

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 09/07/22 PAGE 2 | | | |
|---------------------|--|--|-------|--------|-------|-----------|-----------|--------------------------------|--|--|--|
| 0000 | | | 1 | #KEXTR | START | 0 | | | | | |
| | | | 2 | | PRINT | ON,NODATA | | | | | |
| | | | 3 | * | @SYS | EXP-N | | | | | |
| | | | 214+ | | PRINT | ON | | | | | |
| | | | 215 | * | @FXD | EXP-N | | | | | |
| | | | 620+ | | PRINT | ON | | | | | |
| | | | 621 | * | @CAN | EXP-N | | | | | |
| | | | 724+ | | PRINT | ON | | | | | |
| | | | 725 | * | @ERM | EXP-N | | | | | |
| | | | 1347+ | | PRINT | ON | | | | | |
| | | | 1348 | * | @SPF | EXP-N | | | | | |
| | | | 1811+ | | PRINT | ON | | | | | |

#KEXTR - READ KEYWORD MODULE

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|---------|-------------|------|------|--|--------------------------------|
| | | 1814 | | ***** | |
| | | 1815 | * | 5703-XM1 COPYRIGHT IBM CORP, 1970 | * |
| | | 1816 | * | REFER TO INSTRUCTIONS ON COPYRIGHT NOTICE, 120-2083 | * |
| | | 1817 | * | | * |
| | | 1818 | | ***** | |
| | | 1819 | * | STATUS | * |
| | | 1820 | * | VERSION 1 MODIFICATION 0 | * |
| | | 1821 | * | | * |
| | | 1822 | * | FUNCTION | * |
| | | 1823 | * | THIS KEYWORD PROGRAM WILL SAVE THE SPECIFIED LINE NUMBERS ON THE | * |
| | | 1824 | * | DISK WORK FILE. ALL OTHER LINES WILL BE DROPPED FROM THE FILE. | * |
| | | 1825 | * | | * |
| | | 1826 | * | ENTRY POINTS | * |
| | | 1827 | * | THE ENTRY TO KEXTRC IS TO THE STATEMENT LABELED \$KEXTR, THE | * |
| | | 1828 | * | FIRST LOCATION FOLLOWING THE PROGRAM HEADER. | * |
| | | 1829 | * | | * |
| | | 1830 | * | INPUT | * |
| | | 1831 | * | N/A | * |
| | | 1832 | * | | * |
| | | 1833 | * | OUTPUT | * |
| | | 1834 | * | N/A | * |
| | | 1835 | * | | * |
| | | 1836 | * | EXTERNAL REFERENCES | * |
| | | 1837 | * | * \$XRSV - REGISTER 2 (@XR) SAVE AREA | * |
| | | 1838 | * | * SINDR2 - NUCLEUS INDICATOR WHICH CONTAINS THE 'DELETE' AND | * |
| | | 1839 | * | 'LOAD GUFUDI ONLY' BIT INDICATORS | * |
| | | 1840 | * | * \$CAERR - ERROR CODE SAVE AREA | * |
| | | 1841 | * | * \$CAERK - EXIT TO LOAD #ERRPG, THE ERROR PROGRAM | * |
| | | 1842 | * | * \$CARPL - EXIT TO LOAD #GUFUD, THE FILE UPDATE PROGRAM | * |
| | | 1843 | * | * \$\$SLIB - ADDRESS OF SECONDARY INPUT BUFFER | * |
| | | 1844 | * | * SCANIT - ENTRY TO DELIMITER SCAN MODULE | * |
| | | 1845 | * | * SLLIST - ENTRY TO MODULE TO CHECK AND CONVERT A LINE NR LIST | * |
| | | 1846 | * | * SLLINE - BUFFER CREATED BY SLLIST | * |
| | | 1847 | * | | * |
| | | 1848 | * | EXITS, NORMAL | * |
| | | 1849 | * | THE NORMAL EXIT FROM KEXTRC IS TO \$CARPL TO LOAD *GUFUD, THE FILE | * |
| | | 1850 | * | UPDATE PROGRAM, TO PERFORM THE ACTUAL DELETE OPERATION AFTER THE | * |
| | | 1851 | * | LINE NUMBER LIST HAS BEEN SYNTAX CHECKED AND CONVERTED. | * |
| | | 1852 | * | | * |
| | | 1853 | * | EXITS, ERROR | * |
| | | 1854 | * | ERROR EXIT FROM KEXTRC IS TO \$CAERK TO LOAD #ERRPG, THE ERROR | * |
| | | 1855 | * | PROGRAM. | * |
| | | 1856 | * | | * |
| | | 1857 | * | TABLES/WORKAREAS | * |
| | | 1858 | * | * SLLINE - AREA IN WHICH SLLIST PLACES THE CONVERTED LINE NUMBER | * |
| | | 1859 | * | LIST FOR THE LINES TO BE SAVED. | * |
| | | 1860 | * | * SECONDARY INPUT BUFFER - AREA IN WHICH KEXTRC FORMS AND SENDS | * |
| | | 1861 | * | TO GUFUDI THE CONVERTED LINE NUMBER LIST FOR THE LINES TO BE | * |
| | | 1862 | * | DELETED. | * |
| | | 1863 | * | | * |
| | | 1864 | * | ATTRIBUTES | * |
| | | 1865 | * | RELOCATABLE | * |
| | | 1866 | * | | * |
| | | 1867 | * | CHARACTER CODE DEPENDENCY | * |
| | | 1868 | * | NONE | * |
| | | 1869 | * | | * |

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|---------|-------------|------|------|---|--------------------------------|
| | | 1870 | * | NOTES | * |
| | | 1871 | * | ERROR PROCEDURES | * |
| | | 1872 | * | KEXTRC DETECTS A SYNTAX ERROR CONDITION FOR AN INVALID | * |
| | | 1873 | * | DELIMITER, NO LINE-NUMBER LIST SPECIFIED, OR ANY ERROR IN THE | * |
| | | 1874 | * | LINE NUMBER LIST. A NON-SYNTAX ERROR OCCURS IF THE 'DELETE' | * |
| | | 1875 | * | LIST FORMED EXCEEDS THE ONE-SECTOR LIMIT. THE APPROPRIATE | * |
| | | 1876 | * | ERROR CODE IS PLACED IN \$CAERR AND EXIT IS MADE TO \$CAERK. | * |
| | | 1877 | * | | * |
| | | 1878 | * | REGISTER USAGE | * |
| | | 1879 | * | * REGISTER 1 (@BR) IS USED AS A POINTER ACROSS THE SECONDARY | * |
| | | 1880 | * | INPUT BUFFER. | * |
| | | 1881 | * | * REGISTER 2 (@XR) IS USED INITIALLY AS A POINTER TO THE | * |
| | | 1882 | * | PRIMARY INPUT BUFFER AND THEN AS A POINTER WITHIN SLLINE. | * |
| | | 1883 | * | | * |
| | | 1884 | * | SAVED/RESTORED AREAS | * |
| | | 1885 | * | NONE | * |
| | | 1886 | * | | * |
| | | 1887 | * | MODIFICATION CONSIDERATIONS | * |
| | | 1888 | * | NONE | * |
| | | 1889 | * | | * |
| | | 1890 | * | REQUIRED MODULES | * |
| | | 1891 | * | * @SYSEQ - COMMON SYSTEM EQUATES | * |
| | | 1892 | * | * @FXDEQ - NUCLEUS FIXED ADDRESS EQUATES | * |
| | | 1893 | * | * @CANEQ - CORE LOCATIONS (FIXED) OUTSIDE NUCLEUS EQUATES | * |
| | | 1894 | * | * @ERMEQ - ERROR MESSAGE EQUATES (SELECTED ERROR CODES) | * |
| | | 1895 | * | * SLLIST - MODULE TO CHECK AND CONVERT A LINE NUMBER LIST | * |
| | | 1896 | * | * SCANIT - MODULE TO SCAN DELIMITERS | * |
| | | 1897 | * | * C4BIN2 - MODULE TO CONVERT DECIMAL TO BINARY | * |
| | | 1898 | * | | * |
| | | 1899 | * | OTHER | * |
| | | 1900 | * | NONE | * |
| | | 1901 | * | ***** | * |

#KEXTR - READ KEYWORD MODULE

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05FF 1903 KEXTRC EQU * START OF EXTRACT KEYWORD PGM
1904 * HDR #KEXTR,1 GENERATE PROGRAM HEADER
1905 *****
1906 * PROGRAM HEADER FOR DISK LOAD *
1907 *****
1908 *$KEXT EQU X'0234' DISK ADDR OF #KEXTR
1909 *$$KEX EQU X'0C00' CORE LOAD ADDRESS OF #KEXTR
1910 *$@KEX EQU 003 SECTOR CNT OF #KEXTR
0C00 1911 ORG $$KEX CORE LOAD ADDRESS
0C00 1912 $$$$$$ EQU * FIRST LOCATION IN PROGRAM
0C00 7BD2C5E7E3D9 0C05 1913 DC CL6'#KEXTR' PROGRAM NAME
0C06 0E 0C06 1914 DC IL1'014' PROGRAM NUMBER OF #KEXTR
0C07 1915 #KEXT EQU * ENTRY POINT TO PROGRAM
1916 *** END OF EXPANSION ***

0C07 35 02 03C7 1918 L $XRSAV,@XR POINT XR TO INPUT LINE AT POINT
1919 * * FOLLOWING KEYWORD FOR SLLIST
1920 *
1921 *** BEGIN BY PROCESSING LINE-NUMBER LIST
1922 *
0C0B BD 60 00 1923 CLI KEX000(,@XR),KEXDSH DOES XR POINT TO INV DELIM ?
0C0E F2 81 F1 1924 JE KEX700 YES, SET ERR CODE AND EXIT
1925 *
0C11 C0 87 0E87 1926 B SCANIT BYPASS BLANKS
0C15 BD 1E 00 1927 CLI KEX000(,@XR),@EOS IS FIRST CHAR IN SLLINE = EOS? ?
0C18 F2 81 F5 1928 JE KEX900 IF YES, SET $CAERR & GOTO $CAERK
1929 *
0C1B C0 87 0D98 1930 B SLLIST SYNTAX CHECK LINE NO. LIST AND
1931 * * CONVERT TO BINARY
0C1F F2 82 F2 1932 JL KEX910 IF ERR IN SLLIST, CALL ERR PGM
1933 *
0C22 C2 02 0F00 1934 LA SLLINE,@XR SET ADDR OF SLLINE = XR = PT1
0C26 C2 01 1C00 1935 LA $$SLIB,@BR SET ADDR OF SECONDARY INPUT
1936 * * BUFFER = BR = PT2
1937 *
1938 *** CHECK FIRST ENTRY FOR RANGE '0' THROUGH '9999'
1939 *
0C2A 8D 04 04 0D1D 1940 CLC KEX004(,@XR),KEXALL(KEX005) IS FIRST ENTRY RANGE '0-9999'
0C2F F2 81 CC 1941 JE KEX530 IF YES, BRANCH TO $CARPL
1942 *
1943 *** PROCESS ORDINARY LINE NUMBER LIST
1944 *
0C32 E2 02 01 1945 LA KEX001(,@XR),@XR LOAD ADDR OF SECOND BYTE OF
1946 * * SLLINE TO PT1
0C35 D2 01 0A 1947 LA KEX00A(,@BR),@BR LOAD ADDR OF ELEVENTH BYTE OF
1948 * * SECONDARY INPUT BUFFER TO PT2
0C38 8D 01 00 0D1A 1949 CLC KEX000(,@XR),KEXZER(KEXLN2) IS THE FIRST LINE NO. ZERO ?
0C3D F2 01 32 1950 JNE KEX114 IF YES, MOVE ZERO TO LOC REF BY
1951 * * PT2 AND ENTER LOW-ORDER SUBR
1952 *
0C40 36 01 0D1F 1953 A KEXST2,@BR ELSE, SUBTRACT '2' FROM PT2

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| | | | | 1955 | * | | | | | | |
| | | | | 1956 | *** | | LOW ORDER SUBROUTINE | | | | |
| | | | | 1957 | * | | | | | | |
| 0C44 | BD | 60 | 01 | 1958 | KEX100 | CLI | KEX001(, @XR), KEXDSH | | | IS LOC REF BY PT1+'1' = '-' | |
| 0C47 | F2 | 01 | 03 | 1959 | | JNE | KEX110 | | | IF NO, SKIP ADD INST | |
| | | | | 1960 | * | | | | | | |
| 0C4A | E2 | 02 | 03 | 1961 | | LA | KEX003(, @XR), @XR | | | ADD '3' TO PT1 | |
| | | | | 1962 | * | | | | | | |
| 0C4D | D2 | 01 | 02 | 1963 | KEX110 | LA | KEX002(, @BR), @BR | | | ADD '2' TO PT2 | |
| 0C50 | 34 | 02 | 0D23 | 1964 | | ST | KEXTMP, @XR | | | SAVE VALUE (ADDR) IN PT2 | |
| 0C54 | 0D | 01 | 0D21 0D23 | 1965 | | CLC | KEXFIT(@CADDR), KEXTMP | | | IS DELETE LIST WITHIN LIMITS | |
| | | | | 1966 | * | | | | | * OF SECONDARY LINE BUFFER ? | |
| 0C5A | F2 | 04 | AC | 1967 | | JNH | KEX800 | | | IF NOT, GIVE ERROR | |
| | | | | 1968 | * | | | | | | |
| 0C5D | 6C | 01 | 00 00 | 1969 | | MVC | KEX000(, @BR), KEX000(KEXLN2, @XR) | | | MOVE LINE NO. REF BY PT1 | |
| | | | | 1970 | * | | | | | * TO LOC REF BY PT2 | |
| | | | | 1971 | * | | | | | | |
| 0C61 | 4E | 00 | 00 0D18 | 1972 | | ALC | KEX000(, @BR), KEXONE(KEXLN1) | | | ADD '1' TO LINE NO REF BY PT2 | |
| 0C66 | BD | FF | 01 | 1973 | | CLI | KEX001(, @XR), @SCTS-1 | | | DOES PT1 REF END OF KLINE BFR ? | |
| 0C69 | F2 | 81 | 54 | 1974 | | JE | KEX500 | | | IF YES, BRANCH TO GET IN GUFUDI | |
| | | | | 1975 | * | | | | | | |
| 0C6C | E2 | 02 | 02 | 1976 | | LA | KEX002(, @XR), @XR | | | ADD '2' TO PT1 | |
| 0C6F | F2 | 87 | 05 | 1977 | | J | KEX118 | | | ENTER HIGH-ORDER SUBROUTINE | |
| | | | | 1978 | * | | | | | | |
| 0C72 | 4C | 01 | 00 0D1A | 1979 | KEX114 | MVC | KEX000(, @BR), KEXZER(KEXLN2) | | | MOVE LINE NO. '0' TO LOC REF | |
| | | | | 1980 | * | | | | | * BY PT2 | |

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| | | | 1982 | * | | | | | |
| | | | 1983 | *** | HIGH ORDER SUBROUTINE | | | | |
| | | | 1984 | * | | | | | |
| 0C77 | 2C 01 0D25 00 | | 1985 | KEX118 MVC | KEXHLD(KEXLN2),KEX000(,@XR) MOVE LINE NO. REF BY PT1 | | | | |
| | | | 1986 | * | * TO A HOLD FIELD | | | | |
| | | | 1987 | * | | | | | |
| 0C7C | 0F 01 0D25 0D27 | | 1988 | SLC | KEXHLD(KEXLN2),KEXSUB SUB '1' FROM HOLD FIELD 1-5 | | | | |
| | | | 1989 | * | | | | | |
| 0C82 | 1D 01 0D25 00 | | 1990 | CLC | KEXHLD(KEXLN2),KEX000(,@BR) COMPARE HOLD FIELD WITH LINE | | | | |
| | | | 1991 | * | * NO. REF BY PT2 | | | | |
| 0C87 | F2 84 0A | | 1992 | JH | KEX120 IF GREATER, MOVE '-' AND NO IN | | | | |
| | | | 1993 | * | | | | | |
| 0C8A | F2 81 2F | | 1994 | JE | KEX130 IF EQUAL, ENTER LOW-ORDER SUBR | | | | |
| | | | 1995 | * | | | | | |
| 0C8D | 36 01 0D1F | | 1996 | A | KEXST2,@BR SUBTRACT '2' FROM PT2 | | | | |
| 0C91 | F2 87 28 | | 1997 | J | KEX130 ENTER LOW-ORDER SUBROUTINE | | | | |
| | | | 1998 | * | | | | | |
| 0C94 | D2 01 01 | | 1999 | KEX120 LA | KEX001(,@BR),@BR INCR PT2 BY '1' | | | | |
| 0C97 | 34 01 0D23 | | 2000 | ST | KEXTMP,@BR SAVE VALUE (ADDR) IN PT2 | | | | |
| 0C9B | 0D 01 0D21 0D23 | | 2001 | CLC | KEXFIT(@CADDR),KEXTMP IS DELETE LIST WITHIN LIMITS | | | | |
| | | | 2002 | * | * OF SECONDARY LINE BUFFER | | | | |
| 0CA1 | F2 04 65 | | 2003 | JNH | KEX800 IF NOT, GIVE ERROR | | | | |
| | | | 2004 | * | | | | | |
| 0CA4 | 7C 60 00 | | 2005 | MVI | KEX000(,@BR),KEXDSH MOVE '-' TO LOC REF BY PT2 | | | | |
| 0CA7 | D2 01 02 | | 2006 | LA | KEX002(,@BR),@BR INCR PT2 BY '2' | | | | |
| 0CAA | 34 01 0D23 | | 2007 | ST | KEXTMP,@BR SAVE VALUE (ADDR) IN PT2 | | | | |
| 0CAE | 0D 01 0D21 0D23 | | 2008 | CLC | KEXFIT(@CADDR),KEXTMP IS DELETE LIST WITHIN LIMITS | | | | |
| | | | 2009 | * | * OF SECONDARY LINE BUFFER | | | | |
| 0CB4 | F2 04 52 | | 2010 | JNH | KEX800 IF NOT, SET ERROR CODE | | | | |
| 0CB7 | 4C 01 00 0D25 | | 2011 | MVC | KEX000(,@BR),KEXHLD(KEXLN2) MOVE LINE NO. IN HOLD FIELD | | | | |
| | | | 2012 | * | * TO LOC REF BY PT2 | | | | |
| | | | 2013 | * | | | | | |
| 0CBC | C0 87 0C44 | | 2014 | KEX130 B | KEX100 BR TO GET NEXT LINE NO. | | | | |

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|-----|------|--------|--------------|------|------|------------|---|----------------|----------|------|---|
| | | | | | 2016 | * | | | | | |
| | | | | | 2017 | *** | END SUBROUTINE | | | | |
| | | | | | 2018 | * | | | | | |
| | 0CC0 | 4D | 01 00 | 0D1D | 2019 | KEX500 CLC | KEX000(,@BR),KEXALL(KEXLN2) COMPARE LINE NO. REF BY PT2 | | | | |
| | | | | | 2020 | * | * WITH '9999' | | | | |
| | 0CC5 | F2 | 81 1F | | 2021 | JE | KEX520 IF EQUAL, MOVE IN EOS | | | | |
| | | | | | 2022 | * | | | | | |
| | 0CC8 | F2 | 84 18 | | 2023 | JH | KEX510 IF HIGH, DECR PT2 AND MOVE EOS | | | | |
| | | | | | 2024 | * | | | | | |
| | 0CCB | D2 | 01 03 | | 2025 | LA | KEX003(,@BR),@BR IF LOW, ADD '3' TO PT2 | | | | |
| | 0CCE | 34 | 01 0D23 | | 2026 | ST | KEXTMP,@BR SAVE VALUE (ADDR) IN PT2 | | | | |
| | 0CD2 | 0D | 01 0D21 0D23 | | 2027 | CLC | KEXFIT(@CADDR),KEXTMP IS DELETE LIST WITHIN LIMITS | | | | |
| | | | | | 2028 | * | * OF SECONDARY LINE BUFFER | | | | |
| | 0CD8 | F2 | 04 2E | | 2029 | JNH | KEX800 IF NOT, GIVE ERROR | | | | |
| | | | | | 2030 | * | | | | | |
| | 0CDB | 4C | 02 00 0D1D | | 2031 | MVC | KEX000(,@BR),KEXALL(KEXLN3) SET LOC REF BY PT2 TO '-9999' | | | | |
| | 0CE0 | F2 | 87 04 | | 2032 | J | KEX520 MOVE IN EOS | | | | |
| | | | | | 2033 | * | | | | | |
| | 0CE3 | 36 | 01 0D1F | | 2034 | KEX510 A | KEXST2,@BR SUBTRACT '2' FROM PT2 | | | | |
| | | | | | 2035 | * | | | | | |
| | 0CE7 | D2 | 01 01 | | 2036 | KEX520 LA | KEX001(,@BR),@BR INCR PT2 BY '1' | | | | |
| | 0CEA | 0D | 01 0D21 0D23 | | 2037 | CLC | KEXFIT(@CADDR),KEXTMP IS DELETE LIST WITHIN LIMITS | | | | |
| | | | | | 2038 | * | * OF SECONDARY LINE BUFFER ? | | | | |
| | 0CF0 | F2 | 04 16 | | 2039 | JNH | KEX800 IF NOT, GIVE ERROR | | | | |
| | | | | | 2040 | * | | | | | |
| | 0CF3 | 7C | FF 00 | | 2041 | MVI | KEX000(,@BR),@SCTS-1 SET END-OF-BFR CODE FOR GUFUDI | | | | |
| | 0CF6 | 3A | 40 03D5 | | 2042 | SBN | \$INDR2,\$FDIND TURN ON THE DELETE INDICATOR | | | | |
| | 0CFA | 3A | 80 03D5 | | 2043 | SBN | \$INDR2,\$READY SET INDR TO LOAD GUFUDI ONLY | | | | |
| | 0CFE | C0 | 87 04A1 | | 2044 | KEX530 B | \$CARPL EXIT | | | | |
| | | | | | 2045 | * | | | | | |
| | | | | | 2046 | *** | ERROR EXIT | | | | |
| | | | | | 2047 | * | | | | | |
| | 0D02 | 3C | 18 03CD | | 2048 | KEX700 MVI | \$CAERR,@@E139 SET ERR CODE-'INV DELIM' | | | | |
| | 0D06 | F2 | 87 0B | | 2049 | J | KEX910 CALL ERROR PROGRAM | | | | |
| | | | | | 2050 | * | | | | | |
| | 0D09 | 3C | 4E 03CD | | 2051 | KEX800 MVI | \$CAERR,@@E325 SET ERR 'LINE-NO-LIST TOO LONG' | | | | |
| | 0D0D | F2 | 87 04 | | 2052 | J | KEX910 CALL ERROR PROGRAM | | | | |
| | | | | | 2053 | * | | | | | |
| | 0D10 | 3C | 16 03CD | | 2054 | KEX900 MVI | \$CAERR,@@E137 SET ERR CODE FOR 'NO LINE-NO.' | | | | |
| | | | | | 2055 | * | * LIST SPECIFIED' | | | | |
| | 0D14 | C0 | 87 0469 | | 2056 | KEX910 B | \$CAERK CALL ERROR PROGRAM | | | | |

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|---------|-------------|------|------|------------|------------------------------------|----------------------------------|
| | | 2058 | * | | | |
| | | 2059 | *** | | EQUATE USED IN KEXTRE | |
| | | 2060 | * | | | |
| | | 0000 | 2061 | KEX000 EQU | 0 | DISP OF '0' FOR PT1 OR PT2 |
| | | 0001 | 2062 | KEX001 EQU | 1 | DISP OF '1' FOR PT1 OR PT2 |
| | | 0002 | 2063 | KEX002 EQU | 2 | DISP OF '2' FOR PT1 OR PT2 |
| | | 0003 | 2064 | KEX003 EQU | 3 | DISP OF '3' FOR PT1 OR PT2 |
| | | 0004 | 2065 | KEX004 EQU | 4 | DISP OF '4' FOR PT1 OR PT2 |
| | | 0005 | 2066 | KEX005 EQU | 5 | DISP OF '5' FOR PT1 OR PT2 |
| | | 000A | 2067 | KEX00A EQU | 10 | DISP OF '10' FOR PT1 OR PT2 |
| | | 0001 | 2068 | KEXLN1 EQU | 1 | LENGTH OF KEXONE |
| | | 0002 | 2069 | KEXLN2 EQU | 2 | LENGTH OF BINARY LINE NO. |
| | | 0003 | 2070 | KEXLN3 EQU | 3 | LENGTH OF '-9999' |
| | | 0060 | 2071 | KEXDSH EQU | C'-' | DASH SEPARATING LINE NUMBERS |
| | | 2072 | * | | | |
| | | 2073 | *** | | CONSTANTS AND SAVE AREAS OF KEXTRC | |
| | | 2074 | * | | | |
| 0D18 | 01 | 0D18 | 2075 | KEXONE DC | XL1'01' | VALUE TO DECR OR INCR LINE NO. |
| 0D19 | 0000 | 0D1A | 2076 | KEXZER DC | XL(KEXLN2)'0000' | TO TEST FOR LINE NUMBER ZERO |
| 0D1B | 60270F | 0D1D | 2077 | KEXALL DC | XL(KEX003)'60270F' | RANGE '0' THROUGH '9999' |
| 0D1E | FFFE | 0D1F | 2078 | KEXST2 DC | XL(KEXLN2)'FFFE' | VALUE ADDED TO PT2 TO SUBTRACT 2 |
| 0D20 | 1D00 | 0D21 | 2079 | KEXFIT DC | AL(@CADDR)(\$\$FITS) | VALUE = ADDR OF FITS |
| 0D22 | | 0D23 | 2080 | KEXTMP DS | AL(@CADDR) | HOLD AREA FOR VALUE FN PT2 |
| 0D24 | | 0D25 | 2081 | KEXHLD DS | IL2 | HOLD AREA FOR LINE NO. |
| 0D26 | 0001 | 0D27 | 2082 | KEXSUB DC | XL2'0001' | 1-5 |
| | | 2083 | * | | | |
| | | 2084 | * | | \$C4BD | |

C4BIN2 - CONVERT DECIMAL TO BINARY ROUTINE

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2086+*
2087+*
2088+*
                                INITIALIZATION
                                *
0D28 2089+C4BIN2 EQU * ENTRY POINT
0D28 2090+ USING C4BIN2,@BR BASE VALUE
2091+*
0D28 34 01 0D8A 2092+ ST C4B800+@OP1,@BR SAVE CALLERS BASE REGISTER
0D2C C2 01 0D28 2093+ LA C4BIN2,@BR LOAD BASE VALUE
2094+*
0D30 74 08 66 2095+ ST C4B850+@OP1(,@BR),@ARR SAVE RETURN ADDRESS
2096+*
0D33 74 02 6E 2097+ ST C4BSAV(,@BR),@XR SAVE VALUE OF POINTER
0D36 3C 0C 03CD 2098+ MVI $CAERR,@E122 SET ERROR CODE IN CASE
0D3A 5C 01 6A 6B 2099+ MVC C4BVAL(C4BLVL,@BR),C4BINI(,@BR) INIT VALUE TO ZERO
0D3E 3C 04 0D97 2100+C4B100 MVI C4B900,4 INITLZ CHAR. COUNT
2101+*
2102+*** DETERMINE IF CHAR NUMERIC AND DECR CHAR COUNT
2103+*
0D42 F2 80 32 2104+C4B200 JC C4B600,@NOP SET TO UCB IF IMBEDDED BLANKS
2105+* * ALLOWED
0D45 BD F0 00 2106+C4B300 CLI 0(,@XR),C4BLOW THIS CHAR NUMERIC ?
0D48 F2 82 35 2107+ JL C4B700 NO, GOTO RETURN
2108+*
0D4B 5F 00 6F 4E 2109+ SLC C4B900(1,@BR),C4B590+@D1(,@BR) DECR CHAR COUNT
0D4F F2 82 35 2110+ JL C4B800 BR TO ERROR EXIT IF TOO MANY
2111+*
2112+*** MULTIPLY PREVIOUS VALUE BY TEN
2113+*
0D52 5E 01 6A 6A 2114+ ALC C4BVAL(C4BLVL,@BR),C4BVAL(,@BR) DOUBLE PREVIOUS VALUE
0D56 5C 01 68 6A 2115+ MVC C4BWRK(C4BLVL,@BR),C4BVAL(,@BR) SAVE DOUBLE VALUE
0D5A 5E 01 6A 6A 2116+ ALC C4BVAL(C4BLVL,@BR),C4BVAL(,@BR) QUADRUPLE PREVIOUS VALUE
0D5E 5E 01 6A 6A 2117+ ALC C4BVAL(C4BLVL,@BR),C4BVAL(,@BR) OCTUPLE PREVIOUS VALUE
0D62 5E 01 6A 68 2118+ ALC C4BVAL(C4BLVL,@BR),C4BWRK(,@BR) ADD IN SAVED DOUBLE
2119+*
2120+*** ADD IN VALUE OF THIS CHAR AND INCR POINTER
2121+*
0D66 68 03 6C 00 2122+ MNN C4BCHR(,@BR),0(,@XR) FETCH NEMERIC VALUE OF NEW CHAR
0D6A 5E 01 6A 6C 2123+ ALC C4BVAL(C4BLVL,@BR),C4BCHR(,@BR) INCR VALU BY THIS CHAR
2124+*
0D6E E2 02 01 2125+ LA @B1(,@XR),@XR INCR POINTER TO NEXT CHAR
0D71 D0 87 1A 2126+ B C4B200(,@BR) GOTO DO IT AGAIN
2127+*
2128+* ROUTINE TO SCAN BLANKS
2129+*
0D74 E2 02 01 2130+C4B590 LA @B1(,@XR),@XR INCR POINTER TO NEXT CHAR
0D77 BD 40 00 2131+C4B600 CLI 0(,@XR),@BLANK IS THIS CHAR A BLANK ?
0D7A D0 01 1D 2132+ BNE C4B300(,@BR) RETURN IF NOT
0D7D D0 87 4C 2133+ B C4B590(,@BR) GET NEXT CHAR IF YES

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C4BIN2 - CONVERT DECIMAL TO BINARY ROUTINE

| ERR | LOC | OBJECT | CODE | ADDR | STMT | SOURCE | STATEMENT | VER | MOD | 00 | 09/07/22 | PAGE | 12 |
|------|-----|--------|-------|------|-------|--------|--------------------------------|-----|-----|----|----------|---------------------------------|----|
| | | | | | 2135+ | * | | | | | | | |
| | | | | | 2136+ | *** | ENDING ROUTINE | | | | | | |
| | | | | | 2137+ | * | | | | | | | |
| 0D80 | 74 | 02 | 68 | | 2138+ | C4B700 | ST C4BLEN(,@BR),@XR | | | | | PLACE VALUE OF POINTER | |
| 0D83 | 5F | 01 | 68 6E | | 2139+ | | SLC C4BLEN(2,@BR),C4BSAV(,@BR) | | | | | SUBTRACT ENTERING VALUE | |
| | | | | | 2140+ | * | | | | | | | |
| 0D87 | C2 | 01 | 0000 | | 2141+ | C4B800 | LA *-*,@BR | | | | | RESTORE CALLERS BR | |
| | | | | | 2142+ | * | | | | | | | |
| 0D8B | C0 | 87 | 0000 | | 2143+ | C4B850 | B *-* | | | | | RETURN TO CALLING ROUTINE | |
| | | | | | 2144+ | * | | | | | | | * |
| | | | | | 2145+ | * | WORK AREA AND CONSTANT | | | | | | * |
| | | | | | 2146+ | * | | | | | | | * |
| 0D8F | | | | 0D90 | 2147+ | C4BWRK | DS CL2 | | | | | SAVE AREA FOR DOUBLED VALUE | |
| | | | | | 2148+ | * | | | | | | | |
| | | | | 0D91 | 2149+ | C4BYT1 | EQU * | | | | | FIRST BYTE OF BINARY VALUE | |
| 0D91 | | | | 0D92 | 2150+ | C4BVAL | DS CL2 | | | | | SAVE AREA FOR BINARY VALUE | |
| | | | | | 2151+ | * | | | | | | | |
| 0D93 | 00 | | | 0D93 | 2152+ | C4BINI | DC XL1'00' | | | | | INITIALIZE WA TO ZERO | |
| | | | | | 2153+ | * | | | | | | | |
| 0D94 | | | | 0D94 | 2154+ | C4BCHR | DS CL1 | | | | | SAVE AREA FOR EACH NEW CHAR | |
| 0D94 | | | | | 2155+ | | ORG *-1 | | | | | INITIALIZE | |
| 0D94 | 00 | | | 0D94 | 2156+ | | DC XL1'00' | | | | | * TO ZERO | |
| | | | | | 2157+ | * | | | | | | | |
| 0D95 | | | | 0D96 | 2158+ | C4BSAV | DS CL2 | | | | | SAVE AREA FOR XR | |
| | | | | | 2159+ | * | | | | | | | |
| 0D97 | | | | 0D97 | 2160+ | C4B900 | DS CL1 | | | | | SAVE AREA FOR CHAR COUNTER | |
| | | | | | 2161+ | * | | | | | | | * |
| | | | | | 2162+ | * | EQUATES FOR C4BIN2 | | | | | | * |
| | | | | | 2163+ | * | | | | | | | * |
| | | | | 0D90 | 2164+ | C4BLEN | EQU C4BWRK | | | | | ON RETURN WILL CONTAIN COUNT | |
| | | | | | 2165+ | * | | | | | | * @XR INCREMENTED BY | |
| | | | | 0004 | 2166+ | C4BCHC | EQU 4 | | | | | NUMBER OF CHAR TO CONVERT | |
| | | | | | 2167+ | * | | | | | | | |
| | | | | 00F0 | 2168+ | C4BLOW | EQU C'0' | | | | | LOWEST NUMERIC CHARACTER | |
| | | | | | 2169+ | * | | | | | | | |
| | | | | 0002 | 2170+ | C4BLVL | EQU C4BVAL-C4BWRK | | | | | LENGTH OF BINARY VALUE | |
| | | | | | 2171+ | * | | | | | | | |
| | | | | 0D43 | 2172+ | C4BLNK | EQU C4B200+@Q | | | | | LOCATION OF IMBEDDED BLANK IND | |
| | | | | | 2173+ | * | | | | | | | |
| | | | | 0087 | 2174+ | C4BSPC | EQU @UCB | | | | | MOVED TO C4BLNK TO ALLOW BLANKS | |
| | | | | | 2175+ | * | | | | | | | |
| | | | | 0D3F | 2176+ | C4BNMC | EQU C4B100+@Q | | | | | LOCATION OF CONVERSION COUNT | |
| | | | | | 2177+ | * | | | | | | | |
| | | | | 0080 | 2178+ | C4BNOP | EQU @NOP | | | | | CHANGED IF IMBEDDED BLANK OK | |
| | | | | 0D98 | 2179+ | C4END | EQU * | | | | | DEFINE END OF CODE | |
| | | | | | 2180+ | *** | END OF C4BIN2 | | | | | *** | |
| | | | | | 2181 | * | | | | | | | |
| | | | | | 2182 | * | \$LLST | | | | | | |

SLLIST - SCANS A LINE NUMBER LIST

| ERR LOC | OBJECT CODE | ADDR | STMT | SOURCE STATEMENT | VER 15, MOD 00 | 09/07/22 | PAGE 13 |
|---------|-------------|----------|------|---|----------------|----------|---------|
| 2184+ | | | | ***** | | | |
| 2185+ | * | 5703-XM1 | | COPYRIGHT IBM CORP. 1970 | | | * |
| 2186+ | * | | | REFER TO INSTRUCTIONS ON COPYRIGHT NOTICE 120-2083 | | | * |
| 2187+ | * | | | | | | * |
| 2188+ | | | | ***** | | | |
| 2189+ | * | | | STATUS | | | * |
| 2190+ | * | | | VERSION 1 MODIFICATION 0 | | | * |
| 2191+ | * | | | | | | * |
| 2192+ | * | | | FUNCTION | | | * |
| 2193+ | * | | | SLLIST SCANS ACROSS A LINE NUMBER LIST, CHECKING THE SYNTAX OF | | | * |
| 2194+ | * | | | THE LIST AND CONVERTING THE DECIMAL LINE NUMBERS TO BINARY. | | | * |
| 2195+ | * | | | THESE CONVERTED LINE NUMBERS ARE SAVED IN A BUFFER, SLLINE, WHICH | | | * |
| 2196+ | * | | | CONTAINS A TWO-BYTE ENTRY FOR EACH LINE NUMBER AND A ONE-BYTE | | | * |
| 2197+ | * | | | LINE NUMBER RANGE INDICATOR (THE EBCDIC CODE, FOR A DASH) BETWEEN | | | * |
| 2198+ | * | | | LINE NUMBERS OF A RANGE. A CARRIAGE RETURN CODE TERMINATES | | | * |
| 2199+ | * | | | SLLINE. | | | * |
| 2200+ | * | | | | | | * |
| 2201+ | * | | | ENTRY POINTS | | | * |
| 2202+ | * | | | * THE ENTRY POINT IS SLLIST. THE BASE REGISTER IS SAVED ON ENTRY | | | * |
| 2203+ | * | | | AND RESTORED BEFORE EXIT TO THE CALLING ROUTINE. | | | * |
| 2204+ | * | | | * THE CALLING SEQUENCE IS AS FOLLOWS: | | | * |
| 2205+ | * | | | B SLLIST | | | * |
| 2206+ | * | | | | | | * |
| 2207+ | * | | | INPUT | | | * |
| 2208+ | * | | | THE INPUT TO SLLIST IS A LINE NUMBER LIST WHICH WILL BE SYNTAX | | | * |
| 2209+ | * | | | CHECKED AND CONVERTED. SLLIST EXPECTS @XR TO POINT TO THE FIRST | | | * |
| 2210+ | * | | | CHARACTER TO BE TESTED. | | | * |
| 2211+ | * | | | | | | * |
| 2212+ | * | | | OUTPUT | | | * |
| 2213+ | * | | | THE OUTPUT FROM SLLIST IS THE BUFFER, SLLINE, WHICH CONTAINS THE | | | * |
| 2214+ | * | | | CONVERTED LINE NUMBER LIST TERMINATED BY A CARRIAGE-RETURN CODE. | | | * |
| 2215+ | * | | | | | | * |
| 2216+ | * | | | EXTERNAL REFERENCES | | | * |
| 2217+ | * | | | * \$CAERR - NUCLEUS LOCATION FOR ERROR CODE. | | | * |
| 2218+ | * | | | * SCANIT - ENTRY TO DELIMITER SCAN ROUTINE. | | | * |
| 2219+ | * | | | * C4BIN2 - ENTRY TO ROUTINE TO CONVERT DECIMAL TO BINARY. | | | * |
| 2220+ | * | | | | | | * |
| 2221+ | * | | | EXITS,NORMAL | | | * |
| 2222+ | * | | | NORMAL EXIT IS TO THE FIRST INSTRUCTION FOLLOWING THE BRANCH TO | | | * |
| 2223+ | * | | | SLLIST. THE @PSR WILL BE SET TO THE BRANCH NOT LOW CONDITION TO | | | * |
| 2224+ | * | | | INDICATE A GOOD RETURN. | | | * |
| 2225+ | * | | | | | | * |
| 2226+ | * | | | EXITS,ERROR | | | * |
| 2227+ | * | | | ERROR EXIT IS ALSO MADE TO THE FIRST INSTRUCTION FOLLOWING THE | | | * |
| 2228+ | * | | | BRANCH TO SLLIST. IN THIS CASE, @PSR IS SET TO 'BRANCH LOW AND | | | * |
| 2229+ | * | | | \$CAERR CONTAINS THE APPROPRIATE ERROR CODE. | | | * |
| 2230+ | * | | | | | | * |
| 2231+ | * | | | TABLES/WORKAREAS | | | * |
| 2232+ | * | | | SLLIST CREATES A BUFFER, SLLINE, WHICH HAS A MAXIMUM LENGTH OF | | | * |
| 2233+ | * | | | 210 BYTES, IS DEFINED BY THE USER, AND CONTAINS THE BINARY | | | * |
| 2234+ | * | | | REPRESENTATION OF THE NUMBERS IN THE LINE-NUMBER LIST. SINGLE | | | * |
| 2235+ | * | | | LINE NUMBERS REQUIRE A TWO-BYTE ENTRY AND LINE NUMBER RANGES | | | * |
| 2236+ | * | | | EACH REQUIRE FIVE BYTES (TWO BYTES FOR THE LOW LIMIT LINE NUMBER, | | | * |
| 2237+ | * | | | ONE BYTE FOR THE EBCDIC CODE FOR A DASH, AND TWO BYTES FOR THE | | | * |
| 2238+ | * | | | HIGH LIMIT LINE NUMBER). AN EOS CODE TERMINATES SLLINE. | | | * |
| 2239+ | * | | | | | | * |

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| ERR LOC | OBJECT CODE | ADDR | STMT | SOURCE STATEMENT | VER 15, MOD 00 09/07/22 | PAGE 14 |
|---------|-------------|-------|------|--|-------------------------|---------|
| | | 2240+ | * | ATTRIBUTES | | * |
| | | 2241+ | * | SLLIST IS RELOCATABLE | | * |
| | | 2242+ | * | | | * |
| | | 2243+ | * | CHARACTER CODE DEPENDENCY | | * |
| | | 2244+ | * | THE OPERATION OF THIS MODULE DOES NOT DEPEND ON ANY PARTICULAR | | * |
| | | 2245+ | * | INTERNAL REPRESENTATION OF THE EXTERNAL CHARACTER SET. | | * |
| | | 2246+ | * | | | * |
| | | 2247+ | * | NOTES | | * |
| | | 2248+ | * | ERROR PROCEDURES | | * |
| | | 2249+ | * | SLLIST RETURNS TO THE CALLING RTN WITH THE PSR SET TO BRANCH | | * |
| | | 2250+ | * | LOW IF AN ERROR CONDITION IS ENCOUNTERED. THE APPROPRIATE | | * |
| | | 2251+ | * | ERROR CODE WILL BE SET IN \$CAERR. | | * |
| | | 2252+ | * | | | * |
| | | 2253+ | * | REGISTER USAGE | | * |
| | | 2254+ | * | * UPON ENTRY TO SLLIST. REGISTER 2 (@XR) MUST BE POINTING TO | | * |
| | | 2255+ | * | THE FIRST LINE NUMBER TO BE CHECKED. UPON RETURN FROM SLLIST, | | * |
| | | 2256+ | * | @XR WILL BE POINTING TO THE INVALID CHARACTER IF AN ERROR IS | | * |
| | | 2257+ | * | DETECTED, TO THE CARRIAGE RETURN CHARACTER IF THE LIST IS | | * |
| | | 2258+ | * | GOOD, OR TO THE NEXT CHARACTER FOLLOWING A VALID LIST IF | | * |
| | | 2259+ | * | SLLIND IS SET TO RETURN (SLLRET MOVED TO SLLIND). | | * |
| | | 2260+ | * | * REGISTER 1 (@BR) IS SAVED UPON ENTRY TO SLLIST AND IS USED | | * |
| | | 2261+ | * | BY SLLIST TO CONTAIN THE CURRENT ADDRESS BEING REFERENCED IN | | * |
| | | 2262+ | * | SLLINE. | | * |
| | | 2263+ | * | * UPON ENTRY TO SLLIST, REGISTER 8 (@ARR) IS STORED AS THE | | * |
| | | 2264+ | * | RETURN ADDRESS TO THE CALLING ROUTING AFTER CHECKING IS | | * |
| | | 2265+ | * | COMPLETED. | | * |
| | | 2266+ | * | | | * |
| | | 2267+ | * | SAVE/RESTORED AREAS | | * |
| | | 2268+ | * | NONE | | * |
| | | 2269+ | * | | | * |
| | | 2270+ | * | MODIFICATION CONSIDERATIONS | | * |
| | | 2271+ | * | NONE | | * |
| | | 2272+ | * | | | * |
| | | 2273+ | * | REQUIRED MODULES | | * |
| | | 2274+ | * | * THE FOLLOWING EQUATE MODULES ARE USED IN SLLIST: | | * |
| | | 2275+ | * | * @SYSEQ - COMMON SYSTEM EQUATES | | * |
| | | 2276+ | * | * @FXDEQ - NUCLEUS FIXED ADDRESS EQUATES | | * |
| | | 2277+ | * | * @ERMEQ - ERROR MESSAGE EQUATES (SELECTED ERROR CODES) | | * |
| | | 2278+ | * | * THE FOLLOWING SOURCE MODULES ARE ALSO USED IN SLLIST: | | * |
| | | 2279+ | * | * SCANIT - DELIMITER SCAN ROUTINE | | * |
| | | 2280+ | * | * C4BIN2 - ROUTINE TO CONVERT DECIMAL TO BINARY | | * |
| | | 2281+ | * | | | * |
| | | 2282+ | * | OTHER | | * |
| | | 2283+ | * | IF THE CALLING ROUTINE DESIRES THAT A LINE-NUMBER LIST BE | | * |
| | | 2284+ | * | CONSIDERED VALID IF IT IS FOLLOWED BY ANOTHER PARAMETER, | | * |
| | | 2285+ | * | SLLRET SHOULD BE MOVED TO SLLRET BEFORE CALLING SLLIST. | | * |
| | | 2286+ | * | ***** | | * |

SLLIST - SCANS A LINE NUMBER LIST

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| | | | | | |
|------|-----------------|--|-------------|-------------------------------------|----------------------------------|
| | | | 0D98 | 2288+SLLIST EQU * | ENTRY POINT TO THIS SUBROUTINE |
| | | | 2289+* | | |
| 0D98 | 34 01 0E80 | | 2290+ | ST SLL220+@OP1,@BR | SAVE BASE REGISTER |
| 0D9C | 34 08 0E84 | | 2291+ | ST SLL230+@OP1,@ARR | SAVE RETURN ADDRESS |
| 0DA0 | C2 01 0EFE | | 2292+ | LA SLLINE-SLLLN2,@BR | INITIALIZE SLLINE POINTER |
| | | | 2293+* | | |
| 0DA4 | C0 87 0D28 | | 2294+SLL100 | B C4BIN2 | CONVERT LINE NO. TO BINARY |
| 0DA8 | F2 82 CA | | 2295+ | JL SLL210 | IF ERR IN C4BIN2, CALL ERR PROG |
| 0DAB | F2 81 AC | | 2296+ | JZ SLL180 | CHECK FOR EOS IF NO NUMBER FOUND |
| | | | 2297+* | | |
| | | | 2298+* | INTEGER WAS FOUND | |
| | | | 2299+* | | |
| 0DAE | 4C 01 03 0D92 | | 2300+ | MVC SLL003(,@BR),C4BVAL(SLLLN2) | MOVE INTEGER TO BFR |
| 0DB3 | F2 80 07 | | 2301+SLL110 | JC SLL115,@NOP+*-* | UCB EXCEPT FOR FIRST LINE NO. |
| 0DB6 | 3C 87 0DB4 | | 2302+ | MVI SLL110+@Q,@UCB | SET OFF 'FIRST' INDR |
| 0DBA | F2 87 11 | | 2303+ | J SLL120 | GO CHECK FOR DELIMITERS |
| | | | 2305+SLL115 | CLC SLL001(,@BR),SLL003(SLLLN2,@BR) | THIS INTG > LAST INTG ? |
| 0DBC | 5D 01 01 03 | | 2306+ | JL SLL120 | YES, GO CHECK FOR DELIMITERS |
| 0DC1 | F2 82 0A | | 2307+ | MVI SLL165+@Q,@UCB | SET SW TO TAKE ERR IF VALID INTG |
| 0DC4 | 3C 87 0E54 | | 2308+ | MVC SLL200+@OP1(SLLLN2),C4BSAV | SET PTR TO THIS NUMBER |
| 0DC8 | 0C 01 0E6D 0D96 | | 2309+SLL120 | LA SLL002(,@BR),@BR | POINT BR PTR TO THIS ENTRY |
| 0DCE | D2 01 02 | | 2310+ | B SCANIT | BYPASS BLANKS |
| 0DD1 | C0 87 0E87 | | 2311+ | CLI 0(,@XR),SLLDSH | CHAR AFTER INTG = '-' ? |
| 0DD5 | BD 60 00 | | 2312+ | JNE SLL150 | NO, CHECK FOR COMMA |
| 0DD8 | F2 01 55 | | 2313+* | | |
| | | | 2314+* | LINE NUMBER FOLLOWED BY A DASH | |
| | | | 2315+* | | |
| 0DDB | E2 02 01 | | 2316+ | LA 1(,@XR),@XR | PT XR PAST DASH |
| 0DDE | 0C 01 0E01 0D96 | | 2317+ | MVC SLL125+@OP1,C4BSAV(@REGL) | SAVE PTR TO FIRST NO. IN RANGE |
| 0DE4 | C0 87 0E87 | | 2318+ | B SCANIT | BYPASS BLANKS |
| 0DE8 | C0 87 0D28 | | 2319+ | B C4BIN2 | CONVEFT NO. TO BINARY |
| 0DEC | F2 82 86 | | 2320+ | JL SLL210 | ERR IF MORE THAN 4 DIGITS FOUND |
| 0DEF | F2 01 17 | | 2321+ | JNZ SLL130 | JUMP IN INTG FOUND |
| | | | 2322+* | | |
| 0DF2 | BD 1E 00 | | 2323+ | CLI 0(,@XR),@EOS | IS THIS AN OPEN RANGE ? |
| 0DF5 | F2 81 06 | | 2324+ | JE SLL125 | YES, SET OPEN RANGE ERR CODE |
| 0DF8 | BD 6B 00 | | 2325+ | CLI 0(,@XR),@COMMA | IS THIS AN OPEN RANGE ? |
| 0DFB | F2 01 65 | | 2326+ | JNE SLL195 | NO, INV CHAR IN LINE NO. ERRO |
| | | | 2327+* | | |
| 0DFE | C2 02 0000 | | 2328+SLL125 | LA *-*,@XR | RESTORE XR TO FIRST NO. IN RANGE |
| 0E02 | 3C 0D 03CD | | 2329+ | MVI \$CAERR,@@E123 | ERR, UNBALANCED LINE NO. SERIES |
| 0E06 | F2 87 70 | | 2330+ | J SLL215 | ERROR EXIT |

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| ERR LOC | OBJECT CODE | ADDR | STMT | SOURCE | STATEMENT | VER 15, MOD 00 09/07/22 PAGE 16 |
|---------|-----------------|-------------|------|-----------------------------------|------------------------------------|---------------------------------|
| | | 2332+* | | | | |
| | | 2333+* | | | MOVE DASH AND HIGH LIMIT TO SLLINE | |
| | | 2334+* | | | | |
| 0E09 | 7C 60 02 | 2335+SLL130 | MVI | SLL002(,@BR),SLLDSH | SET DASH IN SLLINE | |
| 0E0C | 4C 01 04 0D92 | 2336+ | MVC | SLL003+1(,@BR),C4BVAL(SLLLN2) | MOVE IN HIGH LIMIT OF RANGE | |
| 0E11 | 5D 01 01 04 | 2337+ | CLC | SLL001(,@BR),SLL003+1(SLLLN2,@BR) | HIGH LIMIT > LOW LIMIT | |
| 0E15 | F2 82 11 | 2338+ | JL | SLL140 | YES, GO INCR POINTER | |
| 0E18 | 3D 87 0E54 | 2339+ | CLI | SLL165+@Q,@UCB | OUT OF ORD PAIR FOUND ALREADY ? | |
| 0E1C | F2 81 0A | 2340+ | JE | SLL140 | YES, DON'T SET SWITCH AGAIN | |
| 0E1F | 3C 87 0E54 | 2341+ | MVI | SLL165+@Q,@UCB | ELSE, SET SW TO TAKE ERR EXIT | |
| 0E23 | 0C 01 0E6D 0D96 | 2342+ | MVC | SLL200+@OP1(SLLLN2),C4BSAV | SET PTR TO SECOND NO. IN RANGE | |
| 0E29 | D2 01 03 | 2343+SLL140 | LA | SLL003(,@BR),@BR | INCR PTR TO NEXT ENTRY | |
| 0E2C | C0 87 0E87 | 2344+ | B | SCANIT | BYPASS BLANKS | |
| 0E30 | BD 6B 00 | 2345+SLL150 | CLI | 0(,@XR),@COMMA | INTG FOLLOWED BY COMMA ? | |
| 0E33 | F2 01 10 | 2346+ | JNE | SLL160 | NO, TEST FOR A BLANK | |
| | | 2347+* | | | | |
| | | 2348+* | | | LINE NUMBER FOLLOWED BY COMMA | |
| | | 2349+* | | | | |
| 0E36 | E2 02 01 | 2350+ | LA | 1(,@XR),@XR | PT XR PAST COMMA | |
| 0E39 | C0 87 0E87 | 2351+ | B | SCANIT | BYPASS BLANKS | |
| 0E3D | BD 1E 00 | 2352+ | CLI | 0(,@XR),@EOS | COMMA FOLLOWED BY EOS ? | |
| 0E40 | F2 81 36 | 2353+ | JE | SLL215 | YES, ERR - DANGLING COMMA | |
| 0E43 | F2 87 0D | 2354+ | J | SLL165 | ELSE, GO CHECK INTEGERS ASCENDIN | |
| 0E46 | 3D 00 0EC7 | 2356+SLL160 | CLI | SCACNT,@ZERO | WERE ANY DELIMITERS FOUND ? | |
| 0E4A | F2 01 06 | 2357+ | JNZ | SLL165 | YES, GO CHECK FOR PROPER ORDER | |
| 0E4D | BD 1E 00 | 2358+ | CLI | 0(,@XR),@EOS | ELSE, IS XR REF AN EOS | |
| 0E50 | F2 01 10 | 2359+ | JNE | SLL195 | NO. ERR - INY CHAR IN LINE NO. | |
| 0E53 | F2 80 14 | 2360+SLL165 | JC | SLL200,@NOP+*-* | UCB IF THIS INTG < LAST INTG | |
| 0E56 | C0 87 0DA4 | 2361+ | B | SLL100 | CHECK NEXT INTG | |
| | | 2362+* | | | | |
| | | 2363+* | | | INTEGER NOT FOUND BY C4BIN2 | |
| | | 2364+* | | | | |
| 0E5A | 7C FF 02 | 2365+SLL180 | MVI | SLL002(,@BR),@SCTS-1 | MOVE AN 'EOS' TO SLLINE | |
| 0E5D | BD 1E 00 | 2366+ | CLI | SLL000(,@XR),@EOS | IS NEXT CHAR IN INPUT LINE EOS ? | |
| 0E60 | F2 81 1A | 2367+SLL190 | JC | SLL220,@BE+*-* | IF YES OR SLLIND IS ON. RETURN | |
| | | 2368+* | | | | |
| 0E63 | 3C 0B 03CD | 2369+SLL195 | MVI | \$CAERR,@@E120 | SET ERR CODE FOR 'NON-NUNERIC | |
| | | 2370+* | | | * CHAR IN LINE NO. OR INTO' | |
| 0E67 | F2 87 0B | 2371+ | J | SLL210 | RESTORE XR. SET PSR,AND RETURN | |
| | | 2372+* | | | | |
| | | 2373+* | | | ERROR EXIT | |
| | | 2374+* | | | | |
| 0E6A | C2 02 0000 | 2375+SLL200 | LA | *-*,@XR | PT XR TO CORRECT LINE NUMBER | |
| 0E6E | 3C 0E 03CD | 2376+ | MVI | \$CAERR,@@E124 | SET ERROR CODE FOR PARAMS NOT | |
| 0E72 | F2 87 04 | 2377+ | J | SLL215 | * IN ASCENDING ORDER | |
| 0E75 | 35 02 0D96 | 2378+SLL210 | L | C4BSAV,@XR | RETURN POINTER TO FIRST OF NO. | |
| 0E79 | 35 04 0E86 | 2379+SLL215 | L | SLLBLW,@PSR | SET PSR TO BRANCH LOW | |
| | | 2380+* | | | | |
| | | 2381+* | | | RETURN TO CALLING PROGRAM | |
| | | 2382+* | | | | |
| 0E7D | C2 01 0000 | 2383+SLL220 | LA | *-*,@BR | RESTORE CALLERS' BASE REGISTER | |
| 0E81 | C0 87 0000 | 2384+SLL230 | B | *-* | RETURN TO CALLER | |

SLLIST - SCANS A LINE NUMBER LIST

| ERR | LOC | OBJECT | CODE | ADDR | STMT | SOURCE | STATEMENT | VER 15, MOD 00 | 09/07/22 | PAGE 17 |
|------|------|--------|------|------|-------------|--------|--------------------------|----------------|-------------------------------|---------|
| | | | | | 2386+* | | | | | |
| | | | | | 2387+* | | EQUATES USED IN SLLIST | | | |
| | | | | | 2388+* | | | | | |
| | | | | 0000 | 2389+SLL000 | EQU | 0 | | DISP OF '0' FOR XR OR PTR | |
| | | | | 0001 | 2390+SLL001 | EQU | 1 | | DISP OF '1' FOR XR OR PTR | |
| | | | | 0002 | 2391+SLL002 | EQU | 2 | | DISP OF '2' FOR XR OR PTR | |
| | | | | 0003 | 2392+SLL003 | EQU | 3 | | DISP OF '3' FOR PTR TO SLLINE | |
| | | | | 0002 | 2393+SLLLN2 | EQU | 2 | | BINARY LENGTH OF TWO BYTES | |
| | | | | 0060 | 2394+SLLDSH | EQU | C'-' | | HYPHEN SEPARATING RANGES | |
| | | | | | 2395+* | | | | | |
| | | | | 0E61 | 2396+SLLIND | EQU | SLL190+@Q | | LOC FOR SETTING SLLRET | |
| | | | | 0087 | 2397+SLLRET | EQU | X'87' | | CODE FOR RETURN IF NOT EOS | |
| | | | | | 2398+* | | | | | |
| | | | | | 2399+* | | CONSTANTS AND SAVE AREAS | | | |
| | | | | | 2400+* | | | | | |
| 0E85 | 0082 | | | 0E86 | 2401+SLLBLW | DC | XL2'82' | | PSR CODE TO BRANCH LOW | |
| | | | | | 2403+***** | | | | | |
| | | | | | 2404+*** | | END OF SLLIST | | *** | |
| | | | | | 2405 * | | | | | |
| | | | | | 2406 * | | \$CANI | | | |

SCANIT - DELIMETER SCAN MODULE

| ERR LOC | OBJECT CODE | ADDR | STMT | SOURCE STATEMENT | VER 15, MOD 00 09/07/22 PAGE 18 |
|---------|-------------|-------|------|--|---------------------------------|
| | | 2408+ | | ***** | * |
| | | 2409+ | * | 5703-XM1 COPYRIGHT IBM CORP. 1970 | * |
| | | 2410+ | * | REFER TO INSTRUCTIONS ON COPYRIGHT NOTICE, 120-2083 | * |
| | | 2411+ | * | | * |
| | | 2412+ | | ***** | * |
| | | 2413+ | * | STATUS | * |
| | | 2414+ | * | VERSION 1 MODIFICATION 0 | * |
| | | 2415+ | * | | * |
| | | 2416+ | * | FUNCTION | * |
| | | 2417+ | * | THE FUNCTION OF SCANIT IS TO SCAN PAST VALID DELIMITERS AND | * |
| | | 2418+ | * | RETURN A POINTER TO THE FIRST CHARACTER THAT'S NOT A DELIMITER. | * |
| | | 2419+ | * | | * |
| | | 2420+ | * | ENTRY POINTS | * |
| | | 2421+ | * | * THE ENTRY POINT IS SCANIT. | * |
| | | 2422+ | * | * THE CALLING SEQUENCE IS AS FOLLOWS: | * |
| | | 2423+ | * | B SCANIT | * |
| | | 2424+ | * | WITH REGISTER 2 (@XR) POINTING TO THE FIRST CHARACTER TO BE | * |
| | | 2425+ | * | EXAMINED. | * |
| | | 2426+ | * | | * |
| | | 2427+ | * | INPUT | * |
| | | 2428+ | * | NONE | * |
| | | 2429+ | * | | * |
| | | 2430+ | * | OUTPUT | * |
| | | 2431+ | * | NONE | * |
| | | 2432+ | * | | * |
| | | 2433+ | * | EXTERNAL REFERENCES | * |
| | | 2434+ | * | \$CAERR - ERROR CODE SAVE AREA | * |
| | | 2435+ | * | | * |
| | | 2436+ | * | EXITS, NORMAL | * |
| | | 2437+ | * | NORMAL EXIT FROM SCANIT IS TO THE BYTE FOLLOWING THE BRANCH TO | * |
| | | 2438+ | * | SCANIT IN THE CALLING ROUTINE. THE PSR (REGISTER 4) WILL CONTAIN | * |
| | | 2439+ | * | A ZERO IF NO DELIMITERS WERE FOUND OR A HIGH CONDITION IF ONE OR | * |
| | | 2440+ | * | MORE DELIMITERS WERE SCANNED. | * |
| | | 2441+ | * | | * |
| | | 2442+ | * | EXITS, ERROR | * |
| | | 2443+ | * | ERROR EXIT FROM SCANIT IS TO THE BYTE FOLLOWING THE BRANCH TO | * |
| | | 2444+ | * | SCANIT IN THE CALLING ROUTINE. THE PSR WILL CONTAIN A LOW | * |
| | | 2445+ | * | CONDITION. | * |
| | | 2446+ | * | | * |
| | | 2447+ | * | TABLES/WORKAREAS | * |
| | | 2448+ | * | * SCACNT - AREA CONTAINING NUMBERS OF DELIMITERS SCANNED | * |
| | | 2449+ | * | * SCAMMA - LOC WHERE SCACOM MAY BE MOVED IF ONE COMMA IS ALSO | * |
| | | 2450+ | * | TO BE CONSIDERED A DELIMITER. MOVING SCACOF BACK INTO SCAMMA | * |
| | | 2451+ | * | INDICATES THAT ONLY BLANKS SHOULD BE CONSIDERED DELIMITERS. | * |
| | | 2452+ | * | | * |
| | | 2453+ | * | ATTRIBUTES | * |
| | | 2454+ | * | RELOCATABLE AND RE-USABLE | * |
| | | 2455+ | * | | * |
| | | 2456+ | * | CHARACTER CODE DEPENDENCY | * |
| | | 2457+ | * | THE OPERATION OF THIS MODULE DOES NOT DEPEND UPON A PARTICULAR | * |
| | | 2458+ | * | INTERNAL REPRESENTATION OF THE EXTERNAL CHARACTER SET. | * |
| | | 2459+ | * | | * |
| | | 2460+ | * | NOTES | * |
| | | 2461+ | * | ERROR PROCEDURES | * |
| | | 2462+ | * | THE ONLY ERROR CONDITION DETECTED BY SCANIT IS THE CASE WHERE | * |
| | | 2463+ | * | 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 09/07/22 PAGE 19 |
|------|-----|--------|------|-------|------------|------------------|---|---------------------------------|
| | | | | 2464+ | * | | CALLING ROUTINE, @PSR WILL BE SET TO A LOW CONDITION, THE | * |
| | | | | 2465+ | * | | ERROR CODE IS SET IN \$CAERR, AND MG WILU BE POINTING TO THE | * |
| | | | | 2466+ | * | | CARRIAGE-RETURN CHARACTER. | * |
| | | | | 2467+ | * | | | * |
| | | | | 2468+ | * | | REGISTER USAGE | * |
| | | | | 2469+ | * | | REGISTER 2 (@XR) IS USED AS A POINTER ACROSS THE AREA BEING | * |
| | | | | 2470+ | * | | SCANNED FOR DELIMITERS. | * |
| | | | | 2471+ | * | | | * |
| | | | | 2472+ | * | | SAVED/RESTORED AREAS | * |
| | | | | 2473+ | * | | UPON ENTRY TO SCANIT, REGISTER 8 (@ARR) IS SAVED AND USED AS | * |
| | | | | 2474+ | * | | THE RETURN ADDRESS. | * |
| | | | | 2475+ | * | | | * |
| | | | | 2476+ | * | | MODIFICATION CONSIDERATIONS | * |
| | | | | 2477+ | * | | NONE | * |
| | | | | 2478+ | * | | | * |
| | | | | 2479+ | * | | REQUIRED MODULES | * |
| | | | | 2480+ | * | | * @SYSEQ - COMMON SYSTEM EQUATES | * |
| | | | | 2481+ | * | | * @FXDEQ - FIXED NUCLEUS ADDRESSES EQUATES | * |
| | | | | 2482+ | * | | | * |
| | | | | 2483+ | * | | OTHER | * |
| | | | | 2484+ | * | | SCANIT IS INITIALIZED TO BYPASS BLANKS ONLY. IF SCACOM IS | * |
| | | | | 2485+ | * | | MOVED TO SCAMMA, ONE COMMA WILL BE SCANNED ALONG WITH BLANKS. | * |
| | | | | 2486+ | * | | THE INSTRUCTION TO DO THIS IS AS FOLLOWS: | * |
| | | | | 2487+ | * | | MVI SCAMMA,SCACOM | * |
| | | | | 2488+ | * | | | * |
| | | | | 2489+ | * | | TO DROP THE COMMA FROM ITS DELIMITER STATUS, SCACOF SHOULD BE | * |
| | | | | 2490+ | * | | MOVED TO SCAMMA, USING THE FOLLOWING INSTRUCTION: | * |
| | | | | 2491+ | * | | MVI SCAMMA,SCACOF | * |
| | | | | 2492+ | * | | | * |
| | | | | 2493+ | * | | ***** | * |
| | | | | 2495+ | * | | | * |
| | | | | 2496+ | * | | EQUATES USED IN THIS SUBROUTINE | * |
| | | | | 2497+ | * | | | * |
| | | | | 0001 | 2498+ | SCAINC EQU 1 | TO INCREMENT POINTER | |
| | | | | 0001 | 2499+ | SCACOM EQU @BNE | SWITCH TO ALLOW SCANNING COMMA | |
| | | | | 0087 | 2500+ | SCACOF EQU @UCB | SWITCH TO SET OFF THE INDICATON | |
| | | | | 2501+ | * | | * FOR SCANNING A COMMA | |
| | | | | 0E87 | 2502+ | SCANIT EQU * | ENTRY POINT TO THIS SUBROUTINE | |
| 0E87 | 34 | 08 | 0EC3 | 2503+ | ST | SCA500+@OP1,@ARR | SAVE RETURN ADDRESS | |
| 0E8B | 34 | 02 | 0EC5 | 2504+ | ST | SCASVE,@XR | SAVE POINTER VALUE | |
| 0E8F | 3C | 04 | 03CD | 2505+ | MVI | \$CAERR,@E110 | SET ERROR CODE | |
| 0E93 | F2 | 87 | 03 | 2506+ | J | SCA200 | GO TO PROCESS | |
| 0E96 | E2 | 02 | 01 | 2507+ | SCA100 LA | SCAINC(,@XR),@XR | INCREMENT POINTER TO NEXT CHAR | |
| 0E99 | BD | 40 | 00 | 2508+ | SCA200 CLI | 0(,@XR),@BLANK | IS THIS CHAR BLANK ? | |
| 0E9C | C0 | 81 | 0E96 | 2509+ | BE | SCA100 | YES, FETCH NEXT ONE | |
| 0EA0 | BD | 6B | 00 | 2510+ | CLI | 0(,@XR),@COMMA | IS IT A COMMA ? | |
| 0EA3 | F2 | 87 | 10 | 2511+ | SCA250 JC | SCA400,@UCB | UCS TO RETURN -- OR NOP IF | |
| | | | | 2512+ | * | | * SCAMMA IS ACTIVE AND CHAR | |
| 0EA6 | E2 | 02 | 01 | 2513+ | SCA300 LA | SCAINC(,@XR),@XR | INCREMENT POINTER TO NEXT CHAR | |
| 0EA9 | BD | 40 | 00 | 2514+ | CLI | 0(,@XR),@BLANK | IS THIS CHAR A BLANK ? | |
| 0EAC | C0 | 81 | 0EA6 | 2515+ | BE | SCA300 | YES, FETCH NEXT ONE | |
| 0EB0 | BD | 1F | 00 | 2516+ | CLI | 0(,@XR),@EOS+1 | IS THIS EOS ? | |
| 0EB3 | F2 | 82 | 0A | 2517+ | JL | SCA500 | IF NOT, SKIP ERROR ROUTINE | |
| 0EB6 | 34 | 02 | 0EC7 | 2518+ | SCA400 ST | SCACNT,@XR | SAVE NEW POINTER VALUE | |

SCANIT - DELIMETER SCAN MODULE

| ERR | LOC | OBJECT | CODE | ADDR | STMT | SOURCE | STATEMENT | VER 15, MOD 00 | 09/07/22 | PAGE 20 |
|------|------|--------|-----------|------|-------------|--------|------------------|----------------|----------|-------------------------------|
| | 0EBA | 0F 01 | 0EC7 0EC5 | | 2519+ | SLC | SCACNT(2),SCASVE | | | SET PSR TO EQUAL IF POINTER |
| | | | | | 2520+* | | | | | * NOT ADVANCED |
| | 0EC0 | C0 87 | 0000 | | 2521+SCA500 | B | *-* | | | YES, RETURN |
| | | | | 0EA4 | 2522+SCAMMA | EQU | SCA250+@Q | | | TO SET SCAN COMMA INDICATOR |
| | | | | | 2523+* | | | | | |
| | | | | | 2524+* | | SAVE AREA | | | |
| | | | | | 2525+* | | | | | |
| | | | | 0EC4 | 2526+SCASV1 | EQU | * | | | FIRST BYTE OF SCASVE |
| 0EC4 | | | | 0EC5 | 2527+SCASVE | DS | CL2 | | | ORIGINAL POINTER VALUE SAVE |
| 0EC6 | | | | 0EC7 | 2528+SCACNT | DS | CL2 | | | SAVE AREA FOR TOTAL CHAR SCAN |
| | | | | | 2529+*** | | | END OF SCANIT | | *** |
| | | | | | 2530 * | | | | | |

SCANIT - DELIMETER SCAN MODULE

| ERR | LOC | OBJECT CODE | ADDR | STMT | SOURCE STATEMENT | VER 15, MOD 00 09/07/22 PAGE 21 |
|--|-----|-------------|------|------|---|---------------------------------|
| | | | | 2532 | * PATCH 1 | |
| | | | | 2533 | ***** | |
| | | | | 2534 | * PATCH 1 | |
| | | | | 2535 | ***** | |
| | | | | 2536 | * | |
| | | | | 2537 | * CALCULATE AREA LEFT IN THIS SECTOR | |
| | | | | 2538 | * | |
| 0F00 | | | 0EC8 | 2539 | \$\$\$\$L1 EQU * START OF PATCH AREA 1 | |
| | | | | 2540 | ORG *,256,0 SET LOC CNTR TO NEXT SECTOR | |
| | | | 0F00 | 2541 | \$\$\$\$T1 EQU * DEFINE ADDR OF SCTR BOUNDARY | |
| 0EC8 | | | | 2542 | ORG \$\$\$\$L1 SET LOC CNTR TO START | |
| | | | | 2543 | * * OF PATCH AREA | |
| 0EC8 | | | 0EFF | 2544 | \$\$\$\$\$1 DS CL(\$\$\$\$T1-\$\$\$\$L1) PATCH AREA | |
| | | | | 2545 | ***** | |
| | | | | 2546 | *** END OF EXPANSION *** | |
| | | | 0F00 | 2548 | SLLINE EQU * BUFFER FOR CONVERTED LINE NO'S. | |
| | | | | 2549 | PRINT ON | |
| | | | FFFF | 2550 | END | |
| TOTAL STATEMENTS IN ERROR IN THIS ASSEMBLY = | | | | | | 0 |

CROSS REFERENCE

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| SYMBOL | LEN | VALUE | DEFN | REFERENCES |
|-------------|-----|-------|------|-------------------------------|
| \$\$\$\$\$ | 001 | 0C00 | 1912 | |
| \$\$\$\$\$1 | 056 | 0EFF | 2544 | |
| \$\$\$\$L1 | 001 | 0EC8 | 2539 | 2542 2544 |
| \$\$\$\$T1 | 001 | 0F00 | 2541 | 2544 |
| \$\$\$CMD | 001 | 0020 | 0659 | |
| \$\$\$DAT | 001 | 0040 | 0658 | |
| \$\$\$EPL | 001 | 0091 | 0655 | |
| \$\$\$ERN | 001 | 0080 | 0709 | |
| \$\$\$FUN | 001 | 0010 | 0660 | |
| \$\$\$NLN | 001 | 00A0 | 0705 | |
| \$\$\$STD | 001 | 0081 | 0654 | |
| \$\$BNLN | 001 | 0605 | 0635 | 0637 |
| \$\$CDBS | 001 | 08C0 | 0685 | |
| \$\$CDND | 001 | 0666 | 0644 | |
| \$\$CDRD | 001 | 0890 | 0683 | 0685 |
| \$\$CKEY | 001 | 0603 | 0633 | |
| \$\$CKFF | 001 | 0B3D | 0665 | |
| \$\$COFF | 001 | 0B44 | 0664 | |
| \$\$CSNS | 001 | 209C | 0694 | |
| \$\$DATB | 001 | 0BBF | 0666 | |
| \$\$EOSA | 001 | 0AFE | 0663 | |
| \$\$ERSK | 001 | 1C00 | 0704 | |
| \$\$FITS | 001 | 1D00 | 0712 | 2079 |
| \$\$FLIB | 001 | 06FF | 0711 | |
| \$\$ILEN | 001 | 0601 | 0629 | 0631 0635 |
| \$\$ILHD | 001 | 0600 | 0627 | 0629 |
| \$\$INLN | 001 | 0607 | 0642 | 0644 0646 |
| \$\$INND | 001 | 06FA | 0646 | |
| \$\$KBDT | 001 | 09E1 | 0653 | 0657 |
| \$\$KBSN | 001 | 09E2 | 0657 | 0662 |
| \$\$KLD1 | 001 | 0600 | 0717 | |
| \$\$KLD2 | 001 | 0700 | 0719 | |
| \$\$KLD3 | 001 | 0C00 | 0721 | |
| \$\$LPOS | 001 | 09EB | 0662 | |
| \$\$PCNT | 001 | 07E9 | 0678 | |
| \$\$PLYN | 001 | 2004 | 0692 | |
| \$\$PRES | 001 | 0890 | 0651 | 0653 0663 0664 0665 0666 0683 |
| \$\$PRFL | 001 | 2143 | 0696 | |
| \$\$PRNT | 001 | 0707 | 0672 | 0673 0677 0678 |
| \$\$PRTN | 001 | 0782 | 0673 | |
| \$\$PSIO | 001 | 07CE | 0677 | |
| \$\$PYCD | 001 | 2200 | 0698 | |
| \$\$PYMP | 001 | 2000 | 0690 | 0692 0694 0696 0698 |
| \$\$SLIB | 001 | 1C00 | 0707 | 1935 |
| \$\$TPCD | 001 | 0606 | 0637 | 0642 |
| \$\$UPAR | 001 | 0602 | 0631 | 0633 |
| \$\$WSPB | 001 | 1E00 | 0710 | |
| \$\$XIND | 001 | 06FF | 0708 | 0711 |
| \$\$ZERO | 001 | 0000 | 0223 | 0224 0226 0227 0228 0232 0690 |
| \$ABORT | 001 | 0010 | 0336 | |
| \$BASIC | 001 | 0080 | 0394 | |
| \$BIGCD | 001 | 0080 | 0470 | |
| \$BLDPL | 001 | 0579 | 0603 | 0605 |
| \$BLNOE | 001 | 0569 | 0593 | |
| \$BLOAD | 001 | 0522 | 0584 | 0586 0589 0602 0603 |
| \$BLRTN | 001 | 0550 | 0592 | 0593 |

CROSS REFERENCE

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| SYMBOL | LEN | VALUE | DEFN | REFERENCES |
|---------|-----|-------|------|--|
| \$BRSAB | 001 | 03C5 | 0281 | 0282 |
| \$BSADR | 001 | 0587 | 0608 | 0610 |
| \$BUFPT | 001 | 03E3 | 0489 | 0490 |
| \$CABLD | 001 | 04B4 | 0562 | 0563 |
| \$CAERK | 001 | 0469 | 0539 | 0542 2056 |
| \$CAERR | 001 | 03CD | 0287 | 0289 2048* 2051* 2054* 2098* 2329* 2369* 2376* 2505* |
| \$CAIPL | 001 | 049D | 0558 | 0560 |
| \$CALLI | 001 | 0008 | 0479 | |
| \$CARDI | 001 | 0001 | 0250 | |
| \$CARPL | 001 | 04A1 | 0560 | 0562 2044 |
| \$CIENT | 001 | 0483 | 0549 | 0550 |
| \$CIEXT | 001 | 0480 | 0548 | 0549 |
| \$CIMSK | 001 | 0476 | 0545 | 0548 |
| \$CISUS | 001 | 0496 | 0553 | 0558 |
| \$CLBFR | 001 | 0010 | 0437 | |
| \$CMDKY | 001 | 0008 | 0349 | |
| \$CMODE | 001 | 0002 | 0399 | |
| \$CONFG | 001 | 03DD | 0462 | 0472 |
| \$CRPOS | 001 | 03E2 | 0488 | 0489 |
| \$CRTAD | 001 | 044D | 0527 | 0528 |
| \$CRTAV | 001 | 0002 | 0343 | |
| \$CRTDN | 001 | 0002 | 0367 | |
| \$CRTIN | 001 | 03D3 | 0364 | 0371 |
| \$CRTNO | 001 | 0004 | 0346 | |
| \$CRTPU | 001 | 0004 | 0368 | |
| \$CRTSP | 001 | 0008 | 0369 | |
| \$CRTUP | 001 | 0001 | 0366 | |
| \$CRUSH | 001 | 0080 | 0475 | |
| \$CSDPL | 001 | 050E | 0574 | 0575 |
| \$C0001 | 001 | 0464 | 0531 | 0537 |
| \$DATE | 001 | 043A | 0512 | 0513 |
| \$DBGUF | 001 | 03E0 | 0474 | 0483 |
| \$DBLOK | 001 | 0001 | 0424 | |
| \$DFDET | 001 | 03E8 | 0495 | 0496 |
| \$DISKN | 001 | 0025 | 0226 | |
| \$DKERR | 001 | 0008 | 0405 | |
| \$DKSIZ | 001 | 03D7 | 0449 | 0457 0498 |
| \$DK100 | 001 | 0001 | 0451 | |
| \$DK200 | 001 | 0002 | 0452 | |
| \$DK400 | 001 | 0004 | 0453 | |
| \$DK600 | 001 | 0008 | 0454 | |
| \$DK800 | 001 | 0010 | 0455 | |
| \$DPLSV | 001 | 0449 | 0523 | 0525 |
| \$DTNMB | 001 | 0040 | 0270 | |
| \$DTRDR | 001 | 0040 | 0358 | |
| \$ENDNU | 001 | 0600 | 0617 | 0627 0651 0672 0708 0717 0719 0721 |
| \$ERDPL | 001 | 046F | 0542 | 0544 |
| \$ERFIL | 001 | 0040 | 0297 | |
| \$ERHRD | 001 | 0004 | 0429 | |
| \$ERKEY | 001 | 0080 | 0301 | |
| \$ERLOG | 001 | 0345 | 0231 | |
| \$ERMAD | 001 | 0472 | 0544 | 0545 |
| \$ERPND | 001 | 0004 | 0402 | |
| \$ERRCT | 001 | 03CF | 0303 | |
| \$ERRPG | 001 | 03CE | 0291 | |
| \$ERSFL | 001 | 0035 | 0296 | |

CROSS REFERENCE

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| SYMBOL | LEN | VALUE | DEFN | REFERENCES |
|---------|-----|-------|------|------------------|
| \$ERSTK | 001 | 0030 | 0294 | |
| \$ER050 | 001 | 0363 | 0232 | |
| \$ER1N2 | 001 | 0050 | 0299 | |
| \$EXADR | 001 | 0517 | 0577 | 0579 |
| \$EXCMD | 001 | 0001 | 0331 | |
| \$EXFTR | 001 | 043B | 0513 | 0518 |
| \$FCIND | 001 | 0010 | 0409 | |
| \$FDIND | 001 | 0040 | 0416 | 2042 |
| \$FEARR | 001 | 0004 | 0224 | |
| \$FEMAP | 001 | 0588 | 0610 | 0611 |
| \$FILIB | 001 | 03DA | 0460 | 0461 |
| \$FITIN | 001 | 0010 | 0385 | |
| \$FUIND | 001 | 0020 | 0414 | |
| \$GUFIO | 001 | 0583 | 0607 | 0608 |
| \$GUFIR | 001 | 0008 | 0259 | |
| \$HISTE | 001 | 042E | 0510 | 0511 |
| \$HIST1 | 001 | 0435 | 0511 | 0512 |
| \$HRDER | 001 | 0020 | 0355 | |
| \$INDR1 | 001 | 03D4 | 0371 | 0397 |
| \$INDR2 | 001 | 03D5 | 0397 | 0422 2042* 2043* |
| \$INDR3 | 001 | 03D6 | 0422 | 0449 |
| \$INLNO | 001 | 03CF | 0289 | 0291 0303 0310 |
| \$INRPT | 001 | 0020 | 0267 | |
| \$IOIND | 001 | 03D2 | 0338 | 0364 |
| \$IOPGS | 001 | 0010 | 0478 | |
| \$IOYES | 001 | 0002 | 0253 | |
| \$IPLDV | 001 | 05FF | 0614 | 0617 |
| \$IRKEY | 001 | 0020 | 0477 | |
| \$KEYBD | 001 | 03E1 | 0483 | 0488 |
| \$KEYCD | 001 | 03C3 | 0247 | 0281 |
| \$KEYDT | 001 | 0040 | 0391 | |
| \$KE090 | 001 | 00DE | 0227 | |
| \$KE130 | 001 | 01D5 | 0228 | |
| \$KYBSY | 001 | 0010 | 0264 | |
| \$LDRTN | 001 | 0571 | 0602 | |
| \$LEVEL | 001 | 03DF | 0472 | 0474 |
| \$LIST | 001 | 0002 | 0426 | |
| \$LMRGN | 001 | 03C1 | 0242 | 0244 |
| \$LNPTR | 001 | 0080 | 0361 | |
| \$LOADB | 001 | 054A | 0586 | |
| \$LOADR | 001 | 051A | 0579 | 0582 |
| \$LPRIO | 001 | 03EA | 0496 | |
| \$LPROS | 001 | 03E5 | 0491 | 0493 |
| \$LPRP3 | 001 | 03E4 | 0490 | 0491 |
| \$MOUNT | 001 | 0020 | 0440 | |
| \$MPDWN | 001 | 0001 | 0340 | |
| \$NEXTB | 001 | 03E6 | 0493 | 0494 |
| \$NEXTL | 001 | 03E7 | 0494 | 0495 |
| \$NOENB | 001 | 0008 | 0432 | |
| \$NOLST | 001 | 0004 | 0256 | |
| \$NUCBS | 001 | 03C0 | 0239 | 0240 |
| \$NWRKF | 001 | 0080 | 0445 | |
| \$NWRKR | 001 | 0040 | 0442 | |
| \$PASWD | 001 | 042D | 0509 | 0510 |
| \$PAUSD | 001 | 04BA | 0563 | 0565 |
| \$PAUSE | 001 | 0002 | 0333 | |

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| SYMBOL | LEN | VALUE | DEFN | REFERENCES |
|---------|-----|-------|------|----------------|
| \$PGMDT | 001 | 0020 | 0388 | |
| \$PGMST | 001 | 0010 | 0352 | |
| \$PKERT | 001 | 0419 | 0507 | 0509 |
| \$PLST1 | 001 | 0454 | 0528 | 0529 |
| \$PLST2 | 001 | 045B | 0529 | 0530 |
| \$PLST3 | 001 | 0462 | 0530 | 0531 |
| \$PRDEV | 001 | 044B | 0525 | 0527 |
| \$PRESN | 001 | 0002 | 0376 | |
| \$PROCI | 001 | 0001 | 0373 | |
| \$PRPOS | 001 | 03C2 | 0244 | 0247 |
| \$PSDBR | 001 | 04FA | 0568 | |
| \$PSDXR | 001 | 04F2 | 0567 | 0568 |
| \$PSTEP | 001 | 0004 | 0334 | |
| \$PSTMT | 001 | 0008 | 0335 | |
| \$PTCH1 | 001 | 03F5 | 0498 | 0502 |
| \$READY | 001 | 0080 | 0418 | 2043 |
| \$REORD | 001 | 0040 | 0476 | |
| \$RLOAD | 001 | 051E | 0582 | 0584 |
| \$RMGRN | 001 | 03C0 | 0240 | 0242 |
| \$RSTR | 001 | 04D6 | 0565 | 0567 0569 0574 |
| \$RUNIT | 001 | 0001 | 0312 | |
| \$SFAID | 001 | 050D | 0570 | |
| \$SPRNT | 001 | 0465 | 0537 | 0539 |
| \$SRTRN | 001 | 04FE | 0569 | 0570 |
| \$STEPT | 001 | 0002 | 0313 | |
| \$SWPCR | 001 | 0511 | 0575 | 0577 |
| \$TABLN | 001 | 03CB | 0284 | 0287 |
| \$TFLOW | 001 | 0008 | 0319 | |
| \$TRACE | 001 | 0004 | 0314 | |
| \$TRALL | 001 | 0010 | 0320 | |
| \$TROVR | 001 | 054E | 0589 | 0592 |
| \$TRUNK | 001 | 0080 | 0272 | |
| \$TRVAR | 001 | 0020 | 0321 | |
| \$UNMSK | 001 | 048D | 0550 | 0553 |
| \$USRDR | 001 | 03DC | 0461 | 0462 |
| \$VMDEF | 001 | 0080 | 0325 | |
| \$VOLF1 | 001 | 03FE | 0504 | 0505 |
| \$VOLF2 | 001 | 040E | 0506 | |
| \$VOLID | 001 | 03F6 | 0502 | 0503 0507 |
| \$VOLR1 | 001 | 03F6 | 0503 | 0504 |
| \$VOLR2 | 001 | 0406 | 0505 | 0506 |
| \$WAITF | 001 | 057F | 0605 | 0607 |
| \$WFDEF | 001 | 0040 | 0519 | |
| \$WFLOK | 001 | 0008 | 0382 | |
| \$WFNME | 001 | 0443 | 0518 | 0523 |
| \$WSIND | 001 | 0004 | 0379 | |
| \$XIND1 | 001 | 03D0 | 0310 | 0329 |
| \$XIND2 | 001 | 03D1 | 0329 | 0338 |
| \$XIND3 | 001 | 03D8 | 0457 | 0460 |
| \$XPREC | 001 | 0040 | 0322 | |
| \$XRSAB | 001 | 03C7 | 0282 | 0284 1918 |
| \$ZTRAD | 001 | 05A2 | 0611 | |
| \$12K | 001 | 0004 | 0466 | |
| \$16CKY | 001 | 0008 | 0468 | |
| \$16K | 001 | 0002 | 0465 | |
| \$22IMP | 001 | 0001 | 0463 | |

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| SYMBOL | LEN | VALUE | DEFN | REFERENCES |
|--------|-----|-------|------|------------|
| ###BL | 001 | 0000 | 1672 | |
| ###CK | 001 | 0000 | 1800 | |
| ###CN | 001 | 0000 | 1768 | |
| ###CO | 001 | 0000 | 1560 | |
| ###CS | 001 | 0000 | 1620 | |
| ###DR | 001 | 0000 | 1364 | |
| ###ER | 001 | 0000 | 1564 | |
| ###FS | 001 | 0000 | 1660 | |
| ###IN | 001 | 0000 | 1804 | |
| ###PW | 001 | 0000 | 1808 | |
| ###RS | 001 | 0000 | 1640 | |
| ###SA | 001 | 0000 | 1628 | |
| ###SS | 001 | 0000 | 1624 | |
| ###VU | 001 | 0600 | 1584 | |
| ###0T | 001 | 0700 | 1356 | |
| ###1T | 001 | 0000 | 1360 | |
| ###BCO | 001 | 0600 | 1372 | |
| ###BOV | 001 | 0800 | 1644 | |
| ###DPR | 001 | 0700 | 1380 | |
| ###DRE | 001 | 0889 | 1396 | |
| ###DSP | 001 | 2800 | 1416 | |
| ###ECM | 001 | 0C00 | 1676 | |
| ###EFK | 001 | 0C00 | 1696 | |
| ###ERR | 001 | 0C00 | 1668 | |
| ###EXM | 001 | 0C00 | 1556 | |
| ###FIL | 001 | 0E00 | 1636 | |
| ###FIS | 001 | 0E00 | 1632 | |
| ###FML | 001 | 0200 | 1764 | |
| ###FMS | 001 | 0200 | 1604 | |
| ###GRA | 001 | 0889 | 1528 | |
| ###GUF | 001 | 0C00 | 1664 | |
| ###INL | 001 | 0600 | 1744 | |
| ###INS | 001 | 0600 | 1368 | |
| ###KAL | 001 | 0C00 | 1532 | |
| ###KCA | 001 | 0C00 | 1748 | |
| ###KCH | 001 | 0C00 | 1500 | |
| ###KCN | 001 | 0C00 | 1616 | |
| ###KCT | 001 | 0C00 | 1468 | |
| ###KDE | 001 | 0C00 | 1464 | |
| ###KDI | 001 | 0D00 | 1544 | |
| ###KDN | 001 | 0C00 | 1452 | |
| ###KDO | 001 | 0E00 | 1548 | |
| ###KED | 001 | 0C00 | 1388 | |
| ###KEN | 001 | 0C00 | 1392 | |
| ###KEX | 001 | 0C00 | 1412 | 1911 |
| ###KGO | 001 | 0C00 | 1384 | |
| ###KHE | 001 | 0C00 | 1568 | |
| ###KKE | 001 | 0C00 | 1796 | |
| ###KLI | 001 | 0C00 | 1472 | |
| ###KLL | 001 | 0920 | 1772 | |
| ###KLO | 001 | 0C00 | 1476 | |
| ###KME | 001 | 0D00 | 1456 | |
| ###KMO | 001 | 0C00 | 1400 | |
| ###KNA | 001 | 0C00 | 1512 | |
| ###KOV | 001 | 0E00 | 1432 | |
| ###KPA | 001 | 0C00 | 1408 | |

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| | | | | |
|-----------|-----|------|------|--|
| \$\$\$KPO | 001 | 0C00 | 1496 | |
| \$\$\$KPR | 001 | 0C00 | 1520 | |
| \$\$\$KRE | 001 | 0C00 | 1440 | |
| \$\$\$KRL | 001 | 0700 | 1536 | |
| \$\$\$KRM | 001 | 0C00 | 1404 | |
| \$\$\$KRN | 001 | 0700 | 1424 | |
| \$\$\$KRO | 001 | 0D00 | 1428 | |
| \$\$\$KRS | 001 | 0C00 | 1752 | |
| \$\$\$KRU | 001 | 0C00 | 1448 | |
| \$\$\$KRV | 001 | 0800 | 1540 | |
| \$\$\$KSA | 001 | 0C00 | 1484 | |
| \$\$\$KSE | 001 | 0E00 | 1524 | |
| \$\$\$KSO | 001 | 0C20 | 1576 | |
| \$\$\$KSS | 001 | 0C00 | 1508 | |
| \$\$\$KSV | 001 | 0980 | 1504 | |
| \$\$\$KSY | 001 | 0C00 | 1516 | |
| \$\$\$KWI | 001 | 0C00 | 1444 | |
| \$\$\$KWR | 001 | 0C00 | 1436 | |
| \$\$\$LOA | 001 | 0600 | 1376 | |
| \$\$\$MIP | 001 | 0C00 | 1572 | |
| \$\$\$SDS | 001 | 0C00 | 1684 | |
| \$\$\$SFF | 001 | 0E00 | 1688 | |
| \$\$\$SFL | 001 | 0F00 | 1680 | |
| \$\$\$SFO | 001 | 1500 | 1652 | |
| \$\$\$SFS | 001 | 0C00 | 1648 | |
| \$\$\$SPA | 001 | 0C00 | 1488 | |
| \$\$\$SPO | 001 | 0806 | 1492 | |
| \$\$\$SPS | 001 | 0C00 | 1480 | |
| \$\$\$STR | 001 | 1600 | 1656 | |
| \$\$\$TDC | 001 | 1000 | 1460 | |
| \$\$\$TSY | 001 | 1000 | 1420 | |
| \$\$\$TVK | 001 | 0FC0 | 1596 | |
| \$\$\$UAL | 001 | 0C00 | 1612 | |
| \$\$\$UAT | 001 | 0900 | 1708 | |
| \$\$\$UCD | 001 | 0900 | 1716 | |
| \$\$\$UCN | 001 | 0C00 | 1700 | |
| \$\$\$UCP | 001 | 0700 | 1704 | |
| \$\$\$UDE | 001 | 0C00 | 1720 | |
| \$\$\$UDI | 001 | 0C00 | 1724 | |
| \$\$\$UEX | 001 | 0C00 | 1608 | |
| \$\$\$UIN | 001 | 0C00 | 1712 | |
| \$\$\$UPA | 001 | 0C00 | 1692 | |
| \$\$\$UPO | 001 | 0C00 | 1760 | |
| \$\$\$UPT | 001 | 0C00 | 1756 | |
| \$\$\$VCR | 001 | 2000 | 1552 | |
| \$\$\$VLO | 001 | 0600 | 1588 | |
| \$\$\$VOD | 001 | 0600 | 1592 | |
| \$\$\$VVM | 001 | 0000 | 1600 | |
| \$\$\$VXI | 001 | 0600 | 1580 | |
| \$\$\$ZDU | 001 | 1100 | 1732 | |
| \$\$\$ZLB | 001 | 1100 | 1776 | |
| \$\$\$ZLO | 001 | 1100 | 1736 | |
| \$\$\$ZLV | 001 | 0F00 | 1792 | |
| \$\$\$ZL1 | 001 | 0F00 | 1780 | |
| \$\$\$ZL2 | 001 | 0F00 | 1784 | |
| \$\$\$ZL3 | 001 | 0C00 | 1788 | |

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| SYMBOL | LEN | VALUE | DEFN | REFERENCES |
|-----------|-----|-------|------|------------|
| \$\$\$ZTR | 001 | 1000 | 1728 | |
| \$\$\$ZUT | 001 | 0C00 | 1740 | |
| \$\$#BLN | 001 | 18D4 | 1671 | |
| \$\$#CKT | 001 | 2118 | 1799 | |
| \$\$#CNF | 001 | 2000 | 1767 | |
| \$\$#COR | 001 | 0800 | 1559 | |
| \$\$#CSA | 001 | 1000 | 1619 | |
| \$\$#DRT | 001 | 0000 | 1363 | |
| \$\$#ERM | 001 | 0928 | 1563 | |
| \$\$#FSP | 001 | 1880 | 1659 | |
| \$\$#INV | 001 | 212C | 1803 | |
| \$\$#PWR | 001 | 2300 | 1807 | |
| \$\$#RSP | 001 | 1780 | 1639 | |
| \$\$#SAV | 001 | 1180 | 1627 | |
| \$\$#SSA | 001 | 1128 | 1623 | |
| \$\$#VUF | 001 | 0B08 | 1583 | |
| \$\$#0TR | 001 | 0000 | 1355 | |
| \$\$#1TR | 001 | 0080 | 1359 | |
| \$\$@#BL | 001 | 0001 | 1673 | |
| \$\$@#CK | 001 | 0004 | 1801 | |
| \$\$@#CN | 001 | 0001 | 1769 | |
| \$\$@#CO | 001 | 003A | 1561 | |
| \$\$@#CS | 001 | 003A | 1621 | |
| \$\$@#DR | 001 | 0008 | 1365 | |
| \$\$@#ER | 001 | 0032 | 1565 | |
| \$\$@#FS | 001 | 0030 | 1661 | |
| \$\$@#IN | 001 | 003A | 1805 | |
| \$\$@#PW | 001 | 00C0 | 1809 | |
| \$\$@#RS | 001 | 0030 | 1641 | |
| \$\$@#SA | 001 | 0108 | 1629 | |
| \$\$@#SS | 001 | 0001 | 1625 | |
| \$\$@#VU | 001 | 0002 | 1585 | |
| \$\$@#0T | 001 | 0018 | 1357 | |
| \$\$@#1T | 001 | 0018 | 1361 | |
| \$\$@BCO | 001 | 0018 | 1373 | |
| \$\$@BOV | 001 | 0018 | 1645 | |
| \$\$@DPR | 001 | 0005 | 1381 | |
| \$\$@DRE | 001 | 0001 | 1397 | |
| \$\$@DSP | 001 | 0004 | 1417 | |
| \$\$@ECM | 001 | 0006 | 1677 | |
| \$\$@EFK | 001 | 0002 | 1697 | |
| \$\$@ERR | 001 | 0003 | 1669 | |
| \$\$@EXM | 001 | 0003 | 1557 | |
| \$\$@FIL | 001 | 0009 | 1637 | |
| \$\$@FIS | 001 | 0009 | 1633 | |
| \$\$@FML | 001 | 0052 | 1765 | |
| \$\$@FMS | 001 | 0052 | 1605 | |
| \$\$@GRA | 001 | 0003 | 1529 | |
| \$\$@GUF | 001 | 0010 | 1665 | |
| \$\$@INL | 001 | 0010 | 1745 | |
| \$\$@INS | 001 | 0010 | 1369 | |
| \$\$@KAL | 001 | 000F | 1533 | |
| \$\$@KCA | 001 | 000C | 1749 | |
| \$\$@KCH | 001 | 000C | 1501 | |
| \$\$@KCN | 001 | 0010 | 1617 | |
| \$\$@KCT | 001 | 0009 | 1469 | |

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| | | | | |
|---------|-----|------|------|--|
| #\$@KDE | 001 | 0010 | 1465 | |
| #\$@KDI | 001 | 0005 | 1545 | |
| #\$@KDN | 001 | 0010 | 1453 | |
| #\$@KDO | 001 | 000C | 1549 | |
| #\$@KED | 001 | 000E | 1389 | |
| #\$@KEN | 001 | 0006 | 1393 | |
| #\$@KEX | 001 | 0003 | 1413 | |
| #\$@KGO | 001 | 0002 | 1385 | |
| #\$@KHE | 001 | 000C | 1569 | |
| #\$@KKE | 001 | 0006 | 1797 | |
| #\$@KLI | 001 | 0011 | 1473 | |
| #\$@KLL | 001 | 0001 | 1773 | |
| #\$@KLO | 001 | 0008 | 1477 | |
| #\$@KME | 001 | 0003 | 1457 | |
| #\$@KMO | 001 | 0004 | 1401 | |
| #\$@KNA | 001 | 0008 | 1513 | |
| #\$@KOV | 001 | 0009 | 1433 | |
| #\$@KPA | 001 | 0005 | 1409 | |
| #\$@KPO | 001 | 000D | 1497 | |
| #\$@KPR | 001 | 0009 | 1521 | |
| #\$@KRE | 001 | 0002 | 1441 | |
| #\$@KRL | 001 | 0004 | 1537 | |
| #\$@KRM | 001 | 0003 | 1405 | |
| #\$@KRN | 001 | 0003 | 1425 | |
| #\$@KRO | 001 | 000A | 1429 | |
| #\$@KRS | 001 | 000A | 1753 | |
| #\$@KRU | 001 | 0003 | 1449 | |
| #\$@KRV | 001 | 000D | 1541 | |
| #\$@KSA | 001 | 0011 | 1485 | |
| #\$@KSE | 001 | 0004 | 1525 | |
| #\$@KSO | 001 | 0005 | 1577 | |
| #\$@KSS | 001 | 000B | 1509 | |
| #\$@KSV | 001 | 0002 | 1505 | |
| #\$@KSY | 001 | 000F | 1517 | |
| #\$@KWI | 001 | 0002 | 1445 | |
| #\$@KWR | 001 | 0002 | 1437 | |
| #\$@LOA | 001 | 0013 | 1377 | |
| #\$@MIP | 001 | 000D | 1573 | |
| #\$@SDS | 001 | 0004 | 1685 | |
| #\$@SFF | 001 | 0008 | 1689 | |
| #\$@SFL | 001 | 0005 | 1681 | |
| #\$@SFO | 001 | 0003 | 1653 | |
| #\$@SFS | 001 | 0011 | 1649 | |
| #\$@SPA | 001 | 0004 | 1489 | |
| #\$@SPO | 001 | 0003 | 1493 | |
| #\$@SPS | 001 | 0001 | 1481 | |
| #\$@STR | 001 | 0002 | 1657 | |
| #\$@TDC | 001 | 0003 | 1461 | |
| #\$@TSY | 001 | 0003 | 1421 | |
| #\$@TVK | 001 | 0001 | 1597 | |
| #\$@UAL | 001 | 0011 | 1613 | |
| #\$@UAT | 001 | 000C | 1709 | |
| #\$@UCD | 001 | 000B | 1717 | |
| #\$@UCN | 001 | 0009 | 1701 | |
| #\$@UCP | 001 | 000F | 1705 | |
| #\$@UDE | 001 | 000E | 1721 | |

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| SYMBOL | LEN | VALUE | DEFN | REFERENCES |
|---------|-----|-------|------|------------|
| #\$@UDI | 001 | 0008 | 1725 | |
| #\$@UEX | 001 | 000E | 1609 | |
| #\$@UIN | 001 | 000F | 1713 | |
| #\$@UPA | 001 | 0004 | 1693 | |
| #\$@UPO | 001 | 0005 | 1761 | |
| #\$@UPT | 001 | 0012 | 1757 | |
| #\$@VCR | 001 | 0008 | 1553 | |
| #\$@VLO | 001 | 0002 | 1589 | |
| #\$@VOD | 001 | 0016 | 1593 | |
| #\$@VVM | 001 | 0030 | 1601 | |
| #\$@VXI | 001 | 0002 | 1581 | |
| #\$@ZDU | 001 | 0008 | 1733 | |
| #\$@ZLB | 001 | 0002 | 1777 | |
| #\$@ZLO | 001 | 000C | 1737 | |
| #\$@ZLV | 001 | 0006 | 1793 | |
| #\$@ZL1 | 001 | 0007 | 1781 | |
| #\$@ZL2 | 001 | 000D | 1785 | |
| #\$@ZL3 | 001 | 000A | 1789 | |
| #\$@ZTR | 001 | 0001 | 1729 | |
| #\$@ZUT | 001 | 0014 | 1741 | |
| #\$BCOM | 001 | 0080 | 1371 | |
| #\$BOLV | 001 | 1780 | 1643 | |
| #\$DPRI | 001 | 014C | 1379 | |
| #\$DREA | 001 | 0200 | 1395 | |
| #\$DSPL | 001 | 0240 | 1415 | |
| #\$ECMA | 001 | 1900 | 1675 | |
| #\$EFKE | 001 | 1990 | 1695 | |
| #\$ERRP | 001 | 18C0 | 1667 | |
| #\$EXMS | 001 | 07D4 | 1555 | |
| #\$FILN | 001 | 1724 | 1635 | |
| #\$FIST | 001 | 1700 | 1631 | |
| #\$FMLN | 001 | 1E00 | 1763 | |
| #\$FMST | 001 | 0D00 | 1603 | |
| #\$GRAP | 001 | 0690 | 1527 | |
| #\$GUFU | 001 | 1880 | 1663 | |
| #\$INLN | 001 | 1C84 | 1743 | |
| #\$INST | 001 | 0020 | 1367 | |
| #\$KALL | 001 | 06A4 | 1531 | |
| #\$KCAL | 001 | 1CC4 | 1747 | |
| #\$KCHA | 001 | 053C | 1499 | |
| #\$KCND | 001 | 0F80 | 1615 | |
| #\$KCTL | 001 | 03BC | 1467 | |
| #\$KDEL | 001 | 035C | 1463 | |
| #\$KDIS | 001 | 0744 | 1543 | |
| #\$KDNT | 001 | 0300 | 1451 | |
| #\$KDOV | 001 | 0780 | 1547 | |
| #\$KEDI | 001 | 0188 | 1387 | |
| #\$KENA | 001 | 01C4 | 1391 | |
| #\$KEXT | 001 | 0234 | 1411 | |
| #\$KGOS | 001 | 0180 | 1383 | |
| #\$KHEL | 001 | 0A30 | 1567 | |
| #\$KKEY | 001 | 2100 | 1795 | |
| #\$KLIS | 001 | 0400 | 1471 | |
| #\$KLLA | 001 | 2004 | 1771 | |
| #\$KLOG | 001 | 0444 | 1475 | |
| #\$KMER | 001 | 030C | 1455 | |

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| | | | |
|---------|-----|------|------|
| #\$KMOU | 001 | 0204 | 1399 |
| #\$KNAM | 001 | 05C0 | 1511 |
| #\$KOVN | 001 | 0290 | 1431 |
| #\$KPAS | 001 | 0220 | 1407 |
| #\$KPOO | 001 | 0508 | 1495 |
| #\$KPRT | 001 | 063C | 1519 |
| #\$KREA | 001 | 02BC | 1439 |
| #\$KRLA | 001 | 0700 | 1535 |
| #\$KRMO | 001 | 0214 | 1403 |
| #\$KRNU | 001 | 0280 | 1423 |
| #\$KROV | 001 | 028C | 1427 |
| #\$KRSU | 001 | 1D24 | 1751 |
| #\$KRUN | 001 | 02CC | 1447 |
| #\$KRVL | 001 | 0710 | 1539 |
| #\$KSAV | 001 | 0488 | 1483 |
| #\$KSET | 001 | 0680 | 1523 |
| #\$KSOV | 001 | 0AC8 | 1575 |
| #\$KSSP | 001 | 0594 | 1507 |
| #\$KSVL | 001 | 058C | 1503 |
| #\$KSYM | 001 | 0600 | 1515 |
| #\$KWID | 001 | 02C4 | 1443 |
| #\$KWRI | 001 | 02B4 | 1435 |
| #\$LOAD | 001 | 0100 | 1375 |
| #\$MIPP | 001 | 0A80 | 1571 |
| #\$SDSY | 001 | 192C | 1683 |
| #\$SFFI | 001 | 193C | 1687 |
| #\$SFLO | 001 | 1918 | 1679 |
| #\$SFOV | 001 | 1844 | 1651 |
| #\$SFSY | 001 | 1800 | 1647 |
| #\$SPAC | 001 | 04CC | 1487 |
| #\$SPOV | 001 | 04DC | 1491 |
| #\$SPSY | 001 | 0484 | 1479 |
| #\$STRO | 001 | 1850 | 1655 |
| #\$TDCK | 001 | 0350 | 1459 |
| #\$TSYK | 001 | 0250 | 1419 |
| #\$TVKB | 001 | 0BAC | 1595 |
| #\$UALL | 001 | 0F00 | 1611 |
| #\$UATR | 001 | 1A38 | 1707 |
| #\$UCDI | 001 | 1AD8 | 1715 |
| #\$UCNF | 001 | 19B8 | 1699 |
| #\$UCPL | 001 | 19DC | 1703 |
| #\$UDEL | 001 | 1B24 | 1719 |
| #\$UDIS | 001 | 1B5C | 1723 |
| #\$UEXL | 001 | 0EA8 | 1607 |
| #\$UINI | 001 | 1A88 | 1711 |
| #\$UPAC | 001 | 1980 | 1691 |
| #\$UPOV | 001 | 1D24 | 1759 |
| #\$UPTF | 001 | 1D5C | 1755 |
| #\$VCRT | 001 | 07B4 | 1551 |
| #\$VLOA | 001 | 0B80 | 1587 |
| #\$VODK | 001 | 0B88 | 1591 |
| #\$VVMR | 001 | 0C00 | 1599 |
| #\$VXIT | 001 | 0B00 | 1579 |
| #\$ZDUM | 001 | 1BA4 | 1731 |
| #\$ZLBM | 001 | 2008 | 1775 |
| #\$ZLOA | 001 | 1BC4 | 1735 |

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| SYMBOL | LEN | VALUE | DEFN | REFERENCES |
|---------|-----|-------|------|------------|
| #\$ZLVR | 001 | 20B0 | 1791 | |
| #\$ZL1M | 001 | 2010 | 1779 | |
| #\$ZL2M | 001 | 2030 | 1783 | |
| #\$ZL3M | 001 | 2088 | 1787 | |
| #\$ZTRA | 001 | 1B9C | 1727 | |
| #\$ZUTM | 001 | 1C14 | 1739 | |
| #KEXT | 001 | 0C07 | 1915 | |
| #KEXTR | 001 | 0000 | 0001 | |
| @@E001 | 001 | 0000 | 1259 | 1261 |
| @@E003 | 001 | 0001 | 1261 | 1263 |
| @@E004 | 001 | 0002 | 1263 | 1265 |
| @@E005 | 001 | 0003 | 1265 | 1267 |
| @@E006 | 001 | 0004 | 1267 | 1269 |
| @@E007 | 001 | 0005 | 1269 | 1271 |
| @@E008 | 001 | 0006 | 1271 | 1273 |
| @@E009 | 001 | 0007 | 1273 | 1275 |
| @@E010 | 001 | 0008 | 1275 | 1277 |
| @@E011 | 001 | 0009 | 1277 | 1279 |
| @@E012 | 001 | 000A | 1279 | 1281 |
| @@E013 | 001 | 000B | 1281 | 1283 |
| @@E014 | 001 | 000C | 1283 | 1285 |
| @@E015 | 001 | 000D | 1285 | 1287 |
| @@E016 | 001 | 000E | 1287 | 1289 |
| @@E017 | 001 | 000F | 1289 | 1291 |
| @@E018 | 001 | 0010 | 1291 | 1293 |
| @@E019 | 001 | 0011 | 1293 | 1295 |
| @@E020 | 001 | 0012 | 1295 | 1297 |
| @@E021 | 001 | 0013 | 1297 | 1299 |
| @@E023 | 001 | 0014 | 1299 | 1301 |
| @@E024 | 001 | 0015 | 1301 | 1303 |
| @@E025 | 001 | 0016 | 1303 | 1305 |
| @@E026 | 001 | 0017 | 1305 | 1307 |
| @@E027 | 001 | 0018 | 1307 | 1309 |
| @@E028 | 001 | 0019 | 1309 | 1311 |
| @@E029 | 001 | 001A | 1311 | 1313 |
| @@E030 | 001 | 001B | 1313 | 1315 |
| @@E031 | 001 | 001C | 1315 | 1317 |
| @@E032 | 001 | 001D | 1317 | 1319 |
| @@E035 | 001 | 001E | 1319 | 1321 |
| @@E036 | 001 | 001F | 1321 | 1323 |
| @@E037 | 001 | 0020 | 1323 | 1325 |
| @@E038 | 001 | 0021 | 1325 | 1327 |
| @@E039 | 001 | 0022 | 1327 | 1329 |
| @@E040 | 001 | 0023 | 1329 | 1331 |
| @@E041 | 001 | 0024 | 1331 | 1333 |
| @@E042 | 001 | 0025 | 1333 | 1335 |
| @@E043 | 001 | 0026 | 1335 | 1337 |
| @@E044 | 001 | 0027 | 1337 | 1339 |
| @@E045 | 001 | 0028 | 1339 | 1341 |
| @@E046 | 001 | 0029 | 1341 | 1343 |
| @@E060 | 001 | 002A | 1343 | 1345 |
| @@E080 | 001 | 002B | 1345 | |
| @@E100 | 001 | 0000 | 0731 | 0733 |
| @@E101 | 001 | 0001 | 0733 | 0735 |
| @@E102 | 001 | 0002 | 0735 | 0737 |
| @@E103 | 001 | 0003 | 0737 | 0739 |

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| SYMBOL | LEN | VALUE | DEFN | REFERENCES |
|--------|-----|-------|------|------------|
| @@E110 | 001 | 0004 | 0739 | 0741 2505 |
| @@E112 | 001 | 0005 | 0741 | 0743 |
| @@E113 | 001 | 0006 | 0743 | 0745 |
| @@E114 | 001 | 0007 | 0745 | 0747 |
| @@E115 | 001 | 0008 | 0747 | 0749 |
| @@E116 | 001 | 0009 | 0749 | 0751 |
| @@E117 | 001 | 000A | 0751 | 0753 |
| @@E120 | 001 | 000B | 0753 | 0755 2369 |
| @@E122 | 001 | 000C | 0755 | 0757 2098 |
| @@E123 | 001 | 000D | 0757 | 0759 2329 |
| @@E124 | 001 | 000E | 0759 | 0761 2376 |
| @@E129 | 001 | 000F | 0761 | 0763 |
| @@E130 | 001 | 0010 | 0763 | 0765 |
| @@E131 | 001 | 0011 | 0765 | 0767 |
| @@E133 | 001 | 0012 | 0767 | 0769 |
| @@E134 | 001 | 0013 | 0769 | 0771 |
| @@E135 | 001 | 0014 | 0771 | 0773 |
| @@E136 | 001 | 0015 | 0773 | 0775 |
| @@E137 | 001 | 0016 | 0775 | 0777 2054 |
| @@E138 | 001 | 0017 | 0777 | 0779 |
| @@E139 | 001 | 0018 | 0779 | 0781 2048 |
| @@E142 | 001 | 0019 | 0781 | 0783 |
| @@E143 | 001 | 001A | 0783 | 0785 |
| @@E150 | 001 | 001B | 0785 | 0787 |
| @@E151 | 001 | 001C | 0787 | 0789 |
| @@E160 | 001 | 001D | 0789 | 0791 |
| @@E162 | 001 | 001E | 0791 | 0793 |
| @@E163 | 001 | 001F | 0793 | 0795 |
| @@E164 | 001 | 0020 | 0795 | 0797 |
| @@E200 | 001 | 0021 | 0797 | 0799 |
| @@E205 | 001 | 0022 | 0799 | 0801 |
| @@E210 | 001 | 0023 | 0801 | 0803 |
| @@E211 | 001 | 0024 | 0803 | 0805 |
| @@E212 | 001 | 0025 | 0805 | 0807 |
| @@E213 | 001 | 0026 | 0807 | 0809 |
| @@E215 | 001 | 0027 | 0809 | 0811 |
| @@E216 | 001 | 0028 | 0811 | 0813 |
| @@E217 | 001 | 0029 | 0813 | 0815 |
| @@E220 | 001 | 002A | 0815 | 0817 |
| @@E221 | 001 | 002B | 0817 | 0819 |
| @@E222 | 001 | 002C | 0819 | 0821 |
| @@E223 | 001 | 002D | 0821 | 0823 |
| @@E225 | 001 | 002E | 0823 | 0825 |
| @@E226 | 001 | 002F | 0825 | 0827 |
| @@E227 | 001 | 0030 | 0827 | 0829 |
| @@E228 | 001 | 0031 | 0829 | 0831 |
| @@E229 | 001 | 0032 | 0831 | 0833 |
| @@E230 | 001 | 0033 | 0833 | 0835 |
| @@E232 | 001 | 0034 | 0835 | 0837 |
| @@E234 | 001 | 0035 | 0837 | 0839 |
| @@E237 | 001 | 0036 | 0839 | 0841 |
| @@E240 | 001 | 0037 | 0841 | 0843 |
| @@E241 | 001 | 0038 | 0843 | 0845 |
| @@E242 | 001 | 0039 | 0845 | 0847 |
| @@E248 | 001 | 003A | 0847 | 0849 |
| @@E249 | 001 | 003B | 0849 | 0851 |

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| SYMBOL | LEN | VALUE | DEFN | REFERENCES |
|--------|-----|-------|------|------------|
| @@E250 | 001 | 003C | 0851 | 0853 |
| @@E251 | 001 | 003D | 0853 | 0855 |
| @@E252 | 001 | 003E | 0855 | 0857 |
| @@E253 | 001 | 003F | 0857 | 0859 |
| @@E254 | 001 | 0040 | 0859 | 0861 |
| @@E255 | 001 | 0041 | 0861 | 0863 |
| @@E256 | 001 | 0042 | 0863 | 0865 |
| @@E300 | 001 | 0043 | 0865 | 0867 |
| @@E301 | 001 | 0044 | 0867 | 0869 |
| @@E302 | 001 | 0045 | 0869 | 0871 |
| @@E303 | 001 | 0046 | 0871 | 0873 |
| @@E304 | 001 | 0047 | 0873 | 0875 |
| @@E305 | 001 | 0048 | 0875 | 0877 |
| @@E308 | 001 | 0049 | 0877 | 0879 |
| @@E310 | 001 | 004A | 0879 | 0881 |
| @@E315 | 001 | 004B | 0881 | 0883 |
| @@E316 | 001 | 004C | 0883 | 0885 |
| @@E320 | 001 | 004D | 0885 | 0887 |
| @@E325 | 001 | 004E | 0887 | 0889 2051 |
| @@E330 | 001 | 004F | 0889 | 0891 |
| @@E335 | 001 | 0050 | 0891 | 0893 |
| @@E338 | 001 | 0051 | 0893 | 0895 |
| @@E340 | 001 | 0052 | 0895 | 0897 |
| @@E350 | 001 | 0053 | 0897 | 0899 |
| @@E351 | 001 | 0054 | 0899 | 0901 |
| @@E352 | 001 | 0055 | 0901 | 0903 |
| @@E360 | 001 | 0056 | 0903 | 0905 |
| @@E361 | 001 | 0057 | 0905 | 0907 |
| @@E362 | 001 | 0058 | 0907 | 0909 |
| @@E371 | 001 | 0059 | 0909 | 0911 |
| @@E380 | 001 | 005A | 0911 | 0913 |
| @@E390 | 001 | 005B | 0913 | 0915 |
| @@E400 | 001 | 005C | 0915 | 0917 |
| @@E410 | 001 | 005D | 0917 | 0919 |
| @@E415 | 001 | 005E | 0919 | 0921 |
| @@E417 | 001 | 005F | 0921 | 0923 |
| @@E420 | 001 | 0060 | 0923 | 0925 |
| @@E430 | 001 | 0061 | 0925 | 0927 |
| @@E432 | 001 | 0062 | 0927 | 0929 |
| @@E433 | 001 | 0063 | 0929 | 0931 |
| @@E450 | 001 | 0064 | 0931 | 0933 |
| @@E451 | 001 | 0065 | 0933 | 0935 |
| @@E460 | 001 | 0066 | 0935 | 0937 |
| @@E461 | 001 | 0067 | 0937 | 0939 |
| @@E464 | 001 | 0068 | 0939 | 0941 |
| @@E465 | 001 | 0069 | 0941 | 0943 |
| @@E466 | 001 | 006A | 0943 | 0945 |
| @@E467 | 001 | 006B | 0945 | 0947 |
| @@E469 | 001 | 006C | 0947 | 0949 |
| @@E470 | 001 | 006D | 0949 | 0951 |
| @@E471 | 001 | 006E | 0951 | 0953 |
| @@E473 | 001 | 006F | 0953 | 0955 |
| @@E474 | 001 | 0070 | 0955 | 0957 |
| @@E475 | 001 | 0071 | 0957 | 0959 |
| @@E476 | 001 | 0072 | 0959 | 0961 |
| @@E477 | 001 | 0073 | 0961 | 0963 |

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| SYMBOL | LEN | VALUE | DEFN | REFERENCES |
|--------|-----|-------|------|------------|
| @@E478 | 001 | 0074 | 0963 | 0965 |
| @@E479 | 001 | 0075 | 0965 | 0967 |
| @@E480 | 001 | 0076 | 0967 | 0969 |
| @@E481 | 001 | 0077 | 0969 | 0971 |
| @@E482 | 001 | 0078 | 0971 | 0973 |
| @@E483 | 001 | 0079 | 0973 | 0975 |
| @@E484 | 001 | 007A | 0975 | 0977 |
| @@E485 | 001 | 007B | 0977 | 0979 |
| @@E486 | 001 | 007C | 0979 | 0981 |
| @@E487 | 001 | 007D | 0981 | 0983 |
| @@E488 | 001 | 007E | 0983 | 0985 |
| @@E489 | 001 | 007F | 0985 | 0987 |
| @@E490 | 001 | 0080 | 0987 | 0989 |
| @@E491 | 001 | 0081 | 0989 | 0991 |
| @@E492 | 001 | 0082 | 0991 | 0993 |
| @@E493 | 001 | 0083 | 0993 | 0995 |
| @@E494 | 001 | 0084 | 0995 | 0997 |
| @@E495 | 001 | 0085 | 0997 | 0999 |
| @@E496 | 001 | 0086 | 0999 | 1001 |
| @@E497 | 001 | 0087 | 1001 | 1003 |
| @@E498 | 001 | 0088 | 1003 | 1005 |
| @@E500 | 001 | 0089 | 1005 | 1007 |
| @@E501 | 001 | 008A | 1007 | 1009 |
| @@E530 | 001 | 008B | 1009 | 1011 |
| @@E531 | 001 | 008C | 1011 | 1013 |
| @@E535 | 001 | 008D | 1013 | 1015 |
| @@E540 | 001 | 008E | 1015 | 1017 |
| @@E541 | 001 | 008F | 1017 | 1019 |
| @@E542 | 001 | 0090 | 1019 | 1021 |
| @@E543 | 001 | 0091 | 1021 | 1023 |
| @@E544 | 001 | 0092 | 1023 | 1025 |
| @@E545 | 001 | 0093 | 1025 | 1027 |
| @@E546 | 001 | 0094 | 1027 | 1029 |
| @@E547 | 001 | 0095 | 1029 | 1031 |
| @@E548 | 001 | FFFF | 1235 | |
| @@E549 | 001 | 0096 | 1031 | 1033 |
| @@E550 | 001 | 0097 | 1033 | 1035 |
| @@E551 | 001 | 0098 | 1035 | 1037 |
| @@E552 | 001 | 0099 | 1037 | 1039 |
| @@E553 | 001 | 009A | 1039 | 1041 |
| @@E554 | 001 | 009B | 1041 | 1043 |
| @@E555 | 001 | 009C | 1043 | 1045 |
| @@E556 | 001 | 009D | 1045 | 1047 |
| @@E558 | 001 | 009E | 1047 | 1049 |
| @@E570 | 001 | 009F | 1049 | 1051 |
| @@E571 | 001 | 00A0 | 1051 | 1053 |
| @@E572 | 001 | 00A1 | 1053 | 1055 |
| @@E573 | 001 | 00A2 | 1055 | 1057 |
| @@E574 | 001 | 00A3 | 1057 | 1059 |
| @@E575 | 001 | FFFF | 1237 | |
| @@E578 | 001 | 00A4 | 1059 | 1061 |
| @@E579 | 001 | FFFF | 1239 | |
| @@E580 | 001 | FFFF | 1241 | |
| @@E585 | 001 | 00A5 | 1061 | 1063 |
| @@E595 | 001 | FFFF | 1243 | |
| @@E597 | 001 | FFFF | 1245 | |

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| SYMBOL | LEN | VALUE | DEFN | REFERENCES |
|--------|-----|-------|------|------------|
| @@E598 | 001 | FFFF | 1247 | |
| @@E600 | 001 | 00A6 | 1063 | 1065 |
| @@E601 | 001 | 00A7 | 1065 | 1067 |
| @@E602 | 001 | 00A8 | 1067 | 1069 |
| @@E603 | 001 | 00A9 | 1069 | 1071 |
| @@E604 | 001 | 00AA | 1071 | 1073 |
| @@E606 | 001 | 00AB | 1073 | 1075 |
| @@E607 | 001 | 00AC | 1075 | 1077 |
| @@E608 | 001 | 00AD | 1077 | 1079 |
| @@E609 | 001 | 00AE | 1079 | 1081 |
| @@E610 | 001 | 00AF | 1081 | 1083 |
| @@E611 | 001 | 00B0 | 1083 | 1085 |
| @@E612 | 001 | 00B1 | 1085 | 1087 |
| @@E613 | 001 | 00B2 | 1087 | 1089 |
| @@E614 | 001 | 00B3 | 1089 | 1091 |
| @@E700 | 001 | 00B4 | 1091 | 1093 |
| @@E701 | 001 | 00B5 | 1093 | 1095 |
| @@E710 | 001 | 00B6 | 1095 | 1097 |
| @@E712 | 001 | 00B7 | 1097 | 1099 |
| @@E713 | 001 | 00B8 | 1099 | 1101 |
| @@E714 | 001 | 00B9 | 1101 | 1103 |
| @@E715 | 001 | 00BA | 1103 | 1105 |
| @@E716 | 001 | 00BB | 1105 | 1107 |
| @@E717 | 001 | 00BC | 1107 | 1109 |
| @@E718 | 001 | 00BD | 1109 | 1111 |
| @@E720 | 001 | 00BE | 1111 | 1113 |
| @@E721 | 001 | 00BF | 1113 | 1115 |
| @@E723 | 001 | 00C0 | 1115 | 1117 |
| @@E724 | 001 | 00C1 | 1117 | 1119 |
| @@E725 | 001 | 00C2 | 1119 | 1121 |
| @@E726 | 001 | 00C3 | 1121 | 1123 |
| @@E727 | 001 | 00C4 | 1123 | 1125 |
| @@E728 | 001 | 00C5 | 1125 | 1127 |
| @@E729 | 001 | 00C6 | 1127 | 1129 |
| @@E730 | 001 | 00C7 | 1129 | 1131 |
| @@E732 | 001 | 00C8 | 1131 | 1133 |
| @@E752 | 001 | 00C9 | 1133 | 1135 |
| @@E753 | 001 | 00CA | 1135 | 1137 |
| @@E754 | 001 | 00CB | 1137 | 1139 |
| @@E755 | 001 | 00CC | 1139 | 1141 |
| @@E756 | 001 | 00CD | 1141 | 1143 |
| @@E757 | 001 | 00CE | 1143 | 1145 |
| @@E758 | 001 | 00CF | 1145 | 1147 |
| @@E759 | 001 | 00D0 | 1147 | 1149 |
| @@E760 | 001 | 00D1 | 1149 | 1151 |
| @@E761 | 001 | 00D2 | 1151 | 1153 |
| @@E762 | 001 | 00D3 | 1153 | 1155 |
| @@E763 | 001 | 00D4 | 1155 | 1157 |
| @@E764 | 001 | 00D5 | 1157 | 1159 |
| @@E765 | 001 | 00D6 | 1159 | 1161 |
| @@E766 | 001 | 00D7 | 1161 | 1163 |
| @@E767 | 001 | 00D8 | 1163 | 1165 |
| @@E768 | 001 | 00D9 | 1165 | 1167 |
| @@E769 | 001 | 00DA | 1167 | 1169 |
| @@E770 | 001 | 00DB | 1169 | 1171 |
| @@E771 | 001 | 00DC | 1171 | 1173 |

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| SYMBOL | LEN | VALUE | DEFN | REFERENCES |
|--------|-----|-------|------|----------------|
| @@E772 | 001 | 00DD | 1173 | 1175 |
| @@E773 | 001 | 00DE | 1175 | 1177 |
| @@E774 | 001 | 00DF | 1177 | 1179 |
| @@E775 | 001 | 00E0 | 1179 | 1181 |
| @@E776 | 001 | 00E1 | 1181 | 1183 |
| @@E777 | 001 | 00E2 | 1183 | 1185 |
| @@E778 | 001 | 00E3 | 1185 | 1187 |
| @@E779 | 001 | 00E4 | 1187 | 1189 |
| @@E780 | 001 | 00E5 | 1189 | 1191 |
| @@E781 | 001 | 00E6 | 1191 | 1193 |
| @@E782 | 001 | 00E7 | 1193 | 1195 |
| @@E783 | 001 | 00E8 | 1195 | 1197 |
| @@E784 | 001 | 00E9 | 1197 | 1199 |
| @@E785 | 001 | 00EA | 1199 | 1201 |
| @@E786 | 001 | 00EB | 1201 | 1203 |
| @@E790 | 001 | 00EC | 1203 | 1205 |
| @@E791 | 001 | 00ED | 1205 | 1207 |
| @@E792 | 001 | 00EE | 1207 | 1209 |
| @@E793 | 001 | 00EF | 1209 | 1211 |
| @@E794 | 001 | 00F0 | 1211 | 1213 |
| @@E795 | 001 | 00F1 | 1213 | 1215 |
| @@E796 | 001 | 00F2 | 1215 | 1217 |
| @@E797 | 001 | 00F3 | 1217 | 1219 |
| @@E798 | 001 | 00F4 | 1219 | 1221 |
| @@E800 | 001 | FFFF | 1249 | |
| @@E801 | 001 | FFFF | 1251 | |
| @@E802 | 001 | FFFF | 1253 | |
| @@E803 | 001 | FFFF | 1255 | |
| @@E804 | 001 | FFFF | 1257 | |
| @@E900 | 001 | 00F5 | 1221 | 1223 |
| @@E901 | 001 | 00F6 | 1223 | 1225 |
| @@E902 | 001 | 00F7 | 1225 | 1227 |
| @@E903 | 001 | 00F8 | 1227 | 1229 |
| @@E905 | 001 | 00F9 | 1229 | 1231 |
| @@E906 | 001 | 00FA | 1231 | 1233 |
| @@E910 | 001 | 00FB | 1233 | |
| @ARR | 001 | 0008 | 0016 | 2095 2291 2503 |
| @ASIGN | 001 | 007C | 0071 | |
| @ASTER | 001 | 005C | 0069 | |
| @BCRDL | 001 | 0050 | 0088 | |
| @BE | 001 | 0081 | 0043 | 2367 |
| @BF | 001 | 0090 | 0052 | |
| @BH | 001 | 0084 | 0041 | |
| @BL | 001 | 0082 | 0042 | |
| @BLANK | 001 | 0040 | 0065 | 2131 2508 2514 |
| @BM | 001 | 0082 | 0054 | |
| @BNE | 001 | 0001 | 0046 | 2499 |
| @BNH | 001 | 0004 | 0044 | |
| @BNL | 001 | 0002 | 0045 | |
| @BNM | 001 | 0002 | 0057 | |
| @BNOL | 001 | 0020 | 0050 | |
| @BNOZ | 001 | 0008 | 0049 | |
| @BNP | 001 | 0004 | 0056 | |
| @BNZ | 001 | 0001 | 0058 | |
| @BOL | 001 | 00A0 | 0048 | |
| @BOZ | 001 | 0088 | 0047 | |

| CROSS REFERENCE | | | | | | | | | | | | | | | | | | | | |
|-----------------|-----|-------|------|------------|------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|----------------|----------|------|----|--|
| SYMBOL | LEN | VALUE | DEFN | REFERENCES | | | | | | | | | | | | VER 15, MOD 00 | 09/07/22 | PAGE | 38 | |
| @BP | 001 | 0084 | 0053 | | | | | | | | | | | | | | | | | |
| @BR | 001 | 0001 | 0013 | 1935* | 1947 | 1947* | 1953* | 1963 | 1963* | 1969 | 1972 | 1979 | 1990 | 1996* | 1999 | | | | | |
| | | | | 1999* | 2000 | 2005 | 2006 | 2006* | 2007 | 2011 | 2019 | 2025 | 2025* | 2026 | 2031 | | | | | |
| | | | | 2034* | 2036 | 2036* | 2041 | 2090 | 2092 | 2093* | 2095 | 2097 | 2099 | 2099 | 2109 | | | | | |
| | | | | 2109 | 2114 | 2114 | 2115 | 2115 | 2116 | 2116 | 2117 | 2117 | 2118 | 2118 | 2122 | | | | | |
| | | | | 2123 | 2123 | 2126 | 2132 | 2133 | 2138 | 2139 | 2139 | 2141* | 2290 | 2292* | 2300 | | | | | |
| | | | | 2305 | 2305 | 2309 | 2309* | 2335 | 2336 | 2337 | 2337 | 2343 | 2343* | 2365 | 2383* | | | | | |
| @BT | 001 | 0010 | 0051 | | | | | | | | | | | | | | | | | |
| @BZ | 001 | 0081 | 0055 | | | | | | | | | | | | | | | | | |
| @B1 | 001 | 0001 | 0063 | 2125 | 2130 | | | | | | | | | | | | | | | |
| @CADDR | 001 | 0002 | 0142 | 1965 | 2001 | 2008 | 2027 | 2037 | 2079 | 2080 | | | | | | | | | | |
| @CARDL | 001 | 0060 | 0087 | 0644 | | | | | | | | | | | | | | | | |
| @CHARA | 001 | 00C1 | 0072 | | | | | | | | | | | | | | | | | |
| @CHARF | 001 | 00C6 | 0073 | | | | | | | | | | | | | | | | | |
| @CHARR | 001 | 00D9 | 0074 | | | | | | | | | | | | | | | | | |
| @CHARZ | 001 | 00E9 | 0075 | | | | | | | | | | | | | | | | | |
| @CLOFF | 001 | 0010 | 0094 | | | | | | | | | | | | | | | | | |
| @CLON | 001 | 0011 | 0093 | | | | | | | | | | | | | | | | | |
| @COMMA | 001 | 006B | 0066 | 2325 | 2345 | 2510 | | | | | | | | | | | | | | |
| @CPLUS | 001 | 004E | 0079 | | | | | | | | | | | | | | | | | |
| @DADDR | 001 | 0002 | 0140 | | | | | | | | | | | | | | | | | |
| @DBFR1 | 001 | 0004 | 0129 | | | | | | | | | | | | | | | | | |
| @DBFR2 | 001 | 0005 | 0130 | | | | | | | | | | | | | | | | | |
| @DCALK | 001 | 0001 | 0081 | | | | | | | | | | | | | | | | | |
| @DCBCY | 001 | 0009 | 0115 | | | | | | | | | | | | | | | | | |
| @DCBT1 | 001 | 0050 | 0117 | | | | | | | | | | | | | | | | | |
| @DCNT | 001 | 0003 | 0128 | | | | | | | | | | | | | | | | | |
| @DCST1 | 001 | 0040 | 0116 | | | | | | | | | | | | | | | | | |
| @DCTRL | 001 | 0000 | 0125 | | | | | | | | | | | | | | | | | |
| @DCYL | 001 | 0001 | 0126 | | | | | | | | | | | | | | | | | |
| @DD2 | 001 | 0003 | 0030 | | | | | | | | | | | | | | | | | |
| @DGET | 001 | 0001 | 0134 | | | | | | | | | | | | | | | | | |
| @DOLAR | 001 | 005B | 0068 | | | | | | | | | | | | | | | | | |
| @DOP2 | 001 | 0004 | 0028 | | | | | | | | | | | | | | | | | |
| @DPLNG | 001 | 0006 | 0132 | | | | | | | | | | | | | | | | | |
| @DPOS | 001 | 0000 | 0133 | | | | | | | | | | | | | | | | | |
| @DPUT | 001 | 0002 | 0135 | | | | | | | | | | | | | | | | | |
| @DSAD | 001 | 0002 | 0127 | | | | | | | | | | | | | | | | | |
| @DSBCY | 001 | 0004 | 0106 | | | | | | | | | | | | | | | | | |
| @DSCS1 | 001 | 0000 | 0107 | | | | | | | | | | | | | | | | | |
| @DSIVF | 001 | 0003 | 0138 | | | | | | | | | | | | | | | | | |
| @DSPIN | 001 | 0002 | 0131 | | | | | | | | | | | | | | | | | |
| @DTRSZ | 001 | 0018 | 0085 | | | | | | | | | | | | | | | | | |
| @DVBCY | 001 | 0007 | 0108 | | | | | | | | | | | | | | | | | |
| @DVRFY | 001 | 0031 | 0136 | | | | | | | | | | | | | | | | | |
| @DWAIT | 001 | 00FF | 0137 | | | | | | | | | | | | | | | | | |
| @DWBCY | 001 | 0005 | 0103 | | | | | | | | | | | | | | | | | |
| @DWSIZ | 001 | 00C0 | 0105 | | | | | | | | | | | | | | | | | |
| @DWTB1 | 001 | 0003 | 0104 | | | | | | | | | | | | | | | | | |
| @DZERO | 001 | 00F0 | 0064 | | | | | | | | | | | | | | | | | |
| @D1 | 001 | 0002 | 0026 | 2109 | | | | | | | | | | | | | | | | |
| @EOF | 001 | 001C | 0077 | | | | | | | | | | | | | | | | | |
| @EOFTC | 001 | 0075 | 0162 | | | | | | | | | | | | | | | | | |
| @EOS | 001 | 001E | 0076 | 1927 | 2323 | 2352 | 2358 | 2366 | 2516 | | | | | | | | | | | |
| @FDDBC | 001 | 0000 | 0195 | | | | | | | | | | | | | | | | | |

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| SYMBOL | LEN | VALUE | DEFN | REFERENCES |
|--------|-----|-------|------|---|
| @FDFNA | 001 | 000B | 0198 | |
| @FDHLN | 001 | 0002 | 0208 | |
| @FDLNC | 001 | 0002 | 0193 | |
| @FDNSC | 001 | 0003 | 0210 | |
| @FDSD | 001 | 0000 | 0206 | |
| @FLACE | 001 | 0009 | 0197 | |
| @FLDBC | 001 | 0001 | 0196 | |
| @FLENT | 001 | 0004 | 0201 | |
| @FLFNA | 001 | 0002 | 0199 | |
| @FLHLN | 001 | 0002 | 0209 | |
| @FLLNC | 001 | 0002 | 0194 | |
| @FLNSC | 001 | 0001 | 0211 | |
| @FLSD | 001 | 0001 | 0207 | |
| @HDRLN | 001 | 0007 | 0092 | 0672 |
| @IAR | 001 | 0010 | 0017 | |
| @INDEX | 001 | 0001 | 0156 | 0157 |
| @INST3 | 001 | 0003 | 0032 | |
| @INST4 | 001 | 0004 | 0033 | |
| @INST5 | 001 | 0005 | 0034 | |
| @INST6 | 001 | 0006 | 0035 | |
| @I1IAR | 001 | 00C0 | 0020 | |
| @LINSZ | 001 | 00F4 | 0084 | 0646 |
| @MAPEN | 001 | 0005 | 0089 | |
| @MINCR | 001 | 2000 | 0083 | |
| @MINUS | 001 | 0060 | 0080 | |
| @NOP | 001 | 0080 | 0040 | 2104 2178 2301 2360 |
| @NUMBR | 001 | 007B | 0070 | |
| @OPD2 | 001 | 0004 | 0029 | |
| @OP1 | 001 | 0003 | 0027 | 2092* 2095* 2290* 2291* 2308* 2317* 2342* 2503* |
| @OP2 | 001 | 0005 | 0031 | |
| @PCTRL | 001 | 0000 | 0149 | |
| @PDATA | 001 | 0003 | 0151 | |
| @PGCSZ | 001 | 0020 | 0082 | 0083 |
| @PPLNG | 001 | 0004 | 0148 | |
| @PRCNT | 001 | 0001 | 0150 | |
| @PRETR | 001 | 00C0 | 0154 | |
| @PRINT | 001 | 0040 | 0152 | 0154 |
| @PSR | 001 | 0004 | 0015 | 2379* |
| @PWAIT | 001 | 00FF | 0158 | |
| @P1IAR | 001 | 0020 | 0018 | |
| @P2IAR | 001 | 0040 | 0019 | |
| @Q | 001 | 0001 | 0024 | 2172 2176 2302* 2307* 2339 2341* 2396 2522 |
| @REGL | 001 | 0002 | 0012 | 2317 |
| @RETRN | 001 | 0080 | 0153 | 0154 |
| @RLDWN | 001 | 004F | 0159 | |
| @RTRNC | 001 | 0080 | 0161 | |
| @SBLN | 001 | 0005 | 0170 | |
| @SBLNL | 001 | 0002 | 0184 | |
| @SCTS | 001 | 0100 | 0100 | 1973 2041 2365 |
| @SDFLN | 001 | 0007 | 0090 | |
| @SDF0 | 001 | 0000 | 0166 | |
| @SDF1 | 001 | 0001 | 0167 | |
| @SDF2 | 001 | 0002 | 0168 | |
| @SDF3 | 001 | 0003 | 0169 | |
| @SECCY | 001 | 0030 | 0086 | |
| @SIST | 001 | 0001 | 0181 | |

| CROSS REFERENCE | | | | | | | | | | | | | | | | |
|-----------------|-----|-------|------|------------|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| SYMBOL | LEN | VALUE | DEFN | REFERENCES | VER 15, MOD 00 09/07/22 PAGE 40 | | | | | | | | | | | |
| @SLASH | 001 | 0061 | 0067 | | | | | | | | | | | | | |
| @SLAST | 001 | 0002 | 0183 | | | | | | | | | | | | | |
| @SMIDL | 001 | 0003 | 0182 | | | | | | | | | | | | | |
| @SNULL | 001 | 0080 | 0173 | | | | | | | | | | | | | |
| @SONLY | 001 | 0000 | 0180 | | | | | | | | | | | | | |
| @STEXT | 001 | 0007 | 0172 | | | | | | | | | | | | | |
| @STYPE | 001 | 0006 | 0171 | | | | | | | | | | | | | |
| @TBCNT | 001 | 0000 | 0160 | | | | | | | | | | | | | |
| @TBLEF | 001 | 0010 | 0155 | 0157 | | | | | | | | | | | | |
| @TBLIX | 001 | 0011 | 0157 | | | | | | | | | | | | | |
| @UCB | 001 | 0087 | 0039 | 2174 | 2302 | 2307 | 2339 | 2341 | 2500 | 2511 | | | | | | |
| @UPARW | 001 | 005A | 0078 | | | | | | | | | | | | | |
| @VADDR | 001 | 0002 | 0141 | | | | | | | | | | | | | |
| @VENTA | 001 | 0056 | 0113 | | | | | | | | | | | | | |
| @VMDDV | 001 | 00FE | 0114 | | | | | | | | | | | | | |
| @VMFD1 | 001 | 0000 | 0109 | | | | | | | | | | | | | |
| @VMFD2 | 001 | 0001 | 0110 | | | | | | | | | | | | | |
| @VMRS3 | 001 | 0002 | 0112 | | | | | | | | | | | | | |
| @VMTRL | 001 | 0001 | 0111 | | | | | | | | | | | | | |
| @VOLID | 001 | 0006 | 0091 | | | | | | | | | | | | | |
| @VQ | 001 | 0001 | 0025 | | | | | | | | | | | | | |
| @WSFIT | 001 | 0500 | 0101 | | | | | | | | | | | | | |
| @WSTBL | 001 | 0503 | 0102 | | | | | | | | | | | | | |
| @XR | 001 | 0002 | 0014 | 1918* | 1923 | 1927 | 1934* | 1940 | 1945 | 1945* | 1949 | 1958 | 1961 | 1961* | 1964 | |
| | | | | 1969 | 1973 | 1976 | 1976* | 1985 | 2097 | 2106 | 2122 | 2125 | 2125* | 2130 | 2130* | |
| | | | | 2131 | 2138 | 2311 | 2316 | 2316* | 2323 | 2325 | 2328* | 2345 | 2350 | 2350* | 2352 | |
| | | | | 2358 | 2366 | 2375* | 2378* | 2504 | 2507 | 2507* | 2508 | 2510 | 2513 | 2513* | 2514 | |
| | | | | 2516 | 2518 | | | | | | | | | | | |
| @ZERO | 001 | 0000 | 0062 | 2356 | | | | | | | | | | | | |
| C4BCHC | 001 | 0004 | 2166 | | | | | | | | | | | | | |
| C4BCHR | 001 | 0D94 | 2154 | 2122* | 2123 | | | | | | | | | | | |
| C4BINI | 001 | 0D93 | 2152 | 2099 | | | | | | | | | | | | |
| C4BIN2 | 001 | 0D28 | 2089 | 2090 | 2093 | 2294 | 2319 | | | | | | | | | |
| C4BLEN | 002 | 0D90 | 2164 | 2138* | 2139* | | | | | | | | | | | |
| C4BLNK | 003 | 0D43 | 2172 | | | | | | | | | | | | | |
| C4BLOW | 001 | 00F0 | 2168 | 2106 | | | | | | | | | | | | |
| C4BLVL | 002 | 0002 | 2170 | 2099 | 2114 | 2115 | 2116 | 2117 | 2118 | 2123 | | | | | | |
| C4BNMC | 004 | 0D3F | 2176 | | | | | | | | | | | | | |
| C4BNOP | 001 | 0080 | 2178 | | | | | | | | | | | | | |
| C4BSAV | 002 | 0D96 | 2158 | 2097* | 2139 | 2308 | 2317 | 2342 | 2378 | | | | | | | |
| C4BSPC | 001 | 0087 | 2174 | | | | | | | | | | | | | |
| C4BVAL | 002 | 0D92 | 2150 | 2099* | 2114 | 2114* | 2115 | 2116 | 2116* | 2117 | 2117* | 2118* | 2123* | 2170 | 2300 | |
| | | | | 2336 | | | | | | | | | | | | |
| C4BWRK | 002 | 0D90 | 2147 | 2115* | 2118 | 2164 | 2170 | | | | | | | | | |
| C4BYT1 | 001 | 0D91 | 2149 | | | | | | | | | | | | | |
| C4B100 | 004 | 0D3E | 2100 | 2176 | | | | | | | | | | | | |
| C4B200 | 003 | 0D42 | 2104 | 2126 | 2172 | | | | | | | | | | | |
| C4B300 | 003 | 0D45 | 2106 | 2132 | | | | | | | | | | | | |
| C4B590 | 003 | 0D74 | 2130 | 2109 | 2133 | | | | | | | | | | | |
| C4B600 | 003 | 0D77 | 2131 | 2104 | | | | | | | | | | | | |
| C4B700 | 003 | 0D80 | 2138 | 2107 | | | | | | | | | | | | |
| C4B800 | 004 | 0D87 | 2141 | 2092* | 2110 | | | | | | | | | | | |
| C4B850 | 004 | 0D8B | 2143 | 2095* | | | | | | | | | | | | |
| C4B900 | 001 | 0D97 | 2160 | 2100* | 2109* | | | | | | | | | | | |
| C4END | 001 | 0D98 | 2179 | | | | | | | | | | | | | |
| KEXALL | 003 | 0D1D | 2077 | 1940 | 2019 | 2031 | | | | | | | | | | |

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| SYMBOL | LEN | VALUE | DEFN | REFERENCES | VER 15, MOD 00 | 09/07/22 | PAGE | 41 |
|--------|-----|-------|------|---|----------------|----------|------|----|
| KEXDSH | 001 | 0060 | 2071 | 1923 1958 2005 | | | | |
| KEXFIT | 002 | 0D21 | 2079 | 1965 2001 2008 2027 2037 | | | | |
| KEXHLD | 002 | 0D25 | 2081 | 1985* 1988* 1990 2011 | | | | |
| KEXLN1 | 001 | 0001 | 2068 | 1972 | | | | |
| KEXLN2 | 001 | 0002 | 2069 | 1949 1969 1979 1985 1988 1990 2011 2019 2076 2078 | | | | |
| KEXLN3 | 001 | 0003 | 2070 | 2031 | | | | |
| KEXONE | 001 | 0D18 | 2075 | 1972 | | | | |
| KEXST2 | 002 | 0D1F | 2078 | 1953 1996 2034 | | | | |
| KEXSUB | 002 | 0D27 | 2082 | 1988 | | | | |
| KEXTMP | 002 | 0D23 | 2080 | 1964* 1965 2000* 2001 2007* 2008 2026* 2027 2037 | | | | |
| KEXTRC | 001 | 05FF | 1903 | | | | | |
| KEXZER | 002 | 0D1A | 2076 | 1949 1979 | | | | |
| KEX00A | 001 | 000A | 2067 | 1947 | | | | |
| KEX000 | 001 | 0000 | 2061 | 1923 1927 1949 1969 1969* 1972* 1979* 1985 1990 2005* 2011* 2019 2031* 2041* | | | | |
| KEX001 | 001 | 0001 | 2062 | 1945 1958 1973 1999 2036 | | | | |
| KEX002 | 001 | 0002 | 2063 | 1963 1976 2006 | | | | |
| KEX003 | 001 | 0003 | 2064 | 1961 2025 2077 | | | | |
| KEX004 | 001 | 0004 | 2065 | 1940 | | | | |
| KEX005 | 001 | 0005 | 2066 | 1940 | | | | |
| KEX100 | 003 | 0C44 | 1958 | 2014 | | | | |
| KEX110 | 003 | 0C4D | 1963 | 1959 | | | | |
| KEX114 | 005 | 0C72 | 1979 | 1950 | | | | |
| KEX118 | 005 | 0C77 | 1985 | 1977 | | | | |
| KEX120 | 003 | 0C94 | 1999 | 1992 | | | | |
| KEX130 | 004 | 0CBC | 2014 | 1994 1997 | | | | |
| KEX500 | 005 | 0CC0 | 2019 | 1974 | | | | |
| KEX510 | 004 | 0CE3 | 2034 | 2023 | | | | |
| KEX520 | 003 | 0CE7 | 2036 | 2021 2032 | | | | |
| KEX530 | 004 | 0CFE | 2044 | 1941 | | | | |
| KEX700 | 004 | 0D02 | 2048 | 1924 | | | | |
| KEX800 | 004 | 0D09 | 2051 | 1967 2003 2010 2029 2039 | | | | |
| KEX900 | 004 | 0D10 | 2054 | 1928 | | | | |
| KEX910 | 004 | 0D14 | 2056 | 1932 2049 2052 | | | | |
| SCACNT | 002 | 0EC7 | 2528 | 2356 2518* 2519* | | | | |
| SCACOF | 001 | 0087 | 2500 | | | | | |
| SCACOM | 001 | 0001 | 2499 | | | | | |
| SCAINC | 001 | 0001 | 2498 | 2507 2513 | | | | |
| SCAMMA | 003 | 0EA4 | 2522 | | | | | |
| SCANIT | 001 | 0E87 | 2502 | 1926 2310 2318 2344 2351 | | | | |
| SCASVE | 002 | 0EC5 | 2527 | 2504* 2519 | | | | |
| SCASV1 | 001 | 0EC4 | 2526 | | | | | |
| SCA100 | 003 | 0E96 | 2507 | 2509 | | | | |
| SCA200 | 003 | 0E99 | 2508 | 2506 | | | | |
| SCA250 | 003 | 0EA3 | 2511 | 2522 | | | | |
| SCA300 | 003 | 0EA6 | 2513 | 2515 | | | | |
| SCA400 | 004 | 0EB6 | 2518 | 2511 | | | | |
| SCA500 | 004 | 0EC0 | 2521 | 2503* 2517 | | | | |
| SLLBLW | 002 | 0E86 | 2401 | 2379 | | | | |
| SLLDSH | 001 | 0060 | 2394 | 2311 2335 | | | | |
| SLLIND | 003 | 0E61 | 2396 | | | | | |
| SLLINE | 001 | 0F00 | 2548 | 1934 2292 | | | | |
| SLLIST | 001 | 0D98 | 2288 | 1930 | | | | |
| SLLLN2 | 001 | 0002 | 2393 | 2292 2300 2305 2308 2336 2337 2342 | | | | |
| SLLRET | 001 | 0087 | 2397 | | | | | |
| SLL000 | 001 | 0000 | 2389 | 2366 | | | | |

[illegible]

| | | | | | | | | | |
|--------|-----|------|------|-------|-------|-------|------|------|--|
| SLL001 | 001 | 0001 | 2390 | 2305 | 2337 | | | | |
| SLL002 | 001 | 0002 | 2391 | 2309 | 2335* | 2365* | | | |
| SLL003 | 001 | 0003 | 2392 | 2300* | 2305 | 2336* | 2337 | 2343 | |
| SLL100 | 004 | 0DA4 | 2294 | 2361 | | | | | |
| SLL110 | 003 | 0DB3 | 2301 | 2302* | | | | | |
| SLL115 | 004 | 0DBD | 2305 | 2301 | | | | | |
| SLL120 | 003 | 0DCE | 2309 | 2303 | 2306 | | | | |
| SLL125 | 004 | 0DFE | 2328 | 2317* | 2324 | | | | |
| SLL130 | 003 | 0E09 | 2335 | 2321 | | | | | |
| SLL140 | 003 | 0E29 | 2343 | 2338 | 2340 | | | | |
| SLL150 | 003 | 0E30 | 2345 | 2312 | | | | | |
| SLL160 | 004 | 0E46 | 2356 | 2346 | | | | | |
| SLL165 | 003 | 0E53 | 2360 | 2307* | 2339 | 2341* | 2354 | 2357 | |
| SLL180 | 003 | 0E5A | 2365 | 2296 | | | | | |
| SLL190 | 003 | 0E60 | 2367 | 2396 | | | | | |
| SLL195 | 004 | 0E63 | 2369 | 2326 | 2359 | | | | |
| SLL200 | 004 | 0E6A | 2375 | 2308* | 2342* | 2360 | | | |
| SLL210 | 004 | 0E75 | 2378 | 2295 | 2320 | 2371 | | | |
| SLL215 | 004 | 0E79 | 2379 | 2330 | 2353 | 2377 | | | |
| SLL220 | 004 | 0E7D | 2383 | 2290* | 2367 | | | | |
| SLL230 | 004 | 0E81 | 2384 | 2291* | | | | | |

```

OL105 I THE CODE LENGTH OF #KEXTR IS 3840 DECIMAL.
OL103 I TOTAL NUMBER OF LIBRARY SECTORS REQUIRED IS 5
      NAME-#KEXTR,PACK-R1R1R1,UNIT-R1,RETAIN-P,LIBRARY-R,CATEGORY-000

```

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

| | | | | |
|------|---|--------|------|------|
| 0C00 | 0 | #KEXTR | 0F00 | 3840 |
|------|---|--------|------|------|

| | | | | |
|-------|---|--|--|--|
| OL100 | I | THE TOTAL CORE USED BY #KEXTR IS 3840 DECIMAL. | | |
| OL101 | I | THE START CONTROL ADDRESS OF THIS MODULE IS 0C00. | | |
| OL104 | I | TOTAL NUMBER OF LIBRARY SECTORS REQUIRED IS 16 | | |
| | | NAME-#KEXTR,PACK-R1R1R1,UNIT-R1,RETAIN-P,LIBRARY-O | | |