH IF F2 IS ALSO ON SYSTEM
1237	F2	81	0B		3028		JE KCN210	BRANCH IF ONLY R1, F1, R2 THERE
123A	3C	C0	17B4		3029		MVI KCNPPL+@PCTRL,@PRETR	ONLY R1 AND F1 ARE ON SYSTEM
123E	3C	C0	0CFB		3030		MVI @@M089+@PCTRL,@PRETR	* SET PRINT & RETURN CONTROL
1242	F2	87	04		3031		J KCN220	GO CHECK F1
1245	3C	C0	0CFF		3032	KCN210	MVI @@M090+@PCTRL,@PRETR	SET 'NO ID ON F2' TO CARR RET
1249	BD	00	3E		3033	KCN220	CLI \$VOLF1(,@XR),@ZERO	IS THERE AN ID ON F1 ?
124C	F2	81	14		3034		JE KCN230	NO, GO PRINT 'NO ID ON F1' MSG
124F	C0	87	1B3E		3035		B DSVPRI	ELSE, PRINT 'F1: ' MSG
1253	0CB3			1254	3036		DC AL(@CADDR)(@M063)	
1255	2C	05	1807 43		3037		MVC KCNBUF+@VOLID-1(@VOLID),\$VOLF1+@VOLID-1(,@XR)	SET R1 ID
125A	C0	87	1B3E		3038		B DSVPRI	PRINT OUT F1 LABEL
125E	17B4			125F	3039		DC AL(@CADDR)(KCNPPL)	
1260	F2	87	06		3040		J KCN240	GO CHECK R2
1263	C0	87	1B3E		3041	KCN230	B DSVPRI	PRINT 'NO ID ON F1' MSG
1267	0CFB			1268	3042		DC AL(@CADDR)(@M089)	
					3043	*		
1269	BD	08	17		3044	KCN240	CLI \$DKSIZ(,@XR),\$DK600	ARE R1, F1, R2 ON SYSTEM ?
126C	F2	84	51		3045		JH KCN290	IF F2 PRESENT, DON'T SET CARR
126F	F2	82	4E		3046		JL KCN290	IF ONLY R1 AND F1, SO GET DATE
1272	3C	C0	17B4		3047		MVI KCNPPL+@PCTRL,@PRETR	SET PPL TO DO CARR RET
1276	BD	00	46		3048	KCN250	CLI \$VOLR2(,@XR),@ZERO	IS THERE AN ID ON R2 ?
1279	F2	81	14		3049		JE KCN260	NO, GO PRINT 'NO ID ON R2' MSG
127C	C0	87	1B3E		3050		B DSVPRI	ELSE, PRINT 'R2: ' MSG
1280	0CAF			1281	3051		DC AL(@CADDR)(@M062)	
1282	2C	05	1807 4B		3052		MVC KCNBUF+@VOLID-1(@VOLID),\$VOLR2+@VOLID-1(,@XR)	SET R2 ID
1287	C0	87	1B3E		3053		B DSVPRI	PRINT R2 DISK LABEL
128B	17B4			128C	3054		DC AL(@CADDR)(KCNPPL)	
128D	F2	87	06		3055		J KCN270	GO CHECK F2
1290	C0	87	1B3E		3056	KCN260	B DSVPRI	PRINT 'NO ID ON R2'
1294	0CFF			1295	3057		DC AL(@CADDR)(@M090)	
1296	BD	08	17		3058	KCN270	CLI \$DKSIZ(,@XR),\$DK600	ARE R1, F1, R2 ON SYSTEM ?
1299	F2	81	24		3059		JE KCN290	
129C	3C	C0	17B4		3060		MVI KCNPPL+@PCTRL,@PRETR	SET PPL TO DO CARR RET
12A0	BD	00	4E		3061		CLI \$VOLF2(,@XR),@ZERO	IS THERE AN ID ON F2 ?
12A3	F2	81	14		3062		JE KCN280	NO, GO PRINT 'NO ID ON F2' MSG
12A6	C0	87	1B3E		3063		B DSVPRI	ELSE, PRINT 'F2: ' MSG

#KCNDI - DISPLAY CURRENT SYSTEM CONDITION

ERR LOC OBJECT CODE ADDR STMT SOURCE STATEMENT VER 15, MOD 00 23/06/22 PAGE 18

12AA	0CB7		12AB	3064	DC	AL (@CADDR) (@@M064)	
12AC	2C 05 1807 53			3065	MVC	KCNBUF+@VOLID-1 (@VOLID), \$VOLF2+@VOLID-1 (,@XR)	SET F2 ID
12B1	C0 87 1B3E			3066	B	DSVPRI	PRINT F2 DISK LABEL
12B5	17B4		12B6	3067	DC	AL (@CADDR) (KCNPPL)	
12B7	F2 87 06			3068	J	KCN290	GO GET DATE
12BA	C0 87 1B3E			3069	KCN280 B	DSVPRI	PRINT 'NO ID ON F2' MSG
12BE	0D03		12BF	3070	DC	AL (@CADDR) (@@M091)	
				3071	*		
				3072	*	GET CURRENT DATE	
				3073	*		
12C0	C0 87 1B3E			3074	KCN290 B	DSVPRI	PRINT 'CURRENT DATE: ' MSG
12C4	0C13		12C5	3075	DC	AL (@CADDR) (@@M022)	
				3076	*		
12C6	0C 07 1809 17AA			3077	MVC	KCNBUF+KCNUPD-1 (KCNUPD), KCNDAT	MOVE FORMAT FOR DATE TO BF
				3078	*		
12CC	08 02 1802 0438			3079	MNZ	KCNBUF+KCND3, \$DATE-KCNDT2	UNPACK THE
12D2	08 03 1803 0438			3080	MNN	KCNBUF+KCND4, \$DATE-KCNDT2	* CURRENT MONTH
				3081	*		
12D8	08 02 1805 0439			3082	MNZ	KCNBUF+KCND5, \$DATE-KCNDT1	UNPACK THE
12DE	08 03 1806 0439			3083	MNN	KCNBUF+KCND6, \$DATE-KCNDT1	* CURRENT DAY
				3084	*		
12E4	08 02 1808 043A			3085	MNZ	KCNBUF+KCND7, \$DATE	UNPACK THE
12EA	08 03 1809 043A			3086	MNN	KCNBUF+KCND8, \$DATE	* CURRENT YEAR
				3087	*		
12F0	3C C0 17B4			3088	MVI	KCNPPL+@PCTRL, @PRETR	SET PPL TO DO CARR RET
12F4	3C 08 17B5			3089	MVI	KCNPPL+@PRCNT, KCNUPD	SET PPL COUNT TO 8 FOR DATE
12F8	C0 87 1B3E			3090	B	DSVPRI	PRINT DATE
12FC	17B4		12FD	3091	DC	AL (@CADDR) (KCNPPL)	

#KCNDI - DISPLAY CURRENT SYSTEM CONDITION

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00 23/06/22 PAGE 19
					3093	*		
					3094	*	GET LEFT MARGIN AND WIDTH	
					3095	*		
12FE	C0 87 1B3E				3096	B	DSVPRI	PRINT 'LEFT MARGIN: ' MSG
1302	0C17			1303	3097	DC	AL(@CADDR) (@@M023)	
					3098	*		
1304	2C 00 179C 01				3099	MVC	KCNLMR(KCNBL1), \$LMRGN(, @XR)	MOVE LEFT MARGIN TO HOLD AREA
1309	2C 00 179E 00				3100	MVC	KCNWID(KCNBL1), \$RMRGN(, @XR)	MOVE RIGHT MARGIN TO HOLDAREA
130E	0F 00 179E 179C				3101	SLC	KCNWID(KCNBL1), KCNLMR	SUBTRACT LEFT FROM RIGHT MARGIN
					3102	*		* GIVING WIDTH
1314	0E 00 179C 179F				3103	ALC	KCNLMR(KCNBL1), KCNONE	ADD '1' TO LEFT MARGIN
				0002	3104	DROP	@XR	DISCONTINUE USE OF XR AS BASE
131A	C2 02 179B				3105	LA	KCNLMR-1, @XR	PT XR TO LEFT BYTE OF BINARY NO
					3106	*		
131E	C0 87 17BE				3107	B	C2DEC5	CONVERT LEFT MARGIN TO DECIMAL
					3108	*		
1322	0C 02 1804 17FC				3109	MVC	KCNBUF+KCNLD3-1(KCNLD3), C2DVAL	MOVE LEFT MARGIN TO BUFFER
1328	3C 03 17B5				3110	MVI	KCNPPPL+@PRCNT, KCNLD3	SET PPL TO PRINT 3 CHARS
132C	C0 87 1B3E				3111	B	DSVPRI	PRINT LEFT MARGIN VALUE
1330	17B4			1331	3112	DC	AL(@CADDR) (KCNPPPL)	
1332	C0 87 1B3E				3113	B	DSVPRI	PRINT 'WIDTH: ' MSG
1336	0C1B			1337	3114	DC	AL(@CADDR) (@@M024)	
					3115	*		
1338	C2 02 179D				3116	LA	KCNWID-1, @XR	POINT XR TO LEFT BITE OF BIN NO
133C	C0 87 17BE				3117	B	C2DEC5	CONVERT BINARY TO DECIMAL
					3118	*		
1340	0C 02 1804 17FC				3119	MVC	KCNBUF+KCNLD3-1(KCNLD3), C2DVAL	MOVE WIDTH TO BUFFER
					3120	*		
1346	C0 87 1B3E				3121	B	DSVPRI	PRINT WIDTH VALUE
134A	17B4			134B	3122	DC	AL(@CADDR) (KCNPPPL)	
					3123	*		
					3124	*	GET SYSTEM MODE	
					3125	*		
134C	C2 02 03C0				3126	LA	\$NUCBS, @XR	RESET XR AS A BASE REGISTER,
				03C0	3127	USING	\$NUCBS, @XR	* USING SYSNLC AS BASE
					3128	*		
1350	B8 02 15				3129	TBN	\$INDR2(, @XR), \$CMODE	IS MODE CONVERSATIONAL ?
1353	F2 10 0D				3130	JT	KCN300	IF YES, MOVE 'CONVERSATIONAL'
					3131	*		
1356	C0 87 1B3E				3132	B	DSVPRI	PRINT 'SYSTEM MODE: UTILITY'
135A	0C23			135B	3133	DC	AL(@CADDR) (@@M026)	* MESSAGE
135C	3C 87 139C				3134	MVI	KCN480+@Q, @UCB	SET SW TO BYPASS WORKFILE INFO
1360	F2 87 06				3135	J	KCN310	SO CHECK FOR SUSPENDED PROGRAM
					3136	*		
1363	C0 87 1B3E				3137	KCN300 B	DSVPRI	PRINT 'SYSTEM MODE: BASIC' MSG
1367	0C1F			1368	3138	DC	AL(@CADDR) (@@M025)	
					3139	*		
					3140	*	GET SUSPENDED BASIC PROGRAM	
					3141	*		
1369	0E 01 17BA 0587				3142	KCN310 ALC	KCNDSV+@DSAD(@CADDR), \$BSADR	ADD EXTENSION FACTOR TO DADDR
					3143	*	DISK KCWDSV, WAIT	READ IN STATUS INFORMATION OF
					3144	*		* SUSPENDED BASIC PROGRAM
136F	C0 87 0025				3145	B	\$DISKN	PERFORM PHYSICAL DISK OP
1373	17B8			1374	3146	DC	AL2(KCNDSV)	DPL ADDRESS
1375	C0 87 0025				3147	B	\$DISKN	WAIT AND CHECK DISK ERRORS
1379	057F			137A	3148	DC	AL2(\$WAITF)	WAIT DPL ADDRESS

#KCNDI - DISPLAY CURRENT SYSTEM CONDITION

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00 23/06/22 PAGE 20
			3149	***	END OF EXPANSION ***	
137B	3D 00 1C00		3151	CLI	KCNSAV,@ZERO	IS THERE A SUSPENDED BASIC PROS
			3152	*	JNE KCN400	IF YES, JUMP TO MOVE IN NAME
137F	C0 87 1B3E		3153	B	DSVPRI	PRINT 'NO SUSPENDED PROGRAM'
1383	0C2B	1384	3154	DC	AL(@CADDR)(@@M028)	* MESSAGE
			3155	*	J KCN480	GO CHECK WORKFILE
1385	C0 87 1B3E		3156	KCN400 B	DSVPRI	PRINT 'SUSPENDED PROGRAM NAME:'
1389	0C27	138A	3157	DC	AL(@CADDR)(@@M027)	* MESSAGE
			3158	*		
138B	0C 07 1809 1C07		3159	MVC	KCNBUF+KCNLNM-1(KCNLNM),KCNSAV+KCNLNM-1	MOVE NAME TO BFR
1391	3C 08 17B5		3160	MVI	KCNPPL+@PRCNT,KCNLNM	SET PPL LENGTH COUNT
1395	C0 87 1B3E		3161	B	DSVPRI	PRINT PROGRAM NAME
1399	17B4	139A	3162	DC	AL(@CADDR)(KCNPPL)	

#KCNDI - DISPLAY CURRENT SYSTEM CONDITION

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	23/06/22	PAGE 21
					3164	*				
					3165	*	GET WORKFILE INFORMATION			
					3166	*				
139B	C0	80	164A		3167	KCN480 BC	KCN710,@NOP		IF IN UTIL, BYPASS WORKFILE INFO	
					3168	*				
139F	B8	40	83		3169	TBN	\$WFNME(,@XR),\$WFDEF		IS A WORKFILE DEFINED ?	
13A2	F2	10	0A		3170	JT	KCN500		IF YES, MOVE IN NAME, ETC.	
					3171	*				
13A5	C0	87	1B3E		3172	B	DSVPRI		PRINT 'NO WORKFILE DEFINED'	
13A9	0C5B			13AA	3173	DC	AL(@CADDR)(@@M040)		* MESSAGE	
13AB	C0	87	164A		3174	B	KCN710		CHECK CONFIGURATION RECORD	
					3175	*				
13AF	C0	87	1B3E		3176	KCN500 B	DSVPRI		PRINT 'WORKFILE INFORMATION: '	
13B3	0C2F			13B4	3177	DC	AL(@CADDR)(@@M029)		* MESSAGE	
					3178	*				
13B5	C0	87	1B3E		3179	B	DSVPRI		PRINT 'NAME: ' MSG	
13B9	0C33			13BA	3180	DC	AL(@CADDR)(@@M030)			
13BB	2C	07	1809 83		3181	MVC	KCNBUF+KCNLNM-1(KCNLNM),\$WFNME(,@XR)		MOVE NAME TO BUFFER	
13C0	3C	08	17B5		3182	MVI	KCNPPL+@PRCNT,KCNLNM		SET PPL LENGTH COUNT	
13C4	C0	87	1B3E		3183	B	DSVPRI		PRINT OUT WORKFILE NAME	
13C8	17B4			13C9	3184	DC	AL(@CADDR)(KCNPPL)			
					3185	*				
13CA	C0	87	1B3E		3186	B	DSVPRI		PRINT 'STATUS: ' MSG	
13CE	0C37			13CF	3187	DC	AL(@CADDR)(@@M031)			
13D0	B8	08	14		3188	TBN	\$INDR1(,@XR),\$WFLOK		IS THE FILE PROTECTED ?	
13D3	F2	10	09		3189	JT	KCN510		YES, JUMP TO MOVE IN MSG	
					3190	*				
13D6	C0	87	1B3E		3191	B	DSVPRI		PRINT 'NOT PROTECTED' MSG	
13DA	0C43			13DB	3192	DC	AL(@CADDR)(@@M034)			
13DC	F2	87	06		3193	J	KCN520		GO FIND WORKFILE TYPE	
					3194	*				
13DF	C0	87	1B3E		3195	KCN510 B	DSVPRI		PRINT 'PROTECTED' MSG	
13E3	0C3F			13E4	3196	DC	AL(@CADDR)(@@M033)			

#KCNDI - DISPLAY CURRENT SYSTEM CONDITION

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	23/06/22	PAGE 22
					3198	*				
					3199	*	GET WORKFILE TYPE AND NUMBER OF LINES			
					3200	*				
13E5	C0	87	1B3E		3201	KCN520	B DSVPRI		PRINT 'TYPE: ' MESSAGE	
13E9	0C3B			13EA	3202		DC AL(@CADDR) (@@M032)			
					3203	*				
13EB	B8	80	14		3204		TBN \$INDR1(, @XR), \$BASIC		IS FILE TYPE BASIC ?	
13EE	F2	10	13		3205		JT KCN525		YES, GO PRINT 'BASIC' MSG	1-4
13F1	B8	01	14		3206		TBN \$INDR1(, @XR), \$PROCI		IS FILE TYPE 'PROCEDURE' ?	1-4
13F4	F2	90	28		3207		JF KCN530		IF NOT, MOVE 'DATA'_INTO_BUF	1-4
13F7	C0	87	1B3E		3208		B DSVPRI		PRINT 'PROCEDURE FILE' MSG	1-4
13FB	140D			13FC	3209		DC AL(@CADDR) (@@MPRO)		ADDRESS OF MESSAGE PARAMETERS	1-4
13FD	3C	87	14ED		3210		MVI KCN580+@Q, @UCB		SET SW TO SKIP ALLOCATED INF	1-5
1401	F2	87	4A		3211		J KCN560		GO CHECK NUMBER OF LINES	1-4
					3212	*				
1404	C0	87	1B3E		3213	KCN525	B DSVPRI		PRINT 'BASIC PROGRAM FILE'	1-4
1408	0C47			1409	3214		DC AL(@CADDR) (@@M035)			
140A	F2	87	41		3215		J KCN560		SO CHECK NUMBER OF LINES	
					3216	*				1-4
140D	40			140D	3217	@@MPRO	DC AL1(@PRINT)		FUNCTION CODE	1-4
140E	0E			140E	3218		DC IL1'14'		LENGTH OF MESSAGE	1-4
140F	1411			1410	3219		DC AL(@CADDR) (@@TPRO)		ADDRESS OF MESSAGE	1-4
				1411	3220	@@TPRO	EQU *		LEFT BYTE OF MESSAGE	1-4
1411	D7D9D6C3C5C4E4D9			141E	3221		DC CL014'PROCEDURE FILE'		MESSAGE TO BE PRINTED	1-4
					3222	*				
141F	3C	87	14ED		3223	KCN530	MVI KCN580+@Q, @UCB		SET SW TO SKIP ALLOCATED INFO	
1423	38	20	03D4		3224		TBN \$INDR1, \$PGMDT		IS DATA FILE PROG GENERATED ?	
1427	F2	10	09		3225		JT KCN535		YES, GO PRINT MSG	
					3226	*				
142A	C0	87	1B3E		3227		B DSVPRI		PRINT 'KEYBOARD DATA FILE - '	
142E	0C4B			142F	3228		DC AL(@CADDR) (@@M036)		* MESSAGE	
1430	F2	87	06		3229		J KCN540		GO FIND PRECISION	
					3230	*				
1433	C0	87	1B3E		3231	KCN535	B DSVPRI		PRINT 'PROGRAM DATA FILE' PISS	
1437	0C4F			1438	3232		DC AL(@CADDR) (@@M037)			
1439	B8	02	14		3233	KCN540	TBN \$INDR1(, @XR), \$PRESN		IS LONG PRECISION IND ON ?	
143C	F2	10	09		3234		JT KCN550		YES, SO PRINT MSG	
					3235	*				
143F	C0	87	1B3E		3236		B DSVPRI		ELSE, PRINT 'SHORT PRECISION'	
1443	0C97			1444	3237		DC AL(@CADDR) (@@M055)		* MESSAGE	
1445	F2	87	06		3238		J KCN560		GO TEST FOR LINES	
					3239	*				
1448	C0	87	1B3E		3240	KCN550	B DSVPRI		PRINT 'LONG PRECISION' MSG	
144C	0C93			144D	3241		DC AL(@CADDR) (@@M054)			
144E	38	20	03D4		3242	KCN560	TBN \$INDR1, \$PGMDT		PROGRAM GENERATED DATA FILE ?	
1452	F2	10	28		3243		JT KCN561		YES, OMIT GETTING LINES	
					3244	*				
				0002	3245		DROP @XR		DROP USE OF XR AS A BASE REG	
1455	C2	02	1799		3246		LA KCNFI+1, @XR		POINT XR TO LEFT BYTE OF NO. OF	
					3247	*			* LINES IN THE WORK FILE	
1459	C0	87	17BE		3248		B C2DEC5		CONVERT NO. TO EBCDIC	
					3249	*				
145D	07	20	17FC	17A2	3250		SZ C2DVAL(KCNLD3), KCNXF1(KCNLB1)		SUBT '1' FROM LINES FOR EOS	
1463	0C	02	1804	17FC	3251		MVC KCNBUF+KCNLD3-1(KCNLD3), C2DVAL		MOVE DEC. NO. TO BFR	
1469	3C	03	17B5		3252		MVI KCNPP+@PRCNT, KCNLD3		SET PRINT LENGTH	
146D	3C	C0	17B4		3253		MVI KCNPP+@PCTRL, @PRETR		SET CARR RET AFTER PRINT	

#KCNDI - DISPLAY CURRENT SYSTEM CONDITION

ERR LOC		OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	23/06/22	PAGE	23
1471	C0 87 1B3E			3254	B	DSVPRI				
1475	0C53		1476	3255	DC	AL (@CADDR) (@@M038)				PRINT 'LINES: ' MSG
				3256 *						
1477	C0 87 1B3E			3257	B	DSVPRI				PRINT NO. OF LINES
147B	17B4		147C	3258	DC	AL (@CADDR) (KCNPPL)				

#KCNDI - DISPLAY CURRENT SYSTEM CONDITION

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00 23/06/22 PAGE 24
					3260	*		
					3261	*	SET NUMBER OF DISK UNITS IN WORKFILE	
					3262	*		
147D	0C	00	179C	1798	3263	KCN561 MVC	KCNLMR(KCNBL1),KCNFIT	MOVE NO. OF DISK UNITS TO A
					3264	*		* HOLD AREA
1483	C2	02	179B		3265	LA	KCNLMR-1,@XR	POINT XR TO LEFT BYTE OF NO.
					3266	*		* OF DISK UNITS USED
1487	38	20	03D4		3267	TBN	\$INDR1,\$PGMDT	IS IT A PGM GENERATED DATA FILE
148B	F2	10	40		3268	JT	KCN570	IF YES, JUMP TO CONVERT NO.
					3269	*		
148E	3D	7E	179C		3270	CLI	KCNLMR,KCN126	ELSE,IS NO. OF DS'S 126 - 189 ?
1492	F2	82	09		3271	JL	KCN562	IF NOT, TEST RANGE 62 - 125
					3272	*		
1495	0E	00	179C	17A1	3273	ALC	KCNLMR(KCNBL1),KCNTHR	IF NO. OF DB'S 126'-189, ADD '3'
149B	F2	87	16		3274	J	KCN567	TEST MODE
					3275	*		
149E	3D	3E	179C		3276	KCN562 CLI	KCNLMR,KCN062	IS NO. OF DB'S 62 - 125 ?
14A2	F2	82	09		3277	JL	KCN565	IF NOT, NO. OF DB'S <= 61
					3278	*		
14A5	0E	00	179C	17A0	3279	ALC	KCNLMR(KCNBL1),KCNTWO	IF NO. OF DB'S 62-125, ADD '2'
14AB	F2	87	06		3280	J	KCN567	TEST MODE
					3281	*		
14AE	0E	00	179C	179F	3282	KCN565 ALC	KCNLMR(KCNBL1),KCNONE	ELSE, 0 - 61 DB'S, SO ADD ONE
					3283	*		
14B4	38	80	03D4		3284	KCN567 TBN	\$INDR1,\$BASIC	IS MODE BASIC ?
14B8	F2	90	13		3285	JF	KCN570	IF NOT, JUMP TO CONVERT NO.
					3286	*		
14BB	38	10	03E0		3287	TBN	\$DBGUF,\$IOPGS	IS 2 SECTOR INDR ON ?
14BF	F2	90	06		3288	JF	KCN569	NO - ADD 1
14C2	0E	00	179C	179F	3289	ALC	KCNLMR(KCNBL1),KCNONE	YES - ADD 2
14C8	0E	00	179C	179F	3290	KCN569 ALC	KCNLMR(KCNBL1),KCNONE	
					3291	*		
14CE	C0	87	17BE		3292	KCN570 B	C2DEC5	CONVERT NO. TO EBCDIC
					3293	*		
14D2	0C	02	1804	17FC	3294	MVC	KCNBUF+KCNLD3-1(KCNLD3),C2DVAL	MOVE DEC. NO. TO BFR
14D8	C0	87	1B3E		3295	B	DSVPRI	PRINT 'DISK UNITS: ' MSG
14DC	0C57			14DD	3296	DC	AL(@CADDR)(@@M039)	
					3297	*		
14DE	3C	C0	17B4		3298	MVI	KCNPPL+@PCTRL,@PRETR	
14E2	3C	03	17B5		3299	MVI	KCNPPL+@PRCNT,KCNLD3	
					3300	*		
14E6	C0	87	1B3E		3301	B	DSVPRI	PRINT NO. OF DISK UNITS
14EA	17B4			14EB	3302	DC	AL(@CADDR)(KCNPPL)	

#KCNDI - DISPLAY CURRENT SYSTEM CONDITION

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00 23/06/22 PAGE 25
			3304	*		
			3305	*	GET ALLOCATED INFORMATION	
			3306	*		
14EC	C0 80 164A		3307	KCN580 BC	KCN710,@NOP	NOP OR SKIP ALLOC FILE INFO
			3308	*		* IF IN DATA MODE
			3309	*	DISK KCNDIO,WAIT	READ IN I/O SECTOR
14F0	C0 87 0025		3310	B	\$DISKN	PERFORM PHYSICAL DISK OP
14F4	17AE	14F5	3311	DC	AL2(KCNDIO)	DPL ADDRESS
14F6	C0 87 0025		3312	B	\$DISKN	WAIT AND CHECK DISK ERRORS
14FA	057F	14FB	3313	DC	AL2(\$WAITF)	WAIT DPL ADDRESS
			3314	***	END OF EXPANSION ***	
14FC	C2 02 1C00		3316	LA	KCNIOS,@XR	USE XR AS INDEX ACROSS SECTOR
			3317	*		
1500	BD 00 00		3318	CLI	@\$D1DC(,@XR),@ZERO	IS DEVICE CODE PRESENT ?
1503	F2 01 0A		3319	JNE	KCN600	IF YES, SKIP MOVING MSG OVER
			3320	*		
1506	C0 87 1B3E		3321	B	DSVPRI	PRINT 'NO WORKFILE ALLOCATION
150A	0C8B	150B	3322	DC	AL(@CADDR)(@@M052)	* INFORMATION' MESSAGE
150C	C0 87 164A		3323	B	KCN710	GET CONFIGURATION RECORD
			3324	*		
1510	C0 87 1B3E		3325	KCN600 B	DSVPRI	PRINT 'WORKFILE ALLOCATION
1514	0C5F	1515	3326	DC	AL(@CADDR)(@@M041)	* INFORMATION: ' MESSAGE
1516	C0 87 1B3E		3327	KCN605 B	DSVPRI	PRINT 'DEVICE: ' MESSAGE
151A	0C63	151B	3328	DC	AL(@CADDR)(@@M042)	
			3329	*		
151C	B8 20 00		3330	TBN	@\$D1DC(,@XR),@\$MBCD	IS IT A CARD FILE ?
151F	F2 10 28		3331	JT	KCN620	YES, MOVE 'CARD' INTO BFR
			3332	*		
1522	B8 10 00		3333	TBN	@\$D1DC(,@XR),@\$MBPT	ELSE, IS IT A PRINTER FILE ?
1525	F2 10 2B		3334	JT	KCN630	YES, MOVE 'PRINTER' TO BFQ
			3335	*		
1528	B8 08 00		3336	TBN	@\$D1DC(,@XR),@\$MBCR	ELSE, IS IT A CRT FILE ?
152B	F2 10 2E		3337	JT	KCN640	YES, MOVE 'CRT' TO BUFFER
			3338	*		
152E	B8 80 00		3339	TBN	@\$D1DC(,@XR),@\$MBPD	IS IT A PERMANENT DISK FILE ?
1531	F2 10 09		3340	JT	KCN610	IF YES, MOVE '(PERMANENT)' IN
			3341	*		
1534	C0 87 1B3E		3342	B	DSVPRI	PRINT 'DISK (SCRATCH) ' MSG
1538	0C77	1539	3343	DC	AL(@CADDR)(@@M047)	
153A	F2 87 27		3344	J	KCN660	GO FIND GET/PUT FILENAME

#KCNDI - DISPLAY CURRENT SYSTEM CONDITION

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153D	C0 87 1B3E		3346	KCN610	B	DSVPRI	PRINT 'DISK (PERMANENT) ' MSG
1541	0C73	1542	3347		DC	AL(@CADDR)(@@M046)	
1543	3C 87 1581		3348		MVI	KCN680+@Q,@UCB	SET SW TO GET FILENAME, VOL ID,
			3349	*			* AND PASSWORD
1547	F2 87 1A		3350		J	KCN660	GO FIND GET/PUT FILENAME
154A	C0 87 1B3E		3351	KCN620	B	DSVPRI	PRINT 'CARD' MSG
154E	0C67	154F	3352		DC	AL(@CADDR)(@@M043)	
1550	F2 87 0D		3353		J	KCN650	SET SW TO BYPASS DISK INFO
1553	C0 87 1B3E		3354	KCN630	B	DSVPRI	PRINT 'PRINTER' MSG
1557	0C6B	1558	3355		DC	AL(@CADDR)(@@M044)	
1559	F2 87 04		3356		J	KCN650	SET SW TO BYPASS DISK INFO
			3357	*			
155C	C0 87 1B3E		3358	KCN640	B	DSVPRI	PRINT 'CRT' MSG
			3359	*	DC	AL(@CADDR)(@@M045)	
1560	3C 87 157E		3360	KCN650	MVI	KCN670+@Q,@UCB	SET SW TO BYPASS CHECKING FOR
			3361	*			* DISK DATA FILENAME,PSWD,VOLID
1564	C0 87 1B3E		3362	KCN660	B	DSVPRI	PRINT 'GET/PUT FILENAME: ' MSG
1568	0C7B	1569	3363		DC	AL(@CADDR)(@@M048)	
			3364	*			
156A	2C 07 1809 08		3365		MVC	KCNBUF+@\$L1BF-1(@\$L1BF),@\$D1BF(,@XR)	MOVE GET/PUT FILE-
			3366	*			* NAME TO BFR
156F	3C 08 17B5		3367		MVI	KCNPPL+@PRCNT,@\$L1BF	SET PRINT LENGTH
1573	3C C0 17B4		3368		MVI	KCNPPL+@PCTRL,@PRETR	SET PRINT AND CARR RET CONTROL
1577	C0 87 1B3E		3369		B	DSVPRI	PRINT GET/PUT FILENAME
157B	17B4	157C	3370		DC	AL(@CADDR)(KCNPPL)	
			3371	*			
157D	F2 80 84		3372	KCN670	JC	KCN700,@NOP	NOP OR JUMP TO CHECK NEXT ENTEY
			3373	*			* IF PRINTER, CARD, OR CRT FILE
1580	F2 80 2C		3374	KCN680	JC	KCN690,@NOP	NOP OR JUMP TO CHECK NEXT ENTRY
			3375	*			* IF A PERMANENT DISK FILE
			3376	*			
			3377	*			
			3378	*			SCRATCH DISK FILE -- GET DISK FILE SIZE
1583	34 02 15AB		3379		ST	KCN685+@OP1,@XR	SAVE PTR ACROSS SECTOR
1587	E2 02 09		3380		LA	@\$D1FS-1(,@XR),@XR	POINT XR TO LEFT BYTE OF BINARY
			3381	*			* DISK FILE SUE
158A	C0 87 17BE		3382		B	C2DEC5	CONVERT NO. TO DECIMAL
			3383	*			
158E	C0 87 1B3E		3384		B	DSVPRI	PRINT 'FILE SIZE: ' MSG
1592	0D0B	1593	3385		DC	AL(@CADDR)(@@M093)	
			3386	*			
1594	0C 02 1804 17FC		3387		MVC	KCNBUF+KCNLD3-1(KCNLD3),C2DVAL	MOVE NUMBER TO BUFFER
159A	3C 03 17B5		3388		MVI	KCNPPL+@PRCNT,KCNLD3	SET PRINT LENGTH
159E	3C C0 17B4		3389		MVI	KCNPPL+@PCTRL,@PRETR	SET PRINT AND CARR RET CONTROL
			3390	*			
15A2	C0 87 1B3E		3391		B	DSVPRI	PRINT FILE SIZE
15A6	17B4	15A7	3392		DC	AL(@CADDR)(KCNPPL)	
			3393	*			
15A8	C2 02 0000		3394	KCN685	LA	*-*,@XR	RESTORE XR TO FIRST OF ENTRY
15AC	F2 87 55		3395		J	KCN700	CHECK NEXT ENTRY

#KCNDI - DISPLAY CURRENT SYSTEM CONDITION

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3397 *
3398 * PERMANENT DISK FILE GET FILENAME, PSWD & VOLUME ID
3399 *
15AF C0 87 1B3E 3400 KCN690 B DSVPRI PRINT 'DISK DATA FILENAME: '
15B3 0C7F 15B4 3401 DC AL(@CADDR)(@M049) * MESSAGE
3402 *
15B5 2C 07 1809 1E 3403 MVC KCNBUF+@$L1DF-1(@$L1DF),@$D1DF(,@XR) MOVE USER-FILENAME
3404 *
15BA 3C 08 17B5 3405 MVI KCNPPL+@PRCNT,$$L1DF SET PRINT LENGTH
15BE 3C C0 17B4 3406 MVI KCNPPL+@PCTRL,@PRETR SET PRINT AND CARR RFT CONTROL
15C2 C0 87 1B3E 3407 B DSVPRI PRINT USER FILENAME
15C6 17B4 15C7 3408 DC AL(@CADDR)(KCNPPL)
15C8 C0 87 1B3E 3409 B DSVPRI PRINT 'PASSWORD' MESSAGE
15CC 0C83 15CD 3410 DC AL(@CADDR)(@M050)
3411 *
15CE 2C 07 1809 16 3412 MVC KCNBUF+@$L1DP-1(@$L1DP),@$D1DP(,@XR) MOVE PASSWORD TO SFR
15D3 3C 08 17B5 3413 MVI KCNPPL+@PRCNT,$$L1DP SET PRINT LENGTH
15D7 3C C0 17B4 3414 MVI KCNPPL+@PCTRL,@PRETR SET PRINT AND CARR RET
3415 *
15DB C0 87 1B3E 3416 B DSVPRI PRINT PASSWORD
15DF 17B4 15E0 3417 DC AL(@CADDR)(KCNPPL)
3418 *
15E1 BD 40 09 3419 CLI @$D1DV-@$L1DV+1(,@XR),@BLANK VALID DISK LABEL PRESENT ?
15E4 F2 81 19 3420 JE KCN695 NO, OMIT PRINTING DISK LABEL MSG
3421 *
15E7 C0 87 1B3E 3422 B DSVPRI PRINT 'DISK LABEL: ' MESSAGE
15EB 0C87 15EC 3423 DC AL(@CADDR)(@M051)
3424 *
15ED 2C 05 1807 0E 3425 MVC KCNBUF+@$L1DV-1(@$L1DV),@$D1DV(,@XR) MOVE VOL-ID TO BFR
15F2 3C 06 17B5 3426 MVI KCNPPL+@PRCNT,$$L1DV SET PRINT LENGTH
15F6 3C C0 17B4 3427 MVI KCNPPL+@PCTRL,@PRETR SET PRINT AND CARR RET
3428 *
15FA C0 87 1B3E 3429 B DSVPRI PRINT VOLUME ID
15FE 17B4 15FF 3430 DC AL(@CADDR)(KCNPPL)
1600 3C 80 1581 3431 KCN695 MVI KCN680+@Q,@NOP SET SW OFF FOR PERM DISK INFO
3432 *
3433 * HAVE ALL THE ENTRIES BEEN PROCESSED
3434 *
1604 E2 02 20 3435 KCN700 LA $$L1E(,@XR),@XR POINT XR TO NEXT ENTRY
1607 3C 01 17B5 3436 MVI KCNPPL+@PRCNT,KCNLB1 SET CHAR COUNT FOR CARRIER RET
160B 3C 40 1802 3437 MVI KCNBUF,@BLANK SET A BLANK IN BFR
160F C0 87 1B3E 3438 B DSVPRI PRINT A BLANK LINE
1613 17B4 1614 3439 DC AL(@CADDR)(KCNPPL)
1615 0F 00 17AB 179F 3440 SLC KCNCNT(KCNBL1),KCNONE DECR COUNTER OF I/O ENTRIES
161B F2 01 20 3441 JNZ KCN705 CONTINUE LOOP
161E C2 02 1C00 3442 LA KCN10S,@XR POINT XR AT I/O RECORD
1622 BD 00 1F 3443 KCN702 CLI @$D1SW(,@XR),@ZERO 2 SECTOR SWITCH ON ?
1625 F2 81 22 3444 JE KCN710 NO - GET OUT OF LOOP
1628 0C 00 17B0 17AD 3445 MVC KCNDIO+@DADDR,KCN102 SET UP DPL TO READ SECTOR #2
3446 * DISK KCNDIO READ 2ND I/O SECTOR
162E C0 87 0025 3447 B $DISKN PERFORM PHYSICAL DISK OD
1632 17AE 1633 3448 DC AL2(KCNDIO) DPL ADDRESS
3449 *** END OF EXPANSION ***

1634 3C 04 17AB 3451 MVI KCNCNT,$$@#04 MAX OF 4 ENTRIES IN 2ND SECTOR
3452 * DISK $WAITF WAIT ON 2ND SECTOR READ

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#KCNDI - DISPLAY CURRENT SYSTEM CONDITION

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	23/06/22	PAGE 29
					3460	*				
					3461	*	GET CONFIGURATION RECORD			
					3462	*				
164A	C2	02	03C0	03C0	3463	KCN710	LA \$NUCBS,@XR			POINT XR TO NUCLEUS
					3464		USING \$NUCBS,@XR			SET UP XR AS A BASE REG
					3465	*				
164E	C0	87	1B3E		3466		B DSVPRI			PRINT 'CONFIGURATION RECORD: '
1652	0C8F			1653	3467		DC AL(@CADDR) (@@M053)			* MESSAGE
					3468	*				
1654	B8	40	12		3469		TBN \$IOIND(,@XR), \$DTRDR			IS DATA RECORDER ON SYSTEM ?
1657	F2	10	09		3470		JT KCN720			YES, GO PRINT 'CARD' MSG
					3471	*				
165A	C0	87	1B3E		3472		B DSVPRI			PRINT 'NOCARD'
165E	0CC3			165F	3473		DC AL(@CADDR) (@@M066)			
1660	F2	87	16		3474		J KCN730			GO CHECK FOR CRT
					3475	*				
1663	38	80	03DD		3476	KCN720	TBN \$CONFIG,\$BIGCD			IS 129 CONFIGURED ? 1-4
1667	F2	90	09		3477		JF KCN725			JUMP IF NOT 1-4
166A	C0	87	1B3E		3478		B DSVPRI			PRINT 1-4
166E	0CBF			166F	3479		DC AL(@CADDR) (@@M094)			* 'CARD80' 1-4
1670	F2	87	06		3480		J KCN730			CONTINUE SET-UP OF PRT LINE 1-4
1673	C0	87	1B3E		3481	KCN725	B DSVPRI			PRINT 1-4
1677	0CBB			1678	3482		DC AL(@CADDR) (@@M065)			* 'CARD96' 1-4
					3483	*				
1679	B8	02	12		3484	KCN730	TBN \$IOIND(,@XR), \$CRTAV			IS CRT ON THE SYSTEM ?
167C	F2	10	09		3485		JT KCN740			YES, GO PRINT 'CRT' MSG
					3486	*				
167F	C0	87	1B3E		3487		B DSVPRI			PRINT 'NOCRT'
1683	0CCB			1684	3488		DC AL(@CADDR) (@@M068)			
1685	F2	87	06		3489		J KCN750			GO CHECK PRINTER
					3490	*				
1688	C0	87	1B3E		3491	KCN740	B DSVPRI			PRINT 'CRT'
168C	0CC7			168D	3492		DC AL(@CADDR) (@@M067)			
					3493	*				
168E	B8	80	12		3494	KCN750	TBN \$IOIND(,@XR), \$LNPTR			IS THE LINE PRINTER ON SYSTEM ?
1691	F2	10	18		3495		JT KCN770			YES, GO CHECK FOR 22 INCH LP
					3496	*				
1694	B8	01	1D		3497		TBN \$CONFIG(,@XR), \$22IMP			ELSE, IS IT A 22 INCH MP ?
1697	F2	10	09		3498		JT KCN760			YES, PRINT 22 INCH MP MSG
					3499	*				
169A	C0	87	1B3E		3500		B DSVPRI			ELSE, PRINT '13 INCH MATRIX
169E	0CCF			169F	3501		DC AL(@CADDR) (@@M069)			* PRINTER' MESSAGE
16A0	F2	87	1E		3502		J KCN790			GO CHECK COMMAND KEYS
					3503	*				
16A3	C0	87	1B3E		3504	KCN760	B DSVPRI			PRINT '22MP' MSG
16A7	0CD3			16A8	3505		DC AL(@CADDR) (@@M070)			
16A9	F2	87	15		3506		J KCN790			GO CHECK COMMAND KEYS
					3507	*				
16AC	B8	01	1D		3508	KCN770	TBN \$CONFIG(,@XR), \$22IMP			IS IT 22 INCH LINE PRINTER ?
16AF	F2	10	09		3509		JT KCN780			YES, GO PRINT MSG
					3510	*				
16B2	C0	87	1B3E		3511		B DSVPRI			ELSE, PRINT '13LP' MSG
16B6	0CD7			16B7	3512		DC AL(@CADDR) (@@M071)			
16B8	F2	87	06		3513		J KCN790			GO CHECK COMMAND KEYS
					3514	*				
16BB	C0	87	1B3E		3515	KCN780	B DSVPRI			PRINT '22LP' MSG

#KCNDI - DISPLAY CURRENT SYSTEM CONDITION

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	23/06/22	PAGE	30
	16BF	0CDB		16C0	3516		DC AL(@CADDR)(@M072)				
					3517	*					
	16C1	B8 08 1D			3518	KCN790 TBN	\$CONFIG(,@XR),\$16CKY			ARE THERE 16 COMMAND KEYS ?	
	16C4	F2 10 09			3519	JT	KCN800			YES, GO PRINT MSG	
					3520	*					
	16C7	C0 87 1B3E			3521	B	DSVPRI			ELSE, PRINT '8CK' MSG	
	16CB	0CDF		16CC	3522	DC	AL(@CADDR)(@M073)				
	16CD	F2 87 06			3523	J	KCN810			GO CHECK KEYBOARD	
					3524	*					
	16D0	C0 87 1B3E			3525	KCN800 B	DSVPRI			PRINT '16CK' MSG	
	16D4	0CE3		16D5	3526	DC	AL(@CADDR)(@M074)				
					3527	*					
	16D6	C0 87 1B3E			3528	KCN810 B	DSVPRI			PRINT 'KB' MSG	
	16DA	0D07		16DB	3529	DC	AL(@CADDR)(@M092)				
	16DC	0C 00 179E 03E1			3530	MVC	KCNWID(1),\$KEYBD			EXPAND KEYBOARD NO. TO 2 BYTES	
	16E2	C2 02 179D			3531	LA	KCNWID-1,@XR			PT XR TO LEFT BYTE OF NO.	
					3532	*					
	16E6	C0 87 17BE			3533	B	C2DEC5			CONVERT NO. TO EBCDIC	
					3534	*					
	16EA	39 0F 17FB			3535	TBF	C2DVAL-1,KCNMSK			IS IT A ONE DIGIT NO.	
	16EE	F2 10 0D			3536	JT	KCN825			YES, JUMP TO MOVE IN ONE DGT	
					3537	*					
	16F1	0C 01 1803 17FC			3538	MVC	KCNBUF+1(KCNBL2),C2DVAL			ELSE, MOVE 2 DIGITS TO BFR	
	16F7	3C 02 17B5			3539	MVI	KCNPPL+@PRCNT,KCNBL2			SET PPL TO PRINT TWO CHARS	
	16FB	F2 87 0A			3540	J	KCN830			GO PRINT VALUE	
					3541	*					
	16FE	0C 00 1802 17FC			3542	KCN825 MVC	KCNBUF(1),C2DVAL			MOVE 1 DIGIT TO BUFFER	
	1704	3C 01 17B5			3543	MVI	KCNPPL+@PRCNT,KCNBL1			SET PPL TO PRINT 1 DIGIT	
	1708	3C 40 17B4			3544	KCN830 MVI	KCNPPL+@PCTRL,@PRINT			SET PPL TO PRINT ONLY	
	170C	C0 87 1B3E			3545	B	DSVPRI			PRINT OUT KEYBOARD NUMBER	
	1710	17B4		1711	3546	DC	AL(@CADDR)(KCNPPL)				

#KCNDI - DISPLAY CURRENT SYSTEM CONDITION

ERR LOC OBJECT CODE ADDR STMT SOURCE STATEMENT VER 15, MOD 00 23/06/22 PAGE 31

			3548 *			
			3549 *		GET DISK CAPACITIES	
			3550 *			
1712	C2 02 03C0		3551	LA	\$NUCBS,@XR	POINT XR TO NUCLEUS
			3552 *			
1716	B8 01 17		3553	TBN	\$DKSIZ(,@XR),\$DK100	IS THE DISK CAPACITY 2D70 ?
1719	F2 90 09		3554	JF	KCN840	IF NOT, IS IT 2D100 ?
			3555 *			
171C	C0 87 1B3E		3556	B	DSVPRI	PRINT '2D70' MSG
1720	0CEB	1721	3557	DC	AL(@CADDR)(@@M077)	
1722	F2 87 33		3558	J	KCN880	GET CORE SIZE
			3559 *			
1725	B8 02 17		3560	KCN840 TBN	\$DKSIZ(,@XR),\$DK200	IS THE DISK CAPACITY 2D100 ?
1728	F2 90 09		3561	JF	KCN850	IF NOT, IS IT 2D200 ?
			3562 *			
172B	C0 87 1B3E		3563	B	DSVPRI	PRINT '2D100' MSG
172F	0CE7	1730	3564	DC	AL(@CADDR)(@@M076)	
1731	F2 87 24		3565	J	KCN880	GET CORE SIZE
			3566 *			
1734	B8 04 17		3567	KCN850 TBN	\$DKSIZ(,@XR),\$DK400	IS THE DISK CAPACITY 2D200 ?
1737	F2 90 09		3568	JF	KCN860	IF NOT, IS IT 3D ?
			3569 *			
173A	C0 87 1B3E		3570	B	DSVPRI	PRINT '2D200' MSG
173E	0CEB	173F	3571	DC	AL(@CADDR)(@@M077)	
1740	F2 87 15		3572	J	KCN880	GET CORE SIZE
			3573 *			
1743	B8 08 17		3574	KCN860 TBN	\$DKSIZ(,@XR),\$DK600	IS THE DISK CAPACITY 3D?
1746	F2 90 09		3575	JF	KCN870	IF NOT, MOVE IN '4D'
			3576 *			
1749	C0 87 1B3E		3577	B	DSVPRI	PRINT '3D' MSG
174D	0CEF	174E	3578	DC	AL(@CADDR)(@@M078)	
174F	F2 87 06		3579	J	KCN880	GET CORE SIZE
			3580 *			
1752	C0 87 1B3E		3581	KCN870 B	DSVPRI	PRINT '4D' MSG
1756	0CF3	1757	3582	DC	AL(@CADDR)(@@M079)	

#KCNDI - DISPLAY CURRENT SYSTEM CONDITION

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	23/06/22	PAGE 32
	1758	B9 06 1D			3584	KCN880	TBF \$CONFIG(,@XR),\$12K+\$16K			IS CORE SIZE = 8K ?
	175B	F2 90 09			3585		JF KCN890			IF NOT, IS IT 12K ?
					3586	*				
	175E	C0 87 1B3E			3587		B DSVPRI			PRINT '8K' MSG
	1762	0C9B		1763	3588		DC AL(@CADDR)(@@M056)			
	1764	F2 87 15			3589		J KCN950			EXIT
					3590	*				
	1767	B8 04 1D			3591	KCN890	TBN \$CONFIG(,@XR),\$12K			IS CORE SIZE = 12K ?
	176A	F2 90 09			3592		JF KCN900			IF NOT, MOVE IN '16K'
					3593	*				
	176D	C0 87 1B3E			3594		B DSVPRI			PRINT '12K'
	1771	0C9F		1772	3595		DC AL(@CADDR)(@@M057)			
	1773	F2 87 06			3596		J KCN950			EXIT
					3597	*				
	1776	C0 87 1B3E			3598	KCN900	B DSVPRI			PRINT '16K' MSG
	177A	0CA3		177B	3599		DC AL(@CADDR)(@@M058)			
					3600	*				
					3601	*	EXIT			
					3602	*				
	177C	3C 01 17B5			3603	KCN950	MVI KCNPPL+@PRCNT,KCNBL1			SET CHARACTER COUNT
	1780	3C 40 1802			3604		MVI KCNBUF,@BLANK			SET BLANK IN BUFFER
	1784	3C C0 17B4			3605		MVI KCNPPL+@PCTRL,@PRETR			SET PPL TO DO CARR RET
	1788	C0 87 1B3E			3606		B DSVPRI			PRINT BLANK LINE
	178C	17B4		178D	3607		DC AL(@CADDR)(KCNPPL)			
					3608	*				
	178E	C0 87 1907			3609		B DLPRNT			WAIT
	1792	057F		1793	3610		DC AL(@CADDR)(\$WAITF)			
					3611	*				
	1794	C0 87 04A1			3612		B \$CARPL			EXIT

#KCNDI - DISPLAY CURRENT SYSTEM CONDITION

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00 23/06/22 PAGE 33
		3614	*			
		3615	*		MISCELLANEOUS EQUATES FOR CONDITION KEYWORD	
		3616	*			
		0000	3617	KCNDC3 EQU	0	DISP FOR FIRST DGT OF MONTH
		0001	3618	KCNDC4 EQU	1	DISP FOR SECOND DGT OF MONTH
		0003	3619	KCNDC5 EQU	3	DISP FOR FIRST DGT OF DAY
		0004	3620	KCNDC6 EQU	4	DISP FOR SECOND DGT OF DAY
		0006	3621	KCNDC7 EQU	6	DISP FOR FIRST DGT OF YEAR
		0007	3622	KCNDC8 EQU	7	DISP FOR YEAR AND DATE FORMAT
		0000	3623	KCN000 EQU	0	ZERO DISPLACEMENT FOR
		0007	3624	KCN007 EQU	7	DISP TO PT TO LEFT BYTE OF PSWD
		0040	3625	KCNNOP EQU	C' '	BLANK TO IND PSWD UNDEFINED
		0001	3626	KCNDF1 EQU	1	BITS TO INDICATE F1
		0002	3627	KCNDR2 EQU	2	BITS TO INDICATE R2
		0003	3628	KCNDF2 EQU	3	BITS TO INDICATE F2
		0005	3629	KCNDO5 EQU	5	DISP FOR VOLUME ID
		0060	3630	KCNEQU EQU	C' - '	EQUAL SIGN
		007A	3631	KCNCOL EQU	C' : '	COLON
		000F	3632	KCNMSK EQU	X'0F'	BITS TO TEST OFF FOR EBCDIC ITS
		0001	3633	KCNBL1 EQU	1	BINARY LENGTH OF 1 BYTE
		0002	3634	KCNBL2 EQU	2	BINARY LENGTH OF 2 BYTES
		0001	3635	KCNMT1 EQU	1	DISP TO 'DAY' BYTE OF DATE
		0002	3636	KCNMT2 EQU	2	DISP TO 'MONTH' BYTE IN DATE
		0008	3637	KCNUPD EQU	8	LENGTH OF UNPACKED DATE
		0003	3638	KCNLD3 EQU	3	LENGTH OF THREE DECIMAL DIGITS
		0008	3639	KCNLNM EQU	8	LENGTH OF WORKFILE NAME
		0006	3640	KCNLVI EQU	6	LENGTH OF VOLUME ID
		0060	3641	KCNDSH EQU	C' - '	DASH
		0002	3642	KCNLLN EQU	2	LENGTH IN BYTES OF LINES IN FIT
		0001	3643	KCNLDU EQU	1	LENGTH IN BYTES OF DISK UNITS
		0001	3644	KCNLB1 EQU	1	LENGTH OR ONE BYTE
		0001	3645	KCNSC1 EQU	1	SECTOR COUNT OF ONE
		007E	3646	KCN126 EQU	126	CUT-OFF PT. ROR 126-189 DB'S
		003E	3647	KCN062 EQU	62	CUT-OFF PT. FOR 62-125 DB'S
		0469	3648	SCKERR EQU	\$CAERK	CALL ERR PROG IF ERR IN SCKDEV
		1798	3649	KCNFIT EQU	*	START OF SAVE AREA FOR FIT
1798		179A	3650	DS	XL (KCNLLN+KCNLDU)	* SAVE LINES AND DISK UNITS

#KCNDI - DISPLAY CURRENT SYSTEM CONDITION

ERR LOC OBJECT CODE ADDR STMT SOURCE STATEMENT VER 15, MOD 00 23/06/22 PAGE 34

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3652 *
3653 *          CONSTANTS AND SAVE AREAS
3654 *
179B      179B 3655 KCN960 EQU *          START OF LEFT MARGIN AND WIDTH
179D      179C 3656 KCNLMR DS CL2        FOR LEFT MARGIN, NO. DISK UNITS
179D      179E 3657 KCNWID DS CL2        FOR WIDTH
179B      3658      ORG KCN960          PREPARE TO INITIALIZE
179B 00000000 179E 3659      DC XL4'00000000' INITIALIZE MARGINS TO ZERO
179F 01      179F 3660 KCNONE DC XL1'01' INCREMENT OF '1'
17A0 02      17A0 3661 KCNTWO DC XL1'02' INCREMENT OF '2'
17A1 03      17A1 3662 KCNTHR DC XL1'03' INCREMENT OF '3'
17A2 F1      17A2 3663 KCNXF1 DC XL1'F1' EBCDIC ONE
17A3      17A3 3664 KCN970 EQU *          START OF FORMAT FOR DATE
17A3      17AA 3665 KCNDAT DS CL(KCNUPD) SAVE AREA FOR UNPACKED DATE
17A3      3666      ORG KCN970          PREPARE TO INITIALIZE
17A3 F0F061F0F061F0F0 17AA 3667      DC CL(KCNUPD)'00/00/00' FORMAT FOR UNPACKED DATE
17AB      17AB 3668 KCN980 EQU *          START OF COUNTER
17AB      17AB 3669 KCNCNT DS XL1        COUNTER FOR ENTRIES IN I/O RCD
17AB      3670      ORG KCN980          PREPARE TO INITIALIZE
17AB 08      17AB 3671      DC AL1(##08) * COUNTER TO 8 ENTRIES
17AC 045D     17AD 3672 KCNI02 DC AL2(##IO2) DISK ADDR OF I/O SECTOR #2
3673 *
3674 *          DPL FOR READING I/O RECORD
3675 *
3676 *KCNDIO DPL  FUNC-DGET,DADDR-##IO1,CNT-##IO,CADDR-KCNIOS
17AE 01      17AE 3677 KCNDIO EQU *          DISK PARAMETER LIST
17AF 0459     17AE 3678      DC AL1(@DGET) REQUESTED FUNCTION
17B1 01      17B0 3679      DC AL2(##IO1) DISK ADDRESS
17B2 1C00     17B1 3680      DC AL1(##IO) SECTOR COUNT
17B2      17B3 3681      DC AL2(KCNIOS) BUFFER ADDRESS
3682 *** END OF EXPANSION ***
3683 *
3684 *          DPL FOR PRINTING LINES
3685 *
3686 *KCNPPL PPL  FUNC-@DGET,CNT-KCNLB1,CADR-KCNBUF
17B4 01      17B4 3687 KCNPPL EQU *          PPL ADDRESS
17B5 01      17B4 3688      DC AL1(@DGET) FUNCTION REQUESTED
17B6 1802     17B5 3689      DC AL1(KCNLB1) PRINT COUNT
17B6      17B7 3690      DC AL2(KCNBUF) DATA ADDRESS
3691 *** END OF EXPANSION ***
3692 *
3693 *          DPL FOR READING IN SUSPENDED BASIC PROG STATUS INFO
3694 *
3695 *KCNSDV DPL  FUNC-@DGET,DADDR-##SSA,CNT-KCN$C1,CADDR=KCNSAV
17B8 01      17B8 3696 KCNSDV EQU *          DISK PARAMETER LIST
17B9 1128     17B8 3697      DC AL1(@DGET) REQUESTED FUNCTION
17BB 01      17BA 3698      DC AL2(##SSA) DISK ADDRESS
17BC 1C00     17BB 3699      DC AL1(KCN$C1) SECTOR COUNT
17BC      17BD 3700      DC AL2(KCNSAV) BUFR ADDRESS
3701 *** END OF EXPANSION ***

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C2DEC5 - CONVERT 2 BYTE BIN NR TO 5 BYTE DEC NR

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER	15,	MOD	00	23/06/22	PAGE	36
					3705+	*****								
					3706+	*FUNCTION -								*
					3707+	*SERIALLY REUSABLE SUBROUTINE TO CONVERT A 2 BYTE BINARY VALUE TO								*
					3708+	*A 5 BYTE POSITIVE DECIMAL NUMBER.								*
					3709+	*ON ENTRY @XR POINTS TO THE LEFT BYTE OF THE BINARY VALUE.								*
					3710+	*ON RETURN C2DVAL IS THE RIGHT BYTE OF THE 5 BYTES DECIMAL VALUE								*
					3711+	*WITH LEADING ZEROS WHICH MAY BE MODIFIED BY THE USER IN ANY WAY								*
					3712+	*IN IT'S LOCATION.								*
					3713+	*THE 2 BYTES BINARY VALUE IS NOT ALTERED.								*
					3714+	*@XR IS NOT ALTERED.								*
					3715+	*@BR IS SAVED AND RESTORED AT EXIT.								*
					3716+	*****								
				17BE	3718+	C2DEC5 EQU *	MODULE ENTRY POINT							
				17BE	3719+	USING C2DEC5,@BR	BASE ADDRESS SPECIFICATION							
17BE	34	01	17F2		3720+	ST C2D050+@OP1,@BR	SAVE @BR							
17C2	C2	01	17BE		3721+	LA C2DEC5,@BR	LOAD BASE REGISTER							
17C6	74	08	38		3722+	ST C2D052+@OP1(,@BR),@ARR	SAVE RETURN ADDRESS							
					3723+	*INITIALIZE DECIMAL INCREMENTER AND DECIMAL SUM TO 1 AND 0 RESP.								
17C9	54	90	43 39		3724+	ZAZ C2D903(C2D903-C2D901,@BR),C2D901(C2D902-C2D901,@BR)								
17CD	7C	01	17		3725+	MVI C2D030+@D1(,@BR),@B1	INITIALIZE DISP TO BYTE 1							
17D0	7C	01	16		3726+	C2D020 MVI C2D030+@Q(,@BR),@B1	INIT TEST TO BIT 7							
					3727+	*								
17D3	B8	00	00		3728+	C2D030 TBN *-*(,@XR),*-*	TEST IF THIS BIT IS OFF							
17D6	F2	90	04		3729+	JF C2D040	* BR AROUND SUM INCREMENT							
					3730+	*INCREMENT DECIMAL SUM BY DECIMAL VALUE OF THIS TESTED BIT								
17D9	56	04	3E 43		3731+	AZ C2DVAL(C2D903-C2DVAL,@BR),C2D903(C2D903-C2DVAL,@BR)								
					3732+	*DOUBLE DECIMAL VALUE OF INCREMENT TO VALUE OF NEXT BIT								
17DD	56	04	43 43		3733+	C2D040 AZ C2D903(C2D903-C2DVAL,@BR),C2D903(C2D903-C2DVAL,@BR)								
17E1	5E	00	16 16		3734+	ALC C2D030+@Q(1,@BR),C2D030+@Q(,@BR)	SHIFT BIT MASK LEFT ONE							
17E5	D0	20	15		3735+	BNOL C2D030(,@BR)	CONTINUE LOOP UNLESS ALL BITS							
					3736+	*TESTED								
17E8	5F	00	17 13		3737+	SLC C2D030+@D1(1,@BR),C2D020+@Q(,@BR)	DECR DISP TO BYTE 0							
17EC	D0	81	12		3738+	BZ C2D020(,@BR)	FALL THROUGH IF UNDERFLOW							
17EF	C2	01	0000		3739+	C2D050 LA *-*,@BR	RESTORE @BR							
17F3	C0	87	0000		3740+	C2D052 B *-*	RETURN TO CALLING PROGRAM							
					3741+	*								
					3742+	*** WORK AREA								
					3743+	*								
17F7	F1			17F7	3744+	C2D901 DC DL1'1'	INIT WORK AREA							
				17F8	3745+	C2D902 EQU *	FIST BYTE OF DECIMAL VALUE							
17F8				17FC	3746+	C2DVAL DS CL5	5 BYTES DECIMAL VALUE							
17FD				1801	3747+	C2D903 DS CL5	DECIMAL INCREMENTER							
					3748+	***								
					3749	*								
					3750	* \$CKOU								
							END OF C4DEC5							***

SCKOUT - CHECK THE NEXT PARAMETER

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	VER 15, MOD 00 23/06/22 PAGE 37
		3752+		*****	
		3753+*	5703-XM1	COPYRIGHT IBM CORP. 1970	*
		3754+*		REFER TO INSTRUCTIONS ON COPYRIGHT NOTICE, 120-2083	*
		3755+*			*
		3756+*		*****	
		3757+*		STATUS	*
		3758+*		VERSION 1 MODIFICATION 0	*
		3759+*			*
		3760+*		FUNCTION	*
		3761+*		SCKOUT, ENTERED AT SCKOUT, WILL CHECK THE NEXT PARAMETER FOR THE	*
		3762+*		'CRT' OR 'PRINTER' PARAMETER AND SET THE APPROPRIATE INDICATORS	*
		3763+*		FOR DLPRNT. SCKOUT, ENTERED AT SCKDEV, WILL TEST THE NUCLEUS	*
		3764+*		INDICATORS FOR THE SPECIFIED OUTPUT DEVICE AND, IF NO ERRORS ARE	*
		3765+*		FOUND, WILL RETURN TO THE USER WITH THE APPROPRIATE OUTPUT DEVICE	*
		3766+*		READY.	*
		3767+*			*
		3768+*		ENTRY POINTS	*
		3769+*		SCKOUT HAS THE FOLLOWING TWO ENTRY POINTS:	*
		3770+*		* SCKOUT - ENTRY TO CHECK THE NEXT PARAMETER FOR THE 'CRT' OR	*
		3771+*		'PRINTER' SPECIFICATION	*
		3772+*		* SCKDEV - ENTRY TO CHECK AND MAKE READY THE SPECIFIED OUTPUT	*
		3773+*		DEVICE.	*
		3774+*			*
		3775+*		INPUT	*
		3776+*		INPUT TO SCKOUT (ENTRY POINT SCKOUT) IS THE INPUT LINE BUFF WITH	*
		3777+*		@XR POINTING TO THE FIRST CHARACTER TO BE TESTED. THERE IS NO	*
		3778+*		INPUT TO SCKOUT AT ENTRY POINT SCKDEV.	*
		3779+*			*
		3780+*		OUTPUT	*
		3781+*		THERE IS NO OUTPUT FROM SCKOUT.	*
		3782+*			*
		3783+*		EXTERNAL REFERENCES	*
		3784+*		* SCANIT - ENTRY TO DELIMITER SCAN ROUTINE	*
		3785+*		* SCAMMA - SCANIT INDICATOR SET TO ALLOW A COMMA	*
		3786+*		* \$CAERR - ERROR CODE SAVE AREA	*
		3787+*		* \$CAERK - EXIT TO LOAD #ERRPG, THE ERROR PROGRAM	*
		3788+*		* DLPTYP - DLPRNT INDICATOR FOR OUTPUT DEVICE	*
		3789+*		* \$IOIND - NUCLEUS INDICATOR WHICH TELLS WHETHER OR NOT THE	*
		3790+*		PRINTER IS DOWN (\$MPDWN) AND WHETHER OR NOT THE CRT IS PRESENT	*
		3791+*		ON THE SYSTEM (\$CRTAV), AND CONTAINS THE COMMAND KEYS ONLY IND	*
		3792+*		* \$KEYCD - NUCLEUS INDICATOR TO GIVE INPUT MODE	*
		3793+*		* \$CRTIN - NUCLEUS INDICATOR CONCERNING CRT	*
		3794+*		* \$EXFTR - CORE EXPANSION FACTOR	*
		3795+*		* \$\$PYCD - ENTRY TO CLEAR CRT AND LIGHT COMMAND INDICATORS	*
		3796+*		* \$\$PRES - ENTRY TO ENABLE KEYBOARD TO DEPRESS	*
		3797+*			*
		3798+*		EXIT, NORMAL	*
		3799+*		NORMAL EXIT FROM SCKOUT (AT BOTH ENTRY POINTS) IS TO THE BYTE	*
		3800+*		FOLLOWING THE BRANCH TO SCKOUT OR SCKDEV. UPON EXIT FROM SCKOUT,	*
		3801+*		THE PSR WILL BE SET HIGH TO INDICATE A VALID PARAMETER AND ZERO	*
		3802+*		TO INDICATE THAT NEITHER 'CRT' NOR 'PRINTER' WAS FOUND. IF	*
		3803+*		SCKDEV RETURNS TO THE BYTE FOLLOWING THE BRANCH, THIS INDICATES	*
		3804+*		THAT NO ERRORS ARE ENCOUNTERED.	*
		3805+*			*
		3806+*		EXIT, ERROR	*
		3807+*		ERROR EXIT FROM SCKOUT (ENTRY POINT SCKOUT) IS TO THE BYTE	*

SCKOUT - CHECK THE NEXT PARAMETER

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	VER 15, MOD 00 23/06/22 PAGE 38
		3808+*		FOLLOWING THE BRANCH TO SCKOUT, WITH THE ERR CODE SET IN \$CAERR,	*
		3809+*		THE PSR SET LOW, AND @XR POINTING TO THE FIRST INVALID CHARACTER.	*
		3810+*		ERROR EXIT FROM SCKOUT (ENTRY PT SCKDEV) IS TO THE USER-DEFINED	*
		3811+*		LABEL, \$CKERR, WITH THE ERROR CODE SET IN \$CAERR AND @XR POINTS	*
		3812+*		OUTSIDE THE INPUT LINE BUFFER (USER VALUE DESTROYED).	*
		3813+*			*
		3814+*		TABLES/WORKAREAS	*
		3815+*		NONE	*
		3816+*			*
		3817+*		ATTRIBUTES	*
		3818+*		RELOCATABLE AND RE-ENTERABLE	*
		3819+*			*
		3820+*		CHARACTER CODE DEPENDENCY	*
		3821+*		NONE	*
		3822+*			*
		3823+*		NOTES	*
		3824+*		ERROR PROCEDURES	*
		3825+*		UPON DETECTING AN ERROR, SCKOUT SETS THE APPROPRIATE ERR CODE	*
		3826+*		IN \$CAERR AND RETURNS EITHER TO THE BYTE FOLLOWING THE BRANCH	*
		3827+*		TO SCKOUT OR TO THE USER-DEFINED LABEL, \$CKERR.	*
		3828+*			*
		3829+*		REGISTER USAGE	*
		3830+*		REGISTER 2 (@XR) IS USED TO SCAN ACROSS THE INPUT LINE BUFFER.	*
		3831+*		REGISTER 4 (@PSR) IS SET TO INDICATE THE CONDITION FOUND IN	*
		3832+*		SCKOUT (ENTRY POINT SCKOUT).	*
		3833+*			*
		3834+*		SAVED/RESTORED AREAS	*
		3835+*		NONE	*
		3836+*			*
		3837+*		MODIFICATION CONSIDERATIONS	*
		3838+*		NONE	*
		3839+*			*
		3840+*		REQUIRED MODULES	*
		3841+*		* @SYSEQ - COMMON SYSTEM EQUATES	*
		3842+*		* @FXDEQ - FIXED CORE LOCATIONS INSIDE NUCLEUS	*
		3843+*		* @ERMEQ - ERROR MESSAGE EQUATES (SELECTED ERROR CODES)	*
		3844+*		* @CANEQ - FIXED CORE LOCATIONS OUTSIDE NUCLEUS	*
		3845+*		* \$SCANIT - DELIMITER SCAN ROUTINE	*
		3846+*		* DLPRNT - ROUTINE TO PRINT THE CURRENT LINE	*
		3847+*			*
		3848+*		OTHER	*
		3849+*		NONE	*
		3850+*		*****	*

SCKOUT - CHECK THE NEXT PARAMETER

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00 23/06/22 PAGE 39
				1802	3852+	SCKOUT	EQU *	BEGINNING OF SCKOUT SUBROUTINE
1802	34	08	1895		3853+		ST SCK460+@OP1,@ARR	SAVE RETURN ADDRESS
1806	34	02	1889		3854+		ST SCK440+@OP1,@XR	SAVE XR POINTER
180A	3C	01	1B1A		3855+		MVI SCAMMA,SCACOM	SET SCANIT INDR TO ALLOW COMMA
					3856+*			
					3857+*			TEST FOR 'CRT' OR 'PRINTER'
					3858+*			
180E	8D	02	02 1898		3859+		CLC SCK001-1(SCK001,@XR),SCKCCR IS 'CRT' SPECIFIFD ?	
1813	F2	81	0F		3860+		JE SCK100	YES, PROCESS CRT PARAMETER
					3861+*			
1816	8D	06	06 189F		3862+		CLC SCK002-1(SCK002,@XR),SCKCMP IS 'PRINTER' SPECIFIED ?	
181B	F2	81	11		3863+		JE SCK150	YES, PROCESS 'PRINTER' PARAM
					3864+*			
					3865+*			NEITHER CRT NOR PRINTER SPECIFIED
					3866+*			
181E	35	04	18A1		3867+		L SCK003,@PSR	SET PSR TO BRANCH ZERO
1822	F2	87	69		3868+		J SCK450	BRANCH TO RETURN
					3869+*			
					3870+*			CALL SCANIT AND CHECK DELIMITER AFTER PARAM
					3871+*			
1825	3C	87	1844		3872+	SCK100	MVI SCK300+@Q,@UCB	SET SW TO PROCESS 'CRT'
1829	E2	02	03		3873+		LA SCK001(,@XR),@XR	INDR XR PAST 'CRT'
182C	F2	87	03		3874+		J SCK200	JUMP TO CALL SCANIT
					3875+*			
182F	E2	02	07		3876+	SCK150	LA SCK002(,@XR),@XR	INCR XR PAST 'PRINTER'
					3877+*			
1832	C0	87	1AFD		3878+	SCK200	B SCANIT	BYPASS BLANKS AND A COMMA
1836	C0	82	0469		3879+		BL \$CAERK	CALL ERR PROG IF DANGLING COMMA
183A	F2	84	06		3880+		JH SCK300	IF CHARS SCANNED, SET DLPRNT SW
					3881+*			
183D	BD	1E	00		3882+		CLI @ZERO(,@XR),@EOS	ELSE, IS PARAM FOLLOWED BY EOS ?
1840	F2	01	31		3883+		JNE SCK410	NO, SET 'INV PARAM' ERROR
					3884+*			
1843	F2	80	15		3885+	SCK300	JC SCK350,@NOP	NOP IF PRINTER -- UCB IF CRT

SCKOUT - CHECK THE NEXT PARAMETER

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00 23/06/22 PAGE 40
					3887+*			
					3888+*		PRINTER SPECIFIED	
					3889+*			
1846	3D	1B	1931		3890+	CLI	DLPTYP,DLPCRT	WAS CRT SPECIFIED BEFORE ?
184A	F2	81	2E		3891+	JE	SCK420	YES, SET 'CONFLICTING PARAM' ERR
					3892+*			
184D	3D	85	1931		3893+	CLI	DLPTYP,DLPMPR	WAS PRINTER SPECIFIED BEFORE ?
1851	F2	81	2E		3894+	JE	SCK430	YES, SET 'DUPLICATING PARAM' ERR
					3895+*			
1854	3C	85	1931		3896+	MVI	DLPTYP,DLPMPR	SET SW FOR MATRIX PRINTER
1858	F2	87	12		3897+	J	SCK400	RETURN TO CALLING PGM
					3898+*			
					3899+*		CRT SPECIFIED	
					3900+*			
185B	3D	1B	1931		3901+SCK350	CLI	DLPTYP,DLPCRT	WAS CRT SPECIFIED BEFORE ?
185F	F2	81	20		3902+	JE	SCK430	YES SET 'DUPLICATE PARAM' ERR
					3903+*			
1862	3D	85	1931		3904+	CLI	DLPTYP,DLPMPR	WAS PRINTER SPECIFIED BEFORE ?
1866	F2	81	12		3905+	JE	SCK420	YES, SET 'CONFLICTING PARAM' ERR
					3906+*			
1869	3C	1B	1931		3907+	MVI	DLPTYP,DLPCRT	SET SW FOR CRT
186D	35	04	18A3		3908+SCK400	L	SCK004,@PSR	SET SW FOR BRANCH HIGH
1871	F2	87	1A		3909+	J	SCK450	RETURN TO CALLING PROGRAM
					3910+*			
					3911+*		SET ERROR CODES	
					3912+*			
1874	3C	11	03CD		3913+SCK410	MVI	\$CAERR,@E131	SET 'INV PARAM' ERROR CODE
1878	F2	87	0B		3914+	J	SCK440	RETURN
					3915+*			
187B	3C	15	03CD		3916+SCK420	MVI	\$CAERR,@E136	SET 'CONFLICTING PARAM' ERR CODE
187F	F2	87	04		3917+	J	SCK440	RETURN
					3918+*			
1882	3C	13	03CD		3919+SCK430	MVI	\$CAERR,@E134	SET 'DUPLICATE PARAM' ERR CODE
					3920+*			
1886	C2	02	0000		3921+SCK440	LA	*-*,@XR	RESTORE XR VALUE
188A	35	04	18A5		3922+	L	SCK005,@PSR	SET PSR TO BL TO IND ERROR
					3923+*			
					3924+*		EXIT	
					3925+*			
188E	3C	80	1844		3926+SCK450	MVI	SCK300+@Q,@NOP	SET CRT OR POINTER INDR OFF
1892	C0	87	0000		3927+SCK460	B	*-*	RETURN TO CALLING PROGRAM
					3928+*			
					3929+*		EQUATES USED IN SCKOUT	
					3930+*			
				0003	3931+SCK001	EQU	3	LENGTH OF 'CRT' PARAMETER
				0007	3932+SCK002	EQU	7	LENGTH OF 'PRINTER' PARAMETER
					3933+*			
					3934+*		CONSTANTS USED IN SCOUT	
					3935+*			
1896	C3D9E3			1898	3936+SCKCCR	DC	CL(SCK001)'CRT'	CRT PARAMETER IMAGE
1899	D7D9C9D5E3C5D9			189F	3937+SCKCMP	DC	CL(SCK002)'PRINTER'	PRINTER PARAMETER IMAGE
18A0	0081			18A1	3938+SCK003	DC	XL2'81'	PRINTER CODE FOR BRANCH ON ZERO
18A2	0084			18A3	3939+SCK004	DC	XL2'84'	PSR CODE FOR BRANCH HIGH
18A4	0082			18A5	3940+SCK005	DC	XL2'82'	PSR CODE FOR BRANCH LOW
					3941+*			

SCKOUT - CHECK THE NEXT PARAMETER

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	23/06/22	PAGE 41
				18A6	3943+	SCKDEV	EQU *			PORTION OF SCKOUT TO READY CRT
18A6	34	08	1906		3944+		ST SCK650+@OP1,@ARR			SAVE RETURN ADDRESS
18AA	3C	01	03D3		3945+		MVI \$CRTIN,\$CRTUP			SET CRT IN ROLL-UP MODE
					3946+*					
18AE	3D	1B	1931		3947+		CLI DLPTYP,DLPCRT			WAS CRT THE SPECIFIED PARM ?
18B2	F2	81	15		3948+		JE SCK475			YES, CHECK FOR ITS EXISTENCE
					3949+*					
18B5	3D	85	1931		3950+		CLI DLPTYP,DLPMPR			ELSE, WAS PRINTER SPECIFIED ?
18B9	F2	01	47		3951+		JNE SCK650			NO, RETURN TO USER
					3952+*					
18BC	38	01	03D2		3953+		TBN \$IOIND,\$MPDWN			ELSE, IS PRINTER DOWN ?
18C0	F2	90	40		3954+		JF SCK650			NO, RETURN TO USER
					3955+*					
18C3	3C	96	03CD		3956+		MVI \$CAERR,@E549			SET ERR CODE FOR PRINTER DOWN
18C7	F2	87	19		3957+		J SCK550			DESTROY YR AND EXIT
					3958+*					
18CA	38	02	03D2		3959+	SCK475	TBN \$IOIND,\$CRTAV			IS CRT ON THE SYSTEM ?
18CE	F2	90	0E		3960+		JF SCK500			NO, SET ERROR CODE
					3961+*					
18D1	38	01	03C3		3962+		TBN \$KEYCD,\$CARDI			IS CRT SPECIFIED FROM CARDS ?
18D5	F2	90	13		3963+		JF SCK600			IF NOT, SKIP ERROR ROUTINE
					3964+*					
18D8	3C	3A	03CD		3965+		MVI \$CAERR,@E248			SET ERROR CODE - 'CRT SPECIFIED
					3966+*					* WHEN I/O IS FROM CARD READER'
18DC	F2	87	04		3967+		J SCK550			SET PSR AND EAT
					3968+*					
18DF	3C	38	03CD		3969+	SCK500	MVI \$CAERR,@E241			SET ERR CODE-CRT NOT ON SYSTEM
					3970+*					
18E3	C2	02	18A6		3971+	SCK550	LA SCKDEV,@XR			INCR XR TO AVOID SYNTAX ERROR
18E7	C0	87	0469		3972+		B SCKERR			RETURN TO CALLING PROGRAM
					3973+*					
					3974+*					
					3975+*					
18EB	3A	08	03D2		3976+	SCK600	SBN \$IOIND,\$CMDKY			SET CMND KEYS ONLY INDR ON
					3977+*					SCKCL LITE
18EF	0E	00	18F7 043B		3978+	SCKCL0	ALC SCKCL1+@D1(1),\$EXFTR			CALCULATE ENTRY ADDRESS
18F5	C0	87	2200		3979+	SCKCL1	B \$\$PYCD			CLEAR CRT / LIGHT CMND INDRS
18F9	0F	00	18F7 043B		3980+		SLC SCKCL1+@D1(1),\$EXFTR			INITIALIZE ENTRY ADDRESS
18FF	C0	87	0890		3982+		B \$\$PRES			ENABLE KEYBOARD ENTRY TO DEPRES
					3983+*					
1903	C0	87	0000		3984+	SCK650	B *-*			RETURN TO CALLING PROGRAM
				1907	3985+	SCKEND	EQU *			END OF ROUTINE
					3986+***		END OF EXPANSION ***			
					3987+***					
								END OF SCKOUT		***
					3988 *					
					3989 *		\$DLPR			

DLPRNT -- LIST OUTPUT INTERFACE

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	VER 15, MOD 00	23/06/22	PAGE 42
3991+				*****			
3992+	*	5703-XM1		COPYRIGHT IBM CORP. 1970			*
3993+	*			REFER TO INSTRUCTIONS ON COPYRIGHT NOTICE, 120-2083			*
3994+	*						*
3995+	*			*****			*
3996+	*			STATUS			*
3997+	*			VERSION 1 MODIFICATION 0			*
3998+	*						*
3999+	*			FUNCTION			*
4000+	*			* DLPRNT PROVIDES FOR DEVICE INDEPENDENCE FOR OUTPUT FROM			*
4001+	*			LIST ORIENTED PROGRAMS.			*
4002+	*			* FOR CRT OUTPUT, ROLL SPEED AND POP FEATURES ARE SUPPORTED.			*
4003+	*			IN ADDITION DLPRNT WILL FLASH COMMAND LIGHT 13 WHEN IN			*
4004+	*			STOP MODE.			*
4005+	*			* IF A 50LMP MATRIX PRINTER IS TO BE USED, ALL PRINTED LINES			*
4006+	*			ARE ANALYZED FOR LENGTH TO PROVIDE MAXIMUM LINE THROUGHPUT.			*
4007+	*			THIS IS DONE BY PRINTING RIGHT ONLY AS FAR AS REQUIRED TO			*
4008+	*			PRINT THE NEXT LINE FROM RIGHT TO LEFT. THE 50LMP I/O			*
4009+	*			INTERFACE IS SUPPLIED BY DLPRNT.			*
4010+	*			* OUTPUT MAY BE DIRECTED TO THE CRT, THE MATRIX PRINTER, OR			*
4011+	*			THE CURRENT SYSTEM OUTPUT DEVICE(S).			*
4012+	*						*
4013+	*			ENTRY POINTS			*
4014+	*			DLPRNT HAS ONE ENTRY POINT. THIS ENTRY POINT IS USED WHEN A			*
4015+	*			LINE IS TO BE PRINTED FOLLOWED BY A NORMAL CARRIER RETURN.			*
4016+	*			THE CALLING SEQUENCE IS:			*
4017+	*						*
4018+	*			B DLPRNT			*
4019+	*			DC AL2(PPLA)			*
4020+	*			WHERE PPLA IS A TWO BYTE ADDRESS OF THE LEFT BYTE OF A PRINT			*
4021+	*			PARAMETER LIST.			*
4022+	*						*
4023+	*			INPUT			*
4024+	*			* BEFORE USING DLPRNT THE ONE BYTE INDICATOR, DLPTYP, MUST			*
4025+	*			BE SET TO INDICATE WHICH DEVICE IS TO BE USED FOR OUTPUT.			*
4026+	*			THE CORRESPONDING VALUES AND THEIR FUNCTION FOLLOWS:			*
4027+	*			DLPMPR - MATRIX PRINTER IS TO BE USED FOR OUTPUT.			*
4028+	*			DLPCRT - THE DISPLAY STATION IS TO BE USED FOR OUTPUT.			*
4029+	*			ROLL SPEED AND POP FUNCTIONS WILL BE CONTROLLED.			*
4030+	*			DLPSPT - THE SYSTEM PRINTER(S) IS TO BE USED FOR OUTPUT.			*
4031+	*			THIS IS THE DEFAULT VALUE.			*
4032+	*			* A 244 BYTE BUFFER MUST BE ALLOCATED FOR DLPRNTS USE STARTING			*
4033+	*			AT LOCATION DLIBUF.			*
4034+	*			* A FOUR BYTE PRINT PARAMETER LIST (PPL) MUST BE PASSED VIA			*
4035+	*			A TWO BYTE COME ADDRESS FOLLOWING THE CALL. THIS PPL IS OF			*
4036+	*			THE SAME FORMAT AS THE PPL SENT TO DPRINT WITH THE FOLLOWING			*
4037+	*			RESTRICTIONS:			*
4038+	*			* ONLY 'PRINT AND RETURN' CONTROL CODES ARE ALLOWED FOR			*
4039+	*			PRINTING.			*
4040+	*			* WAIT FUNCTIONS SHOULD NOT BE USED EXCEPT AFTER THE LAST			*
4041+	*			LINE HAS BEEN PRINTED. IT IS THEN REQUIRED TO TERMINATE			*
4042+	*			DLPRNT'S FUNCTION.			*
4043+	*			OUTPUT			*
4044+	*			UPON COMPLETION THE GENERAL REGISTERS AND PPL WILL BE THE SAME			*
4045+	*			AS AT ENTRY, THE LINE TO BE PRINTED WILL BE PRINTED (OR BUFFERED			*
4046+	*			IN THE CASE OF THE LINE PRINTER). THE CALLING PROGRAM MAY			*

DLPRNT -- LIST OUTPUT INTERFACE

ERR LOC	OBJECT CODE	ADDR STMT	SOURCE STATEMENT	VER 15, MOD 00	23/06/22	PAGE 43
		4047+*	MODIFY THE LINE UPON RETURN.			*
		4048+*				*
		4049+*	EXTERNAL REFERENCES			*
		4050+*	\$PRDEV - SYSTEM PRINTER INDICATOR.			*
		4051+*	DLIBUF - LOCATION OF BUFFER.			*
		4052+*	\$\$PLYN - ENTRY TO DSPLYN.			*
		4053+*	\$\$PRNT - ENTRY TO DPRINT.			*
		4054+*	\$CRTIN - ROLL INDICATORS.			*
		4055+*	\$IOIND - LINE PRINTER INDICATOR.			*
		4056+*	\$UNMSK - ENTRY TO UNMASK INQUIRY REQUEST.			*
		4057+*	\$\$PSIO - LOCATION OF CONTROL BYTE IN DPRINT SIG.			*
		4058+*	\$\$PCNT - LOCATION OF COUNT BYTE IN DPRINT I/O LIST.			*
		4059+*				*
		4060+*	EXITS, NORMAL			*
		4061+*	EXIT IS TO THE CALLING PROGRAM FOLLOWING THE PPL ADDRESS.			*
		4062+*				*
		4063+*	EXITS, ERROR			*
		4064+*	N/A			*
		4065+*				*
		4066+*	TABLES/WORK AREAS			*
		4067+*	N/A			*
		4068+*				*
		4069+*	ATTRIBUTES			*
		4070+*	RELOCATABLE			*
		4071+*	REUSABLE			*
		4072+*				*
		4073+*	CHARACTER CODE DEPENDENCY			*
		4074+*	N/A			*
		4075+*				*
		4076+*	NOTES			*
		4077+*	ERROR PROCEDURES			*
		4078+*	N/A			*
		4079+*				*
		4080+*	REGISTER USAGE			*
		4081+*	REGISTERS 1 AND 2 ARE USED FOR BASE ADDRESSING.			*
		4082+*				*
		4083+*	SAVED/RESTORED AREAS			*
		4084+*	N/A			*
		4085+*				*
		4086+*	MODIFICATION CONSIDERATIONS			*
		4087+*	DLPRNT DIRECTLY MODIFIES DPRINT WHEN USING THE LINE PRINTER			*
		4088+*	FUNCTION. CARE MUST BE TAKEN WHEN MODIFING EITHER DLPRNT OR			*
		4089+*	DPRINT.			*
		4090+*				*
		4091+*	REQUIRED MODULES			*
		4092+*	@SYSEQ - GENERAL SYSTEM EQUATES			*
		4093+*	@FXDEQ - NUCLEUS LOCATION EQUATES			*
		4094+*	@HDWEQ - HARDWARE VALUE EQUATES			*
		4095+*	@CANEQ - TRANSCIENT LOCATION EQUATES			*
		4096+*				*
		4097+*	OTHER			*
		4098+*	N/A			*
		4099+*	*****			*

DLPRNT -- LIST OUTPUT INTERFACE

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	23/06/22	PAGE 44
				1940	4101+	USING	DLPBSE,@BR			BASE SPECIFICATION
				1907	4102+DLPRNT	EQU	*			ENTRY
1907	34	01	1A11		4103+	ST	DLP480+@OP1,@BR			SAVE BR
190B	C2	01	1940		4104+	LA	DLPBSE,@BR			LOAD BASE REG
190F	74	02	D5		4105+	ST	DLP500+@OP1(,@BR),@XR			SAVE XR
1912	76	08	ED		4106+	A	DLPONE(,@BR),@ARR			CALCULATE PPL ADDR POINTER
1915	34	08	1922		4107+	ST	DLP100+@OP1,@ARR			GET PARM ADDR
1919	76	08	ED		4108+	A	DLPONE(,@BR),@ARR			CALCULATE RETURN ADDR
191C	74	08	DD		4109+	ST	DLP520+@OP1(,@BR),@ARR			SAVE RETURN ADDR
191F	35	02	0000		4110+DLP100	L	*-*,@XR			XR POINTS TO PPL
1923	6C	03	EA 03		4111+	MVC	DLPWK2+@PDATA(@PPLNG,@BR),@PDATA(,@XR)			MOVE IN PPL
1927	7C	20	0F		4112+	MVI	DLPEXT-1(,@BR),X'20'			INITIALIZE DSPLYN ADDR *****
192A	4E	00	0F 043B		4113+	ALC	DLPEXT-1(1,@BR),\$EXFTR			GET DSPLYN ADDR
192F	F2	87	00		4114+	J	*-*			GO TO CORRECT INTERFACE
				1931	4115+DLPTYP	EQU	*-1			I/O DEVICE INDR LOCATION
1931					4116+	ORG	DLPTYP			SET INSTR CNTR
1931	00			1931	4117+	DC	AL1(DLPSPST)			SET DEFAULT TO SYSTEM PRINTER
				1932	4118+DLPBSD	EQU	*			DISPLACEMENT BASE
					4119+**					
				1932	4120+DLPSPPI	EQU	*			SYSTEM PRINTER INTERFACE
1932	3D	07	044A		4121+	CLI	\$PRDEV-1,X'07'			SYSPRINT = MATRIX PRINT *****
1936	F2	81	7E		4122+	JE	DLPNPT			DO LINE PRINTER INTERFACE
1939	5C	01	00 10		4123+	MVC	DLP120+@OP1(@CADDR,@BR),DLPEXT(,@BR)			GET DSPLYN ADDR
193D	C0	87	0000		4124+DLP120	B	*-*			GO TO DSPLYN
1941	1A27			1942	4125+	DC	AL2(DLPWK2)			PPL ADDRESS
1943	3D	00	044B		4126+	CLI	\$PRDEV,X'00'			IS PRINTER REQUIRED TOO *****
1947	F2	81	6D		4127+	JE	DLPNPT			DO LINE PRINTER INTERFACE
194A	F2	87	C1		4128+	J	DLP480			EXIT INTERFACE
				1940	4129+DLPBSE	EQU	DLP120+@OP1			BASE ADDRESS

DLPRNT -- LIST OUTPUT INTERFACE

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	23/06/22	PAGE 45
				194D	4131+	DLPTIF	EQU *			ENTRY
194D	C0	87	0000		4132+		B *-*			GO TO DSPLYN
194F					4133+		ORG *-2			INITIALIZE ADDR
194F	2004			1950	4134+	DLPEXT	DC AL2(\$\$PLYN)			DSPLYN ENTRY ADDR
1951	1A27			1952	4135+		DC AL2(DLPWK2)			PPL ADDRESS
1953	7D	FF	E7		4136+		CLI DLPWK2+@PCTRL(,@BR),@PWAIT			WAIT FUNCTION ?
1956	F2	81	57		4137+		JE DLP360			GO TURN OFF CMD LIGHTS
1959	71	11	E2		4138+	DLP140	LIO DLPK13(,@BR),@KEYBD+@CMLON			TURN ON CMD LITE 13
195C	38	08	03D3		4139+		TBN \$CRTIN,\$CRTSP			IN STOP MODE?
1960	F2	90	1D		4140+		JF DLP240			NO ? CONTINUE ROLL
1963	F2	80	09		4141+	DLP160	JC DLP180,@NOP			JUMP IF LIGHT ON
1966	71	10	E2		4142+		LIO DLPK13(,@BR),@KEYBD+@CMOFF			TURN POP LITE OFF
1969	7C	87	24		4143+		MVI DLP160+@Q(,@BR),@UCB			SET FOR TURN ON
196C	F2	87	03		4144+		J DLP200			GO DO TIME OUT
196F	7C	80	24		4145+	DLP180	MVI DLP160+@Q(,@BR),@NOP			SET TO TURN OFF
1972	5C	01	E0 E1		4146+	DLP200	MVC DLPLPC(2,@BR),DLPLIN(,@BR)			SET UP TIME COUNT
1976	5F	01	E0 ED		4147+	DLP220	SLC DLPLPC(2,@BR),DLPONE(,@BR)			DECREMENT TIME COUNT
197A	D0	84	36		4148+		BH DLP220(,@BR)			LOOP UNTIL TIME OUT
197D	D0	87	19		4149+		B DLP140(,@BR)			GO TEST STOP MODE
1980	38	04	03D3		4150+	DLP240	TBN \$CRTIN,\$CRTPU			POP UP INDR ON ?
1984	F2	90	07		4151+		JF DLP260			SKIP LINE CNT INITIALIZATION
1987	3B	04	03D3		4152+		SBF \$CRTIN,\$CRTPU			SET POP INDR OFF
198B	7C	00	DE		4153+		MVI DLPCNT(,@BR),@ZERO			ZERO LINES DISPLAYED CNT
198E	7D	0D	DE		4154+	DLP260	CLI DLPCNT(,@BR),DLPMAX			HAVE MAX NO. OF LINES BEEN ?
					4155+*					* DISPLAYED ?
1991	F2	01	04		4156+		JNE DLP280			JUMP IF NOT
1994	3A	08	03D3		4157+		SBN \$CRTIN,\$CRTSP			SET ROLL STOP INDR
1998	F2	04	0E		4158+	DLP280	JNH DLP320			JUMP IF MAX LINES NOT DISPLAYED
199B	5C	01	E0 E1		4159+		MVC DLPLPC(2,@BR),DLPLIN(,@BR)			SET UP TIMING LOOP
199F	5F	01	E0 ED		4160+	DLP300	SLC DLPLPC(2,@BR),DLPONE(,@BR)			DECREMENT COUNT
19A3	D0	84	5F		4161+		BH DLP300(,@BR)			BRANCH IF TIME NOT UP
19A6	F2	87	04		4162+		J DLP340			GO EXIT
19A9	5E	00	DE ED		4163+	DLP320	ALC DLPCNT(1,@BR),DLPONE(,@BR)			BUMP LINE COUNT
19AD	F2	87	5E		4164+	DLP340	J DLP480			GO EXIT
19B0	C0	87	0B44		4165+	DLP360	B \$\$COFF			TURN OFF CMD LIGHTS
19B4	F2	87	57		4166+		J DLP480			GO EXIT

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	23/06/22	PAGE	46
				19B7	4168+	DLPNPT	EQU *				ENTRY
	19B7	38	80	03D2	4169+		TBN \$IOIND,\$LNPTR				LINE PRINTER AVAILABLE
	19BB	F2	10	0F	4170+		JT DLP400				JUMP IF YES
	19BE	C0	87	0707	4171+	DLP380	B \$\$PRNT				DO NORMAL PRINT IF NOT
	19C2	1A27			19C3	4172+	DC AL2(DLPWK2)				PPL ADDR
	19C4	C0	87	0707	4173+		B \$\$PRNT				WAIT FOR OP COMPLETION
	19C8	057F			19C9	4174+	DC AL2(\$WAITF)				WAIT PPL ADDRESS
	19CA	F2	87	41	4175+		J DLP480				GO EXIT
	19CD	7D	FF	E7	4176+	DLP400	CLI DLPWK2+@PCTRL(,@BR),@PWAIT				IS THIS A WAIT FUNCTION ?
	19D0	F2	01	03	4177+		JNE DLP420				JUMP IF NO
	19D3	7C	00	E8	4178+		MVI DLPWK2+@PRCNT(,@BR),@ZERO				ZERO NEXT LINE CNT
	19D6	7D	FF	E3	4179+	DLP420	CLI DLPWK1(,@BR),@PWAIT				IS THERE A LINE TO PRINT ?
	19D9	F2	01	59	4180+		JNE DLPprt				JUMP IF YES
	19DC	C0	87	0707	4181+		B \$\$PRNT				INSURE PRINT HEAD IS AT LEFT
	19E0	1A33			19E1	4182+	DC AL2(DLPRTN)				* MARGIN
	19E2	5C	01	E4 E8	4183+	DLP440	MVC DLPWK1+@PRCNT(2,@BR),DLPWK2+@PRCNT(,@BR)				SET NEXT PPL
	19E6	5C	01	E8 F4	4184+		MVC DLPWK2+@PRCNT(2,@BR),DLPRTN+@PRCNT(,@BR)				SET CARRIER RTN
	19EA	7D	FF	E3	4185+		CLI DLPWK1(,@BR),@PWAIT				WAS THIS A WAIT FUNCTION ?
	19ED	D0	81	7E	4186+		BE DLP380(,@BR)				DO CARRIER RETURN IF YES
	19F0	C2	02	1812	4187+		LA DLIBUF,@XR				POINT XR TO BUFFER
	19F4	BC	40	F3	4188+		MVI DLPBLN-1(,@XR),@BLANK				SET BLANK FOR CLEAR BUF
	19F7	AC	F2	F2 F3	4189+		MVC DLPBLN-2(DLPBLN-1,@XR),DLPBLN-1(,@XR)				CLEAR BUF TO BLNKS
	19FB	5C	00	CD E4	4190+		MVC DLP460+@DD2(1,@BR),DLPWK1+@PRCNT(,@BR)				SET DATA CNT
	19FF	5F	00	CD ED	4191+		SLC DLP460+@DD2(1,@BR),DLPONE(,@BR)				GET TRUE DISPLACMENT
	1A03	5C	01	CC CD	4192+		MVC DLP460+@D1(2,@BR),DLP460+@DD2(,@BR)				SET 0 AND DI VALUES
	1A07	75	01	EA	4193+		L DLPWK2+@PDATA(,@BR),@BR				BR POINTS TO DATA
	1A0A	9C	00	00 00	4194+	DLP460	MVC *-*(@VQ,@XR),*-*(,@BR)				MOVE DATA TO BUFFER
					4195+	*					
	1A0E	C2	01	0000	4196+	DLP480	LA *-*,@BR				RESTORE BR
	1A12	C2	02	0000	4197+	DLP500	LA *-*,@XR				RESTORE XR
	1A16	C0	87	048D	4198+		B \$UNMSK				GO CHECK FOR INQUIRY REQUEST
	1A1A	C0	87	0000	4199+	DLP520	B *-*				RETURN

DLPRNT -- LIST OUTPUT INTERFACE

ERR	LOC	OBJECT CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00 23/06/22 PAGE 47
				4201+	*****		
				4202+	* CONSTANTS, WORK AREAS AND EQUATES		
				4203+	*****		
				4204+	*		
			0085	4205+	DLPMPR EQU	DLPNPT-DLPBSD	MATRIX PRINTER INDR VALUE
			0000	4206+	DLPSPT EQU	DLPSPi-DLPBSD	SYSTEM PRINTER INDR VALUE
			001B	4207+	DLPCRT EQU	DLPTIF-DLPBSD	CRT INOR VALUE
1A1E			1A1E	4208+	DCRCNT DS	CL1	DISPLAYED LINE CNTR
			1A1E	4209+	DLPCNT EQU	DCRCNT	COMMUNICATIONS LABEL
1A1E				4210+	ORG	DLPCNT	SET INST CNTR
1A1E 01			1A1E	4211+	DC	XL1'01'	INITIAL VALUE
1A1F			1A20	4212+	DLPLPC DS	CL2	TIMING LOOP CNTR
1A21 3B			1A21	4213+	DLPLIN DC	XL1'3B'	INITIAL LOOP CNT
1A22 0D			1A22	4214+	DLPK13 DC	AL1(@CKY13)	CMD LIGHT 13 CONTROL
			000D	4215+	DLPMAX EQU	13	MAX LINES TO BE DISPLAYED
			1A23	4216+	DLPWK1 EQU	*	CURRENT PPL
1A23 FFFF			1A24	4217+	DC	2XL1'FF'	CTRL AND DATA CNT
1A25 1812			1A26	4218+	DC	AL2(DLIBUF)	BUFFER ADDR
			1A27	4219+	DLPWK2 EQU	*	NEXT PPL
1A27			1A2A	4220+	DS	CL(@PPLNG)	
1A2B 01			1A2B	4221+	DLPNDX DC	AL1(@INDEX)	INDEX PPL
1A2C 0001			1A2D	4222+	DLPONE DC	XL2'0001'	CONSTANT OF ONE
1A2E			1A2E	4223+	DLPRES DS	CL1	RESIDUAL CNT
1A2F 0000			1A30	4224+	DLPWTH DC	XL2'00'	WIDTH OF PRINT LINE
1A31			1A31	4225+	DLPNXT DS	CL1	NEXT LINE CNT
1A32			1A32	4226+	DLPREM DS	CL1	ADDITIONAL CNT FOR NEXT LINE
			1A33	4227+	DLPRTN EQU	*	ADDR OF RETURN PPL
1A33 8080			1A34	4228+	DC	2AL1(@RETRN)	RETURN CARRIER PPL
			0001	4229+	DLPPNT EQU	X'01'	LINE PRINTER CONTROL BYTE

DLPRNT -- LIST OUTPUT INTERFACE

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00 23/06/22 PAGE 48
					4231+	*****		
					4232+	* THIS ROUTINE PRINTS THE CURRENT LINE IN THE CORRECT DIRECTION AND		
					4233+	* SETS UP THE NEXT LINE CNT.		
					4234+	*****		
				1A23	4235+	USING DLPBS2,@BR	NEW BASE VALUE	
				1A35	4236+	DLPPRT EQU *	ENTRY TO PRINT	
1A35	C2	01	1A23		4237+	LA DLPBS2,@BR	LOAD BASE REGISTER	
1A39	C0	87	0707		4238+	B \$\$PRNT	WAIT FOR PRINTER READY	
1A3D	057F			1A3E	4239+	DC AL2(\$WAITF)	WAIT PPL	
1A3F	3C	80	0476		4240+	MVI \$CIMSK,@NOP	MASK IR FOR THIS FUNCTION	
1A43	4C	00	0D 03C0		4241+	MVC DLPWTH(1,@BR),\$RMGRN	SET RIGHT MARGIN VALUE	
1A48	4F	00	0D 03C1		4242+	SLC DLPWTH(1,@BR),\$LMGRN	CALCULATE WIDTH	
1A4D	5C	00	0E 05		4243+	MVC DLPNXT(1,@BR),DLPWK2+@PRCNT(,@BR)	SET NEXT LINE CNT	
1A51	7C	00	0B		4244+	MVI DLPRES(,@BR),@ZERO	ZERO RESIDUAL CNT	
1A54	5D	00	01 0D		4245+	CLC DLPWK1+@PRCNT(1,@BR),DLPWTH(,@BR)	CNT > WIDTH ?	
1A58	F2	04	10		4246+	JNH DLP540	JUMP IF NO	
1A5B	5C	00	0B 01		4247+	MVC DLPRES(1,@BR),DLPWK1+@PRCNT(,@BR)	SAVE CNT	
1A5F	5F	00	0B 0D		4248+	SLC DLPRES(1,@BR),DLPWTH(,@BR)	CALCULATE RESIDUAL CNT	
1A63	5C	00	01 0B		4249+	MVC DLPWK1+@PRCNT(1,@BR),DLPRES(,@BR)	SET CNT TO WIDTH	
1A67	5C	00	0E 0B		4250+	MVC DLPNXT(1,@BR),DLPRES(,@BR)	SET NEXT LINE CNT = RESIDUAL	
1A6B	0D	00	03C1 03C2		4251+	DLP540 CLC \$LMGRN(1),\$PRPOS	ARE WE AT LEFT MARGIN ?	
1A71	F2	01	19		4252+	JNE DLPPRL	JUMP TO PRINT LEFT IF NOT	
					4253+	*		
					4254+	* SET UP FOR PRINT RIGHT OPERATION		
					4255+	*		
1A74	5D	00	01 0E		4256+	CLC DLPWK1+@PRCNT(1,@BR),DLPNXT(,@BR)	CNT > NEXT CNT ?	
1A78	F2	02	24		4257+	JNL DLP560	JUMP IF CURRENT CNT > NEXT CNT	
					4258+	*	NEXT LINE	
1A7B	5C	00	01 0D		4259+	MVC DLPWK1+@PRCNT(1,@BR),DLPWTH(,@BR)	SET CURRENT CNT TO MAX	
1A7F	5D	00	0E 0D		4260+	CLC DLPNXT(1,@BR),DLPWTH(,@BR)	NEXT LINE LESS THAN WIDTH ?	
1A83	F2	02	19		4261+	JNL DLP560	JUMP IF NOT	
1A86	5C	00	01 0E		4262+	MVC DLPWK1+@PRCNT(1,@BR),DLPNXT(,@BR)	SET CURRENT CNT TO	
					4263+	*	NEXT LINE CNT	
1A8A	F2	87	12		4264+	J DLP560	GO DO PRINTING	
					4265+	*		
					4266+	* SET UP FOR PRINT LEFT OPERATION		
					4267+	*		
				1A8D	4268+	DLPPRL EQU *	ENTRY TO PRINT LEFT	
1A8D	3C	01	07CE		4269+	MVI \$\$PSIO,DLPPNT	SET DPRINT FOR LINE MODE	
1A91	4C	00	01 03C2		4270+	MVC DLPWK1+@PRCNT(1,@BR),\$PRPOS	SET CURRENT PRINT POSITION	
1A96	4F	00	01 03C1		4271+	SLC DLPWK1+@PRCNT(1,@BR),\$LMGRN	GET RETURN PRINT CNT	
1A9B	5F	00	01 0A		4272+	SLC DLPWK1+@PRCNT(1,@BR),DLPONE(,@BR)	SET UP FOR HARDWARE	
					4273+	*		
					4274+	* DO THE PRINT OPERATION		
					4275+	*		
1A9F	7C	40	00		4276+	DLP560 MVI DLPWK1+@PCTRL(,@BR),@PRINT	SET NO CARRIER RETURN	
					4277+	*	PRINT LENGTH = WIDTH	
1AA2	C0	87	0707		4278+	B \$\$PRNT	GO PRINT THE LINE	
1AA6	1A23			1AA7	4279+	DC AL2(DLPWK1)	PPL ADDR	
1AA8	3C	00	07CE		4280+	MVI \$\$PSIO,@ZERO	RESET SIO CTRL FOR NORMAL OPS	
1AAC	3C	00	07E9		4281+	MVI \$\$PCNT,@ZERO	SET DPRINT PPL CNT ZERO	
1AB0	C0	87	0707		4282+	B \$\$PRNT	INDEX A LINE	
1AB4	1A2B			1AB5	4283+	DC AL2(DLPNDX)	INDEX PPL ADDRESS	
				1940	4284+	USING DLPBSE,@BR	USE MAINLINE BASE VALUE	
1AB6	C2	01	1940		4285+	LA DLPBSE,@BR	RESTORE MAINLINE BR	
1ABA	7D	00	EE		4286+	CLI DLPRES(,@BR),@ZERO	ANY RESIDUAL DATA ?	

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	23/06/22	PAGE	49
	1ABD	D0	81	A2		4287+	BE DLP440(,@BR)		EXIT TO MAINLINE IF NOT		
						4288+*					
				1A23		4289+	USING DLPBS2,@BR		USE PRINT BASE ADDR		
	1AC0	C2	01	1A23		4290+	LA DLPBS2,@BR		SET BR		
	1AC4	7C	F4	0F		4291+	MVI DLPREM(,@BR),DLPBLN		SET REMAINDER TO BUF LENGTH		
	1AC7	5F	00	0F 0B		4292+	SLC DLPREM(1,@BR),DLPRES(,@BR)		GET REMAINDER FOR BLANK CNT		
	1ACB	C2	02	1812		4293+	LA DLIBUF,@XR		XR POINTS TO BUFFER		
	1ACF	74	02	B7		4294+	ST DLP580+@DOP2(,@BR),@XR		SET MOVE INSTR TO BUF ADDR		
	1AD2	5E	01	B7 0D		4295+	ALC DLP580+@DOP2(@CADDR,@BR),DLPWTH(,@BR)		POINT TO RESIDUAL		
	1AD6	8C	00	00 0000		4296+DLP580	MVC 0(1,@XR),*-*		MOVE A BYTE OF RESIDUAL DATA		
	1ADB	E2	02	01		4297+	LA 1(,@XR),@XR		INCREMENT DATA POINTER		
	1ADE	5E	01	B7 0A		4298+	ALC DLP580+@DOP2(@CADDR,@BR),DLPONE(,@BR)		INCREMENT DATA ADDR		
	1AE2	5F	00	0B 0A		4299+	SLC DLPRES(1,@BR),DLPONE(,@BR)		DECREMENT RESIDUAL CNT		
	1AE6	D0	84	B3		4300+	BH DLP580(,@BR)		DO IT AGAIN TILL DONE		
	1AE9	BC	40	00		4301+DLP600	MVI 0(,@XR),@BLANK		SET REMAINING BLANKS		
	1AEC	E2	02	01		4302+	LA 1(,@XR),@XR		INCREMENT		
	1AEF	5F	00	0F 0A		4303+	SLC DLPREM(1,@BR),DLPONE(,@BR)		REMAINDER ?		
	1AF3	D0	84	C6		4304+	BH DLP600(,@BR)		SET ANOTHER BLANK		
	1AF6	5C	00	01 0E		4305+	MVC DLPWK1+@PRCNT(1,@BR),DLPNXT(,@BR)		SET NEXT CNT		
	1AFA	D0	87	12		4306+	B DLPRT(,@BR)		GO FINISH LINE		
				1A23		4308+DLPBS2	EQU DLPWK1		BASE VALUE FOR PRINT OP		
				00F4		4309+DLPBLN	EQU 244		LENGTH OF PRINT BUFFER		
						4310+***		END OF DLPRNT			***
						4311 *					
						4312 *	\$CANI				

SCANIT - DELIMETER SCAN MODULE

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	VER 15, MOD 00	23/06/22	PAGE 50
		4314+		*****			
		4315+	*	5703-XM1 COPYRIGHT IBM CORP. 1970			*
		4316+	*	REFER TO INSTRUCTIONS ON COPYRIGHT NOTICE, 120-2083			*
		4317+	*				*
		4318+		*****			*
		4319+	*	STATUS			*
		4320+	*	VERSION 1 MODIFICATION 0			*
		4321+	*				*
		4322+	*	FUNCTION			*
		4323+	*	THE FUNCTION OF SCANIT IS TO SCAN PAST VALID DELIMITERS AND			*
		4324+	*	RETURN A POINTER TO THE FIRST CHARACTER THAT'S NOT A DELIMITER.			*
		4325+	*				*
		4326+	*	ENTRY POINTS			*
		4327+	*	* THE ENTRY POINT IS SCANIT.			*
		4328+	*	* THE CALLING SEQUENCE IS AS FOLLOWS:			*
		4329+	*	B SCANIT			*
		4330+	*	WITH REGISTER 2 (@XR) POINTING TO THE FIRST CHARACTER TO BE			*
		4331+	*	EXAMINED.			*
		4332+	*				*
		4333+	*	INPUT			*
		4334+	*	NONE			*
		4335+	*				*
		4336+	*	OUTPUT			*
		4337+	*	NONE			*
		4338+	*				*
		4339+	*	EXTERNAL REFERENCES			*
		4340+	*	\$CAERR - ERROR CODE SAVE AREA			*
		4341+	*				*
		4342+	*	EXITS, NORMAL			*
		4343+	*	NORMAL EXIT FROM SCANIT IS TO THE BYTE FOLLOWING THE BRANCH TO			*
		4344+	*	SCANIT IN THE CALLING ROUTINE. THE PSR (REGISTER 4) WILL CONTAIN			*
		4345+	*	A ZERO IF NO DELIMITERS WERE FOUND OR A HIGH CONDITION IF ONE OR			*
		4346+	*	MORE DELIMITERS WERE SCANNED.			*
		4347+	*				*
		4348+	*	EXITS, ERROR			*
		4349+	*	ERROR EXIT FROM SCANIT IS TO THE BYTE FOLLOWING THE BRANCH TO			*
		4350+	*	SCANIT IN THE CALLING ROUTINE. THE PSR WILL CONTAIN A LOW			*
		4351+	*	CONDITION.			*
		4352+	*				*
		4353+	*	TABLES/WORKAREAS			*
		4354+	*	* SCACNT - AREA CONTAINING NUMBERS OF DELIMITERS SCANNED			*
		4355+	*	* SCAMMA - LOC WHERE SCACOM MAY BE MOVED IF ONE COMMA IS ALSO			*
		4356+	*	TO BE CONSIDERED A DELIMITER. MOVING SCACOF BACK INTO SCAMMA			*
		4357+	*	INDICATES THAT ONLY BLANKS SHOULD BE CONSIDERED DELIMITERS.			*
		4358+	*				*
		4359+	*	ATTRIBUTES			*
		4360+	*	RELOCATABLE AND RE-USABLE			*
		4361+	*				*
		4362+	*	CHARACTER CODE DEPENDENCY			*
		4363+	*	THE OPERATION OF THIS MODULE DOES NOT DEPEND UPON A PARTICULAR			*
		4364+	*	INTERNAL REPRESENTATION OF THE EXTERNAL CHARACTER SET.			*
		4365+	*				*
		4366+	*	NOTES			*
		4367+	*	ERROR PROCEDURES			*
		4368+	*	THE ONLY ERROR CONDITION DETECTED BY SCANIT IS THE CASE WHERE			*
		4369+	*	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 23/06/22 PAGE 51

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4370+*      CALLING ROUTINE, @PSR WILL BE SET TO A LOW CONDITION, THE      *
4371+*      ERROR CODE IS SET IN $CAERR, AND MG WILU BE POINTING TO THE      *
4372+*      CARRIAGE-RETURN CHARACTER.                                       *
4373+*                                                                    *
4374+*      REGISTER USAGE                                                    *
4375+*      REGISTER 2 (@XR) IS USED AS A POINTER ACROSS THE AREA BEING      *
4376+*      SCANNED FOR DELIMITERS.                                           *
4377+*                                                                    *
4378+*      SAVED/RESTORED AREAS                                              *
4379+*      UPON ENTRY TO SCANIT, REGISTER 8 (@ARR) IS SAVED AND USED AS      *
4380+*      THE RETURN ADDRESS.                                                *
4381+*                                                                    *
4382+*      MODIFICATION CONSIDERATIONS                                       *
4383+*      NONE                                                                *
4384+*                                                                    *
4385+*      REQUIRED MODULES                                                    *
4386+*      * @SYSEQ - COMMON SYSTEM EQUATES                                  *
4387+*      * @FXDEQ - FIXED NUCLEUS ADDRESSES EQUATES                        *
4388+*                                                                    *
4389+*      OTHER                                                                *
4390+*      SCANIT IS INITIALIZED TO BYPASS BLANKS ONLY. IF SCACOM IS          *
4391+*      MOVED TO SCAMMA, ONE COMMA WILL BE SCANNED ALONG WITH BLANKS.      *
4392+*      THE INSTRUCTION TO DO THIS IS AS FOLLOWS:                         *
4393+*      MVI    SCAMMA,SCACOM                                                *
4394+*                                                                    *
4395+*      TO DROP THE COMMA FROM ITS DELIMITER STATUS, SCACOF SHOULD BE      *
4396+*      MOVED TO SCAMMA, USING THE FOLLOWING INSTRUCTION:                  *
4397+*      MVI    SCAMMA,SCACOF                                                *
4398+*                                                                    *
4399+*****

4401+*
4402+*      EQUATES USED IN THIS SUBROUTINE
4403+*
0001 4404+SCAINC EQU    1          TO INCREMENT POINTER
0001 4405+SCACOM EQU   @BNE        SWITCH TO ALLOW SCANNING COMMA
0087 4406+SCACOF EQU   @UCB        SWITCH TO SET OFF THE INDICATON
4407+*      * FOR SCANNING A COMMA
1AFD 4408+SCANIT EQU   *          ENTRY POINT TO THIS SUBROUTINE
1AFD 34 08 1B39 4409+      ST      SCA500+@OP1,@ARR      SAVE RETURN ADDRESS
1B01 34 02 1B3B 4410+      ST      SCASVE,@XR          SAVE POINTER VALUE
1B05 3C 04 03CD 4411+      MVI     $CAERR,@E110        SET ERROR CODE
1B09 F2 87 03  4412+      J       SCA200              GO TO PROCESS
1B0C E2 02 01  4413+SCA100 LA     SCAINC(,@XR),@XR      INCREMENT POINTER TO NEXT CHAR
1B0F BD 40 00  4414+SCA200 CLI   0(,@XR),@BLANK        IS THIS CHAR BLANK ?
1B12 C0 81 1B0C 4415+      BE      SCA100              YES, FETCH NEXT ONE
1B16 BD 6B 00  4416+      CLI     0(,@XR),@COMMA        IS IT A COMMA ?
1B19 F2 87 10  4417+SCA250 JC     SCA400,@UCB          UCS TO RETURN -- OR NOP IF
4418+*      * SCAMMA IS ACTIVE AND CHAR
1B1C E2 02 01  4419+SCA300 LA     SCAINC(,@XR),@XR      INCREMENT POINTER TO NEXT CHAR
1B1F BD 40 00  4420+      CLI     0(,@XR),@BLANK        IS THIS CHAR A BLANK ?
1B22 C0 81 1B1C 4421+      BE      SCA300              YES, FETCH NEXT ONE
1B26 BD 1F 00  4422+      CLI     0(,@XR),@EOS+1        IS THIS EOS ?
1B29 F2 82 0A  4423+      JL      SCA500              IF NOT, SKIP ERROR ROUTINE
1B2C 34 02 1B3D 4424+SCA400 ST     SCACNT,@XR          SAVE NEW POINTER VALUE

```

SCANIT - DELIMETER SCAN MODULE

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00	23/06/22	PAGE	52
1B30	0F	01	1B3D 1B3B		4425+	SLC	SCACNT(2),SCASVE				
					4426+*						
1B36	C0	87	0000		4427+SCA500	B	*-*				
				1B1A	4428+SCAMMA	EQU	SCA250+@Q				
					4429+*						
					4430+*		SAVE AREA				
					4431+*						
1B3A				1B3A	4432+SCASV1	EQU	*				
				1B3B	4433+SCASVE	DS	CL2				
1B3C				1B3D	4434+SCACNT	DS	CL2				
					4435+***						
					4436 *		END OF SCANIT				***

#DSVPRI - DLPRNT INTERFACE TO SAVE OR PRINT A LINE

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	VER 15, MOD 00	23/06/22	PAGE 53
		4438		*****			
		4439	*	5703-XM1 COPYRIGHT IBM CORP. 1970			*
		4440	*	REFER TO INSTRUCTIONS ON COPY RIGHT NOTICE, 120-2083			*
		4441	*				*
		4442		*****			*
		4443	*	STATUS			*
		4444	*	VERSION 1 MODIFICATION 0			*
		4445	*				*
		4446	*	FUNCTION			*
		4447	*	THE FUNCTION OF DSVPRI IS TO ALLOW INFORMATION TO BE ACCUMULATED			*
		4448	*	IN A BUFFER WITH A 'PRINT ONLY' CODE IN THE PRINT PARAMETER LIST			*
		4449	*	AND TO BE PRINTED VIA DLPRNT WHEN A 'PRINT AND RETURN' CODE' IS			*
		4450	*	SENT IN THE PPL.			*
		4451	*				*
		4452	*	ENTRY POINTS			*
		4453	*	* THE ENTRY POINT IS DSVPRI.			*
		4454	*	* THE CALLING SEQUENCE IS AS FOLLOWS:			*
		4455	*	B DSVPRI			*
		4456	*	DC AL2(PPLA)			*
		4457	*	WHERE PPLA IS THE ADDRESS OF THE PRINT PARAMETER LIST.			*
		4458	*				*
		4459	*	INPUT			*
		4460	*	INPUT TO DSVPRI IS THE INFORMATION CONTAINED IN THE PRINT			*
		4461	*	PARAMETER LIST.			*
		4462	*				*
		4463	*	OUTPUT			*
		4464	*	OUTPUT FROM DSVPRI IS A LINE PRINTED ON THE OUTPUT DEVICE WHEN A			*
		4465	*	'PRINT AND RETURN' CODE IS SENT IN THE PPL.			*
		4466	*				*
		4467	*	EXTERNAL REFERENCES			*
		4468	*	DLPRNT -- ENTRY TO MODULE TO PRINT ONE LINE			*
		4469	*				*
		4470	*	EXITS, NORMAL			*
		4471	*	EXIT FROM DSVPRI IS TO THE BYTE FOLLOWING THE DC OF THE PPL			*
		4472	*	ADDRESS.			*
		4473	*				*
		4474	*	EXITS, ERROR			*
		4475	*	N/A			*
		4476	*				*
		4477	*	TABLES/WORKAREAS			*
		4478	*	* DSVPL - PPL USED TO CALL DLPRNT, CREATED IN DSVPRI			*
		4479	*	* DSVBUF - USER-DEFINED BUFFER, USED IN PPL FOR DLPRNT			*
		4480	*				*
		4481	*	ATTRIBUTES			*
		4482	*	RELOCATABLE AND RE-ENTERABLE			*
		4483	*				*
		4484	*	CHARACTER CODE DEPENDENCY			*
		4485	*	NONE			*
		4486	*				*
		4487	*	NOTES			*
		4488	*	ERROR PROCEDURES			*
		4489	*	DSIRI DETECTS NO ERRORS,			*
		4490	*				*
		4491	*	REGISTER USAGE			*
		4492	*	* REGISTER 1 (@BR) IS SAVED UPON ENTRY TO DSVPRI AND RESTORED			*
		4493	*	BEFORE EXIT. IF IS USED IN DSVPRI AS A BASE REGISTER FOR			*

#DSVPRI - DLPRNT INTERFACE TO SAVE OR PRINT A LINE

ERR LOC	OBJECT CODE	ADDR	STMT	SOURCE STATEMENT	VER 15, MOD 00	23/06/22	PAGE 54
		4494	*	ADDRESSABILITY.			*
		4495	*	* REGISTER 2 (@XR) IS ALSO SAVED AND RESTORED FOR THE USER.			*
		4496	*	IT IS USED TO POINT TO THE PPL SENT TO DSVPRI.			*
		4497	*				*
		4498	*	SAVED/RESTORED AREAS			*
		4499	*	REGISTERS 1 AND 2 ARE SAVED UPON ENTRY TO DSVPRI AND RESTORED			*
		4500	*	BEFORE EXIT. REGISTER 8 (@ARR) IS BUMPED BY 2 AND SAVED FOR			*
		4501	*	THE RETURN ADDRESS.			*
		4502	*				*
		4503	*	MODIFICATION CONSIDERATIONS			*
		4504	*	NONE			*
		4505	*				*
		4506	*	REQUIRED MODULES			*
		4507	*	* @SYSEQ - COMMON SYSTEM EQUATES			*
		4508	*	* DLPRNT - MODULE TO PRINT A LINE			*
		4509	*				*
		4510	*	OTHER			*
		4511	*	NONE			*
		4512	*	*****			*

#DSVPRI - DLPRNT INTERFACE TO SAVE OR PRINT A LINE

ERR	LOC	OBJECT	CODE	ADDR	STMT	SOURCE	STATEMENT	VER 15, MOD 00 23/06/22 PAGE 55
				1B3E	4514	DSVPRI	EQU *	DLPRNT INTERFACE ROUTINE
1B3E	34	01	1B9B		4515		ST DSV900+@OP1,@BR	SAVE USER'S BASE REG
1B42	C2	01	1B3E		4516		LA DSVPRI,@BR	LOAD BASE REGISTER
				1B3E	4517		USING DSVPRI,@BR	SET UP BASE REGISTER
1B46	74	02	61		4518		ST DSV910+@OP1(,@BR),@XR	SAVE USER'S XR
1B49	76	08	69		4519		A DSVONE(,@BR),@ARR	PT @ARR TO ADDR OF PPL
1B4C	74	08	1A		4520		ST DSV100+@OP1(,@BR),@ARR	SAVE ADDR OF PPL
1B4F	76	08	69		4521		A DSVONE(,@BR),@ARR	CALCULATE RETURN ADDRESS
1B52	74	08	65		4522		ST DSV920+@OP1(,@BR),@ARR	SAVE RETURN ADDRESS ?
1B55	35	02	0000		4524	DSV100	L *-*,@XR	POINT XR TO PPL
1B59	BD	40	00		4525		CLI @PCTRL(,@XR),@PRINT	IS PRINT ONLY SPECIFIED
1B5C	F2	81	03		4526		JE DSV200	YES, DON'T SEE PRINT SW
1B5F	7C	80	47		4527		MVI DSV800+@Q(,@BR),@NOP	SET SW TO PRINT
1B62	6C	00	6B 01		4528	DSV200	MVC DSVTMP(1,@BR),@PRCNT(,@XR)	EXPAND PPL COUNT TO TWO BYTES
1B66	6C	01	45 03		4529		MVC DSV700+@OP2(@CADDR,@BR),@PDATA(,@XR)	SAVE USER'S BFR ADDR
1B6A	6E	00	6D 01		4530		ALC DSVPPPL+@PRCNT(1,@BR),@PRCNT(,@XR)	INCR PPL COUNT
1B6E	5E	01	43 6B		4531		ALC DSV700+@OP1(@CADDR,@BR),DSVTMP(,@BR)	SET 'MOVE TO' ADDR
1B72	5F	00	6B 69		4532		SLC DSVTMP(1,@BR),DSVONE(,@BR)	DECR LENGTH BY ONE
1B76	5C	00	41 6B		4533		MVC DSV700+@Q(,@BR),DSVTMP(1,@BR)	SET LENGTH OF MOVE
1B7A	5E	01	45 6B		4534		ALC DSV700+@OP2(@CADDR,@BR),DSVTMP(,@BR)	SET 'MOVE FROM' ADDR
1B7E	0C	00	1CFF 0000		4535	DSV700	MVC DSVBUF-1+*-*(@VQ),*-*	MOVE CHARS TO BUFFER
1B84	F2	87	11		4536	DSV800	JC DSV900,@UCB+*-*	UCB UNLESS PRETR SPECIFIED
1B87	C0	87	1907		4538		B DLPRNT	PRINT OUT LINE
1B8B	1BAA			1B8C	4539		DC AL(@CADDR)(DSVPPL)	
1B8D	3C	87	1B85		4540		MVI DSV800+@Q,@UCB	SET PRINT SW OFF
					4541	*		RESTORE THE 'MOVE TO' ADDRESS
1B91	5C	01	43 67		4542		MVC DSV700+@OP1(,@BR),DSVABF(@CADDR,@BR)	
1B95	7C	00	6D		4543		MVI DSVPPPL+@PRCNT(,@BR),@ZERO	RESET PPL COUNT TO ZERO
					4544	*		
1B98	C2	01	0000		4545	DSV900	LA *-*,@BR	RESTORE BASE REGISTER
1B9C	C2	02	0000		4546	DSV910	LA *-*,@XR	RESTORE INDEX REGISTER
1BA0	C0	87	0000		4547	DSV920	B *-*	RETURN TO USER
1BA4	1CFF			1BA5	4548	DSVABF	DC AL(@CADDR)(DSVBUF-1)	
					4549	*		
					4550	*		DSVPRI CONSTANTS AND SAVE AREAS
					4551	*		
1BA6	0001			1BA7	4552	DSVONE	DC XL2'01'	CONSTANT OF ONE
				1BA8	4553	DSVTMI	EQU *	START OR SAVE AREA
1BA8				1BA9	4554	DSVTMP	DS XL(@CADDR)	* USED TO CALCULATE
1BA8					4555		ORG DSVTMI	* THE NUMBER OF BYTES TO
1BA8	0000			1BA9	4556		DC XL(@CADDR)'0'	* SAVE OR PRINT
					4557	*DSVPPL	PPL FUNC-@PRETR,CADDR-DSVBUF	
				1BAA	4558	DSVPPL	EQU *	PPL ADDRESS
1BAA	C0			1BAA	4559		DC AL1(@PRETR)	FUNCTION REQUESTED
1BAB	00			1BAB	4560		DC AL1(*-*)	PRINT COUNT
1BAC	1D00			1BAD	4561		DC AL2(DSVBUF)	DATA ADDRESS
					4562	***	END OF EXPANSION ***	

[illegible]

#DSVPRI - DLPRNT INTERFACE TO SAVE OR PRINT A LINE

ERR LOC OBJECT CODE ADDR STMT SOURCE STATEMENT VER 15, MOD 00 23/06/22 PAGE 57

1802	4580	KCNBUF	EQU	SCKOUT
1812	4581	DLIBUF	EQU	KCNBUF+16
1C00	4582	KCNIOS	EQU	*
1C00	4583	KCNSAV	EQU	*
1D00	4584	DSVBUF	EQU	KCNIOS+256
	4585		PRINT	ON
FFFF	4586		END	

TOTAL STATEMENTS IN ERROR IN THIS ASSEMBLY = 0

CROSS REFERENCE

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
\$\$\$\$\$	001	0C00	2508	
\$\$\$\$\$1	218	1161	2932	
\$\$\$\$\$2	082	1BFF	4576	
\$\$\$\$L1	001	1BAE	4571	4574 4576
\$\$\$\$T1	001	1C00	4573	4576
\$\$\$CMD	001	0020	1035	
\$\$\$DAT	001	0040	1034	
\$\$\$EPL	001	0091	1031	
\$\$\$ERN	001	0080	1085	
\$\$\$FUN	001	0010	1036	
\$\$\$NLN	001	00A0	1081	
\$\$\$STD	001	0081	1030	
\$\$BNLN	001	0605	1011	1013
\$\$CDBS	001	08C0	1061	
\$\$CDND	001	0666	1020	
\$\$CDRD	001	0890	1059	1061
\$\$CKEY	001	0603	1009	
\$\$CKFF	001	0B3D	1041	
\$\$COFF	001	0B44	1040	4165
\$\$CSNS	001	209C	1070	
\$\$DATB	001	0BBF	1042	
\$\$EOSA	001	0AFE	1039	
\$\$ERSK	001	1C00	1080	
\$\$FITS	001	1D00	1088	2960
\$\$FLIB	001	06FF	1087	
\$\$ILEN	001	0601	1005	1007 1011
\$\$ILHD	001	0600	1003	1005
\$\$INLN	001	0607	1018	1020 1022
\$\$INND	001	06FA	1022	
\$\$KBDT	001	09E1	1029	1033
\$\$KBSN	001	09E2	1033	1038
\$\$KLD1	001	0600	1093	
\$\$KLD2	001	0700	1095	
\$\$KLD3	001	0C00	1097	
\$\$LPOS	001	09EB	1038	
\$\$PCNT	001	07E9	1054	4281*
\$\$PLYN	001	2004	1068	4134
\$\$PRES	001	0890	1027	1029 1039 1040 1041 1042 1059 3982
\$\$PRFL	001	2143	1072	
\$\$PRNT	001	0707	1048	1049 1053 1054 4171 4173 4181 4238 4278 4282
\$\$PRTN	001	0782	1049	
\$\$PSIO	001	07CE	1053	4269* 4280*
\$\$PYCD	001	2200	1074	3979
\$\$PYMP	001	2000	1066	1068 1070 1072 1074
\$\$SLIB	001	1C00	1083	
\$\$TPCD	001	0606	1013	1018
\$\$UPAR	001	0602	1007	1009
\$\$WSPB	001	1E00	1086	
\$\$XIND	001	06FF	1084	1087
\$\$ZERO	001	0000	0225	0226 0228 0229 0230 0234 1066
\$ABORT	001	0010	0338	
\$BASIC	001	0080	0396	3204 3284
\$BIGCD	001	0080	0472	3476
\$BLDPL	001	0579	0605	0607
\$BLNOE	001	0569	0595	
\$BLOAD	001	0522	0586	0588 0591 0604 0605

CROSS REFERENCE

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
\$BLRTN	001	0550	0594	0595
\$BRSAV	001	03C5	0283	0284
\$BSADR	001	0587	0610	0612 3142
\$BUFPT	001	03E3	0491	0492
\$CABLD	001	04B4	0564	0565
\$CAERK	001	0469	0541	0544 2955 3648 3879
\$CAERR	001	03CD	0289	0291 2945* 2951* 2954* 3913* 3916* 3919* 3956* 3965* 3969* 4411*
\$CAIPL	001	049D	0560	0562
\$CALLI	001	0008	0481	
\$CARDI	001	0001	0252	3962
\$CARPL	001	04A1	0562	0564 3612
\$CIENT	001	0483	0551	0552
\$CIEXT	001	0480	0550	0551
\$CIMSK	001	0476	0547	0550 4240*
\$CISUS	001	0496	0555	0560
\$CLBFR	001	0010	0439	
\$CMDKY	001	0008	0351	3976
\$CMODE	001	0002	0401	3129
\$CONFIG	001	03DD	0464	0474 3476 3497 3508 3518 3584 3591
\$CRPOS	001	03E2	0490	0491
\$CRTAD	001	044D	0529	0530
\$CRTAV	001	0002	0345	3484 3959
\$CRTDN	001	0002	0369	
\$CRTIN	001	03D3	0366	0373 3945* 4139 4150 4152* 4157*
\$CRTNO	001	0004	0348	
\$CRTPU	001	0004	0370	4150 4152
\$CRTSP	001	0008	0371	4139 4157
\$CRTUP	001	0001	0368	3945
\$CRUSH	001	0080	0477	
\$CSDPL	001	050E	0576	0577
\$C0001	001	0464	0533	0539
\$DATE	001	043A	0514	0515 3079 3080 3082 3083 3085 3086
\$DBGUF	001	03E0	0476	0485 3287
\$DBLOK	001	0001	0426	
\$DFDET	001	03E8	0497	0498
\$DISKN	001	0025	0228	3145 3147 3310 3312 3447 3453
\$DKERR	001	0008	0407	
\$DKSIZ	001	03D7	0451	0459 0500 3026 3044 3058 3553 3560 3567 3574
\$DK100	001	0001	0453	3553
\$DK200	001	0002	0454	3560
\$DK400	001	0004	0455	3567
\$DK600	001	0008	0456	3026 3044 3058 3574
\$DK800	001	0010	0457	
\$DPLSV	001	0449	0525	0527
\$DTNMB	001	0040	0272	
\$DTRDR	001	0040	0360	3469
\$ENDNU	001	0600	0619	1003 1027 1048 1084 1093 1095 1097
\$ERDPL	001	046F	0544	0546
\$ERFIL	001	0040	0299	
\$ERHRD	001	0004	0431	
\$ERKEY	001	0080	0303	
\$ERLOG	001	0345	0233	
\$ERMAD	001	0472	0546	0547
\$ERPND	001	0004	0404	
\$ERRCT	001	03CF	0305	
\$ERRPG	001	03CE	0293	

CROSS REFERENCE

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
\$ERSFL	001	0035	0298	
\$ERSTK	001	0030	0296	
\$ER050	001	0363	0234	
\$ER1N2	001	0050	0301	
\$EXADR	001	0517	0579	0581
\$EXCMD	001	0001	0333	
\$EXFTR	001	043B	0515	0520 3978 3980 4113
\$FCIND	001	0010	0411	
\$FDIND	001	0040	0418	
\$FEARR	001	0004	0226	
\$FEMAP	001	0588	0612	0613
\$FILIB	001	03DA	0462	0463 2972 2988 2993 2998
\$FITIN	001	0010	0387	
\$FUIND	001	0020	0416	
\$GUFIO	001	0583	0609	0610
\$GUFIR	001	0008	0261	
\$HISTE	001	042E	0512	0513
\$HIST1	001	0435	0513	0514
\$HRDER	001	0020	0357	
\$INDR1	001	03D4	0373	0399 3188 3204 3206 3224 3233 3242 3267 3284
\$INDR2	001	03D5	0399	0424 3129
\$INDR3	001	03D6	0424	0451 2964*
\$INLNO	001	03CF	0291	0293 0305 0312
\$INRPT	001	0020	0269	
\$IOIND	001	03D2	0340	0366 3469 3484 3494 3953 3959 3976* 4169
\$IOPGS	001	0010	0480	3287
\$IOYES	001	0002	0255	
\$IPLDV	001	05FF	0616	0619
\$IRKEY	001	0020	0479	
\$KEYBD	001	03E1	0485	0490 3530
\$KEYCD	001	03C3	0249	0283 3962
\$KEYDT	001	0040	0393	
\$KE090	001	00DE	0229	
\$KE130	001	01D5	0230	
\$KYBSY	001	0010	0266	
\$LDRTN	001	0571	0604	
\$LEVEL	001	03DF	0474	0476
\$LIST	001	0002	0428	2964
\$LMRGN	001	03C1	0244	0246 3099 4242 4251 4271
\$LNPTR	001	0080	0363	3494 4169
\$LOADB	001	054A	0588	
\$LOADR	001	051A	0581	0584
\$LPRIO	001	03EA	0498	
\$LPROS	001	03E5	0493	0495
\$LPRP3	001	03E4	0492	0493
\$MOUNT	001	0020	0442	
\$MPDWN	001	0001	0342	3953
\$NEXTB	001	03E6	0495	0496
\$NEXTL	001	03E7	0496	0497
\$NOENB	001	0008	0434	
\$NOLST	001	0004	0258	
\$NUCBS	001	03C0	0241	0242 2962 2963 3126 3127 3463 3464 3551
\$NWRKF	001	0080	0447	
\$NWRKR	001	0040	0444	
\$PASWD	001	042D	0511	0512
\$PAUSD	001	04BA	0565	0567

CROSS REFERENCE

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
\$PAUSE	001	0002	0335	
\$PGMDT	001	0020	0390	3224 3242 3267
\$PGMST	001	0010	0354	
\$PKERT	001	0419	0509	0511
\$PLST1	001	0454	0530	0531
\$PLST2	001	045B	0531	0532
\$PLST3	001	0462	0532	0533
\$PRDEV	001	044B	0527	0529 4121 4126
\$PRESN	001	0002	0378	3233
\$PROCI	001	0001	0375	3206
\$PRPOS	001	03C2	0246	0249 4251 4270
\$PSDBR	001	04FA	0570	
\$PSDXR	001	04F2	0569	0570
\$PSTEP	001	0004	0336	
\$PSTMT	001	0008	0337	
\$PTCH1	001	03F5	0500	0504
\$READY	001	0080	0420	
\$REORD	001	0040	0478	
\$RLOAD	001	051E	0584	0586
\$RMGRN	001	03C0	0242	0244 3100 4241
\$RSTR	001	04D6	0567	0569 0571 0576
\$RUNIT	001	0001	0314	
\$SFAID	001	050D	0572	
\$SPRNT	001	0465	0539	0541
\$SRTRN	001	04FE	0571	0572
\$STEPT	001	0002	0315	
\$SWPCR	001	0511	0577	0579
\$TABLN	001	03CB	0286	0289
\$TFLOW	001	0008	0321	
\$TRACE	001	0004	0316	
\$TRALL	001	0010	0322	
\$TROVR	001	054E	0591	0594
\$TRUNK	001	0080	0274	
\$TRVAR	001	0020	0323	
\$UNMSK	001	048D	0552	0555 4198
\$USRDR	001	03DC	0463	0464
\$VMDEF	001	0080	0327	
\$VOLF1	001	03FE	0506	0507 2995 3033 3037
\$VOLF2	001	040E	0508	2990 3061 3065
\$VOLID	001	03F6	0504	0505 0509
\$VOLR1	001	03F6	0505	0506 3003 3015 3019
\$VOLR2	001	0406	0507	0508 3000 3048 3052
\$WAITF	001	057F	0607	0609 3148 3313 3454 3610 4174 4239
\$WFDEF	001	0040	0521	3169
\$WFLOK	001	0008	0384	3188
\$WFNME	001	0443	0520	0525 3169 3181
\$WSIND	001	0004	0381	
\$XIND1	001	03D0	0312	0331
\$XIND2	001	03D1	0331	0340
\$XIND3	001	03D8	0459	0462
\$XPREC	001	0040	0324	
\$XRSAB	001	03C7	0284	0286 2935
\$ZTRAD	001	05A2	0613	
\$12K	001	0004	0468	3584 3591
\$16CKY	001	0008	0470	3518
\$16K	001	0002	0467	3584

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
\$22IMP	001	0001	0465	3497 3508
###BL	001	0000	1618	
###CK	001	0000	1746	
###CN	001	0000	1714	
###CO	001	0000	1506	
###CS	001	0000	1566	
###DR	001	0000	1310	
###ER	001	0000	1510	
###FS	001	0000	1606	
###IN	001	0000	1750	
###PW	001	0000	1754	
###RS	001	0000	1586	
###SA	001	0000	1574	
###SS	001	0000	1570	
###VU	001	0600	1530	
###0T	001	0700	1302	
###1T	001	0000	1306	
###BCO	001	0600	1318	
###BOV	001	0800	1590	
###DPR	001	0700	1326	
###DRE	001	0889	1342	
###DSP	001	2800	1362	
###ECM	001	0C00	1622	
###EFK	001	0C00	1642	
###ERR	001	0C00	1614	
###EXM	001	0C00	1502	
###FIL	001	0E00	1582	
###FIS	001	0E00	1578	
###FML	001	0200	1710	
###FMS	001	0200	1550	
###GRA	001	0889	1474	
###GUF	001	0C00	1610	
###INL	001	0600	1690	
###INS	001	0600	1314	
###KAL	001	0C00	1478	
###KCA	001	0C00	1694	
###KCH	001	0C00	1446	
###KCN	001	0C00	1562	2507
###KCT	001	0C00	1414	
###KDE	001	0C00	1410	
###KDI	001	0D00	1490	
###KDN	001	0C00	1398	
###KDO	001	0E00	1494	
###KED	001	0C00	1334	
###KEN	001	0C00	1338	
###KEX	001	0C00	1358	
###KGO	001	0C00	1330	
###KHE	001	0C00	1514	
###KKE	001	0C00	1742	
###KLI	001	0C00	1418	
###KLL	001	0920	1718	
###KLO	001	0C00	1422	
###KME	001	0D00	1402	
###KMO	001	0C00	1346	
###KNA	001	0C00	1458	
###KOV	001	0E00	1378	

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
\$\$\$KPA	001	0C00	1354	
\$\$\$KPO	001	0C00	1442	
\$\$\$KPR	001	0C00	1466	
\$\$\$KRE	001	0C00	1386	
\$\$\$KRL	001	0700	1482	
\$\$\$KRM	001	0C00	1350	
\$\$\$KRN	001	0700	1370	
\$\$\$KRO	001	0D00	1374	
\$\$\$KRS	001	0C00	1698	
\$\$\$KRU	001	0C00	1394	
\$\$\$KRV	001	0800	1486	
\$\$\$KSA	001	0C00	1430	
\$\$\$KSE	001	0E00	1470	
\$\$\$KSO	001	0C20	1522	
\$\$\$KSS	001	0C00	1454	
\$\$\$KSV	001	0980	1450	
\$\$\$KSY	001	0C00	1462	
\$\$\$KWI	001	0C00	1390	
\$\$\$KWR	001	0C00	1382	
\$\$\$LOA	001	0600	1322	
\$\$\$MIP	001	0C00	1518	
\$\$\$SDS	001	0C00	1630	
\$\$\$SFF	001	0E00	1634	
\$\$\$SFL	001	0F00	1626	
\$\$\$SFO	001	1500	1598	
\$\$\$SFS	001	0C00	1594	
\$\$\$SPA	001	0C00	1434	
\$\$\$SPO	001	0806	1438	
\$\$\$SPS	001	0C00	1426	
\$\$\$STR	001	1600	1602	
\$\$\$TDC	001	1000	1406	
\$\$\$TSY	001	1000	1366	
\$\$\$TVK	001	0FC0	1542	
\$\$\$UAL	001	0C00	1558	
\$\$\$UAT	001	0900	1654	
\$\$\$UCD	001	0900	1662	
\$\$\$UCN	001	0C00	1646	
\$\$\$UCP	001	0700	1650	
\$\$\$UDE	001	0C00	1666	
\$\$\$UDI	001	0C00	1670	
\$\$\$UEX	001	0C00	1554	
\$\$\$UIN	001	0C00	1658	
\$\$\$UPA	001	0C00	1638	
\$\$\$UPO	001	0C00	1706	
\$\$\$UPT	001	0C00	1702	
\$\$\$VCR	001	2000	1498	
\$\$\$VLO	001	0600	1534	
\$\$\$VOD	001	0600	1538	
\$\$\$VVM	001	0000	1546	
\$\$\$VXI	001	0600	1526	
\$\$\$ZDU	001	1100	1678	
\$\$\$ZLB	001	1100	1722	
\$\$\$ZLO	001	1100	1682	
\$\$\$ZLV	001	0F00	1738	
\$\$\$ZL1	001	0F00	1726	
\$\$\$ZL2	001	0F00	1730	

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
\$\$\$ZL3	001	0C00	1734	
\$\$\$ZTR	001	1000	1674	
\$\$\$ZUT	001	0C00	1686	
\$\$#BLN	001	18D4	1617	
\$\$#CKT	001	2118	1745	
\$\$#CNF	001	2000	1713	
\$\$#COR	001	0800	1505	
\$\$#CSA	001	1000	1565	
\$\$#DRT	001	0000	1309	
\$\$#ERM	001	0928	1509	
\$\$#FSP	001	1880	1605	
\$\$#INV	001	212C	1749	
\$\$#PWR	001	2300	1753	
\$\$#RSP	001	1780	1585	
\$\$#SAV	001	1180	1573	
\$\$#SSA	001	1128	1569	3698
\$\$#VUF	001	0B08	1529	
\$\$#0TR	001	0000	1301	
\$\$#1TR	001	0080	1305	
\$\$@#BL	001	0001	1619	
\$\$@#CK	001	0004	1747	
\$\$@#CN	001	0001	1715	
\$\$@#CO	001	003A	1507	
\$\$@#CS	001	003A	1567	
\$\$@#DR	001	0008	1311	
\$\$@#ER	001	0032	1511	
\$\$@#FS	001	0030	1607	
\$\$@#IN	001	003A	1751	
\$\$@#PW	001	00C0	1755	
\$\$@#RS	001	0030	1587	
\$\$@#SA	001	0108	1575	
\$\$@#SS	001	0001	1571	
\$\$@#VU	001	0002	1531	
\$\$@#0T	001	0018	1303	
\$\$@#1T	001	0018	1307	
\$\$@BCO	001	0018	1319	
\$\$@BOV	001	0018	1591	
\$\$@DPR	001	0005	1327	
\$\$@DRE	001	0001	1343	
\$\$@DSP	001	0004	1363	
\$\$@ECM	001	0006	1623	
\$\$@EFK	001	0002	1643	
\$\$@ERR	001	0003	1615	
\$\$@EXM	001	0003	1503	
\$\$@FIL	001	0009	1583	
\$\$@FIS	001	0009	1579	
\$\$@FML	001	0052	1711	
\$\$@FMS	001	0052	1551	
\$\$@GRA	001	0003	1475	
\$\$@GUF	001	0010	1611	
\$\$@INL	001	0010	1691	
\$\$@INS	001	0010	1315	
\$\$@KAL	001	000F	1479	
\$\$@KCA	001	000C	1695	
\$\$@KCH	001	000C	1447	
\$\$@KCN	001	0010	1563	

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SYMBOL LEN VALUE DEFN REFERENCES VER 15, MOD 00 23/06/22 PAGE 65

#\$@KCT	001	0009	1415	
#\$@KDE	001	0010	1411	
#\$@KDI	001	0005	1491	
#\$@KDN	001	0010	1399	
#\$@KDO	001	000C	1495	
#\$@KED	001	000E	1335	
#\$@KEN	001	0006	1339	
#\$@KEX	001	0003	1359	
#\$@KGO	001	0002	1331	
#\$@KHE	001	000C	1515	
#\$@KKE	001	0006	1743	
#\$@KLI	001	0011	1419	
#\$@KLL	001	0001	1719	
#\$@KLO	001	0008	1423	
#\$@KME	001	0003	1403	
#\$@KMO	001	0004	1347	
#\$@KNA	001	0008	1459	
#\$@KOV	001	0009	1379	
#\$@KPA	001	0005	1355	
#\$@KPO	001	000D	1443	
#\$@KPR	001	0009	1467	
#\$@KRE	001	0002	1387	
#\$@KRL	001	0004	1483	
#\$@KRM	001	0003	1351	
#\$@KRN	001	0003	1371	
#\$@KRO	001	000A	1375	
#\$@KRS	001	000A	1699	
#\$@KRU	001	0003	1395	
#\$@KRV	001	000D	1487	
#\$@KSA	001	0011	1431	
#\$@KSE	001	0004	1471	
#\$@KSO	001	0005	1523	
#\$@KSS	001	000B	1455	
#\$@KSV	001	0002	1451	
#\$@KSY	001	000F	1463	
#\$@KWI	001	0002	1391	
#\$@KWR	001	0002	1383	
#\$@LOA	001	0013	1323	
#\$@MIP	001	000D	1519	
#\$@SDS	001	0004	1631	
#\$@SFF	001	0008	1635	
#\$@SFL	001	0005	1627	
#\$@SFO	001	0003	1599	
#\$@SFS	001	0011	1595	
#\$@SPA	001	0004	1435	
#\$@SPO	001	0003	1439	
#\$@SPS	001	0001	1427	
#\$@STR	001	0002	1603	
#\$@TDC	001	0003	1407	
#\$@TSY	001	0003	1367	
#\$@TVK	001	0001	1543	
#\$@UAL	001	0011	1559	
#\$@UAT	001	000C	1655	
#\$@UCD	001	000B	1663	
#\$@UCN	001	0009	1647	
#\$@UCP	001	000F	1651	

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SYMBOL LEN VALUE DEFN REFERENCES VER 15, MOD 00 23/06/22 PAGE 66

#\$@UDE	001	000E	1667
#\$@UDI	001	0008	1671
#\$@UEX	001	000E	1555
#\$@UIN	001	000F	1659
#\$@UPA	001	0004	1639
#\$@UPO	001	0005	1707
#\$@UPT	001	0012	1703
#\$@VCR	001	0008	1499
#\$@VLO	001	0002	1535
#\$@VOD	001	0016	1539
#\$@VVM	001	0030	1547
#\$@VXI	001	0002	1527
#\$@ZDU	001	0008	1679
#\$@ZLB	001	0002	1723
#\$@ZLO	001	000C	1683
#\$@ZLV	001	0006	1739
#\$@ZL1	001	0007	1727
#\$@ZL2	001	000D	1731
#\$@ZL3	001	000A	1735
#\$@ZTR	001	0001	1675
#\$@ZUT	001	0014	1687
#\$BCOM	001	0080	1317
#\$BOLV	001	1780	1589
#\$DPRI	001	014C	1325
#\$DREA	001	0200	1341
#\$DSPL	001	0240	1361
#\$ECMA	001	1900	1621
#\$EFKE	001	1990	1641
#\$ERRP	001	18C0	1613
#\$EXMS	001	07D4	1501
#\$FILN	001	1724	1581
#\$FIST	001	1700	1577
#\$FMLN	001	1E00	1709
#\$FMST	001	0D00	1549
#\$GRAP	001	0690	1473
#\$GUFU	001	1880	1609
#\$INLN	001	1C84	1689
#\$INST	001	0020	1313
#\$KALL	001	06A4	1477
#\$KCAL	001	1CC4	1693
#\$KCHA	001	053C	1445
#\$KCND	001	0F80	1561
#\$KCTL	001	03BC	1413
#\$KDEL	001	035C	1409
#\$KDIS	001	0744	1489
#\$KDNT	001	0300	1397
#\$KDOV	001	0780	1493
#\$KEDI	001	0188	1333
#\$KENA	001	01C4	1337
#\$KEXT	001	0234	1357
#\$KGOS	001	0180	1329
#\$KHEL	001	0A30	1513
#\$KKEY	001	2100	1741
#\$KLIS	001	0400	1417
#\$KLLA	001	2004	1717
#\$KLOG	001	0444	1421

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
#\$KMER	001	030C	1401	
#\$KMOU	001	0204	1345	
#\$KNAM	001	05C0	1457	
#\$KOVN	001	0290	1377	
#\$KPAS	001	0220	1353	
#\$KPOO	001	0508	1441	
#\$KPRT	001	063C	1465	
#\$KREA	001	02BC	1385	
#\$KRLA	001	0700	1481	
#\$KRMO	001	0214	1349	
#\$KRNU	001	0280	1369	
#\$KROV	001	028C	1373	
#\$KRSU	001	1D24	1697	
#\$KRUN	001	02CC	1393	
#\$KRVL	001	0710	1485	
#\$KSAV	001	0488	1429	
#\$KSET	001	0680	1469	
#\$KSOV	001	0AC8	1521	
#\$KSSP	001	0594	1453	
#\$KSVL	001	058C	1449	
#\$KSYM	001	0600	1461	
#\$KWID	001	02C4	1389	
#\$KWRI	001	02B4	1381	
#\$LOAD	001	0100	1321	
#\$MIPP	001	0A80	1517	
#\$SDSY	001	192C	1629	
#\$SFFI	001	193C	1633	
#\$SFLO	001	1918	1625	
#\$SFOV	001	1844	1597	
#\$SFSY	001	1800	1593	
#\$SPAC	001	04CC	1433	
#\$SPOV	001	04DC	1437	
#\$SPSY	001	0484	1425	
#\$STRO	001	1850	1601	
#\$TDCK	001	0350	1405	
#\$TSYK	001	0250	1365	
#\$TVKB	001	0BAC	1541	
#\$UALL	001	0F00	1557	
#\$UATR	001	1A38	1653	
#\$UCDI	001	1AD8	1661	
#\$UCNF	001	19B8	1645	
#\$UCPL	001	19DC	1649	
#\$UDEL	001	1B24	1665	
#\$UDIS	001	1B5C	1669	
#\$UEXL	001	0EA8	1553	
#\$UINI	001	1A88	1657	
#\$UPAC	001	1980	1637	
#\$UPOV	001	1D24	1705	
#\$UPTF	001	1D5C	1701	
#\$VCRT	001	07B4	1497	
#\$VLOA	001	0B80	1533	
#\$VODK	001	0B88	1537	
#\$VVMR	001	0C00	1545	
#\$VXIT	001	0B00	1525	
#\$ZDUM	001	1BA4	1677	
#\$ZLBM	001	2008	1721	

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
#\$ZLOA	001	1BC4	1681	
#\$ZLVR	001	20B0	1737	
#\$ZL1M	001	2010	1725	
#\$ZL2M	001	2030	1729	
#\$ZL3M	001	2088	1733	
#\$ZTRA	001	1B9C	1673	
#\$ZUTM	001	1C14	1685	
#@#BAD	001	0455	1125	
#@#IO1	001	0459	1133	3679
#@#IO2	001	045D	1134	3672
#@#TAT	001	0941	1161	
#@#TBA	001	09A1	1165	
#@#TFS	001	0941	1159	
#@#TSY	001	0941	1163	
#@#VFP	001	0700	1151	
#@#VLP	001	093D	1154	
#@#WDB	001	050C	1146	
#@#WFT	001	0500	1144	
@@#BA	001	0001	1126	
@@#IO	001	0001	1138	3680
@@#SC	001	0002	1135	
@@#TA	001	0010	1162	
@@#TB	001	0010	1166	
@@#TS	001	0005	1164	
@@#TW	001	0020	1160	
@@#VM	001	0100	1155	
@@#WD	001	00BD	1147	
@@#WF	001	0003	1145	
@@#04	001	0004	1137	3451
@@#08	001	0008	1136	3671
@@#BOV	001	0018	1114	
@@#ECM	001	0006	1128	
@@#ERR	001	0003	1122	
@@#GUF	001	0010	1118	
@@#LDS	001	0002	1124	
@@#SDS	001	0004	1120	
@@#SFF	001	0008	1132	
@@#SFL	001	0005	1130	
@@#SFO	001	0005	1140	
@@#SFS	001	0011	1116	
@@#VSF	001	0010	1168	
@@#VSL	001	000F	1169	
@@#VTR	001	0001	1153	
#@BOVL	001	0400	1113	
#@CORS	001	0005	0971	
#@ECMA	001	0481	1127	
#@ERRP	001	0441	1121	
#@GUFU	001	0401	1117	
#@LDSV	001	044D	1123	
#@MVSD	001	0001	0979	
#@NERO	001	0003	0973	
#@OBRA	001	0002	0975	
#@PTFL	001	0006	0994	
#@PTFS	001	0001	0993	
#@SDSY	001	04AD	1119	
#@SFFI	001	04BD	1131	

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
#@SFLO	001	0499	1129	
#@SFOV	001	04C4	1139	
#@SFSY	001	0480	1115	
#@VCNT	001	0002	0991	
#@VLAB	001	0001	0986	
#@VLSD	001	0001	0977	
#@VSFI	001	09A1	1167	
#@VTRL	001	0708	1152	
#@WAF1	001	0401	1112	
#@WAR1	001	0400	1111	
#CNDIS	001	0001	0946	
#CNFIG	001	0005	0982	
#CORSV	001	0010	0970	
#DKEXT	001	0002	0953	
#FIGSC	001	0001	0983	
#HISCT	001	0006	0960	
#HISDX	001	0003	0955	
#HISLN	001	0008	0952	0953
#HISN1	001	0003	0958	
#HISN2	001	0005	0959	
#HISTC	001	0007	0962	
#HISTN	001	0009	0964	
#HISTQ	001	0000	0956	
#HISTR	001	0001	0957	
#HISTS	001	0008	0963	
#HISTV	001	000F	0965	
#HSEND	001	0007	0961	
#HSENT	001	0001	0954	
#IOSDR	001	0019	0981	
#KCND	001	0C07	2511	
#KCNDI	001	0000	0001	
#MVSDR	001	000D	0978	
#NEROV	001	009C	0972	
#OBRAD	001	001D	0974	
#PKCNT	001	0002	0939	
#PKMRW	001	002B	0940	
#PKRDD	001	0003	0937	
#PKRTD	001	0003	0936	
#PKRTL	001	0004	0943	
#PKVRD	001	000B	0941	
#PKVWD	001	0007	0942	
#PKWTD	001	0001	0938	
#PTFDA	001	00DC	0992	
#RDWTL	001	0004	0944	
#SDRDK	001	0011	0980	
#VLSDR	001	000C	0976	
#VLTBE	001	0008	0931	
#VOLF1	001	0009	0984	
#VOLNG	001	0006	0929	0931 0953
#VOLOC	001	0005	0930	
#VOLR1	001	0008	0985	
#VTCF1	001	0025	0988	
#VTCF2	001	0027	0990	
#VTCR1	001	0024	0987	
#VTCR2	001	0026	0989	
@\$D1BF	001	0008	1202	3365

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
@\$D1DC	001	0000	1201	3318 3330 3333 3336 3339 3457
@\$D1DF	001	001E	1206	3403
@\$D1DP	001	0016	1205	3412
@\$D1DV	001	000E	1204	3419 3425
@\$D1E1	001	0000	1195	
@\$D1FS	001	000A	1203	3380
@\$D1SW	001	001F	1208	3443
@\$D2AS	001	0002	1213	
@\$D2BS	001	0003	1220	
@\$D2CB	001	0005	1223	
@\$D2CF	001	0001	1212	
@\$D2CP	001	0005	1221	
@\$D2CS	001	0004	1222	
@\$D2CY	001	0006	1224	
@\$D2DA	001	0007	1225	
@\$D2DC	001	0000	1217	
@\$D2DD	001	0009	1226	
@\$D2EE	001	000F	1229	
@\$D2E1	001	0040	1216	
@\$D2FS	001	000B	1227	
@\$D2IO	001	0001	1218	
@\$D2LC	001	000D	1228	
@\$D2PN	001	000A	1214	
@\$D2SF	001	000B	1215	
@\$D2VB	001	0002	1219	
@\$L1BF	001	0008	1235	3365 3365* 3367
@\$L1DC	001	0001	1234	
@\$L1DF	001	0008	1237	3403 3403* 3405
@\$L1DP	001	0008	1238	3412 3412* 3413
@\$L1DV	001	0006	1239	3419 3425 3425* 3426
@\$L1E	001	0020	1233	3435
@\$L1FS	001	0002	1236	
@\$L2AS	001	0001	1245	
@\$L2BS	001	0001	1252	
@\$L2CB	001	0001	1255	
@\$L2CF	001	0002	1244	
@\$L2CP	001	0002	1253	
@\$L2CS	001	0001	1254	
@\$L2DA	001	0002	1256	
@\$L2DC	001	0001	1249	
@\$L2DD	001	0002	1257	
@\$L2E	001	0010	1248	
@\$L2FS	001	0002	1258	
@\$L2HD	001	0040	1243	
@\$L2IO	001	0001	1250	
@\$L2LC	001	0002	1259	
@\$L2PN	001	0008	1247	
@\$L2SF	001	0002	1246	
@\$L2VB	001	0001	1251	
@\$MBCD	001	0020	1273	3330
@\$MBCR	001	0008	1275	3336
@\$MBEN	001	000C	1263	
@\$MBND	001	0000	1270	
@\$MBPD	001	0080	1271	3339
@\$MBPT	001	0010	1274	3333
@\$MBPU	001	0001	1266	

CROSS REFERENCE

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@\$MBSD	001	0040	1272	
@\$M2CI	001	0008	1290	
@\$M2CO	001	0004	1291	
@\$M2EF	001	0002	1265	
@\$M2FI	001	0080	1279	
@\$M2FO	001	0040	1280	
@\$M2FP	001	0020	1281	
@\$M2FT	001	0010	1284	
@\$M2NS	001	00FF	1264	
@#AGER	001	0002	0697	
@#BFRN	001	0003	0698	
@#CRTB	001	0040	0653	
@#CRTD	001	0028	0648	
@#CRTN	001	0080	0650	
@#CSIZ	001	003D	0730	
@#C050	001	0002	0722	
@#C08K	001	0001	0732	
@#C100	001	0004	0721	
@#C12K	001	0002	0733	
@#C16K	001	0004	0734	
@#C200	001	0008	0720	
@#DATA	001	0020	0633	
@#DATB	001	0040	0638	
@#DATC	001	0048	0641	
@#DATN	001	0080	0635	
@#DENK	001	0004	0699	
@#DISB	001	0040	0714	
@#DISK	001	0010	0709	0718
@#DISN	001	0080	0711	
@#DOMS	001	0001	0696	
@#DSIZ	001	0013	0718	
@#FINL	001	0006	0701	
@#FRR2	001	0010	0724	
@#FR12	001	0001	0725	
@#KBNO	001	0080	0682	
@#KBRB	001	0040	0685	
@#KBRD	001	0018	0680	0689 0694
@#KEYS	001	0019	0689	
@#KE08	001	0040	0691	
@#KE16	001	0080	0692	
@#KNAT	001	001A	0694	
@#MP13	001	0001	0675	
@#MP22	001	0002	0674	
@#MTLP	001	0004	0672	
@#MTMP	001	0008	0671	
@#MTRX	001	0014	0660	0669
@#MTXB	001	0040	0665	
@#MTXN	001	0080	0662	
@#MTYP	001	0016	0669	
@#NORW	001	0005	0700	
@#PORT	001	0008	0703	
@#SPAN	001	0007	0702	
@#UKDM	001	0009	0704	
@#0005	001	0005	0708	0709
@#0006	001	0006	0659	0660
@#0007	001	0007	0679	0680

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
@#0009	001	0009	0632	0633
@#0011	001	000B	0647	0648
@#0016	001	0010	0729	0730
@@E001	001	0000	2292	2294
@@E003	001	0001	2294	2296
@@E004	001	0002	2296	2298
@@E005	001	0003	2298	2300
@@E006	001	0004	2300	2302
@@E007	001	0005	2302	2304
@@E008	001	0006	2304	2306
@@E009	001	0007	2306	2308
@@E010	001	0008	2308	2310
@@E011	001	0009	2310	2312
@@E012	001	000A	2312	2314
@@E013	001	000B	2314	2316
@@E014	001	000C	2316	2318
@@E015	001	000D	2318	2320
@@E016	001	000E	2320	2322
@@E017	001	000F	2322	2324
@@E018	001	0010	2324	2326
@@E019	001	0011	2326	2328
@@E020	001	0012	2328	2330
@@E021	001	0013	2330	2332
@@E023	001	0014	2332	2334
@@E024	001	0015	2334	2336
@@E025	001	0016	2336	2338
@@E026	001	0017	2338	2340
@@E027	001	0018	2340	2342
@@E028	001	0019	2342	2344
@@E029	001	001A	2344	2346
@@E030	001	001B	2346	2348
@@E031	001	001C	2348	2350
@@E032	001	001D	2350	2352
@@E035	001	001E	2352	2354
@@E036	001	001F	2354	2356
@@E037	001	0020	2356	2358
@@E038	001	0021	2358	2360
@@E039	001	0022	2360	2362
@@E040	001	0023	2362	2364
@@E041	001	0024	2364	2366
@@E042	001	0025	2366	2368
@@E043	001	0026	2368	2370
@@E044	001	0027	2370	2372
@@E045	001	0028	2372	2374
@@E046	001	0029	2374	2376
@@E060	001	002A	2376	2378
@@E080	001	002B	2378	
@@E100	001	0000	1764	1766
@@E101	001	0001	1766	1768
@@E102	001	0002	1768	1770
@@E103	001	0003	1770	1772
@@E110	001	0004	1772	1774 4411
@@E112	001	0005	1774	1776
@@E113	001	0006	1776	1778
@@E114	001	0007	1778	1780
@@E115	001	0008	1780	1782

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
@@E116	001	0009	1782	1784
@@E117	001	000A	1784	1786
@@E120	001	000B	1786	1788
@@E122	001	000C	1788	1790
@@E123	001	000D	1790	1792
@@E124	001	000E	1792	1794
@@E129	001	000F	1794	1796
@@E130	001	0010	1796	1798
@@E131	001	0011	1798	1800 2945 3913
@@E133	001	0012	1800	1802 2951
@@E134	001	0013	1802	1804 3919
@@E135	001	0014	1804	1806
@@E136	001	0015	1806	1808 3916
@@E137	001	0016	1808	1810
@@E138	001	0017	1810	1812
@@E139	001	0018	1812	1814 2954
@@E142	001	0019	1814	1816
@@E143	001	001A	1816	1818
@@E150	001	001B	1818	1820
@@E151	001	001C	1820	1822
@@E160	001	001D	1822	1824
@@E162	001	001E	1824	1826
@@E163	001	001F	1826	1828
@@E164	001	0020	1828	1830
@@E200	001	0021	1830	1832
@@E205	001	0022	1832	1834
@@E210	001	0023	1834	1836
@@E211	001	0024	1836	1838
@@E212	001	0025	1838	1840
@@E213	001	0026	1840	1842
@@E215	001	0027	1842	1844
@@E216	001	0028	1844	1846
@@E217	001	0029	1846	1848
@@E220	001	002A	1848	1850
@@E221	001	002B	1850	1852
@@E222	001	002C	1852	1854
@@E223	001	002D	1854	1856
@@E225	001	002E	1856	1858
@@E226	001	002F	1858	1860
@@E227	001	0030	1860	1862
@@E228	001	0031	1862	1864
@@E229	001	0032	1864	1866
@@E230	001	0033	1866	1868
@@E232	001	0034	1868	1870
@@E234	001	0035	1870	1872
@@E237	001	0036	1872	1874
@@E240	001	0037	1874	1876
@@E241	001	0038	1876	1878 3969
@@E242	001	0039	1878	1880
@@E248	001	003A	1880	1882 3965
@@E249	001	003B	1882	1884
@@E250	001	003C	1884	1886
@@E251	001	003D	1886	1888
@@E252	001	003E	1888	1890
@@E253	001	003F	1890	1892
@@E254	001	0040	1892	1894

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
@@E255	001	0041	1894	1896
@@E256	001	0042	1896	1898
@@E300	001	0043	1898	1900
@@E301	001	0044	1900	1902
@@E302	001	0045	1902	1904
@@E303	001	0046	1904	1906
@@E304	001	0047	1906	1908
@@E305	001	0048	1908	1910
@@E308	001	0049	1910	1912
@@E310	001	004A	1912	1914
@@E315	001	004B	1914	1916
@@E316	001	004C	1916	1918
@@E320	001	004D	1918	1920
@@E325	001	004E	1920	1922
@@E330	001	004F	1922	1924
@@E335	001	0050	1924	1926
@@E338	001	0051	1926	1928
@@E340	001	0052	1928	1930
@@E350	001	0053	1930	1932
@@E351	001	0054	1932	1934
@@E352	001	0055	1934	1936
@@E360	001	0056	1936	1938
@@E361	001	0057	1938	1940
@@E362	001	0058	1940	1942
@@E371	001	0059	1942	1944
@@E380	001	005A	1944	1946
@@E390	001	005B	1946	1948
@@E400	001	005C	1948	1950
@@E410	001	005D	1950	1952
@@E415	001	005E	1952	1954
@@E417	001	005F	1954	1956
@@E420	001	0060	1956	1958
@@E430	001	0061	1958	1960
@@E432	001	0062	1960	1962
@@E433	001	0063	1962	1964
@@E450	001	0064	1964	1966
@@E451	001	0065	1966	1968
@@E460	001	0066	1968	1970
@@E461	001	0067	1970	1972
@@E464	001	0068	1972	1974
@@E465	001	0069	1974	1976
@@E466	001	006A	1976	1978
@@E467	001	006B	1978	1980
@@E469	001	006C	1980	1982
@@E470	001	006D	1982	1984
@@E471	001	006E	1984	1986
@@E473	001	006F	1986	1988
@@E474	001	0070	1988	1990
@@E475	001	0071	1990	1992
@@E476	001	0072	1992	1994
@@E477	001	0073	1994	1996
@@E478	001	0074	1996	1998
@@E479	001	0075	1998	2000
@@E480	001	0076	2000	2002
@@E481	001	0077	2002	2004
@@E482	001	0078	2004	2006

CROSS REFERENCE

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
@@E483	001	0079	2006	2008
@@E484	001	007A	2008	2010
@@E485	001	007B	2010	2012
@@E486	001	007C	2012	2014
@@E487	001	007D	2014	2016
@@E488	001	007E	2016	2018
@@E489	001	007F	2018	2020
@@E490	001	0080	2020	2022
@@E491	001	0081	2022	2024
@@E492	001	0082	2024	2026
@@E493	001	0083	2026	2028
@@E494	001	0084	2028	2030
@@E495	001	0085	2030	2032
@@E496	001	0086	2032	2034
@@E497	001	0087	2034	2036
@@E498	001	0088	2036	2038
@@E500	001	0089	2038	2040
@@E501	001	008A	2040	2042
@@E530	001	008B	2042	2044
@@E531	001	008C	2044	2046
@@E535	001	008D	2046	2048
@@E540	001	008E	2048	2050
@@E541	001	008F	2050	2052
@@E542	001	0090	2052	2054
@@E543	001	0091	2054	2056
@@E544	001	0092	2056	2058
@@E545	001	0093	2058	2060
@@E546	001	0094	2060	2062
@@E547	001	0095	2062	2064
@@E548	001	FFFF	2268	
@@E549	001	0096	2064	2066 3956
@@E550	001	0097	2066	2068
@@E551	001	0098	2068	2070
@@E552	001	0099	2070	2072
@@E553	001	009A	2072	2074
@@E554	001	009B	2074	2076
@@E555	001	009C	2076	2078
@@E556	001	009D	2078	2080
@@E558	001	009E	2080	2082
@@E570	001	009F	2082	2084
@@E571	001	00A0	2084	2086
@@E572	001	00A1	2086	2088
@@E573	001	00A2	2088	2090
@@E574	001	00A3	2090	2092
@@E575	001	FFFF	2270	
@@E578	001	00A4	2092	2094
@@E579	001	FFFF	2272	
@@E580	001	FFFF	2274	
@@E585	001	00A5	2094	2096
@@E595	001	FFFF	2276	
@@E597	001	FFFF	2278	
@@E598	001	FFFF	2280	
@@E600	001	00A6	2096	2098
@@E601	001	00A7	2098	2100
@@E602	001	00A8	2100	2102
@@E603	001	00A9	2102	2104

CROSS REFERENCE

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
@@E604	001	00AA	2104	2106
@@E606	001	00AB	2106	2108
@@E607	001	00AC	2108	2110
@@E608	001	00AD	2110	2112
@@E609	001	00AE	2112	2114
@@E610	001	00AF	2114	2116
@@E611	001	00B0	2116	2118
@@E612	001	00B1	2118	2120
@@E613	001	00B2	2120	2122
@@E614	001	00B3	2122	2124
@@E700	001	00B4	2124	2126
@@E701	001	00B5	2126	2128
@@E710	001	00B6	2128	2130
@@E712	001	00B7	2130	2132
@@E713	001	00B8	2132	2134
@@E714	001	00B9	2134	2136
@@E715	001	00BA	2136	2138
@@E716	001	00BB	2138	2140
@@E717	001	00BC	2140	2142
@@E718	001	00BD	2142	2144
@@E720	001	00BE	2144	2146
@@E721	001	00BF	2146	2148
@@E723	001	00C0	2148	2150
@@E724	001	00C1	2150	2152
@@E725	001	00C2	2152	2154
@@E726	001	00C3	2154	2156
@@E727	001	00C4	2156	2158
@@E728	001	00C5	2158	2160
@@E729	001	00C6	2160	2162
@@E730	001	00C7	2162	2164
@@E732	001	00C8	2164	2166
@@E752	001	00C9	2166	2168
@@E753	001	00CA	2168	2170
@@E754	001	00CB	2170	2172
@@E755	001	00CC	2172	2174
@@E756	001	00CD	2174	2176
@@E757	001	00CE	2176	2178
@@E758	001	00CF	2178	2180
@@E759	001	00D0	2180	2182
@@E760	001	00D1	2182	2184
@@E761	001	00D2	2184	2186
@@E762	001	00D3	2186	2188
@@E763	001	00D4	2188	2190
@@E764	001	00D5	2190	2192
@@E765	001	00D6	2192	2194
@@E766	001	00D7	2194	2196
@@E767	001	00D8	2196	2198
@@E768	001	00D9	2198	2200
@@E769	001	00DA	2200	2202
@@E770	001	00DB	2202	2204
@@E771	001	00DC	2204	2206
@@E772	001	00DD	2206	2208
@@E773	001	00DE	2208	2210
@@E774	001	00DF	2210	2212
@@E775	001	00E0	2212	2214
@@E776	001	00E1	2214	2216

CROSS REFERENCE

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
@@E777	001	00E2	2216	2218
@@E778	001	00E3	2218	2220
@@E779	001	00E4	2220	2222
@@E780	001	00E5	2222	2224
@@E781	001	00E6	2224	2226
@@E782	001	00E7	2226	2228
@@E783	001	00E8	2228	2230
@@E784	001	00E9	2230	2232
@@E785	001	00EA	2232	2234
@@E786	001	00EB	2234	2236
@@E790	001	00EC	2236	2238
@@E791	001	00ED	2238	2240
@@E792	001	00EE	2240	2242
@@E793	001	00EF	2242	2244
@@E794	001	00F0	2244	2246
@@E795	001	00F1	2246	2248
@@E796	001	00F2	2248	2250
@@E797	001	00F3	2250	2252
@@E798	001	00F4	2252	2254
@@E800	001	FFFF	2282	
@@E801	001	FFFF	2284	
@@E802	001	FFFF	2286	
@@E803	001	FFFF	2288	
@@E804	001	FFFF	2290	
@@E900	001	00F5	2254	2256
@@E901	001	00F6	2256	2258
@@E902	001	00F7	2258	2260
@@E903	001	00F8	2260	2262
@@E905	001	00F9	2262	2264
@@E906	001	00FA	2264	2266
@@E910	001	00FB	2266	
@@MPRO	001	140D	3217	3209
@@M020	001	0C0B	2537	2976
@@M021	001	0C0F	2541	2980
@@M022	001	0C13	2545	3075
@@M023	001	0C17	2549	3097
@@M024	001	0C1B	2553	3114
@@M025	001	0C1F	2557	3138
@@M026	001	0C23	2561	3133
@@M027	001	0C27	2565	3157
@@M028	001	0C2B	2569	3154
@@M029	001	0C2F	2573	3177
@@M030	001	0C33	2577	3180
@@M031	001	0C37	2581	3187
@@M032	001	0C3B	2585	3202
@@M033	001	0C3F	2589	3196
@@M034	001	0C43	2593	3192
@@M035	001	0C47	2597	3214
@@M036	001	0C4B	2601	3228
@@M037	001	0C4F	2605	3232
@@M038	001	0C53	2609	3255
@@M039	001	0C57	2613	3296
@@M040	001	0C5B	2617	3173
@@M041	001	0C5F	2621	3326
@@M042	001	0C63	2625	3328
@@M043	001	0C67	2629	3352

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
@@M044	001	0C6B	2633	3355
@@M045	001	0C6F	2637	
@@M046	001	0C73	2641	3347
@@M047	001	0C77	2645	3343
@@M048	001	0C7B	2649	3363
@@M049	001	0C7F	2653	3401
@@M050	001	0C83	2657	3410
@@M051	001	0C87	2661	3423
@@M052	001	0C8B	2665	3322
@@M053	001	0C8F	2669	3467
@@M054	001	0C93	2673	3241
@@M055	001	0C97	2677	3237
@@M056	001	0C9B	2681	3588
@@M057	001	0C9F	2685	3595
@@M058	001	0CA3	2689	3599
@@M060	001	0CA7	2693	3012
@@M061	001	0CAB	2697	3018
@@M062	001	0CAF	2701	3051
@@M063	001	0CB3	2705	3036
@@M064	001	0CB7	2709	3064
@@M065	001	0CBB	2713	3482
@@M066	001	0CC3	2721	3473
@@M067	001	0CC7	2725	3492
@@M068	001	0CCB	2729	3488
@@M069	001	0CCF	2733	3501
@@M070	001	0CD3	2737	3505
@@M071	001	0CD7	2741	3512
@@M072	001	0CDB	2745	3516
@@M073	001	0CDF	2749	3522
@@M074	001	0CE3	2753	3526
@@M076	001	0CE7	2757	3564
@@M077	001	0CEB	2761	3557 3571
@@M078	001	0CEF	2765	3578
@@M079	001	0CF3	2769	3582
@@M088	001	0CF7	2773	3024
@@M089	001	0CFB	2777	3030* 3042
@@M090	001	0CFF	2781	3032* 3057
@@M091	001	0D03	2785	3070
@@M092	001	0D07	2789	3529
@@M093	001	0D0B	2793	3385
@@M094	001	0CBF	2717	3479
@@TPRO	001	1411	3220	3219
@@T020	001	0D0F	2799	2539
@@T021	001	0D40	2801	2543
@@T022	001	0D71	2803	2547
@@T023	001	0D7F	2805	2551
@@T024	001	0D8C	2807	2555
@@T025	001	0D93	2809	2559
@@T026	001	0DA5	2811	2563
@@T027	001	0DB9	2813	2567
@@T028	001	0DD1	2815	2571
@@T029	001	0DE5	2817	2575
@@T030	001	0DFA	2819	2579
@@T031	001	0E04	2821	2583
@@T032	001	0E10	2823	2587
@@T033	001	0E1A	2825	2591

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
@@T034	001	0E24	2827	2595
@@T035	001	0E32	2829	2599
@@T036	001	0E44	2831	2603
@@T037	001	0E59	2833	2607
@@T038	001	0E6D	2835	2611
@@T039	001	0E78	2837	2615
@@T040	001	0E88	2839	2619
@@T041	001	0E9B	2841	2623
@@T042	001	0EBB	2843	2627
@@T043	001	0EC7	2845	2631
@@T044	001	0ECC	2847	2635
@@T045	001	0ED4	2849	2639
@@T046	001	0ED8	2851	2643
@@T047	001	0EE9	2853	2647
@@T048	001	0EF8	2855	2651
@@T049	001	0F0E	2857	2655
@@T050	001	0F26	2859	2659
@@T051	001	0F34	2861	2663
@@T052	001	0F44	2863	2667
@@T053	001	0F66	2865	2671
@@T054	001	0F7B	2867	2675
@@T055	001	0F89	2869	2679
@@T056	001	0F98	2871	
@@T057	001	0F9B	2873	2687
@@T058	001	0F9F	2875	2691
@@T060	001	0FA3	2877	2695
@@T061	001	0FAF	2879	2699
@@T062	001	0FB7	2881	2703
@@T063	001	0FBD	2883	2707
@@T064	001	0FC3	2885	2711
@@T065	001	0FC9	2887	2715 2723
@@T066	001	0FD9	2891	2683
@@T067	001	0FE1	2893	2727
@@T068	001	0FE6	2895	2731
@@T069	001	0FED	2897	2735
@@T070	001	0FFD	2899	2739
@@T071	001	1003	2901	2743
@@T072	001	1009	2903	2747
@@T073	001	100F	2905	2751
@@T074	001	1014	2907	2755
@@T076	001	101F	2909	2759
@@T077	001	1030	2911	2763
@@T078	001	1037	2913	2767
@@T079	001	103B	2915	2771
@@T088	001	103F	2917	2775
@@T089	001	104F	2919	2779
@@T090	001	105C	2921	2783
@@T091	001	1069	2923	2787
@@T092	001	1076	2925	2791
@@T093	001	1079	2927	2795
@@T094	001	0FD1	2889	2719
@ALTFL	001	0001	0773	
@ARR	001	0008	0018	3722 3853 3944 4106* 4107 4108* 4109 4409 4519* 4520 4521* 4522
@ASIGN	001	007C	0073	
@ASTER	001	005C	0071	
@BCRDL	001	0050	0090	

CROSS REFERENCE																			
SYMBOL	LEN	VALUE	DEFN	REFERENCES										VER 15, MOD 00		23/06/22	PAGE	80	
@BE	001	0081	0045																
@BF	001	0090	0054																
@BH	001	0084	0043																
@BKSPC	001	0010	0870																
@BL	001	0082	0044																
@BLANK	001	0040	0067	2968	3419	3437	3604	4188	4301	4414	4420								
@BM	001	0082	0056																
@BNE	001	0001	0048	4405															
@BNH	001	0004	0046																
@BNL	001	0002	0047																
@BNM	001	0002	0059																
@BNOL	001	0020	0052																
@BNOZ	001	0008	0051																
@BNP	001	0004	0058																
@BNZ	001	0001	0060																
@BOL	001	00A0	0050																
@BOZ	001	0088	0049																
@BP	001	0084	0055																
@BR	001	0001	0015	3719	3720	3721*	3722	3724	3724	3725	3726	3731	3731	3733	3733				
				3734	3734	3735	3737	3737	3738	3739*	4101	4103	4104*	4105	4106				
				4108	4109	4111	4112	4113	4123	4123	4136	4138	4142	4143	4145				
				4146	4146	4147	4147	4148	4149	4153	4154	4159	4159	4160	4160				
				4161	4163	4163	4176	4178	4179	4183	4183	4184	4184	4185	4186				
				4190	4190	4191	4191	4192	4192	4193	4193*	4194	4196*	4235	4237*				
				4241	4242	4243	4243	4244	4245	4245	4247	4247	4248	4248	4249				
				4249	4250	4250	4256	4256	4259	4259	4260	4260	4262	4262	4270				
				4271	4272	4272	4276	4284	4285*	4286	4287	4289	4290*	4291	4292				
				4292	4294	4295	4295	4298	4298	4299	4299	4300	4303	4303	4304				
				4305	4305	4306	4515	4516*	4517	4518	4519	4520	4521	4522	4527				
				4528	4529	4530	4531	4531	4532	4532	4533	4533	4534	4534	4542				
				4542	4543	4545*													
@BT	001	0010	0053																
@BZ	001	0081	0057																
@BZ37B	001	00F2	0883																
@B1	001	0001	0065	3725	3726														
@CADDR	001	0002	0144	2539	2543	2547	2551	2555	2559	2563	2567	2571	2575	2579	2583				
				2587	2591	2595	2599	2603	2607	2611	2615	2619	2623	2627	2631				
				2635	2639	2643	2647	2651	2655	2659	2663	2667	2671	2675	2679				
				2683	2687	2691	2695	2699	2703	2707	2711	2715	2719	2723	2727				
				2731	2735	2739	2743	2747	2751	2755	2759	2763	2767	2771	2775				
				2779	2783	2787	2791	2795	2970	2976	2980	3006	3012	3018	3021				
				3024	3036	3039	3042	3051	3054										

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
@CKY01	001	0001	0831	
@CKY02	001	0002	0832	
@CKY03	001	0003	0833	
@CKY04	001	0004	0834	
@CKY05	001	0005	0835	
@CKY06	001	0006	0836	
@CKY07	001	0007	0837	
@CKY08	001	0008	0838	
@CKY09	001	0009	0839	
@CKY10	001	000A	0840	
@CKY11	001	000B	0841	
@CKY12	001	000C	0842	
@CKY13	001	000D	0843	4214
@CKY14	001	000E	0844	
@CKY15	001	000F	0845	
@CKY16	001	0010	0846	
@CLOFF	001	0010	0096	
@CLON	001	0011	0095	
@CMLON	001	0001	0849	4138*
@CMOFF	001	0000	0848	4142*
@COMMA	001	006B	0068	4416
@CPLUS	001	004E	0081	
@CP37B	001	0004	0910	
@CRERR	001	0090	0865	
@CRPRY	001	0004	0869	
@CRTDS	001	0092	0862	
@CRTQ	001	0090	0864	
@CURSR	001	0040	0866	
@DADDR	001	0002	0142	3445*
@DBFR1	001	0004	0131	
@DBFR2	001	0005	0132	
@DBUSY	001	0002	0767	
@DCALK	001	0001	0083	
@DCBCY	001	0009	0117	
@DCBT1	001	0050	0119	
@DCFLN	001	0004	0751	
@DCNT	001	0003	0130	
@DCRID	001	0001	0765	
@DCST1	001	0040	0118	
@DCTRL	001	0000	0127	
@DCTRW	001	0000	0764	
@DCWID	001	0001	0761	
@DCYL	001	0001	0128	
@DCYMV	001	0001	0752	
@DD2	001	0003	0032	4190* 4191* 4192
@DEFLG	001	0002	0774	
@DERCE	001	0020	0804	
@DERD2	001	0008	0796	
@DEREQ	001	0010	0795	
@DERIN	001	0040	0793	
@DERMA	001	0020	0794	
@DERNR	001	0004	0797	
@DERR	001	0000	0768	
@DERSC	001	0001	0799	
@DERTC	001	0002	0798	
@DFCR	001	0006	0754	

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
@DFDR	001	0004	0755	
@DGET	001	0001	0136	3678 3688 3697
@DHARD	001	0000	0782	
@DLNCT	001	000F	0868	
@DLNLG	001	0040	0867	
@DOLAR	001	005B	0070	
@DOP2	001	0004	0030	4294* 4295* 4298*
@DPLNG	001	0006	0134	
@DPOS	001	0000	0135	
@DPUT	001	0002	0137	
@DREAD	001	0001	0758	
@DSAD	001	0002	0129	3142*
@DSBCY	001	0004	0108	
@DSBSY	001	0092	0863	
@DSCS1	001	0000	0109	
@DSEEK	001	0000	0757	
@DSIVF	001	0003	0140	
@DSPIN	001	0002	0133	
@DTRSZ	001	0018	0087	
@DUNSF	001	0080	0800	
@DVBCY	001	0007	0110	
@DVERY	001	0003	0763	
@DVRFY	001	0031	0138	
@DVST1	001	0002	0769	
@DVST2	001	0003	0770	
@DWAIT	001	00FF	0139	
@DWBCY	001	0005	0105	
@DWRTT	001	0002	0759	
@DWSIZ	001	00C0	0107	
@DWTB1	001	0003	0106	
@DZERO	001	00F0	0066	
@D1	001	0002	0028	3725* 3737* 3978* 3980* 4192*
@EOF	001	001C	0079	
@EOFTC	001	0075	0164	
@EOS	001	001E	0078	2941 2948 3882 4422
@ER37B	001	00F0	0884	
@FDDBC	001	0000	0197	
@FDE1	001	000C	0202	
@FDFNA	001	000B	0200	
@FDHLN	001	0002	0210	
@FDLNC	001	0002	0195	
@FDNSC	001	0003	0212	
@FDSD	001	0000	0208	
@FLACE	001	0009	0199	
@FLDBC	001	0001	0198	
@FLDIN	001	0012	0856	
@FLENT	001	0004	0203	
@FLFNA	001	0002	0201	
@FLHLN	001	0002	0211	
@FLLNC	001	0002	0196	
@FLNSC	001	0001	0213	
@FLSD	001	0001	0209	
@HDRLN	001	0007	0094	1048
@HSTAD	001	0009	0780	
@HSTEN	001	0007	0779	
@HSTPE	001	0006	0778	

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
@HSTQR	001	0001	0776	
@HSTSN	001	0005	0777	
@HSTVI	001	000F	0781	
@IAR	001	0010	0019	
@ID37B	001	0040	0920	
@INDEX	001	0001	0158	0159 4221
@INST3	001	0003	0034	
@INST4	001	0004	0035	
@INST5	001	0005	0036	
@INST6	001	0006	0037	
@IP37B	001	00C0	0919	
@I1IAR	001	00C0	0022	
@KCMDK	001	0020	0830	
@KELOK	001	001B	0829	
@KENAB	001	001E	0827	
@KEXIT	001	001F	0828	
@KEYBD	001	0010	0847	4138* 4142*
@KFUNK	001	0010	0850	
@KHARD	001	0011	0855	
@KLEAR	001	000D	0851	
@LINSZ	001	00F4	0086	1022
@LO37B	001	00F0	0888	
@MAPEN	001	0005	0091	
@MINCR	001	2000	0085	
@MINUS	001	0060	0082	
@NOP	001	0080	0042	3167 3307 3372 3374 3431 3456 3457 3885 3926 4141 4145 4240 4527
@NORFL	001	0000	0775	
@NTRDY	001	00A0	0912	
@NUMBR	001	007B	0072	
@OPD2	001	0004	0031	
@OP1	001	0003	0029	3379* 3720* 3722* 3853* 3854* 3944* 4103* 4105* 4107* 4109* 4123* 4129 4409* 4515* 4518* 4520* 4522* 4531* 4542*
@OP2	001	0005	0033	4529* 4534*
@OVRUN	001	0004	0805	
@PBUSY	001	00E2	0817	
@PCAR	001	00E6	0814	
@PCNT	001	0003	0749	
@PCTRL	001	0000	0151	2982* 3014* 3029* 3030* 3032* 3047* 3060* 3088* 3253* 3298* 3368* 3389* 3406* 3414* 3427* 3544* 3605* 4136 4176 4276* 4525
@PCYL	001	0001	0747	
@PC37B	001	00F2	0904	
@PDAR	001	00E4	0813	
@PDATA	001	0003	0153	4111 4111* 4193 4529
@PD37B	001	0080	0918	
@PERR	001	00E0	0820	
@PFLAG	001	0000	0746	
@PFORM	001	00E1	0818	
@PGCSZ	001	0020	0084	0085
@PLITE	001	00E2	0819	
@PLNGH	001	0004	0810	
@PMGCK	001	0020	0821	
@PN37B	001	00F0	0903	
@PPLNG	001	0004	0150	4111 4220
@PRCNT	001	0001	0152	2983* 3013* 3089* 3110* 3160* 3182* 3252* 3299* 3367* 3388* 3405* 3413* 3426* 3436* 3539* 3543* 3603* 4178* 4183 4183* 4184 4184* 4190 4243

[illegible]

@TBCNT	001	0000	0162	
@TBLEF	001	0010	0157	0159

CROSS REFERENCE																					
SYMBOL	LEN	VALUE	DEFN	REFERENCES												VER 15, MOD 00	23/06/22	PAGE	85		
@TBLIX	001	0011	0159																		
@TJ37B	001	0040	0909																		
@TYPAM	001	0002	0853																		
@TYPO	001	001C	0852																		
@UCB	001	0087	0041	3134	3210	3223	3348	3360	3872	4143	4406	4417	4536	4540							
@UPARW	001	005A	0080																		
@VADDR	001	0002	0143																		
@VENTA	001	0056	0115																		
@VMDDV	001	00FE	0116																		
@VMFD1	001	0000	0111																		
@VMFD2	001	0001	0112																		
@VMRS3	001	0002	0114																		
@VMTRL	001	0001	0113																		
@VOLID	001	0006	0093	2983	2990	2990	2990*	2995	2995	2995*	3000	3000	3000*	3003	3003						
				3003*	3013	3019	3019	3019*	3037	3037	3037*	3052	3052	3052*	3065						
				3065	3065*																
@VQ	001	0001	0027	4194	4535																
@WA37B	001	00FF	0917																		
@WSFIT	001	0500	0103																		
@WSTBL	001	0503	0104																		
@XR	001	0002	0016	2935*	2937	2941	2948	2962*	2963	2964	2972	2988	2990	2993	2995						
				2998	3000	3003	3015	3019	3026	3033	3037	3044	3048	3052	3058						
				3061	3065	3099	3100	3104	3105*	3116*	3126*	3127	3129	3169	3181						
				3188	3204	3206	3233	3245	3246*	3265*	3316*	3318	3330	3333	3336						
				3339	3365	3379	3380	3380*	3394*	3403	3412	3419	3425	3435	3435*						
				3442*	3443	3463*	3464	3469	3484	3494	3497	3508	3518	3531*	3551*						
				3553	3560	3567	3574	3584	3591	3728	3854	3859	3862	3873	3873*						
				3876	3876*	3882	3921*	3971*	4105	4110*	4111	4187*	4188	4189	4189						
				4194	4197*	4293*	4294	4296	4297	4297*	4301	4302	4302*	4410	4413						
				4413*	4414	4416	4419	4419*	4420	4422	4424	4518	4524*	4525	4528						
				4529	4530	4546*															
@ZERO	001	0000	0064	2948	2972	3015	3033	3048	3061	3151	3318	3443	3882	4153	4178						
				4244	4280	4281	4286	4543													
@4K	001	0010	0871																		
C2DEC5	001	17BE	3718	3107	3117	3248	3292	3382	3533	3719	3721										
C2DVAL	005	17FC	3746	3109	3119	3250*	3251	3294	3387	3535	3538	3542	3731	3731	3731*						
				3733	3733																
C2D020	003	17D0	3726	3737	3738																
C2D030	003	17D3	3728	3725*	3726*	3734	3734*	3735	3737*												
C2D040	004	17DD	3733	3729																	
C2D050	004	17EF	3739	3720*																	
C2D052	004	17F3	3740	3722*																	

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SYMBOL	LEN	VALUE	DEFN	REFERENCES											VER 15, MOD 00 23/06/22 PAGE 86			
DLPLPC	002	1A20	4212	4146*	4147*	4159*	4160*											
DLPMAX	001	000D	4215	4154														
DLPMPR	001	0085	4205	3893	3896	3904	3950											
DLPNDX	001	1A2B	4221	4283														
DLPNPT	001	19B7	4168	4122	4127	4205												
DLPNXT	001	1A31	4225	4243*	4250*	4256	4260	4262	4305									
DLPONE	002	1A2D	4222	4106	4108	4147	4160	4163	4191	4272	4298	4299	4303					
DLPPNT	001	0001	4229	4269														
DLPPRL	001	1A8D	4268	4252														
DLPPRT	001	1A35	4236	4180	4306													
DLPREM	001	1A32	4226	4291*	4292*	4303*												
DLPRES	001	1A2E	4223	4244*	4247*	4248*	4249	4250	4286	4292	4299*							
DLPRNT	001	1907	4102	3609	4538													
DLPRTN	001	1A33	4227	4182	4184													
DLPSP1	001	1932	4120	4206														
DLPSP2	001	0000	4206	4117														
DLPTIF	001	194D	4131	4207														
DLPTYP	001	1931	4115	3890	3893	3896*	3901	3904	3907*	3947	3950	4116						
DLPWK1	001	1A23	4216	4179	4183*	4185	4190	4245	4247	4249*	4256	4259*	4262*	4270*	4271*			
				4272*	4276*	4279	4305*	4308										
DLPWK2	001	1A27	4219	4111*	4125	4135	4136	4172	4176	4178*	4183	4184*	4193	4243				
DLPWTH	002	1A30	4224	4241*	4242*	4245	4248	4259	4260	4295								
DLP100	004	191F	4110	4107*														
DLP120	004	193D	4124	4123*	4129													
DLP140	003	1959	4138	4149														
DLP160	003	1963	4141	4143*	4145*													
DLP180	003	196F	4145	4141														
DLP200	004	1972	4146	4144														
DLP220	004	1976	4147	4148														
DLP240	004	1980	4150	4140														
DLP260	003	198E	4154	4151														
DLP280	003	1998	4158	4156														
DLP300	004	199F	4160	4161														
DLP320	004	19A9	4163	4158														
DLP340	003	19AD	4164	4162														
DLP360	004	19B0	4165	4137														
DLP380	004	19BE	4171	4186														
DLP400	003	19CD	4176	4170														
DLP420	003	19D6	4179	4177														
DLP440	004	19E2	4183	4287														
DLP460	004	1A0A	4194	4190*	4191*	4192	4192*											
DLP480	004	1A0E	4196	4103*	4128	4164	4166	4175										
DLP500	004	1A12	4197	4105*														
DLP520	004	1A1A	4199	4109*														
DLP540	006	1A6B	4251	4246														
DLP560	003	1A9F	4276	4257	4261	4264												
DLP580	005	1AD6	4296	4294*	4295*	4298*	4300											
DLP600	003	1AE9	4301	4304														
DSVABF	002	1BA5	4548	4542														
DSVBUF	001	1D00	4584	4535*	4548	4561												
DSVONE	002	1BA7	4552	4519	4521	4532												
DSVPPL	001	1BAA	4558	4530*	4539	4543*												
DSVPRI	001	1B3E	4514	2969	2975	2979	3005	3011	3017	3020	3023	3035	3038	3041	3050			
				3053	3056	3063	3066	3069	3074	3090	3096	3111	3113	3121	3132			
				3137	3153	3156	3161	3172	3176	3179	3183	3186	3191	3195	3201			
				3208	3213	3227	3231	3236	3240	3254	3257	3295	3301	3321	3325			

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				3327	3342	3346	3351	3354	3358	3362	3369	3384	3391	3400	3407
				3409	3416	3422	3429	3438	3466	3472	3478	3481	3487	3491	3500
				3504	3511	3515	3521	3525	3528	3545	3556	3563	3570	3577	3581
				3587	3594	3598	3606	4516	4517						
DSVTMI	001	1BA8	4553	4555											
DSVTMP	002	1BA9	4554	4528*	4531	4532*	4533	4534							
DSV100	004	1B55	4524	4520*											
DSV200	004	1B62	4528	4526											
DSV700	006	1B7E	4535	4529*	4531*	4533*	4534*	4542*							
DSV800	003	1B84	4536	4527*	4540*										
DSV900	004	1B98	4545	4515*	4536										
DSV910	004	1B9C	4546	4518*											
DSV920	004	1BA0	4547	4522*											
KCNBL1	001	0001	3633	3099	3100	3101	3103	3263	3273	3279	3282	3289	3290	3440	3543
				3603											
KCNBL2	001	0002	3634	3538	3539										
KCNBUF	001	1802	4580	2968*	2990*	2995*	3000*	3003*	3019*	3037*	3052*	3065*	3077*	3079*	3080*
				3082*	3083*	3085*	3086*	3109*	3119*	3159*	3181*	3251*	3294*	3365*	3387*
				3403*	3412*	3425*	3437*	3538*	3542*	3604*	3690	4581			
KCNCNT	001	17AB	3669	3440*	3451*										
KCNCOL	001	007A	3631												
KCNDAT	008	17AA	3665	3077											
KCNDC3	001	0000	3617	3079*											
KCNDC4	001	0001	3618	3080*											
KCNDC5	001	0003	3619	3082*											
KCNDC6	001	0004	3620	3083*											
KCNDC7	001	0006	3621	3085*											
KCNDC8	001	0007	3622	3086*											
KCNDF1	001	0001	3626	2993											
KCNDF2	001	0003	3628	2988											
KCNDIO	001	17AE	3677	3311	3445*	3448									
KCNDIT	001	05FF	2498												
KCNDO5	001	0005	3629												
KCNDR2	001	0002	3627	2998											
KCNDSH	001	0060	3641	2937											
KCNDSV	001	17B8	3696	3142*	3146										
KCNDT1	001	0001	3635	3082	3083										
KCNDT2	001	0002	3636	3079	3080										
KCNEQU	001	0060	3630												
KCNFIT	001	1798	3649	2960*	3246	3263									
KCNIOS	001	1C00	4582	3316	3442	3681	4584								
KCNI02	002	17AD	3672	3445											
KCNLB1	001	0001	3644	3250	3436	3689									
KCNLDU	001	0001	3643	2960	3650										
KCNLD3	001	0003	3638	3109	3109*	3110	3119	3119*	3250	3251	3251*	3252	3294	3294*	3299
				3387	3387*	3388									
KCNLLN	001	0002	3642	2960	2960	2960*	3650								
KCNLMR	002	179C	3656	3099*	3101	3103*	3105	3263*	3265	3270	3273*	3276	3279*	3282*	3289*
				3290*											
KCNLNM	001	0008	3639	3159	3159	3159*	3160	3181	3181*	3182					
KCNLVI	001	0006	3640												
KCNMSK	001	000F	3632	3535											
KCNNOP	001	0040	3625												
KCNONE	001	179F	3660	3103	3282	3289	3290	3440							
KCNPPL	001	17B4	3687	2970	2982*	2983*	3006	3013*	3014*	3021	3029*	3039	3047*	3054	3060*
				3067	3088*	3089*	3091	3110*	3112	3122	3160*	3162	3182*	3184	3252*

CROSS REFERENCE														
SYMBOL	LEN	VALUE	DEFN	REFERENCES	VER 15, MOD 00 23/06/22 PAGE 88									
				3253* 3258 3298* 3299* 3302 3367* 3368* 3370 3388* 3389* 3392 3405* 3406* 3408 3413* 3414* 3417 3426* 3427* 3430 3436* 3439 3539* 3543* 3544* 3546 3603* 3605* 3607										
KCNSAV	001	1C00	4583	3151 3159 3700										
KCNSC1	001	0001	3645	3699										
KCNTHR	001	17A1	3662	3273										
KCNTWO	001	17A0	3661	3279										
KCNUPD	001	0008	3637	3077 3077* 3089 3665 3667										
KCNWID	002	179E	3657	3100* 3101* 3116 3530* 3531										
KCNXF1	001	17A2	3663	3250										
KCN000	001	0000	3623	2937 2941										
KCN007	001	0007	3624											
KCN030	004	1162	2935	2514										
KCN050	004	118E	2954	2938										
KCN062	001	003E	3647	3276										
KCN070	004	1192	2955	2946 2952										
KCN100	006	1196	2960	2942 2949										
KCN110	004	11C0	2979	2973										
KCN120	003	11DC	2993	2989										
KCN126	001	007E	3646	3270										
KCN130	003	11EA	2998	2994										
KCN140	005	11F8	3003	2999										
KCN150	004	11FD	3005	2996 3001										
KCN180	004	1203	3011	2977										
KCN190	004	122B	3023	2991 3016										
KCN200	003	1231	3026	3022										
KCN210	004	1245	3032	3028										
KCN220	003	1249	3033	3027 3031										
KCN230	004	1263	3041	3034										
KCN240	003	1269	3044	3040										
KCN250	003	1276	3048											
KCN260	004	1290	3056	3049										
KCN270	003	1296	3058	3055										
KCN280	004	12BA	3069	3062										
KCN290	004	12C0	3074	3045 3046 3059 3068										
KCN300	004	1363	3137	3130										
KCN310	006	1369	3142	3135										
KCN400	004	1385	3156											
KCN480	004	139B	3167	3134*										
KCN500	004	13AF	3176	3170										
KCN510	004	13DF	3195	3189										
KCN520	004	13E5	3201	3193										
KCN525	004	1404	3213	3205										
KCN530	004	141F	3223	3207										
KCN535	004	1433	3231	3225										
KCN540	003	1439	3233	3229										
KCN550	004	1448	3240	3234										
KCN560	004	144E	3242	3211 3215 3238										
KCN561	006	147D	3263	3243										
KCN562	004	149E	3276	3271										
KCN565	006	14AE	3282	3277										
KCN567	004	14B4	3284	3274 3280										
KCN569	006	14C8	3290	3288										
KCN570	004	14CE	3292	3268 3285										

CROSS REFERENCE

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
KCN605	004	1516	3327	3458
KCN610	004	153D	3346	3340
KCN620	004	154A	3351	3331
KCN630	004	1553	3354	3334
KCN640	004	155C	3358	3337
KCN650	004	1560	3360	3353 3356
KCN660	004	1564	3362	3344 3350
KCN670	003	157D	3372	3360* 3456*
KCN680	003	1580	3374	3348* 3431*
KCN685	004	15A8	3394	3379*
KCN690	004	15AF	3400	3374
KCN695	004	1600	3431	3420
KCN700	003	1604	3435	3372 3395
KCN702	003	1622	3443	
KCN705	004	163E	3456	3441
KCN710	004	164A	3463	3167 3174 3307 3323 3444
KCN720	004	1663	3476	3470
KCN725	004	1673	3481	3477
KCN730	003	1679	3484	3474 3480
KCN740	004	1688	3491	3485
KCN750	003	168E	3494	3489
KCN760	004	16A3	3504	3498
KCN770	003	16AC	3508	3495
KCN780	004	16BB	3515	3509
KCN790	003	16C1	3518	3502 3506 3513
KCN800	004	16D0	3525	3519
KCN810	004	16D6	3528	3523
KCN825	006	16FE	3542	3536
KCN830	004	1708	3544	3540
KCN840	003	1725	3560	3554
KCN850	003	1734	3567	3561
KCN860	003	1743	3574	3568
KCN870	004	1752	3581	3575
KCN880	003	1758	3584	3558 3565 3572 3579
KCN890	003	1767	3591	3585
KCN900	004	1776	3598	3592
KCN950	004	177C	3603	3589 3596
KCN960	001	179B	3655	3658
KCN970	001	17A3	3664	3666
KCN980	001	17AB	3668	3670
SCACNT	002	1B3D	4434	4424* 4425*
SCACOF	001	0087	4406	
SCACOM	001	0001	4405	3855
SCAINC	001	0001	4404	4413 4419
SCAMMA	003	1B1A	4428	3855*
SCANIT	001	1AFD	4408	2940 3878
SCASVE	002	1B3B	4433	4410* 4425
SCASV1	001	1B3A	4432	
SCA100	003	1B0C	4413	4415
SCA200	003	1B0F	4414	4412
SCA250	003	1B19	4417	4428
SCA300	003	1B1C	4419	4421
SCA400	004	1B2C	4424	4417
SCA500	004	1B36	4427	4409* 4423
SCKCCR	003	1898	3936	3859
SCKCL0	006	18EF	3978	

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SCKCL1	004	18F5	3979	3978*	3980*		
SCKCMP	007	189F	3937	3862			
SCKDEV	001	18A6	3943	2966	3971		
SCKEND	001	1907	3985				
SCKERR	001	0469	3648	3972			
SCKOUT	001	1802	3852	2944	4580		
SCK001	001	0003	3931	3859	3859	3873	3936
SCK002	001	0007	3932	3862	3862	3876	3937
SCK003	002	18A1	3938	3867			
SCK004	002	18A3	3939	3908			
SCK005	002	18A5	3940	3922			
SCK100	004	1825	3872	3860			
SCK150	003	182F	3876	3863			
SCK200	004	1832	3878	3874			
SCK300	003	1843	3885	3872*	3880	3926*	
SCK350	004	185B	3901	3885			
SCK400	004	186D	3908	3897			
SCK410	004	1874	3913	3883			
SCK420	004	187B	3916	3891	3905		
SCK430	004	1882	3919	3894	3902		
SCK440	004	1886	3921	3854*	3914	3917	
SCK450	004	188E	3926	3868	3909		
SCK460	004	1892	3927	3853*			
SCK475	004	18CA	3959	3948			
SCK500	004	18DF	3969	3960			
SCK550	004	18E3	3971	3957	3967		
SCK600	004	18EB	3976	3963			
SCK650	004	1903	3984	3944*	3951	3954	

```
OL105 I THE CODE LENGTH OF #KCNDI IS 7168 DECIMAL.
OL103 I TOTAL NUMBER OF LIBRARY SECTORS REQUIRED IS 19
      NAME-#KCNDI,PACK-R1R1R1,UNIT-R1,RETAIN-P,LIBRARY-R,CATEGORY-000
```

START ADDRESS	CATEGORY	NAME AND ENTRY	CODE LENGTH HEXADECIMAL	DECIMAL
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0C00	0	#KCNDI	1C00	7168
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OL100 I THE TOTAL CORE USED BY #KCNDI IS 7168 DECIMAL.
 OL101 I THE START CONTROL ADDRESS OF THIS MODULE IS 0C00.
 OL104 I TOTAL NUMBER OF LIBRARY SECTORS REQUIRED IS 29
 NAME-#KCNDI,PACK-R1R1R1,UNIT-R1,RETAIN-P,LIBRARY-O

004	18E6	3976	3963	
SCK650	004	18FE	3984	3944* 3951 3954

TOTAL STATEMENTS IN ERROR IN THIS ASSEMBLY = 11

K004	002	189E	3939	3908	
SCK005	002	18A0	3940	3922	
SCK100	004	1820	3872	3860	
SCK150	003	182A	3876	3863	
SCK200	004	182D	3878	3874	
SCK300	003	183E	3885	3872*	3880 3926*
SCK350	004	1856	3901	3885	
SCK400	004	1868	3908	3897	
SCK410	004	186F	3913	3883	
SCK420	004	1876	3916	3891	3905
SCK430	004	187D	3919	3894	3902
SCK440	004	1881	3921	3854*	3914 3917
SCK450	004	1889	3926	3868	3909
SCK460	004	188D	3927	3853*	
SCK475	004	18C5	3959	3948	
SCK500	004	18DA	3969	3960	
SCK550	004	18DE	3971	3957	3967
SCK600	004	18E6	3976	3963	
SCK650	004	18FE	3984	3944* 3951	3954

TOTAL STATEMENTS IN ERROR IN THIS ASSEMBLY = 19

OL105 I THE CODE LENGTH OF #KCNDI IS 7168 DECIMAL.
 4408* 4422

SCKCCR	003	1893	3935	3858	
SCKCL0	006	18EA	3977		
SCKCL1	004	18F0	3978	3977*	3979*
SCKCMP	007	189A	3936	3861	
SCKDEV	001	18A1	3942	2965	3970
SCKEND	001	1902	3984		
SCKERR	001	0469	3647	3971	
SCKOUT	001	17FD	3851	2943	4579
SCK001	001	0003	3930	3858	3858 3872 3935
SCK002	001	0007	3931	3861	3861 3875 3936
SCK003	002	189C	3937	3866	
SCK004	002	189E	3938	3907	
SCK005	002	18A0	3939	3921	
SCK100	004	1820	3871	3859	
SCK150	003	182A	3875	3862	
SCK200	004	182D	3877	3873	
SCK300	003	183E	3884	3871*	3879 3925*
SCK350	004	1856	3900	3884	
SCK400	004	1868	3907	3896	
SCK410	004	186F	3912	3882	

SCK420	004	1876	3915	3890	3904	
SCK430	004	187D	3918	3893	3901	
SCK440	004	1881	3920	3853*	3913	3916
SCK450	004	1889	3925	3867	3908	
SCK460	004	188D	3926	3852*		
SCK475	004	18C5	3958	3947		
SCK500	004	18DA	3968	3959		
SCK550	004	18DE	3970	3956	3966	
SCK600	004	18E6	3975	3962		
SCK650	004	18FE	3983	3943*	3950	3953

TOTAL STATEMENTS IN ERROR IN THIS ASSEMBLY = 33

3926	3852*				
SCK475	004	18C5	3958	3947	
SCK500	004	18DA	3968	3959	
SCK550	004	18DE	3970	3956	3966

CROSS REFERENCE

SYMBOL	LEN	VALUE	DEFN	REFERENCES	VER 15, MOD 00	23/06/22	PAGE	92
SCK600	004	18E6	3975	3962				
SCK650	004	18FE	3983	3943* 3950 3953				

TOTAL STATEMENTS IN ERROR IN THIS ASSEMBLY = 35