

XPEDITER/TSO — Displaying and Modifying Data Variables

General Questions

Question	Page(s)
Is it possible to view the contents of program variables during testing?	2
What is the difference between the KEEP and PEEK commands?	2

Functionality / Scenario Questions

Question	Page(s)
How do I use the PEEK command?	3
How do I display the elementary items of a group level data item?	4
How do I display a data value in hex?	6
How do I stop displaying a value in hex?	7
How do I use the MOVE command?	8
How do I use the LOCATE command?	9
How do I use the KEEP command?	13
How do I change the contents of variables displayed in a window?	14
How do I delete the contents in the KEEP window?	16

NOTE: The following examples apply to COBOL, PL/I, C and Assembler unless otherwise indicated.

Is it possible to view the contents of program variables during testing?

Yes, you can view, as well as modify, the contents of program variables during testing by using the KEEP or PEEK commands. For an example of how to use the PEEK command, see *“How do I use the PEEK command?”* on page 3. For an example of how to use the KEEP command, see *“How do I use the KEEP command?”* on page 13.

What is the difference between the KEEP and PEEK commands?

The KEEP command will continuously display the value of program variables or selected data areas in a Keep window. The displayed values are updated as breakpoints are encountered and are denoted by a K in column 9 of the Keep window. XPEDITER/TSO automatically keeps the values of data items referenced by the current execution line whenever execution halts. These values are displayed in an Automatic Keep window. For an example of how to use the KEEP command, see *“How do I use the KEEP command?”* on page 13.

The PEEK command is used to view the contents of program variables. PEEK scrolls to the data area, displays the data values next to the data identifier, and inserts a "P" in column 9 of the source. You can alter the variable content by typing over the displayed value. The PEEK display is temporary and is deleted when execution resumes. For an example of how to use the PEEK command, see *“How do I use the PEEK command?”* on page 3.

How do I use the PEEK command?

1. View the contents of EMPLOYEE-WORK-AREA in Working Storage.

```

----- XPEDITER/TSO - SOURCE -----
COMMAND ==> peek employee-work-area                                SCROLL ==> CSR
                NEXT LOGICAL INSTRUCTION IS CWXTCOB:624
                -----1-----2-----3
MORE-> 01 EMPLOYEE-RECORD > 02334S1ROY GARDNER 323 OAK
                -----1-----2-----3
MORE-> 01 EMPLOYEE-WORK-AREA > 02334S1ROY GARDNER 323 OAK
** END **
----- After CWXTCOB:621 <>
000619 ***
000620 8000-READ-INPUT.
====>> READ EMPLOYEE-FILE INTO EMPLOYEE-WORK-AREA
000622 AT END
000623 MOVE 'Y' TO EOF-SW.
000624 ADD 1 TO RECORDS-READ.
000625 ***
000626 ***
000627 9000-OPEN.
000628 OPEN INPUT EMPLOYEE-FILE.
000629 OPEN OUTPUT REPORT-FILE.
000630 ***
000631 *** VALID PARMS ARE BLANK OR 5 DIGIT NUMBER
000632 ***
000633 9100-CHECK-PARM.

```

Figure 1: PEEK Command

```

----- XPEDITER/TSO - SOURCE -----
COMMAND ==>
                SCROLL ==> CSR
PROGRAM: CWXTCOB  MODULE: CWXTCOB  COMP DATE: 02/25/99  COMP TIME: 09:47:36
                -----1-----2-----3
MORE-> 01 EMPLOYEE-RECORD > 02334S1ROY GARDNER 323 OAK
                -----1-----2-----3
MORE-> 01 EMPLOYEE-WORK-AREA > 02334S1ROY GARDNER 323 OAK
** END **
----- After CWXTCOB:621 <>
000150 **
                -----1-----2-----3
MORE-> P 01 EMPLOYEE-WORK-AREA. > 02334S1ROY GARDNER 323 OAK
000152 05 WA-EMP-NUM PIC 9(5).
000153 05 WA-EMP-TYPE PIC X.
000154 88 HOURLY VALUE 'H'.
000155 88 SALES VALUE 'S'.
000156 88 MANAGEMENT VALUE 'M'.
000157 05 WA-EMP-REGION PIC 9.
000158 88 NORTH VALUE 1.
000159 88 SOUTH VALUE 2.
000160 88 EAST VALUE 3.
000161 88 WEST VALUE 4.
000162 05 WA-EMP-NAME PIC X(15).
000163 05 WA-EMP-ADDRESS.

```

Figure 2: Results of PEEK Command

How do I display the elementary items of a group level data item?

E Display the elementary items of a group level data item.

Line Command: E

2. Display the elementary items of EMPLOYEE-WORK-AREA.

```

----- XPEDITER/TSO - SOURCE -----
COMMAND ==>>                                SCROLL ==>> CSR
PROGRAM: CWXTCOB      MODULE: CWXTCOB  COMP DATE: 02/25/99  COMP TIME: 09:47:36
-----+-----1-----+-----2-----+-----3
MORE->  01 EMPLOYEE-RECORD                    > 02334S1ROY GARDNER  323 OAK
-----+-----1-----+-----2-----+-----3
MORE->  01 EMPLOYEE-WORK-AREA                  > 02334S1ROY GARDNER  323 OAK
** END **
-----
-----+-----1-----+-----2-----+-----3
000150 **                                     After CWXTCOB:621 <>

e  > P 01 EMPLOYEE-WORK-AREA.                  > 02334S1ROY GARDNER  323 OAK
000152      05 WA-EMP-NUM                       PIC 9(5).
000153      05 WA-EMP-TYPE                       PIC X.
000154      88 HOURLY                            VALUE 'H'.
000155      88 SALES                             VALUE 'S'.
000156      88 MANAGEMENT                        VALUE 'M'.
000157      05 WA-EMP-REGION                     PIC 9.
000158      88 NORTH                             VALUE 1.
000159      88 SOUTH                             VALUE 2.
000160      88 EAST                              VALUE 3.
000161      88 WEST                              VALUE 4.
000162      05 WA-EMP-NAME                       PIC X(15).
000163      05 WA-EMP-ADDRESS.

```

Figure 3: Display Elementary Items

```

----- XPEDITER/TSO - SOURCE -----
COMMAND ==>>                                SCROLL ==>> CSR
PROGRAM: CWXTCOB      MODULE: CWXTCOB  COMP DATE: 02/25/99  COMP TIME: 09:47:36
-----+-----1-----+-----2-----+-----3
MORE->  01 EMPLOYEE-RECORD                    > 02334S1ROY GARDNER  323 OAK
-----+-----1-----+-----2-----+-----3
MORE->  01 EMPLOYEE-WORK-AREA                  > 02334S1ROY GARDNER  323 OAK
** END **
-----
-----+-----1-----+-----2-----+-----3
000150 **                                     After CWXTCOB:621 <>

MORE-> P 01 EMPLOYEE-WORK-AREA.                  > 02334S1ROY GARDNER  323 OAK
000152 P      05 WA-EMP-NUM                       PIC > 02334          DECIMAL
-
000153 P      05 WA-EMP-TYPE                       PIC > S
000154      88 HOURLY                            VALUE 'H'.
000155      88 SALES                             VALUE 'S'.
000156      88 MANAGEMENT                        VALUE 'M'.
000157 P      05 WA-EMP-REGION                     PIC > 1          DECIMAL
000158      88 NORTH                             VALUE 1.
000159      88 SOUTH                             VALUE 2.
000160      88 EAST                              VALUE 3.
000161      88 WEST                              VALUE 4.

```

Figure 4: Results of Elementary Items Display

3. Scroll down.

```

----- XPEDITER/TSO - SOURCE -----
COMMAND ===> [PF8]                                SCROLL ===> CSR
PROGRAM: CWXTCOB      MODULE: CWXTCOB  COMP DATE: 02/25/99  COMP TIME: 09:47:36
-----+-----1-----+-----2-----+-----3
MORE-> 01 EMPLOYEE-RECORD      > 02334S1ROY GARDNER  323 OAK
-----+-----1-----+-----2-----+-----3
MORE-> 01 EMPLOYEE-WORK-AREA    > 02334S1ROY GARDNER  323 OAK
** END **
-----
----- After CWXTCOB:621 <>
000150 **
-----+-----1-----+-----2-----+-----3
MORE-> P 01 EMPLOYEE-WORK-AREA.  > 02334S1ROY GARDNER  323 OAK
000152 P 05 WA-EMP-NUM          PIC > 02334          DECIMAL
-----
000153 P 05 WA-EMP-TYPE        PIC > S
000154      88 HOURLY          VALUE 'H'.
000155      88 SALES           VALUE 'S'.
000156      88 MANAGEMENT     VALUE 'M'.
000157 P 05 WA-EMP-REGION      PIC > 1          DECIMAL
000158      88 NORTH          VALUE 1.
000159      88 SOUTH          VALUE 2.
000160      88 EAST           VALUE 3.
000161      88 WEST           VALUE 4.
-----+-----1-----+

```

Figure 5: Scroll Down

```

----- XPEDITER/TSO - SOURCE -----
COMMAND ===>                                SCROLL ===> CSR
PROGRAM: CWXTCOB      MODULE: CWXTCOB  COMP DATE: 02/25/99  COMP TIME: 09:47:36
-----+-----1-----+-----2-----+-----3
MORE-> 01 EMPLOYEE-RECORD      > 02334S1ROY GARDNER  323 OAK
-----+-----1-----+-----2-----+-----3
MORE-> 01 EMPLOYEE-WORK-AREA    > 02334S1ROY GARDNER  323 OAK
** END **
-----
----- After CWXTCOB:621 <>
-----+-----1-----+
000162 P 05 WA-EMP-NAME        PIC > ROY GARDNER
000163      05 WA-EMP-ADDRESS.
-----+-----1-----+
000164 P 10 WA-EMP-STREET      PIC > 323 OAK STREET
-----+-----
000165 P 10 WA-EMP-CITY        PIC > EDINA
--
000166 P 10 WA-EMP-STATE       PIC > MN
-----+-----
000167 P 10 WA-EMP-ZIP         PIC > 23040
000168      05 WA-HOURLY-EMPLOYEE-DATA.
000169 P 10 WA-EMP-HOURS       PIC > ???          INVALID DECIMAL
000170 P 10 WA-EMP-RATE        PIC > ???????       INVALID PACKED
-----+-----

```

Figure 6: Results of Scroll Down

How do I display a data value in hex?

H Display the value of the data item in hexadecimal format.

Line Command: H

4. Display WA-EMP-RATE in hex.

```

----- XPEDITER/TSO - SOURCE -----
COMMAND ==>>                                SCROLL ==>> CSR
PROGRAM: CWXTCOB    MODULE: CWXTCOB    COMP DATE: 02/25/99  COMP TIME: 09:47:36
-----+-----1-----+-----2-----+-----3
MORE->  01 EMPLOYEE-RECORD                > 02334S1ROY GARDNER  323 OAK
-----+-----1-----+-----2-----+-----3
MORE->  01 EMPLOYEE-WORK-AREA              > 02334S1ROY GARDNER  323 OAK
** END **

----- After CWXTCOB:621 <> -----
000162 P      05 WA-EMP-NAME                PIC > ROY GARDNER
000163      05 WA-EMP-ADDRESS.
-----+-----1-----+
000164 P      10 WA-EMP-STREET              PIC > 323 OAK STREET
-----+-----
000165 P      10 WA-EMP-CITY                PIC > EDINA
-----+-----
000166 P      10 WA-EMP-STATE              PIC > MN
-----+-----
000167 P      10 WA-EMP-ZIP                 PIC > 23040
000168      05 WA-HOURLY-EMPLOYEE-DATA.
000169 P      10 WA-EMP-HOURS              PIC > ???                INVALID DECIMAL
h 170 P      10 WA-EMP-RATE                PIC > ????????          INVALID PACKED
-----+-----

```

Figure 7: HEX Line Command

```

----- XPEDITER/TSO - SOURCE -----
COMMAND ==>>                                SCROLL ==>> CSR
PROGRAM: CWXTCOB    MODULE: CWXTCOB    COMP DATE: 02/25/99  COMP TIME: 09:47:36
-----+-----1-----+-----2-----+-----3
MORE->  01 EMPLOYEE-RECORD                > 02334S1ROY GARDNER  323 OAK
-----+-----1-----+-----2-----+-----3
MORE->  01 EMPLOYEE-WORK-AREA              > 02334S1ROY GARDNER  323 OAK
** END **

----- After CWXTCOB:621 <> -----
000169 P      10 WA-EMP-HOURS              PIC > ???                INVALID DECIMAL
000170 P      10 WA-EMP-RATE                PIC > ????????          INVALID PACKED
                                00F
                                0F5
-----+-----
000171 P      10 FILLER                    PIC > 500000
000172      05 WA-SALES-EMPLOYEE-DATA      REDEFINES
000173      WA-HOURLY-EMPLOYEE-DATA.
000174 P      10 WA-SALES-SALARY          PIC > 00750.00          PACKED
000175 P      10 WA-SALES-AMOUNT          PIC > 55000.00          DECIMAL
-----+-----
000176 P      10 FILLER                    PIC >
000177      05 WA-MGMT-EMPLOYEE-DATA      REDEFINES
000178      WA-SALES-EMPLOYEE-DATA.

```

Figure 8: Results of HEX Command

How do I stop displaying a value in hex?

5. Delete the hex display of WA-EMP-RATE.

```

----- XPEDITER/TSO - SOURCE -----
COMMAND ==>>                                SCROLL ==>> CSR
PROGRAM: CWXTCOB      MODULE: CWXTCOB  COMP DATE: 02/25/99  COMP TIME: 09:47:36
-----+-----1-----2-----3
MORE->  01 EMPLOYEE-RECORD                > 02334S1ROY GARDNER  323 OAK
-----+-----1-----2-----3
MORE->  01 EMPLOYEE-WORK-AREA              > 02334S1ROY GARDNER  323 OAK
** END **

----- After CWXTCOB:621 <> -----
000169 P          10  WA-EMP-HOURS          PIC > ???              INVALID DECIMAL
dh 70 P          10  WA-EMP-RATE           PIC > ???????         INVALID PACKED
                                00F
                                0F5
                                -----
000171 P          10  FILLER                PIC > 500000
000172           05  WA-SALES-EMPLOYEE-DATA REDEFINES
000173                                WA-HOURLY-EMPLOYEE-DATA.
000174 P          10  WA-SALES-SALARY       PIC > 00750.00          PACKED
000175 P          10  WA-SALES-AMOUNT      PIC > 55000.00          DECIMAL
                                --
000176 P          10  FILLER                PIC >
000177           05  WA-MGMT-EMPLOYEE-DATA REDEFINES
000178                                WA-SALES-EMPLOYEE-DATA.
000179 P          10  WA-MGMT-SALARY       PIC > 00750.00          PACKED

```

Figure 9: DELETE HEX Command

```

----- XPEDITER/TSO - SOURCE -----
COMMAND ==>>                                SCROLL ==>> CSR
                                DELETE COMMAND PROCESSED
-----+-----1-----2-----3
MORE->  01 EMPLOYEE-RECORD                > 02334S1ROY GARDNER  323 OAK
-----+-----1-----2-----3
MORE->  01 EMPLOYEE-WORK-AREA              > 02334S1ROY GARDNER  323 OAK
** END **

----- After CWXTCOB:621 <> -----
000169 P          10  WA-EMP-HOURS          PIC > ???              INVALID DECIMAL
000170 P          10  WA-EMP-RATE           PIC > ???????         INVALID PACKED
                                -----
000171 P          10  FILLER                PIC > 500000
000172           05  WA-SALES-EMPLOYEE-DATA REDEFINES
000173                                WA-HOURLY-EMPLOYEE-DATA.
000174 P          10  WA-SALES-SALARY       PIC > 00750.00          PACKED
000175 P          10  WA-SALES-AMOUNT      PIC > 55000.00          DECIMAL
                                --
000176 P          10  FILLER                PIC >
000177           05  WA-MGMT-EMPLOYEE-DATA REDEFINES
000178                                WA-SALES-EMPLOYEE-DATA.
000179 P          10  WA-MGMT-SALARY       PIC > 00750.00          PACKED
                                -----
000180 P          10  FILLER                PIC > 5500000

```

Figure 10: Results of DELETE HEX Command

How do I use the MOVE command?

MOVE Change the content of program variables. Typing over the displayed value is an implicit MOVE command.

Primary Command: MOVE, M

Examples: MOVE SPACES TO WA-EMP-CITY
 MOVE 50 TO WA-EMP-HOURS
 MOVE WA-SALES-AMOUNT TO CALC-SALES

6. Change the value of WA-SALES-SALARY to 1000.00 and press Enter.

```

----- XPEDITER/TSO - SOURCE -----
COMMAND ==> [ENTER]                                SCROLL ==> CSR
                DELETE COMMAND PROCESSED
                -----1-----2-----3
MORE-> 01 EMPLOYEE-RECORD                > 02334S1ROY GARDNER 323 OAK
                -----1-----2-----3
MORE-> 01 EMPLOYEE-WORK-AREA              > 02334S1ROY GARDNER 323 OAK
** END **

----- After CWXTCOB:621 <> -----
000169 P      10 WA-EMP-HOURS              PIC > ???              INVALID DECIMAL
000170 P      10 WA-EMP-RATE              PIC > ???????         INVALID PACKED
                -----
000171 P      10 FILLER                   PIC > 500000
000172      05 WA-SALES-EMPLOYEE-DATA     REDEFINES
000173                WA-HOURLY-EMPLOYEE-DATA.
000174 P      10 WA-SALES-SALARY          PIC > 01000.00          PACKED
000175 P      10 WA-SALES-AMOUNT          PIC > 55000.00         DECIMAL
                --
000176 P      10 FILLER                   PIC >
000177      05 WA-MGMT-EMPLOYEE-DATA     REDEFINES
000178                WA-SALES-EMPLOYEE-DATA.
000179 P      10 WA-MGMT-SALARY           PIC > 00750.00         PACKED
                -----
000180 P      10 FILLER                   PIC > 5500000
    
```

Overtyping the amount in WA-SALES-SALARY.

Figure 11: Results of Overtyping Rate

How do I use the LOCATE command?

LOCATE Scrolls to a particular point in the current program. LOCATE * scrolls to the current execution point. LOCATE* can also be issued by pressing **[PF6]**.

Primary Command: LOCATE, LOC, L

Examples: LOCATE *
 LOC PROCEDURE
 L 316

7. Return to the current point of program execution.

```

----- XPEDITER/TSO - SOURCE -----
COMMAND ===> [PF6]                                SCROLL ===> CSR
PROGRAM: CWXTCOB    MODULE: CWXTCOB    COMP DATE: 02/25/99  COMP TIME: 09:47:36
-----+-----1-----+-----2-----+-----3
MORE-> 01 EMPLOYEE-RECORD                        > 02334S1ROY GARDNER 323 OAK
-----+-----1-----+-----2-----+-----3
MORE-> 01 EMPLOYEE-WORK-AREA                      > 02334S1ROY GARDNER 323 OAK
** END **

----- After CWXTCOB:621 <> -----
000169 P          10  WA-EMP-HOURS          PIC > ???          INVALID DECIMAL
000170 P          10  WA-EMP-RATE          PIC > ???????     INVALID PACKED
-----+-----
000171 P          10  FILLER                PIC > 500000
000172          05  WA-SALES-EMPLOYEE-DATA  REDEFINES
000173                                WA-HOURLY-EMPLOYEE-DATA.
000174 P          10  WA-SALES-SALARY       PIC > 01000.00      PACKED
000175 P          10  WA-SALES-AMOUNT      PIC > 55000.00      DECIMAL
-----+-----
000176 P          10  FILLER                PIC >
000177          05  WA-MGMT-EMPLOYEE-DATA  REDEFINES
000178                                WA-SALES-EMPLOYEE-DATA.
000179 P          10  WA-MGMT-SALARY       PIC > 01000.00      PACKED
-----+-----
000180 P          10  FILLER                PIC > 5500000

```

Figure 12: LOCATE * Command

```

----- XPEDITER/TSO - SOURCE -----
COMMAND ===>                                SCROLL ===> CSR
PROGRAM: CWXTCOB    MODULE: CWXTCOB    COMP DATE: 02/25/99  COMP TIME: 09:47:36
-----+-----1-----+-----2-----+-----3
MORE-> 01 EMPLOYEE-RECORD                        > 02334S1ROY GARDNER 323 OAK
-----+-----1-----+-----2-----+-----3
MORE-> 01 EMPLOYEE-WORK-AREA                      > 02334S1ROY GARDNER 323 OAK
** END **

----- After CWXTCOB:621 <> -----
====>>      READ EMPLOYEE-FILE INTO EMPLOYEE-WORK-AREA
000622          AT END
000623          MOVE 'Y' TO EOF-SW.
000624          ADD 1 TO RECORDS-READ.
000625          ***
000626          ***
000627          9000-OPEN.
000628          OPEN INPUT EMPLOYEE-FILE.
000629          OPEN OUTPUT REPORT-FILE.
000630          ***
000631          *** VALID PARMS ARE BLANK OR 5 DIGIT NUMBER
000632          ***
000633          9100-CHECK-PARM.
000634          IF PARM-LTH = 5
000635          IF PARM-DATA IS NUMERIC

```

Figure 13: Results of LOCATE * Command

8. Resume program execution.

```

----- XPEDITER/TSO - SOURCE -----
COMMAND ==> go                                SCROLL ==> CSR
PROGRAM: CWXTCOB      MODULE: CWXTCOB      COMP DATE: 02/25/99  COMP TIME: 09:47:36
-----+-----1-----+-----2-----+-----3
MORE-> 01 EMPLOYEE-RECORD                    > 02334S1ROY GARDNER 323 OAK
-----+-----1-----+-----2-----+-----3
MORE-> 01 EMPLOYEE-WORK-AREA                  > 02334S1ROY GARDNER 323 OAK
** END **

----- After CWXTCOB:621 <> -----
====>>      READ EMPLOYEE-FILE INTO EMPLOYEE-WORK-AREA
000622          AT END
000623          MOVE 'Y' TO EOF-SW.
000624          ADD 1 TO RECORDS-READ.
000625      ***
000626      ***
000627      9000-OPEN.
000628          OPEN INPUT  EMPLOYEE-FILE.
000629          OPEN OUTPUT REPORT-FILE.
000630      ***
000631      *** VALID PARMs ARE BLANK OR 5 DIGIT NUMBER
000632      ***
000633      9100-CHECK-PARM.
000634          IF PARM-LTH = 5
000635          IF PARM-DATA IS NUMERIC

```

Figure 14: GO Command

```

----- XPEDITER/TSO - SOURCE -----
COMMAND ==>>                                SCROLL ==> CSR
          BEFORE BREAKPOINT ENCOUNTERED
          ** END **

----- Before CWXTCOB:361 <> -----
000360          UNTIL END-OF-FILE
====>> B      PERFORM 6000-PRINT-EMPLOYEE-REPORT
000362          MOVE 1 TO REGION-SUB
000363          IF END-OF-MONTH
000364          PERFORM 7000-PRINT-REGION-REPORT
000365          UNTIL REGION-SUB > 4.
000366          PERFORM 9900-CLOSE.
000367 A      GOBACK.
000368      ***
000369      *** DIFFERENT PROCESSING OCCURS BASED ON EMPLOYEE TYPE.  THERE
000370      *** ARE 3 VALID EMPLOYEE TYPES.  IF A RECORD IS READ CONTAINING
000371      *** A RECORD TYPE OTHER THAN H, S OR M, AN ERROR MESSAGE IS
000372      *** WRITTEN AND PROCESSING CONTINUES.
000373      ***
000374      1000-PROCESS-DATA.

```

Figure 15: Results of GO Command

9. Find the definition of HOLD-TABLE in the data division.

```

----- XPEDITER/TSO - SOURCE -----
COMMAND ==> f hold-table first                                SCROLL ==> CSR
                                BEFORE BREAKPOINT ENCOUNTERED
                                ** END **

----- Before CWXTCOB:361 <>
000360                                UNTIL END-OF-FILE
====> B                                PERFORM 6000-PRINT-EMPLOYEE-REPORT
000362                                MOVE 1 TO REGION-SUB
000363                                IF END-OF-MONTH
000364                                PERFORM 7000-PRINT-REGION-REPORT
000365                                UNTIL REGION-SUB > 4.
000366                                PERFORM 9900-CLOSE.
000367 A                                GOBACK.
000368                                ***
000369                                *** DIFFERENT PROCESSING OCCURS BASED ON EMPLOYEE TYPE. THERE
000370                                *** ARE 3 VALID EMPLOYEE TYPES. IF A RECORD IS READ CONTAINING
000371                                *** A RECORD TYPE OTHER THAN H, S OR M, AN ERROR MESSAGE IS
000372                                *** WRITTEN AND PROCESSING CONTINUES.
000373                                ***
000374                                1000-PROCESS-DATA.

```

Figure 16: FIND Command

```

----- XPEDITER/TSO - SOURCE -----
COMMAND ==>                                SCROLL ==> CSR
PROGRAM: CWXTCOB      MODULE: CWXTCOB      COMP DATE: 02/25/99  COMP TIME: 09:47:36
                                ** END **

----- Before CWXTCOB:361 <>
000070                                **
000071                                01 HOLD-TABLE.                                DEF
000072                                05 HOLD-AREA                                OCCURS 4 TIMES
000073                                INDEXED BY REG-IX.
000074                                10 HOLD-LINE                                OCCURS 20 TIMES
000075                                INDEXED BY HOLD-IX.
000076                                15 HOLD-NAME                                PIC X(15).
000077                                15 HOLD-REGION                                PIC X(5).
000078                                15 HOLD-TYPE                                PIC X.
000079                                15 HOLD-YEARS                                PIC 9(2).
000080                                15 HOLD-HIRE-DATE.
000081                                20 HOLD-HIRE-YY                                PIC 9(2).
000082                                20 HOLD-HIRE-MM                                PIC 9(2).
000083                                20 HOLD-HIRE-DD                                PIC 9(2).
000084                                15 HOLD-WAGES                                PIC 9(5)V99.

```

Figure 17: Results of FIND Command

How do I use the KEEP command?

KEEP Continuously display the contents of program variables in a KEEP window.

Primary Commands: KEEP, K

Examples: KEEP EMPLOYEE-FILE
K HOLD-LINE (REG-IX, HOLD-IX)

Line Commands: K, Kn, K*

Example: K2

10. Add HOLD-AREA to the keep window.

```

----- XPEDITER/TSO - SOURCE -----
COMMAND ==> k hold-area                                SCROLL ==> CSR
PROGRAM: CWXTCOB   MODULE: CWXTCOB   COMP DATE: 02/25/99   COMP TIME: 09:47:36
** END **

----- Before CWXTCOB:361 <>
000070 **
000071 01 HOLD-TABLE.                                DEF
000072 05 HOLD-AREA      OCCURS 4 TIMES
000073                   INDEXED BY REG-IX.
000074 10 HOLD-LINE      OCCURS 20 TIMES
000075                   INDEXED BY HOLD-IX.
000076 15 HOLD-NAME      PIC X(15).
000077 15 HOLD-REGION    PIC X(5).
000078 15 HOLD-TYPE      PIC X.
000079 15 HOLD-YEARS     PIC 9(2).
000080 15 HOLD-HIRE-DATE.
000081 20 HOLD-HIRE-YY    PIC 9(2).
000082 20 HOLD-HIRE-MM    PIC 9(2).
000083 20 HOLD-HIRE-DD    PIC 9(2).

```

Figure 18: KEEP Command

```

----- XPEDITER/TSO - SOURCE -----
COMMAND ==>
PROGRAM: CWXTCOB   MODULE: CWXTCOB   COMP DATE: 02/25/99   COMP TIME: 09:47:36
** END **
1 OCCURS
-----1-----2-----3
MORE-> K 05 HOLD-AREA      > JOHN SMITH      NORTH148110150
** END **

----- Before CWXTCOB:361 <>
000070 **
000071 01 HOLD-TABLE.                                DEF
000072 05 HOLD-AREA      OCCURS 4 TIMES
000073                   INDEXED BY REG-IX.
000074 10 HOLD-LINE      OCCURS 20 TIMES
000075                   INDEXED BY HOLD-IX.
000076 15 HOLD-NAME      PIC X(15).
000077 15 HOLD-REGION    PIC X(5).
000078 15 HOLD-TYPE      PIC X.
000079 15 HOLD-YEARS     PIC 9(2).
000080 15 HOLD-HIRE-DATE.
000081 20 HOLD-HIRE-YY    PIC 9(2).
000082 20 HOLD-HIRE-MM    PIC 9(2).
000083 20 HOLD-HIRE-DD    PIC 9(2).

```

Figure 19: Results of KEEP Command

How do I change the contents of variables displayed in a window?

11. View occurrence 3 of HOLD-AREA.

```

----- XPEDITER/TSO - SOURCE -----
COMMAND ===>                                SCROLL ===> CSR
PROGRAM: CWXTCOB    MODULE: CWXTCOB    COMP DATE: 02/25/99    COMP TIME: 09:47:36
                                           3                                OCCURS
                                           -----1-----2-----3
MORE-> K 05 HOLD-AREA    JOHN SMITH    NORTHH148110150
    ** END **

----- Before CWXTCOB:361 <>
000070  **
000071  01  HOLD-TABLE.                                DEF
000072      05  HOLD-AREA    OCCURS 4 TIMES
000073                                INDEXED BY REG-IX.
000074      10  HOLD-LINE    OCCURS 20 TIMES
000075                                INDEXED BY HOLD-IX.
000076      15  HOLD-NAME    PIC X(15).
000077      15  HOLD-REGION  PIC X(5).
000078      15  HOLD-TYPE    PIC X.
000079      15  HOLD-YEARS   PIC 9(2).
000080      15  HOLD-HIRE-DATE.
000081      20  HOLD-HIRE-YY  PIC 9(2).
000082      20  HOLD-HIRE-MM  PIC 9(2).
000083      20  HOLD-HIRE-DD  PIC 9(2).
000084      15  HOLD-WAGES   PIC 9(5)V99.
    
```

Overtyping the number of the occurrence you want.

Figure 20: Overtyping Occurrence

```

----- XPEDITER/TSO - SOURCE -----
COMMAND ===>                                SCROLL ===> CSR
PROGRAM: CWXTCOB    MODULE: CWXTCOB    COMP DATE: 02/25/99    COMP TIME: 09:47:36
                                           3                                OCCURS
                                           -----1-----2-----3
MORE-> K 05 HOLD-AREA    > VALERIE OLSEN    EAST S029405010
    ** END **

----- Before CWXTCOB:361 <>
000070  **
000071  01  HOLD-TABLE.                                DEF
000072      05  HOLD-AREA    OCCURS 4 TIMES
000073                                INDEXED BY REG-IX.
000074      10  HOLD-LINE    OCCURS 20 TIMES
000075                                INDEXED BY HOLD-IX.
000076      15  HOLD-NAME    PIC X(15).
000077      15  HOLD-REGION  PIC X(5).
000078      15  HOLD-TYPE    PIC X.
000079      15  HOLD-YEARS   PIC 9(2).
000080      15  HOLD-HIRE-DATE.
000081      20  HOLD-HIRE-YY  PIC 9(2).
000082      20  HOLD-HIRE-MM  PIC 9(2).
000083      20  HOLD-HIRE-DD  PIC 9(2).
000084      15  HOLD-WAGES   PIC 9(5)V99.
    
```

Figure 21: Results of Overtyping Occurrence

12. Change the occurrence field to increment by 1 through the table.

```

----- XPEDITER/TSO - SOURCE -----
COMMAND ===>                                SCROLL ===> CSR
PROGRAM: CWXTCOB    MODULE: CWXTCOB    COMP DATE: 02/25/99    COMP TIME: 09:47:36
                                3+1                                OCCURS
                                -----1-----2-----3
MORE-> K 05 HOLD-AREA                                > VALERIE OLSEN    EAST S029405010
    ** END **

----- Before CWXTCOB:361 <>
000070  **
000071  01  HOLD-TABLE.                                DEF
000072  05  HOLD-AREA                                OCCURS 4 TIMES
000073                                INDEXED BY REG-IX.
000074  10  HOLD-LINE                                OCCURS 20 TIMES
000075                                INDEXED BY HOLD-IX.
000076  15  HOLD-NAME                                PIC X(15).
000077  15  HOLD-REGION                              PIC X(5).
000078  15  HOLD-TYPE                                PIC X.
000079  15  HOLD-YEARS                              PIC 9(2).
000080  15  HOLD-HIRE-DATE.
000081  20  HOLD-HIRE-YY                              PIC 9(2).
000082  20  HOLD-HIRE-MM                              PIC 9(2).
000083  20  HOLD-HIRE-DD                              PIC 9(2).
000084  15  HOLD-WAGES                              PIC 9(5)V99.
    
```

Figure 22: Incrementing Through a Table

```

----- XPEDITER/TSO - SOURCE -----
COMMAND ===>                                SCROLL ===> CSR
PROGRAM: CWXTCOB    MODULE: CWXTCOB    COMP DATE: 02/25/99    COMP TIME: 09:47:36
                                4+1                                OCCURS
                                -----1-----2-----3
MORE-> K 05 HOLD-AREA                                > THOMAS LONG    WEST H098703310
    ** END **

----- Before CWXTCOB:361 <>
000070  **
000071  01  HOLD-TABLE.                                DEF
000072  05  HOLD-AREA                                OCCURS 4 TIMES
000073                                INDEXED BY REG-IX.
000074  10  HOLD-LINE                                OCCURS 20 TIMES
000075                                INDEXED BY HOLD-IX.
000076  15  HOLD-NAME                                PIC X(15).
000077  15  HOLD-REGION                              PIC X(5).
000078  15  HOLD-TYPE                                PIC X.
000079  15  HOLD-YEARS                              PIC 9(2).
000080  15  HOLD-HIRE-DATE.
000081  20  HOLD-HIRE-YY                              PIC 9(2).
000082  20  HOLD-HIRE-MM                              PIC 9(2).
000083  20  HOLD-HIRE-DD                              PIC 9(2).
000084  15  HOLD-WAGES                              PIC 9(5)V99.
    
```

Figure 23: Table Results

How do I delete the contents in the KEEP window?

DELETE KEEP: Remove the current KEEP window or a variable in the KEEP window.

Primary Command: DELETE KEEP, DEL KEEP, D K

Examples: DEL KEEP
D K HOLD-LINE

Line Command: D

13. Delete HOLD-AREA from the keep window.

```

----- XPEDITER/TSO - SOURCE -----
COMMAND ==>>                                SCROLL ==>> CSR
PROGRAM: CWXTCOB      MODULE: CWXTCOB   COMP DATE: 02/25/99  COMP TIME: 09:47:36
                                4+1                                OCCURS
                                -----1-----2-----3
d  -> K 05 HOLD-AREA                                > THOMAS LONG    WEST H098703310
    ** END **

----- Before CWXTCOB:361 <>
000070  **
000071  01  HOLD-TABLE.                                DEF
000072      05  HOLD-AREA                                OCCURS 4 TIMES
000073                                INDEXED BY REG-IX.
000074      10  HOLD-LINE                                OCCURS 20 TIMES
000075                                INDEXED BY HOLD-IX.
000076      15  HOLD-NAME                                PIC X(15).
000077      15  HOLD-REGION                              PIC X(5).
000078      15  HOLD-TYPE                                PIC X.
000079      15  HOLD-YEARS                              PIC 9(2).
000080      15  HOLD-HIRE-DATE.
000081      20  HOLD-HIRE-YY                              PIC 9(2).
000082      20  HOLD-HIRE-MM                              PIC 9(2).

```

Figure 24: DELETE Line Command

```

----- XPEDITER/TSO - SOURCE -----
COMMAND ==>>                                SCROLL ==>> CSR
                                DELETED COMMAND PROCESSED
    ** END **

----- Before CWXTCOB:361 <>
000070  **
000071  01  HOLD-TABLE.                                DEF
000072      05  HOLD-AREA                                OCCURS 4 TIMES
000073                                INDEXED BY REG-IX.
000074      10  HOLD-LINE                                OCCURS 20 TIMES
000075                                INDEXED BY HOLD-IX.
000076      15  HOLD-NAME                                PIC X(15).
000077      15  HOLD-REGION                              PIC X(5).
000078      15  HOLD-TYPE                                PIC X.
000079      15  HOLD-YEARS                              PIC 9(2).
000080      15  HOLD-HIRE-DATE.
000081      20  HOLD-HIRE-YY                              PIC 9(2).
000082      20  HOLD-HIRE-MM                              PIC 9(2).

```

Figure 25: Results of DELETE Command

14. Add HOLD-AREA to the keep window, using the current value of REG-IX.

```

----- XPEDITER/TSO - SOURCE -----
COMMAND ==> keep hold-area(reg-ix)                                SCROLL ==> CSR
                                DELETE COMMAND PROCESSED

** END **

----- Before CWXTCOB:361 <>
000070 **
000071 01 HOLD-TABLE.                                            DEF
000072 05 HOLD-AREA      OCCURS 4 TIMES
000073                      INDEXED BY REG-IX.
000074 10 HOLD-LINE     OCCURS 20 TIMES
000075                      INDEXED BY HOLD-IX.
000076 15 HOLD-NAME     PIC X(15).
000077 15 HOLD-REGION   PIC X(5).
000078 15 HOLD-TYPE     PIC X.
000079 15 HOLD-YEARS    PIC 9(2).
000080 15 HOLD-HIRE-DATE.
000081 20 HOLD-HIRE-YY   PIC 9(2).
000082 20 HOLD-HIRE-MM   PIC 9(2).
000083 20 HOLD-HIRE-DD   PIC 9(2).
000084 15 HOLD-WAGES    PIC 9(5)V99.
    
```

Figure 26: KEEP Command

```

----- XPEDITER/TSO - SOURCE -----
COMMAND ==>                                SCROLL ==> CSR
PROGRAM: CWXTCOB    MODULE: CWXTCOB    COMP DATE: 02/25/99    COMP TIME: 09:47:36
                                I=4                                OCCURS
                                -----1-----2-----3
MORE-> K 05 HOLD-AREA                                > THOMAS LONG    WEST H098703310
** END **

----- Before CWXTCOB:361 <>
000070 **
000071 01 HOLD-TABLE.                                            DEF
000072 05 HOLD-AREA      OCCURS 4 TIMES
000073                      INDEXED BY REG-IX.
000074 10 HOLD-LINE     OCCURS 20 TIMES
000075                      INDEXED BY HOLD-IX.
000076 15 HOLD-NAME     PIC X(15).
000077 15 HOLD-REGION   PIC X(5).
000078 15 HOLD-TYPE     PIC X.
000079 15 HOLD-YEARS    PIC 9(2).
000080 15 HOLD-HIRE-DATE.
000081 20 HOLD-HIRE-YY   PIC 9(2).
000082 20 HOLD-HIRE-MM   PIC 9(2).
000083 20 HOLD-HIRE-DD   PIC 9(2).
000084 15 HOLD-WAGES    PIC 9(5)V99.
    
```

Figure 27: Results of KEEP Command

