



VisualAge Pacbase 2.5

**GCOS8 OLSD  
REFERENCE MANUAL**

DDOD8000021A

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## **1. PRESENTATION OF THE EXAMPLE**

## *1.1. INTRODUCTION*

### BRIEF DESCRIPTION OF THIS MANUAL'S CONTENTS

This manual presents a Screen described in and generated by the OLSD function. It is a complement to the ON-LINE SYSTEMS DEVELOPMENT (OLSD) Reference Manual, which is common to all on-line monitors.

This manual first shows the coding and then the organization of the generated programs.

The structure of a generated program is also detailed and commented upon so as to help users insert their own specific procedures that may be needed in the Screen.

It illustrates the following:

- . The coding of Data Names,
- . Descriptions of segments, screen, work areas, and communication areas,
- . A complete lexicon of variables, indexes and fields used by the automatic functions,
- . A description of the automatic functions, including their generation conditions. (Refer to Chapter "GENERATED PROGRAM: PROCEDURE DIVISION".)

NOTE: The Screen example described in this manual does not illustrate all generation possibilities provided by the OLSD function: segment accesses, cross-references between segments, access conditions, etc.

This manual does NOT contain an exhaustive presentation of the specific information on the use of the OLSD function.



### REMINDERS ON THE OLSD FUNCTION

Based on the Screen descriptions, the OLSD function ensures the following:

- The automatic generation of the Screen map description from layout-type information. (Adaptation to the hardware and on-line monitor is based on an option specified at the Screen level.)
- The automatic generation of the Screen data processing from process-type information:
  - . Screen Call of Elements (-CE) -> Screen data processing
  - . Screen Call of Segments (-CS) -> External data processing
  - . Dialogue Complement (-O) and Dialogue and Screen General Documentation (-G) -> Generation Options
  - . Structured Code (-P) -> Specific processing

All processing is generated in a program structured in "Reception" and "Display", thus ensuring the complete processing of the Screen data.

The program is generated in COBOL. Adaptation to the hardware and the on-line Monitor is based on the options specified at the Screen level.

### REMINDERS ON THE OLSD FUNCTION - Cont'd

It may be necessary to use complementary description lines in order to generate on-line programs:

- . Screen General Documentation (-G),
- . Screen Call of Macro-Structures (-CP),
- . Beginning Insertions (-B),
- . Screen Work Areas (-W).

### SCREEN GENERAL DOCUMENTATION

The General Documentation (-G) lines of the screen or dialogue can be used to override the value of some generated constants. For more details, refer to Chapter "DESCRIPTION OF A TRANSACTION", Subchapter "SCREEN GENERAL DOCUMENTATION (-G)" in the OLSD Reference Manual.

### WORK AREAS

On Work Areas (-W) screens, 'AA' is a reserved value for the CODE FOR COBOL PLACEMENT; it is used internally by the OLSD function.

The automatically generated lines are identified in the COBOL code by the '\*AAnn' character string from columns 72 to 80. They can be overridden on the Work Areas (-W) screen on 'AAnn'-numbered lines.

The principal screen program example in this manual is the TP8 Multi-screen example. It is a complete program and fully documented.

Other examples include:

- . an uncommented QUESTAR screen program
- . commented partial VIP screen programs
- . complete generated HELP function program (TP8 multi- screen)
- . macro-structure calls

#### GENERATION VARIANTS FOR DPS8

```
-----  
!   5 C   ! DM4 TP MULTI-SCREEN !  
!   5 0   ! DM4 TP QUESTAR      !  
!   5 1   ! DM4 TP VIP          !  
!   6 C   ! TP8   MULTI-SCREEN !  
!   6 0   ! TP8   QUESTAR      !  
!   6 1   ! TP8   VIP          !  
-----
```

#### THE MULTI-SCREEN GENERATION OPTION

The MULTI-SCREEN option allows for the generation of on-line programs for VIP 7700, VIP 7800, QUESTAR and IBM 3270 terminals.

With this option, a logical description of the screen map is generated as a table which is used by a sub-program for the generation of the physical description; this sub-program builds the type of map according to the value given to the type of terminal. The standard sub-program is ZAR980.

NOTE: Programs generated with this option may not be used together with programs generated with other options.

#### CODING OF THE TERMINAL TYPE

Using Procedural Code (-P) lines, the user must code the type of terminal for the initial screen of the dialogue. The value is thus transferred to the other screens of the dialogue by the communication area. (See Subchapter "DESCRIPTION OF VALIDATION AREAS" in this chapter.)

NOTE: If there is no initial screen in the dialogue, the value must be initialized to 0 in each program.

## 1.2. 'DO' DIALOGUE

```
-----  
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!  
! DIALOGUE DEFINITION.....: DO                                               !  
!                               !                                               !  
! DIALOGUE NAME.....: PACBASE DOCUMENTATION MANAG.                            !  
!                               !                                               !  
! SCREEN SIZE (LINES, COLUMNS).....: 24           080                          !  
! LABEL TYPE, TABS, INITIALIZATION...: L           01           -                    !  
! HELP CHARACTER SCREEN, DATA ELEMENT: =           $                               !  
!                               !                                               !  
!                               LABELS   DISPLAY  INPUT  ER.MESS.  ER.FLD!  
! INTENSITY ATTRIBUTE. ....: N           N           N           N           N           !  
! PRESENTATION ATTRIBUTE.. ....: N           N           N           N           N           !  
! COLOR ATTRIBUTE.....: W           W           W           W           W           !  
!                               !                                               !  
! TYPE OF COBOL AND MAP TO GENERATE...: 6   C           DPS8 TP8 (MULTI-SCREENS)      !  
! CONTROL CARD OPTIONS FRONT & BACK...:                               (PROGRAM)           (MAP)      !  
! EXTERNAL NAMES.....:                               (PROGRAM)           (MAP)      !  
! TRANSACTION CODE.....: DO01                                               !  
!                               !                                               !  
!                               !                                               !  
! EXPLICIT KEYWORDS...:                               !                                               !  
!                               !                                               !  
! SESSION NUMBER.....: 0020           LIBRARY.....: AD8           LOCK.....:      !  
!                               !                                               !  
! O: C1 CH: Odo                               ACTION:                          !  
-----
```

## PRESENTATION OF THE EXAMPLE

1

## 'DO' DIALOGUE

2

```
-----
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!
! DIALOGUE COMPLEMENT....: DO PACBASE DOCUMENTATION MANAG.                       !
!                                                                           !
! COMMON AREA-DATA STRUCTURE CODE.....: CA                                       !
! ERROR MESSAGE FILE CHARACTERISTICS                                           !
!           ORGANIZATION....: V                                                 !
!           EXTERNAL NAME...: EM XM                                             !
! FIRST SCREEN CODE OF THE DIALOGUE.....: 0060                                  !
! COMPLEMENTARY COMMON AREA LENGTH.....: 700                                    !
! CODE OF PSB OR SUB-SCHEMA.....:                                             !
!                                                                           !
! OPTIONS : OCF F10 REPET                                                       !
!                                                                           !
! SESSION NUMBER.....: 0018 LIBRARY.....: AD8                                     !
! O: C1 CH: Odo O                                                                ACTION:                                  !
-----
```

```

-----
!                                APPLICATION BULL DPS8                                *PDSG.NDOC.AD8.20!
! ON-LINE SCREEN GENERAL DOC.      DO      PACBASE DOCUMENTATION MANAG.              !
! A LIN : T COMMENT                                          LIB !
!   090 : G 05               HE HE XH                          0054!
!   . 200 : U DO12 THIS ITEM IS NOT AVAILABLE                *ACC!
!   . 220 : U CD30 TECHNICAL PROBLEM CALL E.D.P. DEPT. (CODE DO-UTI-CD30) *ACC!
!   . 240 : U CURS INVALID SELECTED LINE                    *ACC!
!     :                                                    !
!     :                                                    !
!     :                                                    !
!     :                                                    !
!     :                                                    !
!     :                                                    !
!     :                                                    !
!     :                                                    !
!     :                                                    !
!     :                                                    !
!     :                                                    !
!     :                                                    !
!     :                                                    !
!     :                                                    !
!     :                                                    !
!     :                                                    !
! *** END ***                                             !
! O: C1 CH: Odo G                                         !
-----

```

### *1.3. 'DO0030' SCREEN*

#### REMINDERS ON THE OLSD FUNCTION - Cont'd

It may be necessary to use complementary description lines in order to generate on-line programs:

- . Screen General Documentation (-G),
- . Screen Call of Macro-Structures (-CP),
- . Beginning Insertions (-B),
- . Screen Work Areas (-W).

#### SCREEN GENERAL DOCUMENTATION

The General Documentation (-G) lines of the screen or dialogue can be used to override the value of some generated constants. For more details, refer to Chapter "DESCRIPTION OF A TRANSACTION", Subchapter "SCREEN GENERAL DOCUMENTATION (-G)" in the OLSD Reference Manual.

#### WORK AREAS

On Work Areas (-W) screens, 'AA' is a reserved value for the CODE FOR COBOL PLACEMENT; it is used internally by the OLSD function.

The automatically generated lines are identified in the COBOL code by the '\*AAnnn' character string from columns 72 to 80. They can be overridden on the Work Areas (-W) screen on 'AAnnn'-numbered lines.

## PRESENTATION OF THE EXAMPLE

1

'DO0030' SCREEN

3

```

-----
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!
! ON-LINE SCREEN DEFINITION.....: DO0030                                         !
! !                                                                              !
! SCREEN NAME.....: *** ORDER INPUT SCREEN ***                                   !
! !                                                                              !
! SCREEN SIZE (LINES, COLUMNS).....: 24      080                                 !
! LABEL TYPE, TABS, INITIALIZATION...: L      01      -                           !
! HELP CHARACTER SCREEN, DATA ELEMENT: =      $                               !
! !                                                                              !
!                               LABELS  DISPLAY  INPUT  ER.MESS.  ER.FLD!
! INTENSITY ATTRIBUTE. ....: N      N      N      N      N      !
! PRESENTATION ATTRIBUTE.. ....: N      N      N      N      N      !
! COLOR ATTRIBUTE.....: W      W      W      W      W      !
! !                                                                              !
! TYPE OF COBOL AND MAP TO GENERATE..: 6  C      DPS8 TP8 (MULTI-SCREENS) !
! CONTROL CARD OPTIONS FRONT & BACK..:          (PROGRAM)          (MAP) !
! EXTERNAL NAMES.....:          (PROGRAM)          (MAP) !
! TRANSACTION CODE.....: DO01                                         !
! !                                                                              !
! EXPLICIT KEYWORDS...:                                               !
! !                                                                              !
! SESSION NUMBER.....: 0020          LIBRARY.....: AD8      LOCK.....: !
! !                                                                              !
! O: C1 CH: Odo0030          ACTION:                                     !
-----

```



## PRESENTATION OF THE EXAMPLE

1

'DO0030' SCREEN

3

```

-----
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!
! ON-LINE SCREEN GENERAL DOC.      DO0030 *** ORDER INPUT SCREEN ***                !
!                                                                              !
! A LIN : T COMMENT                                                           LIB !
! . 020 : C      THIS SCREEN ALLOWS TO ENTER AN ORDER OF DOCUMENTATION           *ACC!
! . 030 : C      PLACED BY A REFERENCE CLIENT.                                  *ACC!
! . 050 : C      FROM THIS SCREEN, YOU MAY ACCESS ANY OTHER SCREEN OF THE         *ACC!
! . 055 : C      DIALOGUE BY ENTERING THE CORRESPONDING CHOICE FIELD              *ACC!
! . 060 : C      VALUE. THE DIFFERENT VALUES ARE DISPLAYED IN THE               *ACC!
! . 070 : C      BOTTOM PART OF ALL THE DIALOGUE SCREENS.                       *ACC!
! . 120 : S CD05                                                                *ACC!
! . 122 : U F 8  TECHNICAL PROBLEM CALL E.D.P. DEPT.(CODE 030-CD05 F8)           *ACC!
! . 124 : U F 9  TECHNICAL PROBLEM CALL E.D.P. DEPT.(CODE 030-CD05 F9)           *ACC!
! . 130 : U G 9  TECHNICAL PROBLEM CALL E.D.P. DEPT.(CODE 030-CD05 G9)           *ACC!
! . 150 : S CD10 R                                                                *ACC!
! . 152 : U F 8  INCORRECT UPDATE REQUEST                                        *ACC!
! . 154 : U F 9  INCORRECT CREATION REQUEST                                      *ACC!
! . 160 : U G 9  END OF DISPLAY FOR THIS ORDER                                  *ACC!
! . 180 : S ME00 Z                                                                *ACC!
! . 190 : U G 9  TECHNICAL PROBLEM CALL E.D.P. DEPT.(CODE 030-ME00 G9)           *ACC!
! . 200 : S FO10 R                                                                *ACC!
! . 210 : U F 9  MANUAL DOES NOT BELONG TO DOCUMENTATION                       *ACC!
!                                                                              !
! O: C1 CH: Odo0030 G                                                         !
-----

```

```
-----  
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!  
! ON-LINE SCREEN GENERAL DOC.    DO0030 *** ORDER INPUT SCREEN ***                               !  
!                                                                                               LIB !  
! A LIN : T COMMENT                                                                                               LIB !  
! . 350 : F CODMVT                                                                                               *ACC!  
! . 360 : C          AN ACTION CODE MUST BE ENTERED                                                                 *ACC!  
! . 400 : F FOURNI                                                                                               *ACC!  
! . 402 : C          THE FIELD 'ITEM' IS ENTERED WITH THE 3-CHARACTER CODE                                                                 *ACC!  
! . 403 : C          OF THE MANUAL. IT IS NOT POSSIBLE TO ENTER                                                                 *ACC!  
! . 404 : C          REQUESTS CONCERNING THE BINDERS                                                                 *ACC!  
! . 430 : U          A THIS PROCEDURE DOES NOT PERMIT TO ORDER BINDERS.                                                                 *ACC!  
! . 450 : F MATE                                                                                               *ACC!  
! . 451 : T          0 DOCUM DD                                                                                               *ACC!  
! . 453 : U          5 THIS TYPE OF HARDWARE IS NOT SUPPORTED.                                                                 *ACC!  
! . 500 : F QTMAC                                                                                               *ACC!  
! . 510 : C          THE 'QUANTITY ORDERED' FIELD MUST BE ENTERED WITH THE                                                                 *ACC!  
! . 520 : C          NUMBER OF COPIES NEEDED FOR THE SPECIFIED MANUAL.                                                                 *ACC!  
! . 530 : C          ACCORDING TO STOCK AVAILABILITY, THE SYSTEM FILLS IN                                                                 *ACC!  
! . 540 : C          THE 'QUANTITY DELIVERED' AND, IF NEEDED, THE 'QUANTITY                                                                 *ACC!  
! . 541 : C          OUTSTANDING'.                                                                                               *ACC!  
! . 600 : F INFOR                                                                                               *ACC!  
! . 610 : C          THE 'REMARKS' COLUMN ALLOWS TO ENTER SPECIFICS                                                                 *ACC!  
!                                                                                               !  
! O: C1 CH: -G350                                                                                               !  
-----
```

## PRESENTATION OF THE EXAMPLE

1

'DO0030' SCREEN

3

```

-----
! PACBASE 8.0 V03      APPLICATION BULL DPS8                *PDSG.NDOC.AD8.20!
! SCREEN CALL OF ELEM... DO0030 *** ORDER INPUT SCREEN ***
!
! A LIN : D.ELEM . PHYSICAL ATTRIBUTES . VALIDATION UPDATE . DISPLAY
!       :      . P LN COL N L C HR VR . P V U UPD TARGET . S SOURCE   LV!
! -----
!   050 : DOAC30 . A 01 001 S . . . . .
!   . 080 : DOAP04 . A 01 001 S . . . . .
!   . 100 : DO0030 . A 01 025 T . . . . .
!   . 110 : NUCOM . A 03 004 P U . . . . . CA00
!   . 120 : MATE . . . . . 003 V U . R CD05 . CD05
!   . 122 : . . . . . . . V SPECIAL .
!   . 125 : RELEA . . . . . 012 V U . R CD05 . CD05
!   . 130 : NUCLIE . . 01 004 O U . . . . .
!   . 140 : RAISOC . . . . . 003 P F . . CA00
!   . 145 : RUE . . 01 009 V F . . . . .
!   . 150 : COPOS . . . . . 003 V F N . R P 93CP . WP30
!   . 155 : . . . . . . . CD05COPOS . CD05COPOS
!   . 160 : VILLE . . . . . 003 F F . . CD05
!   . 200 : REFCLI . 01 004 V U N . . CD05 . CD05
!   . 210 : DATE . . . . . 003 V U N . R CD05 . CD05
!   . 220 : CORRES . 01 005 V U N . P CD05 . CD05
!
! O: C1 CH: -CE
-----

```

PRESENTATION OF THE EXAMPLE

1

'DO0030' SCREEN

3

```

-----
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!
! SCREEN CALL OF ELEM... DO0030 *** ORDER INPUT SCREEN ***                               !
!                                                                                               !
! A LIN : D.ELEM . PHYSICAL ATTRIBUTES . VALIDATION UPDATE . DISPLAY                               !
!       :       . P LN COL N L C HR VR . P V U UPD TARGET . S SOURCE LV!                               !
!-----!-----!-----!-----!-----!-----!-----!-----!-----!-----!-----!
! . 230 : REMIS .          003 V U N .          CD05 .          CD05                               !
! . 300 : LINE . A 10 001 R 1 01 09 .          .          .          !
! . 305 : CODMVT .         003 V Y .          I .          .          !
! . 310 : FOURNI .         003 V .          R T CD00 .          CD00 !
! . 320 : QTMAC .          003 V .          R X CD10 .          CD10 !
! . 325 : . . . . .          + FO10QTMAM .          .          !
! . 330 : QTMAL .          002 F .          .          .          CD10 !
! . 335 : QTMAR .          002 F .          .          .          .          !
! . 340 : INFOR .          001 V .          P X CD10 .          CD10 !
! . 350 : END .          004 Z .          .          .          .          !
! . 400 : . . A 20 002 L .          .          .          .          !
! . 405 : EDIT .          001 V F .          I CD20 .          .          !
! . 415 : DOAC31 . A 20 001 S .          .          .          .          !
! . 500 : DOAP05 . A 22 001 S .          .          .          .          !
!       : . . . . .          .          .          .          !
!       : . . . . .          .          .          .          !
!       : . . . . .          .          .          .          !
! O: C1 CH: -CE230
-----

```

PRESENTATION OF THE EXAMPLE

1

'DO0030' SCREEN

3

```

-----
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!
! SCREEN CALL OF ELEM... DO0030 *** ORDER INPUT SCREEN ***                               !
!                                                                                               !
! A LIN : D.ELEM . PHYSICAL ATTRIBUTES . VALIDATION UPDATE . DISPLAY                               !
!       :       . P LN COL N L C HR VR . P V U UPD TARGET . S SOURCE LV!                               !
! .....                                                                                               !
!   050 : DOAC30 . A 01 001 S .                                                                                               !
!   . 080 : DOAP04 . A 01 001 S .                                                                                               !
!   . 100 : DO0030 . A 01 025 T .                                                                                               !
!   . 110 : NUCOM . A 03 004 P U .                                                                                               !
!   . 120 : MATE . . . 003 V U .                                                                                               !
!   . 122 : . . . . .                                                                                               !
!   . 125 : RELEA . . . 012 V U .                                                                                               !
!   . 130 : NUCLIE . . 01 004 O U .                                                                                               !
!   . 140 : RAISOC . . . 003 P F .                                                                                               !
!   . 145 : RUE . . . 01 009 V F . P 84, OLD TOWNLINE ROAD                               !
!   . 150 : COPOS . . . 003 V F .                                                                                               !
!   . 155 : . . . . .                                                                                               !
!   . 160 : VILLE . . . 003 F F .                                                                                               !
!   . 200 : REFCLI . 01 004 V U .                                                                                               !
!   . 210 : DATE . . . 003 V U . I .._...                               !
!   . 220 : CORRES . 01 005 V U .                                                                                               !
!                                                                                               !
! O: C2 CH: -CE                                                                                               !
-----

```

PRESENTATION OF THE EXAMPLE  
'DO0030' SCREEN

1  
3

-----  
!   APPLICATION BULL DPS8   \*PDSG.NDOC.AD8.20!  
! SCREEN CALL OF ELEM... DO0030 \*\*\* ORDER INPUT SCREEN \*\*\*   !  
!   !  
! A LIN : D.ELEM . PHYSICAL ATTRIBUTES . VALIDATION UPDATE . DISPLAY                                   !  
!   :   P LN COL N L C HR VR . P V U UPD TARGET . S SOURCE                             LV!  
!   !  
! .....  
! . 230 : REMIS .                   003 V U   !  
! . 300 : LINE . A 10 001 R 1 01 09   !  
! . 305 : CODMVT .                   003 V   !  
! . 310 : FOURNI .                   003 V   !  
! . 320 : QTMAC .                   003 V   !  
! . 325 :   !  
! . 330 : QTMAL .                   002 F    B                   !  
! . 335 : QTMAR .                   002 F   !  
! . 340 : INFOR .                   001 V   !  
! . 350 : END   !  
! . 400 :    PRINTING OF FORM :/  
! . 405 : EDIT .                   001 V F   !  
! . 415 : DOAC31 . A 20 001 S   !  
! . 500 : DOAP05 . A 22 001 S   !  
!   :  
!   :  
!   :  
!   :  
! O: C2 CH: -CE230  
-----

```
-----  
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!  
! ON-LINE SCREEN CALL OF SEGM. DO0030 *** ORDER INPUT SCREEN ***                               !  
! ...CA00...CD05...WP30...*CD00...*CD10...*FO10...fCD20...                               !  
! A SEGM      :      USE PREC ACCESS KEY      ACCESS      D EXTERNAL LIB. S      :LIBR.!  
! C CODE C LN : G R D SEGM SOURCE      KEY      B O T NAME      SEGM N LV:      !  
! CD05 00 : P M A      SPACES      KEYCD      U 1 CD      CD05 12:0019 !  
! CD05 02 :      "B"      COCARA      :*DCC !  
! CD05 04 :      CA00-NUCOM      NUCOM      :*DCC !  
! CD10 R 00 : P T      "C"      KEYCD      U 1 CD      CD10 :0019 !  
! CD10 R 02 :      CA00-NUCOM      NUCOM      :*DCC !  
! CD10 R 04 :      0030-FOURNI      FOURNI      :*DCC !  
! CD10 R 06 :      A      SPACES      KEYCD      :*DCC !  
! CD10 R 08 :      "C"      COCARA C      :*DCC !  
! CD10 R 10 :      CA00-NUCOM      NUCOM C      :*DCC !  
! FO10 R 00 : P M N CD10 0030-FOURNI      CLEFO      U 1 FO      FO10 :0019 !  
! FO10 R 02 :      CA00-LANGU      LANGU      :*DCC !  
! FO10 R 04 :      0030-RELEA      RELEA      :*DCC !  
! FO10 R 06 :      0030-MATE      MATE      :*DCC !  
! CD20 Z 00 : P X N      SPACES      KEYCD      U 1 CD      CD20 :0019 !  
! CD20 Z 02 :      "E"      COCARA      :*DCC !  
! CD20 Z 04 :      CA00-NUCOM      NUCOM      :*DCC !  
! ME00 Z 00 : P N A      CA00-CLEME      CLEME      U ME      ME00 :      !  
!                               !  
! O: C1 CH: -CS                               !  
-----
```

## PRESENTATION OF THE EXAMPLE

1

'DO0030' SCREEN

3

```
-----
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!
! ON-LINE SCREEN CALLS OF P.M.S.....: DO0030 *** ORDER INPUT SCREEN *** !
!
! A  MACRO  LN C : COMMENTS OR PARAMETERS VALUES                               D E !
! .  AADOCF   : WP/                                                                !
!   AITACA   : 0030/LINE/                                                            !
!   AITACB   : 30/CA00-NUCOM/CD10/DBKEY/CD05-NUCOM/                               !
!   AITADB   : LS/CD10/K-RCD10-DBKEY (1)/                                           !
!   AITAKE   : 0030/                                                                !
!   AITASS   : COMSSCH/MNGMENT/                                                    !
!   AITCAN   : LQ/CD10/                                                            !
!   AITCCR   : LM/CD10/                                                            !
!   AITCCR 10 : EG/CD20/                                                            !
!   AITCMO   : BC/CD05/                                                            !
!   AITCMO 10 : FP/FO10/                                                            !
!   AITCMO 20 : LJ/CD10/                                                            !
!   AITCMO 30 : EF/CD20/                                                            !
!   AITCRE   : BB/CD05/                                                            !
!   AITCRE 10 : FO/FO10/                                                            !
!   AITCRF   : ED/CD20/SET02/                                                       !
!   AITCRN   : LN/CD10/SET01/                                                       !
!   AITCRU   : LI/CD10/SET01/CD10-FOURNI/                                         !
!
! O: C1 CH: Odo0030 CP
-----
```



PRESENTATION OF THE EXAMPLE

'DO0030' SCREEN

1

3

```

-----
!                APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!
! ON-LINE SCREEN CALLS OF P.M.S.....:   DO0030 *** ORDER INPUT SCREEN *** !
!
! A  MACRO  LN C : COMMENTS OR PARAMETER VALUES                     D E !
! .  BBDEBR  :                                                         !
! .  BBINIT  :                                                         !
!          :                                                         !
!          :                                                         !
!          :                                                         !
!          :                                                         !
!          :                                                         !
!          :                                                         !
!          :                                                         !
!          :                                                         !
!          :                                                         !
!          :                                                         !
!          :                                                         !
!          :                                                         !
!          :                                                         !
!          :                                                         !
!          :                                                         !
!          :                                                         !
!          :                                                         !
!          :                                                         !
! O: C1 CH:
-----

```

PRESENTATION OF THE EXAMPLE  
'DO0030' SCREEN

1  
3

```
-----  
!             APPLICATION BULL DPS8                   *PDSG.NDOC.AD8.20!  
! WORK AREAS.....ENTITY TYPE O DO0030 *** ORDER INPUT SCREEN ***    !  
! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !  
! CODE FOR PLACEMENT..:          BB                              !  
! A LIN T LEVEL OR SECTION WORK AREA DESCRIPTION             OCCURS! !  
! . 200 I 01              WW10-QTMAR                          !  
! . 201                    VALUE ZERO.                       !  
! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !  
! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !  
! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !  
! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !  
! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !  
! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !  
! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !  
! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !  
! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !  
! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !  
! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !  
! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !  
! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !  
! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !  
! O: C1 CH: Odo0030 W
```

## PRESENTATION OF THE EXAMPLE

1

'DO0030' SCREEN

3

```

-----
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!
! WORK AREAS.....ENTITY TYPE O DO0030 *** ORDER INPUT SCREEN ***                               !
!                                                                                               !
! CODE FOR PLACEMENT...:           ST                                                                                               !
! A LIN T LEVEL OR SECTION WORK AREA DESCRIPTION                                         OCCURS!
! * 100    01                               IO-STATUS           PICTURE X(7).                               !
! * 120           88            OK                VALUE "0000000".                               !
! * 140           88            END-OF-SET          VALUE "0502100".                               !
! * 160           88            NOT-FOUND          VALUE "0502400".                               !
! * 180           88            NEXT-FOUND          VALUE "0502401".                               !
!                                                                                               !
!                                                                                               !
!                                                                                               !
!                                                                                               !
!                                                                                               !
!                                                                                               !
!                                                                                               !
! O: C1 CH: -W ST                                                                                               !
-----

```

## PRESENTATION OF THE EXAMPLE

1

'DO0030' SCREEN

3

```
-----
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!
! WORK AREAS.....ENTITY TYPE O DO0030 *** ORDER INPUT SCREEN ***                               !
!                                                                                               !
! CODE FOR PLACEMENT..:      WP                                                                                               !
! A LIN T LEVEL OR SECTION WORK AREA DESCRIPTION                                         OCCURS!
! * 000   01                WP00.                                                                                               !
! * 010   02                WP10.                                                                                               !
! * 020   05                FILLER PIC X(25) VALUE                                         !
! * 030                "23400BRISBANE" .                                                                                       !
! * 040   05                FILLER PIC X(25) VALUE                                         !
! * 050                "56400VICTORIA" .                                                                                       !
! * 060   05                FILLER PIC X(25) VALUE                                         !
! * 070                "76500ALICE SPRINGS" .                                                                                   !
! * 080   05                FILLER PIC X(25) VALUE                                         !
! * 090                "55300MELBOURNE" .                                                                                       !
! * 100   05                FILLER PIC X(25) VALUE                                         !
! * 110                "11000CANBERRA" .                                                                                       !
! * 120   05                FILLER PIC X(25) VALUE                                         !
! * 130                "34500PERTH" .                                                                                         !
! * 140   05                FILLER PIC X(25) VALUE                                         !
! * 150                "85270DARWIN" .                                                                                         !
! * 160   05                FILLER PIC X(25) VALUE                                         !
!                                                                                               !
! O: C1 CH: -W WP                                                                                               !
-----
```

## PRESENTATION OF THE EXAMPLE

1

'DO0030' SCREEN

3

```

-----
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!
! WORK AREAS.....ENTITY TYPE O DO0030 *** ORDER INPUT SCREEN ***                               !
!                                                                                               !
! CODE FOR PLACEMENT..:      WP                                                                                               !
! A LIN T LEVEL OR SECTION WORK AREA DESCRIPTION                               OCCURS!
! * 170                               "94000HOBART                               " .                               !
! * 180      05                               FILLER PIC X(25) VALUE                               !
! * 190                               "89300SYDNEY                               " .                               !
! * 300      02                               WP20 REDEFINES WP10 OCCURS 9.                               9!
! * 320 E 05                               WP20-COPOS .                               !
! * 340 E 05                               WP20-VILLE .                               !
! * 400      02                               WP30.                               !
! * 410 I 05                               WP30-COPOS .                               !
! * 500      02                               WP40.                               !
! * 510 E 05                               WP40-VILLE.                               !
! * 520 E 05                               WP40-VILLEL.                               !
!                                                                                               !
!                                                                                               !
!                                                                                               !
!                                                                                               !
! O: C1 CH: -W WP170                               !
-----

```

PRESENTATION OF THE EXAMPLE

1

'DO0030' SCREEN

3

```

-----
!   XXXXXXXX - 0808          *** ORDER INPUT SCREEN ***          XXXXXXXXXXXX 14:45:36!
!
!   ORDER NUMBER: 02345      SYSTEM: DPS8                          RELEASE: 8.0
!   CUST.      BEST        D.P. MANAGEMENT
!   84, OLD TOWNLINE ROAD          48016 CINCINNATI
!   CUST. REF.: LP-KCP ORDER NUMBER: 05179      ORDER DATE: .._..
!   COORDINATOR: MR. GUY DANCE          DISCOUNT RATE: 12.25
!
!   A  ITEM      ORDERED  DELIV.  OUTST.  REMARKS
!   C  DLG       3        1        2      REST TO BE DELIVERED : 05/03/93
!   .  ...      ..       ..       ..      .....
!   .  ...      ..       ..       ..      .....
!   .  ...      ..       ..       ..      .....
!   .  ...      ..       ..       ..      .....
!   .  ...      ..       ..       ..      .....
!   .  ...      ..       ..       ..      .....
!   .  ...      ..       ..       ..      .....
!   .  ...      ..       ..       ..      .....
!
!   PRINTING OF FORM : 0 CHOICE: _ UPD : '7', ORDERS (NEXT) : '8',
!   MENU : '1', CUSTOMER LIST : '2', CUST. HIST : '3', ORDER LIST : '4',
!   SCREEN DOC : '=' , DATA EL. DOC : '$'
!   PLEASE CHECK YOUR MAILBOX, THANK YOU.
!   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
-----

```

## PRESENTATION OF THE EXAMPLE

1

## 'DO0030' SCREEN

3

FUSF	LIN	OPE	OPERANDS	LVTY	CONDITION
02CP	N		INIT. NUMBER OF LOADED ITEMS	10BL	
02CF100	M		IWP20M IWP20L		
08BB	N		NO UPDATE ==> END OF RECEIVE	10IT	OPER NOT = "M"
08BB100	GFT				
15AA	N		INITIALIZATION CATM (HEADING)	10IT	CATX = SPACE
15AA100	M		"M" CATM	AN	OPER = "M"
20BB	N		ITEM NOT AVAILABLE	10*A	FOURNI
20BB100	ERR	A	FOURNI	99IT	I-0030-FOURNI = "CLA"
20BB110	GF			AN	CATM NOT = SPACE
25BB	N		ACCESS TO FO10	12*P	CD10
25BB100	M		"1" CD10-CF		
28BH	N		STOCK UPD.: ORDER DELETION/UPD	10IT	(CATM = "A" OR "M")
28BH100	A		CD10-QTMAL FO10-QTMAS	AN	CATX = "R"
28BH120				AN	CAT-ER = SPACES
30BD	N		QUANTITY PROCESSING	10*P	R
30BF	N		CALC. DELIV. QUANT. STOCK UPD.	12IT	CATM = "C" OR "M"
30BF100	M		I-0030-QTMAL CD10-QTMAL	99IT	FO10-QTMAS NOT <
30BF110					I-0030-QTMAL
30BF120	M		FO10-QTMAS CD10-QTMAL	99EL	
30BF130	S		CD10-QTMAL FO10-QTMAS	99BL	
30BF140	M		CD10-QTMAL O-0030-QTMAL		
4010	N		MEMORIZATION OF KEYS	10IT	OPER = "A" OR "M"
4010105	M		CA00-NUCOM K-ACD05-NUCOM		
4011	N		REPETITIVE CATEGORY	15BL	
4011 1	M		J-0030-LINE (1) I-0030-LINE		
4011305	*		ACCES DB-KEY		
4011305	M		CA00-NUCOM K-RCD10-DBKEY (1)		
4012	N		END-OF-SCREEN	15BL	
4020	N		NEXT PAGE	10IT	OPER = "S"
4020105	COB		SET K-RCD10-DBKEY (1)		
4020305	COB		SET K-RCD10-DBKEY (1)		
4020305	M		K-RCD10-DBKEY (2)		
4020308			TO K-RCD10-DBKEY (2).		
4020308			K-RCD10-DBKEY (1)		
6010	N		SET-UP KEY	10*A	CD05
6010100	M		K-ACD05-NUCOM CD05-NUCOM		
6030	N		MEMORIZATION	12*P	CD10
6030100	COB		SET K-RCD10-DBKEY (2)		
6030100	M		CD05-NUCOM K-RCD10-DBKEY (2)		
6030110			TO DIRECT-REFERENCE.		
6040	N		ORDER MEMORIZATION	12*P	CD05
6040100	COB		SET K-RCD10-DBKEY (1)		
6040110			TO DIRECT-REFERENCE.		
64DA	N		PREPARATION DISPLAY DATE/HOUR	10IT	CATX = " "
64DA 40	AD6				
64DA 80	AD		IM DATOR DAT8C		
64DA120	TIM			99BL	
64DA160	TIF		TIMCOG TIMDAY		
65BB	N		REMAINS TO BE DELIVERED	10*P	R
65BB100	C		WW10-QTMAR =	99IT	CD10-QTMAL NOT = ZERO
65BB110			CD10-QTMAL - CD10-QTMAL		
65BB120	M		WW10-QTMAR O-0030-QTMAR		
80BB	N		READING WITHIN CALCULATED KEY	CD10BL	
80BB100	YR		CD05		
80BB110	YRU		CD05		
80BB120	M		ZERO IK		
80BB150	BFD		ANY CD05		
80BB200	M		DB-STATUS IO-STATUS	99BL	

## PRESENTATION OF THE EXAMPLE

1

## 'DO0030' SCREEN

3

80BB250	BG	CD05	99IT	OK
80BB300	COB	GO TO F80-OK.		
80BB350	COB	GO TO F80-KO.	99IT	NOT-FOUND
80BB900	P	F81ER		
80BC	N	RECORD MODIFICATION	10BL	
80BC 20	YRW	CD05		
80BC 30	BFD	CURRENT CD05		
80BC 40	M	ZERO IK		
80BC120	BMD	CD05		
80BC140				
80BC160	M	DB-STATUS IO-STATUS	99BL	
80BC180	COB	GO TO F80-OK.	99IT	OK
80BC200	P	F81ER		
80BC990	YUN	CD05	99BL	
80BC995	COB	GO TO F80-OK.		
80ED	N	READ "FIRST .. WITHIN .. "	10BL	
80ED 90	YP	CD20		
80ED100	YR	CD20		
80ED110	YRU	CD20		
80ED120	M	ZERO IK		
80ED150	BFD	FIRST CD20 WITHIN SET02		
80ED250	M	DB-STATUS IO-STATUS		
80ED300	BG	CD20	99IT	OK
80ED350	COB	GO TO F80-OK.		
80ED400	COB	GO TO F80-KO.	99IT	NOT FOUND
80ED900	P	F81ER		
80EF	N	RECORD MODIFICATION	10BL	
80EF 20	YRW	CD20		
80EF 30	BFD	CURRENT CD20		
80EF 40	M	ZERO IK		
80EF120	BMD	CD20		
80EF140				
80EF160	M	DB-STATUS IO-STATUS	99BL	
80EF180	COB	GO TO F80-OK.	99IT	OK
80EF200	P	F81ER		
80EF990	YUN	CD20	99BL	
80EF995	COB	GO TO F80-OK.		
80EG	N	RECORD CREATION	10BL	
80EG 20	YW	CD20		
80EG 40	M	ZERO IK		
80EG120	BST	CD20		
80EG160	M	DB-STATUS IO-STATUS		
80EG180	COB	GO TO F80-OK.	99IT	OK
80EG200	P	F81ER		
80FO	N	READING WITHIN CALCULATED KEY FO	10BL	
80FO100	YR	FO10		
80FO110	YRU	FO10		
80FO120	M	ZERO IK		
80FO150	BFD	ANY FO10		
80FO200	M	DB-STATUS IO-STATUS	99BL	
80FO250	BG	FO10	99IT	OK
80FO300	COB	GO TO F80-OK.		
80FO350	COB	GO TO F80-KO.	99IT	NOT-FOUND
80FO900	P	F81ER		
80FP	N	RECORD MODIFICATION	10BL	
80FP 20	YRW	FO10		
80FP 30	BFD	CURRENT FO10		
80FP 40	M	ZERO IK		
80FP120	BMD	FO10		
80FP140				
80FP160	M	DB-STATUS IO-STATUS	99BL	
80FP180	COB	GO TO F80-OK.	99IT	OK
80FP200	P	F81ER		
80FP990	YUN	FO10	99BL	
80FP995	COB	GO TO F80-OK.		
80LI	N	READ WITHIN USING	10BL	
80LI100	YR	CD10		
80LI110	YRU	CD10		
80LI120	M	ZERO IK		
80LI150	BFD	CD10 WITHIN SET01 USING		



## PRESENTATION OF THE EXAMPLE

## 'DO0030' SCREEN

1

3

80LI200		CD10-FOURNI	
80LI250	M	DB-STATUS IO-STATUS	
80LI300	BG	CD10	99IT OK
80LI350	COB	GO TO F80-OK.	
80LI400	COB	GO TO F80-KO.	99IT NOT-FOUND
80LI900	P	F81ER	
80LJ	N	RECORD MODIFICATION	10BL
80LJ 20	YRW	CD10	
80LJ 30	BFD	CURRENT CD10	
80LJ 40	M	ZERO IK	
80LJ120	BMD	CD10	
80LJ140			
80LJ160	M	DB-STATUS IO-STATUS	99BL
80LJ180	COB	GO TO F80-OK.	99IT OK
80LJ200	P	F81ER	
80LJ990	YUN	CD10	99BL
80LJ995	COB	GO TO F80-OK.	
80LM	N	RECORD CREATION	10BL
80LM 20	YW	CD10	
80LM 40	M	ZERO IK	
80LM120	BST	CD10	
80LM160	M	DB-STATUS IO-STATUS	
80LM180	COB	GO TO F80-OK.	99IT OK
80LM200	P	F81ER	
80LN	N	READ NEXT ON SEGMENT CD10	10BL
80LN100	YRN	CD10	
80LN120	M	ZERO IK	
80LN150	BFD	NEXT CD10 WITHIN	
80LN200		SET01	
80LN250	M	DB-STATUS IO-STATUS	
80LN300	BG	CD10	99IT OK
80LN350	COB	GO TO F80-OK.	OR NEXT-FOUND
80LN400	COB	GO TO F80-KO.	99IT END-OF-SET
80LN900	P	F81ER	
80LQ	N	RECORD DELETION	10BL
80LQ 20	YD	CD10	
80LQ 30	BFD	CURRENT CD10	
80LQ 40	M	ZERO IK	
80LQ120	BER	CD10	
80LQ140			
80LQ160	M	DB-STATUS IO-STATUS	
80LQ180	COB	GO TO F80-OK.	99IT OK
80LQ200	P	F81ER	
80LS	N	READ WITHIN DN-KEY CD10	10BL
80LS100	YP	CD10	
80LS120	M	ZERO IK	
80LS200	BFD	DB-KEY IS	
80LS210		K-RCD10-DBKEY (1)	
80LS300	M	DB-STATUS IO-STATUS	
80LS400	COB	GO TO F80-CD10-RN.	99IT OK
80LS450	COB	GO TO F80-KO.	99IT NOT-FOUND
80LS920	P	F81ER	
93CP	N	ZIP CODE VALIDATION	10BL
93CP100	SCH	WP20-COPOS WP30-COPOS	
93CP200	M	"5" DEL-ER	99IT IWP20R > IWP20L
93CP220	GT	10	

## **2. GENERATED DATA DIVISION (TP8 MULTI- SCREEN)**

## *2.1. BEGINNING OF PROGRAM*

### BEGINNING OF THE PROGRAM

The user cannot modify the IDENTIFICATION DIVISION of the generated program.

The ENVIRONMENT DIVISION is automatically adapted to the variant requested for the program.

With the DPS8 TP8 option, UFAS indexed files (ORGANIZATION= 'V' on the Screen Call of Segments (-CS)) are taken into account. For these files, the SELECT clauses are generated in the FILE-CONTROL SECTION. Accesses to these files are generated in the PROCEDURE DIVISION.

However any additional clauses that may be necessary in this part of the program are up to the user.

All modifications to this part of the program must be done on the Beginning Insertions (-B) screen, or on Batch Form 'D'. (See the STRUCTURED CODE Reference Manual).

GENERATED DATA DIVISION (TP8 MULTI-SCREEN)  
BEGINNING OF PROGRAM

PAGE

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2  
1

IDENTIFICATION DIVISION.	
PROGRAM-ID. DO0030.	DO0030
AUTHOR. *** ORDER INPUT SCREEN ***.	DO0030
DATE-COMPILED. 03/05/93.	DO0030
ENVIRONMENT DIVISION.	DO0030
CONFIGURATION SECTION.	DO0030
SOURCE-COMPUTER. LEVEL-66-ASCII.	DO0030
OBJECT-COMPUTER. LEVEL-66-ASCII.	DO0030
SPECIAL-NAMES.	DO0030
DECIMAL-POINT IS COMMA.	DO0030
INPUT-OUTPUT SECTION.	DO0030
FILE-CONTROL.	DO0030
SELECT EM-FILE	DO0030
ASSIGN TO EM XM	DO0030
ORGANIZATION INDEXED	DO0030
ACCESS IS DYNAMIC	DO0030
RECORD KEY IS EM00-EMKEY	DO0030
FILE STATUS 1-EM00-STATUS.	DO0030
SELECT HE-FILE ASSIGN TO HE XH	DO0030
ORGANIZATION INDEXED	DO0030
ACCESS IS DYNAMIC	DO0030
RECORD KEY IS HE00-XTERM	DO0030
FILE STATUS 1-HE00-STATUS.	DO0030

## *2.2. DESCRIPTION OF THE SUB-SCHEMA AND FILE SECTION*

### DESCRIPTION OF THE SUB-SCHEMA AND FILE SECTION

The sub-schema which corresponds to the segment calls in the screen must be coded by the user.

The sub-schema call is coded on Beginning Insertions (-B) lines. The values of the SECTION TO GENERATE and PARAGRAPH TO GENERATE are '80 SS' respectively.

The sub-schema which appears in the example results from the generation of an 'M3' type database block (sub-schema) by the DBD function.

With the DPS8 TP8 option, the segment descriptions of UFAS indexed files are generated in the FILE SECTION. Accesses to these files are generated in the PROCEDURE DIVISION.

### NOTE

The user may override the generated description of the error message file, through a Work Areas (-W) line coded 'AA300'.

GENERATED DATA DIVISION (TP8 MULTI-SCREEN)  
DESCRIPTION OF THE SUB-SCHEMA AND FILE SECTION

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DATA DIVISION.  
SUB-SCHEMA SECTION.  
DB COMSSCH WITHIN MNGMENT.

D00030  
D100  
D200

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 DESCRIPTION OF THE SUB-SCHEMA AND FILE SECTION

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FILE SECTION.			DO0030
FD	EM-FILE		DO0030
	BLOCK	00001 RECORDS	DO0030
	LABEL	RECORD STANDARD.	DO0030
01	EM00.		DO0030
05	EM00-EMKEY.		DO0030
10	EM00-LIBRA	PICTURE X(3).	DO0030
10	EM00-ENTYP	PICTURE X.	DO0030
10	EM00-XEMKY.		DO0030
15	EM00-PROGR	PICTURE X(6).	DO0030
15	EM00-ERCOD.		DO0030
20	EM00-ERCOD9	PICTURE 9(3).	DO0030
15	EM00-ERTYP	PICTURE X.	DO0030
10	EM00-LINUM	PICTURE 9(3).	DO0030
05	EM00-ERLVL	PICTURE X.	DO0030
05	EM00-ERMSG	PICTURE X(66).	DO0030
05	FILLER	PICTURE X(6).	DO0030
FD	HE-FILE		DO0030
	BLOCK	00001 RECORDS	DO0030
	LABEL	RECORD STANDARD.	DO0030
01	HE00.		DO0030
05	HE00-XTERM	PICTURE X(12).	DO0030
05	HE00-SCREEN	PICTURE X(1920).	DO0030

### 2.3. *BEGINNING OF WORKING-STORAGE SECTION*

#### BEGINNING OF WORKING-STORAGE SECTION

The 'WSS-BEGIN' level is generated at the beginning of the WORKING-STORAGE SECTION for all programs.

It contains all the variables and keys necessary for automatic processing.

IK Error indicator for file accesses.

'0' No error.  
'1' Error.

OPER Operation code.

'A' Display.  
'M' Update.  
'S' Screen continuation.  
'E' End.  
'P' Previous display.  
'O' Transfer to another screen.

OPERD Operation code for deferred branching.

Transferred to OPER in F40.

'O' Deferred call of another screen.

OPER and OPERD: If they correspond to a Data Element defined as an Operation Code on the Screen Call of Elements (-CE) screen (value 'O' in the VALIDATION CONDITIONS/SET VARIABLES field), they are processed in the F0520 function. If not, they are processed in the F20 function.

CATX Code of the category being executed.

'0' Beginning of reception or display.  
' ' Screen-top.  
'R' Repetitive.  
'Z' Screen-bottom.

CATM Transaction code.

'C' Creation.  
'M' Modification.  
'A' Deletion.



GENERATED DATA DIVISION (TP8 MULTI-SCREEN)  
BEGINNING OF WORKING-STORAGE SECTION

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'X' Implicit update.

ICATR Indicator for current category being processed.

(Repetitive category only)

SCR-ER Screen error indicator.

'1' no error.  
'4' error.

FT End of repetitive category indicator.

'0' Lines to display.  
'1' No more lines to display.

ICF Input Configuration.

'1' Screen in input.  
'0' No screen in input.

OCF Output Configuration.

'1' Screen in output.  
'0' No screen in output.

CAT-ER Ongoing error indicator for current category.

' ' No error.  
'E' Error.

I-PFKEY Stores the function key.

K66 Index used to search the error indicator (DPS8 only).

INA Number of Data Elements in the screen-top category.

INR INA + Number of Data Elements in the repetitive category.

INZ INR + Number of Data Elements in the screen-bottom category.

IRR Number of repetitions in the repetitive category.

INT Number of input fields.

IER Number of error messages on the screen.

DEL-ER Memorizes Data Element error (work variable).

The following fields are used to initialize the CMES-YCRE area which is transferred to the ZAR980 sub-program in order to indicate the type of processing to be executed.

The user can also use the CMES-YCRE field on the Procedural code (-P) screen to condition the SEND of the fixed labels in the F8105 function: the SEND is not executed when the value of CMES-YCRE is set to 'G' on the '-P' screen.

7-YCREE

Value 'E' for display.

7-YCRER

Value 'R' for message reception.

7-YCREF

Value 'F' for display of transaction end message.

7-YCREX

Value 'X' for display in case of error.

7-YCREP

Value 'P' for use of a function key.

The 'CONSTANTS' level is also generated for all programs. It contains:

- . The compilation date of the on-line generator (PACE30 and PACE80), as well as the date of the related skeleton (these appear as comment lines),
- . Information on the program and work areas generated according to the procedures executed in the program:

SESSI Session number of the generated program.  
LIBRA Code of the library.  
DATGN Generated program date.  
PROGR System program code.  
PROGE COBOL program-id.  
TIMGN Generated program time.  
USERCO User code.  
COBASE Database code.

PRCGI Name of the sub-program called for screen formatting. The default value may be overridden using the screen General Documentation screen (-G) (see Chapter "DESCRIPTION OF A TRANSACTION", Subchapter "SCREEN GENERAL DOCUMENTATION" in the ON-LINE SYSTEMS DEVELOPMENT Reference Manual).

If a request for HELP documentation is entered on the Screen Definition screen, the following fields are generated:

PRDOC: External name of the 'HELP SCREEN' program.

5-scrn-PROGE: Field containing the name of called program.  
This field is filled during a screen branching operation ('scrn' = the last four characters of the screen code).

DATCE This field includes the CENTUR field (containing the value of the current century) and a blank date area (DATOR) in which the user can store the processing date in a year-month-day format (DATOA-DATOM-DATOJ).

Note: if the year is less than '61', the CENTUR field is automatically set to '20'.

DAT6 Fields for date formatting (MMDDYY or DDMMYY) and

DAT7 printing (for example DD/MM/YY).

DAT8 These fields are generated if a date processing operator is used in the '-P' lines of the program or if a variable data element ('V') has a date format.

DATSEP This field contains the separator used for dates. The default value ('/') can be modified by via Procedural Code (-P) lines.

DATSET This field contains the separator used for the Gregorian date.

The default value ('-') can be modified via Procedural Code (-P) lines.

DATCTY Field for century loading.

DAT6C Field for non-formatted date with century.

DAT7C Field for non-formatted date with century.

DAT8C Field for formatted date with century (DD/MM/CCYY).

DAT8G Field for the Gregorian type of date -- with century also -- (CCYY-MM-DD).

TIMCO Field for time loading.

TIMDAY Field for time formatting (HH:MM:SS).

The 'CONFIGURATIONS' level contains one variable 'ddss-CF' ('ddss' = segment code in the generated program) for each segment accessed in the program, which allows for conditioned access for each segment in the procedure.

GENERATED DATA DIVISION (TP8 MULTI-SCREEN)  
BEGINNING OF WORKING-STORAGE SECTION

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```
WORKING-STORAGE SECTION.                                DO0030
01  WSS-BEGIN.                                          DO0030
    05 FILLER PICTURE X(7) VALUE "WORKING".           DO0030
    05 IK PICTURE X.                                    DO0030
    05 BLANC PICTURE X VALUE SPACE.                   DO0030
    05 OPER PICTURE X.                                  DO0030
    05 OPERD PICTURE X VALUE SPACE.                   DO0030
    05 CATX PICTURE X.                                  DO0030
    05 CATM PICTURE X.                                  DO0030
    05 ICATR PICTURE 99.                                DO0030
    05 SCR-ER PICTURE X.                                DO0030
    05 FT PICTURE X.                                    DO0030
    05 ICF PICTURE X.                                  DO0030
    05 OCF PICTURE X.                                  DO0030
    05 CAT-ER PICTURE X.                                DO0030
    05 I-PFKEY PICTURE XX.                              DO0030
    05 7-ACCES PICTURE XX.                              DO0030
    05 K66 PICTURE 999.                                  DO0030
    05 7-YCREE PICTURE X VALUE "E".                    DO0030
    05 7-YCREF PICTURE X VALUE "F".                    DO0030
    05 7-YCREP PICTURE X VALUE "P".                    DO0030
    05 7-YCRER PICTURE X VALUE "R".                    DO0030
    05 7-YCREX PICTURE X VALUE "X".                    DO0030
    05 INA PICTURE 999 VALUE 009.                       DO0030
    05 INR PICTURE 999 VALUE 013.                       DO0030
    05 INZ PICTURE 999 VALUE 014.                       DO0030
    05 IRR PICTURE 99 VALUE 09.                          DO0030
    05 INT PICTURE 999 VALUE 046.                       DO0030
    05 IER PICTURE 99 VALUE 01.                          DO0030
    05 DEL-ER PICTURE X.                                DO0030
01  PACBASE-CONSTANTS.                                  DO0030
    OLS DATES PACE30 : /02/93                            DO0030
        PACE80 : 04/03/93   PAC7SG : 930225             DO0030
    05 SESSI PICTURE X(5) VALUE "0310 ".               DO0030
    05 LIBRA PICTURE X(3) VALUE "AD8".                  DO0030
    05 DATGN PICTURE X(8) VALUE "03/05/93".            DO0030
    05 PROGR PICTURE X(6) VALUE "DO0030".              DO0030
    05 PROGE PICTURE X(8) VALUE "DO0030 ".             DO0030
    05 TIMGN PICTURE X(8) VALUE "11:45:56".            DO0030
    05 USERCO PICTURE X(8) VALUE "PDSG ".              DO0030
    05 PRDOC PICTURE X(8) VALUE "DOP050".              DO0030
    05 PRCGI PICTURE X(8) VALUE "ZAR980".              DO0030
    05 5-0030-PROGE PICTURE X(8).                      DO0030
01  DATCE.                                              DO0030
    05 CENTUR PICTURE XX VALUE "19".                   DO0030
    05 DATOR.                                           DO0030
    10 DATOA PICTURE XX.                                 DO0030
    10 DATOM PICTURE XX.                                 DO0030
    10 DATOJ PICTURE XX.                                 DO0030
01  DAT6.                                               DO0030
    10 DAT61.                                           DO0030
    15 DAT619 PICTURE 99.                                DO0030
    10 DAT62.                                           DO0030
    15 DAT629 PICTURE 99.                                DO0030
    10 DAT63 PICTURE XX.                                 DO0030
01  DAT7.                                               DO0030
    10 DAT71 PICTURE XX.                                 DO0030
    10 DAT72 PICTURE XX.                                 DO0030
    10 DAT73 PICTURE XX.                                 DO0030
01  DAT8.                                               DO0030
    10 DAT81 PICTURE XX.                                 DO0030
    10 DAT8S1 PICTURE X.                                 DO0030
    10 DAT82 PICTURE XX.                                 DO0030
    10 DAT8S2 PICTURE X.                                 DO0030
    10 DAT83 PICTURE XX.                                 DO0030
01  DATSEP PICTURE X VALUE "/".                         DO0030
01  DATSET PICTURE X VALUE "-".                         DO0030
01  DATCTY.                                             DO0030
    05 DATCTY9 PICTURE 99.                               DO0030
01  DAT6C.                                              DO0030
    10 DAT61C PICTURE XX.                                DO0030
    10 DAT62C PICTURE XX.                                DO0030
    10 DAT63C PICTURE XX.                                DO0030
    10 DAT64C PICTURE XX.                                DO0030
01  DAT7C.                                              DO0030
    10 DAT71C PICTURE XX.                                DO0030
    10 DAT72C PICTURE XX.                                DO0030
```

GENERATED DATA DIVISION (TP8 MULTI-SCREEN)  
BEGINNING OF WORKING-STORAGE SECTION

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10	DAT73C	PICTURE XX.		DO0030
10	DAT74C	PICTURE XX.		DO0030
01	DAT8C.			DO0030
10	DAT81C	PICTURE XX.		DO0030
10	DAT8S1C	PICTURE X	VALUE "/" .	DO0030
10	DAT82C	PICTURE XX.		DO0030
10	DAT8S2C	PICTURE X	VALUE "/" .	DO0030
10	DAT83C	PICTURE XX.		DO0030
10	DAT84C	PICTURE XX.		DO0030
01	DAT8G.			DO0030
10	DAT81G	PICTURE XX.		DO0030
10	DAT82G	PICTURE XX.		DO0030
10	DAT8S1G	PICTURE X	VALUE "-" .	DO0030
10	DAT83G	PICTURE XX.		DO0030
10	DAT8S2G	PICTURE X	VALUE "-" .	DO0030
10	DAT84G	PICTURE XX.		DO0030
01	TIMCO.			DO0030
02	TIMCOG.			DO0030
05	TIMCOH	PICTURE XX.		DO0030
05	TIMCOM	PICTURE XX.		DO0030
05	TIMCOS	PICTURE XX.		DO0030
02	TIMCOC	PICTURE XX.		DO0030
01	TIMDAY.			DO0030
05	TIMHOU	PICTURE XX.		DO0030
05	TIMS1	PICTURE X	VALUE ":" .	DO0030
05	TIMMIN	PICTURE XX.		DO0030
05	TIMS2	PICTURE X	VALUE ":" .	DO0030
05	TIMSEC	PICTURE XX.		DO0030
01	CONFIGURATIONS.			DO0030
05	CD05-CF	PICTURE X.		DO0030
05	CD20-CF	PICTURE X.		DO0030
05	CD10-CF	PICTURE X.		DO0030
05	FO10-CF	PICTURE X.		DO0030
05	ME00-CF	PICTURE X.		DO0030
01	STATUS-AREA.			DO0030
05	1-EM00-STATUS	PICTURE XX	VALUE ZERO.	DO0030
05	1-HE00-STATUS	PICTURE XX	VALUE ZERO.	DO0030

## 2.4. SCREEN MAP DESCRIPTION

### SCREEN MAP DESCRIPTION

The WORKING-STORAGE SECTION includes the AT-0030 table which is a logical description of the screen and contains, for each field:

- . its line-column position (YPCUR);
- . its length (LENGTH);
- . its attributes:

(ATTRN: nature; ATTRI: intensity; ATTRP: presentation; and ATTRC: color).

The screen fields are coded according to the following rules:

.I-0030           Screen in reception.  
.O-0030           Screen in display.  
.I-0030-MATE     Alphanumeric reception field.  
.E-0030-REMIS    Alphanumeric definition of an I-0030-REMIS  
                  field which is numeric in reception.  
.F-0030-QTMAC    Alphanumeric definition of an O-0030-QTMAC  
                  field which is numeric in display.

The data element defining the repetitive category is coded in the screen map description as follows:

.J-0030-LINE OCCURS 10     in reception,  
.P-0030-LINE OCCURS 10     in display,

and contains a FILLER.

The description of the fields of the data element which defines the repetitive category is generated outside the screen description.

This description is made up of a 'FILLER' field which is filled in with each occurrence of the category. It is used to execute the procedures for each of the elementary data elements.



This description is generated according to the same rules as above, for example:

.I-0030-LINE Used for procedures in reception,

containing,

.I-0030-FOURNI  
.E-0030-QTMAL  
etc.

.O-0030-LINE Used for procedures in display,

containing,

.O-0030-FOURNI  
.O-0030-QTMAL.

An ordinary repetitive data element (which does not define a repetitive category) is described directly in the screen description as follows:

.05 FILLER Occurs 2.  
.10 I-0030-LREF1 in reception  
  
.05 FILLER Occurs 2.  
.10 O-0030-LREF1 in display

In this case, the procedures for each occurrence of the data element are not generated and are to be inserted by the user via Structured Code (validations, transfers, etc.).

The formats used in the generated programs correspond to the following rules:

DATA ELEMENT WITH NATURE 'P'

Reception screen or display screen:

- . The format is the internal format of the data element.

DATA ELEMENT WITH NATURE 'V'

Reception screen:

- . The format is the internal format of the data element.

Display screen:

- . For alphanumeric data elements, it is the internal format of the data element,
- . For numeric data elements, it is a print format built from the internal format, with replacement of non-significant leading zeros by spaces.

DATA ELEMENT WITH A CONVERSATIONAL FORMAT

(See the SPECIFICATIONS DICTIONARY Reference Manual, Chapter "DATA ELEMENTS", Subchapter "DESCRIPTION SCREEN (-D)").

Reception screen:

- . The internal format is constructed from the conversational format entered on the Data Element Description screen.

EXAMPLE:            -conversational format:            ZZZ99.99  
                      -constructed internal format: 9(5)V9(2)

Display screen:

- . The format is the conversational format of the element entered on the Data Element Description screen.

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SCREEN MAP DESCRIPTION

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01	0030-MESSO.		*AA040
02	0030-MESSI.		*AA040
05	S01004	PICTURE X(008).	*AA040
05	S01013	PICTURE X(001).	*AA040
05	S01015	PICTURE X(005).	*AA040
05	S01025	PICTURE X(030).	*AA040
05	S01060	PICTURE X(010).	*AA040
05	S01071	PICTURE X(008).	*AA040
05	S03004	PICTURE X(013).	*AA040
05	S03018	PICTURE X(005).	*AA040
05	S03026	PICTURE X(007).	*AA040
05	S03034	PICTURE X(008).	*AA040
05	S03054	PICTURE X(008).	*AA040
05	S03063	PICTURE X(003).	*AA040
05	S04004	PICTURE X(005).	*AA040
05	S04013	PICTURE X(050).	*AA040
05	S05009	PICTURE X(040).	*AA040
05	S05052	PICTURE X(005).	*AA040
05	S05060	PICTURE X(020).	*AA040
05	S06004	PICTURE X(011).	*AA040
05	S06016	PICTURE X(030).	*AA040
05	S06049	PICTURE X(011).	*AA040
05	S06061	PICTURE X(006).	*AA040
05	S07005	PICTURE X(012).	*AA040
05	S07018	PICTURE X(025).	*AA040
05	S07046	PICTURE X(014).	*AA040
05	S07061	PICTURE X(008).	*AA040
05	S09003	PICTURE X(001).	*AA040
05	S09007	PICTURE X(006).	*AA040
05	S09016	PICTURE X(008).	*AA040
05	S09026	PICTURE X(007).	*AA040
05	S09035	PICTURE X(006).	*AA040
05	S09042	PICTURE X(035).	*AA040
05	S10003	PICTURE X(001).	*AA040
05	S10007	PICTURE X(003).	*AA040
05	S10016	PICTURE X(002).	*AA040
05	S10026	PICTURE X(002).	*AA040
05	S10035	PICTURE X(002).	*AA040
05	S10042	PICTURE X(035).	*AA040
05	S11003	PICTURE X(001).	*AA040
05	S11007	PICTURE X(003).	*AA040
05	S11016	PICTURE X(002).	*AA040
05	S11026	PICTURE X(002).	*AA040
05	S11035	PICTURE X(002).	*AA040
05	S11042	PICTURE X(035).	*AA040
05	S12003	PICTURE X(001).	*AA040
05	S12007	PICTURE X(003).	*AA040
05	S12016	PICTURE X(002).	*AA040
05	S12026	PICTURE X(002).	*AA040
05	S12035	PICTURE X(002).	*AA040
05	S12042	PICTURE X(035).	*AA040
05	S13003	PICTURE X(001).	*AA040
05	S13007	PICTURE X(003).	*AA040
05	S13016	PICTURE X(002).	*AA040
05	S13026	PICTURE X(002).	*AA040
05	S13035	PICTURE X(002).	*AA040
05	S13042	PICTURE X(035).	*AA040
05	S14003	PICTURE X(001).	*AA040
05	S14007	PICTURE X(003).	*AA040
05	S14016	PICTURE X(002).	*AA040
05	S14026	PICTURE X(002).	*AA040
05	S14035	PICTURE X(002).	*AA040
05	S14042	PICTURE X(035).	*AA040
05	S15003	PICTURE X(001).	*AA040
05	S15007	PICTURE X(003).	*AA040
05	S15016	PICTURE X(002).	*AA040
05	S15026	PICTURE X(002).	*AA040
05	S15035	PICTURE X(002).	*AA040
05	S15042	PICTURE X(035).	*AA040
05	S16003	PICTURE X(001).	*AA040
05	S16007	PICTURE X(003).	*AA040
05	S16016	PICTURE X(002).	*AA040
05	S16026	PICTURE X(002).	*AA040
05	S16035	PICTURE X(002).	*AA040
05	S16042	PICTURE X(035).	*AA040
05	S17003	PICTURE X(001).	*AA040
05	S17007	PICTURE X(003).	*AA040

GENERATED DATA DIVISION (TP8 MULTI-SCREEN)  
 SCREEN MAP DESCRIPTION

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05	S17016	PICTURE X(002).	*AA040
05	S17026	PICTURE X(002).	*AA040
05	S17035	PICTURE X(002).	*AA040
05	S17042	PICTURE X(035).	*AA040
05	S18003	PICTURE X(001).	*AA040
05	S18007	PICTURE X(003).	*AA040
05	S18016	PICTURE X(002).	*AA040
05	S18026	PICTURE X(002).	*AA040
05	S18035	PICTURE X(002).	*AA040
05	S18042	PICTURE X(035).	*AA040
05	S20002	PICTURE X(019).	*AA040
05	S20022	PICTURE X(001).	*AA040
05	S20025	PICTURE X(007).	*AA040
05	S20033	PICTURE X(001).	*AA040
05	S20035	PICTURE X(010).	*AA040
05	S20046	PICTURE X(020).	*AA040
05	S21002	PICTURE X(027).	*AA040
05	S21030	PICTURE X(022).	*AA040
05	S21053	PICTURE X(017).	*AA040
05	S22002	PICTURE X(017).	*AA040
05	S22020	PICTURE X(018).	*AA040
05	S23002	PICTURE X(075).	*AA040
05	S24002	PICTURE X(072).	*AA040
01	AT-0030-MESSO.		*AA041
	05	AT-S01004 PICTURE X(12) VALUE "01003008FNNW".	*AA041
	05	AT-R000101-PROGE REDEFINES AT-S01004 PICTURE X(12).	*AA041
	05	AT-S01013 PICTURE X(12) VALUE "01012001LNNW".	*AA041
	05	AT-S01015 PICTURE X(12) VALUE "01014005FNNW".	*AA041
	05	AT-R000101-SESSI REDEFINES AT-S01015 PICTURE X(12).	*AA041
	05	AT-S01025 PICTURE X(12) VALUE "01024030LBNW".	*AA041
	05	AT-S01060 PICTURE X(12) VALUE "01059010FNNW".	*AA041
	05	AT-R000101-DATEM REDEFINES AT-S01060 PICTURE X(12).	*AA041
	05	AT-S01071 PICTURE X(12) VALUE "01070008FNNW".	*AA041
	05	AT-R000101-HEURE REDEFINES AT-S01071 PICTURE X(12).	*AA041
	05	AT-S03004 PICTURE X(12) VALUE "03003013LBNW".	*AA041
	05	AT-L000101-NUCOM REDEFINES AT-S03004 PICTURE X(12).	*AA041
	05	AT-S03018 PICTURE X(12) VALUE "03017005FNNW".	*AA041
	05	AT-R000101-NUCOM REDEFINES AT-S03018 PICTURE X(12).	*AA041
	05	AT-S03026 PICTURE X(12) VALUE "03025007LBNW".	*AA041
	05	AT-L000101-MATE REDEFINES AT-S03026 PICTURE X(12).	*AA041
	05	AT-S03034 PICTURE X(12) VALUE "03033008 NNW".	*AA041
	05	AT-R000101-MATE REDEFINES AT-S03034 PICTURE X(12).	*AA041
	05	AT-S03054 PICTURE X(12) VALUE "03053008LBNW".	*AA041
	05	AT-L000101-RELEA REDEFINES AT-S03054 PICTURE X(12).	*AA041
	05	AT-S03063 PICTURE X(12) VALUE "03062003 NNW".	*AA041
	05	AT-R000101-RELEA REDEFINES AT-S03063 PICTURE X(12).	*AA041
	05	AT-S04004 PICTURE X(12) VALUE "04003005LBNW".	*AA041
	05	AT-L000101-NUCLIE REDEFINES AT-S04004 PICTURE X(12).	*AA041
	05	AT-S04013 PICTURE X(12) VALUE "04012050FNNW".	*AA041
	05	AT-R000101-RAISOC REDEFINES AT-S04013 PICTURE X(12).	*AA041
	05	AT-S05009 PICTURE X(12) VALUE "05008040 NNW".	*AA041
	05	AT-R000101-RUE REDEFINES AT-S05009 PICTURE X(12).	*AA041
	05	AT-S05052 PICTURE X(12) VALUE "05051005 NNW".	*AA041
	05	AT-R000101-COPOS REDEFINES AT-S05052 PICTURE X(12).	*AA041
	05	AT-S05060 PICTURE X(12) VALUE "05059020PNNW".	*AA041
	05	AT-R000101-VILLE REDEFINES AT-S05060 PICTURE X(12).	*AA041
	05	AT-S06004 PICTURE X(12) VALUE "06003011LBNW".	*AA041
	05	AT-L000101-REFCLI REDEFINES AT-S06004 PICTURE X(12).	*AA041
	05	AT-S06016 PICTURE X(12) VALUE "06015030 NNW".	*AA041
	05	AT-R000101-REFCLI REDEFINES AT-S06016 PICTURE X(12).	*AA041
	05	AT-S06049 PICTURE X(12) VALUE "06048011LBNW".	*AA041
	05	AT-L000101-DATE REDEFINES AT-S06049 PICTURE X(12).	*AA041
	05	AT-S06061 PICTURE X(12) VALUE "06060006 NNW".	*AA041
	05	AT-R000101-DATE REDEFINES AT-S06061 PICTURE X(12).	*AA041
	05	AT-S07005 PICTURE X(12) VALUE "07004012LBNW".	*AA041
	05	AT-L000101-CORRES REDEFINES AT-S07005 PICTURE X(12).	*AA041
	05	AT-S07018 PICTURE X(12) VALUE "07017025 NNW".	*AA041
	05	AT-R000101-CORRES REDEFINES AT-S07018 PICTURE X(12).	*AA041
	05	AT-S07046 PICTURE X(12) VALUE "07045014LBNW".	*AA041
	05	AT-L000101-REMIS REDEFINES AT-S07046 PICTURE X(12).	*AA041
	05	AT-S07061 PICTURE X(12) VALUE "07060008 NNW".	*AA041
	05	AT-R000101-REMIS REDEFINES AT-S07061 PICTURE X(12).	*AA041
	05	AT-S09003 PICTURE X(12) VALUE "09002001LBNW".	*AA041
	05	AT-L010101-CODMVT REDEFINES AT-S09003 PICTURE X(12).	*AA041
	05	AT-S09007 PICTURE X(12) VALUE "09006006LBNW".	*AA041
	05	AT-L010101-FOURNI REDEFINES AT-S09007 PICTURE X(12).	*AA041
	05	AT-S09016 PICTURE X(12) VALUE "09015008LBNW".	*AA041

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05 AT-L010101-QTMAC REDEFINES AT-S09016 PICTURE X(12). *AA041
05 AT-S09026 PICTURE X(12) VALUE "09025007LBNW". *AA041
05 AT-L010101-QTMAL REDEFINES AT-S09026 PICTURE X(12). *AA041
05 AT-S09035 PICTURE X(12) VALUE "09034006LBNW". *AA041
05 AT-L010101-QTMAR REDEFINES AT-S09035 PICTURE X(12). *AA041
05 AT-S09042 PICTURE X(12) VALUE "09041035LBNW". *AA041
05 AT-L010101-INFOR REDEFINES AT-S09042 PICTURE X(12). *AA041
05 AT-S10003 PICTURE X(12) VALUE "10002001 NNN". *AA041
05 AT-R010101-CODMVT REDEFINES AT-S10003 PICTURE X(12). *AA041
05 AT-S10007 PICTURE X(12) VALUE "10006003 NNN". *AA041
05 AT-R010101-FOURNI REDEFINES AT-S10007 PICTURE X(12). *AA041
05 AT-S10016 PICTURE X(12) VALUE "10015002 NNN". *AA041
05 AT-R010101-QTMAC REDEFINES AT-S10016 PICTURE X(12). *AA041
05 AT-S10026 PICTURE X(12) VALUE "10025002PBNW". *AA041
05 AT-R010101-QTMAL REDEFINES AT-S10026 PICTURE X(12). *AA041
05 AT-S10035 PICTURE X(12) VALUE "10034002PNNW". *AA041
05 AT-R010101-QTMAR REDEFINES AT-S10035 PICTURE X(12). *AA041
05 AT-S10042 PICTURE X(12) VALUE "10041035 NNN". *AA041
05 AT-R010101-INFOR REDEFINES AT-S10042 PICTURE X(12). *AA041
05 AT-S11003 PICTURE X(12) VALUE "11002001 NNN". *AA041
05 AT-R020101-CODMVT REDEFINES AT-S11003 PICTURE X(12). *AA041
05 AT-S11007 PICTURE X(12) VALUE "11006003 NNN". *AA041
05 AT-R020101-FOURNI REDEFINES AT-S11007 PICTURE X(12). *AA041
05 AT-S11016 PICTURE X(12) VALUE "11015002 NNN". *AA041
05 AT-R020101-QTMAC REDEFINES AT-S11016 PICTURE X(12). *AA041
05 AT-S11026 PICTURE X(12) VALUE "11025002PBNW". *AA041
05 AT-R020101-QTMAL REDEFINES AT-S11026 PICTURE X(12). *AA041
05 AT-S11035 PICTURE X(12) VALUE "11034002PNNW". *AA041
05 AT-R020101-QTMAR REDEFINES AT-S11035 PICTURE X(12). *AA041
05 AT-S11042 PICTURE X(12) VALUE "11041035 NNN". *AA041
05 AT-R020101-INFOR REDEFINES AT-S11042 PICTURE X(12). *AA041
05 AT-S12003 PICTURE X(12) VALUE "12002001 NNN". *AA041
05 AT-R030101-CODMVT REDEFINES AT-S12003 PICTURE X(12). *AA041
05 AT-S12007 PICTURE X(12) VALUE "12006003 NNN". *AA041
05 AT-R030101-FOURNI REDEFINES AT-S12007 PICTURE X(12). *AA041
05 AT-S12016 PICTURE X(12) VALUE "12015002 NNN". *AA041
05 AT-R030101-QTMAC REDEFINES AT-S12016 PICTURE X(12). *AA041
05 AT-S12026 PICTURE X(12) VALUE "12025002PBNW". *AA041
05 AT-R030101-QTMAL REDEFINES AT-S12026 PICTURE X(12). *AA041
05 AT-S12035 PICTURE X(12) VALUE "12034002PNNW". *AA041
05 AT-R030101-QTMAR REDEFINES AT-S12035 PICTURE X(12). *AA041
05 AT-S12042 PICTURE X(12) VALUE "12041035 NNN". *AA041
05 AT-R030101-INFOR REDEFINES AT-S12042 PICTURE X(12). *AA041
05 AT-S13003 PICTURE X(12) VALUE "13002001 NNN". *AA041
05 AT-R040101-CODMVT REDEFINES AT-S13003 PICTURE X(12). *AA041
05 AT-S13007 PICTURE X(12) VALUE "13006003 NNN". *AA041
05 AT-R040101-FOURNI REDEFINES AT-S13007 PICTURE X(12). *AA041
05 AT-S13016 PICTURE X(12) VALUE "13015002 NNN". *AA041
05 AT-R040101-QTMAC REDEFINES AT-S13016 PICTURE X(12). *AA041
05 AT-S13026 PICTURE X(12) VALUE "13025002PBNW". *AA041
05 AT-R040101-QTMAL REDEFINES AT-S13026 PICTURE X(12). *AA041
05 AT-S13035 PICTURE X(12) VALUE "13034002PNNW". *AA041
05 AT-R040101-QTMAR REDEFINES AT-S13035 PICTURE X(12). *AA041
05 AT-S13042 PICTURE X(12) VALUE "13041035 NNN". *AA041
05 AT-R040101-INFOR REDEFINES AT-S13042 PICTURE X(12). *AA041
05 AT-S14003 PICTURE X(12) VALUE "14002001 NNN". *AA041
05 AT-R050101-CODMVT REDEFINES AT-S14003 PICTURE X(12). *AA041
05 AT-S14007 PICTURE X(12) VALUE "14006003 NNN". *AA041
05 AT-R050101-FOURNI REDEFINES AT-S14007 PICTURE X(12). *AA041
05 AT-S14016 PICTURE X(12) VALUE "14015002 NNN". *AA041
05 AT-R050101-QTMAC REDEFINES AT-S14016 PICTURE X(12). *AA041
05 AT-S14026 PICTURE X(12) VALUE "14025002PBNW". *AA041
05 AT-R050101-QTMAL REDEFINES AT-S14026 PICTURE X(12). *AA041
05 AT-S14035 PICTURE X(12) VALUE "14034002PNNW". *AA041
05 AT-R050101-QTMAR REDEFINES AT-S14035 PICTURE X(12). *AA041
05 AT-S14042 PICTURE X(12) VALUE "14041035 NNN". *AA041
05 AT-R050101-INFOR REDEFINES AT-S14042 PICTURE X(12). *AA041
05 AT-S15003 PICTURE X(12) VALUE "15002001 NNN". *AA041
05 AT-R060101-CODMVT REDEFINES AT-S15003 PICTURE X(12). *AA041
05 AT-S15007 PICTURE X(12) VALUE "15006003 NNN". *AA041
05 AT-R060101-FOURNI REDEFINES AT-S15007 PICTURE X(12). *AA041
05 AT-S15016 PICTURE X(12) VALUE "15015002 NNN". *AA041
05 AT-R060101-QTMAC REDEFINES AT-S15016 PICTURE X(12). *AA041
05 AT-S15026 PICTURE X(12) VALUE "15025002PBNW". *AA041
05 AT-R060101-QTMAL REDEFINES AT-S15026 PICTURE X(12). *AA041
05 AT-S15035 PICTURE X(12) VALUE "15034002PNNW". *AA041
05 AT-R060101-QTMAR REDEFINES AT-S15035 PICTURE X(12). *AA041
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	05 AT-S15042 PICTURE X(12) VALUE "15041035 NNW".	*AA041
	05 AT-R060101-INFOR REDEFINES AT-S15042 PICTURE X(12).	*AA041
	05 AT-S16003 PICTURE X(12) VALUE "16002001 NNW".	*AA041
	05 AT-R070101-CODMVT REDEFINES AT-S16003 PICTURE X(12).	*AA041
	05 AT-S16007 PICTURE X(12) VALUE "16006003 NNW".	*AA041
	05 AT-R070101-FOURNI REDEFINES AT-S16007 PICTURE X(12).	*AA041
	05 AT-S16016 PICTURE X(12) VALUE "16015002 NNW".	*AA041
	05 AT-R070101-QTMAC REDEFINES AT-S16016 PICTURE X(12).	*AA041
	05 AT-S16026 PICTURE X(12) VALUE "16025002PBNW".	*AA041
	05 AT-R070101-QTMAL REDEFINES AT-S16026 PICTURE X(12).	*AA041
	05 AT-S16035 PICTURE X(12) VALUE "16034002PNNW".	*AA041
	05 AT-R070101-QTMAR REDEFINES AT-S16035 PICTURE X(12).	*AA041
	05 AT-S16042 PICTURE X(12) VALUE "16041035 NNW".	*AA041
	05 AT-R070101-INFOR REDEFINES AT-S16042 PICTURE X(12).	*AA041
	05 AT-S17003 PICTURE X(12) VALUE "17002001 NNW".	*AA041
	05 AT-R080101-CODMVT REDEFINES AT-S17003 PICTURE X(12).	*AA041
	05 AT-S17007 PICTURE X(12) VALUE "17006003 NNW".	*AA041
	05 AT-R080101-FOURNI REDEFINES AT-S17007 PICTURE X(12).	*AA041
	05 AT-S17016 PICTURE X(12) VALUE "17015002 NNW".	*AA041
	05 AT-R080101-QTMAC REDEFINES AT-S17016 PICTURE X(12).	*AA041
	05 AT-S17026 PICTURE X(12) VALUE "17025002PBNW".	*AA041
	05 AT-R080101-QTMAL REDEFINES AT-S17026 PICTURE X(12).	*AA041
	05 AT-S17035 PICTURE X(12) VALUE "17034002PNNW".	*AA041
	05 AT-R080101-QTMAR REDEFINES AT-S17035 PICTURE X(12).	*AA041
	05 AT-S17042 PICTURE X(12) VALUE "17041035 NNW".	*AA041
	05 AT-R080101-INFOR REDEFINES AT-S17042 PICTURE X(12).	*AA041
	05 AT-S18003 PICTURE X(12) VALUE "18002001 NNW".	*AA041
	05 AT-R090101-CODMVT REDEFINES AT-S18003 PICTURE X(12).	*AA041
	05 AT-S18007 PICTURE X(12) VALUE "18006003 NNW".	*AA041
	05 AT-R090101-FOURNI REDEFINES AT-S18007 PICTURE X(12).	*AA041
	05 AT-S18016 PICTURE X(12) VALUE "18015002 NNW".	*AA041
	05 AT-R090101-QTMAC REDEFINES AT-S18016 PICTURE X(12).	*AA041
	05 AT-S18026 PICTURE X(12) VALUE "18025002PBNW".	*AA041
	05 AT-R090101-QTMAL REDEFINES AT-S18026 PICTURE X(12).	*AA041
	05 AT-S18035 PICTURE X(12) VALUE "18034002PNNW".	*AA041
	05 AT-R090101-QTMAR REDEFINES AT-S18035 PICTURE X(12).	*AA041
	05 AT-S18042 PICTURE X(12) VALUE "18041035 NNW".	*AA041
	05 AT-R090101-INFOR REDEFINES AT-S18042 PICTURE X(12).	*AA041
	05 AT-S20002 PICTURE X(12) VALUE "20001019LBNW".	*AA041
	05 AT-S20022 PICTURE X(12) VALUE "20021001 NNW".	*AA041
	05 AT-R000101-EDIT REDEFINES AT-S20022 PICTURE X(12).	*AA041
	05 AT-S20025 PICTURE X(12) VALUE "20024007LNNW".	*AA041
	05 AT-L000101-CHOIX REDEFINES AT-S20025 PICTURE X(12).	*AA041
	05 AT-S20033 PICTURE X(12) VALUE "20032001 NNW".	*AA041
	05 AT-R000101-CHOIX REDEFINES AT-S20033 PICTURE X(12).	*AA041
	05 AT-S20035 PICTURE X(12) VALUE "20034010LNNW".	*AA041
	05 AT-S20046 PICTURE X(12) VALUE "20045020LNNW".	*AA041
	05 AT-S21002 PICTURE X(12) VALUE "21001027LNNW".	*AA041
	05 AT-S21030 PICTURE X(12) VALUE "21029022LNNW".	*AA041
	05 AT-S21053 PICTURE X(12) VALUE "21052017LNNW".	*AA041
	05 AT-S22002 PICTURE X(12) VALUE "22001017LNNW".	*AA041
	05 AT-S22020 PICTURE X(12) VALUE "22019018LNNW".	*AA041
	05 AT-S23002 PICTURE X(12) VALUE "23001075FBNW".	*AA041
	05 AT-R000101-MESSA REDEFINES AT-S23002 PICTURE X(12).	*AA041
	05 AT-S24002 PICTURE X(12) VALUE "24001072FBNW".	*AA041
	05 AT-R000101-ERMSG REDEFINES AT-S24002 PICTURE X(12).	*AA041
01	AT-0030-MESSA REDEFINES AT-0030-MESSO.	*AA041
	05 AT-0030-LIGNE OCCURS 098.	*AA041
	10 AT-0030-YPCUR PICTURE 9(5).	*AA041
	10 AT-0030-LENGTH PICTURE 999.	*AA041
	10 AT-0030-ATTRN PICTURE X.	*AA041
	10 AT-0030-ATTRI PICTURE X.	*AA041
	10 AT-0030-ATTRP PICTURE X.	*AA041
	10 AT-0030-ATTRC PICTURE X.	*AA041
01	INPUT-0030.	*AA042
	05 R20033 PICTURE X(1).	*AA042
	05 R03034 PICTURE X(8).	*AA042
	05 R03063 PICTURE X(3).	*AA042
	05 R05009 PICTURE X(40).	*AA042
	05 R05052 PICTURE X(5).	*AA042
	05 R05060 PICTURE X(20).	*AA042
	05 R06016 PICTURE X(30).	*AA042
	05 R06061 PICTURE X(6).	*AA042
	05 R07018 PICTURE X(25).	*AA042
	05 R07061 PICTURE X(8).	*AA042
	05 R10003 PICTURE X(1).	*AA042
	05 R10007 PICTURE X(3).	*AA042

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05	R10016	PICTURE X(2).	*AA042
05	R10026	PICTURE X(2).	*AA042
05	R10035	PICTURE X(2).	*AA042
05	R10042	PICTURE X(35).	*AA042
05	R11003	PICTURE X(1).	*AA042
05	R11007	PICTURE X(3).	*AA042
05	R11016	PICTURE X(2).	*AA042
05	R11026	PICTURE X(2).	*AA042
05	R11035	PICTURE X(2).	*AA042
05	R11042	PICTURE X(35).	*AA042
05	R12003	PICTURE X(1).	*AA042
05	R12007	PICTURE X(3).	*AA042
05	R12016	PICTURE X(2).	*AA042
05	R12026	PICTURE X(2).	*AA042
05	R12035	PICTURE X(2).	*AA042
05	R12042	PICTURE X(35).	*AA042
05	R13003	PICTURE X(1).	*AA042
05	R13007	PICTURE X(3).	*AA042
05	R13016	PICTURE X(2).	*AA042
05	R13026	PICTURE X(2).	*AA042
05	R13035	PICTURE X(2).	*AA042
05	R13042	PICTURE X(35).	*AA042
05	R14003	PICTURE X(1).	*AA042
05	R14007	PICTURE X(3).	*AA042
05	R14016	PICTURE X(2).	*AA042
05	R14026	PICTURE X(2).	*AA042
05	R14035	PICTURE X(2).	*AA042
05	R14042	PICTURE X(35).	*AA042
05	R15003	PICTURE X(1).	*AA042
05	R15007	PICTURE X(3).	*AA042
05	R15016	PICTURE X(2).	*AA042
05	R15026	PICTURE X(2).	*AA042
05	R15035	PICTURE X(2).	*AA042
05	R15042	PICTURE X(35).	*AA042
05	R16003	PICTURE X(1).	*AA042
05	R16007	PICTURE X(3).	*AA042
05	R16016	PICTURE X(2).	*AA042
05	R16026	PICTURE X(2).	*AA042
05	R16035	PICTURE X(2).	*AA042
05	R16042	PICTURE X(35).	*AA042
05	R17003	PICTURE X(1).	*AA042
05	R17007	PICTURE X(3).	*AA042
05	R17016	PICTURE X(2).	*AA042
05	R17026	PICTURE X(2).	*AA042
05	R17035	PICTURE X(2).	*AA042
05	R17042	PICTURE X(35).	*AA042
05	R18003	PICTURE X(1).	*AA042
05	R18007	PICTURE X(3).	*AA042
05	R18016	PICTURE X(2).	*AA042
05	R18026	PICTURE X(2).	*AA042
05	R18035	PICTURE X(2).	*AA042
05	R18042	PICTURE X(35).	*AA042
05	R20022	PICTURE X(1).	*AA042
01	INPUT-SCREEN-FIELDS	REDEFINES INPUT-0030.	*AA045
02	I-0030.		*AA045
03	I-0030-BEGIN.		*AA045
05	I-0030-CHOIX	PICTURE X.	*AA045
05	I-0030-MATE	PICTURE X(8).	*AA045
05	I-0030-RELEA	PICTURE X(3).	*AA045
05	I-0030-RUE	PICTURE X(40).	*AA045
05	I-0030-COPOS	PICTURE X(5).	*AA045
05	I-0030-VILLE	PICTURE X(20).	*AA045
05	I-0030-REFCLI	PICTURE X(30).	*AA045
05	I-0030-DATE	PICTURE X(6).	*AA045
05	I-0030-CORRES	PICTURE X(25).	*AA045
05	E-0030-REMIS.		*AA045
10	I-0030-REMIS	PICTURE S9(4)V99.	*AA045
10	FILLER	PICTURE X(2).	*AA045
03	J-0030-LINE	OCCURS 9.	*AA045
10	FILLER	PICTURE X(45).	*AA045
03	I-0030-END.		*AA045
05	I-0030-EDIT	PICTURE X.	*AA045
01	OUTPUT-0030.		*AA049
05	T20033	PICTURE X(1).	*AA049
05	T01004	PICTURE X(8).	*AA049
05	T01015	PICTURE X(5).	*AA049
05	T01060	PICTURE X(10).	*AA049

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05	T01071	PICTURE X(8).	*AA049
05	T03018	PICTURE X(5).	*AA049
05	T03034	PICTURE X(8).	*AA049
05	T03063	PICTURE X(3).	*AA049
05	T04013	PICTURE X(50).	*AA049
05	T05009	PICTURE X(40).	*AA049
05	T05052	PICTURE X(5).	*AA049
05	T05060	PICTURE X(20).	*AA049
05	T06016	PICTURE X(30).	*AA049
05	T06061	PICTURE X(6).	*AA049
05	T07018	PICTURE X(25).	*AA049
05	T07061	PICTURE X(8).	*AA049
05	T10003	PICTURE X(1).	*AA049
05	T10007	PICTURE X(3).	*AA049
05	T10016	PICTURE X(2).	*AA049
05	T10026	PICTURE X(2).	*AA049
05	T10035	PICTURE X(2).	*AA049
05	T10042	PICTURE X(35).	*AA049
05	T11003	PICTURE X(1).	*AA049
05	T11007	PICTURE X(3).	*AA049
05	T11016	PICTURE X(2).	*AA049
05	T11026	PICTURE X(2).	*AA049
05	T11035	PICTURE X(2).	*AA049
05	T11042	PICTURE X(35).	*AA049
05	T12003	PICTURE X(1).	*AA049
05	T12007	PICTURE X(3).	*AA049
05	T12016	PICTURE X(2).	*AA049
05	T12026	PICTURE X(2).	*AA049
05	T12035	PICTURE X(2).	*AA049
05	T12042	PICTURE X(35).	*AA049
05	T13003	PICTURE X(1).	*AA049
05	T13007	PICTURE X(3).	*AA049
05	T13016	PICTURE X(2).	*AA049
05	T13026	PICTURE X(2).	*AA049
05	T13035	PICTURE X(2).	*AA049
05	T13042	PICTURE X(35).	*AA049
05	T14003	PICTURE X(1).	*AA049
05	T14007	PICTURE X(3).	*AA049
05	T14016	PICTURE X(2).	*AA049
05	T14026	PICTURE X(2).	*AA049
05	T14035	PICTURE X(2).	*AA049
05	T14042	PICTURE X(35).	*AA049
05	T15003	PICTURE X(1).	*AA049
05	T15007	PICTURE X(3).	*AA049
05	T15016	PICTURE X(2).	*AA049
05	T15026	PICTURE X(2).	*AA049
05	T15035	PICTURE X(2).	*AA049
05	T15042	PICTURE X(35).	*AA049
05	T16003	PICTURE X(1).	*AA049
05	T16007	PICTURE X(3).	*AA049
05	T16016	PICTURE X(2).	*AA049
05	T16026	PICTURE X(2).	*AA049
05	T16035	PICTURE X(2).	*AA049
05	T16042	PICTURE X(35).	*AA049
05	T17003	PICTURE X(1).	*AA049
05	T17007	PICTURE X(3).	*AA049
05	T17016	PICTURE X(2).	*AA049
05	T17026	PICTURE X(2).	*AA049
05	T17035	PICTURE X(2).	*AA049
05	T17042	PICTURE X(35).	*AA049
05	T18003	PICTURE X(1).	*AA049
05	T18007	PICTURE X(3).	*AA049
05	T18016	PICTURE X(2).	*AA049
05	T18026	PICTURE X(2).	*AA049
05	T18035	PICTURE X(2).	*AA049
05	T18042	PICTURE X(35).	*AA049
05	T20022	PICTURE X(1).	*AA049
05	T23002	PICTURE X(75).	*AA049
05	T24002	PICTURE X(72).	*AA049
01	OUTPUT-SCREEN-FIELDS	REDEFINES OUTPUT-0030.	*AA050
02	O-0030.		*AA050
03	O-0030-BEGIN.		*AA050
05	O-0030-CHOIX	PICTURE X.	*AA050
05	O-0030-PROGE	PICTURE X(8).	*AA050
05	O-0030-SESSI	PICTURE X(5).	*AA050
05	O-0030-DATEM	PICTURE X(10).	*AA050
05	O-0030-HEURE	PICTURE X(8).	*AA050



GENERATED DATA DIVISION (TP8 MULTI-SCREEN)  
SCREEN MAP DESCRIPTION

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05	O-0030-NUCOM	PICTURE	9(5).	*AA050
05	O-0030-MATE	PICTURE	X(8).	*AA050
05	O-0030-RELEA	PICTURE	X(3).	*AA050
05	O-0030-RAISOC	PICTURE	X(50).	*AA050
05	O-0030-RUE	PICTURE	X(40).	*AA050
05	O-0030-COPOS	PICTURE	X(5).	*AA050
05	O-0030-VILLE	PICTURE	X(20).	*AA050
05	O-0030-REFCLI	PICTURE	X(30).	*AA050
05	O-0030-DATE	PICTURE	X(6).	*AA050
05	O-0030-CORRES	PICTURE	X(25).	*AA050
05	F-0030-REMIS.			*AA050
10	O-0030-REMIS	PICTURE	-(04)9,9(02).	*AA050
03	P-0030-LINE	OCCURS	9.	*AA050
10	FILLER	PICTURE	X(45).	*AA050
03	O-0030-END.			*AA050
05	O-0030-EDIT	PICTURE	X.	*AA050
05	O-0030-MESSA	PICTURE	X(75).	*AA050
05	O-0030-ERMS.			*AA050
10	O-001	OCCURS	1.	*AA050
15	O-0030-ERMSG	PICTURE	X(72).	*AA050
01	REPEAT-LINE.			*AA050
02	I-0030-LINE.			*AA050
05	I-0030-CODMVT	PICTURE	X.	*AA050
05	I-0030-FOURNI	PICTURE	X(3).	*AA050
05	E-0030-QTMAC.			*AA050
10	I-0030-QTMAC	PICTURE	99.	*AA050
05	I-0030-QTMAL	PICTURE	99.	*AA050
05	I-0030-QTMAR	PICTURE	99.	*AA050
05	I-0030-INFOR	PICTURE	X(35).	*AA050
02	O-0030-LINE.			*AA050
05	O-0030-CODMVT	PICTURE	X.	*AA050
05	O-0030-FOURNI	PICTURE	X(3).	*AA050
05	F-0030-QTMAC.			*AA050
10	O-0030-QTMAC	PICTURE	Z(01)9.	*AA050
05	O-0030-QTMAL	PICTURE	99.	*AA050
05	O-0030-QTMAR	PICTURE	99.	*AA050
05	O-0030-INFOR	PICTURE	X(35).	*AA050

## 2.5. DESCRIPTION OF VALIDATION AREAS

### DESCRIPTION OF VALIDATION AREAS

The "validation processing" part of the program, which is always generated in the WORKING-STORAGE SECTION, includes all the work areas necessary for the generated validation processing, and an area for communication with the sub-program, 'CMES-COMMUNICATION'.

### NUMERIC FIELDS OF THE SCREEN

The 'NUMERIC-FIELDS' level is generated when the screen includes at least one variable Data Element.

Field '9-scrn-delco' (scrn = last 4 characters of the screen code) is generated for each numeric Data Element. It contains the breakdown of the Data Element's VALUE in 'seedd' where:

s = '' non-signed Data Element.

'+' signed Data Element.

ee = number of digits in the integer part of the Data Element.

dd = number of digits in the decimal part of the Data Element.

CMES-COMMUNICATION

The 'CMES-COMMUNICATION' level is filled in via a MOVE within the program. It contains:

YR00 Message.

YO00 Table of logical fields, containing their descriptions (line-column position, length, attributes).

PFKEY When PFKEYs can be used on a terminal, the ZAR980 sub-program loads this field.

IND1 Length of the message after a RECEIVE and before a SEND.

IND2 Length of the message: this field is used when the message is longer than 2,000 characters (DPS8 only).

YMAT Type of terminal: this field is initialized to zero in function F0110. Using Procedural Code (-P) lines, the user must code the type of terminal in use for the initial screen of the dialogue (if it is defined):

```
'0' (default value) : QUESTAR,  
'1'                 : VIP7700,  
'2'                 : IBM3270,  
'3'                 : VIP7800,
```

This value is transferred to the other screens of the dialogue through the COMMUNICATION SECTION.

YCRE Type of operation (Receive, Send, Display in case of error, etc.).

YPCUR Cursor position (line-column).

END-CONVERSATION

This field is used for conversation end, and includes:

END-MESSAGE Message displayed at the conversation end (length: 30 characters; initial value: blank),

END-ATTR Used to position the cursor at the top left-hand corner of the screen.

0030-MPRIOR

This field contains the first transaction message.

### VALIDATION VARIABLES

The 'VALIDATION-TABLE-FIELDS' level is generated if there is at least one variable data element (NATURE = 'V') used on the screen.

DE-ERR : memorizes the presence and/or status of each Data Element of the screen.

A position in this table (coded ER-scrn-delco) is associated with each Data Element of the screen. This is generated at the '05' level ('scrn' = last four characters of the screen code).

Depending on the stages of validation, this position can be set to the following values:

- .0 Data Element absent.
- .1 Data Element present.
- .2 Invalid absence of data element.
- .4 Erroneous class.
- .5 Invalid content.

This table of error positions is structured according to the categories defined on the screen and the group data element in the following manner:

A group level for the Data Elements from the beginning of the screen is systematically generated in the form of:

ER-nn-BEGIN.

For a repetitive Data Element defining a repetitive area of the screen (data element on the screen with NATURE = 'R'), the generation of the error positions is as follows:

- .03 ES-scrn-LINE OCCURS 9.
- .05 FILLER PICTURE X(0004).

In this example:

LINE is the code of the Data Element with NATURE = 'R' (see above),  
9 is the number of repetitions,  
0004 is the number of Data Elements in the repetitive category.

After the table of errors, there is an area which will contain the error positions of the Data Elements from the repetitive category. This area is used to position the errors for each of these data elements, with each occurrence.

.02 ER-nn-LINE.

.05 ER-nn-CODMVT PICTURE X.

.05 ER-nn-FOURNI PICTURE X.

etc.

For a repetitive Data Element whose NATURE is other than 'R', the generation in the table of error positions does not provide the description of the sample item, but does provide the following:

.05 FILLER OCCURS 2.

.10 ER-nn-LREF1 PICTURE X.

A group level for the Data Elements from the screen-bottom category is generated using a Data Element whose NATURE = 'Z', which contains the error positions of Data Elements belonging to that category:

.03 ER-nn-END.

.05 ER-nn-EDIT PICTURE X.

etc.

### TT-DAT

The 'TT-DAT' level is generated if a variable Data Element (NATURE = 'V') contains a 'date' format. It is used in sub-function F8120-M for date formatting purposes.

### LEAP-YEAR

The 'LEAP-YEAR' level is generated if a variable Data Element (NATURE = 'V') contains a 'date' format (always generated with CICS). It is used in F81-ER to determine whether or not the year is a leap year.

### USERS-ERROR

The 'USERS-ERROR' level is always generated, and it contains:

XEMKY: Table position used to build the key, including:

'XPROGR' Name of the program or dialogue,  
'XERCD' Error number and type of error,

T-XEMKY: Table of errors, corresponding to the number of error messages on the screen (default value = 1).

### INDEXES

The 'INDEXES' level is always generated. It includes:

K01, K02, K03, K04

Indexes for automatic numeric class.

K50R, K50L, K50M

Indexes associated with the table of user errors (the value assigned to K50M directly relates to the number of vertical repetitions of Data Element 'ERMSG' in the screen description).

5-dd00-LTH

Length of longest Segment of the Data Structure (common part + specific part; 'dd' = code of the Data Structure).

5-ddss-LTH

Length of the Segment without the common part (not generated for the common part, 'dd00'; 'ddss' = code of the Segment).

5-ddss-LTHV

Length of the Data Structure Segment including the common part (not generated for the common part, 'dd00'; 'ddss' = code of the Segment).

LTH Calculation area used during access to files with a Table or VSAM ORGANIZATION.

KEYLTH

Calculation area of the key used during access to files with a VSAM ORGANIZATION.

5-scrn-LENGTH

Area containing the length of the communication area (scrn = last four char. of screen code).



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DESCRIPTION OF VALIDATION AREAS

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### NUMERIC-VALIDATION-FIELDS

The 'NUMERIC-VALIDATION-FIELDS' level is generated if there is at least one variable numeric field on the screen. It contains the work areas necessary for analyzing and formatting numeric Data Elements on the screen (refer to subchapter "F81 : CALLED VALIDATION FUNCTIONS").

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DESCRIPTION OF VALIDATION AREAS

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01		NUMERIC-FIELDS.	*AA050
	05	9-0030-REMIS PICTURE X(5) VALUE "+0402".	*AA050
	05	9-0030-QTMAC PICTURE X(5) VALUE " 0200".	*AA050
01		CMES-COMMUNICATION.	*AA060
	05	CMES-YR00 PICTURE X(4000).	*AA060
	05	CMES-YO00 PICTURE X(3798).	*AA060
	05	CMES-PFKEY PICTURE XX.	*AA060
	05	CMES-IND1 COMP-6.	*AA060
	05	CMES-IND2 COMP-6.	*AA060
	05	CMES-YMAT PICTURE X.	*AA060
	05	CMES-YCRE PICTURE X.	*AA060
	05	CMES-YPCUR PICTURE X(5) VALUE SPACE.	*AA060
01		END-CONVERSATION.	*AA070
	05	END-MESSAGE PICTURE X(30) VALUE SPACE.	*AA070
	05	END-ATTR PICTURE X(12) VALUE "01001030FNNW".	*AA070
01		0030-MPRIOR PICTURE X(80).	*AA076

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 DESCRIPTION OF VALIDATION AREAS

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01	VALIDATION-TABLE-FIELDS.	*AA150
02	DE-ERR.	*AA150
05	DE-ER PICTURE X	*AA150
	OCCURS 046.	*AA150
02	DE-E REDEFINES DE-ERR.	*AA150
03	ER-0030-BEGIN.	*AA150
05	ER-0030-CHOIX PICTURE X.	*AA150
05	ER-0030-MATE PICTURE X.	*AA150
05	ER-0030-RELEA PICTURE X.	*AA150
05	ER-0030-RUE PICTURE X.	*AA150
05	ER-0030-COPOS PICTURE X.	*AA150
05	ER-0030-REFCLI PICTURE X.	*AA150
05	ER-0030-DATE PICTURE X.	*AA150
05	ER-0030-CORRES PICTURE X.	*AA150
05	ER-0030-REMIS PICTURE X.	*AA150
03	PS-30-LINE OCCURS 9.	*AA150
05	FILLER PICTURE X(0004).	*AA150
03	ER-0030-END.	*AA150
05	ER-0030-EDIT PICTURE X.	*AA150
02	ER-0030-LINE.	*AA150
05	ER-0030-CODMVT PICTURE X.	*AA150
05	ER-0030-FOURNI PICTURE X.	*AA150
05	ER-0030-QTMAC PICTURE X.	*AA150
05	ER-0030-INFOR PICTURE X.	*AA150
01	TT-DAT.	*AA200
05	T-DAT PICTURE X OCCURS 5.	*AA200
01	LEAP-YEAR.	*AA200
05	LEAP-FLAG PICTURE X.	*AA200
05	LEAP-REM PICTURE 99.	*AA200
01	USERS-ERROR.	*AA200
05	XEMKY.	*AA200
	10 XPROGR PICTURE X(6).	*AA200
	10 XERCD PICTURE X(4).	*AA200
05	T-XEMKY OCCURS 01.	*AA200
	10 T-XPROGR PICTURE X(6).	*AA200
	10 T-XERCD PICTURE X(4).	*AA200
01	PACBASE-INDEXES COMPUTATIONAL-6.	*AA200
05	TALLY PICTURE S9(4) VALUE ZERO.	*AA200
05	K01 PICTURE S9(4).	*AA200
05	K02 PICTURE S9(4).	*AA200
05	K03 PICTURE S9(4).	*AA200
05	K04 PICTURE S9(4).	*AA200
05	K50R PICTURE S9(4) VALUE ZERO.	*AA200
05	K50L PICTURE S9(4) VALUE ZERO.	*AA200
05	K50M PICTURE S9(4)	*AA200
	VALUE +01.	*AA200
05	IWP20L PICTURE S9(4) VALUE ZERO.	*AA200
05	IWP20R PICTURE S9(4) VALUE ZERO.	*AA200
05	IWP20M PICTURE S9(4) VALUE +0009.	*AA200
05	5-CD05-LTH PICTURE S9(4) VALUE +0157.	*AA200
05	5-CA00-LTH PICTURE S9(4) VALUE +0147.	*AA200
05	5-CD05-LTHV PICTURE S9(4) VALUE +0157.	*AA200
05	5-CD10-LTH PICTURE S9(4) VALUE +0139.	*AA200
05	5-CD10-LTHV PICTURE S9(4) VALUE +0139.	*AA200
05	5-CD20-LTH PICTURE S9(4) VALUE +0001.	*AA200
05	5-CD20-LTHV PICTURE S9(4) VALUE +0001.	*AA200
05	5-FO10-LTH PICTURE S9(4) VALUE +0057.	*AA200
05	5-FO10-LTHV PICTURE S9(4) VALUE +0057.	*AA200
05	5-ME00-LTH PICTURE S9(4) VALUE +0082.	*AA200
05	LTH PICTURE S9(4) VALUE ZERO.	*AA200
05	5-0030-LENGTH PICTURE S9(4)	*AA200
	VALUE +0883.	*AA200
01	NUMERIC-VALIDATION-FIELDS.	*AA200
05	ZONUM1.	*AA200
	10 C1 PICTURE X OCCURS 27.	*AA200
05	ZONUM2.	*AA200
	10 C2 OCCURS 18.	*AA200
	15 C29 PICTURE S9.	*AA200
05	ZONUM9 REDEFINES ZONUM2 PICTURE 9(18).	*AA200
05	NUMPIC.	*AA200
	10 SIGNE PICTURE X.	*AA200
	10 NBCHA PICTURE 99.	*AA200
	10 NBCHP PICTURE 99.	*AA200
05	C9 PICTURE S9.	*AA200
05	C91 PICTURE X.	*AA200
05	TPOINT PICTURE X.	*AA200
05	ZONUM3.	*AA200

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DESCRIPTION OF VALIDATION AREAS

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10 C3	PICTURE X OCCURS 18.	*AA200
05 ZONUM4	REDEFINES ZONUM3 PICTURE 9(18).	*AA200
05 ZONUM5	PICTURE S99 VALUE -10.	*AA200
05 ZONUM6	REDEFINES ZONUM5.	*AA200
10 FILLER	PICTURE X.	*AA200
10 C4	PICTURE X.	*AA200

## 2.6. TABLE-OF-ATTRIBUTES AND SEGMENT VARIABLES

### TABLE-OF-ATTRIBUTES AND SEGMENT VARIABLES

The 'TABLE-OF-ATTRIBUTES' level is generated if the screen includes at least one variable Data Element (NATURE = 'V').

The DE-ATT table is the image of DE-ERR repeated four times. It is used to store the attributes of the Data Elements on the screen.

It is used to set the error attributes (which have been defined at the screen level) for a Data Element in error (for the management of this table refer to Subchapter "ERROR PROCESSING (F70)", Chapter "GENERATED PROGRAM: PROCEDURE DIVISION").

The coding for each Data Element is formatted as follows:

```
.A-scrn-MATE (A) for non-repetitive Data Elements  
.B-scrn-LINE (B) for the Data Elements defining a  
repetitive category (Nature 'R').
```

NOTE: 'scrn' = the last four characters of the screen code.

The table positions correspond to the attributes:

```
A = 1 Intensity attribute.  
A = 2 Presentation attribute.  
A = 3 Color attribute.  
A = 4 Cursor positioned on the Data Element.
```

After the Table-of-Attributes, there is an area detailing the attributes of the Data Elements of the repetitive category. This area is used to position the attributes of each occurrence of these Data Elements.

```
.02 A-0030-LINE OCCURS 4.  
.05 A-0030-CODMVT PICTURE X.  
.05 A-0030-FOURNI PICTURE X.  
etc.
```

The 'STOP-FIELDS' level is generated if a display control break has been defined for at least one Data Element of the repetitive category (display control break 'C' for a Data Element of a Segment used on the screen):

```
.02 C-0030  
.05 C-0030-COCARA PICTURE X.  
.05 C-0030-NUCOM PICTURE 9(5).
```

These areas are used to store the value of a Data Element which must remain constant in the display.

The 'FIRST-ON-SEGMENT' level is generated when at least one Segment that is not preceded by an access to another Segment, is used on display in the repetitive category.

In this case, a variable is generated for each Segment, indicating the first access to the Segment (key to be loaded in order to read the Segment on display).

Example:

```
05 CD10-FST PICTURE X.  
  
. '1' First on the Segment,  
. '0' Next read of the Segment.
```

#### DESCRIPTION OF THE ERROR MESSAGE FILE

The level EM00, which corresponds to the description of the error message file, is always generated.

The user can replace this description if he/she generates a description which includes fields coded the same as those used in the PROCEDURE DIVISION (EM00-APPLI , etc.).

The user has to enter a Work Areas (-W) line coded 'AA300' in order to override the generated description.

GENERATED DATA DIVISION (TP8 MULTI-SCREEN)  
 TABLE-OF-ATTRIBUTES AND SEGMENT VARIABLES

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01	TABLE-OF-ATTRIBUTES.	*AA250
02	DE-ATT.	*AA250
03	DE-ATT1 OCCURS 4.	*AA250
05	DE-AT PICTURE X	*AA250
	OCCURS 046.	*AA250
02	DE-A REDEFINES DE-ATT.	*AA250
03	DE-ATT2 OCCURS 4.	*AA250
04	A-0030-BEGIN.	*AA250
05	A-0030-CHOIX PICTURE X.	*AA250
05	A-0030-MATE PICTURE X.	*AA250
05	A-0030-RELEA PICTURE X.	*AA250
05	A-0030-RUE PICTURE X.	*AA250
05	A-0030-COPOS PICTURE X.	*AA250
05	A-0030-REFCLI PICTURE X.	*AA250
05	A-0030-DATE PICTURE X.	*AA250
05	A-0030-CORRES PICTURE X.	*AA250
05	A-0030-REMIS PICTURE X.	*AA250
04	B-0030-LINE OCCURS 9.	*AA250
05	FILLER PICTURE X(0004).	*AA250
04	A-0030-END.	*AA250
05	A-0030-EDIT PICTURE X.	*AA250
02	A-0030-LINE OCCURS 4.	*AA250
05	A-0030-CODMVT PICTURE X.	*AA250
05	A-0030-FOURNI PICTURE X.	*AA250
05	A-0030-QTMAC PICTURE X.	*AA250
05	A-0030-INFOR PICTURE X.	*AA250
01	AT-SV.	*AA260
10	FILLER PICTURE X(6) VALUE "089NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "010NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "012NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "015NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "016NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "019NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "021NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "023NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "025NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "032NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "033NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "034NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "037NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "038NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "039NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "040NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "043NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "044NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "045NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "046NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "049NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "050NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "051NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "052NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "055NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "056NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "057NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "058NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "061NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "062NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "063NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "064NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "067NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "068NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "069NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "070NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "073NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "074NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "075NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "076NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "079NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "080NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "081NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "082NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "085NNW".	*AA260
10	FILLER PICTURE X(6) VALUE "087NNW".	*AA260
01	TABLE-SV-AT REDEFINES AT-SV.	*AA265
02	LIGNE-SV-AT OCCURS 046.	*AA265
05	SV-AT PICTURE X.	*AA265
05	SV-ATTRI PICTURE X.	*AA265

GENERATED DATA DIVISION (TP8 MULTI-SCREEN)  
TABLE-OF-ATTRIBUTES AND SEGMENT VARIABLES

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	05	SV-ATTRP	PICTURE X.	*AA265
	05	SV-ATTRC	PICTURE X.	*AA265
01		FIRST-ON-SEGMENT.		*AA301
	05	CD10-FST	PICTURE X.	*AA301
01		STOP-FIELDS.		*AA310
02		C-0030.		*AA310
	05	C-0030-COCARA	PICTURE X.	*AA310
	05	C-0030-NUCOM	PICTURE 9(5).	*AA310



2.7. EXAMPLE OF SCREEN WORK AREAS (-W)

01	WW10-QTMAR		*BB200
	PICTURE 99		*BB200
	VALUE ZERO.		*BB201
01	IO-STATUS	PICTURE X(7).	*ST100
88	OK	VALUE "0000000".	*ST120
88	END-OF-SET	VALUE "0502100".	*ST140
88	NOT-FOUND	VALUE "0502400".	*ST160
88	NEXT-FOUND	VALUE "0502401".	*ST180
01	WP00.		*WP000
02	WP10.		*WP010
05	FILLER PIC X(25) VALUE		*WP020
	"23400BRISBANE	".	*WP030
05	FILLER PIC X(25) VALUE		*WP040
	"56400VICTORIA	".	*WP050
05	FILLER PIC X(25) VALUE		*WP060
	"76500ALICE SPRINGS	".	*WP070
05	FILLER PIC X(25) VALUE		*WP080
	"55300MELBOURNE	".	*WP090
05	FILLER PIC X(25) VALUE		*WP100
	"11000CANBERRA	".	*WP110
05	FILLER PIC X(25) VALUE		*WP120
	"34500PERTH	".	*WP130
05	FILLER PIC X(25) VALUE		*WP140
	"85270DARWIN	".	*WP150
05	FILLER PIC X(25) VALUE		*WP160
	"94000HOBART	".	*WP170
05	FILLER PIC X(25) VALUE		*WP180
	"89300SYDNEY	".	*WP190
02	WP20 REDEFINES WP10 OCCURS 9.		*WP300
05	WP20-COPOS		*WP320
	PICTURE X(5).		*WP320
05	WP20-VILLE		*WP340
	PICTURE X(20).		*WP340
02	WP30.		*WP400
05	WP30-COPOS		*WP410
	PICTURE X(5).		*WP410
02	WP40.		*WP500
05	WP40-VILLE		*WP510
	PICTURE X(20).		*WP510
05	WP40-VILLEL		*WP520
	PICTURE X(20).		*WP520

## 2.8. LINKAGE SECTION

### LINKAGE SECTION

The 'TRANSACTION-STORAGE' level is generated according to the values entered on the Dialogue Complement (-O) screen and the access keys of the segments used in display.

This level is the common area used by every screen of the dialogue.

. K-S0030-YMAT (except DPS7 FORMS)

Always generated; used to store the type of screen used.

. K-S0030-PROGR

Always generated; used to store the screen code.

. K-S0030-XTERM

Always generated; used to store the terminal code.

If a documentation help character has been entered on the Screen Definition screen, the following fields are generated:

. K-S0030-DOC

HELP function indicator:

'0' No backup created for the screen,  
'1' Backup created for the screen,  
'2' Request for screen-level documentation,  
'3' Request for field-level documentation.

. K-S0030-PROGE

Used to store the external name of the calling program.

. K-S0030-LIBRA

Used to store the library code.

. K-S0030-PROHE

. K-S0030-ERCOD

. K-S0030-ERTYP

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LINKAGE SECTION

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. K-S0030-LINUM

Technological fields reserved for the 'HELP' Function program.

CA00 Data Structure describing the user Common Area (if the data structure contains several segments, they are described in 'redefines' clauses).

K-0030 Complementary field for memorization of the dialogue (see Subchapter "DIALOGUE COMPLEMENT", Chapter "DESCRIPTION OF A TRANSACTION" in the OLSD Reference Manual).

The following fields are used to store the access keys of segments used in display (without a preceding segment):

K-A0030-BEGIN

Automatic generation of screen-top category.

K-AC005-CLECD

Key of the screen-top category.

K-R0030-LINE OCCURS 2

Generated according to the data element defining the repetitive category (the 1st occurrence stores the beginning of display key; the 2nd stores the display key of the next screen (i.e. page).

K-RCD10-CLECD

Key for repetitive category.

K-Z0030-END

Key of the screen-bottom category (generated according to the data element defining the screen-bottom category).

K-ZME00-CLEME

Key of the screen-bottom category.

ZONES-VARIABLES

Generated if the chosen generation option is 'MDT OFF' or "Dynamic protection of variable fields". This level retrieves the description of the variable fields of the screen. The description of the fields belonging to the data element defining the repetitive category is generated after the screen description. This level retrieves also a table of attributes for each variable field of the screen. This table will be used in case of a field protection.

A FILLER aligns the K-0030 and 'ZONES-VARIABLES' fields on 100 positions (by default), unless the user has specified a greater length on the Dialogue Complement (-O) screen.

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LINKAGE SECTION.	DO0030
COPY TP-STORAGE OF TP.	*0Z010
01 CONSTANT-STORAGE PICTURE X(4).	*0Z015
01 TRANSACTION-STORAGE.	*0Z020
02 K-S0030-YMAT PICTURE X.	*00000
02 K-S0030-PROGR PICTURE X(6).	*00000
02 K-S0030-XTERM PICTURE X(12).	*00000
02 CA00.	*00001
10 CA00-CLECD.	*00001
15 CA00-NUCOM PICTURE 9(5).	*00001
10 CA00-CLECL1.	*00001
15 CA00-NUCLIE PICTURE 9(8).	*00001
10 CA00-ME00.	*00001
15 CA00-CLEME.	*00001
20 CA00-COPERS PICTURE X(5).	*00001
20 CA00-NUMORD PICTURE XX.	*00001
15 CA00-MESSA PICTURE X(75).	*00001
10 CA00-PREM PICTURE X.	*00001
10 CA00-LANGU PICTURE X.	*00001
10 CA00-RAISOC PICTURE X(50).	*00001
02 K-S0030-DOC PICTURE X.	*00002
02 K-S0030-PROGE PICTURE X(8).	*00002
02 K-S0030-LIBRA PICTURE XXX.	*00002
02 K-S0030-PROHE PICTURE X(8).	*00002
02 K-S0030-ERCOD.	*00002
05 K-S0030-ERCOD9 PICTURE 999.	*00002
02 K-S0030-ERTYP PICTURE X.	*00002
02 K-S0030-LINUM PICTURE 999.	*00002
02 K-S0030-PFKEY PICTURE XX.	*00002
02 K-0030.	*00002
03 K-Z0030-END.	*00002
05 K-ZME00-CLEME PICTURE X(7).	*00002
02 FILLER PICTURE X(0693).	*00002
02 K-0030.	*01001
05 K-ACD05-NUCOM	*01105
PICTURE 9(5).	*01105
05 K-RCD10-DBKEY OCCURS 2	*01308
DB-KEY.	*01308
COMMUNICATION SECTION.	*90010
CD 7-CD01 INPUT	*90020
SYMBOLIC QUEUE 7-CD01-CTRAN	*90030
MESSAGE DATE 7-CD01-XDATE	*90040
MESSAGE TIME 7-CD01-XTIME	*90050
SYMBOLIC SOURCE 7-CD01-XTERM	*90060
TEXT LENGTH 7-CD01-XLOMES	*90070
END KEY 7-CD01-XFINME	*90080
STATUS KEY 7-CD01-XMSTA.	*90090
CD 7-CD02 OUTPUT	*90100
DESTINATION COUNT 7-CD02-XNDEST	*90110
TEXT LENGTH 7-CD02-XLOMES	*90120
STATUS KEY 7-CD02-XMSTA	*90130
ERROR KEY 7-CD02-XMERR	*90140
SYMBOLIC DESTINATION 7-CD02-XTERM.	*90150

### **3. GENERATED PROCEDURE DIVISION (TP8 MULTI- SCREEN)**

### 3.1. STANDARD STRUCTURE OF THE PROCEDURE DIVISION

STANDARD STRUCTURE OF THE PROCEDURE DIVISION

```
F0110  Initializations
-----
F05    RECEPTION      (ICF = '1')
F0510  Reception of the message
F0512  Documentation call procedure
F0520  Validation of Operation Code (OPER)
F1010  Set and test Category (CATX)      <-----+
F15    Validation of the Transaction Code (CATM)  !
F20    Data element validation           !
F25    Segment access for validation      !
F30    Data element transfer             !
F35    Segment update                    !
F3999-ITER-FI. GO TO F10.  -----+
F3999-ITER-FT. EXIT.

F4010  Set-up keys for new display
F4020  Set-up keys for scrolling
F4030  End of transaction
F4040  Transfer to another screen

END-OF-RECEPTION.  (F45-FN)
-----
F50    DISPLAY      (OCF = '1')
F5010  Initialization
F5510  Category processing      <-----+
F60    Segment access for display  !
F65    Data element transfer      !
F6999-ITER-FI. GO TO F55.  -----+
F6999-ITER-FT. EXIT.

F7010  Error processing
F7020  Positioning of attributes

END-OF-DISPLAY.  (F78-FN)
-----
F8Z05  Memorization of the screen
F8Z10  Send Map
F8Z20  END OF PROGRAM

-----  Called functions -----
F80    Physical segment access routines
F81    Performed validation functions
F93    User functions
```

### *3.2. F01 : INITIALIZATIONS*

#### F01 : INITIALIZATIONS

The INITIALIZATIONS (F01) function is always generated.

It contains the initializations of work areas, of the input field attributes, and of the screen description table AT-0030-MESSO.

It ensures (in the first screen of the dialogue PRIOR-TPR) the first RECEIVE in a FILLER (length = 80).

It triggers the procedure to be executed in case of error.

It ensures the branching to the physical display function after consultation of HELP documentation (if a documentation call character is entered on the Screen Definition screen).



GENERATED PROCEDURE DIVISION (TP8 MULTI-SCREEN)  
 F01 : INITIALIZATIONS

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PROCEDURE DIVISION USING TP-STORAGE CONSTANT-STORAGE	*99999
TRANSACTION-STORAGE.	*99999
*****	DO0030
*	DO0030
* INITIALIZATIONS	* DO0030
*	* DO0030
*****	DO0030
F01. EXIT.	DO0030
F0101. OPEN INPUT EM-FILE.	DO0030
OPEN I-O HE-FILE.	DO0030
OPEN INPUT ME-FILE.	DO0030
F0101-FN. EXIT.	DO0030
F0105. MOVE ZERO TO K01.	DO0030
F0105-B. ADD 1 TO K01.	DO0030
MOVE SV-AT (K01) TO K02.	DO0030
MOVE SV-ATTRI (K01) TO AT-0030-ATTRI (K02)	DO0030
MOVE SV-ATTRP (K01) TO AT-0030-ATTRP (K02)	DO0030
MOVE SV-ATTRC (K01) TO AT-0030-ATTRC (K02).	DO0030
IF K01 < INT GO TO F0105-B.	DO0030
F0105-FN. EXIT.	DO0030
F0110. ACCEPT TIMCO FROM TIME.	DO0030
ACCEPT DATOR FROM DATE.	DO0030
MOVE ZERO TO CATX FT K50L.	DO0030
MOVE "1" TO ICF OCF SCR-ER.	DO0030
MOVE ZERO TO VALIDATION-TABLE-FIELDS.	DO0030
MOVE ZERO TO 7-CD01-XMSTA 7-CD02-XMSTA.	DO0030
MOVE SPACE TO CATM OPER OPERD CAT-ER.	DO0030
MOVE SPACE TO TABLE-OF-ATTRIBUTES.	DO0030
MOVE ZERO TO CONFIGURATIONS.	DO0030
MOVE ZERO TO USERS-ERROR.	DO0030
IF PROGR NOT = K-S0030-PROGR	DO0030
MOVE ZERO TO ICF.	DO0030
IF PRIOR-TPR = LOW-VALUE MOVE ZERO TO ICF	DO0030
K-S0030-DOC	DO0030
RECEIVE 7-CD01 MESSAGE INTO 0030-MPRIOR	DO0030
NO DATA MOVE "1" TO IK.	DO0030
IF PRIOR-TPR = LOW-VALUE	DO0030
PERFORM F81ES THRU F81ES-FN	DO0030
MOVE 7-CD01-XTERM TO K-S0030-XTERM.	DO0030
MOVE LOW-VALUE TO O-0030.	DO0030
IF ICF = ZERO PERFORM F8115 THRU F8115-FN.	DO0030
MOVE K-S0030-XTERM TO HE00-XTERM.	DO0030
IF K-S0030-DOC = "2" OR K-S0030-DOC = "3"	DO0030
MOVE "1" TO K-S0030-DOC GO TO F8Z05.	DO0030
MOVE "X" TO DE-AT (4, 010).	DO0030
MOVE SPACE TO O-0030-ERMSG (01).	DO0030
F0110-FN. EXIT.	DO0030
F0160. IF ICF = ZERO MOVE "A" TO OPER	DO0030
GO TO F3999-ITER-FT.	DO0030
F0160-FN. EXIT.	DO0030
F01-FN. EXIT.	DO0030
LEVEL 10 I INIT. NUMBER OF LOADED ITEMS I	P000
-----+	P000
-----+	P000
F02CP. MOVE IWP20M TO IWP20L.	P000
F02CP-FN. EXIT.	P100
	P000

### 3.3. F05 : RECEPTION

#### F05 : RECEPTION

The F05 paragraph contains the conditions for all the procedures which have to do with the 'RECEPTION' part of the program: from F05 to END-OF-RECEPTION (F45-FN).

In general, all the automatic functions in this part of the program are generated if at least one variable data element (NATURE = 'V') is defined on the screen.

Sub-function F0510 contains the reception of the screen in the area used for communication with the sub-program which is called by a 'CALL'.

If an initialization character has been specified on the Screen Definition screen, it will be replaced by blanks (except when a branch to a "HELP" screen is executed).

The F0512 sub-function is generated if a documentation call has been entered on the Screen Definition screen. It initializes the fields that are necessary for branching to the "HELP" screen.

The F0520 sub-function is generated if a variable data element from the screen, or a special PFKEY data element, is defined as an Operation Code on the Screen Call of Elements.

The internal Operation Code 'OPER' is set according to the:

- Value of the screen data element defined as an Operation Code (values specified with TYPE OF LINE = 'O' on the Data Element Description (-D) screen;
- Value of the PFKEY data element (entered on the Screen Call of Elements (-CE)).

If an error is found in the value of the Operation Code, subsequent 'reception' procedures are not executed.

```
***** DO0030
* DO0030
* RECEPTION * DO0030
* * DO0030
***** DO0030
F05. IF ICF = ZERO GO TO END-OF-RECEPTION. DO0030
F0510. DO0030
      PERFORM F81RE THRU F81RE-FN. DO0030
      IF ICF = ZERO GO TO END-OF-RECEPTION. DO0030
      PERFORM F81ES THRU F81ES-FN. DO0030
      MOVE 7-CD01-XTERM TO K-S0030-XTERM. DO0030
      MOVE 7-CD01-XLOMES TO CMES-IND1. DO0030
      MOVE AT-0030-MESSA TO CMES-YO00. DO0030
      MOVE K-S0030-YMAT TO CMES-YMAT. DO0030
      MOVE K-S0030-PFKEY TO CMES-PFKEY. DO0030
      MOVE 7-YCRER TO CMES-YCRE. DO0030
      CALL "ZAR980" USING CMES-COMMUNICATION DO0030
      IF CMES-YR00 = ALL "*" MOVE ZERO TO ICF DO0030
      GO TO END-OF-RECEPTION. DO0030
      MOVE CMES-PFKEY TO I-PFKEY K-S0030-PFKEY. DO0030
      IF CMES-YCRE = 7-YCREP DO0030
      MOVE CMES-IND1 TO 7-CD02-XLOMES DO0030
      MOVE 1 TO 7-CD02-XNDEST DO0030
      MOVE K-S0030-XTERM TO 7-CD02-XTERM DO0030
      SEND 7-CD02 FROM CMES-YR00 WITH EGI DO0030
      AFTER ADVANCING 0 LINES PERFORM F81ES THRU F81ES-FN DO0030
      GO TO F8Z10-G. DO0030
      MOVE CMES-YR00 TO 0030-MESSO. DO0030
      PERFORM F8155 THRU F8155-FN. DO0030
      MOVE "A" TO OPER MOVE SPACE TO OPERD. DO0030
      PERFORM F8150 THRU F8150-FN. DO0030
      IF K-S0030-ERCOD = ZERO DO0030
      INSPECT I-0030 REPLACING ALL "-" BY SPACE. DO0030
F0510-FN. EXIT. DO0030
F0512. IF K-S0030-ERCOD NOT = ZERO DO0030
      NEXT SENTENCE ELSE GO TO F0512-FN. DO0030
      MOVE "2" TO K-S0030-DOC DO0030
      MOVE PROGE TO K-S0030-PROGE DO0030
      MOVE LIBRA TO K-S0030-LIBRA. DO0030
      IF K-S0030-ERCOD NOT = SPACE DO0030
      MOVE "3" TO K-S0030-DOC. DO0030
      MOVE K-S0030-XTERM TO HE00-XTERM DO0030
      PERFORM F80-HELP-R THRU F80-FN DO0030
      MOVE HE00-SCREEN TO O-0030 DO0030
      PERFORM F8130 THRU F8130-FN DO0030
      MOVE O-0030 TO HE00-SCREEN DO0030
      PERFORM F80-HELP-RW THRU F80-FN DO0030
      MOVE PRDOC TO 5-0030-PROGE K-S0030-PROHE DO0030
      MOVE "O" TO OPER GO TO F4040. DO0030
F0512-FN. EXIT. DO0030
***** DO0030
* DO0030
* VALIDATION OF OPERATION CODE * DO0030
* * DO0030
***** DO0030
F0520. DO0030
      IF I-0030-CHOIX = "1" DO0030
      MOVE "DO0000" TO 5-0030-PROGE DO0030
      MOVE "O" TO OPER GO TO F40-A. DO0030
      IF I-0030-CHOIX = "2" DO0030
      MOVE "DO0010" TO 5-0030-PROGE DO0030
      MOVE "O" TO OPER GO TO F40-A. DO0030
      IF I-0030-CHOIX = "3" DO0030
      MOVE "DO0020" TO 5-0030-PROGE DO0030
      MOVE "O" TO OPER GO TO F40-A. DO0030
      IF I-0030-CHOIX = "4" DO0030
      MOVE "DO0040" TO 5-0030-PROGE DO0030
      MOVE "O" TO OPER GO TO F40-A. DO0030
      IF I-0030-CHOIX = "5" DO0030
      MOVE "DO0050" TO 5-0030-PROGE DO0030
      MOVE "O" TO OPER GO TO F40-A. DO0030
      IF I-0030-CHOIX = "0" DO0030
      MOVE "DO0070" TO 5-0030-PROGE DO0030
      MOVE "O" TO OPER GO TO F40-A. DO0030
      IF I-0030-CHOIX = "7" DO0030
      MOVE "M" TO OPER GO TO F0520-900. DO0030
      IF I-0030-CHOIX = "8" DO0030
```

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 F05 : RECEPTION

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MOVE "S" TO OPER GO TO F0520-900.	DO0030
MOVE "5" TO ER-0030-CHOIX MOVE "4" TO SCR-ER	DO0030
GO TO F3999-ITER-FT.	DO0030
F0520-900.	DO0030
IF OPER NOT = "A" AND OPER NOT = "M" AND OPER NOT = "O"	DO0030
GO TO F3999-ITER-FT.	DO0030
F0520-FN. EXIT.	DO0030
F05-FN. EXIT.	DO0030
	P000
LEVEL 10 I NO UPDATE ==> END OF RECEIVE I	P000
	P000
F08BB. IF OPER NOT = "M"	P000
NEXT SENTENCE ELSE GO TO F08BB-FN.	P000
GO TO F3999-ITER-FT.	P100
F08BB-FN. EXIT.	P000

### *3.4. F10 : CATEGORY PROCESSING LOOP*

#### F10 : CATEGORY POSITIONING

The CATEGORY POSITIONING function positions the category to be processed in 'RECEPTION' using the CATX indicator which may be set to one of the following values:

'0' Beginning of RECEPTION  
' ' Screen-top category  
'R' Repetitive category  
'Z' Screen-bottom category

Procedures are generated according to the categories defined on the Screen Call of Elements ('-CE') screen.

If no category has been defined, the screen is considered to be a screen-top category.

For the repetitive category, this function includes the interaction between the line of the category to be processed and the input screen description field used to access each of the data elements on the line.

This function also includes the initialization and incrementation of the ICATR index, which manages the repetitive category.

If an error is detected (CAT-ER = 'E') once the processing of a category is complete (F15 to F3999-ITER-FI), SCR-ER is set and validation processing on the subsequent categories is not executed.

GENERATED PROCEDURE DIVISION (TP8 MULTI-SCREEN)  
 F10 : CATEGORY PROCESSING LOOP

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```

*****
*                                     *
*   CATEGORY PROCESSING LOOP         *
*                                     *
*****
F10.      EXIT.
F1010.    MOVE SPACE TO CATM.
          IF CATX = "R"
          MOVE  O-0030-LINE           TO
              P-0030-LINE           (ICATR)
          MOVE  A-0030-LINE           (1) TO
              B-0030-LINE           (1, ICATR)
          MOVE  A-0030-LINE           (2) TO
              B-0030-LINE           (2, ICATR)
          MOVE  A-0030-LINE           (4) TO
              B-0030-LINE           (4, ICATR)
          MOVE  I-0030-LINE           TO
              J-0030-LINE           (ICATR)
          MOVE  ER-0030-LINE          TO
              PS-30-LINE           (ICATR).
          IF CAT-ER = "E" MOVE "4" TO SCR-ER GO TO F3999-ITER-FT.
          MOVE SPACE TO CAT-ER.
          IF CATX = "0" MOVE " " TO CATX GO TO F1010-FN.
          IF CATX = " " MOVE "R" TO CATX MOVE ZERO TO ICATR.
          IF CATX = "R" AND ICATR < IRR ADD 1 TO ICATR
          MOVE  PS-30-LINE           (ICATR) TO
              ER-0030-LINE
          MOVE  B-0030-LINE           (4, ICATR) TO
              A-0030-LINE           (4)
          MOVE  P-0030-LINE           (ICATR) TO
              O-0030-LINE
          MOVE  J-0030-LINE           (ICATR) TO
              I-0030-LINE           GO TO F1010-FN.
          IF CATX = "R" MOVE "Z" TO CATX GO TO F1010-FN.
F1010-A.  GO TO F3999-ITER-FT.
F1010-FN. EXIT.
F10-FN.   EXIT.

```

### *3.5. F15 : VALIDATION OF TRANSACTION CODE*

#### F15 : TRANSACTION CODE POSITIONING

The VALIDATION OF TRANSACTION CODE (F15) function is generated if at least one Data Element is defined as a Transaction Code in a category on the Screen Call of Elements ('-CE') screen.

The internal transaction code (CATM) is set according to the Data Element's value that is defined as a Transaction Code for the category. The value can be given to the Data Element on:

- . the Data Element Description (-D) screen with TYPE OF LINE = 'I',
- . the Screen Call of Elements (-CE) screen in the Transaction Code Data Element call line.

Depending on the categories defined on the screen (and for which a transaction code is indicated) the F15 function includes the following:

- .F15A for the screen-top category,
- .F15R for the repetitive category,
- .F15Z for the screen-bottom category.

If the transaction code is wrong, the subsequent 'RECEPTION' procedures are not executed.

GENERATED PROCEDURE DIVISION (TP8 MULTI-SCREEN)  
F15 : VALIDATION OF TRANSACTION CODE

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```
***** DO0030
* DO0030
* VALIDATION OF TRANSACTION CODE * DO0030
* DO0030
***** DO0030
F15. EXIT. DO0030
F15R. IF CATX NOT = "R" GO TO F15R-FN. DO0030
      IF OPER NOT = "M" MOVE SPACE TO CATM GO TO F15R-FN. DO0030
      IF I-0030-CODMVT = SPACE GO TO F15-FN. DO0030
      IF I-0030-CODMVT = "C" DO0030
      MOVE "C" TO CATM. DO0030
      IF I-0030-CODMVT = "M" DO0030
      MOVE "M" TO CATM. DO0030
      IF I-0030-CODMVT = "S" DO0030
      MOVE "A" TO CATM. DO0030
      IF CATM = SPACE DO0030
      MOVE 5 TO ER-0030-CODMVT MOVE "E" TO CAT-ER DO0030
      GO TO F3999-ITER-FI. DO0030
F15R-FN. EXIT. DO0030
F15Z. IF CATX NOT = "Z" GO TO F15Z-FN. DO0030
      IF OPER NOT = "M" MOVE SPACE TO CATM GO TO F15Z-FN. DO0030
      IF I-0030-EDIT = SPACE GO TO F15-FN. DO0030
      IF I-0030-EDIT = "O" DO0030
      MOVE "X" TO CATM. DO0030
      IF CATM = SPACE DO0030
      MOVE 5 TO ER-0030-EDIT MOVE "E" TO CAT-ER DO0030
      GO TO F3999-ITER-FI. DO0030
F15Z-FN. DO0030
      +-----+
      LEVEL 10 I INITIALIZATION CATM (HEADING) I P000
      +-----+ P000
F15AA. IF CATX = SPACE P000
      AND OPER = "M" P100
      NEXT SENTENCE ELSE GO TO F15AA-FN. P100
      MOVE "M" TO CATM. P100
F15AA-FN. EXIT. P000
F15-FN. EXIT. P000
```



### 3.6. F20 : DATA ELEMENT VALIDATION

#### F20 : DATA ELEMENT VALIDATION

The DATA ELEMENT VALIDATION (F20) function is generated when one variable Data Element has been specified on the screen.

Depending on which category or categories defined on the screen contain at least one Data Element to be validated, the F20 function includes the following:

- . F20A for the screen-top category.
- . F20R for the repetitive category.
- . F20Z for the screen-bottom category.

The procedure for each category contains one sub-function per Data Element to be validated. The validation procedures are the following:

- . Presence validation.
- . Numeric class validation.
- . Value validation according to the values or value ranges defined on the Data Element Description ('-D') screen, or on the Screen Call of Elements ('-CE') screen.
- . Validation of date (via PERFORM) for Data Elements defined with a 'DATE' format.
- . Validation of a sub-function (via PERFORM) defined by the user.

The conditioning of each sub-function is generated based on the procedure option of the Data Element.

The validation result for each Data Element is stored in a field coded ER-scrn-delcod (scrn: last four characters of the screen code; delcod: Data Element code), which takes the following values:

```
'0' : Data Element absent  
'1' : Data Element present  
'2' : invalid absence  
'4' : invalid class  
'5' : invalid value
```

'CAT-ER' is set when any Data Element (or user) error is detected.

NOTE: Sub-functions are numbered based on the number of Data Elements, their position on the screen, etc.

As a result, direct references should never be made to a label generated in specific procedures.

Use the Relative Positioning types \*A, \*P, and \*R (see chapter "USE OF STRUCTURED CODE" in the ON-LINE SYSTEMS DEVELOPMENT Reference Manual).

GENERATED PROCEDURE DIVISION (TP8 MULTI-SCREEN)  
 F20 : DATA ELEMENT VALIDATION

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```

*****
*                               *
*   DATA ELEMENT VALIDATION   *
*                               *
*****
F20.          EXIT.
F20A.  IF CATX NOT = " " GO TO F20A-FN.
F20A2.          IF I-0030-CHOIX NOT = SPACE
              MOVE "1" TO ER-0030-CHOIX.
F20A2-FN.      EXIT.
F20B1.          IF I-0030-MATE NOT = SPACE
              MOVE "1" TO ER-0030-MATE
              ELSE
              MOVE "2" TO ER-0030-MATE
              MOVE "E" TO CAT-ER          GO TO F20B1-FN.
              IF I-0030-MATE = "I1"
              OR I-0030-MATE = "I2"
              OR I-0030-MATE = "I3"
              OR I-0030-MATE = "I4"
              OR I-0030-MATE = "I5"
              OR I-0030-MATE = "B7"
              OR I-0030-MATE = "B8"
              OR I-0030-MATE = "UN"
              OR I-0030-MATE = "IC"
              OR I-0030-MATE = "IBM.V.OS"
              OR I-0030-MATE = "IBM.V.DO"
              OR I-0030-MATE = "IBM.D.OS"
              OR I-0030-MATE = "IBM.D.DO"
              OR I-0030-MATE = "IBM.IMS "
              OR I-0030-MATE = "DPS7  "
              OR I-0030-MATE = "DPS8  "
              OR I-0030-MATE = "UNISYS "
              OR I-0030-MATE = "ICL   "
              OR I-0030-MATE = "SPECIAL"
              NEXT SENTENCE ELSE
              MOVE "5" TO ER-0030-MATE.
              IF ER-0030-MATE > "1"
              MOVE "E" TO CAT-ER          GO TO F20B1-FN.
F20B1-FN.      EXIT.
F20B2.          IF I-0030-RELEA NOT = SPACE
              MOVE "1" TO ER-0030-RELEA
              ELSE
              MOVE "2" TO ER-0030-RELEA
              MOVE "E" TO CAT-ER          GO TO F20B2-FN.
              IF I-0030-RELEA = "7.2"
              OR I-0030-RELEA = "7.3"
              OR I-0030-RELEA = "8.0"
              NEXT SENTENCE ELSE
              MOVE "5" TO ER-0030-RELEA.
              IF ER-0030-RELEA > "1"
              MOVE "E" TO CAT-ER          GO TO F20B2-FN.
F20B2-FN.      EXIT.
F20B5.          IF I-0030-RUE NOT = SPACE
              MOVE "1" TO ER-0030-RUE.
F20B5-FN.      EXIT.
F20B6.          IF I-0030-COPOS NOT = SPACE
              MOVE "1" TO ER-0030-COPOS
              ELSE
              MOVE "2" TO ER-0030-COPOS
              MOVE "E" TO CAT-ER          GO TO F20B6-FN.
              MOVE I-0030-COPOS TO WP30-COPOS
              MOVE ER-0030-COPOS TO DEL-ER
              PERFORM F93CP THRU F93CP-FN
              MOVE WP30-COPOS TO
              I-0030-COPOS
              MOVE DEL-ER TO ER-0030-COPOS.
              IF ER-0030-COPOS > "1"
              MOVE "E" TO CAT-ER          GO TO F20B6-FN.
F20B6-FN.      EXIT.
F20B8.          IF I-0030-REFCLI NOT = SPACE
              MOVE "1" TO ER-0030-REFCLI.

```

GENERATED PROCEDURE DIVISION (TP8 MULTI-SCREEN)  
 F20 : DATA ELEMENT VALIDATION

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```

F20B8-FN.      EXIT.                                DO0030
F20B9.                                DO0030
          IF I-0030-DATE NOT = SPACE                DO0030
          MOVE "1" TO ER-0030-DATE                  DO0030
          ELSE                                       DO0030
          MOVE "2" TO ER-0030-DATE                  DO0030
          MOVE "E" TO CAT-ER                          GO TO F20B9-FN. DO0030
          MOVE I-0030-DATE TO DAT7                   DO0030
          PERFORM F8120-D THRU F8120-FN              DO0030
          MOVE DEL-ER TO ER-0030-DATE               DO0030
          IF DEL-ER > "1" MOVE "E" TO CAT-ER GO TO F20B9-FN. DO0030
F20B9-FN.      EXIT.                                DO0030
F20C0.                                DO0030
          IF I-0030-CORRES NOT = SPACE                DO0030
          MOVE "1" TO ER-0030-CORRES.               DO0030
          IF ER-0030-CORRES NOT = 1                  DO0030
          GO TO F20C0-FN.                            DO0030
F20C0-FN.      EXIT.                                DO0030
F20C1.                                DO0030
          IF E-0030-REMIS NOT = SPACE                DO0030
          MOVE "1" TO ER-0030-REMIS.                 DO0030
          MOVE E-0030-REMIS TO ZONUM1                DO0030
          MOVE 9-0030-REMIS TO NUMPIC                DO0030
          MOVE ER-0030-REMIS TO DEL-ER               DO0030
          PERFORM F8110 THRU F8110-FN                 DO0030
          MOVE DEL-ER TO ER-0030-REMIS              DO0030
          IF DEL-ER > 1 MOVE "E" TO CAT-ER GO TO F20C1-FN. DO0030
          MOVE ZONUM2 TO E-0030-REMIS.               DO0030
F20C1-FN.      EXIT.                                DO0030
F20A-FN.      EXIT.                                DO0030
F20R. IF CATX NOT = "R" GO TO F20R-FN.              DO0030
F20C3.                                DO0030
          IF I-0030-CODMVT NOT = SPACE                DO0030
          MOVE "1" TO ER-0030-CODMVT.                DO0030
F20C3-FN.      EXIT.                                DO0030
          +-----+
          LEVEL 10  I ITEM NOT AVAILABLE              I      P000
          +-----+
F20BB.                                P000
          IF I-0030-FOURNI = "CLA"                   P100
          AND CATM NOT = SPACE                       P110
          MOVE "A" TO ER-0030-FOURNI                 P100
          MOVE "E" TO CAT-ER                          P100
          GO TO F20C4-FN.                             P110
F20BB-FN.      EXIT.                                P000
F20C4.                                DO0030
          IF CATM = SPACE                            GO TO F20C4-FN. DO0030
          IF I-0030-FOURNI NOT = SPACE                DO0030
          MOVE "1" TO ER-0030-FOURNI                 DO0030
          ELSE                                       DO0030
          MOVE "2" TO ER-0030-FOURNI                 DO0030
          MOVE "E" TO CAT-ER                          GO TO F20C4-FN. DO0030
          IF I-0030-FOURNI = "DIC"                   DO0030
          OR I-0030-FOURNI = "MER"                   DO0030
          OR I-0030-FOURNI = "TAB"                   DO0030
          OR I-0030-FOURNI = "DBD"                   DO0030
          OR I-0030-FOURNI = "DSO"                   DO0030
          OR I-0030-FOURNI = "LGS"                   DO0030
          OR I-0030-FOURNI = "LGB"                   DO0030
          OR I-0030-FOURNI = "DLG"                   DO0030
          NEXT SENTENCE ELSE                          DO0030
          MOVE "5" TO ER-0030-FOURNI.                 DO0030
          IF ER-0030-FOURNI > "1"                    DO0030
          MOVE "E" TO CAT-ER                          GO TO F20C4-FN. DO0030
F20C4-FN.      EXIT.                                DO0030
F20C5.                                DO0030
          IF CATM = "A" OR CATM = SPACE                GO TO F20C5-FN. DO0030
          IF E-0030-QTMAC NOT = SPACE                 DO0030
          MOVE "1" TO ER-0030-QTMAC                   DO0030
          ELSE                                       DO0030
          MOVE "2" TO ER-0030-QTMAC                   DO0030
          MOVE "E" TO CAT-ER                          GO TO F20C5-FN. DO0030
          MOVE E-0030-QTMAC TO ZONUM1                 DO0030
          MOVE 9-0030-QTMAC TO NUMPIC                 DO0030
          MOVE ER-0030-QTMAC TO DEL-ER               DO0030
          PERFORM F8110 THRU F8110-FN                 DO0030
          MOVE DEL-ER TO ER-0030-QTMAC               DO0030
  
```

GENERATED PROCEDURE DIVISION (TP8 MULTI-SCREEN)  
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```
IF DEL-ER > 1 MOVE "E" TO CAT-ER GO TO F20C5-FN. DO0030
MOVE ZONUM2 TO E-0030-QTMAC. DO0030
IF I-0030-QTMAC NOT < 01 DO0030
AND I-0030-QTMAC NOT > 50 DO0030
NEXT SENTENCE ELSE DO0030
MOVE "5" TO ER-0030-QTMAC. DO0030
IF ER-0030-QTMAC > "1" DO0030
MOVE "E" TO CAT-ER GO TO F20C5-FN. DO0030
F20C5-FN. EXIT. DO0030
F20C8. DO0030
IF CATM = "A" OR CATM = SPACE GO TO F20C8-FN. DO0030
IF I-0030-INFOR NOT = SPACE DO0030
MOVE "1" TO ER-0030-INFOR. DO0030
IF ER-0030-INFOR NOT = 1 DO0030
GO TO F20C8-FN. DO0030
F20C8-FN. EXIT. DO0030
F20R-FN. EXIT. DO0030
F20Z. IF CATX NOT = "Z" GO TO F20Z-FN. DO0030
F20D0. DO0030
IF I-0030-EDIT NOT = SPACE DO0030
MOVE "1" TO ER-0030-EDIT. DO0030
F20D0-FN. EXIT. DO0030
F20Z-FN. EXIT. DO0030
F20-FN. EXIT. DO0030
```

### 3.7. F25 : SEGMENT ACCESS FOR VALIDATION

#### F25 : SEGMENT ACCESS FOR VALIDATION

The SEGMENT ACCESS FOR VALIDATION (F25) function is generated when there is at least one segment to be accessed in RECEPTION.

Depending on which categories defined on the screen contain a segment to be accessed in RECEPTION, the F25 function includes the following:

- . F25A for the screen-top category.
- . F25R for the repetitive category.
- . F25Z for the screen-bottom category.

In the processing for each category there is one sub-function per segment to be accessed, including:

- . The initialization of the key (if indicated on the -CS)
- . Read or Read with Segment Update depending on its use in the screen (by a PERFORM of F80-ddss-R or RU)
- . Positioning of the segment ddss-CF variable (1 if OK)
- . Error processing, if any.

Within a category, accesses are generated in the alphabetical order of the segment codes, except for segments which contain a 'preceding' segment.

If a segment is to be updated, its access depends on the CATM value. It is not performed if CATM = SPACE.

If a segment has a preceding segment, its access is performed if the ddss-CF variable of the preceding segment is equal to '1'.

Other types of reads are not conditioned.

Sub-function F2599 is generated if at least one of the Read segments can be updated.

It contains the PERFORM of functions F80-ddss-UN, according to the segments used, as well as cursor positioning on the first variable data element of the category, in the case of segment error.

NOTE: Sub-functions are numbered based on the number of segments, their positions on the '-CS' screen, etc. As a result, a direct reference should never be made to a generated label in the specific procedures.

Use the Relative Positioning types '\*A', '\*P' and '\*R' (see chapter "USE OF STRUCTURED CODE" in the ON-LINE SYSTEMS DEVELOPMENT Reference Manual).

## GENERATED PROCEDURE DIVISION (TP8 MULTI-SCREEN)

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## F25 : SEGMENT ACCESS FOR VALIDATION

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```

*****
*
*   SEGMENT ACCESS FOR VALIDATION
*
*****
F25.         IF CAT-ER NOT = SPACE GO TO F25-FN.
F25A.       IF CATX NOT = " " GO TO F25A-FN.
F2501.
MOVE "0" TO CD05-CF.
IF CATM = SPACE             GO TO F2501-FN.
MOVE SPACES                 TO   CD05-KEYCD
MOVE "B"                   TO   CD05-COCARA
MOVE CA00-NUCOM            TO   CD05-NUCOM
PERFORM F80-CD05-RU THRU F80-FN.
IF IK = "0"
MOVE "1" TO CD05-CF.
IF CATM NOT = "C" AND IK = "1"
MOVE "F019" TO XERCD
PERFORM F81UT             GO TO F2501-FN.
F2501-FN.   EXIT.
F25A-FN.    EXIT.
F25R.       IF CATX NOT = "R" GO TO F25R-FN.
F2502.
MOVE "0" TO CD10-CF.
IF CATM = SPACE             GO TO F2502-FN.
MOVE "C"                   TO   CD10-KEYCD
MOVE CA00-NUCOM            TO   CD10-NUCOM
MOVE I-0030-FOURNI        TO   CD10-FOURNI
PERFORM F80-CD10-RU THRU F80-FN.
IF IK = "0"
MOVE "1" TO CD10-CF.
IF CATM = "X" AND IK = "1" MOVE "C" TO CATM.
IF CATM = "X" AND IK = "0" MOVE "M" TO CATM.
IF CATM = "C" AND IK = "0"
MOVE "F028" TO XERCD
PERFORM F81UT             GO TO F2502-FN.
IF CATM NOT = "C" AND IK = "1"
MOVE "F029" TO XERCD
PERFORM F81UT             GO TO F2502-FN.
+-----+
LEVEL 12   I ACCESS TO FO10           I
+-----+
F25BB.
MOVE "1" TO CD10-CF.
F25BB-FN.  EXIT.
F2502-FN.  EXIT.
F2503.
MOVE "0" TO FO10-CF.
IF CD10-CF NOT = "1"       GO TO   F2503-FN.
IF CATM = SPACE             GO TO F2503-FN.
MOVE I-0030-FOURNI        TO   FO10-CLEFO
MOVE CA00-LANGU           TO   FO10-LANGU
MOVE I-0030-RELEA        TO   FO10-RELEA
MOVE I-0030-MATE         TO   FO10-MATE
PERFORM F80-FO10-RU THRU F80-FN.
IF IK = "0"
MOVE "1" TO FO10-CF.
IF IK = "1" MOVE "F039" TO XERCD
PERFORM F81UT             GO TO F2503-FN.
F2503-FN.  EXIT.
F25R-FN.   EXIT.
F25Z.       IF CATX NOT = "Z" GO TO F25Z-FN.
F2505.
MOVE "0" TO CD20-CF.
IF CATM = SPACE             GO TO F2505-FN.
MOVE SPACES                 TO   CD20-KEYCD
MOVE "E"                   TO   CD20-COCARA
MOVE CA00-NUCOM            TO   CD20-NUCOM
PERFORM F80-CD20-RU THRU F80-FN.
IF IK = "0"
MOVE "1" TO CD20-CF.
IF CATM = "X" AND IK = "1" MOVE "C" TO CATM.
IF CATM = "X" AND IK = "0" MOVE "M" TO CATM.
IF CATM = "C" AND IK = "0"
MOVE "F058" TO XERCD
PERFORM F81UT             GO TO F2505-FN.
IF CATM NOT = "C" AND IK = "1"

```



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 F25 : SEGMENT ACCESS FOR VALIDATION

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	MOVE "F059" TO XERCD	DO0030
	PERFORM F81UT GO TO F2505-FN.	DO0030
F2505-FN.	EXIT.	DO0030
F25Z-FN.	EXIT.	DO0030
F2599.	IF CAT-ER = SPACE GO TO F2599-FN.	DO0030
	IF CD05-CF = "1"	DO0030
	PERFORM F80-CD05-UN THRU F80-FN.	DO0030
	IF CD10-CF = "1"	DO0030
	PERFORM F80-CD10-UN THRU F80-FN.	DO0030
	IF FO10-CF = "1"	DO0030
	PERFORM F80-FO10-UN THRU F80-FN.	DO0030
	IF CD20-CF = "1"	DO0030
	PERFORM F80-CD20-UN THRU F80-FN.	DO0030
	IF CATX = " " AND DE-AT (4, 010) = "X"	DO0030
	MOVE " " TO DE-AT (4, 010).	DO0030
	IF CATX = " "	DO0030
	MOVE "X" TO A-0030-CHOIX (4).	DO0030
	IF CATX = "R" AND DE-AT (4, 010) = "X"	DO0030
	MOVE " " TO DE-AT (4, 010).	DO0030
	IF CATX = "R"	DO0030
	MOVE "X" TO A-0030-CODMVT (4).	DO0030
	IF CATX = "Z" AND DE-AT (4, 010) = "X"	DO0030
	MOVE " " TO DE-AT (4, 010).	DO0030
	IF CATX = "Z"	DO0030
	MOVE "X" TO A-0030-EDIT (4).	DO0030
F2599-FN.	EXIT.	DO0030
F25-FN.	EXIT.	DO0030
	+-----+	P000
LEVEL 10	I STOCK UPD.: ORDER DELETION/UPD I	P000
	+-----+	P000
F28BH.	IF (CATM = "A" OR "M")	P000
	AND CATX = "R"	P100
	AND CAT-ER = SPACES	P120
	NEXT SENTENCE ELSE GO TO F28BH-FN.	P120
ADD	CD10-QTMAL TO FO10-QTMAS.	P100
F28BH-FN.	EXIT.	P000

### *3.8. F30 : DATA ELEMENT TRANSFER*

#### F30: DATA ELEMENT TRANSFER

The DATA ELEMENT TRANSFER (F30) function ensures the transfer of Data Elements on the screen to the corresponding Data Elements in the Segments.

Depending on which categories defined on the screen contain at least one Data Element transfer on reception, the F30 function includes the following:

- . F30A for the screen-top category.
- . F30R for the repetitive category.
- . F30Z for the screen-bottom category.

The condition of the transfer is generated based on the use of the Segment on reception, or the value of the PRESENCE VALIDATION OF DATA ELEMENT field on the Screen Call of Elements ('-CE') screen.

GENERATED PROCEDURE DIVISION (TP8 MULTI-SCREEN)  
 F30 : DATA ELEMENT TRANSFER

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```

*****
*                                     *
*   DATA ELEMENT TRANSFER           *
*                                     *
*****
F30.      IF CAT-ER NOT = SPACE GO TO F30-FN.
F30A.     IF CATX NOT = " " GO TO F30A-FN.
          MOVE      I-0030-MATE      TO      CD05-MATE.
          MOVE      I-0030-RELEA     TO      CD05-RELEA.
          MOVE      I-0030-COPOS     TO      CD05-COPOS.
          MOVE      I-0030-REFCLI    TO      CD05-REFCLI.
          MOVE      I-0030-DATE      TO      CD05-DATE.
          MOVE      I-0030-REMIS     TO      CD05-REMIS.
          IF        ER-0030-CORRES = "1"
          MOVE      I-0030-CORRES    TO      CD05-CORRES.
F30A-FN.   EXIT.
F30R.     IF CATX NOT = "R" GO TO F30R-FN.
          IF        ER-0030-INFOR = "1"
          MOVE      I-0030-INFOR     TO      CD10-INFOR.
          IF CATM NOT = SPACE
          MOVE      I-0030-FOURNI    TO      CD00-FOURNI.
          IF CATM NOT = SPACE AND CATM NOT = "A"
          MOVE      I-0030-QTMAC     TO      CD10-QTMAC
          ADD       I-0030-QTMAC     TO      FO10-QTMAM.
          +-----+
LEVEL 10   I QUANTITY PROCESSING      I
          +-----+
F30BD.     +-----+
          +-----+
LEVEL 12   I CALC. DELIV. QUANT.      STOCK UPD.  I
          +-----+
F30BF.     IF        CATM = "C" OR "M"
          NEXT SENTENCE ELSE GO TO      F30BF-FN.
          IF        FO10-QTMAS NOT <
          MOVE      I-0030-QTMAC
          MOVE      I-0030-QTMAC TO CD10-QTMAL
          ELSE
          MOVE      FO10-QTMAS TO CD10-QTMAL.
          SUBTRACT  CD10-QTMAL FROM FO10-QTMAS
          MOVE      CD10-QTMAL TO O-0030-QTMAL.
F30BF-FN.   EXIT.
F30BD-FN.   EXIT.
F30R-FN.    EXIT.
F30Z.      IF CATX NOT = "Z" GO TO F30Z-FN.
          MOVE      I-0030-EDIT      TO      CD20-EDIT.
F30Z-FN.    EXIT.
F30-FN.     EXIT.

```

### 3.9. F35 : SEGMENT ACCESS FOR UPDATE

#### F35: SEGMENT ACCESS FOR UPDATE

This function ensures Segment updates. If an error has been detected by the error checks (CAT-ER), this function is not executed.

Depending on which categories contain a Segment to be updated, the SEGMENT ACCESS FOR UPDATE (F35) function includes the following:

- . F35A for the screen-top category.
- . F35R for the repetitive category.
- . F35Z for the screen-bottom category.

In the processing for each category there is one sub-function per Segment to be updated, possibly including several types of access.

The function is accessed by executing a PERFORM of the appropriate subfunction in F80.

For a Segment that does not follow an access to another Segment (i.e. the PRECEDING SEGMENT field in the Screen Call of Segments ('-CS') screen is left blank), access is conditioned by the value of the internal Transaction Code (CATM) found in the category, which corresponds to one of the following operations:

- . Creation: writing (F80-ddss-R).
- . Deletion: suppression (F80-ddss-D).
- . Other cases: rewriting (F80-ddss-RW)

The user must manage the access to other transactions if the rewrite option does not correspond to user needs.

For a Segment that follows an access to another Segment (i.e. a Segment is listed in the PRECEDING SEGMENT field on the Screen Call of Segments ('-CS') screen), access is conditioned by the Segment configuration, which is either:

- . ddss-CF = 0, writing, or
- . ddss-CF = 1, rewriting.

If a Data Element was defined as a Transaction Code on the Screen Call of Elements ('-CE') screen (in the VALIDATION CONDITIONS/SET VARIABLES field), it is set to blanks.

Paragraph F3999-ITER-FI returns to the beginning of the 'RECEPTION' iteration.

NOTE: Sub-functions are numbered based on the number of segments, their positions on the '-CS' screen, etc. As a result, a direct reference should never be made to a generated label in the specific procedures.

Use the Relative Positioning types '\*A', '\*P' and '\*R' (see chapter "USE OF STRUCTURED CODE" in the ON-LINE SYSTEMS DEVELOPMENT Reference Manual.)

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F35 : SEGMENT ACCESS FOR UPDATE

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```
***** DO0030
* DO0030
* SEGMENT ACCESS FOR UPDATE * DO0030
* DO0030
***** DO0030
F35. IF CAT-ER NOT = SPACE OR CATM = SPACE GO TO F35-FN. DO0030
F35A. IF CATX NOT = " " GO TO F35A-FN. DO0030
F3501. DO0030
      IF CATM NOT = "C" AND CATM NOT = "A" DO0030
      PERFORM F80-CD05-RW THRU F80-FN. DO0030
F3501-FN. EXIT. DO0030
F35A-FN. EXIT. DO0030
F35R. IF CATX NOT = "R" GO TO F35R-FN. DO0030
F3502. DO0030
      IF CATM = "C" DO0030
      PERFORM F80-CD10-W THRU F80-FN. DO0030
      IF CATM = "A" DO0030
      PERFORM F80-CD10-D THRU F80-FN. DO0030
      IF CATM NOT = "C" AND CATM NOT = "A" DO0030
      PERFORM F80-CD10-RW THRU F80-FN. DO0030
F3502-FN. EXIT. DO0030
F3503. DO0030
      IF FO10-CF = "1" DO0030
      PERFORM F80-FO10-RW THRU F80-FN. DO0030
F3503-FN. EXIT. DO0030
F35R-C3. MOVE SPACE TO O-0030-CODMVT. DO0030
F35R-FN. EXIT. DO0030
F35Z. IF CATX NOT = "Z" GO TO F35Z-FN. DO0030
F3505. DO0030
      IF CATM = "C" DO0030
      PERFORM F80-CD20-W THRU F80-FN. DO0030
      IF CATM NOT = "C" AND CATM NOT = "A" DO0030
      PERFORM F80-CD20-RW THRU F80-FN. DO0030
F3505-FN. EXIT. DO0030
F35Z-D0. MOVE SPACE TO O-0030-EDIT. DO0030
F35Z-FN. EXIT. DO0030
F35-FN. EXIT. DO0030
F3999-ITER-FI. GO TO F10. DO0030
F3999-ITER-FT. EXIT. DO0030
F3999-FN. EXIT. DO0030
```

### *3.10. F40 : END OF RECEPTION*

#### F40 : END-OF-RECEPTION

The END-OF-RECEPTION (F40) function contains the procedures for the end-of-reception processing of the program. It is executed as long as no errors have been found.

Within this function, there are four sub-functions which correspond to four procedures that are conditioned by the value of the Operation Code. Functions F4010, F4011, F4012 and F4020 are managed by Parameterized Macro-Structures. Examples of such P.M.S.'s are given in Chapter "P.M.S. CALLS").

#### MEMORIZATION OF KEYS (F4010)

This function is executed for a "display" or "update" operation. The keys to the segments with no preceding segment, or which are used in display, are given a value here.

#### NEXT PAGE (F4020)

This function is executed for a "screen continuation" operation. It contains the memorization of the first key for the display of the screen continuation, if the segment is used in the repetitive category.

GENERATED PROCEDURE DIVISION (TP8 MULTI-SCREEN)  
F40 : END OF RECEPTION

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END OF TRANSACTION (F4030)

This function is executed for an end-of-transaction operation. It sends the END-MESSAGE and calls the ZAR980 sub-program which formats the message before the SEND, which is executed by the program.

TRANSFER TO ANOTHER SCREEN (F4040)

This function is executed for a transfer to another screen operation.

NOTE: Functions F4010 and F4020 are to be written by the user for segments with ORGANIZATION = 'U'.



GENERATED PROCEDURE DIVISION (TP8 MULTI-SCREEN)  
**F40 : END OF RECEPTION**

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```

F40.          IF SCR-ER > "1" MOVE "A" TO OPER GO TO F40-FN.          DO0030
F40-A.        IF OPERD NOT = SPACE MOVE OPERD TO OPER.                DO0030
               +-----+
               I MEMORIZATION OF KEYS                                I          P000
               +-----+
F4010.        IF OPER = "A" OR "M"                                     P000
               NEXT SENTENCE ELSE GO TO F4010-FN.                    P000
               MOVE CA00-NUCOM TO K-ACD05-NUCOM.                      P105
               +-----+
               I REPETITIVE CATEGORY                                I          P000
               +-----+
F4011.        MOVE J-0030-LINE (1) TO I-0030-LINE.                    P001
               -----> ACCES DB-KEY                                  P305
F4011-FN.     EXIT.                                                  P000
               +-----+
               I END-OF-SCREEN                                      I          P000
               +-----+
F4012.        EXIT.                                                  P000
F4012-FN.     EXIT.                                                  P000
               +-----+
               I NEXT PAGE                                          I          P000
               +-----+
F4020.        IF OPER = "S"                                           P000
               NEXT SENTENCE ELSE GO TO F4020-FN.                    P000
               SET K-RCD10-DBKEY (1)                                  P105
               SET K-RCD10-DBKEY (1)                                  P305
               TO K-RCD10-DBKEY (2).                                  P308
F4020-FN.     EXIT.                                                  P000
               *****
               *                                                    *
               * END OF TRANSACTION                                  *
               *                                                    *
               *****
               DO0030
F4030.        IF OPER NOT = "E" GO TO F4030-FN.                        DO0030
               MOVE K-S0030-XTERM TO HE00-XTERM                       DO0030
               PERFORM F80-HELP-D THRU F80-FN.                        DO0030
               MOVE LOW-VALUE TO NEXT-TPR                             DO0030
               MOVE 1 TO 7-CD02-XNDEST                                DO0030
               MOVE K-S0030-XTERM TO 7-CD02-XTERM                     DO0030
               MOVE END-MESSAGE TO CMES-YR00.                         DO0030
               MOVE END-ATTR TO CMES-YO00.                            DO0030
               MOVE K-S0030-YMAT TO CMES-YMAT.                         DO0030
               MOVE 7-YCREF TO CMES-YCRE.                              DO0030
               CALL "ZAR980" USING CMES-COMMUNICATION                 DO0030
               MOVE CMES-IND1 TO 7-CD02-XLOMES                        DO0030
               SEND 7-CD02 FROM CMES-YR00 WITH EGI                    DO0030
               AFTER ADVANCING 0 LINES.                                DO0030
               PERFORM F81FR THRU F81FR-FN.                            DO0030
               PERFORM F81FI THRU F81FI-FN.                            DO0030
F4030-A.      EXIT PROGRAM.                                           DO0030
F4030-FN.     EXIT.                                                  DO0030
               *****
               *                                                    *
               * TRANSFER TO ANOTHER SCREEN                          *
               *                                                    *
               *****
               DO0030
F4040.        IF OPER NOT = "O" GO TO F4040-FN.                        DO0030
               MOVE 5-0030-PROGE TO NEXT-TPR.                         DO0030
               PERFORM F81FI THRU F81FI-FN.                            DO0030
F4040-A.      EXIT PROGRAM.                                           DO0030
F4040-FN.     EXIT.                                                  DO0030
F40-FN.       EXIT.                                                  DO0030
END-OF-RECEPTION.          EXIT.          DO0030

```

### *3.11. F50 : DISPLAY PREPARATION*

#### F50: DISPLAY PREPARATION

The DISPLAY PREPARATION (F50) function contains the conditions for the set of procedures used in the 'DISPLAY' part of the program, F50 to F78-FN (END-OF-DISPLAY).

Sub-function F5010 is always generated. It ensures the initialization of work areas, and of the display screen description.

GENERATED PROCEDURE DIVISION (TP8 MULTI-SCREEN)  
F50 : DISPLAY PREPARATION

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```
***** DO0030
* DO0030
* DISPLAY PREPARATION * DO0030
* DO0030
***** DO0030
F50. IF OCF = "0" GO TO END-OF-DISPLAY. DO0030
F5010. DO0030
      MOVE ZERO TO CATX. DO0030
      MOVE ZERO TO CONFIGURATIONS. DO0030
      MOVE ALL "1" TO FIRST-ON-SEGMENT. DO0030
      IF SCR-ER > "1" MOVE LOW-VALUE TO 0030-MESSO. DO0030
      IF SCR-ER > "1" GO TO F6999-ITER-FT. DO0030
      MOVE SPACE TO O-0030. DO0030
      PERFORM F8115 THRU F8115-FN. DO0030
F5010-FN. EXIT. DO0030
F50-FN. EXIT. DO0030
```

### *3.12. F55 : CATEGORY PROCESSING LOOP*

#### F55: CATEGORY PROCESSING LOOP

The CATEGORY PROCESSING LOOP (F55) function positions the category to be processed in 'DISPLAY' based on the CATX indicator, which can have the following values:

- . '0' Beginning of display.
- . ' ' Screen-top category.
- . 'R' Repetitive category.
- . 'Z' Screen-bottom category.

The procedures are generated based on the categories defined on the Call of Elements ('-CE') screen.

If no category is defined, the screen is considered a screen-top category.

For the repetitive category this function includes:

- . The interaction between the line of the category to be processed, and the output screen description field used to access each of the data elements of the line,
- . The initialization and incrementation of the ICATR indicator which manages the repetitive category.



### 3.13. F60 : SEGMENT ACCESS FOR DISPLAY

#### F60: SEGMENT ACCESS FOR DISPLAY

The SEGMENT ACCESS FOR DISPLAY (F60) function is generated when there is a segment to be accessed for display.

Depending on which categories defined on the screen contain a segment to be accessed for display, the F60 function includes the following:

- . F60A for the screen-top category,
- . F60R for the repetitive category,
- . F60Z for the screen-bottom category.

To process each category, there is one sub-function per access to a segment, including:

- . Loading of the key from the 'K-cddss-KEY' field stored in function F40. For the first display (OCF = '1'), the user must ensure that the 'K-' field is loaded.
- . Access by a PERFORM to the appropriate F80 sub-function depending on the category:
  - Direct read (F80-ddss-R),
  - Sequential Read after positioning (repetitive) (F80-ddss-P and F80-ddss-RN) based on the use of the segment (indicated on the '-CS').
- . The positioning of the Segment 'ddss-CF' variable.
- . Error processing, if necessary.

If a segment has a preceding segment, its Read will always be a Direct Read, even in the Repetitive category.

NOTE: Sub-functions are numbered based on the number of segments, their positions on the '-CS' screen, etc. As a result, a direct reference should never be made to a generated label in the specific procedures.

Use the Relative Positioning types '\*A', '\*P' and '\*R' (see chapter "USE OF STRUCTURED CODE" in the ON-LINE SYSTEMS DEVELOPMENT Reference Manual.)

GENERATED PROCEDURE DIVISION (TP8 MULTI-SCREEN)

F60 : SEGMENT ACCESS FOR DISPLAY

```

*****
*                               *
*   SEGMENT ACCESS FOR DISPLAY   *
*                               *
*****
F60.          EXIT.
F60A.  IF CATX NOT = " " GO TO F60A-FN.
        +-----+
LEVEL 10     I SET-UP KEY                   I
        +-----+
F6010.
        MOVE          K-ACD05-NUCOM TO CD05-NUCOM.
F6001.
        MOVE "0" TO CD05-CF.
        PERFORM F80-CD05-R THRU F80-FN.
        IF IK = "1" MOVE "G019" TO XERCDC
        PERFORM F81UT THRU F81UT-FN          GO TO F6001-FN.
        MOVE "1" TO CD05-CF.
F6001-FN.    EXIT.
        +-----+
LEVEL 12     I ORDER MEMORIZATION           I
        +-----+
F6040.
        SET           K-RCD10-DBKEY (1)
                TO DIRECT-REFERENCE.
F6040-FN.    EXIT.
F6010-FN.    EXIT.
F60A-FN.     EXIT.
F60R.  IF CATX NOT = "R" OR FT = "1" GO TO F60R-FN.
F6003.
        MOVE "0" TO CD10-CF.
        IF           CD10-FST = "1"
        MOVE          CD10-COCARA TO C-0030-COCARA
        MOVE          CD10-NUCOM TO C-0030-NUCOM
        PERFORM F80-CD10-P THRU F80-FN
        MOVE ZERO TO CD10-FST ELSE
        PERFORM F80-CD10-RN THRU F80-FN.
        IF IK = "0"
        IF           CD10-COCARA NOT = C-0030-COCARA
        OR           CD10-NUCOM NOT = C-0030-NUCOM
        MOVE "1" TO IK.
        IF IK = "1" MOVE "G039" TO XERCDC MOVE "1" TO FT
        PERFORM F81UT THRU F81UT-FN          GO TO F6003-FN.
        MOVE "1" TO CD10-CF.
        +-----+
LEVEL 12     I MEMORIZATION                 I
        +-----+
F6030.
        SET           K-RCD10-DBKEY (2)
                TO DIRECT-REFERENCE.
F6030-FN.    EXIT.
F6003-FN.    EXIT.
F60R-FN.     EXIT.
F60Z.  IF CATX NOT = "Z" GO TO F60Z-FN.
F6006.
        MOVE "0" TO ME00-CF.
        MOVE          K-ZME00-CLEME TO ME00-CLEME
        PERFORM F80-ME00-R THRU F80-FN.
        IF IK = "1" MOVE "G069" TO XERCDC
        PERFORM F81UT THRU F81UT-FN          GO TO F6006-FN.
        MOVE "1" TO ME00-CF.
F6006-FN.    EXIT.
F60Z-FN.
F60-FN.     EXIT.
        +-----+
LEVEL 10     I PREPARATION DISPLAY DATE/HOUR I
        +-----+
F64DA.  IF CATX = " "
        NEXT SENTENCE ELSE GO TO F64DA-FN.
        ACCEPT DATOR FROM DATE
        MOVE          DATOR
        TO DAT6 DAT8
        MOVE DAT63 TO DAT61 MOVE DAT81 TO DAT63
        MOVE          DATOR
        TO DAT6
        PERFORM F8120-I THRU F8120-Z
        MOVE DAT8C TO DAT8C.

```

GENERATED PROCEDURE DIVISION (TP8 MULTI-SCREEN)  
F60 : SEGMENT ACCESS FOR DISPLAY

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ACCEPT TIMCO FROM TIME	P120
MOVE           TIMCOG	P160
TO TIMCOG	P160
MOVE TIMCOH TO TIMHOU	P160
MOVE TIMCOM TO TIMMIN	P160
MOVE TIMCOS TO TIMSEC	P160
MOVE ":" TO TMS1 TMS2	P160
MOVE TIMDAY TO TIMDAY.	P160
F64DA-FN.    EXIT.	P000



### *3.14. F65 : DATA ELEMENT TRANSFER*

#### F65: DATA ELEMENT TRANSFER

The DATA ELEMENT TRANSFER (F65) function ensures the transfer of the segment data elements to the corresponding data elements on the screen.

Depending on which categories defined on the screen contain at least one transfer of a data element for display, the F65 function includes:

- . F65A for the screen-top category,
- . F65R for the repetitive category,
- . F65Z for the screen-bottom category.

If the data element is filled from a segment, the transfer is conditioned by the segment configuration variable (ddss-CF=1).

Paragraph 'F6999-ITER-FI' contains the return to the beginning of the display iteration.

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F65 : DATA ELEMENT TRANSFER

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```
***** DO0030
* DO0030
* DATA ELEMENT TRANSFER DO0030
* DO0030
***** DO0030
F65. EXIT. DO0030
F65A. IF CATX NOT = " " GO TO F65A-FN. DO0030
      MOVE PROGE TO DO0030
          O-0030-PROGE. DO0030
      MOVE SESSI TO DO0030
          O-0030-SESSI. DO0030
      MOVE DAT8C TO DO0030
          O-0030-DATEM. DO0030
      MOVE TIMDAY TO DO0030
          O-0030-HEURE. DO0030
F65A-A7. DO0030
      MOVE CA00-NUCOM TO DO0030
          O-0030-NUCOM. DO0030
F65A-A7-FN. EXIT. DO0030
F65A-A8. DO0030
      MOVE CA00-RAISOC TO DO0030
          O-0030-RAISOC. DO0030
F65A-A8-FN. EXIT. DO0030
F65A-CD05. DO0030
      IF CD05-CF NOT = "1" GO TO F65A-CD05-FN. DO0030
      MOVE CD05-MATE TO DO0030
          O-0030-MATE. DO0030
F65A-B0. DO0030
      MOVE CD05-RELEA TO DO0030
          O-0030-RELEA. DO0030
F65A-B0-FN. EXIT. DO0030
F65A-B1. DO0030
      MOVE CD05-COPOS TO DO0030
          O-0030-COPOS. DO0030
F65A-B1-FN. EXIT. DO0030
F65A-B2. DO0030
      MOVE CD05-VILLE TO DO0030
          O-0030-VILLE. DO0030
F65A-B2-FN. EXIT. DO0030
F65A-B3. DO0030
      MOVE CD05-REFCLI TO DO0030
          O-0030-REFCLI. DO0030
F65A-B3-FN. EXIT. DO0030
F65A-B4. DO0030
      MOVE CD05-DATE TO DO0030
          O-0030-DATE. DO0030
F65A-B4-FN. EXIT. DO0030
F65A-B5. DO0030
      MOVE CD05-CORRES TO DO0030
          O-0030-CORRES. DO0030
F65A-B5-FN. EXIT. DO0030
F65A-B6. DO0030
      MOVE CD05-REMIS TO DO0030
          O-0030-REMIS. DO0030
F65A-B6-FN. EXIT. DO0030
F65A-CD05-FN. EXIT. DO0030
F65A-FN. EXIT. DO0030
F65R. IF CATX NOT = "R" OR FT = "1" GO TO F65R-FN. DO0030
      IF ICATR > IRR GO TO F65R-FN. DO0030
F65R-A5. DO0030
      MOVE CD00-FOURNI TO DO0030
          O-0030-FOURNI. DO0030
F65R-A5-FN. EXIT. DO0030
F65R-CD10. DO0030
      IF CD10-CF NOT = "1" GO TO F65R-CD10-FN. DO0030
      MOVE CD10-QTMAC TO DO0030
          O-0030-QTMAC. DO0030
F65R-A7. DO0030
      MOVE CD10-QTMAL TO DO0030
          O-0030-QTMAL. DO0030
F65R-A7-FN. EXIT. DO0030
F65R-A8. DO0030
      MOVE CD10-INFOR TO DO0030
          O-0030-INFOR. DO0030
F65R-A8-FN. EXIT. DO0030
F65R-CD10-FN. EXIT. DO0030
+-----+
P000
```

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F65 : DATA ELEMENT TRANSFER

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LEVEL 10	I REMAINS TO BE DELIVERED	I	P000
	+-----+		P000
F65BB.			P000
	IF CD10-QTMAL NOT = ZERO		P100
	COMPUTE WW10-QTMAR =		P100
	CD10-QTMAC - CD10-QTMAL		P110
	MOVE WW10-QTMAR TO O-0030-QTMAR.		P120
F65BB-FN.	EXIT.		P000
F65R-FN.	EXIT.		DO0030
F65Z.	IF CATX NOT = "Z" GO TO F65Z-FN.		DO0030
F65Z-ME00.			DO0030
	IF ME00-CF NOT = "1" GO TO F65Z-ME00-FN.		DO0030
	MOVE ME00-MESSA TO		DO0030
	O-0030-MESSA.		DO0030
F65Z-ME00-FN.	EXIT.		DO0030
F65Z-FN.	EXIT.		DO0030
F65-FN.	EXIT.		DO0030
F6999-ITER-FI.	GO TO F55.		DO0030
F6999-ITER-FT.	EXIT.		DO0030
F6999-FN.	EXIT.		DO0030

### *3.15. F70 : ERROR PROCESSING*

#### F70: ERROR PROCESSING

The ERROR PROCESSING (F70) function is always generated.

Sub-function F7010 contains:

- . in F7010-A, testing of DE-ERR, positioning of the error attributes, access to the error message file, and coding of the error message on the screen.
- . in F7010-B, testing of T-XEMKY, access to the error message file, and coding of the error message on the screen.

Sub-function F7020 is generated if at least one variable field exists on the Screen Call of Elements (-CE).

This sub-function positions the attributes of the screen fields in display in the Table used by the Message Formatting sub-program.

An 'invisible' field ('DARK' attribute) retains this attribute, even if it is erroneous (e.g. passwords).

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## F70 : ERROR PROCESSING

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```

F70.          EXIT.                                DO0030
          *****                                DO0030
          *                                     *                                DO0030
          *   ERROR PROCESSING                   *                                DO0030
          *                                     *                                DO0030
          *****                                DO0030
F7010.        MOVE ZERO TO K01 K02 K04 MOVE 1 TO K03. DO0030
          MOVE LIBRA TO EM00-LIBRA MOVE PROGR TO EM00-PROGR DO0030
          MOVE ZERO TO EM00-LINUM MOVE "H" TO EM00-ENTYP. DO0030
F7010-A.      IF K02 = INR AND K03 < IRR MOVE INA TO K02 DO0030
          ADD 1 TO K03. ADD 1 TO K01 K02. DO0030
          IF DE-ER (K01) > "1" OR < "0" MOVE "Y" TO DE-AT (4, K01) DO0030
          MOVE "N" TO DE-AT (1, K01) DO0030
          MOVE "N" TO DE-AT (2, K01) DO0030
          MOVE "W" TO DE-AT (3, K01) DO0030
          IF K04 < IER MOVE DE-ER (K01) TO EM00-ERTYP DO0030
          MOVE K02 TO K66 DO0030
          MOVE K66 TO EM00-ERCOD9 MOVE EM00-XEMKY TO EM00-ERMSG DO0030
          PERFORM F80-EM00-R THRU F80-FN ADD 1 TO K04 DO0030
          MOVE EM00-ERMSG TO O-0030-ERMSG (K04). DO0030
          IF K01 < INT GO TO F7010-A. DO0030
          MOVE ZERO TO K50R. DO0030
F7010-B.      DO0030
          ADD 1 TO K50R IF K50R > K50L OR K04 NOT < IER GO TO DO0030
          F7010-FN. MOVE T-XEMKY (K50R) TO EM00-XEMKY EM00-ERMSG DO0030
          PERFORM F80-EM00-R THRU F80-FN. ADD 1 TO K04 DO0030
          MOVE EM00-ERMSG TO O-0030-ERMSG (K04) DO0030
          GO TO F7010-B. DO0030
F7010-FN.     EXIT.                                DO0030
          *****                                DO0030
          *                                     *                                DO0030
          *   POSITIONING OF ATTRIBUTES           *                                DO0030
          *                                     *                                DO0030
          *****                                DO0030
F7020.        DO0030
          MOVE ZERO TO TALLY INSPECT DE-ATT1 (4) DO0030
          TALLYING TALLY FOR CHARACTERS BEFORE "Y". DO0030
          IF TALLY NOT < 0046 DO0030
          MOVE ZERO TO TALLY INSPECT DE-ATT1 (4) DO0030
          TALLYING TALLY FOR CHARACTERS BEFORE "Z". DO0030
          IF TALLY NOT < 0046 DO0030
          MOVE ZERO TO TALLY INSPECT DE-ATT1 (4) DO0030
          TALLYING TALLY FOR CHARACTERS BEFORE "X". DO0030
          IF TALLY NOT < 0046 DO0030
          MOVE ZERO TO TALLY. DO0030
          ADD 1 TO TALLY. DO0030
          MOVE SV-AT (TALLY) TO K01 DO0030
          MOVE AT-0030-YPCUR (K01) TO CMES-YPCUR. DO0030
          MOVE ZERO TO K01. DO0030
F7020-A.      DO0030
          ADD 1 TO K01. IF K01 > INT GO TO F7020-FN. DO0030
          MOVE SV-AT (K01) TO K02. DO0030
          IF SV-ATTRI (K01) = "D" AND DE-AT (1, K01) NOT = "D" DO0030
          MOVE "D" TO DE-AT (1, K01). DO0030
          IF DE-AT (1, K01) NOT = SPACE DO0030
          MOVE DE-AT (1, K01) TO AT-0030-ATTRI (K02). DO0030
          IF DE-AT (2, K01) NOT = SPACE DO0030
          MOVE DE-AT (2, K01) TO AT-0030-ATTRP (K02). DO0030
          IF DE-AT (3, K01) NOT = SPACE DO0030
          MOVE DE-AT (3, K01) TO AT-0030-ATTRC (K02). DO0030
          GO TO F7020-A. DO0030
F7020-FN.     EXIT.                                DO0030
F70-FN.       EXIT.                                DO0030
END-OF-DISPLAY. EXIT. DO0030

```

### *3.16. F8Z : DISPLAY AND END OF PROGRAM*

#### F8Z : DISPLAY AND END OF PROGRAM

The DISPLAY AND END OF PROGRAM (F8Z) function is always generated.

Sub-function F8Z05 is generated if a call for HELP documentation is entered on the Screen Definition screen.

The Help function does not backup the fields entered before the HELP call.

In order to ensure such a backup, the user may describe a mono-record database in which all the fields of the screen will be stored. The access key of this database can be the terminal code.

Physical accesses to this database can be described in a macro-structure inserted in Function F8095 using the labels F80-HELP-... .

Sub-function F8Z10 calls the ZAR980 sub-program, which formats the message and sends it through a PERFORM of sub-function F81SE.

Sub-function F8Z20 contains the end-of-program operation.

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F8Z : DISPLAY AND END OF PROGRAM

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```
F8Z. EXIT. DO0030
F8Z05. IF SCR-ER = "1" DO0030
      NEXT SENTENCE ELSE GO TO F8Z05-FN. DO0030
      IF K-S0030-DOC NOT = "1" GO TO F8Z05-A. DO0030
      MOVE K-S0030-ERCOD9 TO K01 K02. DO0030
      IF K02 > INR DO0030
      COMPUTE K02 = K01 + (INR - INA) * (IRR - 1). DO0030
      IF K02 < 1 OR K02 > INT MOVE 1 TO K02. DO0030
      MOVE "X" TO DE-AT (4, K02) DO0030
      PERFORM F7020 THRU F7020-FN. DO0030
F8Z05-A. DO0030
      MOVE K-S0030-XTERM TO HE00-XTERM. DO0030
      IF K-S0030-DOC = "1" DO0030
      PERFORM F80-HELP-R THRU F80-FN DO0030
      MOVE HE00-SCREEN TO O-0030 DO0030
      MOVE "0" TO K-S0030-DOC GO TO F8Z05-FN. DO0030
      IF K-S0030-DOC NOT = ZERO GO TO F8Z05-FN. DO0030
      PERFORM F80-HELP-R THRU F80-FN. DO0030
      MOVE K-S0030-XTERM TO HE00-XTERM DO0030
      MOVE O-0030 TO HE00-SCREEN. DO0030
      IF IK = "1" DO0030
      PERFORM F80-HELP-W THRU F80-FN ELSE DO0030
      PERFORM F80-HELP-RW THRU F80-FN. DO0030
F8Z05-FN. EXIT. DO0030
      ***** DO0030
      * DO0030
      * DISPLAY * DO0030
      * * DO0030
      ***** DO0030
F8Z10. DO0030
      IF SCR-ER NOT > "1" DO0030
      AND DE-AT (4, 010) = "X" DO0030
      PERFORM F7020 THRU F7020-FN. DO0030
      PERFORM F8145 THRU F8145-FN. DO0030
      MOVE 1 TO 7-CD02-XNDEST DO0030
      MOVE K-S0030-XTERM TO 7-CD02-XTERM. DO0030
      MOVE 7-YCREX TO CMES-YCRE. DO0030
      MOVE SPACE TO K-S0030-PFKEY. DO0030
      IF SCR-ER NOT > "1" DO0030
      MOVE PROGR TO K-S0030-PROGR DO0030
      MOVE 7-YCREE TO CMES-YCRE DO0030
      PERFORM F8105 THRU F8105-FN. DO0030
      MOVE 0030-MESSO TO CMES-YR00 DO0030
      MOVE AT-0030-MESSA TO CMES-YO00 DO0030
      MOVE K-S0030-YMAT TO CMES-YMAT DO0030
      CALL "ZAR980" USING CMES-COMMUNICATION. DO0030
      PERFORM F81SE THRU F81SE-FN. DO0030
F8Z10-F. EXIT. DO0030
F8Z10-G. DO0030
      PERFORM F81FR THRU F81FR-FN. DO0030
F8Z10-FN. EXIT. DO0030
      ***** DO0030
      * DO0030
      * END OF PROGRAM * DO0030
      * * DO0030
      ***** DO0030
F8Z20. DO0030
      PERFORM F81FI THRU F81FI-FN. DO0030
      MOVE PROGE TO NEXT-TPR. DO0030
F8Z20-A. EXIT PROGRAM. DO0030
F8Z20-FN. EXIT. DO0030
F8Z-FN. EXIT. DO0030
```

### *3.17. F80 : PHYSICAL SEGMENT ACCESS ROUTINES*

#### F80 : PHYSICAL SEGMENT ACCESS ROUTINES

This function must contain the physical accesses to the segments.

In this function, the user has to code the physical accesses to the segments or databases. In order to conform to the logical accesses (F25, F35, F60), the coding of the access sub-functions must be done as illustrated in the following example. The segment code in the program in this example is CD10.

- . F80-CD10-R Direct read.
- . F80-CD10-RU Direct read with update.
- . F80-CD10-P Positioning of a sequential read.
- . F80-CD10-RN Sequential read.
- . F80-CD10-W Write.
- . F80-CD10-RW Rewrite.
- . F80-CD10-D Deletion.
- . F80-CD10-UN Unlock of record.

If a call for HELP documentation has been entered on the Screen Definition screen, the labels of the following sub-functions are generated; however the user has to code these sub-functions manually.

- . F80-HELP-W Write.
- . F80-HELP-RW Rewrite.
- . F80-HELP-R Direct read.
- . F80-HELP-D Deletion.

If the access methods are programmed by the user, refer to Chapter "USE OF STRUCTURED CODE" in the ON-LINE SYSTEMS DEVELOPMENT Reference Manual.



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 F80 : PHYSICAL SEGMENT ACCESS ROUTINES

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```

*****
*                                     *
*   PHYSICAL SEGMENT ACCESS ROUTINES *
*                                     *
*****
F80.          EXIT.
F80-ME00-R.   READ      ME-FILE      INVALID KEY GO TO F80-KO.
              GO TO F80-OK.
F80-ME00-RU.  READ      ME-FILE      INVALID KEY GO TO F80-KO.
              GO TO F80-OK.
F8005-FN.     EXIT.
              +-----+
              | I READING WITHIN CALCULATED KEY CD0 I |
              +-----+
F80BB.        EXIT.
F80-CD05-R.   EXIT.
F80-CD05-RU.  MOVE      ZERO TO IK
              FIND      ANY CD05.
              MOVE      DB-STATUS TO IO-STATUS.
              IF        OK
              GET       CD05
              GO TO F80-OK.
              IF        NOT-FOUND
              GO TO F80-KO.
              PERFORM   F81ER THRU F81ER-FN.
F80BB-FN.     EXIT.
              +-----+
              | I RECORD MODIFICATION                   I |
              +-----+
F80BC.        EXIT.
F80-CD05-RW.  FIND      CURRENT CD05
              MOVE      ZERO TO IK
              MODIFY    CD05.
              MOVE      DB-STATUS TO IO-STATUS.
              IF        OK
              GO TO F80-OK.
              PERFORM   F81ER THRU F81ER-FN.
F80-CD05-UN.  GO TO F80-OK.
F80BC-FN.     EXIT.
              +-----+
              | I READ "FIRST .. WITHIN .. "           I |
              +-----+
F80ED.        EXIT.
F80-CD20-P.   EXIT.
F80-CD20-R.   EXIT.
F80-CD20-RU.  MOVE      ZERO TO IK
              FIND      FIRST CD20 WITHIN SET02
              MOVE      DB-STATUS TO IO-STATUS.
              IF        OK
              GET       CD20
              GO TO F80-OK.
              IF        NOT FOUND
              GO TO F80-KO.
              PERFORM   F81ER THRU F81ER-FN.
F80ED-FN.     EXIT.
              +-----+
              | I RECORD MODIFICATION                   I |
              +-----+
F80EF.        EXIT.
F80-CD20-RW.  FIND      CURRENT CD20
              MOVE      ZERO TO IK
              MODIFY    CD20.
              MOVE      DB-STATUS TO IO-STATUS.
              IF        OK
              GO TO F80-OK.
              PERFORM   F81ER THRU F81ER-FN.
F80-CD20-UN.  GO TO F80-OK.
F80EF-FN.     EXIT.
              +-----+

```

DO0030  
 DO0030  
 DO0030  
 DO0030  
 DO0030  
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 DO0030  
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 DO0030  
 DO0030  
 DO0030  
 P000  
 P000  
 P000  
 P000  
 P100  
 P110  
 P120  
 P150  
 P200  
 P250  
 P250  
 P300  
 P350  
 P350  
 P900  
 P000  
 P000  
 P000  
 P020  
 P030  
 P040  
 P120  
 P160  
 P180  
 P180  
 P200  
 P990  
 P995  
 P000  
 P000  
 P000  
 P000  
 P090  
 P100  
 P110  
 P120  
 P150  
 P250  
 P300  
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 P350  
 P400  
 P400  
 P900  
 P000  
 P000  
 P000  
 P020  
 P030  
 P040  
 P120  
 P160  
 P180  
 P180  
 P200  
 P900  
 P000  
 P000  
 P020  
 P030  
 P040  
 P120  
 P160  
 P180  
 P180  
 P200  
 P990  
 P995  
 P000  
 P000

GENERATED PROCEDURE DIVISION (TP8 MULTI-SCREEN)  
 F80 : PHYSICAL SEGMENT ACCESS ROUTINES

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LEVEL 10	I RECORD CREATION	I	P000
	-----+		P000
F80EG.	EXIT.		P000
F80-CD20-W.			P020
MOVE	ZERO TO IK		P040
STORE	CD20		P120
MOVE	DB-STATUS TO IO-STATUS.		P160
IF	OK		P180
GO TO	F80-OK.		P180
PERFORM	F81ER THRU F81ER-FN.		P200
F80EG-FN.	EXIT.		P000
	-----+		P000
LEVEL 10	I READING WITHIN CALCULATED KEY FO1	I	P000
	-----+		P000
F80FO.	EXIT.		P000
F80-FO10-R.	EXIT.		P100
F80-FO10-RU.			P110
MOVE	ZERO TO IK		P120
FIND	ANY FO10.		P150
MOVE	DB-STATUS TO IO-STATUS.		P200
IF	OK		P250
GET	FO10		P250
GO TO	F80-OK.		P300
IF	NOT-FOUND		P350
GO TO	F80-KO.		P350
PERFORM	F81ER THRU F81ER-FN.		P900
F80FO-FN.	EXIT.		P000
	-----+		P000
LEVEL 10	I RECORD MODIFICATION	I	P000
	-----+		P000
F80FP.	EXIT.		P000
F80-FO10-RW.			P020
FIND	CURRENT FO10		P030
MOVE	ZERO TO IK		P040
MODIFY	FO10.		P120
MOVE	DB-STATUS TO IO-STATUS.		P160
IF	OK		P180
GO TO	F80-OK.		P180
PERFORM	F81ER THRU F81ER-FN.		P200
F80-FO10-UN.			P990
GO TO	F80-OK.		P995
F80FP-FN.	EXIT.		P000
	-----+		P000
LEVEL 10	I READ WITHIN USING	I	P000
	-----+		P000
F80LI.	EXIT.		P000
F80-CD10-R.	EXIT.		P100
F80-CD10-RU.			P110
MOVE	ZERO TO IK		P120
FIND	CD10 WITHIN SET01 USING		P150
	CD10-FOURNI		P200
MOVE	DB-STATUS TO IO-STATUS.		P250
IF	OK		P300
GET	CD10		P300
GO TO	F80-OK.		P350
IF	NOT-FOUND		P400
GO TO	F80-KO.		P400
PERFORM	F81ER THRU F81ER-FN.		P900
F80LI-FN.	EXIT.		P000
	-----+		P000
LEVEL 10	I RECORD MODIFICATION	I	P000
	-----+		P000
F80LJ.	EXIT.		P000
F80-CD10-RW.			P020
FIND	CURRENT CD10		P030
MOVE	ZERO TO IK		P040
MODIFY	CD10.		P120
MOVE	DB-STATUS TO IO-STATUS.		P160
IF	OK		P180
GO TO	F80-OK.		P180
PERFORM	F81ER THRU F81ER-FN.		P200
F80-CD10-UN.			P990
GO TO	F80-OK.		P995
F80LJ-FN.	EXIT.		P000
	-----+		P000
LEVEL 10	I RECORD CREATION	I	P000
	-----+		P000

GENERATED PROCEDURE DIVISION (TP8 MULTI-SCREEN)  
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F80LM.	EXIT.	P000
F80-CD10-W.		P020
MOVE	ZERO TO IK	P040
STORE	CD10	P120
MOVE	DB-STATUS TO IO-STATUS.	P160
IF	OK	P180
GO TO	F80-OK.	P180
PERFORM	F81ER THRU F81ER-FN.	P200
F80LM-FN.	EXIT.	P000
	+-----+-----+-----+-----+	P000
LEVEL 10	I READ NEXT ON SEGMENT CD10	I P000
	+-----+-----+-----+-----+	P000
F80LN.	EXIT.	P000
F80-CD10-RN.		P100
MOVE	ZERO TO IK	P120
FIND	NEXT CD10 WITHIN	P150
	SET01	P200
MOVE	DB-STATUS TO IO-STATUS.	P250
IF	OK	P300
OR	NEXT-FOUND	P350
GET	CD10	P300
GO TO	F80-OK.	P350
IF	END-OF-SET	P400
GO TO	F80-KO.	P400
PERFORM	F81ER THRU F81ER-FN.	P900
F80LN-FN.	EXIT.	P000
	+-----+-----+-----+-----+	P000
LEVEL 10	I RECORD DELETION	I P000
	+-----+-----+-----+-----+	P000
F80LQ.	EXIT.	P000
F80-CD10-D.		P020
FIND	CURRENT CD10	P030
MOVE	ZERO TO IK	P040
ERASE	CD10	P120
MOVE	DB-STATUS TO IO-STATUS.	P160
IF	OK	P180
GO TO	F80-OK.	P180
PERFORM	F81ER THRU F81ER-FN.	P200
F80LQ-FN.	EXIT.	P000
	+-----+-----+-----+-----+	P000
LEVEL 10	I READ WITHIN DN-KEY CD10	I P000
	+-----+-----+-----+-----+	P000
F80LS.	EXIT.	P000
F80-CD10-P.		P100
MOVE	ZERO TO IK	P120
FIND	DB-KEY IS	P200
	K-RCD10-DBKEY (1)	P210
MOVE	DB-STATUS TO IO-STATUS.	P300
IF	OK	P400
GO TO	F80-CD10-RN.	P400
IF	NOT-FOUND	P450
GO TO	F80-KO.	P450
PERFORM	F81ER THRU F81ER-FN.	P920
F80LS-FN.	EXIT.	P000
F80-HELP-R.		DO0030
READ	HE-FILE      INVALID KEY GO TO F80-KO.	DO0030
GO TO	F80-OK.	DO0030
F80-HELP-W.		DO0030
WRITE	HE00   INVALID KEY GO TO F80-KO.	DO0030
GO TO	F80-OK.	DO0030
F80-HELP-RW.		DO0030
REWRITE	HE00   INVALID KEY GO TO F80-KO.	DO0030
GO TO	F80-OK.	DO0030
F80-HELP-D.		DO0030
DELETE	HE-FILE      INVALID KEY GO TO F80-KO.	DO0030
GO TO	F80-OK.	DO0030
F8095-FN.	EXIT.	DO0030
F80-EM00-R.		DO0030
READ	EM-FILE      INVALID KEY GO TO F80-KO.	DO0030
GO TO	F80-OK.	DO0030
F8098-FN.	EXIT.	DO0030
F80-OK.	MOVE "0" TO IK MOVE PROGR TO XPROGR GO TO F80-FN.	DO0030
F80-KO.	MOVE "1" TO IK MOVE PROGR TO XPROGR.	DO0030
F8099-FN.	EXIT.	DO0030
F80-FN.	EXIT.	DO0030

### 3.18. F81 : PERFORMED VALIDATION FUNCTIONS

#### F81 : PERFORMED VALIDATIONS FUNCTIONS

The PERFORMED VALIDATIONS FUNCTIONS (F81) are always generated.

F81ER contains the abnormal end routine.

F81ES is called by a 'PERFORM' in order to check the return code after each 'SEND' or 'RECEIVE'.

F81FI closes all the files used in the program.

F81FR frees the resources at the end of the conversation.

F81RE is called by a PERFORM at the beginning of the program. It ensures the reception of the message.

F81SE is called by 'PERFORM' in the Screen Display procedure: it sends the message if no error was found.

F81UT stores the user's errors.

F8105 sends fixed labels for display; it is conditioned by the value of the CMES-YCRE field: F8105 is not executed when CMES-YCRE is set to 'G' through user written procedural code ('-P').

F8110 is generated when there is a numeric field on the screen. It contains the procedures which format the field to be validated in the work area, the numeric class validation, and the positioning of error messages, if required.

F8115 ensures the initialization of the output variable fields. It is performed in Function F0510 if the ICF indicator is equal to '0'.

F8120 is generated if at least one variable data element ('V') has a date format, or if an 'AD'-type operator is specified on the Procedural Code (-P) lines of the program (in this case, the F8120-ER and F8120-KO functions are not generated).

It also contains date formatting and validations.

F8130 is generated if a call for HELP documentation is entered on the Screen Definition screen. It prepares the field to be saved in the backup file.

F8145 transfers the message which has been formatted in the work areas (OUTPUT-SCREEN-FIELDS) to the fields used for display.

F8150 checks the first character of each input field to detect either of the two documentation Help characters (screen-level or field-level documentation).

F8155 transfers the message received into the work areas (INPUT-SCREEN-FIELDS).

F81 : PERFORMED VALIDATION FUNCTIONS

F81.	EXIT.		
	*****		DO0030
	*	*	DO0030
	* ABNORMAL END PROCEDURE	*	DO0030
	*	*	DO0030
	*****		DO0030
F81ER.			DO0030
	CALL ".ABORT".		DO0030
F81ER-FN.	EXIT.		DO0030
F81ES.			DO0030
	IF 7-CD01-XMSTA NOT = ZERO		DO0030
	OR 7-CD02-XMSTA NOT = ZERO		DO0030
	PERFORM F81FI THRU F81FI-FN		DO0030
	CALL ".ABORT".		DO0030
F81ES-FN.	EXIT.		DO0030
F81FI.			DO0030
	CLOSE EM-FILE.		DO0030
	CLOSE HE-FILE.		DO0030
	CLOSE ME-FILE.		DO0030
	CALL ".FNLCP"		DO0030
	CALL ".DCKPF".		DO0030
F81FI-FN.	EXIT.		DO0030
F81FR.			DO0030
	CALL ".FREER" USING TP-STORAGE.		DO0030
F81FR-FN.	EXIT.		DO0030
F81RE.			DO0030
	MOVE SPACE TO CMES-YR00		DO0030
	RECEIVE 7-CD01 MESSAGE INTO CMES-YR00		DO0030
	NO DATA MOVE SPACE TO 0030-MESSI		DO0030
	MOVE 7-CD01-XTerm TO K-S0030-XTerm		DO0030
	MOVE ZERO TO ICF.		DO0030
F81RE-FN.	EXIT.		DO0030
F81SE.			DO0030
	IF CMES-IND2 > ZERO		DO0030
	MOVE CMES-IND1 TO 7-CD02-XLOMES		DO0030
	SEND 7-CD02 FROM CMES-YR00 WITH EMI		DO0030
	AFTER ADVANCING 0 LINES PERFORM F81ES THRU F81ES-FN		DO0030
	MOVE CMES-IND2 TO 7-CD02-XLOMES		DO0030
	SEND 7-CD02 FROM CMES-YO00 WITH EGI		DO0030
	AFTER ADVANCING 0 LINES PERFORM F81ES THRU F81ES-FN.		DO0030
	IF CMES-IND2 = ZERO		DO0030
	MOVE CMES-IND1 TO 7-CD02-XLOMES		DO0030
	SEND 7-CD02 FROM CMES-YR00 WITH EGI		DO0030
	AFTER ADVANCING 0 LINES PERFORM F81ES THRU F81ES-FN.		DO0030
F81SE-FN.	EXIT.		DO0030
	*****		DO0030
	*	*	DO0030
	* MEMORIZATION OF USER'S ERRORS	*	DO0030
	*	*	DO0030
	*****		DO0030
F81UT.			DO0030
	IF K50L < K50M ADD 1 TO K50L		DO0030
	MOVE XEMKY TO T-XEMKY (K50L). MOVE "E" TO CAT-ER.		DO0030
F81UT-FN.	EXIT.		DO0030
F8105.			DO0030
	IF CMES-YCRE = "G" GO TO F8105-FN.		DO0030
	MOVE "-"	TO S01013.	DO0030
	MOVE "*** ORDER INPUT SCREEN *** "	TO S01025.	DO0030
	MOVE "ORDER NUMBER:"	TO S03004.	DO0030
	MOVE "SYSTEM:"	TO S03026.	DO0030
	MOVE "RELEASE:"	TO S03054.	DO0030
	MOVE "CUST."	TO S04004.	DO0030
	MOVE "CUST. REF.:"	TO S06004.	DO0030
	MOVE "ORDER DATE:"	TO S06049.	DO0030
	MOVE "COORDINATOR:"	TO S07005.	DO0030
	MOVE "DISCOUNT RATE:"	TO S07046.	DO0030
	MOVE "A"	TO S09003.	DO0030
	MOVE "ITEM "	TO S09007.	DO0030
	MOVE "ORDERED "	TO S09016.	DO0030
	MOVE "DELIV. "	TO S09026.	DO0030
	MOVE "OUTST. "	TO S09035.	DO0030
	MOVE "REMARKS "	TO S09042.	DO0030
	MOVE "PRINTING OF FORM :"	TO S20002.	DO0030
	MOVE "CHOICE:"	TO S20025.	DO0030
	MOVE "UPD : '7',"	TO S20035.	DO0030
	MOVE "ORDERS (NEXT) : '8',"	TO S20046.	DO0030
	MOVE "MENU : '1', CUSTOMER LIST :"	TO S21002.	DO0030
	MOVE "'2', CUST. HIST : '3',"	TO S21030.	DO0030

## GENERATED PROCEDURE DIVISION (TP8 MULTI-SCREEN)

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## F81 : PERFORMED VALIDATION FUNCTIONS

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MOVE "ORDER LIST : '4'," TO S21053. DO0030
MOVE "SCREEN DOC : '='," TO S22002. DO0030
MOVE "DATA EL. DOC : '$'" TO S22020. DO0030
F8105-FN. EXIT. DO0030
***** DO0030
* DO0030
* NUMERIC VALIDATION * DO0030
* DO0030
***** DO0030
F8110. MOVE ZERO TO TPOINT K01 K02 K03 ZONUM3 ZONUM2 DO0030
C9 C91. DO0030
F8110-1. IF K01 > 26 OR K02 > 17 GO TO F8110-5. DO0030
ADD 1 TO K01. DO0030
IF C1 (K01) = SPACE OR C1 (K01) = "." GO TO F8110-1. DO0030
IF C1 (K01) NOT = "-" AND C1 (K01) NOT = "+" GO TO F8110-2. DO0030
IF C9 NOT = ZERO DO0030
MOVE "5" TO DEL-ER GO TO F8110-FN. DO0030
IF K02 = ZERO MOVE "1" TO C91. DO0030
IF C1 (K01) = "+" MOVE 1 TO C9 GO TO F8110-1. DO0030
IF SIGNE = " " MOVE "5" TO DEL-ER GO TO F8110-FN. DO0030
MOVE -1 TO C9 GO TO F8110-1. DO0030
F8110-2. IF C1 (K01) NOT = "," GO TO F8110-4. DO0030
IF TPOINT = "1" OR NBCHP = 0 DO0030
MOVE "5" TO DEL-ER GO TO F8110-FN. DO0030
F8110-3. IF K02 > NBCHA MOVE "5" TO DEL-ER GO TO F8110-FN. DO0030
COMPUTE K04 = 18 - NBCHA + K02 MOVE 1 TO C3 (K04) DO0030
DIVIDE ZONUM4 INTO ZONUM9 MOVE NBCHA TO K02 DO0030
MOVE "1" TO TPOINT GO TO F8110-1. DO0030
F8110-4. IF C1 (K01) NOT NUMERIC MOVE "4" TO DEL-ER DO0030
GO TO F8110-FN. DO0030
IF C9 NOT = ZERO AND C91 = ZERO DO0030
MOVE "5" TO DEL-ER GO TO F8110-FN. DO0030
IF C1 (K01) = "0" AND K02 = ZERO AND TPOINT = "0" DO0030
GO TO F8110-1. ADD 1 TO K02 MOVE C1 (K01) TO C2 (K02). DO0030
IF TPOINT = "1" ADD 1 TO K03. IF K03 > NBCHP MOVE "5" DO0030
TO DEL-ER GO TO F8110-FN. GO TO F8110-1. DO0030
F8110-5. IF TPOINT = "0" AND K02 > ZERO GO TO F8110-3. DO0030
IF SIGNE NOT = "+" GO TO F8110-FN. DO0030
IF C9 = ZERO MOVE 1 TO C9. DO0030
ADD NBCHA NBCHP GIVING K01 MULTIPLY C9 BY C29 (K01). DO0030
IF C29 (K01) = ZERO AND C9 = -1 MOVE C4 TO C2 (K01). DO0030
F8110-FN. EXIT. DO0030
F8115. DO0030
MOVE ALL "-" DO0030
TO O-0030-CHOIX. DO0030
MOVE ALL "-" DO0030
TO O-0030-MATE. DO0030
MOVE ALL "-" DO0030
TO O-0030-RELEA. DO0030
MOVE ALL "-" DO0030
TO O-0030-RUE. DO0030
MOVE ALL "-" DO0030
TO O-0030-COPOS. DO0030
MOVE ALL "-" DO0030
TO O-0030-REFCLI. DO0030
MOVE "....." DO0030
TO O-0030-DATE. DO0030
MOVE ALL "-" DO0030
TO O-0030-CORRES. DO0030
MOVE ALL "-" DO0030
TO F-0030-REMIS. DO0030
MOVE ZERO TO ICATR. DO0030
F8115-GRP. ADD 1 TO ICATR DO0030
MOVE P-0030-LINE (ICATR) TO O-0030-LINE DO0030
MOVE ALL "-" DO0030
TO O-0030-CODMVT. DO0030
MOVE ALL "-" DO0030
TO O-0030-FOURNI. DO0030
MOVE ALL "-" DO0030
TO F-0030-QTMAC. DO0030
MOVE ALL "-" DO0030
TO O-0030-INFOR. DO0030
MOVE O-0030-LINE TO P-0030-LINE (ICATR). DO0030
IF ICATR < IRR GO TO F8115-GRP. DO0030
MOVE ALL "-" DO0030
TO O-0030-EDIT. DO0030
F8115-FN. EXIT. DO0030

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```
***** DO0030
* DO0030
* VALIDATION AND SETTING OF DATE * DO0030
* DO0030
***** DO0030
F8120. EXIT. DO0030
F8120-C. MOVE DAT73C TO DATCTY. DO0030
MOVE DAT71C TO DAT71. DO0030
MOVE DAT72C TO DAT72. DO0030
MOVE DAT74C TO DAT73. DO0030
MOVE "00111" TO TT-DAT GO TO F8120-T. DO0030
F8120-D. MOVE CENTUR TO DATCTY DAT73C. DO0030
MOVE DAT71 TO DAT71C. DO0030
MOVE DAT72 TO DAT72C. DO0030
MOVE DAT73 TO DAT74C. DO0030
MOVE "00111" TO TT-DAT GO TO F8120-T. DO0030
F8120-E. MOVE CENTUR TO DATCTY DAT83C. DO0030
MOVE DAT81 TO DAT81C. DO0030
MOVE DAT82 TO DAT82C. DO0030
MOVE DAT83 TO DAT84C MOVE DATSEP TO DAT8S1C DAT8S2C. DO0030
MOVE "01011" TO TT-DAT GO TO F8120-T. DO0030
F8120-G. MOVE DAT81G TO DATCTY. DO0030
MOVE DAT82G TO DAT61. DO0030
MOVE DAT83G TO DAT62. DO0030
MOVE DAT84G TO DAT63. DO0030
MOVE "10110" TO TT-DAT GO TO F8120-T. DO0030
F8120-I. MOVE CENTUR TO DATCTY DAT61C. DO0030
MOVE DAT61 TO DAT62C. DO0030
MOVE DAT62 TO DAT63C. DO0030
MOVE DAT63 TO DAT64C. DO0030
MOVE "10101" TO TT-DAT GO TO F8120-T. DO0030
F8120-M. MOVE DAT83C TO DATCTY. DO0030
MOVE DAT81C TO DAT81. DO0030
MOVE DAT82C TO DAT82. DO0030
MOVE DAT84C TO DAT83 MOVE DATSEP TO DAT8S1 DAT8S2. DO0030
MOVE "01011" TO TT-DAT GO TO F8120-T. DO0030
F8120-S. MOVE DAT61C TO DATCTY. DO0030
MOVE DAT62C TO DAT61. DO0030
MOVE DAT63C TO DAT62. DO0030
MOVE DAT64C TO DAT63. DO0030
MOVE "10101" TO TT-DAT. DO0030
F8120-T. IF T-DAT (1) = "1" DO0030
MOVE DAT61 TO DAT73 DAT74C DO0030
MOVE DAT62 TO DAT72 DAT72C DO0030
MOVE DAT63 TO DAT71 DAT71C DO0030
MOVE DATCTY TO DAT73C. DO0030
IF T-DAT (2) = "1" DO0030
MOVE DAT81 TO DAT71 DAT71C DO0030
MOVE DAT82 TO DAT72 DAT72C DO0030
MOVE DAT83 TO DAT73 DAT74C DO0030
MOVE DATCTY TO DAT73C. DO0030
IF T-DAT (3) = "1" DO0030
MOVE DAT71 TO DAT81 DAT81C DO0030
MOVE DAT72 TO DAT82 DAT82C DO0030
MOVE DAT73 TO DAT83 DAT84C DO0030
MOVE DATSEP TO DAT8S1 DAT8S2 DAT8S1C DAT8S2C DO0030
MOVE DATCTY TO DAT83C. DO0030
IF T-DAT (4) = "1" DO0030
MOVE DAT71 TO DAT63 DAT64C DO0030
MOVE DAT72 TO DAT62 DAT63C DO0030
MOVE DAT73 TO DAT61 DAT62C DO0030
MOVE DATCTY TO DAT61C. DO0030
IF T-DAT (5) = "1" DO0030
MOVE DAT61 TO DAT82G DO0030
MOVE DAT62 TO DAT83G DO0030
MOVE DAT63 TO DAT84G DO0030
MOVE DATSET TO DAT8S1G DAT8S2G DO0030
MOVE DATCTY TO DAT81G. DO0030
F8120-Z. EXIT. DO0030
F8120-ER. MOVE "1" TO DEL-ER. DO0030
IF DAT6 NOT NUMERIC GO TO F8120-KO. DO0030
IF DATCTY NOT NUMERIC GO TO F8120-KO. DO0030
IF DAT62 > "12" OR DAT62 = "00" OR DO0030
DAT63 > "31" OR DAT63 = "00" GO TO F8120-KO. DO0030
IF DAT63 > "30" AND DO0030
(DAT62 = "04" OR DAT62 = "06" OR DO0030
DAT62 = "09" OR DAT62 = "11") GO TO F8120-KO. DO0030
```



F81 : PERFORMED VALIDATION FUNCTIONS

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IF DAT62 NOT = "02"                GO TO F8120-FN.      DO0030
IF DAT63 > "29"                    GO TO F8120-KO.      DO0030
IF DAT619 = ZERO                    DO0030
DIVIDE DATCTY9 BY 4 GIVING LEAP-REM DO0030
COMPUTE LEAP-REM = DATCTY9 - 4 * LEAP-REM DO0030
ELSE DIVIDE DAT619 BY 4 GIVING LEAP-REM DO0030
COMPUTE LEAP-REM = DAT619 - 4 * LEAP-REM. DO0030
IF DAT63 < "29" OR LEAP-REM = ZERO GO TO F8120-FN. DO0030
F8120-KO. MOVE "5" TO DEL-ER.        DO0030
F8120-FN. EXIT.                     DO0030
*****
*                                     * DO0030
* HELP SUB-FUNCTION                   * DO0030
*                                     * DO0030
*****
F8130.                               DO0030
IF I-0030-CHOIX NOT = HIGH-VALUE    DO0030
MOVE I-0030-CHOIX TO O-0030-CHOIX. DO0030
IF I-0030-MATE NOT = HIGH-VALUE     DO0030
MOVE I-0030-MATE TO O-0030-MATE.    DO0030
IF I-0030-RELEA NOT = HIGH-VALUE    DO0030
MOVE I-0030-RELEA TO O-0030-RELEA. DO0030
IF I-0030-RUE NOT = HIGH-VALUE      DO0030
MOVE I-0030-RUE TO O-0030-RUE.     DO0030
IF I-0030-COPOS NOT = HIGH-VALUE    DO0030
MOVE I-0030-COPOS TO O-0030-COPOS. DO0030
IF I-0030-REFCLI NOT = HIGH-VALUE   DO0030
MOVE I-0030-REFCLI TO O-0030-REFCLI. DO0030
IF I-0030-DATE NOT = HIGH-VALUE     DO0030
MOVE I-0030-DATE TO O-0030-DATE.   DO0030
IF I-0030-CORRES NOT = HIGH-VALUE   DO0030
MOVE I-0030-CORRES TO O-0030-CORRES. DO0030
IF E-0030-REMIS NOT = HIGH-VALUE    DO0030
MOVE E-0030-REMIS TO F-0030-REMIS. DO0030
MOVE ZERO TO ICATR.                 DO0030
F8130-GRP. ADD 1 TO ICATR.            DO0030
MOVE J-0030-LINE (ICATR) TO I-0030-LINE DO0030
MOVE P-0030-LINE (ICATR) TO O-0030-LINE DO0030
IF I-0030-CODMVT NOT = HIGH-VALUE   DO0030
MOVE I-0030-CODMVT TO O-0030-CODMVT. DO0030
IF I-0030-FOURNI NOT = HIGH-VALUE   DO0030
MOVE I-0030-FOURNI TO O-0030-FOURNI. DO0030
IF E-0030-QTMAC NOT = HIGH-VALUE    DO0030
MOVE E-0030-QTMAC TO F-0030-QTMAC. DO0030
IF I-0030-INFOR NOT = HIGH-VALUE    DO0030
MOVE I-0030-INFOR TO O-0030-INFOR. DO0030
MOVE O-0030-LINE TO P-0030-LINE (ICATR). DO0030
IF ICATR < IRR GO TO F8130-GRP.     DO0030
IF I-0030-EDIT NOT = HIGH-VALUE     DO0030
MOVE I-0030-EDIT TO O-0030-EDIT.   DO0030
F8130-FN. EXIT.                     DO0030
F8145.
MOVE T01004 TO S01004.              DO0030
MOVE T01015 TO S01015.              DO0030
MOVE T01060 TO S01060.              DO0030
MOVE T01071 TO S01071.              DO0030
MOVE T03018 TO S03018.              DO0030
MOVE T03034 TO S03034.              DO0030
MOVE T03063 TO S03063.              DO0030
MOVE T04013 TO S04013.              DO0030
MOVE T05009 TO S05009.              DO0030
MOVE T05052 TO S05052.              DO0030
MOVE T05060 TO S05060.              DO0030
MOVE T06016 TO S06016.              DO0030
MOVE T06061 TO S06061.              DO0030
MOVE T07018 TO S07018.              DO0030
MOVE T07061 TO S07061.              DO0030
MOVE T10003 TO S10003.              DO0030
MOVE T10007 TO S10007.              DO0030
MOVE T10016 TO S10016.              DO0030
MOVE T10026 TO S10026.              DO0030
MOVE T10035 TO S10035.              DO0030
MOVE T10042 TO S10042.              DO0030
MOVE T11003 TO S11003.              DO0030
MOVE T11007 TO S11007.              DO0030
MOVE T11016 TO S11016.              DO0030
MOVE T11026 TO S11026.              DO0030

```

## GENERATED PROCEDURE DIVISION (TP8 MULTI-SCREEN)

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## F81 : PERFORMED VALIDATION FUNCTIONS

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```

MOVE T11035 TO S11035. DO0030
MOVE T11042 TO S11042. DO0030
MOVE T12003 TO S12003. DO0030
MOVE T12007 TO S12007. DO0030
MOVE T12016 TO S12016. DO0030
MOVE T12026 TO S12026. DO0030
MOVE T12035 TO S12035. DO0030
MOVE T12042 TO S12042. DO0030
MOVE T13003 TO S13003. DO0030
MOVE T13007 TO S13007. DO0030
MOVE T13016 TO S13016. DO0030
MOVE T13026 TO S13026. DO0030
MOVE T13035 TO S13035. DO0030
MOVE T13042 TO S13042. DO0030
MOVE T14003 TO S14003. DO0030
MOVE T14007 TO S14007. DO0030
MOVE T14016 TO S14016. DO0030
MOVE T14026 TO S14026. DO0030
MOVE T14035 TO S14035. DO0030
MOVE T14042 TO S14042. DO0030
MOVE T15003 TO S15003. DO0030
MOVE T15007 TO S15007. DO0030
MOVE T15016 TO S15016. DO0030
MOVE T15026 TO S15026. DO0030
MOVE T15035 TO S15035. DO0030
MOVE T15042 TO S15042. DO0030
MOVE T16003 TO S16003. DO0030
MOVE T16007 TO S16007. DO0030
MOVE T16016 TO S16016. DO0030
MOVE T16026 TO S16026. DO0030
MOVE T16035 TO S16035. DO0030
MOVE T16042 TO S16042. DO0030
MOVE T17003 TO S17003. DO0030
MOVE T17007 TO S17007. DO0030
MOVE T17016 TO S17016. DO0030
MOVE T17026 TO S17026. DO0030
MOVE T17035 TO S17035. DO0030
MOVE T17042 TO S17042. DO0030
MOVE T18003 TO S18003. DO0030
MOVE T18007 TO S18007. DO0030
MOVE T18016 TO S18016. DO0030
MOVE T18026 TO S18026. DO0030
MOVE T18035 TO S18035. DO0030
MOVE T18042 TO S18042. DO0030
MOVE T20022 TO S20022. DO0030
MOVE T20033 TO S20033. DO0030
MOVE T23002 TO S23002. DO0030
MOVE T24002 TO S24002. DO0030
F8145-FN. EXIT. DO0030
***** DO0030
* DO0030
* SEARCH FOR DOCUMENTATION REQUEST * DO0030
* DO0030
***** DO0030
F8150. DO0030
MOVE ZERO TO K-S0030-ERCOD. DO0030
IF I-0030-CHOIX = "$" DO0030
MOVE HIGH-VALUE TO I-0030-CHOIX DO0030
MOVE 001 TO K-S0030-ERCOD GO TO F8150-FN. DO0030
IF I-0030-CHOIX = "=" DO0030
MOVE HIGH-VALUE TO I-0030-CHOIX DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN. DO0030
IF I-0030-MATE = "$" DO0030
MOVE HIGH-VALUE TO I-0030-MATE DO0030
MOVE 002 TO K-S0030-ERCOD GO TO F8150-FN. DO0030
IF I-0030-MATE = "=" DO0030
MOVE HIGH-VALUE TO I-0030-MATE DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN. DO0030
IF I-0030-RELEA = "$" DO0030
MOVE HIGH-VALUE TO I-0030-RELEA DO0030
MOVE 003 TO K-S0030-ERCOD GO TO F8150-FN. DO0030
IF I-0030-RELEA = "=" DO0030
MOVE HIGH-VALUE TO I-0030-RELEA DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN. DO0030
IF I-0030-RUE = "$" DO0030
MOVE HIGH-VALUE TO I-0030-RUE DO0030
MOVE 004 TO K-S0030-ERCOD GO TO F8150-FN. DO0030

```

## GENERATED PROCEDURE DIVISION (TP8 MULTI-SCREEN)

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## F81 : PERFORMED VALIDATION FUNCTIONS

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```

      IF I-0030-RUE          =          "="          DO0030
      MOVE HIGH-VALUE TO I-0030-RUE          DO0030
      MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN. DO0030
      IF I-0030-COPOS        =          "$"          DO0030
      MOVE HIGH-VALUE TO I-0030-COPOS        DO0030
      MOVE 005 TO K-S0030-ERCOD GO TO F8150-FN. DO0030
      IF I-0030-COPOS        =          "="          DO0030
      MOVE HIGH-VALUE TO I-0030-COPOS        DO0030
      MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN. DO0030
      IF I-0030-REFCLI       =          "$"          DO0030
      MOVE HIGH-VALUE TO I-0030-REFCLI       DO0030
      MOVE 006 TO K-S0030-ERCOD GO TO F8150-FN. DO0030
      IF I-0030-REFCLI       =          "="          DO0030
      MOVE HIGH-VALUE TO I-0030-REFCLI       DO0030
      MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN. DO0030
      IF I-0030-DATE        =          "$"          DO0030
      MOVE HIGH-VALUE TO I-0030-DATE        DO0030
      MOVE 007 TO K-S0030-ERCOD GO TO F8150-FN. DO0030
      IF I-0030-DATE        =          "="          DO0030
      MOVE HIGH-VALUE TO I-0030-DATE        DO0030
      MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN. DO0030
      IF I-0030-CORRES      =          "$"          DO0030
      MOVE HIGH-VALUE TO I-0030-CORRES      DO0030
      MOVE 008 TO K-S0030-ERCOD GO TO F8150-FN. DO0030
      IF I-0030-CORRES      =          "="          DO0030
      MOVE HIGH-VALUE TO I-0030-CORRES      DO0030
      MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN. DO0030
      IF E-0030-REMIS       =          "$"          DO0030
      MOVE HIGH-VALUE TO E-0030-REMIS       DO0030
      MOVE 009 TO K-S0030-ERCOD GO TO F8150-FN. DO0030
      IF E-0030-REMIS       =          "="          DO0030
      MOVE HIGH-VALUE TO E-0030-REMIS       DO0030
      MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN. DO0030
      MOVE ZERO TO ICATR. DO0030
F8150-GRP. ADD 1 TO ICATR DO0030
      MOVE J-0030-LINE (ICATR) TO I-0030-LINE DO0030
      IF I-0030-CODMVT      =          "$"          DO0030
      MOVE HIGH-VALUE TO I-0030-CODMVT      DO0030
      MOVE 010 TO K-S0030-ERCOD GO TO F8150-A. DO0030
      IF I-0030-CODMVT      =          "="          DO0030
      MOVE HIGH-VALUE TO I-0030-CODMVT      DO0030
      MOVE SPACE TO K-S0030-ERCOD GO TO F8150-A. DO0030
      IF I-0030-FOURNI     =          "$"          DO0030
      MOVE HIGH-VALUE TO I-0030-FOURNI     DO0030
      MOVE 011 TO K-S0030-ERCOD GO TO F8150-A. DO0030
      IF I-0030-FOURNI     =          "="          DO0030
      MOVE HIGH-VALUE TO I-0030-FOURNI     DO0030
      MOVE SPACE TO K-S0030-ERCOD GO TO F8150-A. DO0030
      IF E-0030-QTMAC      =          "$"          DO0030
      MOVE HIGH-VALUE TO E-0030-QTMAC      DO0030
      MOVE 012 TO K-S0030-ERCOD GO TO F8150-A. DO0030
      IF E-0030-QTMAC      =          "="          DO0030
      MOVE HIGH-VALUE TO E-0030-QTMAC      DO0030
      MOVE SPACE TO K-S0030-ERCOD GO TO F8150-A. DO0030
      IF I-0030-INFOR      =          "$"          DO0030
      MOVE HIGH-VALUE TO I-0030-INFOR      DO0030
      MOVE 013 TO K-S0030-ERCOD GO TO F8150-A. DO0030
      IF I-0030-INFOR      =          "="          DO0030
      MOVE HIGH-VALUE TO I-0030-INFOR      DO0030
      MOVE SPACE TO K-S0030-ERCOD GO TO F8150-A. DO0030
      MOVE I-0030-LINE      TO J-0030-LINE (ICATR). DO0030
      IF ICATR < IRR GO TO F8150-GRP. DO0030
      IF I-0030-EDIT       =          "$"          DO0030
      MOVE HIGH-VALUE TO I-0030-EDIT       DO0030
      MOVE 014 TO K-S0030-ERCOD GO TO F8150-FN. DO0030
      IF I-0030-EDIT       =          "="          DO0030
      MOVE HIGH-VALUE TO I-0030-EDIT       DO0030
      MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN. DO0030
      GO TO F8150-B. DO0030
F8150-A. MOVE I-0030-LINE      TO J-0030-LINE (ICATR). DO0030
F8150-B. EXIT. DO0030
F8150-FN. EXIT. DO0030
F8155. DO0030
      MOVE S03034 TO R03034. DO0030
      MOVE S03063 TO R03063. DO0030
      MOVE S05009 TO R05009. DO0030
      MOVE S05052 TO R05052. DO0030

```

GENERATED PROCEDURE DIVISION (TP8 MULTI-SCREEN)  
F81 : PERFORMED VALIDATION FUNCTIONS

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MOVE	S05060	TO	R05060.	DO0030
MOVE	S06016	TO	R06016.	DO0030
MOVE	S06061	TO	R06061.	DO0030
MOVE	S07018	TO	R07018.	DO0030
MOVE	S07061	TO	R07061.	DO0030
MOVE	S10003	TO	R10003.	DO0030
MOVE	S10007	TO	R10007.	DO0030
MOVE	S10016	TO	R10016.	DO0030
MOVE	S10026	TO	R10026.	DO0030
MOVE	S10035	TO	R10035.	DO0030
MOVE	S10042	TO	R10042.	DO0030
MOVE	S11003	TO	R11003.	DO0030
MOVE	S11007	TO	R11007.	DO0030
MOVE	S11016	TO	R11016.	DO0030
MOVE	S11026	TO	R11026.	DO0030
MOVE	S11035	TO	R11035.	DO0030
MOVE	S11042	TO	R11042.	DO0030
MOVE	S12003	TO	R12003.	DO0030
MOVE	S12007	TO	R12007.	DO0030
MOVE	S12016	TO	R12016.	DO0030
MOVE	S12026	TO	R12026.	DO0030
MOVE	S12035	TO	R12035.	DO0030
MOVE	S12042	TO	R12042.	DO0030
MOVE	S13003	TO	R13003.	DO0030
MOVE	S13007	TO	R13007.	DO0030
MOVE	S13016	TO	R13016.	DO0030
MOVE	S13026	TO	R13026.	DO0030
MOVE	S13035	TO	R13035.	DO0030
MOVE	S13042	TO	R13042.	DO0030
MOVE	S14003	TO	R14003.	DO0030
MOVE	S14007	TO	R14007.	DO0030
MOVE	S14016	TO	R14016.	DO0030
MOVE	S14026	TO	R14026.	DO0030
MOVE	S14035	TO	R14035.	DO0030
MOVE	S14042	TO	R14042.	DO0030
MOVE	S15003	TO	R15003.	DO0030
MOVE	S15007	TO	R15007.	DO0030
MOVE	S15016	TO	R15016.	DO0030
MOVE	S15026	TO	R15026.	DO0030
MOVE	S15035	TO	R15035.	DO0030
MOVE	S15042	TO	R15042.	DO0030
MOVE	S16003	TO	R16003.	DO0030
MOVE	S16007	TO	R16007.	DO0030
MOVE	S16016	TO	R16016.	DO0030
MOVE	S16026	TO	R16026.	DO0030
MOVE	S16035	TO	R16035.	DO0030
MOVE	S16042	TO	R16042.	DO0030
MOVE	S17003	TO	R17003.	DO0030
MOVE	S17007	TO	R17007.	DO0030
MOVE	S17016	TO	R17016.	DO0030
MOVE	S17026	TO	R17026.	DO0030
MOVE	S17035	TO	R17035.	DO0030
MOVE	S17042	TO	R17042.	DO0030
MOVE	S18003	TO	R18003.	DO0030
MOVE	S18007	TO	R18007.	DO0030
MOVE	S18016	TO	R18016.	DO0030
MOVE	S18026	TO	R18026.	DO0030
MOVE	S18035	TO	R18035.	DO0030
MOVE	S18042	TO	R18042.	DO0030
MOVE	S20022	TO	R20022.	DO0030
MOVE	S20033	TO	R20033.	DO0030
F8155-FN.	EXIT.			DO0030
F81-FN.	EXIT.			DO0030

### 3.19. F93 : CALLED USER FUNCTIONS

LEVEL 10	+-----+ I ZIP CODE VALIDATION +-----+	P000
F93CP.		P000
MOVE 1 TO	IWP20R.	P100
F93CP-100. IF	IWP20R NOT > IWP20L	P100
AND	WP20-COPOS (IWP20R)	P100
NOT =	WP30-COPOS	P100
ADD 1 TO	IWP20R GO TO F93CP-100.	P100
IF	IWP20R > IWP20L	P200
MOVE	"5" TO DEL-ER	P200
GO TO	F93CP-FN.	P220
F93CP-FN.	EXIT.	DO0030

### 3.20. ZAR980 SUB-PROGRAM

#### USE OF THE ZAR980 SUB-PROGRAM

The ZAR980 sub-program is called by each TPR generated with the COBOL clause 'CALL ZAR980 USING ...'.

This sub-program must be stored in a User Library (Random Library) to be linked with the TPR calling it during execution of the LINK-EDIT, and the loading of the RUN UNIT in a TPR Library.

#### Sub-program library loading

```
$ IDENT $IDENT,$DEST.EXAMPLE1
$ NOTE *****
$ NOTE * LOAD TPR SUBROUTINE INTO USER LIBRARY *
$ NOTE *****
$ PROGRAM RANLIB
$ PRMFL A4,W,R,$UMCS/$FILS.USER-RANLIB
$ DATA R*,COPY
$ SELECTD $UMCS/$OBJTP.ZAR980
$ ENDCOPY
```

#### Generated program link-edit

```
$ IDENT $IDENT,$DEST.EXAMPLE2
$ NOTE *****
$ NOTE * LINK OF TPR *
$ NOTE *****
$ OPTION NOGO,CBL74,SAVE/tpr-name
$ SELECT $UMCS/$OBJTP.tpr-name
$ LIBRARY L1
$ EXECUTE
$ LIMITS ,30k
$ PRMFL L1,R,R,$UMCS/$FILS.USER-RANLIB
$ PROGRAM TP-LIB
$ FILE H*,H01SS,10R
$ LIMITS ,40k
$ PRMFL **,R,R,SPS/TA4.1/SYS/PROGRAMS
$ FILE H*,H01R
$ SYSOUT P1,ORG
$ PRMFL F1,W/C,R,$UMCT/$FILT.TPR-LIBRARY
$ DATA IN
$ UPDATE tpr-name.
```

USER TRANSACTION PARAMETERS FOR DMIV-TP

Since the generated TPR's use explicit SENDs in edited mode, the user must truncate extraneous characters from the message using the USEND module (file \$UMC/\$FILT.O-USEND); this module is also used by the VA Pac on-line system.

In order to use the module, the user must:

- . In the SYSGEN source: use the clause 'USE USEND FOR SEND-MSG' in the description of each transaction using screens generated with the multi-terminal option.
- . In the SYSGEN COMPILE JCL: use the sequence:

```
$ DATA UL,COPY  
$ SELECTD $UMC/$FILT.O-USEND
```

## **4. QUESTAR GENERATED PROGRAM**



QUESTAR GENERATED PROGRAM

This chapter contains the generated lines of the same screen, using the QUESTAR generation variant with the DMIV access method and the TDS monitor.

```

IDENTIFICATION DIVISION.
PROGRAM-ID. DO0030.
AUTHOR. *** ORDER INPUT SCREEN ***.
DATE-COMPILED. 03/09/93.
ENVIRONMENT DIVISION.
CONFIGURATION SECTION.
SOURCE-COMPUTER. LEVEL-66-ASCII.
OBJECT-COMPUTER. LEVEL-66-ASCII.
SPECIAL-NAMES.
    DECIMAL-POINT IS COMMA.
INPUT-OUTPUT SECTION.
FILE-CONTROL.
    SELECT EM-FILE
        ASSIGN TO EM XM
        ORGANIZATION INDEXED
        ACCESS IS DYNAMIC
        RECORD KEY IS EM00-EMKEY
        FILE STATUS 1-EM00-STATUS.
    SELECT HE-FILE ASSIGN TO HE XH
        ORGANIZATION INDEXED
        ACCESS IS DYNAMIC
        RECORD KEY IS HE00-XTERM
        FILE STATUS 1-HE00-STATUS.
DATA DIVISION.
SUB-SCHEMA SECTION.
    DB COMSSCH WITHIN MNGMENT.
FILE SECTION.
FD
    BLOCK EM-FILE
        BLOCK 00001 RECORDS
        LABEL RECORD STANDARD.
01
    EM00.
    05 EM00-EMKEY.
    10 EM00-LIBRA PICTURE X(3).
    10 EM00-ENTYP PICTURE X.
    10 EM00-XEMKY.
    15 EM00-PROGR PICTURE X(6).
    15 EM00-ERCOD.
    20 EM00-ERCOD9 PICTURE 9(3).
    15 EM00-ERTYP PICTURE X.
    10 EM00-LINUM PICTURE 9(3).
    05 EM00-ERLVL PICTURE X.
    05 EM00-ERMSG PICTURE X(66).
    05 FILLER PICTURE X(6).
FD
    BLOCK HE-FILE
        BLOCK 00001 RECORDS
        LABEL RECORD STANDARD.
01
    HE00.
    05 HE00-XTERM PICTURE X(12).
    05 HE00-SCREEN PICTURE X(1920).
WORKING-STORAGE SECTION.
01 WSS-BEGIN.
    05 FILLER PICTURE X(7) VALUE "WORKING".
    05 IK PICTURE X.
    05 BLANC PICTURE X VALUE SPACE.
    05 OPER PICTURE X.
    05 OPERD PICTURE X VALUE SPACE.
    05 CATX PICTURE X.
    05 CATM PICTURE X.
    05 ICATR PICTURE 99.
    05 SCR-ER PICTURE X.
    05 FT PICTURE X.
    05 ICF PICTURE X.
    05 OCF PICTURE X.
    05 CAT-ER PICTURE X.
    05 7-HT PICTURE X VALUE "10".
    05 I-PFKEY PICTURE XX.
    05 7-ACCES PICTURE XX.
    05 K66 PICTURE 999.
    05 7-ETX PICTURE X VALUE "04".
    05 7-SENDVAR PICTURE X VALUE "1".
    05 INA PICTURE 999 VALUE 010.
    05 INR PICTURE 999 VALUE 016.
    05 INZ PICTURE 999 VALUE 017.
    05 IRR PICTURE 99 VALUE 09.
    05 INT PICTURE 999 VALUE 065.
    05 IER PICTURE 99 VALUE 01.
    05 DEL-ER PICTURE X.

```

```

01  PACBASE-CONSTANTS.                                DO0030
    OLSD DATES PACE30 : /02/93                        DO0030
        PACE80 : 05/03/93   PAC7SG : 930225          DO0030
    05 SESSI PICTURE X(5) VALUE "0312 ".             DO0030
    05 LIBRA PICTURE X(3) VALUE "AD8".               DO0030
    05 DATGN PICTURE X(8) VALUE "03/09/93".          DO0030
    05 PROGR PICTURE X(6) VALUE "DO0030".            DO0030
    05 PROGE PICTURE X(8) VALUE "DO0030 ".           DO0030
    05 TIMGN PICTURE X(8) VALUE "10:42:54".          DO0030
    05 USERCO PICTURE X(8) VALUE "PDSG ".            DO0030
    05 PRDOC PICTURE X(8) VALUE "DOP050".           DO0030
    05      5-0030-PROGE PICTURE X(8).                DO0030
01  DATCE.                                            DO0030
    05 CENTUR PICTURE XX VALUE "19".                 DO0030
    05 DATOR.                                        DO0030
    10 DATOA PICTURE XX.                             DO0030
    10 DATOM PICTURE XX.                             DO0030
    10 DATOJ PICTURE XX.                             DO0030
01  DAT6.                                            DO0030
    10 DAT61.                                        DO0030
    15 DAT619 PICTURE 99.                            DO0030
    10 DAT62.                                        DO0030
    15 DAT629 PICTURE 99.                            DO0030
    10 DAT63 PICTURE XX.                             DO0030
01  DAT7.                                            DO0030
    10 DAT71 PICTURE XX.                             DO0030
    10 DAT72 PICTURE XX.                             DO0030
    10 DAT73 PICTURE XX.                             DO0030
01  DAT8.                                            DO0030
    10 DAT81 PICTURE XX.                             DO0030
    10 DAT8S1 PICTURE X.                             DO0030
    10 DAT82 PICTURE XX.                             DO0030
    10 DAT8S2 PICTURE X.                             DO0030
    10 DAT83 PICTURE XX.                             DO0030
01  DATSEP PICTURE X VALUE "/".                     DO0030
01  DATSET PICTURE X VALUE "-".                     DO0030
01  DATCTY.                                          DO0030
    05 DATCTY9 PICTURE 99.                           DO0030
01  DAT6C.                                          DO0030
    10 DAT61C PICTURE XX.                             DO0030
    10 DAT62C PICTURE XX.                             DO0030
    10 DAT63C PICTURE XX.                             DO0030
    10 DAT64C PICTURE XX.                             DO0030
01  DAT7C.                                          DO0030
    10 DAT71C PICTURE XX.                             DO0030
    10 DAT72C PICTURE XX.                             DO0030
    10 DAT73C PICTURE XX.                             DO0030
    10 DAT74C PICTURE XX.                             DO0030
01  DAT8C.                                          DO0030
    10 DAT81C PICTURE XX.                             DO0030
    10 DAT8S1C PICTURE X VALUE "/".                  DO0030
    10 DAT82C PICTURE XX.                             DO0030
    10 DAT8S2C PICTURE X VALUE "/".                  DO0030
    10 DAT83C PICTURE XX.                             DO0030
    10 DAT84C PICTURE XX.                             DO0030
01  DAT8G.                                          DO0030
    10 DAT81G PICTURE XX.                             DO0030
    10 DAT82G PICTURE XX.                             DO0030
    10 DAT8S1G PICTURE X VALUE "-".                  DO0030
    10 DAT83G PICTURE XX.                             DO0030
    10 DAT8S2G PICTURE X VALUE "-".                  DO0030
    10 DAT84G PICTURE XX.                             DO0030
01  TIMCO.                                          DO0030
    02 TIMCOG.                                        DO0030
    05 TIMCOH PICTURE XX.                             DO0030
    05 TIMCOM PICTURE XX.                             DO0030
    05 TIMCOS PICTURE XX.                             DO0030
    02 TIMCOC PICTURE XX.                             DO0030
01  TIMDAY.                                          DO0030
    05 TIMHOU PICTURE XX.                             DO0030
    05 TIMS1 PICTURE X VALUE ": ".                   DO0030
    05 TIMMIN PICTURE XX.                             DO0030
    05 TIMS2 PICTURE X VALUE ": ".                   DO0030
    05 TIMSEC PICTURE XX.                             DO0030
01  CONFIGURATIONS.                                DO0030
    05      CD05-CF PICTURE X.                         DO0030
    05      CD20-CF PICTURE X.                         DO0030

```

## QUESTAR GENERATED PROGRAM

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```

05      CD10-CF      PICTURE X.                DO0030
05      FO10-CF      PICTURE X.                DO0030
05      ME00-CF      PICTURE X.                DO0030
01      STATUS-AREA.                            DO0030
05      1-EM00-STATUS PICTURE XX VALUE ZERO.   DO0030
05      1-HE00-STATUS PICTURE XX VALUE ZERO.   DO0030
01      0030-MESSO.                               *AA040
02      0030-MESS01.                              *AA040
03      0030-MESSM1.                              *AA040
05      FILLER PICTURE XXX VALUE "28,079,13".   *AA040
05      FILLER PICTURE XXX VALUE "20,033,035".   *AA040
05      FILLER PICTURE X VALUE "29".           *AA040
05      FILLER PICTURE X(6) VALUE "028,092,051";"051,110". *AA040
05      S01004 PICTURE X(008) VALUE SPACE.       *AA040
05      FILLER PICTURE XXX VALUE "20,033,045".   *AA040
05      FILLER PICTURE X(001) VALUE             *AA040
05      " ".                                       *AA040
05      FILLER PICTURE XXX VALUE "20,033,047".   *AA040
05      S01015 PICTURE X(005) VALUE SPACE.       *AA040
05      FILLER PICTURE XXX VALUE "20,033,056".   *AA040
05      FILLER PICTURE X(6) VALUE "028,092,049";"049,110". *AA040
05      FILLER PICTURE X(030) VALUE             *AA040
05      " *** ORDER INPUT SCREEN *** ".         *AA040
05      FILLER PICTURE XXX VALUE "20,033,091".   *AA040
05      FILLER PICTURE X(6) VALUE "028,092,051";"051,110". *AA040
05      S01060 PICTURE X(010) VALUE SPACE.       *AA040
05      FILLER PICTURE XXX VALUE "20,033,103".   *AA040
05      S01071 PICTURE X(008) VALUE SPACE.       *AA040
05      FILLER PICTURE XXX VALUE "20,035,035".   *AA040
05      FILLER PICTURE X(6) VALUE "028,092,049";"049,110". *AA040
05      FILLER PICTURE X(013) VALUE             *AA040
05      "ORDER NUMBER:".                         *AA040
05      FILLER PICTURE XXX VALUE "20,035,049".   *AA040
05      FILLER PICTURE X(6) VALUE "028,092,051";"051,110". *AA040
05      S03018 PICTURE X(005) VALUE SPACE.       *AA040
05      FILLER PICTURE XXX VALUE "20,035,057".   *AA040
05      FILLER PICTURE X(6) VALUE "028,092,049";"049,110". *AA040
05      FILLER PICTURE X(007) VALUE             *AA040
05      "SYSTEM:".                               *AA040
05      FILLER PICTURE XXX VALUE "20,035,065".   *AA040
05      FILLER PICTURE X(6) VALUE "028,092,051";"051,110". *AA040
05      FILLER PICTURE XX VALUE "30,049".        *AA040
05      FILLER PICTURE XXX VALUE "20,035,074".   *AA040
05      FILLER PICTURE X VALUE "29".           *AA040
05      FILLER PICTURE X(6) VALUE "028,092,051";"051,110". *AA040
05      FILLER PICTURE XXX VALUE "20,035,085".   *AA040
05      FILLER PICTURE X(6) VALUE "028,092,049";"049,110". *AA040
05      FILLER PICTURE X(008) VALUE             *AA040
05      "RELEASE:".                              *AA040
05      FILLER PICTURE XXX VALUE "20,035,094".   *AA040
05      FILLER PICTURE X(6) VALUE "028,092,051";"051,110". *AA040
05      FILLER PICTURE XX VALUE "30,049".        *AA040
05      FILLER PICTURE XXX VALUE "20,035,098".   *AA040
05      FILLER PICTURE X VALUE "29".           *AA040
05      FILLER PICTURE X(6) VALUE "028,092,051";"051,110". *AA040
05      FILLER PICTURE XXX VALUE "20,036,035".   *AA040
05      FILLER PICTURE X(6) VALUE "028,092,049";"049,110". *AA040
05      FILLER PICTURE X(005) VALUE             *AA040
05      "CUST.".                                 *AA040
05      FILLER PICTURE XXX VALUE "20,036,044".   *AA040
05      FILLER PICTURE X(6) VALUE "028,092,051";"051,110". *AA040
05      S04013 PICTURE X(050) VALUE SPACE.       *AA040
05      FILLER PICTURE XXX VALUE "20,037,040".   *AA040
05      FILLER PICTURE X(6) VALUE "028,092,051";"051,110". *AA040
05      FILLER PICTURE XX VALUE "30,049".        *AA040
05      FILLER PICTURE XXX VALUE "20,037,081".   *AA040
05      FILLER PICTURE X VALUE "29".           *AA040
05      FILLER PICTURE X(6) VALUE "028,092,051";"051,110". *AA040
05      FILLER PICTURE XXX VALUE "20,037,083".   *AA040
05      FILLER PICTURE X(6) VALUE "028,092,051";"051,110". *AA040
05      FILLER PICTURE XX VALUE "30,049".        *AA040
05      FILLER PICTURE XXX VALUE "20,037,089".   *AA040
05      FILLER PICTURE X VALUE "29".           *AA040
05      FILLER PICTURE X(6) VALUE "028,092,051";"051,110". *AA040
05      FILLER PICTURE XXX VALUE "20,037,091".   *AA040
05      FILLER PICTURE X(6) VALUE "028,092,051";"051,110". *AA040
05      FILLER PICTURE XX VALUE "30,049".        *AA040

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05 FILLER PICTURE XXX VALUE "20,037,112" . *AA040
05 FILLER PICTURE X VALUE "29" . *AA040
05 FILLER PICTURE X(6) VALUE "028,092,051";"051,110" . *AA040
05 FILLER PICTURE XXX VALUE "20,038,035" . *AA040
05 FILLER PICTURE X(6) VALUE "028,092,049";"049,110" . *AA040
05 FILLER PICTURE X(011) VALUE *AA040
    "CUST. REF.:". *AA040
05 FILLER PICTURE XXX VALUE "20,038,047" . *AA040
05 FILLER PICTURE X(6) VALUE "028,092,051";"051,110" . *AA040
05 FILLER PICTURE XX VALUE "30,049" . *AA040
05 FILLER PICTURE XXX VALUE "20,038,078" . *AA040
05 FILLER PICTURE X VALUE "29" . *AA040
05 FILLER PICTURE X(6) VALUE "028,092,051";"051,110" . *AA040
05 FILLER PICTURE XXX VALUE "20,038,080" . *AA040
05 FILLER PICTURE X(6) VALUE "028,092,049";"049,110" . *AA040
05 FILLER PICTURE X(011) VALUE *AA040
    "ORDER DATE:". *AA040
05 FILLER PICTURE XXX VALUE "20,038,092" . *AA040
05 FILLER PICTURE X(6) VALUE "028,092,051";"051,110" . *AA040
05 FILLER PICTURE XX VALUE "30,049" . *AA040
05 FILLER PICTURE XXX VALUE "20,038,099" . *AA040
05 FILLER PICTURE X VALUE "29" . *AA040
05 FILLER PICTURE X(6) VALUE "028,092,051";"051,110" . *AA040
05 FILLER PICTURE XXX VALUE "20,039,036" . *AA040
05 FILLER PICTURE X(6) VALUE "028,092,049";"049,110" . *AA040
05 FILLER PICTURE X(012) VALUE *AA040
    "COORDINATOR:". *AA040
05 FILLER PICTURE XXX VALUE "20,039,049" . *AA040
05 FILLER PICTURE X(6) VALUE "028,092,051";"051,110" . *AA040
05 FILLER PICTURE XX VALUE "30,049" . *AA040
05 FILLER PICTURE XXX VALUE "20,039,075" . *AA040
05 FILLER PICTURE X VALUE "29" . *AA040
05 FILLER PICTURE X(6) VALUE "028,092,051";"051,110" . *AA040
05 FILLER PICTURE XXX VALUE "20,039,077" . *AA040
05 FILLER PICTURE X(6) VALUE "028,092,049";"049,110" . *AA040
05 FILLER PICTURE X(014) VALUE *AA040
    "DISCOUNT RATE:". *AA040
05 FILLER PICTURE XXX VALUE "20,039,092" . *AA040
05 FILLER PICTURE X(6) VALUE "028,092,051";"051,110" . *AA040
05 FILLER PICTURE XX VALUE "30,049" . *AA040
05 FILLER PICTURE XXX VALUE "20,039,101" . *AA040
05 FILLER PICTURE X VALUE "29" . *AA040
05 FILLER PICTURE X(6) VALUE "028,092,051";"051,110" . *AA040
05 FILLER PICTURE XXX VALUE "20,041,034" . *AA040
05 FILLER PICTURE X(6) VALUE "028,092,049";"049,110" . *AA040
05 FILLER PICTURE X(001) VALUE *AA040
    "A". *AA040
05 FILLER PICTURE XXX VALUE "20,041,039" . *AA040
05 FILLER PICTURE X(006) VALUE *AA040
    "ITEM ". *AA040
05 FILLER PICTURE XXX VALUE "20,041,048" . *AA040
05 FILLER PICTURE X(008) VALUE *AA040
    "ORDERED ". *AA040
05 FILLER PICTURE XXX VALUE "20,041,058" . *AA040
05 FILLER PICTURE X(007) VALUE *AA040
    "DELIV. ". *AA040
05 FILLER PICTURE XXX VALUE "20,041,067" . *AA040
05 FILLER PICTURE X(006) VALUE *AA040
    "OUTST.". *AA040
05 FILLER PICTURE XXX VALUE "20,041,074" . *AA040
05 FILLER PICTURE X(035) VALUE *AA040
    "REMARKS ". *AA040
05 FILLER PICTURE XXX VALUE "20,042,034" . *AA040
05 FILLER PICTURE X(6) VALUE "028,092,051";"051,110" . *AA040
05 FILLER PICTURE XX VALUE "30,049" . *AA040
05 FILLER PICTURE XXX VALUE "20,042,036" . *AA040
05 FILLER PICTURE X VALUE "29" . *AA040
05 FILLER PICTURE X(6) VALUE "028,092,051";"051,110" . *AA040
05 FILLER PICTURE XXX VALUE "20,042,038" . *AA040
05 FILLER PICTURE X(6) VALUE "028,092,051";"051,110" . *AA040
05 FILLER PICTURE XX VALUE "30,049" . *AA040
05 FILLER PICTURE XXX VALUE "20,042,042" . *AA040
05 FILLER PICTURE X VALUE "29" . *AA040
05 FILLER PICTURE X(6) VALUE "028,092,051";"051,110" . *AA040
05 FILLER PICTURE XXX VALUE "20,042,047" . *AA040
05 FILLER PICTURE X(6) VALUE "028,092,051";"051,110" . *AA040
05 FILLER PICTURE XX VALUE "30,049" . *AA040

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05 FILLER PICTURE X(6) VALUE "028,092,051";"051,110"*.AA040
05 FILLER PICTURE XXX VALUE "20,052,033"*.AA040
05 FILLER PICTURE X(6) VALUE "028,092,049";"049,110"*.AA040
05 FILLER PICTURE X(019) VALUE
    "PRINTING OF FORM :".AA040
05 FILLER PICTURE XXX VALUE "20,052,053"*.AA040
05 FILLER PICTURE X(6) VALUE "028,092,051";"051,110"*.AA040
05 FILLER PICTURE XX VALUE "30,049"*.AA040
05 FILLER PICTURE XXX VALUE "20,052,055"*.AA040
05 FILLER PICTURE X VALUE "29"*.AA040
05 FILLER PICTURE X(6) VALUE "028,092,051";"051,110"*.AA040
05 FILLER PICTURE XXX VALUE "20,052,056"*.AA040
05 FILLER PICTURE X(6) VALUE "028,092,051";"051,110"*.AA040
05 FILLER PICTURE X(007) VALUE
    "CHOICE:".AA040
05 FILLER PICTURE XXX VALUE "20,052,064"*.AA040
05 FILLER PICTURE X(6) VALUE "028,092,051";"051,110"*.AA040
05 FILLER PICTURE XX VALUE "30,049"*.AA040
05 FILLER PICTURE XXX VALUE "20,052,066"*.AA040
05 FILLER PICTURE X VALUE "29"*.AA040
05 FILLER PICTURE X(6) VALUE "028,092,051";"051,110"*.AA040
05 FILLER PICTURE X(010) VALUE
    "UPD : '7',".AA040
05 FILLER PICTURE XXX VALUE "20,052,078"*.AA040
05 FILLER PICTURE X(020) VALUE
    "ORDERS (NEXT) : '8',".AA040
05 FILLER PICTURE XXX VALUE "20,053,033"*.AA040
05 FILLER PICTURE X(6) VALUE "028,092,051";"051,110"*.AA040
05 FILLER PICTURE X(027) VALUE
    "MENU : '1', CUSTOMER LIST :".AA040
05 FILLER PICTURE XXX VALUE "20,053,062"*.AA040
05 FILLER PICTURE X(022) VALUE
    "'2', CUST. HIST : '3',".AA040
05 FILLER PICTURE XXX VALUE "20,053,085"*.AA040
05 FILLER PICTURE X(017) VALUE
    "ORDER LIST : '4',".AA040
05 FILLER PICTURE XXX VALUE "20,054,033"*.AA040
05 FILLER PICTURE X(6) VALUE "028,092,051";"051,110"*.AA040
05 FILLER PICTURE X(017) VALUE
    "SCREEN DOC : '='".AA040
05 FILLER PICTURE XXX VALUE "20,054,052"*.AA040
05 FILLER PICTURE X(018) VALUE
    "DATA EL. DOC : '$"*.AA040
03 0030-MESSM2.AA040
05 FILLER PICTURE XXX VALUE "20,055,033"*.AA040
05 FILLER PICTURE X(6) VALUE "028,092,049";"049,110"*.AA040
05 S23002 PICTURE X(075) VALUE SPACE.AA040
05 FILLER PICTURE XXX VALUE "20,056,033"*.AA040
05 FILLER PICTURE X(6) VALUE "028,092,049";"049,110"*.AA040
05 S24002 PICTURE X(072) VALUE SPACE.AA040
02 0030-MESSO4 REDEFINES 0030-MESSO1.AA040
03 0030-CX PICTURE X OCCURS 2150.AA040
02 0030-MESSV.AA040
03 FILLER PICTURE XXX VALUE "28,078,13"*.AA040
03 0030-MESSO2.AA040
05 S03034 PICTURE X(008) VALUE SPACE.AA040
05 FILLER PICTURE X VALUE "10"*.AA040
05 S03063 PICTURE X(003) VALUE SPACE.AA040
05 FILLER PICTURE X VALUE "10"*.AA040
05 S05009 PICTURE X(040) VALUE SPACE.AA040
05 FILLER PICTURE X VALUE "10"*.AA040
05 S05052 PICTURE X(005) VALUE SPACE.AA040
05 FILLER PICTURE X VALUE "10"*.AA040
05 S05060 PICTURE X(020) VALUE SPACE.AA040
05 FILLER PICTURE X VALUE "10"*.AA040
05 S06016 PICTURE X(030) VALUE SPACE.AA040
05 FILLER PICTURE X VALUE "10"*.AA040
05 S06061 PICTURE X(006) VALUE SPACE.AA040
05 FILLER PICTURE X VALUE "10"*.AA040
05 S07018 PICTURE X(025) VALUE SPACE.AA040
05 FILLER PICTURE X VALUE "10"*.AA040
05 S07061 PICTURE X(008) VALUE SPACE.AA040
05 FILLER PICTURE X VALUE "10"*.AA040
05 S10003 PICTURE X(001) VALUE SPACE.AA040
05 FILLER PICTURE X VALUE "10"*.AA040
05 S10007 PICTURE X(003) VALUE SPACE.AA040
05 FILLER PICTURE X VALUE "10"*.AA040

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05 FILLER PICTURE X VALUE "10". *AA040
05 S16042 PICTURE X(035) VALUE SPACE. *AA040
05 FILLER PICTURE X VALUE "10". *AA040
05 S17003 PICTURE X(001) VALUE SPACE. *AA040
05 FILLER PICTURE X VALUE "10". *AA040
05 S17007 PICTURE X(003) VALUE SPACE. *AA040
05 FILLER PICTURE X VALUE "10". *AA040
05 S17016 PICTURE X(002) VALUE SPACE. *AA040
05 FILLER PICTURE X VALUE "10". *AA040
05 S17026 PICTURE X(002) VALUE SPACE. *AA040
05 FILLER PICTURE X VALUE "10". *AA040
05 S17035 PICTURE X(002) VALUE SPACE. *AA040
05 FILLER PICTURE X VALUE "10". *AA040
05 S17042 PICTURE X(035) VALUE SPACE. *AA040
05 FILLER PICTURE X VALUE "10". *AA040
05 S18003 PICTURE X(001) VALUE SPACE. *AA040
05 FILLER PICTURE X VALUE "10". *AA040
05 S18007 PICTURE X(003) VALUE SPACE. *AA040
05 FILLER PICTURE X VALUE "10". *AA040
05 S18016 PICTURE X(002) VALUE SPACE. *AA040
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05 S18026 PICTURE X(002) VALUE SPACE. *AA040
05 FILLER PICTURE X VALUE "10". *AA040
05 S18035 PICTURE X(002) VALUE SPACE. *AA040
05 FILLER PICTURE X VALUE "10". *AA040
05 S18042 PICTURE X(035) VALUE SPACE. *AA040
05 FILLER PICTURE X VALUE "10". *AA040
05 S20022 PICTURE X(001) VALUE SPACE. *AA040
05 FILLER PICTURE X VALUE "10". *AA040
05 S20033 PICTURE X(001) VALUE SPACE. *AA040
03 0030-MESS03 REDEFINES 0030-MESS02. *AA040
05 0030-CP PICTURE X OCCURS 0616. *AA040
02 0030-MESSF. *AA040
05 FILLER PICTURE XX VALUE "28,079". *AA040
05 FILLER PICTURE XXX VALUE "20,042,035". *AA040
05 FILLER PICTURE XX VALUE "28,078". *AA040
01 INPUT-0030. *AA042
05 FILLER PICTURE X(065). *AA042
05 R20033 PICTURE X(1). *AA042
05 R03034 PICTURE X(8). *AA042
05 R03063 PICTURE X(3). *AA042
05 R05009 PICTURE X(40). *AA042
05 R05052 PICTURE X(5). *AA042
05 R05060 PICTURE X(20). *AA042
05 R06016 PICTURE X(30). *AA042
05 R06061 PICTURE X(6). *AA042
05 R07018 PICTURE X(25). *AA042
05 R07061 PICTURE X(8). *AA042
05 R10003 PICTURE X(1). *AA042
05 R10007 PICTURE X(3). *AA042
05 R10016 PICTURE X(2). *AA042
05 R10026 PICTURE X(2). *AA042
05 R10035 PICTURE X(2). *AA042
05 R10042 PICTURE X(35). *AA042
05 R11003 PICTURE X(1). *AA042
05 R11007 PICTURE X(3). *AA042
05 R11016 PICTURE X(2). *AA042
05 R11026 PICTURE X(2). *AA042
05 R11035 PICTURE X(2). *AA042
05 R11042 PICTURE X(35). *AA042
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05 R12007 PICTURE X(3). *AA042
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05 R12026 PICTURE X(2). *AA042
05 R12035 PICTURE X(2). *AA042
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05 R14007 PICTURE X(3). *AA042
05 R14016 PICTURE X(2). *AA042
05 R14026 PICTURE X(2). *AA042
05 R14035 PICTURE X(2). *AA042

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05 R14042 PICTURE X(35). *AA042
05 R15003 PICTURE X(1). *AA042
05 R15007 PICTURE X(3). *AA042
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05 R15026 PICTURE X(2). *AA042
05 R15035 PICTURE X(2). *AA042
05 R15042 PICTURE X(35). *AA042
05 R16003 PICTURE X(1). *AA042
05 R16007 PICTURE X(3). *AA042
05 R16016 PICTURE X(2). *AA042
05 R16026 PICTURE X(2). *AA042
05 R16035 PICTURE X(2). *AA042
05 R16042 PICTURE X(35). *AA042
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05 R17007 PICTURE X(3). *AA042
05 R17016 PICTURE X(2). *AA042
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05 R18035 PICTURE X(2). *AA042
05 R18042 PICTURE X(35). *AA042
05 R20022 PICTURE X(1). *AA042
01 0030-MESSI REDEFINES INPUT-0030. *AA042
01 05 0030-CA PICTURE X OCCURS 0617. *AA042
01 INPUT-SCREEN-FIELDS REDEFINES INPUT-0030. *AA045
02 I-0030. *AA045
05 FILLER PICTURE X(065). *AA045
05 I-0030-CHOIX PICTURE X. *AA045
05 I-0030-MATE PICTURE X(8). *AA045
05 I-0030-RELEA PICTURE X(3). *AA045
05 I-0030-RUE PICTURE X(40). *AA045
05 I-0030-COPOS PICTURE X(5). *AA045
05 I-0030-VILLE PICTURE X(20). *AA045
05 I-0030-REFCLI PICTURE X(30). *AA045
05 I-0030-DATE PICTURE X(6). *AA045
05 I-0030-CORRES PICTURE X(25). *AA045
05 E-0030-REMIS. *AA045
10 I-0030-REMIS PICTURE S9(4)V99. *AA045
10 FILLER PICTURE X(2). *AA045
05 J-0030-LINE OCCURS 9. *AA045
10 FILLER PICTURE X(45). *AA045
05 I-0030-EDIT PICTURE X. *AA045
01 OUTPUT-0030. *AA049
05 T20033 PICTURE X(1). *AA049
05 T01004 PICTURE X(8). *AA049
05 T01015 PICTURE X(5). *AA049
05 T01060 PICTURE X(10). *AA049
05 T01071 PICTURE X(8). *AA049
05 T03018 PICTURE X(5). *AA049
05 T03034 PICTURE X(8). *AA049
05 T03063 PICTURE X(3). *AA049
05 T04013 PICTURE X(50). *AA049
05 T05009 PICTURE X(40). *AA049
05 T05052 PICTURE X(5). *AA049
05 T05060 PICTURE X(20). *AA049
05 T06016 PICTURE X(30). *AA049
05 T06061 PICTURE X(6). *AA049
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05 T11026 PICTURE X(2). *AA049
05 T11035 PICTURE X(2). *AA049
05 T11042 PICTURE X(35). *AA049
05 T12003 PICTURE X(1). *AA049
05 T12007 PICTURE X(3). *AA049

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05      T12016  PICTURE X(2).          *AA049
05      T12026  PICTURE X(2).          *AA049
05      T12035  PICTURE X(2).          *AA049
05      T12042  PICTURE X(35).         *AA049
05      T13003  PICTURE X(1).          *AA049
05      T13007  PICTURE X(3).          *AA049
05      T13016  PICTURE X(2).          *AA049
05      T13026  PICTURE X(2).          *AA049
05      T13035  PICTURE X(2).          *AA049
05      T13042  PICTURE X(35).         *AA049
05      T14003  PICTURE X(1).          *AA049
05      T14007  PICTURE X(3).          *AA049
05      T14016  PICTURE X(2).          *AA049
05      T14026  PICTURE X(2).          *AA049
05      T14035  PICTURE X(2).          *AA049
05      T14042  PICTURE X(35).         *AA049
05      T15003  PICTURE X(1).          *AA049
05      T15007  PICTURE X(3).          *AA049
05      T15016  PICTURE X(2).          *AA049
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05      T15035  PICTURE X(2).          *AA049
05      T15042  PICTURE X(35).         *AA049
05      T16003  PICTURE X(1).          *AA049
05      T16007  PICTURE X(3).          *AA049
05      T16016  PICTURE X(2).          *AA049
05      T16026  PICTURE X(2).          *AA049
05      T16035  PICTURE X(2).          *AA049
05      T16042  PICTURE X(35).         *AA049
05      T17003  PICTURE X(1).          *AA049
05      T17007  PICTURE X(3).          *AA049
05      T17016  PICTURE X(2).          *AA049
05      T17026  PICTURE X(2).          *AA049
05      T17035  PICTURE X(2).          *AA049
05      T17042  PICTURE X(35).         *AA049
05      T18003  PICTURE X(1).          *AA049
05      T18007  PICTURE X(3).          *AA049
05      T18016  PICTURE X(2).          *AA049
05      T18026  PICTURE X(2).          *AA049
05      T18035  PICTURE X(2).          *AA049
05      T18042  PICTURE X(35).         *AA049
05      T20022  PICTURE X(1).          *AA049
05      T23002  PICTURE X(75).         *AA049
05      T24002  PICTURE X(72).         *AA049
01      OUTPUT-SCREEN-FIELDS REDEFINES OUTPUT-0030. *AA050
02      O-0030.                          *AA050
05      O-0030-CHOIX  PICTURE X.          *AA050
05      O-0030-PROGE  PICTURE X(8).       *AA050
05      O-0030-SESSI  PICTURE X(5).       *AA050
05      O-0030-DATEM  PICTURE X(10).     *AA050
05      O-0030-HEURE  PICTURE X(8).       *AA050
05      O-0030-NUCOM  PICTURE 9(5).       *AA050
05      O-0030-MATE   PICTURE X(8).       *AA050
05      O-0030-RELEA  PICTURE X(3).       *AA050
05      O-0030-RAISOC PICTURE X(50).      *AA050
05      O-0030-RUE    PICTURE X(40).      *AA050
05      O-0030-COPOS  PICTURE X(5).       *AA050
05      O-0030-VILLE  PICTURE X(20).      *AA050
05      O-0030-REFCLI PICTURE X(30).      *AA050
05      O-0030-DATE   PICTURE X(6).       *AA050
05      O-0030-CORRES PICTURE X(25).      *AA050
05      F-0030-REMIS.                      *AA050
10      O-0030-REMIS  PICTURE -(04)9,9(02). *AA050
05      P-0030-LINE   OCCURS 9.           *AA050
10      FILLER       PICTURE X(45).       *AA050
05      O-0030-EDIT  PICTURE X.          *AA050
05      O-0030-MESSA PICTURE X(75).       *AA050
05      O-0030-ERMS.                      *AA050
10      O-001  OCCURS 1.                   *AA050
15      O-0030-ERMSG1 PICTURE X(72).      *AA050
01      REPEAT-LINE.                      *AA050
02      I-0030-LINE.                      *AA050
05      I-0030-CODMVT PICTURE X.          *AA050
05      I-0030-FOURNI PICTURE X(3).       *AA050
05      E-0030-QTMAC.                      *AA050
10      I-0030-QTMAC  PICTURE 99.         *AA050
05      E-0030-QTMAL.                      *AA050
10      I-0030-QTMAL  PICTURE 99.         *AA050

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05      E-0030-QTMAR.                                *AA050
10      I-0030-QTMAR  PICTURE 99.                    *AA050
05      I-0030-INFOR  PICTURE X(35).                 *AA050
02      O-0030-LINE.                                  *AA050
05      O-0030-CODMVT PICTURE X.                     *AA050
05      O-0030-FOURNI PICTURE X(3).                  *AA050
05      F-0030-QTMAC.                                  *AA050
10      O-0030-QTMAC  PICTURE Z(01)9.                 *AA050
05      F-0030-QTMAL.                                  *AA050
10      O-0030-QTMAL  PICTURE Z(01)9.                 *AA050
05      F-0030-QTMAR.                                  *AA050
10      O-0030-QTMAR  PICTURE Z(01)9.                 *AA050
05      O-0030-INFOR  PICTURE X(35).                 *AA050
01      NUMERIC-FIELDS.                               *AA050
05      9-0030-REMIS  PICTURE X(5) VALUE "+0402".    *AA050
05      9-0030-QTMAC  PICTURE X(5) VALUE " 0200".    *AA050
05      9-0030-QTMAL  PICTURE X(5) VALUE " 0200".    *AA050
05      9-0030-QTMAR  PICTURE X(5) VALUE " 0200".    *AA050
01      ERROR-MESS.                                    *AA060
02      ERROR-MESS01.                                 *AA060
05      FILLER  PICTURE XX  VALUE ""28,079"".         *AA060
05      X-ATT2.                                        *AA060
10      X-ATT3  OCCURS 065.                            *AA060
15      X-ATPC  PICTURE XXX.                          *AA060
15      X-ATTR.                                       *AA060
20      FILLER  PICTURE XX.                          *AA060
20      X-ATTRI PICTURE X.                            *AA060
20      FILLER  PICTURE X.                            *AA060
20      X-ATTRP PICTURE X.                            *AA060
20      FILLER  PICTURE X.                            *AA060
05      X-ERMSBLANC.                                  *AA060
10      FILLER  PICTURE XXX  VALUE ""20,056,034"".    *AA060
10      FILLER  PICTURE X(072) VALUE SPACE.          *AA060
05      X-ERMS.                                       *AA060
10      FILLER  PICTURE XXX  VALUE ""20,056,034"".    *AA060
10      FILLER  PICTURE X(072).                      *AA060
05      X-ERMS1  REDEFINES X-ERMS.                   *AA060
10      X-ERMS2  OCCURS 01.                          *AA060
15      FILLER  PICTURE XXX.                          *AA060
15      O-0030-ERMSG PICTURE X(072).                  *AA060
02      ERROR-MESSF.                                  *AA060
05      FILLER  PICTURE XX  VALUE ""28,079"".         *AA060
05      X-ATPC1  PICTURE XXX.                         *AA060
05      FILLER  PICTURE X  VALUE ""19"".              *AA060
05      FILLER  PICTURE XX  VALUE ""28,078"".         *AA060
01      VALUE-OF-ATTRIBUTES.                         *AA070
05      X-ATT1.                                       *AA070
10      FILLER  PICTURE XXX  VALUE ""20,052,064"".    *AA070
10      FILLER  PICTURE X(6) VALUE ""028,092,051";"051,110"". *AA070
10      FILLER  PICTURE XXX  VALUE ""20,035,065"".    *AA070
10      FILLER  PICTURE X(6) VALUE ""028,092,051";"051,110"". *AA070
10      FILLER  PICTURE XXX  VALUE ""20,035,094"".    *AA070
10      FILLER  PICTURE X(6) VALUE ""028,092,051";"051,110"". *AA070
10      FILLER  PICTURE XXX  VALUE ""20,037,040"".    *AA070
10      FILLER  PICTURE X(6) VALUE ""028,092,051";"051,110"". *AA070
10      FILLER  PICTURE XXX  VALUE ""20,037,083"".    *AA070
10      FILLER  PICTURE X(6) VALUE ""028,092,051";"051,110"". *AA070
10      FILLER  PICTURE XXX  VALUE ""20,037,091"".    *AA070
10      FILLER  PICTURE X(6) VALUE ""028,092,051";"051,110"". *AA070
10      FILLER  PICTURE XXX  VALUE ""20,038,047"".    *AA070
10      FILLER  PICTURE X(6) VALUE ""028,092,051";"051,110"". *AA070
10      FILLER  PICTURE XXX  VALUE ""20,038,092"".    *AA070
10      FILLER  PICTURE X(6) VALUE ""028,092,051";"051,110"". *AA070
10      FILLER  PICTURE XXX  VALUE ""20,039,049"".    *AA070
10      FILLER  PICTURE X(6) VALUE ""028,092,051";"051,110"". *AA070
10      FILLER  PICTURE XXX  VALUE ""20,039,092"".    *AA070
10      FILLER  PICTURE X(6) VALUE ""028,092,051";"051,110"". *AA070
10      FILLER  PICTURE XXX  VALUE ""20,042,034"".    *AA070
10      FILLER  PICTURE X(6) VALUE ""028,092,051";"051,110"". *AA070
10      FILLER  PICTURE XXX  VALUE ""20,042,038"".    *AA070
10      FILLER  PICTURE X(6) VALUE ""028,092,051";"051,110"". *AA070
10      FILLER  PICTURE XXX  VALUE ""20,042,047"".    *AA070
10      FILLER  PICTURE X(6) VALUE ""028,092,051";"051,110"". *AA070
10      FILLER  PICTURE XXX  VALUE ""20,042,057"".    *AA070
10      FILLER  PICTURE X(6) VALUE ""028,092,049";"049,110"". *AA070
10      FILLER  PICTURE XXX  VALUE ""20,042,066"".    *AA070
10      FILLER  PICTURE X(6) VALUE ""028,092,051";"051,110"". *AA070

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10 FILLER PICTURE X(6) VALUE "028,092,051";"051,110"*.AA070
10 FILLER PICTURE XXX VALUE "20,049,047"*.AA070
10 FILLER PICTURE X(6) VALUE "028,092,051";"051,110"*.AA070
10 FILLER PICTURE XXX VALUE "20,049,057"*.AA070
10 FILLER PICTURE X(6) VALUE "028,092,049";"049,110"*.AA070
10 FILLER PICTURE XXX VALUE "20,049,066"*.AA070
10 FILLER PICTURE X(6) VALUE "028,092,051";"051,110"*.AA070
10 FILLER PICTURE XXX VALUE "20,049,073"*.AA070
10 FILLER PICTURE X(6) VALUE "028,092,051";"051,110"*.AA070
10 FILLER PICTURE XXX VALUE "20,050,034"*.AA070
10 FILLER PICTURE X(6) VALUE "028,092,051";"051,110"*.AA070
10 FILLER PICTURE XXX VALUE "20,050,038"*.AA070
10 FILLER PICTURE X(6) VALUE "028,092,051";"051,110"*.AA070
10 FILLER PICTURE XXX VALUE "20,050,047"*.AA070
10 FILLER PICTURE X(6) VALUE "028,092,051";"051,110"*.AA070
10 FILLER PICTURE XXX VALUE "20,050,057"*.AA070
10 FILLER PICTURE X(6) VALUE "028,092,049";"049,110"*.AA070
10 FILLER PICTURE XXX VALUE "20,050,066"*.AA070
10 FILLER PICTURE X(6) VALUE "028,092,051";"051,110"*.AA070
10 FILLER PICTURE XXX VALUE "20,050,073"*.AA070
10 FILLER PICTURE X(6) VALUE "028,092,051";"051,110"*.AA070
10 FILLER PICTURE XXX VALUE "20,052,053"*.AA070
10 FILLER PICTURE X(6) VALUE "028,092,051";"051,110"*.AA070
01 0030-MPRIOR PICTURE X(80). *AA076
01 MESSAGE-LENGTH. *AA100
05 0030-LENGTH PICTURE 9(4) VALUE 2776. *AA100
05 MESS-LENGF PICTURE 9(4) VALUE 0165. *AA100
05 MESS-LENGM1 PICTURE 9(4) VALUE 1985. *AA100
05 0030-XLONES PICTURE 9(4) VALUE 0616. *AA100
05 MESS-LENGV PICTURE 9(4) VALUE 0619. *AA100
05 0030-LMESSF PICTURE 9(4) VALUE 0007. *AA100
05 0030-XLOUT PICTURE 9(4) VALUE 0008. *AA100
05 ERROR-LENGTH PICTURE 9(4) VALUE 0668. *AA100
05 ERROR-LENGF PICTURE 9(4) VALUE 0737. *AA100
01 VALIDATION-TABLE-FIELDS. *AA150
02 DE-ERR. *AA150
05 DE-ER PICTURE X *AA150
OCCURS 065. *AA150
02 DE-E REDEFINES DE-ERR. *AA150
03 ER-0030-BEGIN. *AA150
05 ER-0030-CHOIX PICTURE X. *AA150
05 ER-0030-MATE PICTURE X. *AA150
05 ER-0030-RELEA PICTURE X. *AA150
05 ER-0030-RUE PICTURE X. *AA150
05 ER-0030-COPOS PICTURE X. *AA150
05 ER-0030-VILLE PICTURE X. *AA150
05 ER-0030-REFCLI PICTURE X. *AA150
05 ER-0030-DATE PICTURE X. *AA150
05 ER-0030-CORRES PICTURE X. *AA150
05 ER-0030-REMIS PICTURE X. *AA150
03 PS-30-LINE OCCURS 9. *AA150
05 FILLER PICTURE X(0006). *AA150
03 ER-0030-END. *AA150
05 ER-0030-EDIT PICTURE X. *AA150
02 ER-0030-LINE. *AA150
05 ER-0030-CODMVT PICTURE X. *AA150
05 ER-0030-FOURNI PICTURE X. *AA150
05 ER-0030-QTMAC PICTURE X. *AA150
05 ER-0030-QTMAL PICTURE X. *AA150
05 ER-0030-QTMAR PICTURE X. *AA150
05 ER-0030-INFOR PICTURE X. *AA150
01 TT-DAT. *AA200
05 T-DAT PICTURE X OCCURS 5. *AA200
01 LEAP-YEAR. *AA200
05 LEAP-FLAG PICTURE X. *AA200
05 LEAP-REM PICTURE 99. *AA200
01 USERS-ERROR. *AA200
05 XEMKY. *AA200
10 XPROGR PICTURE X(6). *AA200
10 XERCD PICTURE X(4). *AA200
05 T-XEMKY OCCURS 01. *AA200
10 T-XPROGR PICTURE X(6). *AA200
10 T-XERCD PICTURE X(4). *AA200
01 PACBASE-INDEXES COMPUTATIONAL-6. *AA200
05 TALLY PICTURE S9(4) VALUE ZERO. *AA200
05 K01 PICTURE S9(4). *AA200
05 K02 PICTURE S9(4). *AA200

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05 K03          PICTURE S9(4).                *AA200
05 K04          PICTURE S9(4).                *AA200
05 K50R        PICTURE S9(4) VALUE ZERO.      *AA200
05 K50L        PICTURE S9(4) VALUE ZERO.      *AA200
05 K50M        PICTURE S9(4)                  *AA200
                VALUE          +01.          *AA200
05 IWP20L      PICTURE S9(4) VALUE ZERO.      *AA200
05 IWP20R      PICTURE S9(4) VALUE ZERO.      *AA200
05 IWP20M      PICTURE S9(4) VALUE +0009.     *AA200
05 5-CD05-LTH PICTURE S9(4) VALUE +0157.     *AA200
05 5-CA00-LTH PICTURE S9(4) VALUE +0147.     *AA200
05 5-CD05-LTHV PICTURE S9(4) VALUE +0157.    *AA200
05 5-CD10-LTH PICTURE S9(4) VALUE +0139.     *AA200
05 5-CD10-LTHV PICTURE S9(4) VALUE +0139.    *AA200
05 5-CD20-LTH PICTURE S9(4) VALUE +0001.     *AA200
05 5-CD20-LTHV PICTURE S9(4) VALUE +0001.    *AA200
05 5-FO10-LTH PICTURE S9(4) VALUE +0057.     *AA200
05 5-FO10-LTHV PICTURE S9(4) VALUE +0057.    *AA200
05 5-ME00-LTH PICTURE S9(4) VALUE +0082.     *AA200
05 LTH         PICTURE S9(4) VALUE ZERO.      *AA200
05 5-0030-LENGTH PICTURE S9(4)
                VALUE          +0880.        *AA200
01 NUMERIC-VALIDATION-FIELDS.                *AA200
05 ZONUM1.    *AA200
    10 C1     PICTURE X OCCURS 27.            *AA200
05 ZONUM2.    *AA200
    10 C2     OCCURS 18.                      *AA200
    15 C29    PICTURE S9.                     *AA200
05 ZONUM9     REDEFINES ZONUM2 PICTURE 9(18). *AA200
05 NUMPIC.    *AA200
    10 SIGNE  PICTURE X.                      *AA200
    10 NBCHA  PICTURE 99.                     *AA200
    10 NBCHP  PICTURE 99.                     *AA200
05 C9         PICTURE S9.                     *AA200
05 C91        PICTURE X.                      *AA200
05 TPOINT     PICTURE X.                      *AA200
05 ZONUM3.    *AA200
    10 C3     PICTURE X OCCURS 18.            *AA200
05 ZONUM4     REDEFINES ZONUM3 PICTURE 9(18). *AA200
05 ZONUM5     PICTURE S99 VALUE -10.          *AA200
05 ZONUM6     REDEFINES ZONUM5.              *AA200
    10 FILLER PICTURE X.                      *AA200
    10 C4     PICTURE X.                      *AA200
01 TABLE-OF-ATTRIBUTES.                      *AA250
02 DE-ATT.    *AA250
03 DE-ATT1    OCCURS 4.                      *AA250
05 DE-AT     PICTURE X                        *AA250
                OCCURS 065.                  *AA250
02 DE-A      REDEFINES DE-ATT.                *AA250
03 DE-ATT2    OCCURS 4.                      *AA250
04 A-0030-BEGIN. *AA250
05 A-0030-CHOIX PICTURE X.                   *AA250
05 A-0030-MATE PICTURE X.                     *AA250
05 A-0030-RELEA PICTURE X.                    *AA250
05 A-0030-RUE PICTURE X.                      *AA250
05 A-0030-COPOS PICTURE X.                    *AA250
05 A-0030-VILLE PICTURE X.                    *AA250
05 A-0030-REFCLI PICTURE X.                   *AA250
05 A-0030-DATE PICTURE X.                     *AA250
05 A-0030-CORRES PICTURE X.                   *AA250
05 A-0030-REMIS PICTURE X.                    *AA250
04 B-0030-LINE OCCURS 9.                      *AA250
05 FILLER     PICTURE X(0006).               *AA250
04 A-0030-END. *AA250
05 A-0030-EDIT PICTURE X.                     *AA250
02 A-0030-LINE OCCURS 4.                      *AA250
05 A-0030-CODMVT PICTURE X.                   *AA250
05 A-0030-FOURNI PICTURE X.                   *AA250
05 A-0030-QTMAC PICTURE X.                    *AA250
05 A-0030-QTMAL PICTURE X.                    *AA250
05 A-0030-QTMAR PICTURE X.                    *AA250
05 A-0030-INFOR PICTURE X.                    *AA250
01 FIRST-ON-SEGMENT.                          *AA301
05 CD10-FST   PICTURE X.                      *AA301
01 STOP-FIELDS.                               *AA310
02 C-0030.   *AA310
05 C-0030-COCARA PICTURE X.                  *AA310

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01      05      C-0030-NUCOM      PICTURE 9(5).      *AA310
      WW10-QTMAR      *BB200
      PICTURE 99      *BB200
      VALUE ZERO.      *BB201
01      IO-STATUS      PICTURE X(7).      *ST100
      88      OK      VALUE "0000000".      *ST120
      88      END-OF-SET      VALUE "0502100".      *ST140
      88      NOT-FOUND      VALUE "0502400".      *ST160
      88      NEXT-FOUND      VALUE "0502401".      *ST180
01      WP00.      *WP000
02      WP10.      *WP010
05      FILLER PIC X(25) VALUE      *WP020
      "23400BRISBANE      ".      *WP030
05      FILLER PIC X(25) VALUE      *WP040
      "56400VICTORIA      ".      *WP050
05      FILLER PIC X(25) VALUE      *WP060
      "76500ALICE SPRINGS      ".      *WP070
05      FILLER PIC X(25) VALUE      *WP080
      "55300MELBOURNE      ".      *WP090
05      FILLER PIC X(25) VALUE      *WP100
      "11000CANBERRA      ".      *WP110
05      FILLER PIC X(25) VALUE      *WP120
      "34500PERTH      ".      *WP130
05      FILLER PIC X(25) VALUE      *WP140
      "85270DARWIN      ".      *WP150
05      FILLER PIC X(25) VALUE      *WP160
      "94000HOBART      ".      *WP170
05      FILLER PIC X(25) VALUE      *WP180
      "89300SYDNEY      ".      *WP190
02      WP20 REDEFINES WP10 OCCURS 9.      *WP300
05      WP20-COPOS      *WP320
      PICTURE X(5).      *WP320
05      WP20-VILLE      *WP340
      PICTURE X(20).      *WP340
02      WP30.      *WP400
05      WP30-COPOS      *WP410
      PICTURE X(5).      *WP410
02      WP40.      *WP500
05      WP40-VILLE      *WP510
      PICTURE X(20).      *WP510
05      WP40-VILLEL      *WP520
      PICTURE X(20).      *WP520
LINKAGE SECTION.      DO0030
COPY TP-STORAGE OF TP.      *OZ010
01      CONSTANT-STORAGE PICTURE X(4).      *OZ015
01      TRANSACTION-STORAGE.      *OZ020
02      K-S0030-PROGR PICTURE X(6).      *00000
02      K-S0030-XTERM PICTURE X(12).      *00000
02      CA00.      *00001
10      CA00-CLECD.      *00001
15      CA00-NUCOM PICTURE 9(5).      *00001
10      CA00-CLECL1.      *00001
15      CA00-NUCLIE PICTURE 9(8).      *00001
10      CA00-ME00.      *00001
15      CA00-CLEME.      *00001
20      CA00-COPERS PICTURE X(5).      *00001
20      CA00-NUMORD PICTURE XX.      *00001
15      CA00-MESSA PICTURE X(75).      *00001
10      CA00-PREM PICTURE X.      *00001
10      CA00-LANGU PICTURE X.      *00001
10      CA00-RAISOC PICTURE X(50).      *00001
02      K-S0030-DOC PICTURE X.      *00002
02      K-S0030-PROGE PICTURE X(8).      *00002
02      K-S0030-LIBRA PICTURE XXX.      *00002
02      K-S0030-PROHE PICTURE X(8).      *00002
02      K-S0030-ERCOD.      *00002
05      K-S0030-ERCOD9 PICTURE 999.      *00002
02      K-S0030-ERTYP PICTURE X.      *00002
02      K-S0030-LINUM PICTURE 999.      *00002
02      K-0030.      *00002
03      K-Z0030-END.      *00002
05      K-ZME00-CLEME PICTURE X(7).      *00002
02      FILLER PICTURE X(0693).      *00002
02      K-0030.      *01001
05      K-ACD05-NUCOM      *01105
      PICTURE 9(5).      *01105
05      K-RCD10-DBKEY OCCURS 2      *01308

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                                DB-KEY.                                *01308
COMMUNICATION SECTION.                                             *90010
CD 7-CD01          INPUT                                           *90020
    SYMBOLIC QUEUE          7-CD01-CTRAN                            *90030
    MESSAGE DATE           7-CD01-XDATE                            *90040
    MESSAGE TIME           7-CD01-XTIME                            *90050
    SYMBOLIC SOURCE        7-CD01-XTERM                            *90060
    TEXT LENGTH            7-CD01-XLOMES                           *90070
    END KEY                 7-CD01-XFINME                          *90080
    STATUS KEY              7-CD01-XMSTA.                          *90090
CD 7-CD02          OUTPUT                                           *90100
    DESTINATION COUNT      7-CD02-XNDEST                           *90110
    TEXT LENGTH            7-CD02-XLOMES                           *90120
    STATUS KEY              7-CD02-XMSTA                            *90130
    ERROR KEY              7-CD02-XMERR                            *90140
    SYMBOLIC DESTINATION   7-CD02-XTERM.                          *90150
PROCEDURE DIVISION USING TP-STORAGE CONSTANT-STORAGE             *99999
                                TRANSACTION-STORAGE.               *99999
                                *****                             DO0030
                                *                                     DO0030
                                *   INITIALIZATIONS                 *   DO0030
                                *                                     DO0030
                                *****                             DO0030
F01.          EXIT.                                                 DO0030
F0101.                                               DO0030
    OPEN INPUT  EM-FILE.                                           DO0030
    OPEN I-O    HE-FILE.                                           DO0030
    OPEN INPUT  ME-FILE.                                           DO0030
F0101-FN.     EXIT.                                                 DO0030
F0110.                                               DO0030
    ACCEPT TIMCO FROM TIME.                                         DO0030
    ACCEPT DATOR FROM DATE.                                         DO0030
    MOVE ZERO TO CATX FT K50L.                                       DO0030
    MOVE "1" TO ICF OCF SCR-ER.                                       DO0030
    MOVE ZERO TO VALIDATION-TABLE-FIELDS.                             DO0030
    MOVE ZERO TO 7-CD01-XMSTA 7-CD02-XMSTA.                           DO0030
    MOVE SPACE TO CATM OPER OPERD CAT-ER.                             DO0030
    MOVE SPACE TO TABLE-OF-ATTRIBUTES.                               DO0030
    MOVE X-ATT1 TO X-ATT2.                                           DO0030
    MOVE ZERO TO CONFIGURATIONS.                                       DO0030
    MOVE ZERO TO USERS-ERROR.                                         DO0030
    IF PROGR NOT = K-S0030-PROGR                                       DO0030
        MOVE ZERO TO ICF.                                             DO0030
    IF PRIOR-TPR = LOW-VALUE MOVE ZERO TO ICF                         DO0030
        K-S0030-DOC                                                  DO0030
RECEIVE 7-CD01 MESSAGE INTO 0030-MPRIOR                             DO0030
NO DATA MOVE "1" TO IK.                                             DO0030
    IF PRIOR-TPR = LOW-VALUE                                         DO0030
PERFORM F81ES THRU F81ES-FN                                         DO0030
MOVE 7-CD01-XTERM TO K-S0030-XTERM.                                  DO0030
MOVE SPACE TO O-0030.                                               DO0030
IF ICF = ZERO PERFORM F8115 THRU F8115-FN.                           DO0030
MOVE K-S0030-XTERM TO HE00-XTERM.                                    DO0030
    IF K-S0030-DOC = "2" OR K-S0030-DOC = "3"                       DO0030
MOVE "1" TO K-S0030-DOC GO TO F8Z05.                                 DO0030
MOVE "X" TO DE-AT (4, 011).                                         DO0030
MOVE SPACE TO O-0030-ERMSG (01).                                     DO0030
MOVE SPACE TO O-0030-ERMSG1 (01).                                    DO0030
F0110-FN.     EXIT.                                                 DO0030
F0160.                                               DO0030
    IF ICF = ZERO MOVE "A" TO OPER                                     DO0030
    GO TO F3999-ITER-FT.                                             DO0030
F0160-FN.     EXIT.                                                 DO0030
F01-FN.       EXIT.                                                 DO0030
                                +-----+                             P000
                                I INIT. NUMBER OF LOADED ITEMS       I   P000
                                +-----+                             P000
F02CP.                                               P000
    MOVE IWP20M TO IWP20L.                                           P100
F02CP-FN.     EXIT.                                                 P000
                                *****                             DO0030
                                *                                     DO0030
                                *   RECEPTION                         *   DO0030
                                *                                     DO0030
                                *****                             DO0030
F05.          IF ICF = ZERO GO TO END-OF-RECEPTION.                 DO0030
F0510.                                               DO0030

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PERFORM F81RE THRU F81RE-FN. DO0030
IF ICF = ZERO GO TO END-OF-RECEPTION. DO0030
PERFORM F81ES THRU F81ES-FN. DO0030
MOVE 7-CD01-XTERM TO K-S0030-XTERM. DO0030
IF 0030-CA (7-CD01-XLOMES) NOT = 7-ETX DO0030
ADD 1 TO 7-CD01-XLOMES. DO0030
MOVE 7-HT TO 0030-CA (7-CD01-XLOMES). DO0030
MOVE ZERO TO K01 K02. DO0030
F0510-A. DO0030
  ADD 1 TO K01. IF K01 > 7-CD01-XLOMES GO TO F0510-C. DO0030
F0510-B. ADD 1 TO K02. DO0030
  IF K02 > 0030-XLOMES GO TO F0510-C. DO0030
  IF 0030-CA (K01) = 7-HT AND DO0030
    0030-CP (K02) NOT = 7-HT DO0030
  MOVE SPACE TO 0030-CP (K02) GO TO F0510-B. DO0030
  IF 0030-CA (K01) = 7-HT GO TO F0510-A. DO0030
  IF 0030-CP (K02) = 7-HT MOVE ZERO TO ICF DO0030
  GO TO END-OF-RECEPTION. DO0030
  MOVE 0030-CA (K01) TO 0030-CP (K02) DO0030
  GO TO F0510-A. DO0030
F0510-C. PERFORM F8155 THRU F8155-FN. DO0030
  MOVE "A" TO OPER MOVE SPACE TO OPERD. DO0030
  PERFORM F8150 THRU F8150-FN. DO0030
  IF K-S0030-ERCOD = ZERO DO0030
  INSPECT I-0030 REPLACING ALL "-" BY SPACE. DO0030
F0510-FN. EXIT. DO0030
F0512. IF K-S0030-ERCOD NOT = ZERO DO0030
  NEXT SENTENCE ELSE GO TO F0512-FN. DO0030
  MOVE "2" TO K-S0030-DOC DO0030
  MOVE PROGE TO K-S0030-PROGE DO0030
  MOVE LIBRA TO K-S0030-LIBRA. DO0030
  IF K-S0030-ERCOD NOT = SPACE DO0030
  MOVE "3" TO K-S0030-DOC. DO0030
  MOVE K-S0030-XTERM TO HE00-XTERM DO0030
  PERFORM F80-HELP-R THRU F80-FN DO0030
  MOVE HE00-SCREEN TO O-0030 DO0030
  PERFORM F8130 THRU F8130-FN DO0030
  MOVE O-0030 TO HE00-SCREEN DO0030
  PERFORM F80-HELP-RW THRU F80-FN DO0030
  MOVE PRDOC TO 5-0030-PROGE K-S0030-PROHE DO0030
  MOVE "O" TO OPER GO TO F4040. DO0030
F0512-FN. EXIT. DO0030
***** DO0030
* DO0030
* VALIDATION OF OPERATION CODE * DO0030
* DO0030
***** DO0030
F0520. DO0030
  IF I-0030-CHOIX = "1" DO0030
  MOVE "DO0000 " TO 5-0030-PROGE DO0030
  MOVE "O" TO OPER GO TO F40-A. DO0030
  IF I-0030-CHOIX = "2" DO0030
  MOVE "DO0010 " TO 5-0030-PROGE DO0030
  MOVE "O" TO OPER GO TO F40-A. DO0030
  IF I-0030-CHOIX = "3" DO0030
  MOVE "DO0020 " TO 5-0030-PROGE DO0030
  MOVE "O" TO OPER GO TO F40-A. DO0030
  IF I-0030-CHOIX = "4" DO0030
  MOVE "DO0040 " TO 5-0030-PROGE DO0030
  MOVE "O" TO OPER GO TO F40-A. DO0030
  IF I-0030-CHOIX = "5" DO0030
  MOVE "DO0050 " TO 5-0030-PROGE DO0030
  MOVE "O" TO OPER GO TO F40-A. DO0030
  IF I-0030-CHOIX = "0" DO0030
  MOVE "DO0070 " TO 5-0030-PROGE DO0030
  MOVE "O" TO OPER GO TO F40-A. DO0030
  IF I-0030-CHOIX = "7" DO0030
  MOVE "M" TO OPER GO TO F0520-900. DO0030
  IF I-0030-CHOIX = "8" DO0030
  MOVE "S" TO OPER GO TO F0520-900. DO0030
  MOVE "5" TO ER-0030-CHOIX MOVE "4" TO SCR-ER DO0030
  GO TO F3999-ITER-FT. DO0030
F0520-900. DO0030
  IF OPER NOT = "A" AND OPER NOT = "M" AND OPER NOT = "O" DO0030
  GO TO F3999-ITER-FT. DO0030
F0520-FN. EXIT. DO0030
F05-FN. EXIT. DO0030

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                                +-----+
LEVEL 10      I NO UPDATE ==> END OF RECEIVE      I      P000
                                +-----+
F08BB.      IF OPER NOT = "M"                      P000
                NEXT SENTENCE ELSE GO TO      F08BB-FN.      P000
GO TO F3999-ITER-FT.                      P100
F08BB-FN.    EXIT.                                P000
                *****
                *                                *
                * CATEGORY PROCESSING LOOP      *
                *                                *
                *****
F10.         EXIT.                                DO0030
F1010.      MOVE SPACE TO CATM.                   DO0030
IF CATX = "R"
MOVE O-0030-LINE TO
                P-0030-LINE (ICATR)                DO0030
MOVE A-0030-LINE (1) TO
                B-0030-LINE (1, ICATR)              DO0030
MOVE A-0030-LINE (2) TO
                B-0030-LINE (2, ICATR)              DO0030
MOVE A-0030-LINE (4) TO
                B-0030-LINE (4, ICATR)              DO0030
MOVE I-0030-LINE TO
                J-0030-LINE (ICATR)                 DO0030
MOVE ER-0030-LINE TO
                PS-30-LINE (ICATR).                 DO0030
IF CAT-ER = "E" MOVE "4" TO SCR-ER GO TO F3999-ITER-FT. DO0030
MOVE SPACE TO CAT-ER.                          DO0030
IF CATX = "0" MOVE " " TO CATX GO TO F1010-FN.   DO0030
IF CATX = " " MOVE "R" TO CATX MOVE ZERO TO ICATR. DO0030
IF CATX = "R" AND ICATR < IRR ADD 1 TO ICATR     DO0030
MOVE PS-30-LINE (ICATR) TO
                ER-0030-LINE                         DO0030
MOVE B-0030-LINE (4, ICATR) TO                    DO0030
                A-0030-LINE (4)                      DO0030
MOVE P-0030-LINE (ICATR) TO                        DO0030
                O-0030-LINE                           DO0030
MOVE J-0030-LINE (ICATR) TO                        DO0030
                I-0030-LINE GO TO F1010-FN.          DO0030
IF CATX = "R" MOVE "Z" TO CATX GO TO F1010-FN.   DO0030
F1010-A.    GO TO F3999-ITER-FT.                   DO0030
F1010-FN.    EXIT.                                DO0030
F10-FN.     EXIT.                                DO0030
                *****
                *                                *
                * VALIDATION OF TRANSACTION CODE *
                *                                *
                *****
F15.        EXIT.                                DO0030
F15R.      IF CATX NOT = "R" GO TO F15R-FN.         DO0030
IF OPER NOT = "M" MOVE SPACE TO CATM GO TO F15R-FN. DO0030
IF I-0030-CODMVT = SPACE GO TO F15-FN.           DO0030
IF I-0030-CODMVT = "C"                           DO0030
MOVE "C" TO CATM.                                  DO0030
IF I-0030-CODMVT = "M"                             DO0030
MOVE "M" TO CATM.                                  DO0030
IF I-0030-CODMVT = "S"                             DO0030
MOVE "A" TO CATM.                                  DO0030
IF CATM = SPACE                                     DO0030
MOVE 5 TO ER-0030-CODMVT MOVE "E" TO CAT-ER      DO0030
GO TO F3999-ITER-FI.                               DO0030
F15R-FN.    EXIT.                                DO0030
F15Z.      IF CATX NOT = "Z" GO TO F15Z-FN.         DO0030
IF OPER NOT = "M" MOVE SPACE TO CATM GO TO F15Z-FN. DO0030
IF I-0030-EDIT = SPACE GO TO F15-FN.             DO0030
IF I-0030-EDIT = "O"                               DO0030
MOVE "X" TO CATM.                                  DO0030
IF CATM = SPACE                                     DO0030
MOVE 5 TO ER-0030-EDIT MOVE "E" TO CAT-ER        DO0030
GO TO F3999-ITER-FI.                               DO0030
F15Z-FN.    +-----+
LEVEL 10      I INITIALIZATION CATM (HEADING)      I      P000
                                +-----+
F15AA.      IF CATX = SPACE                         P000
                AND OPER = "M"                       P100

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NEXT SENTENCE ELSE GO TO      F15AA-FN.          P100
MOVE      "M" TO CATM.          P100
F15AA-FN.  EXIT.                P000
F15-FN.    EXIT.                P000
*****
*                                *          DO0030
*      DATA ELEMENT VALIDATION  *          DO0030
*                                *          DO0030
*****
F20.      EXIT.                DO0030
F20A.    IF CATX NOT = " " GO TO F20A-FN.          DO0030
F20A2.
      IF I-0030-CHOIX NOT = SPACE          DO0030
      MOVE "1" TO      ER-0030-CHOIX.        DO0030
F20A2-FN. EXIT.                DO0030
F20B1.
      IF I-0030-MATE NOT = SPACE          DO0030
      MOVE "1" TO      ER-0030-MATE          DO0030
      ELSE
      MOVE "2" TO      ER-0030-MATE          DO0030
      MOVE "E" TO CAT-ER                    DO0030
      IF I-0030-MATE      = "I1"            GO TO F20B1-FN. DO0030
      OR I-0030-MATE      = "I2"            DO0030
      OR I-0030-MATE      = "I3"            DO0030
      OR I-0030-MATE      = "I4"            DO0030
      OR I-0030-MATE      = "I5"            DO0030
      OR I-0030-MATE      = "B7"            DO0030
      OR I-0030-MATE      = "B8"            DO0030
      OR I-0030-MATE      = "UN"            DO0030
      OR I-0030-MATE      = "IC"            DO0030
      OR I-0030-MATE      = "IBM.V.OS"      DO0030
      OR I-0030-MATE      = "IBM.V.DO"      DO0030
      OR I-0030-MATE      = "IBM.D.OS"      DO0030
      OR I-0030-MATE      = "IBM.D.DO"      DO0030
      OR I-0030-MATE      = "IBM.IMS "      DO0030
      OR I-0030-MATE      = "DPS7 "         DO0030
      OR I-0030-MATE      = "DPS8 "         DO0030
      OR I-0030-MATE      = "UNISYS "       DO0030
      OR I-0030-MATE      = "ICL "          DO0030
      OR I-0030-MATE      = "SPECIAL"       DO0030
      NEXT SENTENCE ELSE                    DO0030
      MOVE "5" TO      ER-0030-MATE.        DO0030
      IF      ER-0030-MATE > "1"           DO0030
      MOVE "E" TO CAT-ER                    DO0030
      GO TO F20B1-FN.                        DO0030
F20B1-FN. EXIT.                DO0030
F20B2.
      IF I-0030-RELEA NOT = SPACE          DO0030
      MOVE "1" TO      ER-0030-RELEA        DO0030
      ELSE
      MOVE "2" TO      ER-0030-RELEA        DO0030
      MOVE "E" TO CAT-ER                    DO0030
      IF I-0030-RELEA      = "7.2"         GO TO F20B2-FN. DO0030
      OR I-0030-RELEA      = "7.3"         DO0030
      OR I-0030-RELEA      = "8.0"         DO0030
      NEXT SENTENCE ELSE                    DO0030
      MOVE "5" TO      ER-0030-RELEA.        DO0030
      IF      ER-0030-RELEA > "1"           DO0030
      MOVE "E" TO CAT-ER                    DO0030
      GO TO F20B2-FN.                        DO0030
F20B2-FN. EXIT.                DO0030
F20B5.
      IF I-0030-RUE NOT = SPACE            DO0030
      MOVE "1" TO      ER-0030-RUE.          DO0030
F20B5-FN. EXIT.                DO0030
F20B6.
      IF I-0030-COPOS NOT = SPACE          DO0030
      MOVE "1" TO      ER-0030-COPOS        DO0030
      ELSE
      MOVE "2" TO      ER-0030-COPOS        DO0030
      MOVE "E" TO CAT-ER                    DO0030
      MOVE I-0030-COPOS TO WP30-COPOS      DO0030
      MOVE      ER-0030-COPOS TO DEL-ER    DO0030
      PERFORM F93CP THRU F93CP-FN          DO0030
      MOVE      WP30-COPOS TO              DO0030
      I-0030-COPOS                          DO0030
      MOVE DEL-ER TO      ER-0030-COPOS.    DO0030
      IF      ER-0030-COPOS > "1"           DO0030
      MOVE "E" TO CAT-ER                    DO0030
      GO TO F20B6-FN.                        DO0030

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F20B6-FN.      EXIT.                                DO0030
F20B7.                                DO0030
          IF I-0030-VILLE NOT = SPACE                DO0030
          MOVE "1" TO      ER-0030-VILLE.            DO0030
F20B7-FN.      EXIT.                                DO0030
F20B8.                                DO0030
          IF I-0030-REFCLI NOT = SPACE                DO0030
          MOVE "1" TO      ER-0030-REFCLI.            DO0030
F20B8-FN.      EXIT.                                DO0030
F20B9.                                DO0030
          IF I-0030-DATE  NOT = SPACE                DO0030
          MOVE "1" TO      ER-0030-DATE                DO0030
          ELSE                                                    DO0030
          MOVE "2" TO      ER-0030-DATE                DO0030
          MOVE "E" TO CAT-ER                                GO TO F20B9-FN.    DO0030
          MOVE I-0030-DATE  TO DAT7                    DO0030
          PERFORM F8120-D THRU F8120-FN                DO0030
          MOVE DEL-ER TO      ER-0030-DATE                DO0030
          IF DEL-ER > "1" MOVE "E" TO CAT-ER GO TO F20B9-FN. DO0030
F20B9-FN.      EXIT.                                DO0030
F20C0.                                DO0030
          IF I-0030-CORRES NOT = SPACE                DO0030
          MOVE "1" TO      ER-0030-CORRES.            DO0030
          IF      ER-0030-CORRES  NOT = 1              DO0030
          GO TO F20C0-FN.                                DO0030
F20C0-FN.      EXIT.                                DO0030
F20C1.                                DO0030
          IF E-0030-REMIS NOT = SPACE                DO0030
          MOVE "1" TO      ER-0030-REMIS.            DO0030
          MOVE E-0030-REMIS TO ZONUM1                DO0030
          MOVE 9-0030-REMIS TO NUMPIC                DO0030
          MOVE      ER-0030-REMIS TO DEL-ER            DO0030
          PERFORM F8110 THRU F8110-FN                DO0030
          MOVE DEL-ER TO      ER-0030-REMIS            DO0030
          IF DEL-ER > 1 MOVE "E" TO CAT-ER GO TO F20C1-FN. DO0030
          MOVE ZONUM2 TO E-0030-REMIS.                DO0030
F20C1-FN.      EXIT.                                DO0030
F20A-FN.      EXIT.                                DO0030
F20R.  IF CATX NOT = "R" GO TO F20R-FN.              DO0030
F20C3.                                DO0030
          IF I-0030-CODMVT NOT = SPACE                DO0030
          MOVE "1" TO      ER-0030-CODMVT.            DO0030
F20C3-FN.      EXIT.                                DO0030
          +-----+                                     P000
          LEVEL 10  I ITEM NOT AVAILABLE                I        P000
          +-----+                                     P000
F20BB.                                P000
          IF      I-0030-FOURNI = "CLA"                P100
          AND CATM NOT = SPACE                        P110
          MOVE "A" TO ER-0030-FOURNI                    P100
          MOVE "E" TO CAT-ER                            P100
          GO TO F20C4-FN.                                P110
F20BB-FN.      EXIT.                                P000
F20C4.                                DO0030
          IF CATM = SPACE                                GO TO F20C4-FN.    DO0030
          IF I-0030-FOURNI NOT = SPACE                DO0030
          MOVE "1" TO      ER-0030-FOURNI                DO0030
          ELSE                                                    DO0030
          MOVE "2" TO      ER-0030-FOURNI                DO0030
          MOVE "E" TO CAT-ER                                GO TO F20C4-FN.    DO0030
          IF I-0030-FOURNI      = "DIC"                DO0030
          OR I-0030-FOURNI      = "MER"                DO0030
          OR I-0030-FOURNI      = "TAB"                DO0030
          OR I-0030-FOURNI      = "DBD"                DO0030
          OR I-0030-FOURNI      = "DSO"                DO0030
          OR I-0030-FOURNI      = "LGS"                DO0030
          OR I-0030-FOURNI      = "LGB"                DO0030
          OR I-0030-FOURNI      = "DLG"                DO0030
          NEXT SENTENCE ELSE                            DO0030
          MOVE "5" TO      ER-0030-FOURNI.                DO0030
          IF      ER-0030-FOURNI > "1"                  DO0030
          MOVE "E" TO CAT-ER                                GO TO F20C4-FN.    DO0030
F20C4-FN.      EXIT.                                DO0030
F20C5.                                DO0030
          IF CATM = "A" OR CATM = SPACE                GO TO F20C5-FN.    DO0030
          IF E-0030-QTMAC NOT = SPACE                DO0030
          MOVE "1" TO      ER-0030-QTMAC                DO0030
    
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ELSE
MOVE "2" TO ER-0030-QTMAC
MOVE "E" TO CAT-ER GO TO F20C5-FN.
MOVE E-0030-QTMAC TO ZONUM1
MOVE 9-0030-QTMAC TO NUMPIC
MOVE ER-0030-QTMAC TO DEL-ER
PERFORM F8110 THRU F8110-FN
MOVE DEL-ER TO ER-0030-QTMAC
IF DEL-ER > 1 MOVE "E" TO CAT-ER GO TO F20C5-FN.
MOVE ZONUM2 TO E-0030-QTMAC.
IF I-0030-QTMAC NOT < 01
AND I-0030-QTMAC NOT > 50
NEXT SENTENCE ELSE
MOVE "5" TO ER-0030-QTMAC.
IF ER-0030-QTMAC > "1"
MOVE "E" TO CAT-ER GO TO F20C5-FN.
F20C5-FN. EXIT.
F20C6.
IF E-0030-QTMAL NOT = SPACE
MOVE "1" TO ER-0030-QTMAL.
MOVE E-0030-QTMAL TO ZONUM1
MOVE 9-0030-QTMAL TO NUMPIC
MOVE ER-0030-QTMAL TO DEL-ER
PERFORM F8110 THRU F8110-FN
MOVE DEL-ER TO ER-0030-QTMAL
IF DEL-ER > 1 MOVE "E" TO CAT-ER GO TO F20C6-FN.
MOVE ZONUM2 TO E-0030-QTMAL.
F20C6-FN. EXIT.
F20C7.
IF E-0030-QTMAR NOT = SPACE
MOVE "1" TO ER-0030-QTMAR.
MOVE E-0030-QTMAR TO ZONUM1
MOVE 9-0030-QTMAR TO NUMPIC
MOVE ER-0030-QTMAR TO DEL-ER
PERFORM F8110 THRU F8110-FN
MOVE DEL-ER TO ER-0030-QTMAR
IF DEL-ER > 1 MOVE "E" TO CAT-ER GO TO F20C7-FN.
MOVE ZONUM2 TO E-0030-QTMAR.
F20C7-FN. EXIT.
F20C8.
IF CATM = "A" OR CATM = SPACE GO TO F20C8-FN.
IF I-0030-INFOR NOT = SPACE
MOVE "1" TO ER-0030-INFOR.
IF ER-0030-INFOR NOT = 1
GO TO F20C8-FN.
F20C8-FN. EXIT.
F20R-FN. EXIT.
F20Z. IF CATX NOT = "Z" GO TO F20Z-FN.
F20D0.
IF I-0030-EDIT NOT = SPACE
MOVE "1" TO ER-0030-EDIT.
F20D0-FN. EXIT.
F20Z-FN. EXIT.
F20-FN. EXIT.
*****
*
* SEGMENT ACCESS FOR VALIDATION *
*
*****
F25. IF CAT-ER NOT = SPACE GO TO F25-FN.
F25A. IF CATX NOT = " " GO TO F25A-FN.
F2501.
MOVE "0" TO CD05-CF.
IF CATM = SPACE GO TO F2501-FN.
MOVE SPACES TO CD05-KEYCD
MOVE "B" TO CD05-COCARA
MOVE CA00-NUCOM TO CD05-NUCOM
PERFORM F80-CD05-RU THRU F80-FN.
IF IK = "0"
MOVE "1" TO CD05-CF.
IF CATM NOT = "C" AND IK = "1"
MOVE "F019" TO XERCD
PERFORM F81UT GO TO F2501-FN.
F2501-FN. EXIT.
F25A-FN. EXIT.
F25R. IF CATX NOT = "R" GO TO F25R-FN.
F2502.

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MOVE "0" TO CD10-CF. DO0030
IF CATM = SPACE GO TO F2502-FN. DO0030
MOVE "C" TO CD10-KEYCD DO0030
MOVE CA00-NUCOM TO CD10-NUCOM DO0030
MOVE I-0030-FOURNI TO CD10-FOURNI DO0030
PERFORM F80-CD10-RU THRU F80-FN. DO0030
IF IK = "0" DO0030
MOVE "1" TO CD10-CF. DO0030
IF CATM = "X" AND IK = "1" MOVE "C" TO CATM. DO0030
IF CATM = "X" AND IK = "0" MOVE "M" TO CATM. DO0030
IF CATM = "C" AND IK = "0" DO0030
MOVE "F028" TO XERCD DO0030
PERFORM F81UT GO TO F2502-FN. DO0030
IF CATM NOT = "C" AND IK = "1" DO0030
MOVE "F029" TO XERCD DO0030
PERFORM F81UT GO TO F2502-FN. DO0030
+-----+
LEVEL 12 I ACCESS TO FO10 I P000
+-----+ P000
F25BB. P000
MOVE "1" TO CD10-CF. P100
F25BB-FN. EXIT. P000
F2502-FN. EXIT. P000
F2503. DO0030
MOVE "0" TO FO10-CF. DO0030
IF CD10-CF NOT = "1" GO TO F2503-FN. DO0030
IF CATM = SPACE GO TO F2503-FN. DO0030
MOVE I-0030-FOURNI TO FO10-CLEFO DO0030
MOVE CA00-LANGU TO FO10-LANGU DO0030
MOVE I-0030-RELEA TO FO10-RELEA DO0030
MOVE I-0030-MATE TO FO10-MATE DO0030
PERFORM F80-FO10-RU THRU F80-FN. DO0030
IF IK = "0" DO0030
MOVE "1" TO FO10-CF. DO0030
IF IK = "1" MOVE "F039" TO XERCD DO0030
PERFORM F81UT GO TO F2503-FN. DO0030
F2503-FN. EXIT. DO0030
F25R-FN. EXIT. DO0030
F25Z. IF CATX NOT = "Z" GO TO F25Z-FN. DO0030
F2505. DO0030
MOVE "0" TO CD20-CF. DO0030
IF CATM = SPACE GO TO F2505-FN. DO0030
MOVE SPACES TO CD20-KEYCD DO0030
MOVE "E" TO CD20-COCARA DO0030
MOVE CA00-NUCOM TO CD20-NUCOM DO0030
PERFORM F80-CD20-RU THRU F80-FN. DO0030
IF IK = "0" DO0030
MOVE "1" TO CD20-CF. DO0030
IF CATM = "X" AND IK = "1" MOVE "C" TO CATM. DO0030
IF CATM = "X" AND IK = "0" MOVE "M" TO CATM. DO0030
IF CATM = "C" AND IK = "0" DO0030
MOVE "F058" TO XERCD DO0030
PERFORM F81UT GO TO F2505-FN. DO0030
IF CATM NOT = "C" AND IK = "1" DO0030
MOVE "F059" TO XERCD DO0030
PERFORM F81UT GO TO F2505-FN. DO0030
F2505-FN. EXIT. DO0030
F25Z-FN. EXIT. DO0030
F2599. IF CAT-ER = SPACE GO TO F2599-FN. DO0030
IF CD05-CF = "1" DO0030
PERFORM F80-CD05-UN THRU F80-FN. DO0030
IF CD10-CF = "1" DO0030
PERFORM F80-CD10-UN THRU F80-FN. DO0030
IF FO10-CF = "1" DO0030
PERFORM F80-FO10-UN THRU F80-FN. DO0030
IF CD20-CF = "1" DO0030
PERFORM F80-CD20-UN THRU F80-FN. DO0030
IF CATX = " " AND DE-AT (4, 011) = "X" DO0030
MOVE " " TO DE-AT (4, 011). DO0030
IF CATX = " " DO0030
MOVE "X" TO A-0030-CHOIX (4). DO0030
IF CATX = "R" AND DE-AT (4, 011) = "X" DO0030
MOVE " " TO DE-AT (4, 011). DO0030
IF CATX = "R" DO0030
MOVE "X" TO A-0030-CODMVT (4). DO0030
IF CATX = "Z" AND DE-AT (4, 011) = "X" DO0030
MOVE " " TO DE-AT (4, 011). DO0030

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IF CATX = "Z"                                DO0030
MOVE "X" TO A-0030-EDIT (4).                 DO0030
F2599-FN. EXIT.                               DO0030
F25-FN. EXIT.                                 DO0030
+-----+
LEVEL 10 I STOCK UPD.: ORDER DELETION/UPD I P000
+-----+ P000
F28BH. IF (CATM = "A" OR "M")                P000
AND CATX = "R"                               P100
AND CAT-ER = SPACES                          P120
NEXT SENTENCE ELSE GO TO F28BH-FN.          P120
ADD CD10-QTMAL TO FO10-QTMAS.                P100
F28BH-FN. EXIT.                               P000
***** DO0030
* DO0030
* DATA ELEMENT TRANSFER * DO0030
* * DO0030
***** DO0030
F30. IF CAT-ER NOT = SPACE GO TO F30-FN.     DO0030
F30A. IF CATX NOT = " " GO TO F30A-FN.        DO0030
MOVE I-0030-MATE TO CD05-MATE.               DO0030
MOVE I-0030-RELEA TO CD05-RELEA.            DO0030
MOVE I-0030-COPOS TO CD05-COPOS.            DO0030
MOVE I-0030-REFCLI TO CD05-REFCLI.          DO0030
MOVE I-0030-DATE TO CD05-DATE.             DO0030
MOVE I-0030-REMIS TO CD05-REMIS.           DO0030
IF ER-0030-CORRES = "1"                     DO0030
MOVE I-0030-CORRES TO CD05-CORRES.         DO0030
F30A-FN. EXIT.                               DO0030
F30R. IF CATX NOT = "R" GO TO F30R-FN.        DO0030
IF ER-0030-INFOR = "1"                       DO0030
MOVE I-0030-INFOR TO CD10-INFOR.            DO0030
IF CATM NOT = SPACE                          DO0030
MOVE I-0030-FOURNI TO CD00-FOURNI.          DO0030
IF CATM NOT = SPACE AND CATM NOT = "A"       DO0030
MOVE I-0030-QTMAC TO CD10-QTMAC            DO0030
ADD I-0030-QTMAC TO FO10-QTMAM.            DO0030
+-----+ P000
LEVEL 10 I QUANTITY PROCESSING I P000
+-----+ P000
F30BD. P000
+-----+ P000
LEVEL 12 I CALC. DELIV. QUANT. STOCK UPD. I P000
+-----+ P000
F30BF. IF CATM = "C" OR "M"                  P000
NEXT SENTENCE ELSE GO TO F30BF-FN.          P000
IF FO10-QTMAS NOT <                          P100
I-0030-QTMAC P110
MOVE I-0030-QTMAC TO CD10-QTMAL             P100
ELSE P120
MOVE FO10-QTMAS TO CD10-QTMAL.              P120
SUBTRACT CD10-QTMAL FROM FO10-QTMAS         P130
MOVE CD10-QTMAL TO O-0030-QTMAL.           P140
F30BF-FN. EXIT.                               P000
F30BD-FN. EXIT.                               P000
F30R-FN. EXIT.                               DO0030
F30Z. IF CATX NOT = "Z" GO TO F30Z-FN.        DO0030
MOVE I-0030-EDIT TO CD20-EDIT.              DO0030
F30Z-FN. EXIT.                               DO0030
F30-FN. EXIT.                               DO0030
***** DO0030
* DO0030
* SEGMENT ACCESS FOR UPDATE * DO0030
* * DO0030
***** DO0030
F35. IF CAT-ER NOT = SPACE OR CATM = SPACE GO TO F35-FN. DO0030
F35A. IF CATX NOT = " " GO TO F35A-FN.        DO0030
F3501. DO0030
IF CATM NOT = "C" AND CATM NOT = "A"         DO0030
PERFORM F80-CD05-RW THRU F80-FN.            DO0030
F3501-FN. EXIT.                               DO0030
F35A-FN. EXIT.                               DO0030
F35R. IF CATX NOT = "R" GO TO F35R-FN.        DO0030
F3502. DO0030
IF CATM = "C" DO0030
PERFORM F80-CD10-W THRU F80-FN.             DO0030
IF CATM = "A" DO0030

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PERFORM F80-CD10-D THRU F80-FN. DO0030
IF CATM NOT = "C" AND CATM NOT = "A" DO0030
PERFORM F80-CD10-RW THRU F80-FN. DO0030
F3502-FN. EXIT. DO0030
F3503. DO0030
IF FO10-CF = "1" DO0030
PERFORM F80-FO10-RW THRU F80-FN. DO0030
F3503-FN. EXIT. DO0030
F35R-C3. MOVE SPACE TO O-0030-CODMVT. DO0030
F35R-FN. EXIT. DO0030
F35Z. IF CATX NOT = "Z" GO TO F35Z-FN. DO0030
F3505. DO0030
IF CATM = "C" DO0030
PERFORM F80-CD20-W THRU F80-FN. DO0030
IF CATM NOT = "C" AND CATM NOT = "A" DO0030
PERFORM F80-CD20-RW THRU F80-FN. DO0030
F3505-FN. EXIT. DO0030
F35Z-D0. MOVE SPACE TO O-0030-EDIT. DO0030
F35Z-FN. EXIT. DO0030
F35-FN. EXIT. DO0030
F3999-ITER-FI. GO TO F10. DO0030
F3999-ITER-FT. EXIT. DO0030
F3999-FN. EXIT. DO0030
F40. IF SCR-ER > "1" MOVE "A" TO OPER GO TO F40-FN. DO0030
F40-A. IF OPERD NOT = SPACE MOVE OPERD TO OPER. DO0030
+-----+
LEVEL 10 I MEMORIZATION OF KEYS I P000
+-----+
F4010. IF OPER = "A" OR "M" P000
NEXT SENTENCE ELSE GO TO F4010-FN. P000
MOVE CA00-NUCOM TO K-ACD05-NUCOM. P105
+-----+
LEVEL 15 I REPETITIVE CATEGORY I P000
+-----+
F4011. P000
MOVE J-0030-LINE (1) TO I-0030-LINE. P001
-----> ACCES DB-KEY P305
F4011-FN. EXIT. P000
+-----+
LEVEL 15 I END-OF-SCREEN I P000
+-----+
F4012. P000
F4012-FN. EXIT. P000
F4010-FN. EXIT. P000
+-----+
LEVEL 10 I NEXT PAGE I P000
+-----+
F4020. IF OPER = "S" P000
NEXT SENTENCE ELSE GO TO F4020-FN. P000
SET K-RCD10-DBKEY (1) P105
SET K-RCD10-DBKEY (1) P305
TO K-RCD10-DBKEY (2). P308
F4020-FN. EXIT. P000
***** DO0030
* DO0030
* END OF TRANSACTION * DO0030
* DO0030
***** DO0030
F4030. IF OPER NOT = "E" GO TO F4030-FN. DO0030
MOVE K-S0030-XTERM TO HE00-XTERM DO0030
PERFORM F80-HELP-D THRU F80-FN. DO0030
MOVE LOW-VALUE TO NEXT-TPR DO0030
MOVE 1 TO 7-CD02-XNDEST DO0030
MOVE K-S0030-XTERM TO 7-CD02-XTERM DO0030
MOVE 3 TO 7-CD02-XLOMES DO0030
SEND 7-CD02 FROM 0030-MESSO WITH EGI DO0030
AFTER ADVANCING 0 LINES. DO0030
PERFORM F81FR THRU F81FR-FN. DO0030
PERFORM F81FI THRU F81FI-FN. DO0030
F4030-A. EXIT PROGRAM. DO0030
F4030-FN. EXIT. DO0030
***** DO0030
* DO0030
* TRANSFER TO ANOTHER SCREEN * DO0030
* DO0030
***** DO0030
F4040. IF OPER NOT = "O" GO TO F4040-FN. DO0030

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        MOVE 5-0030-PROGE TO NEXT-TPR.                DO0030
        PERFORM F81FI THRU F81FI-FN.                  DO0030
F4040-A.  EXIT PROGRAM.                               DO0030
F4040-FN.  EXIT.                                     DO0030
F40-FN.    EXIT.                                     DO0030
END-OF-RECEPTION.  EXIT.                            DO0030
        *****
        *
        *   DISPLAY PREPARATION                       *
        *
        *****
F50.      IF OCF = "0" GO TO END-OF-DISPLAY.          DO0030
F5010.
        MOVE ZERO TO CATX.                            DO0030
        MOVE ZERO TO CONFIGURATIONS.                 DO0030
        MOVE ALL "1" TO FIRST-ON-SEGMENT.            DO0030
        IF SCR-ER NOT > "1" MOVE SPACE TO O-0030.    DO0030
        IF SCR-ER > "1" GO TO F6999-ITER-FT.         DO0030
        PERFORM F8115 THRU F8115-FN.                 DO0030
F5010-FN.  EXIT.                                     DO0030
F50-FN.    EXIT.                                     DO0030
        *****
        *
        *   CATEGORY PROCESSING LOOP                   *
        *
        *****
F55.      EXIT.                                       DO0030
F5510.
        MOVE SPACE TO CAT-ER.                         DO0030
        IF CATX = "0" MOVE " " TO CATX GO TO F5510-FN. DO0030
        IF CATX = " " MOVE "R" TO CATX MOVE ZERO TO ICATR. DO0030
        IF CATX NOT = "R" OR ICATR > IRR GO TO F5510-R. DO0030
        IF ICATR > ZERO                               DO0030
        MOVE O-0030-LINE TO                           DO0030
        P-0030-LINE (ICATR)                           DO0030
        MOVE ER-0030-LINE TO                           DO0030
        PS-30-LINE (ICATR).                            DO0030
        ADD 1 TO ICATR.                                DO0030
        IF ICATR NOT > IRR                             DO0030
        MOVE P-0030-LINE (ICATR) TO                   DO0030
        O-0030-LINE                                   DO0030
        MOVE PS-30-LINE (ICATR) TO                   DO0030
        ER-0030-LINE.                                  DO0030
        GO TO F5510-FN.                                DO0030
F5510-R.  EXIT.                                       DO0030
F5510-Z.
        IF CATX = "R" MOVE "Z" TO CATX GO TO F5510-FN. DO0030
F5510-900. GO TO F6999-ITER-FT.                      DO0030
F5510-FN.  EXIT.                                     DO0030
F55-FN.    EXIT.                                     DO0030
        *****
        *
        *   SEGMENT ACCESS FOR DISPLAY                 *
        *
        *****
F60.      EXIT.                                       DO0030
F60A.  IF CATX NOT = " " GO TO F60A-FN.              DO0030
        +-----+
        LEVEL 10  I SET-UP KEY                          I
        +-----+
F6010.
        MOVE K-ACD05-NUCOM TO CD05-NUCOM.            P100
F6001.
        MOVE "0" TO CD05-CF.                          DO0030
        PERFORM F80-CD05-R THRU F80-FN.              DO0030
        IF IK = "1" MOVE "G019" TO XERCDC            DO0030
        PERFORM F81UT THRU F81UT-FN GO TO F6001-FN. DO0030
        MOVE "1" TO CD05-CF.                          DO0030
F6001-FN.  EXIT.                                     DO0030
        +-----+
        LEVEL 12  I ORDER MEMORIZATION                  I
        +-----+
F6040.
        SET K-RCD10-DBKEY (1)                         P100
        TO DIRECT-REFERENCE.                          P110
F6040-FN.  EXIT.                                     P000
F6010-FN.  EXIT.                                     P000

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F60A-FN.      EXIT.                                DO0030
F60R.  IF CATX NOT = "R" OR FT = "1" GO TO F60R-FN. DO0030
F6003.
  MOVE "0" TO CD10-CF.                             DO0030
  IF      CD10-FST = "1"                           DO0030
  MOVE    CD10-COCARA TO C-0030-COCARA             DO0030
  MOVE    CD10-NUCOM  TO C-0030-NUCOM             DO0030
  PERFORM F80-CD10-P THRU F80-FN                 DO0030
  MOVE ZERO TO CD10-FST ELSE                     DO0030
  PERFORM F80-CD10-RN THRU F80-FN.               DO0030
  IF IK = "0"
    IF      CD10-COCARA NOT = C-0030-COCARA       DO0030
    OR      CD10-NUCOM  NOT = C-0030-NUCOM       DO0030
  MOVE "1" TO IK.                                DO0030
  IF IK = "1" MOVE "G039" TO XERCDC MOVE "1" TO FT DO0030
  PERFORM F81UT THRU F81UT-FN GO TO F6003-FN.    DO0030
  MOVE "1" TO CD10-CF.                           DO0030
  +-----+
LEVEL 12      I MEMORIZATION                      I      P000
  +-----+
F6030.
  SET          K-RCD10-DBKEY (2)                  P100
              TO DIRECT-REFERENCE.               P110
F6030-FN.     EXIT.                               P000
F6003-FN.     EXIT.                               P000
F60R-FN.      EXIT.                               DO0030
F60Z.  IF CATX NOT = "Z" GO TO F60Z-FN.          DO0030
F6006.
  MOVE "0" TO ME00-CF.                             DO0030
  MOVE    K-ZME00-CLEME TO ME00-CLEME           DO0030
  PERFORM F80-ME00-R THRU F80-FN.               DO0030
  IF IK = "1" MOVE "G069" TO XERCDC             DO0030
  PERFORM F81UT THRU F81UT-FN GO TO F6006-FN.   DO0030
  MOVE "1" TO ME00-CF.                           DO0030
F6006-FN.     EXIT.                               DO0030
F60Z-FN.      EXIT.                               DO0030
F60-FN.       EXIT.                               DO0030
  +-----+
LEVEL 10      I PREPARATION DISPLAY DATE/HOUR    I      P000
  +-----+
F64DA.  IF      CATX = " "                        P000
        NEXT SENTENCE ELSE GO TO F64DA-FN.       P000
  ACCEPT DATOR FROM DATE                          P040
  MOVE    DATOR                                  P040
  TO DAT6 DAT8                                    P040
  MOVE DAT63 TO DAT61 MOVE DAT81 TO DAT63         P040
  MOVE    DATOR                                  P080
  TO DAT6                                         P080
  PERFORM F8120-I THRU F8120-Z                   P080
  MOVE DAT8C TO DAT8C.                           P080
  ACCEPT TIMCO FROM TIME                         P120
  MOVE    TIMCOG                                 P160
        TO TIMCOG                                P160
  MOVE TIMCOH TO TIMHOU                           P160
  MOVE TIMCOM TO TIMMIN                           P160
  MOVE TIMCOS TO TIMSEC                           P160
  MOVE ":" TO TIMS1 TIMS2                         P160
  MOVE TIMDAY TO TIMDAY.                          P160
F64DA-FN.     EXIT.                               P000
  *****
  *
  * DATA ELEMENT TRANSFER
  *
  *****
  DO0030
F65.  EXIT.                                       DO0030
F65A.  IF CATX NOT = " " GO TO F65A-FN.          DO0030
  MOVE    PROGE TO
        O-0030-PROGE.                            DO0030
  MOVE    SESSI TO
        O-0030-SESSI.                            DO0030
  MOVE    DAT8C TO
        O-0030-DATEM.                            DO0030
  MOVE    TIMDAY TO
        O-0030-HEURE.                            DO0030
F65A-A7.
  MOVE    CA00-NUCOM TO
        O-0030-NUCOM.                            DO0030

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F65A-A7-FN. EXIT. DO0030
F65A-A8. DO0030
      MOVE CA00-RAISOC TO DO0030
          O-0030-RAISOC. DO0030
F65A-A8-FN. EXIT. DO0030
F65A-CD05. DO0030
      IF CD05-CF NOT = "1" GO TO F65A-CD05-FN. DO0030
      MOVE CD05-MATE TO DO0030
          O-0030-MATE. DO0030
F65A-B0. DO0030
      MOVE CD05-RELEA TO DO0030
          O-0030-RELEA. DO0030
F65A-B0-FN. EXIT. DO0030
F65A-B1. DO0030
      MOVE CD05-COPOS TO DO0030
          O-0030-COPOS. DO0030
F65A-B1-FN. EXIT. DO0030
F65A-B2. DO0030
      MOVE CD05-VILLE TO DO0030
          O-0030-VILLE. DO0030
F65A-B2-FN. EXIT. DO0030
F65A-B3. DO0030
      MOVE CD05-REFCLI TO DO0030
          O-0030-REFCLI. DO0030
F65A-B3-FN. EXIT. DO0030
F65A-B4. DO0030
      MOVE CD05-DATE TO DO0030
          O-0030-DATE. DO0030
F65A-B4-FN. EXIT. DO0030
F65A-B5. DO0030
      MOVE CD05-CORRES TO DO0030
          O-0030-CORRES. DO0030
F65A-B5-FN. EXIT. DO0030
F65A-B6. DO0030
      MOVE CD05-REMIS TO DO0030
          O-0030-REMIS. DO0030
F65A-B6-FN. EXIT. DO0030
F65A-CD05-FN. EXIT. DO0030
F65A-FN. EXIT. DO0030
F65R. IF CATX NOT = "R" OR FT = "1" GO TO F65R-FN. DO0030
      IF ICATR > IRR GO TO F65R-FN. DO0030
F65R-A5. DO0030
      MOVE CD00-FOURNI TO DO0030
          O-0030-FOURNI. DO0030
F65R-A5-FN. EXIT. DO0030
F65R-CD10. DO0030
      IF CD10-CF NOT = "1" GO TO F65R-CD10-FN. DO0030
      MOVE CD10-QTMAC TO DO0030
          O-0030-QTMAC. DO0030
F65R-A7. DO0030
      MOVE CD10-QTMAL TO DO0030
          O-0030-QTMAL. DO0030
F65R-A7-FN. EXIT. DO0030
F65R-A8. DO0030
      MOVE CD10-INFOR TO DO0030
          O-0030-INFOR. DO0030
F65R-A8-FN. EXIT. DO0030
F65R-CD10-FN. EXIT. DO0030
      +-----+
      LEVEL 10 I REMAINS TO BE DELIVERED I P000
      +-----+ P000
F65BB. P000
      IF CD10-QTMAL NOT = ZERO P100
      COMPUTE WW10-QTMAR = P100
          CD10-QTMAC - CD10-QTMAL P110
      MOVE WW10-QTMAR TO O-0030-QTMAR. P120
F65BB-FN. EXIT. P000
F65R-FN. EXIT. DO0030
F65Z. IF CATX NOT = "Z" GO TO F65Z-FN. DO0030
F65Z-ME00. DO0030
      IF ME00-CF NOT = "1" GO TO F65Z-ME00-FN. DO0030
      MOVE ME00-MESSA TO DO0030
          O-0030-MESSA. DO0030
F65Z-ME00-FN. EXIT. DO0030
F65Z-FN. EXIT. DO0030
F65-FN. EXIT. DO0030
F6999-ITER-FI. GO TO F55. DO0030
    
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F6999-ITER-FT.      EXIT.                DO0030
F6999-FN.           EXIT.                DO0030
F70.                EXIT.                DO0030
                  *****                DO0030
                  *                      *                DO0030
                  * ERROR PROCESSING    *                DO0030
                  *                      *                DO0030
                  *****                DO0030
F7010.              MOVE ZERO TO K01 K02 K04 MOVE 1 TO K03. DO0030
                  MOVE LIBRA TO EM00-LIBRA MOVE PROGR TO EM00-PROGR DO0030
                  MOVE ZERO TO EM00-LINUM MOVE "H" TO EM00-ENTYP. DO0030
F7010-A.            IF K02 = INR AND K03 < IRR MOVE INA TO K02 DO0030
                  ADD 1 TO K03. ADD 1 TO K01 K02. DO0030
                  IF DE-ER (K01) > "1" OR < "0" MOVE "Y" TO DE-AT (4, K01) DO0030
                  MOVE "N" TO DE-AT (1, K01) DO0030
                  MOVE "N" TO DE-AT (2, K01) DO0030
                  MOVE "W" TO DE-AT (3, K01) DO0030
                  IF K04 < IER MOVE DE-ER (K01) TO EM00-ERTYP DO0030
                  MOVE K02 TO K66 DO0030
                  MOVE K66 TO EM00-ERCOD9 MOVE EM00-XEMKY TO EM00-ERMSG DO0030
                  PERFORM F80-EM00-R THRU F80-FN ADD 1 TO K04 DO0030
                  MOVE EM00-ERMSG TO O-0030-ERMSG1 (K04) DO0030
                  MOVE EM00-ERMSG TO O-0030-ERMSG (K04). DO0030
                  IF K01 < INT GO TO F7010-A. DO0030
                  MOVE ZERO TO K50R. DO0030
F7010-B.            ADD 1 TO K50R IF K50R > K50L OR K04 NOT < IER GO TO DO0030
                  F7010-FN. MOVE T-XEMKY (K50R) TO EM00-XEMKY EM00-ERMSG DO0030
                  PERFORM F80-EM00-R THRU F80-FN. ADD 1 TO K04 DO0030
                  MOVE EM00-ERMSG TO O-0030-ERMSG1 (K04) DO0030
                  MOVE EM00-ERMSG TO O-0030-ERMSG (K04) DO0030
                  GO TO F7010-B. DO0030
F7010-FN.           EXIT.                DO0030
                  *****                DO0030
                  *                      *                DO0030
                  * POSITIONING OF ATTRIBUTES * DO0030
                  *                      *                DO0030
                  *****                DO0030
F7020.              MOVE ZERO TO TALLY INSPECT DE-ATT1 (4) DO0030
                  TALLYING TALLY FOR CHARACTERS BEFORE "Y". DO0030
                  IF TALLY NOT < 0065 DO0030
                  MOVE ZERO TO TALLY INSPECT DE-ATT1 (4) DO0030
                  TALLYING TALLY FOR CHARACTERS BEFORE "Z". DO0030
                  IF TALLY NOT < 0065 DO0030
                  MOVE ZERO TO TALLY INSPECT DE-ATT1 (4) DO0030
                  TALLYING TALLY FOR CHARACTERS BEFORE "X". DO0030
                  IF TALLY NOT < 0065 DO0030
                  MOVE ZERO TO TALLY. DO0030
                  ADD 1 TO TALLY. DO0030
                  MOVE X-ATPC (TALLY) TO X-ATPC1. DO0030
                  MOVE ZERO TO K01. DO0030
                  INSPECT DE-ATT1 (1) REPLACING ALL "N" BY ""051"" DO0030
                  INSPECT DE-ATT1 (1) REPLACING ALL "B" BY ""049"" DO0030
                  INSPECT DE-ATT1 (1) REPLACING ALL "D" BY ""057"" DO0030
                  INSPECT DE-ATT1 (2) REPLACING ALL "N" BY SPACE DO0030
                  INSPECT DE-ATT1 (2) REPLACING ALL "U" BY ""053"" DO0030
                  INSPECT DE-ATT1 (2) REPLACING ALL "B" BY ""054"" DO0030
                  INSPECT DE-ATT1 (2) REPLACING ALL "R" BY ""056"". DO0030
F7020-A.            ADD 1 TO K01. IF K01 > INT GO TO F7020-FN. DO0030
                  IF DE-AT (1, K01) NOT = SPACE DO0030
                  AND X-ATTRI (K01) NOT = ""057"" DO0030
                  MOVE DE-AT (1, K01) TO X-ATTRI (K01). DO0030
                  IF DE-AT (2, K01) NOT = SPACE DO0030
                  MOVE DE-AT (2, K01) TO X-ATTRP (K01). DO0030
                  IF DE-AT (2, K01) = SPACE DO0030
                  AND X-ATTRP (K01) NOT = ""053"" DO0030
                  AND X-ATTRP (K01) NOT = ""054"" DO0030
                  AND X-ATTRP (K01) NOT = ""056"" DO0030
                  MOVE X-ATTRI (K01) TO X-ATTRP (K01). DO0030
                  GO TO F7020-A. DO0030
F7020-FN.           EXIT.                DO0030
F70-FN.             EXIT.                DO0030
END-OF-DISPLAY.    EXIT.                DO0030
F8Z.               EXIT.                DO0030
F8Z05.             IF SCR-ER = "1" DO0030

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NEXT SENTENCE ELSE GO TO F8Z05-FN.                                DO0030
  IF K-S0030-DOC NOT = "1"      GO TO F8Z05-A.                    DO0030
MOVE K-S0030-ERCOD9 TO K01 K02.                                    DO0030
IF K02 > INR                                                         DO0030
COMPUTE K02 = K01 + (INR - INA) * (IRR - 1).                       DO0030
IF K02 < 1 OR K02 > INT MOVE 1 TO K02.                             DO0030
MOVE "X" TO DE-AT (4, K02)                                          DO0030
PERFORM F7020 THRU F7020-FN.                                        DO0030
F8Z05-A.                                                            DO0030
  MOVE K-S0030-XTERM TO HE00-XTERM.                                DO0030
  IF K-S0030-DOC = "1"                                             DO0030
  PERFORM F80-HELP-R THRU F80-FN                                  DO0030
  MOVE HE00-SCREEN TO O-0030                                       DO0030
  MOVE "0" TO K-S0030-DOC      GO TO F8Z05-FN.                    DO0030
  IF K-S0030-DOC NOT = ZERO      GO TO F8Z05-FN.                  DO0030
  PERFORM F80-HELP-R THRU F80-FN.                                  DO0030
  MOVE K-S0030-XTERM TO HE00-XTERM                                  DO0030
  MOVE O-0030 TO HE00-SCREEN.                                       DO0030
  IF IK = "1"                                                       DO0030
  PERFORM F80-HELP-W THRU F80-FN ELSE                               DO0030
  PERFORM F80-HELP-RW THRU F80-FN.                                  DO0030
F8Z05-FN.  EXIT.                                                  DO0030
*****                                                            DO0030
*                                                                *   DO0030
*  DISPLAY                                                    *   DO0030
*                                                                *   DO0030
*****                                                            DO0030
F8Z10.                                                            DO0030
  IF SCR-ER NOT > "1"                                             DO0030
  AND DE-AT (4, 011) = "X"                                         DO0030
  PERFORM F7020 THRU F7020-FN.                                       DO0030
  PERFORM F8145 THRU F8145-FN.                                       DO0030
  MOVE 1 TO 7-CD02-XNDEST                                           DO0030
  MOVE K-S0030-XTERM TO 7-CD02-XTERM.                                 DO0030
  IF SCR-ER NOT > "1"                                             DO0030
  MOVE PROGR TO K-S0030-PROGR                                       DO0030
  PERFORM F8140 THRU F8140-FN                                       DO0030
  PERFORM F81SE THRU F81SE-FN.                                       DO0030
  IF SCR-ER > "1"                                                 DO0030
  OR K50L > ZERO                                                    DO0030
  PERFORM F81SM THRU F81SM-FN.                                       DO0030
  IF 7-SENDVAR = "1"                                             DO0030
  MOVE MESS-LENGV TO 7-CD02-XLOMES                                  DO0030
  SEND 7-CD02 FROM 0030-MESSV WITH EMI                               DO0030
  AFTER ADVANCING 0 LINES PERFORM F81ES THRU F81ES-FN.           DO0030
  MOVE 0030-XLOUT TO 7-CD02-XLOMES                                  DO0030
  SEND 7-CD02 FROM ERROR-MESSF WITH EGI                             DO0030
  AFTER ADVANCING 0 LINES PERFORM F81ES THRU F81ES-FN.           DO0030
F8Z10-F.  EXIT.                                                  DO0030
F8Z10-G.                                                            DO0030
  PERFORM F81FR THRU F81FR-FN.                                       DO0030
F8Z10-FN.  EXIT.                                                  DO0030
*****                                                            DO0030
*                                                                *   DO0030
*  END OF PROGRAM                                            *   DO0030
*                                                                *   DO0030
*****                                                            DO0030
F8Z20.                                                            DO0030
  PERFORM F81FI THRU F81FI-FN.                                       DO0030
  MOVE PROGE TO NEXT-TPR.                                           DO0030
F8Z20-A.  EXIT PROGRAM.                                           DO0030
F8Z20-FN.  EXIT.                                                  DO0030
F8Z-FN.  EXIT.                                                  DO0030
*****                                                            DO0030
*                                                                *   DO0030
*  PHYSICAL SEGMENT ACCESS ROUTINES *                         *   DO0030
*                                                                *   DO0030
*****                                                            DO0030
F80.  EXIT.                                                       DO0030
F80-ME00-R.                                                       DO0030
  READ ME-FILE INVALID KEY GO TO F80-KO.                             DO0030
  GO TO F80-OK.                                                     DO0030
F80-ME00-RU.                                                       DO0030
  READ ME-FILE INVALID KEY GO TO F80-KO.                             DO0030
  GO TO F80-OK.                                                     DO0030
F8005-FN.  EXIT.                                                  DO0030
+-----+
P000

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LEVEL 10      I READING WITHIN CALCULATED KEY CD0 I          P000
+-----+
F80BB.        EXIT.                                          P000
F80-CD05-R.   EXIT.                                          P100
F80-CD05-RU.  P110
MOVE          ZERO TO IK                                     P120
FIND          ANY CD05.                                     P150
MOVE          DB-STATUS TO IO-STATUS.                       P200
              IF OK                                         P250
GET           CD05                                          P250
GO TO F80-OK. P300
              IF NOT-FOUND                                  P350
GO TO F80-KO. P350
PERFORM      F81ER THRU F81ER-FN.                           P900
F80BB-FN.     EXIT.                                          P000
+-----+
LEVEL 10      I RECORD MODIFICATION                          I          P000
+-----+
F80BC.        EXIT.                                          P000
F80-CD05-RW.  P020
FIND          CURRENT CD05                                  P030
MOVE          ZERO TO IK                                     P040
MODIFY       CD05.                                          P120
MOVE          DB-STATUS TO IO-STATUS.                       P160
              IF OK                                         P180
GO TO F80-OK. P180
PERFORM      F81ER THRU F81ER-FN.                           P200
F80-CD05-UN.  P990
GO TO F80-OK. P995
F80BC-FN.     EXIT.                                          P000
+-----+
LEVEL 10      I READ "FIRST .. WITHIN .. "                  I          P000
+-----+
F80ED.        EXIT.                                          P000
F80-CD20-P.   EXIT.                                          P090
F80-CD20-R.   EXIT.                                          P100
F80-CD20-RU.  P110
MOVE          ZERO TO IK                                     P120
FIND          FIRST CD20 WITHIN SET02                       P150
MOVE          DB-STATUS TO IO-STATUS.                       P250
              IF OK                                         P300
GET           CD20                                          P300
GO TO F80-OK. P350
              IF NOT FOUND                                  P400
GO TO F80-KO. P400
PERFORM      F81ER THRU F81ER-FN.                           P900
F80ED-FN.     EXIT.                                          P000
+-----+
LEVEL 10      I RECORD MODIFICATION                          I          P000
+-----+
F80EF.        EXIT.                                          P000
F80-CD20-RW.  P020
FIND          CURRENT CD20                                  P030
MOVE          ZERO TO IK                                     P040
MODIFY       CD20.                                          P120
MOVE          DB-STATUS TO IO-STATUS.                       P160
              IF OK                                         P180
GO TO F80-OK. P180
PERFORM      F81ER THRU F81ER-FN.                           P200
F80-CD20-UN.  P990
GO TO F80-OK. P995
F80EF-FN.     EXIT.                                          P000
+-----+
LEVEL 10      I RECORD CREATION                              I          P000
+-----+
F80EG.        EXIT.                                          P000
F80-CD20-W.   P020
MOVE          ZERO TO IK                                     P040
STORE        CD20                                          P120
MOVE          DB-STATUS TO IO-STATUS.                       P160
              IF OK                                         P180
GO TO F80-OK. P180
PERFORM      F81ER THRU F81ER-FN.                           P200
F80EG-FN.     EXIT.                                          P000
+-----+
LEVEL 10      I READING WITHIN CALCULATED KEY FO1 I          P000
+-----+

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F80FO.          EXIT.          P000
F80-FO10-R.    EXIT.          P100
F80-FO10-RU.   P110
      MOVE          ZERO TO IK  P120
      FIND          ANY FO10.   P150
      MOVE          DB-STATUS TO IO-STATUS. P200
      IF           OK           P250
      GET          FO10         P250
      GO TO F80-OK.          P300
      IF           NOT-FOUND    P350
      GO TO F80-KO.          P350
      PERFORM      F81ER THRU F81ER-FN. P900
F80FO-FN.      EXIT.          P000
      +-----+
      LEVEL 10     I RECORD MODIFICATION I P000
      +-----+
F80FP.         EXIT.          P000
F80-FO10-RW.   P020
      FIND          CURRENT FO10 P030
      MOVE          ZERO TO IK  P040
      MODIFY       FO10.        P120
      MOVE          DB-STATUS TO IO-STATUS. P160
      IF           OK           P180
      GO TO F80-OK.          P180
      PERFORM      F81ER THRU F81ER-FN. P200
F80-FO10-UN.   P990
      GO TO F80-OK.          P995
F80FP-FN.      EXIT.          P000
      +-----+
      LEVEL 10     I READ WITHIN USING I P000
      +-----+
F80LI.         EXIT.          P000
F80-CD10-R.    EXIT.          P100
F80-CD10-RU.   P110
      MOVE          ZERO TO IK  P120
      FIND          CD10 WITHIN SET01 USING P150
      CD10-FOURNI P200
      MOVE          DB-STATUS TO IO-STATUS. P250
      IF           OK           P300
      GET          CD10         P300
      GO TO F80-OK.          P350
      IF           NOT-FOUND    P400
      GO TO F80-KO.          P400
      PERFORM      F81ER THRU F81ER-FN. P900
F80LI-FN.      EXIT.          P000
      +-----+
      LEVEL 10     I RECORD MODIFICATION I P000
      +-----+
F80LJ.         EXIT.          P000
F80-CD10-RW.   P020
      FIND          CURRENT CD10 P030
      MOVE          ZERO TO IK  P040
      MODIFY       CD10.        P120
      MOVE          DB-STATUS TO IO-STATUS. P160
      IF           OK           P180
      GO TO F80-OK.          P180
      PERFORM      F81ER THRU F81ER-FN. P200
F80-CD10-UN.   P990
      GO TO F80-OK.          P995
F80LJ-FN.      EXIT.          P000
      +-----+
      LEVEL 10     I RECORD CREATION I P000
      +-----+
F80LM.         EXIT.          P000
F80-CD10-W.    P020
      MOVE          ZERO TO IK  P040
      STORE        CD10         P120
      MOVE          DB-STATUS TO IO-STATUS. P160
      IF           OK           P180
      GO TO F80-OK.          P180
      PERFORM      F81ER THRU F81ER-FN. P200
F80LM-FN.      EXIT.          P000
      +-----+
      LEVEL 10     I READ NEXT ON SEGMENT CD10 I P000
      +-----+
F80LN.         EXIT.          P000
F80-CD10-RN.   P100

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MOVE          ZERO TO IK          P120
FIND          NEXT CD10 WITHIN    P150
              SET01                P200
MOVE          DB-STATUS TO IO-STATUS. P250
              IF OK                 P300
              OR NEXT-FOUND        P350
GET           CD10                 P300
GO TO F80-OK. P350
              IF END-OF-SET        P400
GO TO F80-KO. P400
PERFORM      F81ER THRU F81ER-FN. P900
F80LN-FN.    EXIT.                 P000
              +-----+           P000
LEVEL 10     I RECORD DELETION     I P000
              +-----+           P000
F80LQ.       EXIT.                 P000
F80-CD10-D. P020
              FIND CURRENT CD10    P030
              MOVE ZERO TO IK      P040
              ERASE CD10           P120
              MOVE DB-STATUS TO IO-STATUS. P160
              IF OK                 P180
              GO TO F80-OK.         P180
              PERFORM F81ER THRU F81ER-FN. P200
F80LQ-FN.    EXIT.                 P000
              +-----+           P000
LEVEL 10     I READ WITHIN DN-KEY CD10 I P000
              +-----+           P000
F80LS.       EXIT.                 P000
F80-CD10-P. P100
              MOVE ZERO TO IK      P120
              FIND DB-KEY IS       P200
              K-RCD10-DBKEY (1)    P210
              MOVE DB-STATUS TO IO-STATUS. P300
              IF OK                 P400
              GO TO F80-CD10-RN.    P400
              IF NOT-FOUND         P450
              GO TO F80-KO.         P450
              PERFORM F81ER THRU F81ER-FN. P920
F80LS-FN.    EXIT.                 P000
F80-HELP-R.  DO0030
              READ HE-FILE INVALID KEY GO TO F80-KO. DO0030
              GO TO F80-OK.         DO0030
F80-HELP-W.  DO0030
              WRITE HE00 INVALID KEY GO TO F80-KO. DO0030
              GO TO F80-OK.         DO0030
F80-HELP-RW. DO0030
              REWRITE HE00 INVALID KEY GO TO F80-KO. DO0030
              GO TO F80-OK.         DO0030
F80-HELP-D.  DO0030
              DELETE HE-FILE INVALID KEY GO TO F80-KO. DO0030
              GO TO F80-OK.         DO0030
F8095-FN.    EXIT.                 DO0030
F80-EM00-R.  DO0030
              READ EM-FILE INVALID KEY GO TO F80-KO. DO0030
              GO TO F80-OK.         DO0030
F8098-FN.    EXIT.                 DO0030
F80-OK.      MOVE "0" TO IK MOVE PROGR TO XPROGR GO TO F80-FN. DO0030
F80-KO.      MOVE "1" TO IK MOVE PROGR TO XPROGR. DO0030
F8099-FN.    EXIT.                 DO0030
F80-FN.      EXIT.                 DO0030
F81.         EXIT.                 DO0030
              ***** DO0030
              * DO0030
              * ABNORMAL END PROCEDURE * DO0030
              * DO0030
              ***** DO0030
F81ER.       DO0030
              CALL ".ABORT". DO0030
F81ER-FN.    EXIT.                 DO0030
F81ES.       DO0030
              IF 7-CD01-XMSTA NOT = ZERO DO0030
              OR 7-CD02-XMSTA NOT = ZERO DO0030
              PERFORM F81FI THRU F81FI-FN DO0030
              CALL ".ABORT". DO0030
F81ES-FN.    EXIT.                 DO0030
F81FI.       DO0030

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CLOSE EM-FILE. DO0030
CLOSE HE-FILE. DO0030
CLOSE ME-FILE. DO0030
CALL ".FNLCP" DO0030
CALL ".DCKPF". DO0030
F81FI-FN. EXIT. DO0030
F81FR. DO0030
CALL ".FREER" USING TP-STORAGE. DO0030
F81FR-FN. EXIT. DO0030
F81RE. DO0030
RECEIVE 7-CD01 MESSAGE INTO 0030-MESSI DO0030
NO DATA MOVE SPACE TO 0030-MESSI DO0030
MOVE 7-CD01-XTERM TO K-S0030-XTERM DO0030
MOVE ZERO TO ICF. DO0030
F81RE-FN. EXIT. DO0030
F81SE. DO0030
MOVE MESS-LENGM1 TO 7-CD02-XLOMES DO0030
SEND 7-CD02 DO0030
FROM 0030-MESSM1 WITH EMI AFTER ADVANCING 0 LINES DO0030
PERFORM F81ES THRU F81ES-FN DO0030
MOVE MESS-LENGF TO 7-CD02-XLOMES DO0030
SEND 7-CD02 FROM 0030-MESSM2 WITH EMI DO0030
AFTER ADVANCING 0 LINES PERFORM F81ES THRU F81ES-FN. DO0030
F81SE-FN. EXIT. DO0030
F81SM. DO0030
INSPECT O-0030-ERMSG (01) REPLACING ALL SPACE BY "19". DO0030
MOVE ERROR-LENGF TO 7-CD02-XLOMES DO0030
SEND 7-CD02 FROM ERROR-MESS01 WITH EMI DO0030
AFTER ADVANCING 0 LINES PERFORM F81ES THRU F81ES-FN. DO0030
F81SM-FN. EXIT. DO0030
***** DO0030
* DO0030
* MEMORIZATION OF USER'S ERRORS * DO0030
* DO0030
***** DO0030
F81UT. IF K50L < K50M ADD 1 TO K50L DO0030
MOVE XEMKY TO T-XEMKY (K50L). MOVE "E" TO CAT-ER. DO0030
F81UT-FN. EXIT. DO0030
***** DO0030
* DO0030
* NUMERIC VALIDATION * DO0030
* DO0030
***** DO0030
F8110. MOVE ZERO TO TPOINT K01 K02 K03 ZONUM3 ZONUM2 DO0030
C9 C91. DO0030
F8110-1. IF K01 > 26 OR K02 > 17 GO TO F8110-5. DO0030
ADD 1 TO K01. DO0030
IF C1 (K01) = SPACE OR C1 (K01) = "." GO TO F8110-1. DO0030
IF C1 (K01) NOT = "-" AND C1 (K01) NOT = "+" GO TO F8110-2. DO0030
IF C9 NOT = ZERO DO0030
MOVE "5" TO DEL-ER GO TO F8110-FN. DO0030
IF K02 = ZERO MOVE "1" TO C91. DO0030
IF C1 (K01) = "+" MOVE 1 TO C9 GO TO F8110-1. DO0030
IF SIGNE = " " MOVE "5" TO DEL-ER GO TO F8110-FN. DO0030
MOVE -1 TO C9 GO TO F8110-1. DO0030
F8110-2. IF C1 (K01) NOT = "," GO TO F8110-4. DO0030
IF TPOINT = "1" OR NBCHP = 0 DO0030
MOVE "5" TO DEL-ER GO TO F8110-FN. DO0030
F8110-3. IF K02 > NBCHA MOVE "5" TO DEL-ER GO TO F8110-FN. DO0030
COMPUTE K04 = 18 - NBCHA + K02 MOVE 1 TO C3 (K04) DO0030
DIVIDE ZONUM4 INTO ZONUM9 MOVE NBCHA TO K02 DO0030
MOVE "1" TO TPOINT GO TO F8110-1. DO0030
F8110-4. IF C1 (K01) NOT NUMERIC MOVE "4" TO DEL-ER DO0030
GO TO F8110-FN. DO0030
IF C9 NOT = ZERO AND C91 = ZERO DO0030
MOVE "5" TO DEL-ER GO TO F8110-FN. DO0030
IF C1 (K01) = "0" AND K02 = ZERO AND TPOINT = "0" DO0030
GO TO F8110-1. ADD 1 TO K02 MOVE C1 (K01) TO C2 (K02). DO0030
IF TPOINT = "1" ADD 1 TO K03. IF K03 > NBCHP MOVE "5" DO0030
TO DEL-ER GO TO F8110-FN. GO TO F8110-1. DO0030
F8110-5. IF TPOINT = "0" AND K02 > ZERO GO TO F8110-3. DO0030
IF SIGNE NOT = "+" GO TO F8110-FN. DO0030
IF C9 = ZERO MOVE 1 TO C9. DO0030
ADD NBCHA NBCHP GIVING K01 MULTIPLY C9 BY C29 (K01). DO0030
IF C29 (K01) = ZERO AND C9 = -1 MOVE C4 TO C2 (K01). DO0030
F8110-FN. EXIT. DO0030
F8115. DO0030

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MOVE ALL "-"                                DO0030
  TO O-0030-CHOIX.                          DO0030
MOVE ALL "-"                                DO0030
  TO O-0030-MATE.                            DO0030
MOVE ALL "-"                                DO0030
  TO O-0030-RELEA.                          DO0030
MOVE ALL "-"                                DO0030
  TO O-0030-RUE.                            DO0030
MOVE ALL "-"                                DO0030
  TO O-0030-COPOS.                          DO0030
MOVE ALL "-"                                DO0030
  TO O-0030-VILLE.                          DO0030
MOVE ALL "-"                                DO0030
  TO O-0030-REFCLI.                         DO0030
MOVE ". . . ."                              DO0030
  TO O-0030-DATE.                           DO0030
MOVE ALL "-"                                DO0030
  TO O-0030-CORRES.                         DO0030
MOVE ALL "-"                                DO0030
  TO F-0030-REMIS.                          DO0030
MOVE ZERO TO ICATR.                         DO0030
F8115-GRP.  ADD 1 TO ICATR                   DO0030
MOVE P-0030-LINE (ICATR) TO O-0030-LINE     DO0030
MOVE ALL "-"                                DO0030
  TO O-0030-CODMVT.                         DO0030
MOVE ALL "-"                                DO0030
  TO O-0030-FOURNI.                         DO0030
MOVE ALL "-"                                DO0030
  TO F-0030-QTMAC.                          DO0030
MOVE ALL "-"                                DO0030
  TO F-0030-QTMAL.                          DO0030
MOVE ALL "-"                                DO0030
  TO F-0030-QTMAR.                          DO0030
MOVE ALL "-"                                DO0030
  TO O-0030-INFOR.                          DO0030
MOVE O-0030-LINE                            TO P-0030-LINE (ICATR). DO0030
IF ICATR < IRR GO TO F8115-GRP.             DO0030
MOVE ALL "-"                                DO0030
  TO O-0030-EDIT.                           DO0030
F8115-FN.  EXIT.                            DO0030
*****
*
*  VALIDATION AND SETTING OF DATE  *
*
*****
DO0030
F8120.  EXIT.                               DO0030
F8120-C. MOVE DAT73C TO DATCTY.              DO0030
        MOVE DAT71C TO DAT71.                DO0030
        MOVE DAT72C TO DAT72.                DO0030
        MOVE DAT74C TO DAT73.                DO0030
        MOVE "00111" TO TT-DAT GO TO F8120-T. DO0030
F8120-D. MOVE CENTUR TO DATCTY DAT73C.       DO0030
        MOVE DAT71 TO DAT71C.                DO0030
        MOVE DAT72 TO DAT72C.                DO0030
        MOVE DAT73 TO DAT74C.                DO0030
        MOVE "00111" TO TT-DAT GO TO F8120-T. DO0030
F8120-E. MOVE CENTUR TO DATCTY DAT83C.       DO0030
        MOVE DAT81 TO DAT81C.                DO0030
        MOVE DAT82 TO DAT82C.                DO0030
        MOVE DAT83 TO DAT84C MOVE DATSEP TO DAT8S1C DAT8S2C. DO0030
        MOVE "01011" TO TT-DAT GO TO F8120-T. DO0030
F8120-G. MOVE DAT81G TO DATCTY.              DO0030
        MOVE DAT82G TO DAT61.                DO0030
        MOVE DAT83G TO DAT62.                DO0030
        MOVE DAT84G TO DAT63.                DO0030
        MOVE "10110" TO TT-DAT GO TO F8120-T. DO0030
F8120-I. MOVE CENTUR TO DATCTY DAT61C.       DO0030
        MOVE DAT61 TO DAT62C.                DO0030
        MOVE DAT62 TO DAT63C.                DO0030
        MOVE DAT63 TO DAT64C.                DO0030
        MOVE "10101" TO TT-DAT GO TO F8120-T. DO0030
F8120-M. MOVE DAT83C TO DATCTY.              DO0030
        MOVE DAT81C TO DAT81.                DO0030
        MOVE DAT82C TO DAT82.                DO0030
        MOVE DAT84C TO DAT83 MOVE DATSEP TO DAT8S1 DAT8S2. DO0030
        MOVE "01011" TO TT-DAT GO TO F8120-T. DO0030
F8120-S. MOVE DAT61C TO DATCTY.              DO0030

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MOVE DAT62C TO DAT61. DO0030
MOVE DAT63C TO DAT62. DO0030
MOVE DAT64C TO DAT63. DO0030
MOVE "10101" TO TT-DAT. DO0030
F8120-T. IF T-DAT (1) = "1" DO0030
        MOVE DAT61 TO DAT73 DAT74C DO0030
        MOVE DAT62 TO DAT72 DAT72C DO0030
        MOVE DAT63 TO DAT71 DAT71C DO0030
        MOVE DATCTY TO DAT73C. DO0030
        IF T-DAT (2) = "1" DO0030
            MOVE DAT81 TO DAT71 DAT71C DO0030
            MOVE DAT82 TO DAT72 DAT72C DO0030
            MOVE DAT83 TO DAT73 DAT74C DO0030
            MOVE DATCTY TO DAT73C. DO0030
        IF T-DAT (3) = "1" DO0030
            MOVE DAT71 TO DAT81 DAT81C DO0030
            MOVE DAT72 TO DAT82 DAT82C DO0030
            MOVE DAT73 TO DAT83 DAT84C DO0030
            MOVE DATSEP TO DAT8S1 DAT8S2 DAT8S1C DAT8S2C DO0030
            MOVE DATCTY TO DAT83C. DO0030
        IF T-DAT (4) = "1" DO0030
            MOVE DAT71 TO DAT63 DAT64C DO0030
            MOVE DAT72 TO DAT62 DAT63C DO0030
            MOVE DAT73 TO DAT61 DAT62C DO0030
            MOVE DATCTY TO DAT61C. DO0030
        IF T-DAT (5) = "1" DO0030
            MOVE DAT61 TO DAT82G DO0030
            MOVE DAT62 TO DAT83G DO0030
            MOVE DAT63 TO DAT84G DO0030
            MOVE DATSET TO DAT8S1G DAT8S2G DO0030
            MOVE DATCTY TO DAT81G. DO0030
F8120-Z. EXIT. DO0030
F8120-ER. MOVE "1" TO DEL-ER. DO0030
        IF DAT6 NOT NUMERIC GO TO F8120-KO. DO0030
        IF DATCTY NOT NUMERIC GO TO F8120-KO. DO0030
        IF DAT62 > "12" OR DAT62 = "00" OR DO0030
            DAT63 > "31" OR DAT63 = "00" GO TO F8120-KO. DO0030
        IF DAT63 > "30" AND DO0030
            (DAT62 = "04" OR DAT62 = "06" OR DO0030
            DAT62 = "09" OR DAT62 = "11") GO TO F8120-KO. DO0030
        IF DAT62 NOT = "02" GO TO F8120-FN. DO0030
        IF DAT63 > "29" GO TO F8120-KO. DO0030
        IF DAT619 = ZERO DO0030
        DIVIDE DATCTY9 BY 4 GIVING LEAP-REM DO0030
        COMPUTE LEAP-REM = DATCTY9 - 4 * LEAP-REM DO0030
        ELSE DIVIDE DAT619 BY 4 GIVING LEAP-REM DO0030
        COMPUTE LEAP-REM = DAT619 - 4 * LEAP-REM. DO0030
        IF DAT63 < "29" OR LEAP-REM = ZERO GO TO F8120-FN. DO0030
F8120-KO. MOVE "5" TO DEL-ER. DO0030
F8120-FN. EXIT. DO0030
        ***** DO0030
        * DO0030
        * HELP SUB-FUNCTION * DO0030
        * DO0030
        ***** DO0030
F8130. DO0030
        IF I-0030-CHOIX NOT = HIGH-VALUE DO0030
        MOVE I-0030-CHOIX TO O-0030-CHOIX. DO0030
        IF I-0030-MATE NOT = HIGH-VALUE DO0030
        MOVE I-0030-MATE TO O-0030-MATE. DO0030
        IF I-0030-RELEA NOT = HIGH-VALUE DO0030
        MOVE I-0030-RELEA TO O-0030-RELEA. DO0030
        IF I-0030-RUE NOT = HIGH-VALUE DO0030
        MOVE I-0030-RUE TO O-0030-RUE. DO0030
        IF I-0030-COPOS NOT = HIGH-VALUE DO0030
        MOVE I-0030-COPOS TO O-0030-COPOS. DO0030
        IF I-0030-VILLE NOT = HIGH-VALUE DO0030
        MOVE I-0030-VILLE TO O-0030-VILLE. DO0030
        IF I-0030-REFCLI NOT = HIGH-VALUE DO0030
        MOVE I-0030-REFCLI TO O-0030-REFCLI. DO0030
        IF I-0030-DATE NOT = HIGH-VALUE DO0030
        MOVE I-0030-DATE TO O-0030-DATE. DO0030
        IF I-0030-CORRES NOT = HIGH-VALUE DO0030
        MOVE I-0030-CORRES TO O-0030-CORRES. DO0030
        IF E-0030-REMIS NOT = HIGH-VALUE DO0030
        MOVE E-0030-REMIS TO F-0030-REMIS. DO0030
        MOVE ZERO TO ICATR. DO0030

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F8130-GRP.  ADD 1 TO ICATR                                DO0030
MOVE J-0030-LINE (ICATR) TO I-0030-LINE                DO0030
MOVE P-0030-LINE (ICATR) TO O-0030-LINE                DO0030
IF I-0030-CODMVT NOT = HIGH-VALUE                     DO0030
MOVE I-0030-CODMVT TO O-0030-CODMVT.                 DO0030
IF I-0030-FOURNI NOT = HIGH-VALUE                     DO0030
MOVE I-0030-FOURNI TO O-0030-FOURNI.                 DO0030
IF E-0030-QTMAC NOT = HIGH-VALUE                     DO0030
MOVE E-0030-QTMAC TO F-0030-QTMAC.                   DO0030
IF E-0030-QTMAL NOT = HIGH-VALUE                     DO0030
MOVE E-0030-QTMAL TO F-0030-QTMAL.                   DO0030
IF E-0030-QTMAR NOT = HIGH-VALUE                     DO0030
MOVE E-0030-QTMAR TO F-0030-QTMAR.                   DO0030
IF I-0030-INFOR NOT = HIGH-VALUE                     DO0030
MOVE I-0030-INFOR TO O-0030-INFOR.                   DO0030
MOVE O-0030-LINE TO P-0030-LINE (ICATR).              DO0030
IF ICATR < IRR GO TO F8130-GRP.                       DO0030
IF I-0030-EDIT NOT = HIGH-VALUE                       DO0030
MOVE I-0030-EDIT TO O-0030-EDIT.                     DO0030
F8130-FN.  EXIT.                                        DO0030
F8140.
MOVE 3 TO K01.                                         DO0030
F8140-A.  ADD 1 TO K01.                                 DO0030
IF K01 > MESS-LENGF
+ MESS-LENGM1
GO TO F8140-FN.                                       DO0030
IF 0030-CX (K01) = "20"                               DO0030
ADD 2 TO K01 GO TO F8140-A.                            DO0030
IF 0030-CX (K01) = "028"                              DO0030
ADD 5 TO K01 GO TO F8140-A.                            DO0030
IF 0030-CX (K01) = SPACE
MOVE "19" TO 0030-CX (K01).                          DO0030
GO TO F8140-A.                                        DO0030
F8140-FN.  EXIT.                                        DO0030
F8145.
MOVE T01004 TO S01004.                                DO0030
MOVE T01015 TO S01015.                                DO0030
MOVE T01060 TO S01060.                                DO0030
MOVE T01071 TO S01071.                                DO0030
MOVE T03018 TO S03018.                                DO0030
MOVE T03034 TO S03034.                                DO0030
MOVE T03063 TO S03063.                                DO0030
MOVE T04013 TO S04013.                                DO0030
MOVE T05009 TO S05009.                                DO0030
MOVE T05052 TO S05052.                                DO0030
MOVE T05060 TO S05060.                                DO0030
MOVE T06016 TO S06016.                                DO0030
MOVE T06061 TO S06061.                                DO0030
MOVE T07018 TO S07018.                                DO0030
MOVE T07061 TO S07061.                                DO0030
MOVE T10003 TO S10003.                                DO0030
MOVE T10007 TO S10007.                                DO0030
MOVE T10016 TO S10016.                                DO0030
MOVE T10026 TO S10026.                                DO0030
MOVE T10035 TO S10035.                                DO0030
MOVE T10042 TO S10042.                                DO0030
MOVE T11003 TO S11003.                                DO0030
MOVE T11007 TO S11007.                                DO0030
MOVE T11016 TO S11016.                                DO0030
MOVE T11026 TO S11026.                                DO0030
MOVE T11035 TO S11035.                                DO0030
MOVE T11042 TO S11042.                                DO0030
MOVE T12003 TO S12003.                                DO0030
MOVE T12007 TO S12007.                                DO0030
MOVE T12016 TO S12016.                                DO0030
MOVE T12026 TO S12026.                                DO0030
MOVE T12035 TO S12035.                                DO0030
MOVE T12042 TO S12042.                                DO0030
MOVE T13003 TO S13003.                                DO0030
MOVE T13007 TO S13007.                                DO0030
MOVE T13016 TO S13016.                                DO0030
MOVE T13026 TO S13026.                                DO0030
MOVE T13035 TO S13035.                                DO0030
MOVE T13042 TO S13042.                                DO0030
MOVE T14003 TO S14003.                                DO0030
MOVE T14007 TO S14007.                                DO0030
MOVE T14016 TO S14016.                                DO0030

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MOVE T14026 TO S14026. DO0030
MOVE T14035 TO S14035. DO0030
MOVE T14042 TO S14042. DO0030
MOVE T15003 TO S15003. DO0030
MOVE T15007 TO S15007. DO0030
MOVE T15016 TO S15016. DO0030
MOVE T15026 TO S15026. DO0030
MOVE T15035 TO S15035. DO0030
MOVE T15042 TO S15042. DO0030
MOVE T16003 TO S16003. DO0030
MOVE T16007 TO S16007. DO0030
MOVE T16016 TO S16016. DO0030
MOVE T16026 TO S16026. DO0030
MOVE T16035 TO S16035. DO0030
MOVE T16042 TO S16042. DO0030
MOVE T17003 TO S17003. DO0030
MOVE T17007 TO S17007. DO0030
MOVE T17016 TO S17016. DO0030
MOVE T17026 TO S17026. DO0030
MOVE T17035 TO S17035. DO0030
MOVE T17042 TO S17042. DO0030
MOVE T18003 TO S18003. DO0030
MOVE T18007 TO S18007. DO0030
MOVE T18016 TO S18016. DO0030
MOVE T18026 TO S18026. DO0030
MOVE T18035 TO S18035. DO0030
MOVE T18042 TO S18042. DO0030
MOVE T20022 TO S20022. DO0030
MOVE T20033 TO S20033. DO0030
MOVE T23002 TO S23002. DO0030
MOVE T24002 TO S24002. DO0030
F8145-FN. EXIT. DO0030
***** DO0030
* DO0030
* SEARCH FOR DOCUMENTATION REQUEST * DO0030
* DO0030
***** DO0030
F8150. DO0030
MOVE ZERO TO K-S0030-ERCOD. DO0030
IF I-0030-CHOIX = "$" DO0030
MOVE HIGH-VALUE TO I-0030-CHOIX DO0030
MOVE 001 TO K-S0030-ERCOD GO TO F8150-FN. DO0030
IF I-0030-CHOIX = "=" DO0030
MOVE HIGH-VALUE TO I-0030-CHOIX DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN. DO0030
IF I-0030-MATE = "$" DO0030
MOVE HIGH-VALUE TO I-0030-MATE DO0030
MOVE 002 TO K-S0030-ERCOD GO TO F8150-FN. DO0030
IF I-0030-MATE = "=" DO0030
MOVE HIGH-VALUE TO I-0030-MATE DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN. DO0030
IF I-0030-RELEA = "$" DO0030
MOVE HIGH-VALUE TO I-0030-RELEA DO0030
MOVE 003 TO K-S0030-ERCOD GO TO F8150-FN. DO0030
IF I-0030-RELEA = "=" DO0030
MOVE HIGH-VALUE TO I-0030-RELEA DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN. DO0030
IF I-0030-RUE = "$" DO0030
MOVE HIGH-VALUE TO I-0030-RUE DO0030
MOVE 004 TO K-S0030-ERCOD GO TO F8150-FN. DO0030
IF I-0030-RUE = "=" DO0030
MOVE HIGH-VALUE TO I-0030-RUE DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN. DO0030
IF I-0030-COPOS = "$" DO0030
MOVE HIGH-VALUE TO I-0030-COPOS DO0030
MOVE 005 TO K-S0030-ERCOD GO TO F8150-FN. DO0030
IF I-0030-COPOS = "=" DO0030
MOVE HIGH-VALUE TO I-0030-COPOS DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN. DO0030
IF I-0030-VILLE = "$" DO0030
MOVE HIGH-VALUE TO I-0030-VILLE DO0030
MOVE 006 TO K-S0030-ERCOD GO TO F8150-FN. DO0030
IF I-0030-VILLE = "=" DO0030
MOVE HIGH-VALUE TO I-0030-VILLE DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN. DO0030
IF I-0030-REFCLI = "$" DO0030
MOVE HIGH-VALUE TO I-0030-REFCLI DO0030

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MOVE 007 TO K-S0030-ERCOD GO TO F8150-FN.          DO0030
  IF I-0030-REFCLI = "="                          DO0030
  MOVE HIGH-VALUE TO I-0030-REFCLI                 DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN.        DO0030
  IF I-0030-DATE = "$"                             DO0030
  MOVE HIGH-VALUE TO I-0030-DATE                   DO0030
MOVE 008 TO K-S0030-ERCOD GO TO F8150-FN.          DO0030
  IF I-0030-DATE = "="                              DO0030
  MOVE HIGH-VALUE TO I-0030-DATE                   DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN.        DO0030
  IF I-0030-CORRES = "$"                           DO0030
  MOVE HIGH-VALUE TO I-0030-CORRES                 DO0030
MOVE 009 TO K-S0030-ERCOD GO TO F8150-FN.          DO0030
  IF I-0030-CORRES = "="                            DO0030
  MOVE HIGH-VALUE TO I-0030-CORRES                 DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN.        DO0030
  IF E-0030-REMIS = "$"                             DO0030
  MOVE HIGH-VALUE TO E-0030-REMIS                 DO0030
MOVE 010 TO K-S0030-ERCOD GO TO F8150-FN.          DO0030
  IF E-0030-REMIS = "="                              DO0030
  MOVE HIGH-VALUE TO E-0030-REMIS                 DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN.        DO0030
MOVE ZERO TO ICATR.                                DO0030
F8150-GRP. ADD 1 TO ICATR                            DO0030
  MOVE J-0030-LINE (ICATR) TO I-0030-LINE          DO0030
  IF I-0030-CODMVT = "$"                           DO0030
  MOVE HIGH-VALUE TO I-0030-CODMVT                 DO0030
MOVE 011 TO K-S0030-ERCOD GO TO F8150-A.          DO0030
  IF I-0030-CODMVT = "="                            DO0030
  MOVE HIGH-VALUE TO I-0030-CODMVT                 DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-A.        DO0030
  IF I-0030-FOURNI = "$"                           DO0030
  MOVE HIGH-VALUE TO I-0030-FOURNI                 DO0030
MOVE 012 TO K-S0030-ERCOD GO TO F8150-A.          DO0030
  IF I-0030-FOURNI = "="                            DO0030
  MOVE HIGH-VALUE TO I-0030-FOURNI                 DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-A.        DO0030
  IF E-0030-QTMAC = "$"                             DO0030
  MOVE HIGH-VALUE TO E-0030-QTMAC                 DO0030
MOVE 013 TO K-S0030-ERCOD GO TO F8150-A.          DO0030
  IF E-0030-QTMAC = "="                              DO0030
  MOVE HIGH-VALUE TO E-0030-QTMAC                 DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-A.        DO0030
  IF E-0030-QTMAL = "$"                             DO0030
  MOVE HIGH-VALUE TO E-0030-QTMAL                 DO0030
MOVE 014 TO K-S0030-ERCOD GO TO F8150-A.          DO0030
  IF E-0030-QTMAL = "="                              DO0030
  MOVE HIGH-VALUE TO E-0030-QTMAL                 DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-A.        DO0030
  IF E-0030-QTMAR = "$"                             DO0030
  MOVE HIGH-VALUE TO E-0030-QTMAR                 DO0030
MOVE 015 TO K-S0030-ERCOD GO TO F8150-A.          DO0030
  IF E-0030-QTMAR = "="                              DO0030
  MOVE HIGH-VALUE TO E-0030-QTMAR                 DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-A.        DO0030
  IF I-0030-INFOR = "$"                             DO0030
  MOVE HIGH-VALUE TO I-0030-INFOR                 DO0030
MOVE 016 TO K-S0030-ERCOD GO TO F8150-A.          DO0030
  IF I-0030-INFOR = "="                              DO0030
  MOVE HIGH-VALUE TO I-0030-INFOR                 DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-A.        DO0030
MOVE I-0030-LINE TO J-0030-LINE (ICATR).          DO0030
IF ICATR < IRR GO TO F8150-GRP.                   DO0030
  IF I-0030-EDIT = "$"                              DO0030
  MOVE HIGH-VALUE TO I-0030-EDIT                 DO0030
MOVE 017 TO K-S0030-ERCOD GO TO F8150-FN.        DO0030
  IF I-0030-EDIT = "="                              DO0030
  MOVE HIGH-VALUE TO I-0030-EDIT                 DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN.        DO0030
GO TO F8150-B.                                     DO0030
F8150-A. MOVE I-0030-LINE TO J-0030-LINE (ICATR). DO0030
F8150-B. EXIT.                                     DO0030
F8150-FN. EXIT.                                    DO0030
F8155.                                             DO0030
  MOVE S03034 TO R03034 T03034.                   DO0030
  MOVE S03063 TO R03063 T03063.                   DO0030
  MOVE S05009 TO R05009 T05009.                   DO0030

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MOVE	S05052	TO	R05052	T05052.	DO0030
MOVE	S05060	TO	R05060	T05060.	DO0030
MOVE	S06016	TO	R06016	T06016.	DO0030
MOVE	S06061	TO	R06061	T06061.	DO0030
MOVE	S07018	TO	R07018	T07018.	DO0030
MOVE	S07061	TO	R07061	T07061.	DO0030
MOVE	S10003	TO	R10003	T10003.	DO0030
MOVE	S10007	TO	R10007	T10007.	DO0030
MOVE	S10016	TO	R10016	T10016.	DO0030
MOVE	S10026	TO	R10026	T10026.	DO0030
MOVE	S10035	TO	R10035	T10035.	DO0030
MOVE	S10042	TO	R10042	T10042.	DO0030
MOVE	S11003	TO	R11003	T11003.	DO0030
MOVE	S11007	TO	R11007	T11007.	DO0030
MOVE	S11016	TO	R11016	T11016.	DO0030
MOVE	S11026	TO	R11026	T11026.	DO0030
MOVE	S11035	TO	R11035	T11035.	DO0030
MOVE	S11042	TO	R11042	T11042.	DO0030
MOVE	S12003	TO	R12003	T12003.	DO0030
MOVE	S12007	TO	R12007	T12007.	DO0030
MOVE	S12016	TO	R12016	T12016.	DO0030
MOVE	S12026	TO	R12026	T12026.	DO0030
MOVE	S12035	TO	R12035	T12035.	DO0030
MOVE	S12042	TO	R12042	T12042.	DO0030
MOVE	S13003	TO	R13003	T13003.	DO0030
MOVE	S13007	TO	R13007	T13007.	DO0030
MOVE	S13016	TO	R13016	T13016.	DO0030
MOVE	S13026	TO	R13026	T13026.	DO0030
MOVE	S13035	TO	R13035	T13035.	DO0030
MOVE	S13042	TO	R13042	T13042.	DO0030
MOVE	S14003	TO	R14003	T14003.	DO0030
MOVE	S14007	TO	R14007	T14007.	DO0030
MOVE	S14016	TO	R14016	T14016.	DO0030
MOVE	S14026	TO	R14026	T14026.	DO0030
MOVE	S14035	TO	R14035	T14035.	DO0030
MOVE	S14042	TO	R14042	T14042.	DO0030
MOVE	S15003	TO	R15003	T15003.	DO0030
MOVE	S15007	TO	R15007	T15007.	DO0030
MOVE	S15016	TO	R15016	T15016.	DO0030
MOVE	S15026	TO	R15026	T15026.	DO0030
MOVE	S15035	TO	R15035	T15035.	DO0030
MOVE	S15042	TO	R15042	T15042.	DO0030
MOVE	S16003	TO	R16003	T16003.	DO0030
MOVE	S16007	TO	R16007	T16007.	DO0030
MOVE	S16016	TO	R16016	T16016.	DO0030
MOVE	S16026	TO	R16026	T16026.	DO0030
MOVE	S16035	TO	R16035	T16035.	DO0030
MOVE	S16042	TO	R16042	T16042.	DO0030
MOVE	S17003	TO	R17003	T17003.	DO0030
MOVE	S17007	TO	R17007	T17007.	DO0030
MOVE	S17016	TO	R17016	T17016.	DO0030
MOVE	S17026	TO	R17026	T17026.	DO0030
MOVE	S17035	TO	R17035	T17035.	DO0030
MOVE	S17042	TO	R17042	T17042.	DO0030
MOVE	S18003	TO	R18003	T18003.	DO0030
MOVE	S18007	TO	R18007	T18007.	DO0030
MOVE	S18016	TO	R18016	T18016.	DO0030
MOVE	S18026	TO	R18026	T18026.	DO0030
MOVE	S18035	TO	R18035	T18035.	DO0030
MOVE	S18042	TO	R18042	T18042.	DO0030
MOVE	S20022	TO	R20022	T20022.	DO0030
MOVE	S20033	TO	R20033	T20033.	DO0030
F8155-FN.	EXIT.				DO0030
F81-FN.	EXIT.				DO0030
					P000
LEVEL 10	I	ZIP CODE VALIDATION			I
					P000
F93CP.					P000
MOVE 1 TO	IWP20R.				P100
F93CP-100. IF	IWP20R NOT >	IWP20L			P100
AND	WP20-COPOS	(IWP20R)			P100
NOT =	WP30-COPOS				P100
ADD 1 TO	IWP20R	GO TO F93CP-100.			P100
IF	IWP20R >	IWP20L			P200
MOVE	"5" TO DEL-ER				P200
	GO TO F93CP-FN.				P220
F93CP-FN.	EXIT.				DO0030

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PROCEDURE DIVISION USING TP-STORAGE CONSTANT-STORAGE          *99999
TRANSACTION-STORAGE.                                         *99999
*          ***** DO0030
*          *          *          *          *          *          *
*          *  INITIALIZATIONS          *          *          *
*          *          *          *          *          *
*          ***** DO0030
F01. DO0030
  EXIT. DO0030
F0110. DO0030
  ACCEPT TIMCO FROM TIME. DO0030
  ACCEPT DATOR FROM DATE. DO0030
  MOVE ZERO TO CATX FT K50L. DO0030
  MOVE "1" TO ICF OCF SCR-ER. DO0030
  MOVE ZERO TO VALIDATION-TABLE-FIELDS. DO0030
  MOVE ZERO TO 7-CD01-XMSTA 7-CD02-XMSTA. DO0030
  MOVE SPACE TO CATM OPER OPERD CAT-ER. DO0030
  MOVE SPACE TO TABLE-OF-ATTRIBUTES. DO0030
  MOVE X-ATT1 TO X-ATT2. DO0030
  MOVE ZERO TO CONFIGURATIONS. DO0030
  MOVE ZERO TO USERS-ERROR. DO0030
  IF      PROGR NOT = K-S0030-PROGR DO0030
    MOVE ZERO TO ICF. DO0030
  IF      PRIOR-TPR = LOW-VALUE DO0030
    MOVE ZERO TO ICF K-S0030-DOC DO0030
    RECEIVE 7-CD01 MESSAGE INTO 0030-MPRIOR NO DATA DO0030
    MOVE "1" TO IK. DO0030
  IF      PRIOR-TPR = LOW-VALUE DO0030
    PERFORM F81ES THRU F81ES-FN DO0030
    MOVE 7-CD01-XTERM TO K-S0030-XTERM. DO0030
  MOVE SPACE TO O-0030. DO0030
  IF      ICF = ZERO DO0030
    PERFORM F8115 THRU F8115-FN. DO0030
  IF      K-S0030-DOC = "2" DO0030
    OR K-S0030-DOC = "3" DO0030
    MOVE "1" TO K-S0030-DOC DO0030
    GO TO F8Z05. DO0030
  MOVE "X" TO DE-AT (4, 011). DO0030
  MOVE SPACE TO O-0030-ERMSG (01). DO0030
  MOVE SPACE TO O-0030-ERMSG1 (01). DO0030
F0110-FN. DO0030
  EXIT. DO0030
F0160. DO0030
  IF      ICF = ZERO DO0030
    MOVE "A" TO OPER DO0030
    GO TO F3999-ITER-FT. DO0030
F0160-FN. DO0030
  EXIT. DO0030
F01-FN. DO0030
  EXIT. DO0030
*          +-----+
* LEVEL 10  I INIT. NUMBER OF LOADED ITEMS  I          P000
*          +-----+          P000
*          P000
F02CP.          P000
  MOVE IWP20M TO IWP20L.          P100
F02CP-FN.          P000
  EXIT.          P000
*          ***** DO0030
*          *          *          *          *          *
*          *  RECEPTION          *          *          *
*          *          *          *          *          *
*          ***** DO0030
F05. DO0030
  IF      ICF = ZERO DO0030
    GO TO END-OF-RECEPTION. DO0030
F0510. DO0030
  PERFORM F81RE THRU F81RE-FN. DO0030
  IF      ICF = ZERO DO0030
    GO TO END-OF-RECEPTION. DO0030
  PERFORM F81ES THRU F81ES-FN. DO0030
  MOVE 7-CD01-XTERM TO K-S0030-XTERM. DO0030
  IF      0030-CA (7-CD01-XLOMES) NOT = 7-ETX DO0030
    ADD 1 TO 7-CD01-XLOMES. DO0030
  MOVE 7-HT TO 0030-CA (7-CD01-XLOMES). DO0030
  MOVE ZERO TO K01 K02. DO0030
F0510-A. DO0030
  ADD 1 TO K01. DO0030

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IF      K01 > 7-CD01-XLOMES                DO0030
GO TO F0510-C.                             DO0030
F0510-B.                                    DO0030
ADD 1 TO K02.                               DO0030
IF      K02 > 0030-XLOMES                   DO0030
GO TO F0510-C.                             DO0030
IF      0030-CA (K01) = 7-HT                DO0030
AND 0030-CP (K02) NOT = 7-HT              DO0030
MOVE SPACE TO 0030-CP (K02)              DO0030
GO TO F0510-B.                             DO0030
IF      0030-CA (K01) = 7-HT                DO0030
GO TO F0510-A.                             DO0030
IF      0030-CP (K02) = 7-HT                DO0030
MOVE ZERO TO ICF                          DO0030
GO TO END-OF-RECEPTION.                   DO0030
MOVE 0030-CA (K01) TO 0030-CP (K02)      DO0030
GO TO F0510-A.                             DO0030
F0510-C.                                    DO0030
PERFORM F8155 THRU F8155-FN.               DO0030
MOVE "A" TO OPER                           DO0030
MOVE SPACE TO OPERD.                       DO0030
PERFORM F8150 THRU F8150-FN.               DO0030
IF      K-S0030-ERCOD = ZERO                DO0030
INSPECT I-0030 REPLACING ALL "-" BY SPACE. DO0030
F0510-FN.                                    DO0030
EXIT.                                       DO0030
F0512.                                       DO0030
IF      K-S0030-ERCOD NOT = ZERO            DO0030
NEXT SENTENCE                              DO0030
ELSE                                         DO0030
GO TO F0512-FN.                            DO0030
MOVE "2" TO K-S0030-DOC                    DO0030
MOVE PROGE TO K-S0030-PROGE                DO0030
MOVE LIBRA TO K-S0030-LIBRA.               DO0030
IF      K-S0030-ERCOD NOT = SPACE           DO0030
MOVE "3" TO K-S0030-DOC.                   DO0030
PERFORM F80-HELP-R THRU F80-FN              DO0030
PERFORM F8130 THRU F8130-FN                DO0030
PERFORM F80-HELP-RW THRU F80-FN            DO0030
MOVE PRDOC TO 5-0030-PROGE K-S0030-PROHE  DO0030
MOVE "O" TO OPER                           DO0030
GO TO F4040.                                DO0030
F0512-FN.                                    DO0030
EXIT.                                       DO0030
*      *****                          DO0030
*      *                                  DO0030
*      *  VALIDATION OF OPERATION CODE    * DO0030
*      *                                  * DO0030
*      *****                          DO0030
F0520.                                       DO0030
IF      I-0030-CHOIX = "1"                 DO0030
MOVE "DO0000 " TO 5-0030-PROGE             DO0030
MOVE "O" TO OPER                           DO0030
GO TO F40-A.                                DO0030
IF      I-0030-CHOIX = "2"                 DO0030
MOVE "DO0010 " TO 5-0030-PROGE             DO0030
MOVE "O" TO OPER                           DO0030
GO TO F40-A.                                DO0030
IF      I-0030-CHOIX = "3"                 DO0030
MOVE "DO0020 " TO 5-0030-PROGE             DO0030
MOVE "Q" TO OPER                           DO0030
GO TO F40-A.                                DO0030
IF      I-0030-CHOIX = "4"                 DO0030
MOVE "DO0040 " TO 5-0030-PROGE             DO0030
MOVE "O" TO OPER                           DO0030
GO TO F40-A.                                DO0030
IF      I-0030-CHOIX = "5"                 DO0030
MOVE "DO0050 " TO 5-0030-PROGE             DO0030
MOVE "O" TO OPER                           DO0030
GO TO F40-A.                                DO0030
IF      I-0030-CHOIX = "0"                 DO0030
MOVE "DO0070 " TO 5-0030-PROGE             DO0030
MOVE "O" TO OPER                           DO0030
GO TO F40-A.                                DO0030
IF      I-0030-CHOIX = "7"                 DO0030
MOVE "M" TO OPER                           DO0030
GO TO F0520-900.                           DO0030

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IF      I-0030-CHOIX = "8"                                DO0030
  MOVE "S" TO OPER                                        DO0030
  GO TO F0520-900.                                       DO0030
  MOVE "5" TO ER-0030-CHOIX                              DO0030
  MOVE "4" TO SCR-ER                                      DO0030
  GO TO F3999-ITER-FT.                                   DO0030
F0520-900.                                              DO0030
  IF      OPER NOT = "A"                                  DO0030
    AND OPER NOT = "M"                                  DO0030
    AND OPER NOT = "O"                                  DO0030
    GO TO F3999-ITER-FT.                                DO0030
F0520-FN.                                              DO0030
  EXIT.                                                 DO0030
F05-FN.                                                 DO0030
  EXIT.                                                 DO0030
*           +-----+                                     P000
* LEVEL 10  I NO UPDATE ==> END OF RECEIVE             I   P000
*           +-----+                                     P000
F08BB.                                                P000
  IF      OPER NOT = "M"                                  P000
    NEXT SENTENCE                                       P000
  ELSE                                           P000
    GO TO F08BB-FN.                                     P000
  GO TO F3999-ITER-FT.                                  P100
F08BB-FN.                                              P000
  EXIT.                                                 P000
*           *****                                       DO0030
*           *                                           DO0030
*           *   CATEGORY PROCESSING LOOP                 *   DO0030
*           *                                           *   DO0030
*           *****                                       DO0030
F10.                                                  DO0030
  EXIT.                                                 DO0030
F1010.                                                DO0030
  MOVE SPACE TO CATM.                                   DO0030
  IF      CATX = "R"                                     DO0030
    MOVE O-0030-LINE TO P-0030-LINE (ICATR)            DO0030
    MOVE A-0030-LINE (1) TO B-0030-LINE (1, ICATR)     DO0030
    MOVE A-0030-LINE (2) TO B-0030-LINE (2, ICATR)     DO0030
    MOVE A-0030-LINE (4) TO B-0030-LINE (4, ICATR)     DO0030
    MOVE I-0030-LINE TO J-0030-LINE (ICATR)            DO0030
    MOVE ER-0030-LINE TO PS-30-LINE (ICATR).           DO0030
  IF      CAT-ER = "E"                                   DO0030
    MOVE "4" TO SCR-ER                                  DO0030
    GO TO F3999-ITER-FT.                                DO0030
  MOVE SPACE TO CAT-ER.                                 DO0030
  IF      CATX = "O"                                     DO0030
    MOVE " " TO CATX                                    DO0030
    GO TO F1010-FN.                                     DO0030
  IF      CATX = " "                                     DO0030
    MOVE "R" TO CATX                                    DO0030
    MOVE ZERO TO ICATR.                                 DO0030
  IF      CATX = "R"                                     DO0030
    AND ICATR < IRR                                     DO0030
    ADD 1 TO ICATR                                      DO0030
    MOVE PS-30-LINE (ICATR) TO ER-0030-LINE            DO0030
    MOVE B-0030-LINE (4, ICATR) TO A-0030-LINE (4)     DO0030
    MOVE P-0030-LINE (ICATR) TO O-0030-LINE            DO0030
    MOVE J-0030-LINE (ICATR) TO I-0030-LINE            DO0030
    GO TO F1010-FN.                                     DO0030
  IF      CATX = "R"                                     DO0030
    MOVE "Z" TO CATX                                    DO0030
    GO TO F1010-FN.                                     DO0030
F1010-A.                                              DO0030
  GO TO F3999-ITER-FT.                                  DO0030
F1010-FN.                                              DO0030
  EXIT.                                                 DO0030
F10-FN.                                              DO0030
  EXIT.                                                 DO0030
*           *****                                       DO0030
*           *                                           DO0030
*           *   VALIDATION OF TRANSACTION CODE         *   DO0030
*           *                                           *   DO0030
*           *****                                       DO0030
F15.                                                  DO0030
  EXIT.                                                 DO0030
F15R.                                                 DO0030

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IF      CATX NOT = "R"                                DO0030
GO TO F15R-FN.                                        DO0030
IF      OPER NOT = "M"                                DO0030
MOVE SPACE TO CATM                                  DO0030
GO TO F15R-FN.                                        DO0030
IF      I-0030-CODMVT = SPACE                        DO0030
GO TO F15-FN.                                        DO0030
IF      I-0030-CODMVT = "C"                          DO0030
MOVE "C" TO CATM.                                    DO0030
IF      I-0030-CODMVT = "M"                          DO0030
MOVE "M" TO CATM.                                    DO0030
IF      I-0030-CODMVT = "S"                          DO0030
MOVE "A" TO CATM.                                    DO0030
IF      CATM = SPACE                                  DO0030
MOVE 5 TO ER-0030-CODMVT                            DO0030
MOVE "E" TO CAT-ER                                    DO0030
GO TO F3999-ITER-FI.                                  DO0030
F15R-FN.                                              DO0030
EXIT.                                                 DO0030
F15Z.                                                DO0030
IF      CATX NOT = "Z"                                DO0030
GO TO F15Z-FN.                                        DO0030
IF      OPER NOT = "M"                                DO0030
MOVE SPACE TO CATM                                  DO0030
GO TO F15Z-FN.                                        DO0030
IF      I-0030-EDIT = SPACE                          DO0030
GO TO F15-FN.                                        DO0030
IF      I-0030-EDIT = "O"                            DO0030
MOVE "X" TO CATM.                                    DO0030
IF      CATM = SPACE                                  DO0030
MOVE 5 TO ER-0030-EDIT                              DO0030
MOVE "E" TO CAT-ER                                    DO0030
GO TO F3999-ITER-FI.                                  DO0030
F15Z-FN.                                              DO0030
*          +-----+                                  P000
* LEVEL 10  I INITIALIZATION CATM (HEADING)          I  P000
*          +-----+                                  P000
F15AA.                                                P000
IF      CATX = SPACE                                  P000
AND OPER = "M"                                        P100
NEXT SENTENCE                                        P100
ELSE                                                P100
GO TO F15AA-FN.                                       P100
MOVE "M" TO CATM.                                       P100
F15AA-FN.                                             P000
EXIT.                                                 P000
F15-FN.                                               P000
EXIT.                                                 P000
*          *****                                  DO0030
*          *                                          *                                  DO0030
*          * DATA ELEMENT VALIDATION                *                                  DO0030
*          *                                          *                                  DO0030
*          *****                                  DO0030
F20.                                                  DO0030
EXIT.                                                 DO0030
F20A.                                                DO0030
IF      CATX NOT = " "                                DO0030
GO TO F20A-FN.                                        DO0030
F20A2.                                                DO0030
IF      I-0030-CHOIX NOT = SPACE                    DO0030
MOVE "1" TO ER-0030-CHOIX.                            DO0030
F20A2-FN.                                             DO0030
EXIT.                                                 DO0030
F20B1.                                                DO0030
IF      I-0030-MATE NOT = SPACE                      DO0030
MOVE "1" TO ER-0030-MATE                              DO0030
ELSE                                                DO0030
MOVE "2" TO ER-0030-MATE                              DO0030
MOVE "E" TO CAT-ER                                    DO0030
GO TO F20B1-FN.                                       DO0030
IF      I-0030-MATE = "I1"                            DO0030
OR I-0030-MATE = "I2"                                DO0030
OR I-0030-MATE = "I3"                                DO0030
OR I-0030-MATE = "I4"                                DO0030
OR I-0030-MATE = "I5"                                DO0030
OR I-0030-MATE = "B7"                                DO0030
OR I-0030-MATE = "B8"                                DO0030

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OR I-0030-MATE = "UN" DO0030
OR I-0030-MATE = "IC" DO0030
OR I-0030-MATE = "IBM.V.OS" DO0030
OR I-0030-MATE = "IBM.V.DO" DO0030
OR I-0030-MATE = "IBM.D.OS" DO0030
OR I-0030-MATE = "IBM.D.DO" DO0030
OR I-0030-MATE = "IBM.IMS " DO0030
OR I-0030-MATE = "DPS7 " DO0030
OR I-0030-MATE = "DPS8 " DO0030
OR I-0030-MATE = "UNISYS " DO0030
OR I-0030-MATE = "ICL " DO0030
OR I-0030-MATE = "SPECIAL" DO0030
NEXT SENTENCE DO0030
ELSE DO0030
MOVE "5" TO ER-0030-MATE. DO0030
IF ER-0030-MATE > "1" DO0030
MOVE "E" TO CAT-ER DO0030
GO TO F20B1-FN. DO0030
F20B1-FN. DO0030
EXIT. DO0030
F20B2. DO0030
IF I-0030-RELEA NOT = SPACE DO0030
MOVE "1" TO ER-0030-RELEA DO0030
ELSE DO0030
MOVE "2" TO ER-0030-RELEA DO0030
MOVE "E" TO CAT-ER DO0030
GO TO F20B2-FN. DO0030
IF I-0030-RELEA = "7.0" DO0030
OR I-0030-RELEA = "7.1" DO0030
OR I-0030-RELEA = "7.2" DO0030
OR I-0030-RELEA = "7.3" DO0030
NEXT SENTENCE DO0030
ELSE DO0030
MOVE "5" TO ER-0030-RELEA. DO0030
IF ER-0030-RELEA > "1" DO0030
MOVE "E" TO CAT-ER DO0030
GO TO F20B2-FN. DO0030
F20B2-FN. DO0030
EXIT. DO0030
F20B5. DO0030
IF I-0030-RUE NOT = SPACE DO0030
MOVE "1" TO ER-0030-RUE. DO0030
F20B5-FN. DO0030
EXIT. DO0030
F20B6. DO0030
IF I-0030-COPOS NOT = SPACE DO0030
MOVE "1" TO ER-0030-COPOS DO0030
ELSE DO0030
MOVE "2" TO ER-0030-COPOS DO0030
MOVE "E" TO CAT-ER DO0030
GO TO F20B6-FN. DO0030
MOVE I-0030-COPOS TO WP30-COPOS DO0030
MOVE ER-0030-COPOS TO DEL-ER DO0030
PERFORM F93CP THRU F93CP-FN DO0030
MOVE WP30-COPOS TO I-0030-COPOS DO0030
MOVE DEL-ER TO ER-0030-COPOS. DO0030
IF ER-0030-COPOS > "1" DO0030
MOVE "E" TO CAT-ER DO0030
GO TO F20B6-FN. DO0030
F20B6-FN. DO0030
EXIT. DO0030
F20B7. DO0030
IF I-0030-VILLE NOT = SPACE DO0030
MOVE "1" TO ER-0030-VILLE. DO0030
F20B7-FN. DO0030
EXIT. DO0030
F20B8. DO0030
IF I-0030-REFCLI NOT = SPACE DO0030
MOVE "1" TO ER-0030-REFCLI. DO0030
F20B8-FN. DO0030
EXIT. DO0030
F20B9. DO0030
IF I-0030-DATE NOT = SPACE DO0030
MOVE "1" TO ER-0030-DATE DO0030
ELSE DO0030
MOVE "2" TO ER-0030-DATE DO0030
MOVE "E" TO CAT-ER DO0030

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        GO TO F20B9-FN.                                DO0030
    MOVE I-0030-DATE TO DAT7                            DO0030
    PERFORM F8120-D THRU F8120-FN                       DO0030
    MOVE DEL-ER TO ER-0030-DATE                         DO0030
    IF      DEL-ER > "1"                                DO0030
        MOVE "E" TO CAT-ER                             DO0030
        GO TO F20B9-FN.                                DO0030
F20B9-FN.                                              DO0030
    EXIT.                                               DO0030
F20C0.                                                 DO0030
    IF      I-0030-CORRES NOT = SPACE                   DO0030
        MOVE "1" TO ER-0030-CORRES.                   DO0030
    IF      ER-0030-CORRES NOT = 1                     DO0030
        GO TO F20C0-FN.                                DO0030
F20C0-FN.                                              DO0030
    EXIT.                                               DO0030
F20C1.                                                 DO0030
    IF      E-0030-REMIS NOT = SPACE                   DO0030
        MOVE "1" TO ER-0030-REMIS.                   DO0030
    MOVE E-0030-REMIS TO ZONUM1                         DO0030
    MOVE 9-0030-REMIS TO NUMPIC                        DO0030
    MOVE ER-0030-REMIS TO DEL-ER                       DO0030
    PERFORM F8110 THRU F8110-FN                         DO0030
    MOVE DEL-ER TO ER-0030-REMIS                       DO0030
    IF      DEL-ER > 1                                  DO0030
        MOVE "E" TO CAT-ER                             DO0030
        GO TO F20C1-FN.                                DO0030
    MOVE ZONUM2 TO E-0030-REMIS.                       DO0030
F20C1-FN.                                              DO0030
    EXIT.                                               DO0030
F20A-FN.                                              DO0030
    EXIT.                                               DO0030
F20R.                                                 DO0030
    IF      CATX NOT = "R"                             DO0030
        GO TO F20R-FN.                                DO0030
F20C3.                                                 DO0030
    IF      I-0030-CODMVT NOT = SPACE                   DO0030
        MOVE "1" TO ER-0030-CODMVT.                   DO0030
F20C3-FN.                                              DO0030
    EXIT.                                               DO0030
*          +-----+
* LEVEL 10  I ITEM NOT AVAILABLE                       I
*          +-----+
F20BB.                                               P000
    IF      I-0030-FOURNI = "CLA"                       P100
        AND CATM NOT = SPACE                           P110
        MOVE "A" TO ER-0030-FOURNI                     P100
        MOVE "E" TO CAT-ER                             P100
        GO TO F20C4-FN.                                P110
F20BB-FN.                                             P000
    EXIT.                                               P000
F20C4.                                               DO0030
    IF      CATM = SPACE                                DO0030
        GO TO F20C4-FN.                                DO0030
    IF      I-0030-FOURNI NOT = SPACE                   DO0030
        MOVE "1" TO ER-0030-FOURNI                     DO0030
    ELSE                                              DO0030
        MOVE "2" TO ER-0030-FOURNI                     DO0030
        MOVE "E" TO CAT-ER                             DO0030
        GO TO F20C4-FN.                                DO0030
    IF      I-0030-FOURNI = "DIC"                       DO0030
        OR I-0030-FOURNI = "MER"                       DO0030
        OR I-0030-FOURNI = "TAB"                       DO0030
        OR I-0030-FOURNI = "DBD"                       DO0030
        OR I-0030-FOURNI = "DSO"                       DO0030
        OR I-0030-FOURNI = "LGS"                       DO0030
        OR I-0030-FOURNI = "LGB"                       DO0030
        OR I-0030-FOURNI = "DLG"                       DO0030
        NEXT SENTENCE                                  DO0030
    ELSE                                              DO0030
        MOVE "5" TO ER-0030-FOURNI.                   DO0030
    IF      ER-0030-FOURNI > "1"                       DO0030
        MOVE "E" TO CAT-ER                             DO0030
        GO TO F20C4-FN.                                DO0030
F20C4-FN.                                             DO0030
    EXIT.                                               DO0030
F20C5.                                               DO0030

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IF      CATM = "A"                                DO0030
OR      CATM = SPACE                              DO0030
GO TO F20C5-FN.                                  DO0030
IF      E-0030-QTMAC NOT = SPACE                 DO0030
MOVE "1" TO ER-0030-QTMAC                       DO0030
ELSE                                           DO0030
MOVE "2" TO ER-0030-QTMAC                       DO0030
MOVE "E" TO CAT-ER                              DO0030
GO TO F20C5-FN.                                  DO0030
MOVE E-0030-QTMAC TO ZONUM1                     DO0030
MOVE 9-0030-QTMAC TO NUMPIC                     DO0030
MOVE ER-0030-QTMAC TO DEL-ER                    DO0030
PERFORM F8110 THRU F8110-FN                     DO0030
MOVE DEL-ER TO ER-0030-QTMAC                   DO0030
IF      DEL-ER > 1                               DO0030
MOVE "E" TO CAT-ER                              DO0030
GO TO F20C5-FN.                                  DO0030
MOVE ZONUM2 TO E-0030-QTMAC.                   DO0030
IF      I-0030-QTMAC NOT < 01                   DO0030
AND I-0030-QTMAC NOT > 50                       DO0030
NEXT SENTENCE                                   DO0030
ELSE                                           DO0030
MOVE "5" TO ER-0030-QTMAC.                     DO0030
IF      ER-0030-QTMAC > "1"                    DO0030
MOVE "E" TO CAT-ER                              DO0030
GO TO F20C5-FN.                                  DO0030
F20C5-FN.                                        DO0030
EXIT.                                            DO0030
F20C6.                                           DO0030
IF      E-0030-QTMAL NOT = SPACE                 DO0030
MOVE "1" TO ER-0030-QTMAL.                     DO0030
MOVE E-0030-QTMAL TO ZONUM1                     DO0030
MOVE 9-0030-QTMAL TO NUMPIC                     DO0030
MOVE ER-0030-QTMAL TO DEL-ER                    DO0030
PERFORM F8110 THRU F8110-FN                     DO0030
MOVE DEL-ER TO ER-0030-QTMAL                   DO0030
IF      DEL-ER > 1                               DO0030
MOVE "E" TO CAT-ER                              DO0030
GO TO F20C6-FN.                                  DO0030
MOVE ZONUM2 TO E-0030-QTMAL.                   DO0030
F20C6-FN.                                        DO0030
EXIT.                                            DO0030
F20C7.                                           DO0030
IF      E-0030-QTMAR NOT = SPACE                 DO0030
MOVE "1" TO ER-0030-QTMAR.                     DO0030
MOVE E-0030-QTMAR TO ZONUM1                     DO0030
MOVE 9-0030-QTMAR TO NUMPIC                     DO0030
MOVE ER-0030-QTMAR TO DEL-ER                    DO0030
PERFORM F8110 THRU F8110-FN                     DO0030
MOVE DEL-ER TO ER-0030-QTMAR                   DO0030
IF      DEL-ER > 1                               DO0030
MOVE "E" TO CAT-ER                              DO0030
GO TO F20C7-FN.                                  DO0030
MOVE ZONUM2 TO E-0030-QTMAR.                   DO0030
F20C7-FN.                                        DO0030
EXIT.                                            DO0030
F20C8.                                           DO0030
IF      CATM = "A"                                DO0030
OR      CATM = SPACE                              DO0030
GO TO F20C8-FN.                                  DO0030
IF      I-0030-INFOR NOT = SPACE                 DO0030
MOVE "1" TO ER-0030-INFOR.                     DO0030
IF      ER-0030-INFOR NOT = 1                   DO0030
GO TO F20C8-FN.                                  DO0030
F20C8-FN.                                        DO0030
EXIT.                                            DO0030
F20R-FN.                                        DO0030
EXIT.                                            DO0030
F20Z.                                           DO0030
IF      CATX NOT = "Z"                           DO0030
GO TO F20Z-FN.                                  DO0030
F20D0.                                           DO0030
IF      I-0030-EDIT NOT = SPACE                 DO0030
MOVE "1" TO ER-0030-EDIT.                       DO0030
F20D0-FN.                                        DO0030
EXIT.                                            DO0030
F20Z-FN.                                        DO0030

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EXIT. DO0030
F20-FN. DO0030
EXIT. DO0030
* ***** DO0030
* * DO0030
* * SEGMENT ACCESS FOR VALIDATION * DO0030
* * DO0030
* ***** DO0030
F25. DO0030
IF CAT-ER NOT = SPACE DO0030
GO TO F25-FN. DO0030
F25A. DO0030
IF CATX NOT = " " DO0030
GO TO F25A-FN. DO0030
F2502. DO0030
MOVE "0" TO CD05-CF. DO0030
IF CATM = SPACE DO0030
GO TO F2502-FN. DO0030
MOVE SPACES TO CD05-KEYCD DO0030
MOVE "B" TO CD05-COCARA DO0030
MOVE CA00-NUCOM TO CD05-NUCOM DO0030
PERFORM F80-CD05-RU THRU F80-FN. DO0030
IF IK = "0" DO0030
MOVE "1" TO CD05-CF. DO0030
IF CATM NOT = "C" DO0030
AND IK = "1" DO0030
MOVE "F029" TO XERCD DO0030
PERFORM F81UT DO0030
GO TO F2502-FN. DO0030
F2502-FN. DO0030
EXIT. DO0030
F25A-FN. DO0030
EXIT. DO0030
F25R. DO0030
IF CATX NOT = "R" DO0030
GO TO F25R-FN. DO0030
F2503. DO0030
MOVE "0" TO CD10-CF. DO0030
IF CATM = SPACE DO0030
GO TO F2503-FN. DO0030
MOVE "C" TO CD10-KEYCD DO0030
MOVE CA00-NUCOM TO CD10-NUCOM DO0030
MOVE I-0030-FOURNI TO CD10-FOURNI DO0030
PERFORM F80-CD10-RU THRU F80-FN. DO0030
IF IK = "0" DO0030
MOVE "1" TO CD10-CF. DO0030
IF CATM = "X" DO0030
AND IK = "1" DO0030
MOVE "C" TO CATM. DO0030
IF CATM = "X" DO0030
AND IK = "0" DO0030
MOVE "M" TO CATM. DO0030
IF CATM = "C" DO0030
AND IK = "0" DO0030
MOVE "F038" TO XERCD DO0030
PERFORM F81UT DO0030
GO TO F2503-FN. DO0030
IF CATM NOT = "C" DO0030
AND IK = "1" DO0030
MOVE "F039" TO XERCD DO0030
PERFORM F81UT DO0030
GO TO F2503-FN. DO0030
* +-----+ P000
* LEVEL 12 I ACCESS TO FO10 I P000
* +-----+ P000
F25BB. P000
MOVE "1" TO CD10-CF. P100
F25BB-FN. P000
EXIT. P000
F2503-FN. P000
EXIT. P000
F2504. DO0030
MOVE "0" TO FO10-CF. DO0030
IF CD10-CF NOT = "1" DO0030
GO TO F2504-FN. DO0030
IF CATM = SPACE DO0030
GO TO F2504-FN. DO0030

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MOVE I-0030-FOURNI TO FO10-CLEFO	DO0030
MOVE CA00-LANGU TO FO10-LANGU	DO0030
MOVE I-0030-RELEA TO FO10-RELEA	DO0030
MOVE I-0030-MATE TO FO10-MATE	DO0030
PERFORM F80-FO10-RU THRU F80-FN.	DO0030
IF IK = "0"	DO0030
MOVE "1" TO FO10-CF.	DO0030
IF IK = "1"	DO0030
MOVE "F049" TO XERCD	DO0030
PERFORM F81UT	DO0030
GO TO F2504-FN.	DO0030
F2504-FN.	DO0030
EXIT.	DO0030
F25R-FN.	DO0030
EXIT.	DO0030
F25Z.	DO0030
IF CATX NOT = "Z"	DO0030
GO TO F25Z-FN.	DO0030
F2506.	DO0030
MOVE "0" TO CD20-CF.	DO0030
IF CATM = SPACE	DO0030
GO TO F2506-FN.	DO0030
MOVE SPACES TO CD20-KEYCD	DO0030
MOVE "E" TO CD20-COCARA	DO0030
MOVE CA00-NUCOM TO CD20-NUCOM	DO0030
PERFORM F80-CD20-RU THRU F80-FN.	DO0030
IF IK = "0"	DO0030
MOVE "1" TO CD20-CF.	DO0030
IF CATM = "X"	DO0030
AND IK = "1"	DO0030
MOVE "C" TO CATM.	DO0030
IF CATM = "X"	DO0030
AND IK = "0"	DO0030
MOVE "M" TO CATM.	DO0030
IF CATM = "C"	DO0030
AND IK = "0"	DO0030
MOVE "F068" TO XERCD	DO0030
PERFORM F81UT	DO0030
GO TO F2506-FN.	DO0030
IF CATM NOT = "C"	DO0030
AND IK = "1"	DO0030
MOVE "F069" TO XERCD	DO0030
PERFORM F81UT	DO0030
GO TO F2506-FN.	DO0030
F2506-FN.	DO0030
EXIT.	DO0030
F25Z-FN.	DO0030
EXIT.	DO0030
F2599.	DO0030
IF CAT-ER = SPACE	DO0030
GO TO F2599-FN.	DO0030
IF CD05-CF = "1"	DO0030
PERFORM F80-CD05-UN THRU F80-FN.	DO0030
IF CD10-CF = "1"	DO0030
PERFORM F80-CD10-UN THRU F80-FN.	DO0030
IF FO10-CF = "1"	DO0030
PERFORM F80-FO10-UN THRU F80-FN.	DO0030
IF CD20-CF = "1"	DO0030
PERFORM F80-CD20-UN THRU F80-FN.	DO0030
IF CATX = " "	DO0030
AND DE-AT (4, 011) = "X"	DO0030
MOVE " " TO DE-AT (4, 011).	DO0030
IF CATX = " "	DO0030
MOVE "X" TO A-0030-CHOIX (4).	DO0030
IF CATX = "R"	DO0030
AND DE-AT (4, 011) = "X"	DO0030
MOVE " " TO DE-AT (4, 011).	DO0030
IF CATX = "R"	DO0030
MOVE "X" TO A-0030-CODMVT (4).	DO0030
IF CATX = "Z"	DO0030
AND DE-AT (4, 011) = "X"	DO0030
MOVE " " TO DE-AT (4, 011).	DO0030
IF CATX = "Z"	DO0030
MOVE "X" TO A-0030-EDIT (4).	DO0030
F2599-FN.	DO0030
EXIT.	DO0030
F25-FN.	DO0030

EXIT.		DO0030
*	+-----+	P000
* LEVEL 10	I STOCK UPD.: ORDER DELETION/UPD I	P000
*	+-----+	P000
F28BH.		P000
IF	(CATM = "A"	P000
	OR "M")	P000
	AND CATX = "R"	P100
	AND CAT-ER = SPACES	P120
	NEXT SENTENCE	P120
ELSE		P120
	GO TO F28BH-FN.	P120
	ADD CD10-QTMAL TO FO10-QTMAS.	P100
F28BH-FN.		P000
EXIT.		P000
*	*****	DO0030
*	*	DO0030
*	* DATA ELEMENT TRANSFER *	DO0030
*	*	DO0030
*	*****	DO0030
F30.		DO0030
IF	CAT-ER NOT = SPACE	DO0030
	GO TO F30-FN.	DO0030
F30A.		DO0030
IF	CATX NOT = " "	DO0030
	GO TO F30A-FN.	DO0030
	MOVE I-0030-MATE TO CD05-MATE.	DO0030
	MOVE I-0030-RELEA TO CD05-RELEA.	DO0030
	MOVE I-0030-COPOS TO CD05-COPOS.	DO0030
	MOVE I-0030-REFCLI TO CD05-REFCLI.	DO0030
	MOVE I-0030-DATE TO CD05-DATE.	DO0030
	MOVE I-0030-REMIS TO CD05-REMIS.	DO0030
	IF ER-0030-CORRES = "1"	DO0030
	MOVE I-0030-CORRES TO CD05-CORRES.	DO0030
F30A-FN.		DO0030
EXIT.		DO0030
F30R.		DO0030
IF	CATX NOT = "R"	DO0030
	GO TO F30R-FN.	DO0030
IF	ER-0030-INFOR = "1"	DO0030
	MOVE I-0030-INFOR TO CD10-INFOR.	DO0030
IF	CATM NOT = SPACE	DO0030
	MOVE I-0030-FOURNI TO CD00-FOURNI.	DO0030
IF	CATM NOT = "A"	DO0030
	AND CATM NOT = "A"	DO0030
	MOVE I-0030-QTMAC TO CD10-QTMAC	DO0030
	ADD I-0030-QTMAC TO FO10-QTMAM.	DO0030
*	+-----+	P000
* LEVEL 10	I QUANTITY PROCESSING I	P000
*	+-----+	P000
F30BD.		P000
*	+-----+	P000
* LEVEL 12	I CALC. DELIV. QUANT. STOCK UPD. I	P000
*	+-----+	P000
F30BF.		P000
IF	CATM = "C"	P000
	OR "M"	P000
	NEXT SENTENCE	P000
ELSE		P000
	GO TO F30BF-FN.	P000
IF	FO10-QTMAS NOT < I-0030-QTMAC	P100
	MOVE I-0030-QTMAC TO CD10-QTMAL	P100
ELSE		P120
	MOVE FO10-QTMAS TO CD10-QTMAL.	P120
	SUBTRACT CD10-QTMAL FROM FO10-QTMAS	P130
	MOVE CD10-QTMAL TO O-0030-QTMAL.	P140
F30BF-FN.		P000
EXIT.		P000
F30BD-FN.		P000
EXIT.		P000
F30R-FN.		DO0030
EXIT.		DO0030
F30Z.		DO0030
IF	CATX NOT = "Z"	DO0030
	GO TO F30Z-FN.	DO0030
	MOVE I-0030-EDIT TO CD20-EDIT.	DO0030
F30Z-FN.		DO0030

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EXIT. DO0030
F30-FN. DO0030
EXIT. DO0030
* ***** DO0030
* * DO0030
* * SEGMENT ACCESS FOR UPDATE * DO0030
* * DO0030
* ***** DO0030
F35. DO0030
IF CAT-ER NOT = SPACE DO0030
OR CATM = SPACE DO0030
GO TO F35-FN. DO0030
F35A. DO0030
IF CATX NOT = " " DO0030
GO TO F35A-FN. DO0030
F3502. DO0030
IF CATM NOT = "C" DO0030
AND CATM NOT = "A" DO0030
PERFORM F80-CD05-RW THRU F80-FN. DO0030
F3502-FN. DO0030
EXIT. DO0030
F35A-FN. DO0030
EXIT. DO0030
F35R. DO0030
IF CATX NOT = "R" DO0030
GO TO F35R-FN. DO0030
F3503. DO0030
IF CATM = "C" DO0030
PERFORM F80-CD10-W THRU F80-FN. DO0030
IF CATM = "A" DO0030
PERFORM F80-CD10-D THRU F80-FN. DO0030
IF CATM NOT = "C" DO0030
AND CATM NOT = "A" DO0030
PERFORM F80-CD10-RW THRU F80-FN. DO0030
F3503-FN. DO0030
EXIT. DO0030
F3504. DO0030
IF FO10-CF = "1" DO0030
PERFORM F80-FO10-RW THRU F80-FN. DO0030
F3504-FN. DO0030
EXIT. DO0030
F35R-C3. DO0030
MOVE SPACE TO O-0030-CODMVT. DO0030
F35R-FN. DO0030
EXIT. DO0030
F35Z. DO0030
IF CATX NOT = "Z" DO0030
GO TO F35Z-FN. DO0030
F3506. DO0030
IF CATM = "C" DO0030
PERFORM F80-CD20-W THRU F80-FN. DO0030
IF CATM NOT = "C" DO0030
AND CATM NOT = "A" DO0030
PERFORM F80-CD20-RW THRU F80-FN. DO0030
F3506-FN. DO0030
EXIT. DO0030
F35Z-D0. DO0030
MOVE SPACE TO O-0030-EDIT. DO0030
F35Z-FN. DO0030
EXIT. DO0030
F35-FN. DO0030
EXIT. DO0030
F3999-ITER-FI. DO0030
GO TO F10. DO0030
F3999-ITER-FT. DO0030
EXIT. DO0030
F3999-FN. DO0030
EXIT. DO0030
F40. DO0030
IF SCR-ER > "1" DO0030
MOVE "A" TO OPER DO0030
GO TO F40-FN. DO0030
F40-A. DO0030
IF OPERD NOT = SPACE DO0030
MOVE OPERD TO OPER. DO0030
* +-----+ DO0030
* LEVEL 10 I MEMORIZATION OF KEYS I P000
P000

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*          +-----+
F4010.                                         P000
  IF      OPER = "A"                           P000
    OR    "M"                                  P000
    NEXT SENTENCE                             P000
  ELSE                                        P000
    GO TO F4010-FN.                           P000
  MOVE CA00-NUCOM TO K-ACD05-NUCOM.          P105
*          +-----+
* LEVEL 15  I REPETITIVE CATEGORY             I      P000
*          +-----+
F4011.                                         P000
  MOVE J-0030-LINE (1) TO I-0030-LINE.       P001
*----->  ACCES DB-KEY                       P305
F4011-FN.                                     P000
  EXIT.                                       P000
*          +-----+
* LEVEL 15  I END-OF-SCREEN                   I      P000
*          +-----+
F4012.                                         P000
  MOVE CA00-CLEME TO K-ZME00-CLEME.         P205
F4012-FN.                                     P000
  EXIT.                                       P000
F4010-FN.                                     P000
  EXIT.                                       P000
*          +-----+
* LEVEL 10  I NEXT PAGE                       I      P000
*          +-----+
F4020.                                         P000
  IF      OPER = "S"                           P000
    NEXT SENTENCE                             P000
  ELSE                                        P000
    GO TO F4020-FN.                           P000
    SET K-RCD10-DBKEY (1)                     P105
    SET K-RCD10-DBKEY (1) TO K-RCD10-DBKEY (2). P305
F4020-FN.                                     P000
  EXIT.                                       P000
*          *****
*          *                                     *
*          *   END OF TRANSACTION               *
*          *                                     *
*          *****
F4030.                                         DO0030
  IF      OPER NOT = "E"                       DO0030
    GO TO F4030-FN.                           DO0030
  PERFORM F80-HELP-D THRU F80-FN.             DO0030
  MOVE LOW-VALUE TO NEXT-TPR                  DO0030
  MOVE 1 TO 7-CD02-XNDEST                      DO0030
  MOVE K-S0030-XTERM TO 7-CD02-XTERM          DO0030
  MOVE 3 TO 7-CD02-XLOMES                      DO0030
  SEND 7-CD02 FROM 0030-MESSO WITH EGI AFTER ADVANCING 0 LINES. DO0030
  PERFORM F81FR THRU F81FR-FN.                DO0030
F4030-A.                                       DO0030
  EXIT PROGRAM.                               DO0030
F4030-FN.                                       DO0030
  EXIT.                                       DO0030
*          *****
*          *                                     *
*          *   TRANSFER TO ANOTHER SCREEN       *
*          *                                     *
*          *****
F4040.                                         DO0030
  IF      OPER NOT = "O"                       DO0030
    GO TO F4040-FN.                           DO0030
  MOVE 5-0030-PROGE TO NEXT-TPR.              DO0030
F4040-A.                                       DO0030
  EXIT PROGRAM.                               DO0030
F4040-FN.                                       DO0030
  EXIT.                                       DO0030
F40-FN.                                         DO0030
  EXIT.                                       DO0030
END-OF-RECEPTION.                             DO0030
  EXIT.                                       DO0030
*          *****
*          *                                     *
*          *   DISPLAY PREPARATION               *
*          *                                     *
*          *****

```

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*          *****
F50.          DO0030
              DO0030
              IF          OCF = "0"          DO0030
                  GO TO END-OF-DISPLAY.     DO0030
F5010.       DO0030
              MOVE ZERO TO CATX.            DO0030
              MOVE ZERO TO CONFIGURATIONS. DO0030
              MOVE ALL "1" TO FIRST-ON-SEGMENT. DO0030
              IF          SCR-ER NOT > "1"   DO0030
                  MOVE SPACE TO O-0030.     DO0030
              IF          SCR-ER > "1"       DO0030
                  GO TO F6999-ITER-FT.      DO0030
              PERFORM F8115 THRU F8115-FN.   DO0030
F5010-FN.    DO0030
              EXIT.                          DO0030
F50-FN.      DO0030
              EXIT.                          DO0030
*          *****
*          *                                *
*          *  CATEGORY PROCESSING LOOP      *
*          *                                *
*          *****
F55.          DO0030
              EXIT.                          DO0030
F5510.       DO0030
              MOVE SPACE TO CAT-ER.         DO0030
              IF          CATX = "0"         DO0030
                  MOVE " " TO CATX          DO0030
                  GO TO F5510-FN.          DO0030
              IF          CATX = " "         DO0030
                  MOVE "R" TO CATX         DO0030
                  MOVE ZERO TO ICATR.      DO0030
              IF          CATX NOT = "R"     DO0030
                  OR          ICATR > IRR   DO0030
                  GO TO F5510-R.           DO0030
              IF          ICATR > ZERO      DO0030
                  MOVE O-0030-LINE TO P-0030-LINE (ICATR) DO0030
                  MOVE ER-0030-LINE TO PS-30-LINE (ICATR). DO0030
              ADD 1 TO ICATR.               DO0030
              IF          ICATR NOT > IRR   DO0030
                  MOVE P-0030-LINE (ICATR) TO O-0030-LINE DO0030
                  MOVE PS-30-LINE (ICATR) TO ER-0030-LINE. DO0030
              GO TO F5510-FN.              DO0030
F5510-R.     DO0030
              EXIT.                          DO0030
F5510-Z.     DO0030
              IF          CATX = "R"         DO0030
                  MOVE "Z" TO CATX         DO0030
                  GO TO F5510-FN.          DO0030
F5510-900.  DO0030
              GO TO F6999-ITER-FT.         DO0030
F5510-FN.    DO0030
              EXIT.                          DO0030
F55-FN.      DO0030
              EXIT.                          DO0030
*          *****
*          *                                *
*          *  SEGMENT ACCESS FOR DISPLAY    *
*          *                                *
*          *****
F60.          DO0030
              EXIT.                          DO0030
F60A.        DO0030
              IF          CATX NOT = " "     DO0030
                  GO TO F60A-FN.           DO0030
*          +-----+
* LEVEL 10    I SET-UP KEY                  I
*          +-----+
F6010.       P000
              MOVE K-ACD05-NUCOM TO CD05-NUCOM. P100
F6002.       DO0030
              MOVE "0" TO CD05-CF.          DO0030
              PERFORM F80-CD05-R THRU F80-FN. DO0030
              IF          IK = "1"          DO0030
                  MOVE "G029" TO XERCDC   DO0030
                  PERFORM F81UT THRU F81UT-FN DO0030
                  GO TO F6002-FN.          DO0030

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MOVE "1" TO CD05-CF.                                DO0030
F6002-FN.                                           DO0030
EXIT.                                               DO0030
*           +-----+
* LEVEL 12   I ORDER MEMORIZATION                   I       P000
*           +-----+                               P000
F6040.                                             P000
SET K-RCD10-DBKEY (1) TO DIRECT-REFERENCE.         P100
F6040-FN.                                           P000
EXIT.                                               P000
F6010-FN.                                           P000
EXIT.                                               P000
F60A-FN.                                            DO0030
EXIT.                                               DO0030
F60R.                                               DO0030
IF          CATX NOT = "R"                          DO0030
OR          FT = "1"                                DO0030
GO TO F60R-FN.                                     DO0030
F6004.                                             DO0030
MOVE "0" TO CD10-CF.                                DO0030
IF          CD10-FST = "1"                          DO0030
MOVE CD10-COCARA TO C-0030-COCARA                 DO0030
MOVE CD10-NUCOM TO C-0030-NUCOM                   DO0030
PERFORM F80-CD10-P THRU F80-FN                    DO0030
MOVE ZERO TO CD10-FST                             DO0030
ELSE                                               DO0030
PERFORM F80-CD10-RN THRU F80-FN.                  DO0030
IF          IK = "0"                                DO0030
IF CD10-COCARA NOT = C-0030-COCARA                DO0030
OR CD10-NUCOM NOT = C-0030-NUCOM                  DO0030
MOVE "1" TO IK.                                   DO0030
IF          IK = "1"                                DO0030
MOVE "G049" TO XERCD                              DO0030
MOVE "1" TO FT                                     DO0030
PERFORM F81UT THRU F81UT-FN                       DO0030
GO TO F6004-FN.                                   DO0030
MOVE "1" TO CD10-CF.                               DO0030
*           +-----+                               P000
* LEVEL 12   I MEMORIZATION                           I       P000
*           +-----+                               P000
F6030.                                             P000
SET K-RCD10-DBKEY (2) TO DIRECT-REFERENCE.         P100
F6030-FN.                                           P000
EXIT.                                               P000
F6004-FN.                                           P000
EXIT.                                               P000
F60R-FN.                                            DO0030
EXIT.                                               DO0030
F60Z.                                               DO0030
IF          CATX NOT = "Z"                          DO0030
GO TO F60Z-FN.                                     DO0030
*           +-----+                               P000
* LEVEL 10   I SET-UP KEY                             I       P000
*           +-----+                               P000
F6020.                                             P000
MOVE K-ZME00-CLEME TO ME00-CLEME.                 P100
F6020-FN.                                           P000
EXIT.                                               P000
F6007.                                             DO0030
MOVE "0" TO ME00-CF.                                DO0030
PERFORM F80-ME00-R THRU F80-FN.                    DO0030
IF          IK = "1"                                DO0030
MOVE "G079" TO XERCD                              DO0030
PERFORM F81UT THRU F81UT-FN                       DO0030
GO TO F6007-FN.                                   DO0030
MOVE "1" TO ME00-CF.                               DO0030
F6007-FN.                                           DO0030
EXIT.                                               DO0030
F60Z-FN.                                            DO0030
F60-FN.                                             DO0030
EXIT.                                               DO0030
*           +-----+                               P000
* LEVEL 10   I PREPARATION DISPLAY DATE/HOUR        I       P000
*           +-----+                               P000
F64DA.                                             P000
IF          CATX = " "                              P000
NEXT SENTENCE                                     P000

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ELSE	P000
GO TO F64DA-FN.	P000
ACCEPT DATOR FROM DATE	P040
MOVE DATOR TO DAT6 DAT8	P040
MOVE DAT63 TO DAT61	P040
MOVE DAT81 TO DAT63	P040
MOVE DATOR TO DAT6	P080
PERFORM F8120-I THRU F8120-Z	P080
MOVE DAT8C TO DAT8C.	P080
ACCEPT TIMCO FROM TIME	P120
MOVE TIMCOG TO TIMCOG	P160
MOVE TIMCOH TO TIMHOU	P160
MOVE TIMCOM TO TIMMIN	P160
MOVE TIMCOS TO TIMSEC	P160
MOVE ":" TO TIMS1 TIMS2	P160
MOVE TIMDAY TO TIMDAY.	P160
F64DA-FN.	P000
EXIT.	P000
*	*****
*	*
*	DATA ELEMENT TRANSFER
*	*
*	*****
F65.	DO0030
EXIT.	DO0030
F65A.	DO0030
IF CATX NOT = " "	DO0030
GO TO F65A-FN.	DO0030
MOVE PROGE TO O-0030-PROGE.	DO0030
MOVE SESSI TO O-0030-SESSI.	DO0030
MOVE DAT8C TO O-0030-DATEM.	DO0030
MOVE TIMDAY TO O-0030-HEURE.	DO0030
F65A-A7.	DO0030
MOVE CA00-NUCOM TO O-0030-NUCOM.	DO0030
F65A-A7-FN.	DO0030
EXIT.	DO0030
F65A-A8.	DO0030
MOVE CA00-RAISOC TO O-0030-RAISOC.	DO0030
F65A-A8-FN.	DO0030
EXIT.	DO0030
F65A-CD05.	DO0030
IF CD05-CF NOT = "1"	DO0030
GO TO F65A-CD05-FN.	DO0030
MOVE CD05-MATE TO O-0030-MATE.	DO0030
F65A-B0.	DO0030
MOVE CD05-RELEA TO O-0030-RELEA.	DO0030
F65A-B0-FN.	DO0030
EXIT.	DO0030
F65A-B1.	DO0030
MOVE CD05-COPOS TO O-0030-COPOS.	DO0030
F65A-B1-FN.	DO0030
EXIT.	DO0030
F65A-B2.	DO0030
MOVE CD05-VILLE TO O-0030-VILLE.	DO0030
F65A-B2-FN.	DO0030
EXIT.	DO0030
F65A-B3.	DO0030
MOVE CD05-REFCLI TO O-0030-REFCLI.	DO0030
F65A-B3-FN.	DO0030
EXIT.	DO0030
F65A-B4.	DO0030
MOVE CD05-DATE TO O-0030-DATE.	DO0030
F65A-B4-FN.	DO0030
EXIT.	DO0030
F65A-B5.	DO0030
MOVE CD05-CORRES TO O-0030-CORRES.	DO0030
F65A-B5-FN.	DO0030
EXIT.	DO0030
F65A-B6.	DO0030
MOVE CD05-REMIS TO O-0030-REMIS.	DO0030
F65A-B6-FN.	DO0030
EXIT.	DO0030
F65A-CD05-FN.	DO0030
EXIT.	DO0030
F65A-FN.	DO0030
EXIT.	DO0030
F65R.	DO0030

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IF      CATX NOT = "R"                                DO0030
OR      FT = "1"                                       DO0030
GO TO F65R-FN.                                         DO0030
IF      ICATR > IRR                                    DO0030
GO TO F65R-FN.                                         DO0030
F65R-A4.                                               DO0030
MOVE CD00-FOURNI TO O-0030-FOURNI.                    DO0030
F65R-A4-FN.                                           DO0030
EXIT.                                                  DO0030
F65R-CD10.                                             DO0030
IF      CD10-CF NOT = "1"                              DO0030
GO TO F65R-CD10-FN.                                   DO0030
MOVE CD10-QTMAC TO O-0030-QTMAC.                      DO0030
F65R-A6.                                               DO0030
MOVE CD10-QTMAL TO O-0030-QTMAL.                     DO0030
F65R-A6-FN.                                           DO0030
EXIT.                                                  DO0030
F65R-A7.                                               DO0030
MOVE CD10-INFOR TO O-0030-INFOR.                     DO0030
F65R-A7-FN.                                           DO0030
EXIT.                                                  DO0030
F65R-CD10-FN.                                         DO0030
EXIT.                                                  DO0030
*
* -----+-----+
* LEVEL 10      I REMAINS TO BE DELIVERED              I      P000
* -----+-----+
F65BB.                                                 P000
IF      CD10-QTMAL NOT = ZERO                          P100
COMPUTE WW10-QTMAR = CD10-QTMAC - CD10-QTMAL         P100
MOVE WW10-QTMAR TO O-0030-QTMAR.                     P120
F65BB-FN.                                             P000
EXIT.                                                 P000
F65R-FN.                                             DO0030
EXIT.                                             DO0030
F65Z.
IF      CATX NOT = "Z"                                DO0030
GO TO F65Z-FN.                                         DO0030
F65Z-ME00.                                             DO0030
IF      ME00-CF NOT = "1"                              DO0030
GO TO F65Z-ME00-FN.                                   DO0030
MOVE ME00-MESSA TO O-0030-MESSA.                     DO0030
F65Z-ME00-FN.                                         DO0030
EXIT.                                             DO0030
F65Z-FN.                                             DO0030
EXIT.                                             DO0030
F65-FN.                                             DO0030
EXIT.                                             DO0030
F6999-ITER-FI.                                       DO0030
GO TO F55.                                             DO0030
F6999-ITER-FT.                                       DO0030
EXIT.                                             DO0030
F6999-FN.                                             DO0030
EXIT.                                             DO0030
F70.                                                 DO0030
EXIT.                                             DO0030
*
* *****
*
* * ERROR PROCESSING *
*
* *****
F7010.                                               DO0030
MOVE ZERO TO K01 K02 K04                             DO0030
MOVE 1 TO K03.                                        DO0030
MOVE LIBRA TO EM00-LIBRA                             DO0030
MOVE PROGR TO EM00-PROGR                             DO0030
MOVE ZERO TO EM00-LINUM                              DO0030
MOVE "H" TO EM00-ENTYP.                              DO0030
F7010-A.                                             DO0030
IF      K02 = INR                                     DO0030
AND K03 < IRR                                       DO0030
MOVE INA TO K02                                     DO0030
ADD 1 TO K03.                                        DO0030
ADD 1 TO K01 K02.                                    DO0030
IF      DE-ER (K01) > "1"                            DO0030
OR      < "0"                                         DO0030
MOVE "Y" TO DE-AT (4, K01)                          DO0030
MOVE "N" TO DE-AT (1, K01)                          DO0030

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        MOVE "N" TO DE-AT (2, K01)                DO0030
        MOVE "W" TO DE-AT (3, K01)                DO0030
    IF K04 < IER                                  DO0030
        MOVE DE-ER (K01) TO EM00-ERTYP            DO0030
        MOVE K02 TO K66                            DO0030
        MOVE K66 TO EM00-ERCOD9                    DO0030
        MOVE EM00-XEMKY TO EM00-ERMSG             DO0030
        PERFORM F80-EM00-R THRU F80-FN            DO0030
        ADD 1 TO K04                                DO0030
        MOVE EM00-ERMSG TO O-0030-ERMSG1 (K04)    DO0030
        MOVE EM00-ERMSG TO O-0030-ERMSG (K04).    DO0030
    IF      K01 < INT                              DO0030
        GO TO F7010-A.                            DO0030
    MOVE ZERO TO K50R.                            DO0030
F7010-B.                                         DO0030
    ADD 1 TO K50R                                  DO0030
    IF      K50R > K50L                            DO0030
        OR   K04 NOT < IER                        DO0030
        GO TO F7010-FN.                          DO0030
    MOVE T-XEMKY (K50R) TO EM00-XEMKY EM00-ERMSG DO0030
    PERFORM F80-EM00-R THRU F80-FN                DO0030
    ADD 1 TO K04                                    DO0030
    MOVE EM00-ERMSG TO O-0030-ERMSG1 (K04)        DO0030
    MOVE EM00-ERMSG TO O-0030-ERMSG (K04)        DO0030
    GO TO F7010-B.                                DO0030
F7010-FN.                                       DO0030
    EXIT.                                         DO0030
*
* *****                                     DO0030
* *                                     *         DO0030
* *   POSITIONING OF ATTRIBUTES           *         DO0030
* * *                                     *         DO0030
* *****                                     DO0030
F7020.                                         DO0030
    MOVE ZERO TO TALLY                            DO0030
    INSPECT DE-ATT1 (4) TALLYING TALLY FOR CHARACTERS BEFORE "Y". DO0030
    IF      TALLY NOT < 0065                      DO0030
        MOVE ZERO TO TALLY                        DO0030
        INSPECT DE-ATT1 (4) TALLYING TALLY FOR CHARACTERS BEFORE DO0030
        "Z".                                       DO0030
    IF      TALLY NOT < 0065                      DO0030
        MOVE ZERO TO TALLY                        DO0030
        INSPECT DE-ATT1 (4) TALLYING TALLY FOR CHARACTERS BEFORE DO0030
        "X".                                       DO0030
    IF      TALLY NOT < 0065                      DO0030
        MOVE ZERO TO TALLY.                      DO0030
    ADD 1 TO TALLY.                               DO0030
    MOVE X-ATPC (TALLY) TO X-ATPC1.              DO0030
    MOVE ZERO TO K01.                             DO0030
    INSPECT DE-ATT1 (1) REPLACING ALL "N" BY ""051"" DO0030
    INSPECT DE-ATT1 (1) REPLACING ALL "B" BY ""049"" DO0030
    INSPECT DE-ATT1 (1) REPLACING ALL "D" BY ""057"" DO0030
    INSPECT DE-ATT1 (2) REPLACING ALL "N" BY SPACE DO0030
    INSPECT DE-ATT1 (2) REPLACING ALL "U" BY ""053"" DO0030
    INSPECT DE-ATT1 (2) REPLACING ALL "B" BY ""054"" DO0030
    INSPECT DE-ATT1 (2) REPLACING ALL "R" BY ""056"". DO0030
F7020-A.                                       DO0030
    ADD 1 TO K01.                                 DO0030
    IF      K01 > INT                              DO0030
        GO TO F7020-FN.                          DO0030
    IF      DE-AT (1, K01) NOT = SPACE             DO0030
        AND X-ATTRI (K01) NOT = ""057""          DO0030
        MOVE DE-AT (1, K01) TO X-ATTRI (K01).    DO0030
    IF      DE-AT (2, K01) NOT = SPACE             DO0030
        MOVE DE-AT (2, K01) TO X-ATTRP (K01).    DO0030
    IF      DE-AT (2, K01) = SPACE                 DO0030
        AND X-ATTRP (K01) NOT = ""053""          DO0030
        AND X-ATTRP (K01) NOT = ""054""          DO0030
        AND X-ATTRP (K01) NOT = ""056""          DO0030
        MOVE X-ATTRI (K01) TO X-ATTRP (K01).    DO0030
    GO TO F7020-A.                               DO0030
F7020-FN.                                       DO0030
    EXIT.                                         DO0030
F70-FN.                                         DO0030
    EXIT.                                         DO0030
END-OF-DISPLAY.                                DO0030
    EXIT.                                         DO0030
F8Z.                                           DO0030

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EXIT.
F8Z05.
IF SCR-ER = "1"
NEXT SENTENCE
ELSE
GO TO F8Z05-FN.
IF K-S0030-DOC NOT = "1"
GO TO F8Z05-A.
MOVE K-S0030-ERCOD TO K01 K02.
IF K02 > INR
COMPUTE K02 = K01 + (INR - INA) * (IRR - 1).
IF K02 < 1
OR K02 > INT
MOVE 1 TO K02.
MOVE "X" TO DE-AT (4, K02)
PERFORM F7020 THRU F7020-FN.
F8Z05-A.
IF K-S0030-DOC = "1"
PERFORM F80-HELP-R THRU F80-FN
MOVE "0" TO K-S0030-DOC
GO TO F8Z05-FN.
IF K-S0030-DOC NOT = ZERO
GO TO F8Z05-FN.
PERFORM F80-HELP-R THRU F80-FN.
IF IK = "1"
PERFORM F80-HELP-W THRU F80-FN
ELSE
PERFORM F80-HELP-RW THRU F80-FN.
F8Z05-FN.
EXIT.
* *****
* *
* * DISPLAY *
* *
* *****
F8Z10.
IF SCR-ER NOT > "1"
AND DE-AT (4, 011) = "X"
PERFORM F7020 THRU F7020-FN.
PERFORM F8145 THRU F8145-FN.
MOVE 1 TO 7-CD02-XNDEST
MOVE K-S0030-XTERM TO 7-CD02-XTERM.
IF SCR-ER NOT > "1"
MOVE PROGR TO K-S0030-PROGR
PERFORM F8140 THRU F8140-FN
PERFORM F81SE THRU F81SE-FN.
IF SCR-ER > "1"
OR K50L > ZERO
PERFORM F81SM THRU F81SM-FN.
IF 7-SENDVAR = "1"
MOVE MESS-LENGV TO 7-CD02-XLOMES
SEND 7-CD02 FROM 0030-MESSV WITH EMI AFTER ADVANCING 0
LINES
PERFORM F81ES THRU F81ES-FN.
MOVE 0030-XLOUT TO 7-CD02-XLOMES
SEND 7-CD02 FROM ERROR-MESSF WITH EGI AFTER ADVANCING 0 LINES
PERFORM F81ES THRU F81ES-FN.
F8Z10-F.
EXIT.
F8Z10-G.
PERFORM F81FR THRU F81FR-FN.
F8Z10-FN.
EXIT.
* *****
* *
* * END OF PROGRAM *
* *
* *****
F8Z20.
MOVE PROGE TO NEXT-TPR.
F8Z20-A.
EXIT PROGRAM.
F8Z20-FN.
EXIT.
F8Z-FN.
EXIT.
* *****

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```

*          *          *          DO0030
*          *  PHYSICAL SEGMENT ACCESS ROUTINES *  DO0030
*          *          *          DO0030
*          *          *          DO0030
*          *          *          DO0030
F80.          DO0030
*          +-----+          P000
* LEVEL 10    I READING WITHIN CALCULATED KEY CD0 I  P000
*          +-----+          P000
F80BB.       P000
  EXIT.      P000
F80-CD05-R.  P100
  EXIT.      P100
F80-CD05-RU. P110
  MOVE ZERO TO IK FIND ANY CD05.  P120
  MOVE DB-STATUS TO IO-STATUS.    P200
  IF      OK GET CD05              P250
    GO TO F80-OK.                  P300
  IF      NOT-FOUND                P350
    GO TO F80-KO.                  P350
  PERFORM F81ER THRU F81ER-FN.    P900
F80BB-FN.   P000
  EXIT.      P000
*          +-----+          P000
* LEVEL 10    I RECORD MODIFICATION                I  P000
*          +-----+          P000
F80BC.       P000
  EXIT.      P000
F80-CD05-RW. P020
  FIND CURRENT CD05                P030
  MOVE ZERO TO IK                  P040
  MODIFY CD05.                     P120
  MOVE DB-STATUS TO IO-STATUS.    P160
  IF      OK                        P180
    GO TO F80-OK.                  P180
  PERFORM F81ER THRU F81ER-FN.    P200
F80-CD05-UN. P990
  GO TO F80-OK.                    P995
F80BC-FN.   P000
  EXIT.      P000
*          +-----+          P000
* LEVEL 10    I READ "FIRST .. WITHIN .. "        I  P000
*          +-----+          P000
F80ED.       P000
  EXIT.      P000
F80-CD20-P.  P090
  EXIT.      P090
F80-CD20-R.  P100
  EXIT.      P100
F80-CD20-RU. P110
  MOVE ZERO TO IK FIND FIRST CD20 WITHIN SET02  P120
  MOVE DB-STATUS TO IO-STATUS.    P250
  IF      OK GET CD20              P300
    GO TO F80-OK.                  P350
  IF      NOT FOUND                P400
    GO TO F80-KO.                  P400
  PERFORM F81ER THRU F81ER-FN.    P900
F80ED-FN.   P000
  EXIT.      P000
*          +-----+          P000
* LEVEL 10    I RECORD MODIFICATION                I  P000
*          +-----+          P000
F80EF.       P000
  EXIT.      P000
F80-CD20-RW. P020
  FIND CURRENT CD20                P030
  MOVE ZERO TO IK                  P040
  MODIFY CD20.                     P120
  MOVE DB-STATUS TO IO-STATUS.    P160
  IF      OK                        P180
    GO TO F80-OK.                  P180
  PERFORM F81ER THRU F81ER-FN.    P200
F80-CD20-UN. P990
  GO TO F80-OK.                    P995
F80EF-FN.   P000
  EXIT.      P000
*          +-----+          P000
* LEVEL 10    I RECORD CREATION                    I  P000

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*          +-----+
F80EG.                                         P000
  EXIT.                                       P000
F80-CD20-W.                                   P020
  MOVE ZERO TO IK                             P040
  STORE CD20                                  P120
  MOVE DB-STATUS TO IO-STATUS.                P160
  IF      OK                                  P180
    GO TO F80-OK.                             P180
  PERFORM F81ER THRU F81ER-FN.                P200
F80EG-FN.                                     P000
  EXIT.                                       P000
*          +-----+
* LEVEL 10  I EL00 RECORD READ                I      P000
*          +-----+
F80EM.                                         P000
  EXIT.                                       P000
F80-EM00-R.                                   P100
  EXIT.                                       P100
F80-EM00-RU.                                  P110
  MOVE EM00-EMKEY TO EL00-EMKEY              P115
  MOVE ZERO TO IK FIND EL00 USING XEM00      P120
  MOVE DB-STATUS TO IO-STATUS.                P300
  IF      OK GET EL00                         P310
    MOVE EL00 TO EM00                         P325
    GO TO F80-OK.                             P330
  IF      NOT-FOUND                           P400
    OR     NEXT-FOUND                          P410
    GO TO F80-KO.                             P400
  PERFORM F81ER THRU F81ER-FN.                P500
F80EM-FN.                                     P000
  EXIT.                                       P000
*          +-----+
* LEVEL 10  I READING WITHIN CALCULATED KEY FO1 I
*          +-----+
F80FO.                                         P000
  EXIT.                                       P000
F80-FO10-R.                                   P100
  EXIT.                                       P100
F80-FO10-RU.                                  P110
  MOVE ZERO TO IK FIND ANY FO10.              P120
  MOVE DB-STATUS TO IO-STATUS.                P200
  IF      OK GET FO10                         P250
    GO TO F80-OK.                             P300
  IF      NOT-FOUND                           P350
    GO TO F80-KO.                             P350
  PERFORM F81ER THRU F81ER-FN.                P900
F80FO-FN.                                     P000
  EXIT.                                       P000
*          +-----+
* LEVEL 10  I RECORD MODIFICATION            I      P000
*          +-----+
F80FP.                                         P000
  EXIT.                                       P000
F80-FO10-RW.                                  P020
  FIND CURRENT FO10                           P030
  MOVE ZERO TO IK                             P040
  MODIFY FO10.                                P120
  MOVE DB-STATUS TO IO-STATUS.                P160
  IF      OK                                  P180
    GO TO F80-OK.                             P180
  PERFORM F81ER THRU F81ER-FN.                P200
F80-FO10-UN.                                  P990
  GO TO F80-OK.                               P995
F80FP-FN.                                     P000
  EXIT.                                       P000
*          +-----+
* LEVEL 10  I READ WITHIN USING              I      P000
*          +-----+
F80LI.                                         P000
  EXIT.                                       P000
F80-CD10-R.                                   P100
  EXIT.                                       P100
F80-CD10-RU.                                  P110
  MOVE ZERO TO IK FIND CD10 WITHIN SET01 USING CD10-FOURNI
  MOVE DB-STATUS TO IO-STATUS.                P120
  IF      OK GET CD10                         P250

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        GO TO F80-OK.                                P350
        IF      NOT-FOUND                             P400
        GO TO F80-KO.                                P400
        PERFORM F81ER THRU F81ER-FN.                  P900
F80LI-FN.                                           P000
        EXIT.                                         P000
*
* -----+-----+
* LEVEL 10      I RECORD MODIFICATION                I      P000
* -----+-----+
F80LJ.                                              P000
        EXIT.                                         P000
F80-CD10-RW.                                        P020
        FIND CURRENT CD10                             P030
        MOVE ZERO TO IK                               P040
        MODIFY CD10.                                  P120
        MOVE DB-STATUS TO IO-STATUS.                  P160
        IF      OK                                    P180
        GO TO F80-OK.                                  P180
        PERFORM F81ER THRU F81ER-FN.                  P200
F80-CD10-UN.                                        P990
        GO TO F80-OK.                                  P995
F80LJ-FN.                                           P000
        EXIT.                                         P000
*
* -----+-----+
* LEVEL 10      I RECORD CREATION                    I      P000
* -----+-----+
F80LM.                                              P000
        EXIT.                                         P000
F80-CD10-W.                                        P020
        MOVE ZERO TO IK                               P040
        STORE CD10                                    P120
        MOVE DB-STATUS TO IO-STATUS.                  P160
        IF      OK                                    P180
        GO TO F80-OK.                                  P180
        PERFORM F81ER THRU F81ER-FN.                  P200
F80LM-FN.                                           P000
        EXIT.                                         P000
*
* -----+-----+
* LEVEL 10      I READ NEXT ON SEGMENT CD10          I      P000
* -----+-----+
F80LN.                                              P000
        EXIT.                                         P000
F80-CD10-RN.                                        P100
        MOVE ZERO TO IK FIND                          P120
        NEXT CD10 WITHIN SET01                        P150
        MOVE DB-STATUS TO IO-STATUS.                  P250
        IF      OK                                    P300
        OR      NEXT-FOUND GET CD10                    P350
        GO TO F80-OK.                                  P350
        IF      END-OF-SET                             P400
        GO TO F80-KO.                                  P400
        PERFORM F81ER THRU F81ER-FN.                  P900
F80LN-FN.                                           P000
        EXIT.                                         P000
*
* -----+-----+
* LEVEL 10      I RECORD DELETION                    I      P000
* -----+-----+
F80LQ.                                              P000
        EXIT.                                         P000
F80-CD10-D.                                        P020
        FIND CURRENT CD10                             P030
        MOVE ZERO TO IK ERASE CD10                    P040
        MOVE DB-STATUS TO IO-STATUS.                  P160
        IF      OK                                    P180
        GO TO F80-OK.                                  P180
        PERFORM F81ER THRU F81ER-FN.                  P200
F80LQ-FN.                                           P000
        EXIT.                                         P000
*
* -----+-----+
* LEVEL 10      I READ WITHIN DN-KEY CD10            I      P000
* -----+-----+
F80LS.                                              P000
        EXIT.                                         P000
F80-CD10-P.                                        P100
        MOVE ZERO TO IK FIND DB-KEY IS K-RCD10-DBKEY (1) P120
        MOVE DB-STATUS TO IO-STATUS.                  P300
        IF      OK                                    P400

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        GO TO F80-CD10-RN.                                P400
    IF     NOT-FOUND                                     P450
        GO TO F80-KO.                                    P450
    PERFORM F81ER THRU F81ER-FN.                          P920
F80LS-FN.                                                P000
    EXIT.                                                P000
*
* -----+-----+
* LEVEL 10      I ME00 RECORD READ                      I      P000
* -----+-----+
*
F80ME.                                                  P000
    EXIT.                                                P000
F80-ME00-R.                                             P100
    EXIT.                                                P100
F80-ME00-RU.                                            P110
    MOVE ZERO TO IK FIND ME00 USING XME00               P120
    MOVE DB-STATUS TO IO-STATUS.                         P300
    IF     OK GET ME00                                   P310
        GO TO F80-OK.                                    P320
    IF     NOT-FOUND                                     P400
        OR     NEXT-FOUND                               P410
        GO TO F80-KO.                                    P400
    PERFORM F81ER THRU F81ER-FN.                          P500
F80ME-FN.                                                P000
    EXIT.                                                P000
*
* -----+-----+
* LEVEL 10      I SCREEN SAVE                          I      P000
* -----+-----+
*
F8095.                                                  P000
*----->        HE00 RECORD READ                       P020
F80-HELP-R.                                             P040
    EXIT.                                                P040
F80-HELP-RU.                                            P060
    MOVE K-S0030-XTERM TO HE00-XTERM                   P080
    MOVE ZERO TO IK FIND HE00 USING XHE00               P100
    MOVE DB-STATUS TO IO-STATUS.                         P160
    IF     OK GET HE00.                                  P180
    IF     OK                                             P200
        AND K-S0030-DOC NOT = "0"                       P220
        MOVE HE00-SCREEN TO O-0030.                     P200
    IF     OK                                             P240
        GO TO F80-OK.                                    P240
    IF     NOT-FOUND                                     P260
        OR     NEXT-FOUND                               P280
        GO TO F80-KO.                                    P260
    PERFORM F81ER THRU F81ER-FN.                          P300
*----->        HE00 RECORD CREATION                    P320
F80-HELP-W.                                             P340
    MOVE ZERO TO IK                                     P360
    MOVE O-0030 TO HE00-SCREEN                           P380
    STORE HE00                                           P400
    MOVE DB-STATUS TO IO-STATUS.                         P420
    IF     OK                                             P440
        GO TO F80-OK.                                    P440
    PERFORM F81ER THRU F81ER-FN.                          P460
*----->        HE00 RECORD MODIFICATION                P480
F80-HELP-RW.                                            P500
    MOVE O-0030 TO HE00-SCREEN FIND CURRENT HE00        P520
    MOVE ZERO TO IK                                     P560
    MODIFY HE00                                          P580
    MOVE DB-STATUS TO IO-STATUS.                         P600
    IF     OK                                             P620
        GO TO F80-OK.                                    P620
    PERFORM F81ER THRU F81ER-FN.                          P640
*----->        HE00 RECORD DELETION                    P660
F80-HELP-D.                                             P680
    MOVE K-S0030-XTERM TO HE00-XTERM                   P700
    MOVE ZERO TO IK FIND HE00 USING XHE00               P720
    MOVE DB-STATUS TO IO-STATUS.                         P780
    IF     NOT OK                                        P800
        GO TO F80-KO.                                    P800
    MOVE ZERO TO IK ERASE HE00                           P820
    MOVE DB-STATUS TO IO-STATUS.                         P860
    IF     OK                                             P880
        GO TO F80-OK.                                    P880
    PERFORM F81ER THRU F81ER-FN.                          P900
F8095-FN.                                                P000
    EXIT.                                                P000

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F80-OK.                                DO0030
  MOVE "0" TO IK                        DO0030
  MOVE PROGR TO XPROGR                  DO0030
  GO TO F80-FN.                          DO0030
F80-KO.                                DO0030
  MOVE "1" TO IK                        DO0030
  MOVE PROGR TO XPROGR.                 DO0030
F8099-FN.                               DO0030
  EXIT.                                  DO0030
F80-FN.                                  DO0030
  EXIT.                                  DO0030
F81.                                     DO0030
  EXIT.                                  DO0030
*          *****
*          *
*          *   ABNORMAL END PROCEDURE   *
*          *
*          *****
F81ER.                                    DO0030
  CALL ".ABORT".                         DO0030
F81ER-FN.                                DO0030
  EXIT.                                  DO0030
F81ES.                                    DO0030
  IF      7-CD01-XMSTA NOT = ZERO         DO0030
    OR    7-CD02-XMSTA NOT = ZERO         DO0030
    CALL ".ABORT".                       DO0030
F81ES-FN.                                DO0030
  EXIT.                                  DO0030
F81FR.                                    DO0030
  CALL ".FREER" USING TP-STORAGE.        DO0030
F81FR-FN.                                DO0030
  EXIT.                                  DO0030
F81RE.                                    DO0030
  RECEIVE 7-CD01 MESSAGE INTO 0030-MESSI NO DATA DO0030
  MOVE SPACE TO 0030-MESSI              DO0030
  MOVE 7-CD01-XTERM TO K-S0030-XTERM    DO0030
  MOVE ZERO TO ICF.                     DO0030
F81RE-FN.                                DO0030
  EXIT.                                  DO0030
F81SE.                                    DO0030
  MOVE MESS-LENGM1 TO 7-CD02-XLOMES      DO0030
  SEND 7-CD02 FROM 0030-MESSM1 WITH EMI AFTER ADVANCING 0 LINES DO0030
  PERFORM F81ES THRU F81ES-FN           DO0030
  MOVE MESS-LENGF TO 7-CD02-XLOMES      DO0030
  SEND 7-CD02 FROM 0030-MESSM2 WITH EMI AFTER ADVANCING 0 DO0030
  LINES                                  DO0030
  PERFORM F81ES THRU F81ES-FN.          DO0030
F81SE-FN.                                DO0030
  EXIT.                                  DO0030
F81SM.                                    DO0030
  INSPECT O-0030-ERMSG (01) REPLACING ALL SPACE BY "19". DO0030
  MOVE ERROR-LENGF TO 7-CD02-XLOMES      DO0030
  SEND 7-CD02 FROM ERROR-MESS01 WITH EMI AFTER ADVANCING 0 DO0030
  LINES                                  DO0030
  PERFORM F81ES THRU F81ES-FN.          DO0030
F81SM-FN.                                DO0030
  EXIT.                                  DO0030
*          *****
*          *
*          *   MEMORIZATION OF USER'S ERRORS   *
*          *
*          *****
F81UT.                                    DO0030
  IF      K50L < K50M                    DO0030
    ADD 1 TO K50L                         DO0030
    MOVE XEMKY TO T-XEMKY (K50L).         DO0030
  MOVE "E" TO CAT-ER.                    DO0030
F81UT-FN.                                DO0030
  EXIT.                                  DO0030
*          *****
*          *
*          *   NUMERIC VALIDATION             *
*          *
*          *****
F8110.                                    DO0030
  MOVE ZERO TO TPOINT K01 K02 K03 ZONUM3 ZONUM2 C9 C91. DO0030
F8110-1.                                  DO0030

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IF      K01 > 26                                DO0030
OR      K02 > 17                                DO0030
GO TO F8110-5.                                DO0030
ADD 1 TO K01.                                  DO0030
IF      C1 (K01) = SPACE                       DO0030
OR      C1 (K01) = "."                         DO0030
GO TO F8110-1.                                DO0030
IF      C1 (K01) NOT = "-"                     DO0030
AND     C1 (K01) NOT = "+"                     DO0030
GO TO F8110-2.                                DO0030
IF      C9 NOT = ZERO                          DO0030
MOVE "5" TO DEL-ER                             DO0030
GO TO F8110-FN.                                DO0030
IF      K02 = ZERO                              DO0030
MOVE "1" TO C91.                               DO0030
IF      C1 (K01) = "+"                         DO0030
MOVE 1 TO C9                                   DO0030
GO TO F8110-1.                                DO0030
IF      SIGNE = " "                            DO0030
MOVE "5" TO DEL-ER                             DO0030
GO TO F8110-FN.                                DO0030
MOVE -1 TO C9                                  DO0030
GO TO F8110-1.                                DO0030
F8110-2.                                       DO0030
IF      C1 (K01) NOT = ", "                    DO0030
GO TO F8110-4.                                DO0030
IF      TPOINT = "1"                           DO0030
OR      NBCHP = 0                               DO0030
MOVE "5" TO DEL-ER                             DO0030
GO TO F8110-FN.                                DO0030
F8110-3.                                       DO0030
IF      K02 > NBCHA                             DO0030
MOVE "5" TO DEL-ER                             DO0030
GO TO F8110-FN.                                DO0030
COMPUTE K04 = 18 - NBCHA + K02                 DO0030
MOVE 1 TO C3 (K04)                             DO0030
DIVIDE ZONUM4 INTO ZONUM9                      DO0030
MOVE NBCHA TO K02                             DO0030
MOVE "1" TO TPOINT                             DO0030
GO TO F8110-1.                                DO0030
F8110-4.                                       DO0030
IF      C1 (K01) NOT NUMERIC                   DO0030
MOVE "4" TO DEL-ER                             DO0030
GO TO F8110-FN.                                DO0030
IF      C9 NOT = ZERO                          DO0030
AND     C91 = ZERO                             DO0030
MOVE "5" TO DEL-ER                             DO0030
GO TO F8110-FN.                                DO0030
IF      C1 (K01) = "0"                         DO0030
AND     K02 = ZERO                             DO0030
AND     TPOINT = "0"                           DO0030
GO TO F8110-1.                                DO0030
ADD 1 TO K02                                   DO0030
MOVE C1 (K01) TO C2 (K02).                     DO0030
IF      TPOINT = "1"                           DO0030
ADD 1 TO K03.                                  DO0030
IF      K03 > NBCHP                             DO0030
MOVE "5" TO DEL-ER                             DO0030
GO TO F8110-FN.                                DO0030
GO TO F8110-1.                                DO0030
F8110-5.                                       DO0030
IF      TPOINT = "0"                           DO0030
AND     K02 > ZERO                             DO0030
GO TO F8110-3.                                DO0030
IF      SIGNE NOT = "+"                       DO0030
GO TO F8110-FN.                                DO0030
IF      C9 = ZERO                              DO0030
MOVE 1 TO C9.                                  DO0030
ADD NBCHA NBCHP GIVING K01                     DO0030
MULTIPLY C9 BY C29 (K01).                      DO0030
IF      C29 (K01) = ZERO                       DO0030
AND     C9 = -1                                DO0030
MOVE C4 TO C2 (K01).                          DO0030
F8110-FN.                                       DO0030
EXIT.                                           DO0030
F8115.                                          DO0030
MOVE ALL "-" TO O-0030-CHOIX.                  DO0030

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MOVE ALL "-" TO O-0030-MATE. DO0030
MOVE ALL "-" TO O-0030-RELEA. DO0030
MOVE ALL "-" TO O-0030-RUE. DO0030
MOVE ALL "-" TO O-0030-COPOS. DO0030
MOVE ALL "-" TO O-0030-VILLE. DO0030
MOVE ALL "-" TO O-0030-REFCLI. DO0030
MOVE ". . . ." TO O-0030-DATE. DO0030
MOVE ALL "-" TO O-0030-CORRES. DO0030
MOVE ALL "-" TO F-0030-REMIS. DO0030
MOVE ZERO TO ICATR. DO0030
F8115-GRP. DO0030
ADD 1 TO ICATR DO0030
MOVE P-0030-LINE (ICATR) TO O-0030-LINE DO0030
MOVE ALL "-" TO O-0030-CODMVT. DO0030
MOVE ALL "-" TO O-0030-FOURNI. DO0030
MOVE ALL "-" TO F-0030-QTMAC. DO0030
MOVE ALL "-" TO F-0030-QTMAL. DO0030
MOVE ALL "-" TO F-0030-QTMAR. DO0030
MOVE ALL "-" TO O-0030-INFOR. DO0030
MOVE O-0030-LINE TO P-0030-LINE (ICATR). DO0030
IF ICATR < IRR DO0030
GO TO F8115-GRP. DO0030
MOVE ALL "-" TO O-0030-EDIT. DO0030
F8115-FN. DO0030
EXIT. DO0030
* ***** DO0030
* * DO0030
* * VALIDATION AND SETTING OF DATE * DO0030
* * DO0030
* ***** DO0030
F8120. DO0030
EXIT. DO0030
F8120-C. DO0030
MOVE DAT73C TO DATCTY. DO0030
MOVE DAT71C TO DAT71. DO0030
MOVE DAT72C TO DAT72. DO0030
MOVE DAT74C TO DAT73. DO0030
MOVE "0011" TO TT-DAT DO0030
GO TO F8120-T. DO0030
F8120-D. DO0030
MOVE CENTUR TO DATCTY DAT73C. DO0030
MOVE DAT71 TO DAT71C. DO0030
MOVE DAT72 TO DAT72C. DO0030
MOVE DAT73 TO DAT74C. DO0030
MOVE "0011" TO TT-DAT DO0030
GO TO F8120-T. DO0030
F8120-E. DO0030
MOVE CENTUR TO DATCTY DAT83C. DO0030
MOVE DAT81 TO DAT81C. DO0030
MOVE DAT82 TO DAT82C. DO0030
MOVE DAT83 TO DAT84C. DO0030
MOVE "0101" TO TT-DAT DO0030
GO TO F8120-T. DO0030
F8120-I. DO0030
MOVE CENTUR TO DATCTY DAT61C. DO0030
MOVE DAT61 TO DAT62C. DO0030
MOVE DAT62 TO DAT63C. DO0030
MOVE DAT63 TO DAT64C. DO0030
MOVE "1010" TO TT-DAT DO0030
GO TO F8120-T. DO0030
F8120-M. DO0030
MOVE DAT83C TO DATCTY. DO0030
MOVE DAT81C TO DAT81. DO0030
MOVE DAT82C TO DAT82. DO0030
MOVE DAT84C TO DAT83 DO0030
MOVE DATSEP TO DAT8S1 DAT8S2. DO0030
MOVE "0101" TO TT-DAT DO0030
GO TO F8120-T. DO0030
F8120-S. DO0030
MOVE DAT61C TO DATCTY. DO0030
MOVE DAT62C TO DAT61. DO0030
MOVE DAT63C TO DAT62. DO0030
MOVE DAT64C TO DAT63. DO0030
MOVE "1010" TO TT-DAT. DO0030
F8120-T. DO0030
IF T-DAT (1) = "1" DO0030
MOVE DAT61 TO DAT73 DAT74C DO0030

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MOVE DAT62 TO DAT72 DAT72C          DO0030
MOVE DAT63 TO DAT71 DAT71C          DO0030
MOVE DATCTY TO DAT73C.              DO0030
IF T-DAT (2) = "1"                  DO0030
MOVE DAT81 TO DAT71 DAT71C          DO0030
MOVE DAT82 TO DAT72 DAT72C          DO0030
MOVE DAT83 TO DAT73 DAT74C          DO0030
MOVE DATCTY TO DAT73C.              DO0030
IF T-DAT (3) = "1"                  DO0030
MOVE DAT71 TO DAT81 DAT81C          DO0030
MOVE DAT72 TO DAT82 DAT82C          DO0030
MOVE DAT73 TO DAT83 DAT84C          DO0030
MOVE DATSEP TO DAT8S1 DAT8S2 DAT8S1C DAT8S2C DO0030
MOVE DATCTY TO DAT83C.              DO0030
IF T-DAT (4) = "1"                  DO0030
MOVE DAT71 TO DAT63 DAT64C          DO0030
MOVE DAT72 TO DAT62 DAT63C          DO0030
MOVE DAT73 TO DAT61 DAT62C          DO0030
MOVE DATCTY TO DAT61C.              DO0030
F8120-Z.                             DO0030
EXIT.                                DO0030
F8120-ER.                             DO0030
MOVE "1" TO DEL-ER.                  DO0030
IF DAT6 NOT NUMERIC                  DO0030
GO TO F8120-KO.                      DO0030
IF DATCTY NOT NUMERIC                DO0030
GO TO F8120-KO.                      DO0030
IF DAT62 > "12"                      DO0030
OR DAT62 = "00"                      DO0030
OR DAT63 > "31"                      DO0030
OR DAT63 = "00"                      DO0030
GO TO F8120-KO.                      DO0030
IF DAT63 > "30"                      DO0030
AND (DAT62 = "04"                    DO0030
OR DAT62 = "06"                      DO0030
OR DAT62 = "09"                      DO0030
OR DAT62 = "11") GO TO F8120-KO.    DO0030
IF DAT62 NOT = "02"                  DO0030
GO TO F8120-FN.                      DO0030
IF DAT63 > "29"                      DO0030
GO TO F8120-KO.                      DO0030
DIVIDE DAT619 BY 4 GIVING LEAP-REM   DO0030
COMPUTE LEAP-REM = DAT619 - 4 * LEAP-REM. DO0030
IF DAT63 < "29"                      DO0030
OR LEAP-REM = ZERO                   DO0030
GO TO F8120-FN.                      DO0030
F8120-KO.                             DO0030
MOVE "5" TO DEL-ER.                  DO0030
F8120-FN.                             DO0030
EXIT.                                DO0030
* *****                               DO0030
* *                                     * DO0030
* * HELP SUB-FUNCTION                   * DO0030
* * *                                     * DO0030
* *****                               DO0030
F8130.                                DO0030
IF I-0030-CHOIX NOT = HIGH-VALUE     DO0030
MOVE I-0030-CHOIX TO O-0030-CHOIX.   DO0030
IF I-0030-MATE NOT = HIGH-VALUE       DO0030
MOVE I-0030-MATE TO O-0030-MATE.     DO0030
IF I-0030-RELEA NOT = HIGH-VALUE      DO0030
MOVE I-0030-RELEA TO O-0030-RELEA.   DO0030
IF I-0030-RUE NOT = HIGH-VALUE        DO0030
MOVE I-0030-RUE TO O-0030-RUE.       DO0030
IF I-0030-COPOS NOT = HIGH-VALUE       DO0030
MOVE I-0030-COPOS TO O-0030-COPOS.   DO0030
IF I-0030-VILLE NOT = HIGH-VALUE      DO0030
MOVE I-0030-VILLE TO O-0030-VILLE.   DO0030
IF I-0030-REFCLI NOT = HIGH-VALUE      DO0030
MOVE I-0030-REFCLI TO O-0030-REFCLI. DO0030
IF I-0030-DATE NOT = HIGH-VALUE       DO0030
MOVE I-0030-DATE TO O-0030-DATE.     DO0030
IF I-0030-CORRES NOT = HIGH-VALUE      DO0030
MOVE I-0030-CORRES TO O-0030-CORRES. DO0030
IF E-0030-REMIS NOT = HIGH-VALUE      DO0030
MOVE E-0030-REMIS TO F-0030-REMIS.   DO0030
MOVE ZERO TO ICATR.                  DO0030

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F8130-GRP.                                DO0030
ADD 1 TO ICATR                             DO0030
MOVE J-0030-LINE (ICATR) TO I-0030-LINE    DO0030
MOVE P-0030-LINE (ICATR) TO O-0030-LINE    DO0030
IF I-0030-CODMVT NOT = HIGH-VALUE         DO0030
  MOVE I-0030-CODMVT TO O-0030-CODMVT.    DO0030
IF I-0030-FOURNI NOT = HIGH-VALUE         DO0030
  MOVE I-0030-FOURNI TO O-0030-FOURNI.    DO0030
IF E-0030-QTMAC NOT = HIGH-VALUE         DO0030
  MOVE E-0030-QTMAC TO F-0030-QTMAC.     DO0030
IF E-0030-QTMAL NOT = HIGH-VALUE         DO0030
  MOVE E-0030-QTMAL TO F-0030-QTMAL.     DO0030
IF E-0030-QTMAR NOT = HIGH-VALUE         DO0030
  MOVE E-0030-QTMAR TO F-0030-QTMAR.     DO0030
IF I-0030-INFOR NOT = HIGH-VALUE         DO0030
  MOVE I-0030-INFOR TO O-0030-INFOR.     DO0030
MOVE O-0030-LINE TO P-0030-LINE (ICATR).  DO0030
IF ICATR < IRR                             DO0030
  GO TO F8130-GRP.                         DO0030
IF I-0030-EDIT NOT = HIGH-VALUE         DO0030
  MOVE I-0030-EDIT TO O-0030-EDIT.       DO0030
F8130-FN.                                    DO0030
EXIT.                                       DO0030
F8140.                                       DO0030
MOVE 3 TO K01.                              DO0030
F8140-A.                                    DO0030
ADD 1 TO K01.                               DO0030
IF K01 > MESS-LENGF + MESS-LENGM1        DO0030
  GO TO F8140-FN.                          DO0030
IF 0030-CX (K01) = "20"                  DO0030
  ADD 2 TO K01                              DO0030
  GO TO F8140-A.                            DO0030
IF 0030-CX (K01) = "028"                 DO0030
  ADD 5 TO K01                              DO0030
  GO TO F8140-A.                            DO0030
IF 0030-CX (K01) = SPACE                 DO0030
  MOVE "19" TO 0030-CX (K01).             DO0030
GO TO F8140-A.                             DO0030
F8140-FN.                                    DO0030
EXIT.                                       DO0030
F8145.                                       DO0030
MOVE T01004 TO S01004.                    DO0030
MOVE T01015 TO S01015.                    DO0030
MOVE T01060 TO S01060.                    DO0030
MOVE T01071 TO S01071.                    DO0030
MOVE T03018 TO S03018.                    DO0030
MOVE T03034 TO S03034.                    DO0030
MOVE T03063 TO S03063.                    DO0030
MOVE T04013 TO S04013.                    DO0030
MOVE T05009 TO S05009.                    DO0030
MOVE T05052 TO S05052.                    DO0030
MOVE T05060 TO S05060.                    DO0030
MOVE T06016 TO S06016.                    DO0030
MOVE T06061 TO S06061.                    DO0030
MOVE T07018 TO S07018.                    DO0030
MOVE T07061 TO S07061.                    DO0030
MOVE T10003 TO S10003.                    DO0030
MOVE T10007 TO S10007.                    DO0030
MOVE T10016 TO S10016.                    DO0030
MOVE T10026 TO S10026.                    DO0030
MOVE T10035 TO S10035.                    DO0030
MOVE T10042 TO S10042.                    DO0030
MOVE T11003 TO S11003.                    DO0030
MOVE T11007 TO S11007.                    DO0030
MOVE T11016 TO S11016.                    DO0030
MOVE T11026 TO S11026.                    DO0030
MOVE T11035 TO S11035.                    DO0030
MOVE T11042 TO S11042.                    DO0030
MOVE T12003 TO S12003.                    DO0030
MOVE T12007 TO S12007.                    DO0030
MOVE T12016 TO S12016.                    DO0030
MOVE T12026 TO S12026.                    DO0030
MOVE T12035 TO S12035.                    DO0030
MOVE T12042 TO S12042.                    DO0030
MOVE T13003 TO S13003.                    DO0030
MOVE T13007 TO S13007.                    DO0030
MOVE T13016 TO S13016.                    DO0030
```

```

MOVE T13026 TO S13026. DO0030
MOVE T13035 TO S13035. DO0030
MOVE T13042 TO S13042. DO0030
MOVE T14003 TO S14003. DO0030
MOVE T14007 TO S14007. DO0030
MOVE T14016 TO S14016. DO0030
MOVE T14026 TO S14026. DO0030
MOVE T14035 TO S14035. DO0030
MOVE T14042 TO S14042. DO0030
MOVE T15003 TO S15003. DO0030
MOVE T15007 TO S15007. DO0030
MOVE T15016 TO S15016. DO0030
MOVE T15026 TO S15026. DO0030
MOVE T15035 TO S15035. DO0030
MOVE T15042 TO S15042. DO0030
MOVE T16003 TO S16003. DO0030
MOVE T16007 TO S16007. DO0030
MOVE T16016 TO S16016. DO0030
MOVE T16026 TO S16026. DO0030
MOVE T16035 TO S16035. DO0030
MOVE T16042 TO S16042. DO0030
MOVE T17003 TO S17003. DO0030
MOVE T17007 TO S17007. DO0030
MOVE T17016 TO S17016. DO0030
MOVE T17026 TO S17026. DO0030
MOVE T17035 TO S17035. DO0030
MOVE T17042 TO S17042. DO0030
MOVE T18003 TO S18003. DO0030
MOVE T18007 TO S18007. DO0030
MOVE T18016 TO S18016. DO0030
MOVE T18026 TO S18026. DO0030
MOVE T18035 TO S18035. DO0030
MOVE T18042 TO S18042. DO0030
MOVE T20022 TO S20022. DO0030
MOVE T20033 TO S20033. DO0030
MOVE T23002 TO S23002. DO0030
MOVE T24002 TO S24002. DO0030
F8145-FN. DO0030
EXIT. DO0030
* ***** DO0030
* * DO0030
* * SEARCH FOR DOCUMENTATION REQUEST * DO0030
* * DO0030
* ***** DO0030
F8150. DO0030
MOVE ZERO TO K-S0030-ERCOD. DO0030
IF I-0030-CHOIX = "$" DO0030
MOVE HIGH-VALUE TO I-0030-CHOIX DO0030
MOVE 001 TO K-S0030-ERCOD DO0030
GO TO F8150-FN. DO0030
IF I-0030-CHOIX = "=" DO0030
MOVE HIGH-VALUE TO I-0030-CHOIX DO0030
MOVE SPACE TO K-S0030-ERCOD DO0030
GO TO F8150-FN. DO0030
IF I-0030-MATE = "$" DO0030
MOVE HIGH-VALUE TO I-0030-MATE DO0030
MOVE 002 TO K-S0030-ERCOD DO0030
GO TO F8150-FN. DO0030
IF I-0030-MATE = "=" DO0030
MOVE HIGH-VALUE TO I-0030-MATE DO0030
MOVE SPACE TO K-S0030-ERCOD DO0030
GO TO F8150-FN. DO0030
IF I-0030-RELEA = "$" DO0030
MOVE HIGH-VALUE TO I-0030-RELEA DO0030
MOVE 003 TO K-S0030-ERCOD DO0030
GO TO F8150-FN. DO0030
IF I-0030-RELEA = "=" DO0030
MOVE HIGH-VALUE TO I-0030-RELEA DO0030
MOVE SPACE TO K-S0030-ERCOD DO0030
GO TO F8150-FN. DO0030
IF I-0030-RUE = "$" DO0030
MOVE HIGH-VALUE TO I-0030-RUE DO0030
MOVE 004 TO K-S0030-ERCOD DO0030
GO TO F8150-FN. DO0030
IF I-0030-RUE = "=" DO0030
MOVE HIGH-VALUE TO I-0030-RUE DO0030
MOVE SPACE TO K-S0030-ERCOD DO0030

```

```

GO TO F8150-FN. DO0030
IF I-0030-COPOS = "$" DO0030
MOVE HIGH-VALUE TO I-0030-COPOS DO0030
MOVE 005 TO K-S0030-ERCOD DO0030
GO TO F8150-FN. DO0030
IF I-0030-COPOS = "=" DO0030
MOVE HIGH-VALUE TO I-0030-COPOS DO0030
MOVE SPACE TO K-S0030-ERCOD DO0030
GO TO F8150-FN. DO0030
IF I-0030-VILLE = "$" DO0030
MOVE HIGH-VALUE TO I-0030-VILLE DO0030
MOVE 006 TO K-S0030-ERCOD DO0030
GO TO F8150-FN. DO0030
IF I-0030-VILLE = "=" DO0030
MOVE HIGH-VALUE TO I-0030-VILLE DO0030
MOVE SPACE TO K-S0030-ERCOD DO0030
GO TO F8150-FN. DO0030
IF I-0030-REFCLI = "$" DO0030
MOVE HIGH-VALUE TO I-0030-REFCLI DO0030
MOVE 007 TO K-S0030-ERCOD DO0030
GO TO F8150-FN. DO0030
IF I-0030-REFCLI = "=" DO0030
MOVE HIGH-VALUE TO I-0030-REFCLI DO0030
MOVE SPACE TO K-S0030-ERCOD DO0030
GO TO F8150-FN. DO0030
IF I-0030-DATE = "$" DO0030
MOVE HIGH-VALUE TO I-0030-DATE DO0030
MOVE 008 TO K-S0030-ERCOD DO0030
GO TO F8150-FN. DO0030
IF I-0030-DATE = "=" DO0030
MOVE HIGH-VALUE TO I-0030-DATE DO0030
MOVE SPACE TO K-S0030-ERCOD DO0030
GO TO F8150-FN. DO0030
IF I-0030-CORRES = "$" DO0030
MOVE HIGH-VALUE TO I-0030-CORRES DO0030
MOVE 009 TO K-S0030-ERCOD DO0030
GO TO F8150-FN. DO0030
IF I-0030-CORRES = "=" DO0030
MOVE HIGH-VALUE TO I-0030-CORRES DO0030
MOVE SPACE TO K-S0030-ERCOD DO0030
GO TO F8150-FN. DO0030
IF E-0030-REMIS = "$" DO0030
MOVE HIGH-VALUE TO E-0030-REMIS DO0030
MOVE 010 TO K-S0030-ERCOD DO0030
GO TO F8150-FN. DO0030
IF E-0030-REMIS = "=" DO0030
MOVE HIGH-VALUE TO E-0030-REMIS DO0030
MOVE SPACE TO K-S0030-ERCOD DO0030
GO TO F8150-FN. DO0030
MOVE ZERO TO ICATR. DO0030
F8150-GRP. DO0030
ADD 1 TO ICATR DO0030
MOVE J-0030-LINE (ICATR) TO I-0030-LINE DO0030
IF I-0030-CODMVT = "$" DO0030
MOVE HIGH-VALUE TO I-0030-CODMVT DO0030
MOVE 011 TO K-S0030-ERCOD DO0030
GO TO F8150-A. DO0030
IF I-0030-CODMVT = "=" DO0030
MOVE HIGH-VALUE TO I-0030-CODMVT DO0030
MOVE SPACE TO K-S0030-ERCOD DO0030
GO TO F8150-A. DO0030
IF I-0030-FOURNI = "$" DO0030
MOVE HIGH-VALUE TO I-0030-FOURNI DO0030
MOVE 012 TO K-S0030-ERCOD DO0030
GO TO F8150-A. DO0030
IF I-0030-FOURNI = "=" DO0030
MOVE HIGH-VALUE TO I-0030-FOURNI DO0030
MOVE SPACE TO K-S0030-ERCOD DO0030
GO TO F8150-A. DO0030
IF E-0030-QTMAC = "$" DO0030
MOVE HIGH-VALUE TO E-0030-QTMAC DO0030
MOVE 013 TO K-S0030-ERCOD DO0030
GO TO F8150-A. DO0030
IF E-0030-QTMAC = "=" DO0030
MOVE HIGH-VALUE TO E-0030-QTMAC DO0030
MOVE SPACE TO K-S0030-ERCOD DO0030
GO TO F8150-A. DO0030

```



```
IF      E-0030-QTMAL = "$"                                DO0030
MOVE HIGH-VALUE TO E-0030-QTMAL                          DO0030
MOVE 014 TO K-S0030-ERCOD                                  DO0030
GO TO F8150-A.                                           DO0030
IF      E-0030-QTMAL = "="                                DO0030
MOVE HIGH-VALUE TO E-0030-QTMAL                          DO0030
MOVE SPACE TO K-S0030-ERCOD                               DO0030
GO TO F8150-A.                                           DO0030
IF      E-0030-QTMAR = "$"                                DO0030
MOVE HIGH-VALUE TO E-0030-QTMAR                          DO0030
MOVE 015 TO K-S0030-ERCOD                                  DO0030
GO TO F8150-A.                                           DO0030
IF      E-0030-QTMAR = "="                                DO0030
MOVE HIGH-VALUE TO E-0030-QTMAR                          DO0030
MOVE SPACE TO K-S0030-ERCOD                               DO0030
GO TO F8150-A.                                           DO0030
IF      I-0030-INFOR = "$"                                DO0030
MOVE HIGH-VALUE TO I-0030-INFOR                          DO0030
MOVE 016 TO K-S0030-ERCOD                                  DO0030
GO TO F8150-A.                                           DO0030
IF      I-0030-INFOR = "="                                DO0030
MOVE HIGH-VALUE TO I-0030-INFOR                          DO0030
MOVE SPACE TO K-S0030-ERCOD                               DO0030
GO TO F8150-A.                                           DO0030
MOVE I-0030-LINE TO J-0030-LINE (ICATR).                 DO0030
IF      ICATR < IRR                                       DO0030
GO TO F8150-GRP.                                         DO0030
IF      I-0030-EDIT = "$"                                DO0030
MOVE HIGH-VALUE TO I-0030-EDIT                          DO0030
MOVE 017 TO K-S0030-ERCOD                                  DO0030
GO TO F8150-FN.                                          DO0030
IF      I-0030-EDIT = "="                                DO0030
MOVE HIGH-VALUE TO I-0030-EDIT                          DO0030
MOVE SPACE TO K-S0030-ERCOD                               DO0030
GO TO F8150-FN.                                          DO0030
GO TO F8150-FN.                                          DO0030
F8150-A.                                                  DO0030
MOVE I-0030-LINE TO J-0030-LINE (ICATR).                 DO0030
F8150-FN.                                                  DO0030
EXIT.                                                     DO0030
F8155.                                                    DO0030
MOVE S03034 TO R03034 T03034.                            DO0030
MOVE S03063 TO R03063 T03063.                            DO0030
MOVE S05009 TO R05009 T05009.                            DO0030
MOVE S05052 TO R05052 T05052.                            DO0030
MOVE S05060 TO R05060 T05060.                            DO0030
MOVE S06016 TO R06016 T06016.                            DO0030
MOVE S06061 TO R06061 T06061.                            DO0030
MOVE S07018 TO R07018 T07018.                            DO0030
MOVE S07061 TO R07061 T07061.                            DO0030
MOVE S10003 TO R10003 T10003.                            DO0030
MOVE S10007 TO R10007 T10007.                            DO0030
MOVE S10016 TO R10016 T10016.                            DO0030
MOVE S10026 TO R10026 T10026.                            DO0030
MOVE S10035 TO R10035 T10035.                            DO0030
MOVE S10042 TO R10042 T10042.                            DO0030
MOVE S11003 TO R11003 T11003.                            DO0030
MOVE S11007 TO R11007 T11007.                            DO0030
MOVE S11016 TO R11016 T11016.                            DO0030
MOVE S11026 TO R11026 T11026.                            DO0030
MOVE S11035 TO R11035 T11035.                            DO0030
MOVE S11042 TO R11042 T11042.                            DO0030
MOVE S12003 TO R12003 T12003.                            DO0030
MOVE S12007 TO R12007 T12007.                            DO0030
MOVE S12016 TO R12016 T12016.                            DO0030
MOVE S12026 TO R12026 T12026.                            DO0030
MOVE S12035 TO R12035 T12035.                            DO0030
MOVE S12042 TO R12042 T12042.                            DO0030
MOVE S13003 TO R13003 T13003.                            DO0030
MOVE S13007 TO R13007 T13007.                            DO0030
MOVE S13016 TO R13016 T13016.                            DO0030
MOVE S13026 TO R13026 T13026.                            DO0030
MOVE S13035 TO R13035 T13035.                            DO0030
MOVE S13042 TO R13042 T13042.                            DO0030
MOVE S14003 TO R14003 T14003.                            DO0030
MOVE S14007 TO R14007 T14007.                            DO0030
MOVE S14016 TO R14016 T14016.                            DO0030
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MOVE S14026 TO R14026 T14026.	DO0030
MOVE S14035 TO R14035 T14035.	DO0030
MOVE S14042 TO R14042 T14042.	DO0030
MOVE S15003 TO R15003 T15003.	DO0030
MOVE S15007 TO R15007 T15007.	DO0030
MOVE S15016 TO R15016 T15016.	DO0030
MOVE S15026 TO R15026 T15026.	DO0030
MOVE S15035 TO R15035 T15035.	DO0030
MOVE S15042 TO R15042 T15042.	DO0030
MOVE S16003 TO R16003 T16003.	DO0030
MOVE S16007 TO R16007 T16007.	DO0030
MOVE S16016 TO R16016 T16016.	DO0030
MOVE S16026 TO R16026 T16026.	DO0030
MOVE S16035 TO R16035 T16035.	DO0030
MOVE S16042 TO R16042 T16042.	DO0030
MOVE S17003 TO R17003 T17003.	DO0030
MOVE S17007 TO R17007 T17007.	DO0030
MOVE S17016 TO R17016 T17016.	DO0030
MOVE S17026 TO R17026 T17026.	DO0030
MOVE S17035 TO R17035 T17035.	DO0030
MOVE S17042 TO R17042 T17042.	DO0030
MOVE S18003 TO R18003 T18003.	DO0030
MOVE S18007 TO R18007 T18007.	DO0030
MOVE S18016 TO R18016 T18016.	DO0030
MOVE S18026 TO R18026 T18026.	DO0030
MOVE S18035 TO R18035 T18035.	DO0030
MOVE S18042 TO R18042 T18042.	DO0030
MOVE S20022 TO R20022 T20022.	DO0030
MOVE S20033 TO R20033 T20033.	DO0030
F8155-FN.	DO0030
EXIT.	DO0030
F81-FN.	DO0030
EXIT.	DO0030
* +-----+ P000	
* LEVEL 10 I ZIP CODE VALIDATION I P000	
* +-----+ P000	
F93CP. P000	
MOVE 1 TO IWP20R. P100	
F93CP-100. P100	
IF IWP20R NOT > IWP20L P100	
AND WP20-COPOS (IWP20R) NOT = WP30-COPOS P100	
ADD 1 TO IWP20R P100	
GO TO F93CP-100. P100	
IF IWP20R > IWP20L P200	
MOVE "5" TO DEL-ER P200	
GO TO F93CP-FN. P220	
F93CP-FN. DO0030	
EXIT. DO0030	

## **5. VIP GENERATED PROGRAM**

## *5.1. INTRODUCTION*

### INTRODUCTION

The sample program uses the DPS8 variant with the DMIV access method and the TDS monitor.

This example is adapted to VIP7700 or compatible terminals.

Only the parts which differ from the MULTI-SCREEN variant are described in this chapter.

## 5.2. BEGINNING OF WORKING-STORAGE SECTION

### BEGINNING OF WORKING-STORAGE SECTION

The 'WSS-BEGIN' level is generated at the beginning of the WORKING-STORAGE SECTION for all programs.

It contains all the variables and keys necessary for automatic processing.

IK Error indicator for file accesses.

'0' No error.  
'1' Error.

OPER Operation code.

'A' Display.  
'M' Update.  
'S' Screen continuation.  
'E' End.  
'P' Previous display.  
'O' Transfer to another screen.

OPERD Operation code for deferred branching.

Transferred to OPER in F40.

'O' Deferred call of another screen.

OPER and OPERD: If they correspond to a Data Element defined as an Operation Code on the Screen Call of Elements (-CE) screen (value 'O' in the VALIDATION CONDITIONS/SET VARIABLES field), they are processed in the F0520 function. If not, they are processed in the F20 function.

CATX Code of the category being executed.

'0' Beginning of reception or display.  
' ' Screen-top.  
'R' Repetitive.  
'Z' Screen-bottom.

CATM Transaction code.

'C' Creation.  
'M' Modification.  
'A' Deletion.

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BEGINNING OF WORKING-STORAGE SECTION

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'X' Implicit update.

ICATR Indicator for current category being processed.

(Repetitive category only)

SCR-ER Screen error indicator.

'1' no error.  
'4' error.

FT End of repetitive category indicator.

'0' Lines to display.  
'1' No more lines to display.

ICF Input Configuration.

'1' Screen in input.  
'0' No screen in input.

OCF Output Configuration.

'1' Screen in output.  
'0' No screen in output.

CAT-ER Ongoing error indicator for current category.

' ' No error.  
'E' Error.

I-PFKEY Stores the function key.

K66 Index used to search the error indicator (DPS8 only).

7-HT Field separator (not generated for DPS7 FORMS).

7-SENDVAR Used to condition the sending of variable fields  
(not generated for DPS7 FORMS).

7-ETX END-OF-TEXT character for TQ protocol.

INA Number of Data Elements in the screen-top category.

INR INA + Number of Data Elements in the repetitive category.

INZ INR + Number of Data Elements in the screen-bottom category.

IRR Number of repetitions in the repetitive category.

INT Number of input fields.

IER Number of error messages on the screen.

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BEGINNING OF WORKING-STORAGE SECTION

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DEL-ER Memorizes Data Element error (work variable).



The 'CONSTANTS' level is also generated for all programs. It contains:

- . The compilation date of the on-line generator (PACE30 and PACE80), as well as the date of the related skeleton (these appear as comment lines),
- . Information on the program and work areas generated according to the procedures executed in the program:

SESSI Session number of the generated program.  
LIBRA Code of the library.  
DATGN Generated program date.  
PROGR System program code.  
PROGE COBOL program-id.  
TIMGN Generated program time.  
USERCO User code.  
COBASE Database code.

If a request for HELP documentation is entered on the Screen Definition screen, the following fields are generated:

PRDOC: External name of the 'HELP SCREEN' program.

5-scrn-PROGE: Field containing the name of called program.  
This field is filled during a screen branching operation ('scrn' = the last four characters of the screen code).

DATCE This field includes the CENTUR field (containing the value of the current century) and a blank date area (DATOR) in which the user can store the processing date in a year-month-day format (DATOA-DATOM-DATOJ).

Note: if the year is less than '61', the CENTUR field is automatically set to '20'.

DAT6 Fields for date formatting (MMDDYY or DDMMYY) and

DAT7 printing (for example DD/MM/YY).

DAT8 These fields are generated if a date processing operator is used in the '-P' lines of the program or if a variable data element ('V') has a date format.

DATSEP This field contains the separator used for dates. The default value ('/') can be modified by via Procedural Code (-P) lines.

DATSET This field contains the separator used for the Gregorian date.

The default value ('-') can be modified via Procedural Code (-P) lines.

DATCTY Field for century loading.

DAT6C Field for non-formatted date with century.

DAT7C Field for non-formatted date with century.

DAT8C Field for formatted date with century (DD/MM/CCYY).

DAT8G Field for the Gregorian type of date -- with century also -- (CCYY-MM-DD).

TIMCO Field for time loading.

TIMDAY Field for time formatting (HH:MM:SS).

The 'CONFIGURATIONS' level contains one variable 'ddss-CF' ('ddss' = segment code in the generated program) for each segment accessed in the program, which allows for conditioned access for each segment in the procedure.

## VIP GENERATED PROGRAM

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## BEGINNING OF WORKING-STORAGE SECTION

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```

WORKING-STORAGE SECTION.
01  WSS-BEGIN.
    05  FILLER  PICTURE X(7) VALUE "WORKING".
    05  IK      PICTURE X.
    05  BLANC  PICTURE X VALUE SPACE.
    05  OPER  PICTURE X.
    05  OPERD PICTURE X VALUE SPACE.
    05  CATX  PICTURE X.
    05  CATM  PICTURE X.
    05  ICATR PICTURE 99.
    05  SCR-ER PICTURE X.
    05  FT    PICTURE X.
    05  ICF  PICTURE X.
    05  OCF  PICTURE X.
    05  CAT-ER PICTURE X.
    05  7-HT  PICTURE X VALUE "10".
    05  I-PFKEY PICTURE XX.
    05  7-ACCES PICTURE XX.
    05  K66   PICTURE 999.
    05  7-ETX  PICTURE X VALUE "04".
    05  7-SENDVAR PICTURE X VALUE "1".
    05  INA   PICTURE 999 VALUE 010.
    05  INR   PICTURE 999 VALUE 016.
    05  INZ   PICTURE 999 VALUE 017.
    05  IRR   PICTURE 99 VALUE 09.
    05  INT   PICTURE 999 VALUE 065.
    05  IER   PICTURE 99 VALUE 01.
    05  DEL-ER PICTURE X.
01  PACBASE-CONSTANTS.
    OLSD DATES PACE30 : /02/93
    PACE80 : 05/03/93 PAC7SG : 930225
    05  SESSI PICTURE X(5) VALUE "0312 ".
    05  LIBRA PICTURE X(3) VALUE "AD8".
    05  DATGN PICTURE X(8) VALUE "03/09/93".
    05  PROGR PICTURE X(6) VALUE "D00030".
    05  PROGE PICTURE X(8) VALUE "D00030 ".
    05  TIMGN PICTURE X(8) VALUE "10:50:44".
    05  USERCO PICTURE X(8) VALUE "PDSG ".
    05  PRDOC PICTURE X(8) VALUE "DOP050".
    05      5-0030-PROGE PICTURE X(8).
01  DATCE.
    05  CENTUR PICTURE XX VALUE "19".
    05  DATOR.
    10  DATOA PICTURE XX.
    10  DATOM PICTURE XX.
    10  DATOJ PICTURE XX.
01  DAT6.
    10  DAT61.
    15  DAT619 PICTURE 99.
    10  DAT62.
    15  DAT629 PICTURE 99.
    10  DAT63 PICTURE XX.
01  DAT7.
    10  DAT71 PICTURE XX.
    10  DAT72 PICTURE XX.
    10  DAT73 PICTURE XX.
01  DAT8.
    10  DAT81 PICTURE XX.
    10  DAT8S1 PICTURE X.
    10  DAT82 PICTURE XX.
    10  DAT8S2 PICTURE X.
    10  DAT83 PICTURE XX.
01  DATSEP PICTURE X VALUE "/".
01  DATSET PICTURE X VALUE "-".
01  DATCTY.
    05  DATCTY9 PICTURE 99.
01  DAT6C.
    10  DAT61C PICTURE XX.
    10  DAT62C PICTURE XX.
    10  DAT63C PICTURE XX.
    10  DAT64C PICTURE XX.
01  DAT7C.
    10  DAT71C PICTURE XX.
    10  DAT72C PICTURE XX.
    10  DAT73C PICTURE XX.
    10  DAT74C PICTURE XX.
01  DAT8C.

```

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```
10 DAT81C PICTURE XX. DO0030
10 DAT8S1C PICTURE X VALUE "/". DO0030
10 DAT82C PICTURE XX. DO0030
10 DAT8S2C PICTURE X VALUE "/". DO0030
10 DAT83C PICTURE XX. DO0030
10 DAT84C PICTURE XX. DO0030
01 DAT8G. DO0030
10 DAT81G PICTURE XX. DO0030
10 DAT82G PICTURE XX. DO0030
10 DAT8S1G PICTURE X VALUE "-". DO0030
10 DAT83G PICTURE XX. DO0030
10 DAT8S2G PICTURE X VALUE "-". DO0030
10 DAT84G PICTURE XX. DO0030
01 TIMCO. DO0030
02 TIMCOG. DO0030
05 TIMCOH PICTURE XX. DO0030
05 TIMCOM PICTURE XX. DO0030
05 TIMCOS PICTURE XX. DO0030
02 TIMCOC PICTURE XX. DO0030
01 TIMDAY. DO0030
05 TIMHOU PICTURE XX. DO0030
05 TIMS1 PICTURE X VALUE ":". DO0030
05 TIMMIN PICTURE XX. DO0030
05 TIMS2 PICTURE X VALUE ":". DO0030
05 TIMSEC PICTURE XX. DO0030
01 CONFIGURATIONS. DO0030
05 CD05-CF PICTURE X. DO0030
05 CD20-CF PICTURE X. DO0030
05 CD10-CF PICTURE X. DO0030
05 FO10-CF PICTURE X. DO0030
05 ME00-CF PICTURE X. DO0030
01 STATUS-AREA. DO0030
05 1-EM00-STATUS PICTURE XX VALUE ZERO. DO0030
05 1-HE00-STATUS PICTURE XX VALUE ZERO. DO0030
```

### 5.3. SCREEN MAP DESCRIPTION

#### SCREEN MAP DESCRIPTION

The MAP is described after the 'CONFIGURATIONS' level in the WORKING-STORAGE SECTION. This part of the program includes the descriptions of labels and variable fields, which are separated by the tabulation.

The MAP is described in native language.

The screen fields are coded according to the following rules ('scrn' = last four characters of screen code):

.I-scrn	Screen in reception.
.O-scrn	Screen in display.
.I-scrn-MATE	Alphanumeric reception field.
.E-scrn-REMIS	Alphanumeric definition of an I-scrn-REMIS field, which is numeric in reception.
.F-0030-QTMAC	Alphanumeric definition of an O-0030-QTMAC field, which is numeric in display.

The data element defining the repetitive category is coded as follows in the screen map description:

.J-0030-LINE	OCCURS 9 in reception,
.P-0030-LINE	OCCURS 9 in display,

containing a FILLER.

The description of the fields of the data element which defines the repetitive category is generated outside the screen description.

This description is made up of a 'FILLER' field which is filled in with each occurrence of the category. It is used to execute the procedures for each of the elementary data elements.

It is generated according to the same rules as above. For example:

.I-0030-LINE used for procedures in reception,

containing,

.I-0030-FOURNI

.E-0030-QTMAC

etc.

.O-0030-LINE used for procedures in display,

containing,

.O-0030-FOURNI

.O-0030-QTMAC

An ordinary repetitive data element (which does not define a repetitive category) is described directly in the screen description in the following form:

.05 FILLER OCCURS 2.  
.10 I-scrn-LREF1 in reception

.05 FILLER OCCURS 2.  
.10 O-scrn-LREF1 in display

In this case, the procedures for each occurrence of the data element are not generated and are to be inserted by the user via Structured Code (validations, transfers, etc.).

The formats used in the generated programs correspond to the following rules:

DATA ELEMENT WITH NATURE 'P'

Reception screen or display screen:

- . The format is the internal format of the data element.

DATA ELEMENT WITH NATURE 'V'

Reception screen:

- . The format is the internal format of the data element.

Display screen:

- . For alphanumeric data elements, it is the internal format of the data element,
- . For numeric data elements, it is a print format built from the internal format, with replacement of non-significant leading zeros by spaces.

DATA ELEMENT WITH A CONVERSATIONAL FORMAT

(See the SPECIFICATIONS DICTIONARY Reference Manual, Chapter "DATA ELEMENTS", Subchapter "DESCRIPTION SCREEN (-D)").

Reception screen:

- . The internal format is constructed from the conversational format entered on the Data Element Description screen.

EXAMPLE:            -conversational format:            ZZZ99.99  
                      -constructed internal format: 9(5)V9(2)

Display screen:

- . The format is the conversational format of the element entered on the Data Element Description screen.

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01      0030-MESSO.                                *AA040
02      0030-MESS01.                               *AA040
05      FILLER PICTURE XXX VALUE "28,079,13".     *AA040
05      FILLER PICTURE XXX VALUE "20,033,035".     *AA040
05      FILLER PICTURE X VALUE "29".             *AA040
05      FILLER PICTURE X VALUE SPACE.            *AA040
05      S01004 PICTURE X(008) VALUE SPACE.        *AA040
05      FILLER PICTURE XXX VALUE "20,033,044".     *AA040
05      FILLER PICTURE X VALUE SPACE.            *AA040
05      FILLER PICTURE X(001) VALUE              *AA040
        "-".                                       *AA040
05      FILLER PICTURE XXX VALUE "20,033,046".     *AA040
05      FILLER PICTURE X VALUE SPACE.            *AA040
05      S01015 PICTURE X(005) VALUE SPACE.        *AA040
05      FILLER PICTURE XXX VALUE "20,033,056".     *AA040
05      FILLER PICTURE X VALUE SPACE.            *AA040
05      FILLER PICTURE X(030) VALUE              *AA040
        "*** ORDER INPUT SCREEN *** ".         *AA040
05      FILLER PICTURE XXX VALUE "20,033,091".     *AA040
05      FILLER PICTURE X VALUE SPACE.            *AA040
05      S01060 PICTURE X(010) VALUE SPACE.        *AA040
05      FILLER PICTURE XXX VALUE "20,033,102".     *AA040
05      FILLER PICTURE X VALUE SPACE.            *AA040
05      S01071 PICTURE X(008) VALUE SPACE.        *AA040
05      FILLER PICTURE XXX VALUE "20,035,035".     *AA040
05      FILLER PICTURE X VALUE SPACE.            *AA040
05      FILLER PICTURE X(013) VALUE              *AA040
        "ORDER NUMBER:".                         *AA040
05      FILLER PICTURE XXX VALUE "20,035,049".     *AA040
05      FILLER PICTURE X VALUE SPACE.            *AA040
05      S03018 PICTURE X(005) VALUE SPACE.        *AA040
05      FILLER PICTURE XXX VALUE "20,035,057".     *AA040
05      FILLER PICTURE X VALUE SPACE.            *AA040
05      FILLER PICTURE X(007) VALUE              *AA040
        "SYSTEM:".                               *AA040
05      FILLER PICTURE XXX VALUE "20,035,065".     *AA040
05      FILLER PICTURE X VALUE SPACE.            *AA040
05      FILLER PICTURE XX VALUE "30,049".         *AA040
05      FILLER PICTURE XXX VALUE "20,035,074".     *AA040
05      FILLER PICTURE XX VALUE "29".            *AA040
05      FILLER PICTURE XXX VALUE "20,035,085".     *AA040
05      FILLER PICTURE X VALUE SPACE.            *AA040
05      FILLER PICTURE X(008) VALUE              *AA040
        "RELEASE:".                              *AA040
05      FILLER PICTURE XXX VALUE "20,035,094".     *AA040
05      FILLER PICTURE X VALUE SPACE.            *AA040
05      FILLER PICTURE XX VALUE "30,049".         *AA040
05      FILLER PICTURE XXX VALUE "20,035,098".     *AA040
05      FILLER PICTURE XX VALUE "29".            *AA040
05      FILLER PICTURE XXX VALUE "20,036,035".     *AA040
05      FILLER PICTURE X VALUE SPACE.            *AA040
05      FILLER PICTURE X(005) VALUE              *AA040
        "CUST.".                                 *AA040
05      FILLER PICTURE XXX VALUE "20,036,044".     *AA040
05      FILLER PICTURE X VALUE SPACE.            *AA040
05      S04013 PICTURE X(050) VALUE SPACE.        *AA040
05      FILLER PICTURE XXX VALUE "20,037,040".     *AA040
05      FILLER PICTURE X VALUE SPACE.            *AA040
05      FILLER PICTURE XX VALUE "30,049".         *AA040
05      FILLER PICTURE XXX VALUE "20,037,081".     *AA040
05      FILLER PICTURE XX VALUE "29".            *AA040
05      FILLER PICTURE XXX VALUE "20,037,083".     *AA040
05      FILLER PICTURE X VALUE SPACE.            *AA040
05      FILLER PICTURE XX VALUE "30,049".         *AA040
05      FILLER PICTURE XXX VALUE "20,037,089".     *AA040
05      FILLER PICTURE XX VALUE "29".            *AA040
05      FILLER PICTURE XXX VALUE "20,037,091".     *AA040
05      FILLER PICTURE X VALUE SPACE.            *AA040
05      FILLER PICTURE XX VALUE "30,049".         *AA040
05      FILLER PICTURE XXX VALUE "20,037,112".     *AA040
05      FILLER PICTURE XX VALUE "29".            *AA040
05      FILLER PICTURE XXX VALUE "20,038,035".     *AA040
05      FILLER PICTURE X VALUE SPACE.            *AA040
05      FILLER PICTURE X(011) VALUE              *AA040
        "CUST. REF.".                           *AA040
05      FILLER PICTURE XXX VALUE "20,038,047".     *AA040
05      FILLER PICTURE X VALUE SPACE.            *AA040

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05	FILLER	PICTURE XX	VALUE	"30,049"	*AA040
05	FILLER	PICTURE XXX	VALUE	"20,038,078"	*AA040
05	FILLER	PICTURE XX	VALUE	"29".	*AA040
05	FILLER	PICTURE XXX	VALUE	"20,038,080"	*AA040
05	FILLER	PICTURE X	VALUE	SPACE.	*AA040
05	FILLER	PICTURE X(011)	VALUE	"ORDER DATE: "	*AA040
05	FILLER	PICTURE XXX	VALUE	"20,038,092"	*AA040
05	FILLER	PICTURE X	VALUE	SPACE.	*AA040
05	FILLER	PICTURE XX	VALUE	"30,049"	*AA040
05	FILLER	PICTURE XXX	VALUE	"20,038,099"	*AA040
05	FILLER	PICTURE XX	VALUE	"29".	*AA040
05	FILLER	PICTURE XXX	VALUE	"20,039,036"	*AA040
05	FILLER	PICTURE X	VALUE	SPACE.	*AA040
05	FILLER	PICTURE X(012)	VALUE	"COORDINATOR: "	*AA040
05	FILLER	PICTURE XXX	VALUE	"20,039,049"	*AA040
05	FILLER	PICTURE X	VALUE	SPACE.	*AA040
05	FILLER	PICTURE XX	VALUE	"30,049"	*AA040
05	FILLER	PICTURE XXX	VALUE	"20,039,075"	*AA040
05	FILLER	PICTURE XX	VALUE	"29".	*AA040
05	FILLER	PICTURE XXX	VALUE	"20,039,077"	*AA040
05	FILLER	PICTURE X	VALUE	SPACE.	*AA040
05	FILLER	PICTURE X(014)	VALUE	"DISCOUNT RATE: "	*AA040
05	FILLER	PICTURE XXX	VALUE	"20,039,092"	*AA040
05	FILLER	PICTURE X	VALUE	SPACE.	*AA040
05	FILLER	PICTURE XX	VALUE	"30,049"	*AA040
05	FILLER	PICTURE XXX	VALUE	"20,039,101"	*AA040
05	FILLER	PICTURE XX	VALUE	"29".	*AA040
05	FILLER	PICTURE XXX	VALUE	"20,041,034"	*AA040
05	FILLER	PICTURE X	VALUE	SPACE.	*AA040
05	FILLER	PICTURE X(001)	VALUE	"A".	*AA040
05	FILLER	PICTURE XXX	VALUE	"20,041,038"	*AA040
05	FILLER	PICTURE X	VALUE	SPACE.	*AA040
05	FILLER	PICTURE X(006)	VALUE	"ITEM "	*AA040
05	FILLER	PICTURE XXX	VALUE	"20,041,047"	*AA040
05	FILLER	PICTURE X	VALUE	SPACE.	*AA040
05	FILLER	PICTURE X(008)	VALUE	"ORDERED "	*AA040
05	FILLER	PICTURE XXX	VALUE	"20,041,057"	*AA040
05	FILLER	PICTURE X	VALUE	SPACE.	*AA040
05	FILLER	PICTURE X(007)	VALUE	"DELIV. "	*AA040
05	FILLER	PICTURE XXX	VALUE	"20,041,066"	*AA040
05	FILLER	PICTURE X	VALUE	SPACE.	*AA040
05	FILLER	PICTURE X(006)	VALUE	"OUTST. "	*AA040
05	FILLER	PICTURE XXX	VALUE	"20,041,073"	*AA040
05	FILLER	PICTURE X	VALUE	SPACE.	*AA040
05	FILLER	PICTURE X(035)	VALUE	"REMARKS "	*AA040
05	FILLER	PICTURE XXX	VALUE	"20,042,034"	*AA040
05	FILLER	PICTURE X	VALUE	SPACE.	*AA040
05	FILLER	PICTURE XX	VALUE	"30,049"	*AA040
05	FILLER	PICTURE XXX	VALUE	"20,042,036"	*AA040
05	FILLER	PICTURE XX	VALUE	"29".	*AA040
05	FILLER	PICTURE XXX	VALUE	"20,042,038"	*AA040
05	FILLER	PICTURE X	VALUE	SPACE.	*AA040
05	FILLER	PICTURE XX	VALUE	"30,049"	*AA040
05	FILLER	PICTURE XXX	VALUE	"20,042,042"	*AA040
05	FILLER	PICTURE XX	VALUE	"29".	*AA040
05	FILLER	PICTURE XXX	VALUE	"20,042,047"	*AA040
05	FILLER	PICTURE X	VALUE	SPACE.	*AA040
05	FILLER	PICTURE XX	VALUE	"30,049"	*AA040
05	FILLER	PICTURE XXX	VALUE	"20,042,050"	*AA040
05	FILLER	PICTURE XX	VALUE	"29".	*AA040
05	FILLER	PICTURE XXX	VALUE	"20,042,057"	*AA040
05	FILLER	PICTURE X	VALUE	SPACE.	*AA040
05	FILLER	PICTURE XX	VALUE	"30,049"	*AA040
05	FILLER	PICTURE XXX	VALUE	"20,042,060"	*AA040
05	FILLER	PICTURE XX	VALUE	"29".	*AA040
05	FILLER	PICTURE XXX	VALUE	"20,042,066"	*AA040
05	FILLER	PICTURE X	VALUE	SPACE.	*AA040
05	FILLER	PICTURE XX	VALUE	"30,049"	*AA040







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05	FILLER	PICTURE XX	VALUE ""29".	*AA040
05	FILLER	PICTURE XXX	VALUE ""20,050,057"."	*AA040
05	FILLER	PICTURE X	VALUE SPACE.	*AA040
05	FILLER	PICTURE XX	VALUE ""30,049"."	*AA040
05	FILLER	PICTURE XXX	VALUE ""20,050,060"."	*AA040
05	FILLER	PICTURE XX	VALUE ""29".	*AA040
05	FILLER	PICTURE XXX	VALUE ""20,050,066"."	*AA040
05	FILLER	PICTURE X	VALUE SPACE.	*AA040
05	FILLER	PICTURE XX	VALUE ""30,049"."	*AA040
05	FILLER	PICTURE XXX	VALUE ""20,050,069"."	*AA040
05	FILLER	PICTURE XX	VALUE ""29".	*AA040
05	FILLER	PICTURE XXX	VALUE ""20,050,073"."	*AA040
05	FILLER	PICTURE X	VALUE SPACE.	*AA040
05	FILLER	PICTURE XX	VALUE ""30,049"."	*AA040
05	FILLER	PICTURE XXX	VALUE ""20,050,109"."	*AA040
05	FILLER	PICTURE XX	VALUE ""29".	*AA040
05	FILLER	PICTURE XXX	VALUE ""20,052,033"."	*AA040
05	FILLER	PICTURE X	VALUE SPACE.	*AA040
05	FILLER	PICTURE X(019)	VALUE	*AA040
			"PRINTING OF FORM :".	*AA040
05	FILLER	PICTURE XXX	VALUE ""20,052,053"."	*AA040
05	FILLER	PICTURE X	VALUE SPACE.	*AA040
05	FILLER	PICTURE XX	VALUE ""30,049"."	*AA040
05	FILLER	PICTURE XXX	VALUE ""20,052,055"."	*AA040
05	FILLER	PICTURE XX	VALUE ""29".	*AA040
05	FILLER	PICTURE XXX	VALUE ""20,052,056"."	*AA040
05	FILLER	PICTURE X	VALUE SPACE.	*AA040
05	FILLER	PICTURE X(007)	VALUE	*AA040
			"CHOICE:".	*AA040
05	FILLER	PICTURE XXX	VALUE ""20,052,064"."	*AA040
05	FILLER	PICTURE X	VALUE SPACE.	*AA040
05	FILLER	PICTURE XX	VALUE ""30,049"."	*AA040
05	FILLER	PICTURE XXX	VALUE ""20,052,066"."	*AA040
05	FILLER	PICTURE XX	VALUE ""29".	*AA040
05	FILLER	PICTURE XXX	VALUE ""20,052,067"."	*AA040
05	FILLER	PICTURE X(010)	VALUE	*AA040
			"UPD : '7',".	*AA040
05	FILLER	PICTURE XXX	VALUE ""20,052,077"."	*AA040
05	FILLER	PICTURE X	VALUE SPACE.	*AA040
05	FILLER	PICTURE X(020)	VALUE	*AA040
			"ORDERS (NEXT) : '8',".	*AA040
05	FILLER	PICTURE XXX	VALUE ""20,053,033"."	*AA040
05	FILLER	PICTURE X	VALUE SPACE.	*AA040
05	FILLER	PICTURE X(027)	VALUE	*AA040
			"MENU : '1', CUSTOMER LIST :".	*AA040
05	FILLER	PICTURE XXX	VALUE ""20,053,061"."	*AA040
05	FILLER	PICTURE X	VALUE SPACE.	*AA040
05	FILLER	PICTURE X(022)	VALUE	*AA040
			"'2', CUST. HIST : '3',".	*AA040
05	FILLER	PICTURE XXX	VALUE ""20,053,084"."	*AA040
05	FILLER	PICTURE X	VALUE SPACE.	*AA040
05	FILLER	PICTURE X(017)	VALUE	*AA040
			"ORDER LIST : '4',".	*AA040
05	FILLER	PICTURE XXX	VALUE ""20,054,033"."	*AA040
05	FILLER	PICTURE X	VALUE SPACE.	*AA040
05	FILLER	PICTURE X(017)	VALUE	*AA040
			"SCREEN DOC : '=',".	*AA040
05	FILLER	PICTURE XXX	VALUE ""20,054,051"."	*AA040
05	FILLER	PICTURE X	VALUE SPACE.	*AA040
05	FILLER	PICTURE X(018)	VALUE	*AA040
			"DATA EL. DOC : '\$'".	*AA040
05	FILLER	PICTURE XXX	VALUE ""20,055,033"."	*AA040
05	FILLER	PICTURE X	VALUE SPACE.	*AA040
05	S23002	PICTURE X(075)	VALUE SPACE.	*AA040
05	FILLER	PICTURE XXX	VALUE ""20,056,033"."	*AA040
05	FILLER	PICTURE X	VALUE SPACE.	*AA040
05	S24002	PICTURE X(072)	VALUE SPACE.	*AA040
02	0030-MESSO4	REDEFINES	0030-MESSO1.	*AA040
03	0030-CX	PICTURE X	OCCURS 1415.	*AA040
02	0030-MESSV.			*AA040
03	FILLER	PICTURE XXX	VALUE ""28,078,13"."	*AA040



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05	S14042	PICTURE X(035)	VALUE SPACE.	*AA040
05	FILLER	PICTURE X	VALUE "10".	*AA040
05	S15003	PICTURE X(001)	VALUE SPACE.	*AA040
05	FILLER	PICTURE X	VALUE "10".	*AA040
05	S15007	PICTURE X(003)	VALUE SPACE.	*AA040
05	FILLER	PICTURE X	VALUE "10".	*AA040
05	S15016	PICTURE X(002)	VALUE SPACE.	*AA040
05	FILLER	PICTURE X	VALUE "10".	*AA040
05	S15026	PICTURE X(002)	VALUE SPACE.	*AA040
05	FILLER	PICTURE X	VALUE "10".	*AA040
05	S15035	PICTURE X(002)	VALUE SPACE.	*AA040
05	FILLER	PICTURE X	VALUE "10".	*AA040
05	S15042	PICTURE X(035)	VALUE SPACE.	*AA040
05	FILLER	PICTURE X	VALUE "10".	*AA040
05	S16003	PICTURE X(001)	VALUE SPACE.	*AA040
05	FILLER	PICTURE X	VALUE "10".	*AA040
05	S16007	PICTURE X(003)	VALUE SPACE.	*AA040
05	FILLER	PICTURE X	VALUE "10".	*AA040
05	S16016	PICTURE X(002)	VALUE SPACE.	*AA040
05	FILLER	PICTURE X	VALUE "10".	*AA040
05	S16026	PICTURE X(002)	VALUE SPACE.	*AA040
05	FILLER	PICTURE X	VALUE "10".	*AA040
05	S16035	PICTURE X(002)	VALUE SPACE.	*AA040
05	FILLER	PICTURE X	VALUE "10".	*AA040
05	S16042	PICTURE X(035)	VALUE SPACE.	*AA040
05	FILLER	PICTURE X	VALUE "10".	*AA040
05	S17003	PICTURE X(001)	VALUE SPACE.	*AA040
05	FILLER	PICTURE X	VALUE "10".	*AA040
05	S17007	PICTURE X(003)	VALUE SPACE.	*AA040
05	FILLER	PICTURE X	VALUE "10".	*AA040
05	S17016	PICTURE X(002)	VALUE SPACE.	*AA040
05	FILLER	PICTURE X	VALUE "10".	*AA040
05	S17026	PICTURE X(002)	VALUE SPACE.	*AA040
05	FILLER	PICTURE X	VALUE "10".	*AA040
05	S17035	PICTURE X(002)	VALUE SPACE.	*AA040
05	FILLER	PICTURE X	VALUE "10".	*AA040
05	S17042	PICTURE X(035)	VALUE SPACE.	*AA040
05	FILLER	PICTURE X	VALUE "10".	*AA040
05	S18003	PICTURE X(001)	VALUE SPACE.	*AA040
05	FILLER	PICTURE X	VALUE "10".	*AA040
05	S18007	PICTURE X(003)	VALUE SPACE.	*AA040
05	FILLER	PICTURE X	VALUE "10".	*AA040
05	S18016	PICTURE X(002)	VALUE SPACE.	*AA040
05	FILLER	PICTURE X	VALUE "10".	*AA040
05	S18026	PICTURE X(002)	VALUE SPACE.	*AA040
05	FILLER	PICTURE X	VALUE "10".	*AA040
05	S18035	PICTURE X(002)	VALUE SPACE.	*AA040
05	FILLER	PICTURE X	VALUE "10".	*AA040
05	S18042	PICTURE X(035)	VALUE SPACE.	*AA040
05	FILLER	PICTURE X	VALUE "10".	*AA040
05	S20022	PICTURE X(001)	VALUE SPACE.	*AA040
05	FILLER	PICTURE X	VALUE "10".	*AA040
05	S20033	PICTURE X(001)	VALUE SPACE.	*AA040
03	0030-MESS03	REDEFINES	0030-MESS02.	*AA040
05	0030-CP	PICTURE X	OCCURS 0616.	*AA040

#### 5.4. DESCRIPTION OF VALIDATION AREAS

##### DESCRIPTION OF VALIDATION AREAS

The validation processing part of the program is always generated in the WORKING-STORAGE SECTION. It includes all the work areas necessary for the generated validation processing.

##### NUMERIC FIELDS OF THE SCREEN

The 'NUMERIC-FIELDS' level is generated when the screen includes at least one variable Data Element.

Field '9-scrn-delco' (scrn = last 4 characters of the screen code) is generated for each numeric Data Element. It contains the breakdown of the Data Element's VALUE in 'seedd' where:

s = '' non-signed Data Element.

'+' signed Data Element.

ee = number of digits in the integer part of the Data Element.

dd = number of digits in the decimal part of the Data Element.



### ERROR MESSAGE

The 'ERROR-MESS' level, which corresponds to the description of the error message, is always generated and contains:

- . A table with the attributes of the variable fields (for the dynamic modification),
- . The error message,
- . Cursor positioning on the erroneous field.

### T-POSIT and 0030-MESSF

T-POSIT is a table which correlates the PACBASE error array and the position of the fields.

0030-MESSF is used for the dynamic positioning of the cursor in case of error.

### 0030-MPRIOR

This field contains the first transaction message.

### MESSAGE-LENGTH

This field describes the message (total length, length of fixed and variable fields, logoff message length, etc.).

### VALIDATION VARIABLES

The 'VALIDATION-TABLE-FIELDS' level is generated if there is at least one variable data element (NATURE = 'V') used on the screen.

DE-ERR : memorizes the presence and/or status of each Data Element of the screen.

A position in this table (coded ER-scrn-delco) is associated with each Data Element of the screen. This is generated at the '05' level ('scrn' = last four characters of the screen code).

Depending on the stages of validation, this position can be set to the following values:

- .0 Data Element absent.
- .1 Data Element present.
- .2 Invalid absence of data element.
- .4 Erroneous class.
- .5 Invalid content.

This table of error positions is structured according to the categories defined on the screen and the group data element in the following manner:

A group level for the Data Elements from the beginning of the screen is systematically generated in the form of:

ER-nn-BEGIN.

For a repetitive Data Element defining a repetitive area of the screen (data element on the screen with NATURE = 'R'), the generation of the error positions is as follows:

- .03 ES-scrn-LINE OCCURS 9.
- .05 FILLER PICTURE X(0004).

In this example:

LINE is the code of the Data Element with NATURE = 'R' (see above),  
9 is the number of repetitions,  
0004 is the number of Data Elements in the repetitive category.

After the table of errors, there is an area which will contain the error positions of the Data Elements from the repetitive category. This area is used to position the errors for each of these data elements, with each occurrence.

.02 ER-nn-LINE.

.05 ER-nn-CODMVT PICTURE X.

.05 ER-nn-FOURNI PICTURE X.

etc.

For a repetitive Data Element whose NATURE is other than 'R', the generation in the table of error positions does not provide the description of the sample item, but does provide the following:

.05 FILLER OCCURS 2.

.10 ER-nn-LREF1 PICTURE X.

A group level for the Data Elements from the screen-bottom category is generated using a Data Element whose NATURE = 'Z', which contains the error positions of Data Elements belonging to that category:

.03 ER-nn-END.

.05 ER-nn-EDIT PICTURE X.

etc.

### TT-DAT

The 'TT-DAT' level is generated if a variable Data Element (NATURE = 'V') contains a 'date' format. It is used in sub-function F8120-M for date formatting purposes.

### LEAP-YEAR

The 'LEAP-YEAR' level is generated if a variable Data Element (NATURE = 'V') contains a 'date' format (always generated with CICS). It is used in F81-ER to determine whether or not the year is a leap year.

### USERS-ERROR

The 'USERS-ERROR' level is always generated, and it contains:

XEMKY: Table position used to build the key, including:

'XPROGR' Name of the program or dialogue,  
'XERCD' Error number and type of error,

T-XEMKY: Table of errors, corresponding to the number of error messages on the screen (default value = 1).

## INDEXES

The 'INDEXES' level is always generated. It includes:

K01, K02, K03, K04

Indexes for automatic numeric class.

K50R, K50L, K50M

Indexes associated with the table of user errors (the value assigned to K50M directly relates to the number of vertical repetitions of Data Element 'ERMSG' in the screen description).

5-dd00-LTH

Length of longest Segment of the Data Structure (common part + specific part; 'dd' = code of the Data Structure).

5-ddss-LTH

Length of the Segment without the common part (not generated for the common part, 'dd00'; 'ddss' = code of the Segment).

5-ddss-LTHV

Length of the Data Structure Segment including the common part (not generated for the common part, 'dd00'; 'ddss' = code of the Segment).

LTH Calculation area used during access to files with a Table or VSAM ORGANIZATION.

KEYLTH

Calculation area of the key used during access to files with a VSAM ORGANIZATION.

5-scrn-LENGTH

Area containing the length of the communication area (scrn = last four char. of screen code).

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#### NUMERIC-VALIDATION-FIELDS

The 'NUMERIC-VALIDATION-FIELDS' level is generated if there is at least one variable numeric field on the screen. It contains the work areas necessary for analyzing and formatting numeric Data Elements on the screen (refer to subchapter "F81 : CALLED VALIDATION FUNCTIONS").

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## DESCRIPTION OF VALIDATION AREAS

4

01		NUMERIC-FIELDS.		*AA050
	05	9-0030-REMIS	PICTURE X(5) VALUE "+0402".	*AA050
	05	9-0030-QTMAC	PICTURE X(5) VALUE " 0200".	*AA050
	05	9-0030-QTMAL	PICTURE X(5) VALUE " 0200".	*AA050
	05	9-0030-QTMAR	PICTURE X(5) VALUE " 0200".	*AA050
01		ERROR-MESS.		*AA060
	02	ERROR-MESS01.		*AA060
	05	FILLER	PICTURE XX VALUE "28,079".	*AA060
	05	X-ERMSBLANC.		*AA060
	10	FILLER	PICTURE XXX VALUE "20,056,034".	*AA060
	10	FILLER	PICTURE X(072) VALUE SPACE.	*AA060
	05	X-ERMS.		*AA060
	10	FILLER	PICTURE XXX VALUE "20,056,034".	*AA060
	10	FILLER	PICTURE X(072).	*AA060
	05	X-ERMS1	REDEFINES X-ERMS.	*AA060
	10	X-ERMS2	OCCURS 01.	*AA060
	15	FILLER	PICTURE XXX.	*AA060
	15	O-0030-ERMSG	PICTURE X(072).	*AA060
01		T-POSIT.		*AA070
	05	X-ATT1.		*AA070
	10	FILLER	PICTURE 999 VALUE 065.	*AA070
	10	FILLER	PICTURE 999 VALUE 001.	*AA070
	10	FILLER	PICTURE 999 VALUE 002.	*AA070
	10	FILLER	PICTURE 999 VALUE 003.	*AA070
	10	FILLER	PICTURE 999 VALUE 004.	*AA070
	10	FILLER	PICTURE 999 VALUE 005.	*AA070
	10	FILLER	PICTURE 999 VALUE 006.	*AA070
	10	FILLER	PICTURE 999 VALUE 007.	*AA070
	10	FILLER	PICTURE 999 VALUE 008.	*AA070
	10	FILLER	PICTURE 999 VALUE 009.	*AA070
	10	FILLER	PICTURE 999 VALUE 010.	*AA070
	10	FILLER	PICTURE 999 VALUE 011.	*AA070
	10	FILLER	PICTURE 999 VALUE 012.	*AA070
	10	FILLER	PICTURE 999 VALUE 013.	*AA070
	10	FILLER	PICTURE 999 VALUE 014.	*AA070
	10	FILLER	PICTURE 999 VALUE 015.	*AA070
	10	FILLER	PICTURE 999 VALUE 016.	*AA070
	10	FILLER	PICTURE 999 VALUE 017.	*AA070
	10	FILLER	PICTURE 999 VALUE 018.	*AA070
	10	FILLER	PICTURE 999 VALUE 019.	*AA070
	10	FILLER	PICTURE 999 VALUE 020.	*AA070
	10	FILLER	PICTURE 999 VALUE 021.	*AA070
	10	FILLER	PICTURE 999 VALUE 022.	*AA070
	10	FILLER	PICTURE 999 VALUE 023.	*AA070
	10	FILLER	PICTURE 999 VALUE 024.	*AA070
	10	FILLER	PICTURE 999 VALUE 025.	*AA070
	10	FILLER	PICTURE 999 VALUE 026.	*AA070
	10	FILLER	PICTURE 999 VALUE 027.	*AA070
	10	FILLER	PICTURE 999 VALUE 028.	*AA070
	10	FILLER	PICTURE 999 VALUE 029.	*AA070
	10	FILLER	PICTURE 999 VALUE 030.	*AA070
	10	FILLER	PICTURE 999 VALUE 031.	*AA070
	10	FILLER	PICTURE 999 VALUE 032.	*AA070
	10	FILLER	PICTURE 999 VALUE 033.	*AA070
	10	FILLER	PICTURE 999 VALUE 034.	*AA070
	10	FILLER	PICTURE 999 VALUE 035.	*AA070
	10	FILLER	PICTURE 999 VALUE 036.	*AA070
	10	FILLER	PICTURE 999 VALUE 037.	*AA070
	10	FILLER	PICTURE 999 VALUE 038.	*AA070
	10	FILLER	PICTURE 999 VALUE 039.	*AA070
	10	FILLER	PICTURE 999 VALUE 040.	*AA070
	10	FILLER	PICTURE 999 VALUE 041.	*AA070
	10	FILLER	PICTURE 999 VALUE 042.	*AA070
	10	FILLER	PICTURE 999 VALUE 043.	*AA070
	10	FILLER	PICTURE 999 VALUE 044.	*AA070
	10	FILLER	PICTURE 999 VALUE 045.	*AA070
	10	FILLER	PICTURE 999 VALUE 046.	*AA070
	10	FILLER	PICTURE 999 VALUE 047.	*AA070
	10	FILLER	PICTURE 999 VALUE 048.	*AA070
	10	FILLER	PICTURE 999 VALUE 049.	*AA070
	10	FILLER	PICTURE 999 VALUE 050.	*AA070
	10	FILLER	PICTURE 999 VALUE 051.	*AA070
	10	FILLER	PICTURE 999 VALUE 052.	*AA070
	10	FILLER	PICTURE 999 VALUE 053.	*AA070
	10	FILLER	PICTURE 999 VALUE 054.	*AA070
	10	FILLER	PICTURE 999 VALUE 055.	*AA070
	10	FILLER	PICTURE 999 VALUE 056.	*AA070





## VIP GENERATED PROGRAM

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## DESCRIPTION OF VALIDATION AREAS

4

01	0030-MPRIOR	PICTURE X(80).	*AA076
01	MESSAGE-LENGTH.		*AA100
05	0030-LENGTH	PICTURE 9(4) VALUE 2034.	*AA100
05	MESS-LENGF	PICTURE 9(4) VALUE 1415.	*AA100
05	0030-XLOMES	PICTURE 9(4) VALUE 0616.	*AA100
05	MESS-LENGV	PICTURE 9(4) VALUE 0619.	*AA100
05	0030-LMESSF	PICTURE 9(4) VALUE 0012.	*AA100
05	0030-XLOUT	PICTURE 9(4) VALUE 0003.	*AA100
05	ERROR-LENGTH	PICTURE 9(4) VALUE 0077.	*AA100
05	ERROR-LENGF	PICTURE 9(4) VALUE 0152.	*AA100

## VIP GENERATED PROGRAM

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## DESCRIPTION OF VALIDATION AREAS

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01	VALIDATION-TABLE-FIELDS.	*AA150
02	DE-ERR.	*AA150
05	DE-ER PICTURE X	*AA150
	OCCURS 065.	*AA150
02	DE-E REDEFINES DE-ERR.	*AA150
03	ER-0030-BEGIN.	*AA150
05	ER-0030-CHOIX PICTURE X.	*AA150
05	ER-0030-MATE PICTURE X.	*AA150
05	ER-0030-RELEA PICTURE X.	*AA150
05	ER-0030-RUE PICTURE X.	*AA150
05	ER-0030-COPOS PICTURE X.	*AA150
05	ER-0030-VILLE PICTURE X.	*AA150
05	ER-0030-REFCLI PICTURE X.	*AA150
05	ER-0030-DATE PICTURE X.	*AA150
05	ER-0030-CORRES PICTURE X.	*AA150
05	ER-0030-REMIS PICTURE X.	*AA150
03	PS-30-LINE OCCURS 9.	*AA150
05	FILLER PICTURE X(0006).	*AA150
03	ER-0030-END.	*AA150
05	ER-0030-EDIT PICTURE X.	*AA150
02	ER-0030-LINE.	*AA150
05	ER-0030-CODMVT PICTURE X.	*AA150
05	ER-0030-FOURNI PICTURE X.	*AA150
05	ER-0030-QTMAL PICTURE X.	*AA150
05	ER-0030-QTMAR PICTURE X.	*AA150
05	ER-0030-INFOR PICTURE X.	*AA150
01	TT-DAT.	*AA200
05	T-DAT PICTURE X OCCURS 5.	*AA200
01	LEAP-YEAR.	*AA200
05	LEAP-FLAG PICTURE X.	*AA200
05	LEAP-REM PICTURE 99.	*AA200
01	USERS-ERROR.	*AA200
05	XEMKY.	*AA200
	10 XPROGR PICTURE X(6).	*AA200
	10 XERCD PICTURE X(4).	*AA200
05	T-XEMKY OCCURS 01.	*AA200
	10 T-XPROGR PICTURE X(6).	*AA200
	10 T-XERCD PICTURE X(4).	*AA200
01	PACBASE-INDEXES COMPUTATIONAL-6.	*AA200
05	TALLY PICTURE S9(4) VALUE ZERO.	*AA200
05	K01 PICTURE S9(4).	*AA200
05	K02 PICTURE S9(4).	*AA200
05	K03 PICTURE S9(4).	*AA200
05	K04 PICTURE S9(4).	*AA200
05	K50R PICTURE S9(4) VALUE ZERO.	*AA200
05	K50L PICTURE S9(4) VALUE ZERO.	*AA200
05	K50M PICTURE S9(4)	*AA200
	VALUE +01.	*AA200
05	IWP20L PICTURE S9(4) VALUE ZERO.	*AA200
05	IWP20R PICTURE S9(4) VALUE ZERO.	*AA200
05	IWP20M PICTURE S9(4) VALUE +0009.	*AA200
05	5-CD05-LTH PICTURE S9(4) VALUE +0157.	*AA200
05	5-CA00-LTH PICTURE S9(4) VALUE +0147.	*AA200
05	5-CD05-LTHV PICTURE S9(4) VALUE +0157.	*AA200
05	5-CD10-LTH PICTURE S9(4) VALUE +0139.	*AA200
05	5-CD10-LTHV PICTURE S9(4) VALUE +0139.	*AA200
05	5-CD20-LTH PICTURE S9(4) VALUE +0001.	*AA200
05	5-CD20-LTHV PICTURE S9(4) VALUE +0001.	*AA200
05	5-FO10-LTH PICTURE S9(4) VALUE +0057.	*AA200
05	5-FO10-LTHV PICTURE S9(4) VALUE +0057.	*AA200
05	5-ME00-LTH PICTURE S9(4) VALUE +0082.	*AA200
05	LTH PICTURE S9(4) VALUE ZERO.	*AA200
05	5-0030-LENGTH PICTURE S9(4)	*AA200
	VALUE +0880.	*AA200
01	NUMERIC-VALIDATION-FIELDS.	*AA200
05	ZONUM1.	*AA200
	10 C1 PICTURE X OCCURS 27.	*AA200
05	ZONUM2.	*AA200
	10 C2 OCCURS 18.	*AA200
	15 C29 PICTURE S9.	*AA200
05	ZONUM9 REDEFINES ZONUM2 PICTURE 9(18).	*AA200
05	NUMPIC.	*AA200
	10 SIGNE PICTURE X.	*AA200
	10 NBCHA PICTURE 99.	*AA200
	10 NBCHP PICTURE 99.	*AA200
05	C9 PICTURE S9.	*AA200

VIP GENERATED PROGRAM  
DESCRIPTION OF VALIDATION AREAS

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05 C91	PICTURE X.	*AA200
05 TPOINT	PICTURE X.	*AA200
05 ZONUM3.		*AA200
10 C3	PICTURE X OCCURS 18.	*AA200
05 ZONUM4	REDEFINES ZONUM3 PICTURE 9(18).	*AA200
05 ZONUM5	PICTURE S99 VALUE -10.	*AA200
05 ZONUM6	REDEFINES ZONUM5.	*AA200
10 FILLER	PICTURE X.	*AA200
10 C4	PICTURE X.	*AA200

## 5.5. *F01 : INITIALIZATIONS*

### F01 : INITIALIZATIONS

The INITIALIZATIONS (F01) function is always generated.

It initializes the work areas.

It ensures, in the first program of the dialogue (PRIOR-TPR), the first RECEIVE in an 80-position field.

This function triggers the procedure to be executed in case of error.

It ensures the branching to the physical display function after consultation of HELP documentation (if a documentation HELP character is entered on the Screen Definition screen).

VIP GENERATED PROGRAM  
 F01 : INITIALIZATIONS

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 5

*****	DO0030
*	DO0030
* INITIALIZATIONS	DO0030
*	DO0030
*****	DO0030
F01. EXIT.	DO0030
F0101.	DO0030
OPEN INPUT EM-FILE.	DO0030
OPEN I-O HE-FILE.	DO0030
OPEN INPUT ME-FILE.	DO0030
F0101-FN. EXIT.	DO0030
F0110.	DO0030
ACCEPT TIMCO FROM TIME.	DO0030
ACCEPT DATOR FROM DATE.	DO0030
MOVE ZERO TO CATX FT K50L.	DO0030
MOVE "1" TO ICF OCF SCR-ER.	DO0030
MOVE ZERO TO VALIDATION-TABLE-FIELDS.	DO0030
MOVE ZERO TO 7-CD01-XMSTA 7-CD02-XMSTA.	DO0030
MOVE SPACE TO CATM OPER OPERD CAT-ER.	DO0030
MOVE SPACE TO TABLE-OF-ATTRIBUTES.	DO0030
MOVE ZERO TO CONFIGURATIONS.	DO0030
MOVE ZERO TO USERS-ERROR.	DO0030
IF PROGR NOT = K-S0030-PROGR	DO0030
MOVE ZERO TO ICF.	DO0030
IF PRIOR-TPR = LOW-VALUE MOVE ZERO TO ICF	DO0030
K-S0030-DOC	DO0030
RECEIVE 7-CD01 MESSAGE INTO 0030-MPRIOR	DO0030
NO DATA MOVE "1" TO IK.	DO0030
IF PRIOR-TPR = LOW-VALUE	DO0030
PERFORM F81ES THRU F81ES-FN	DO0030
MOVE 7-CD01-XTERM TO K-S0030-XTERM.	DO0030
MOVE SPACE TO O-0030.	DO0030
IF ICF = ZERO PERFORM F8115 THRU F8115-FN.	DO0030
MOVE K-S0030-XTERM TO HE00-XTERM.	DO0030
IF K-S0030-DOC = "2" OR K-S0030-DOC = "3"	DO0030
MOVE "1" TO K-S0030-DOC GO TO F8Z05.	DO0030
MOVE "X" TO DE-AT (4, 011).	DO0030
MOVE SPACE TO O-0030-ERMSG (01).	DO0030
MOVE SPACE TO O-0030-ERMSG1 (01).	DO0030
F0110-FN. EXIT.	DO0030
F0160.	DO0030
IF ICF = ZERO MOVE "A" TO OPER	DO0030
GO TO F3999-ITER-FT.	DO0030
F0160-FN. EXIT.	DO0030
F01-FN. EXIT.	DO0030
-----+	P000
LEVEL 10 I INIT. NUMBER OF LOADED ITEMS I	P000
-----+	P000
F02CP.	P000
MOVE IWP20M TO IWP20L.	P100
F02CP-FN. EXIT.	P000

## 5.6. F05 : RECEPTION

### F05 : RECEPTION

The RECEPTION (F05) function contains the conditions for all of the procedures which have to do with the 'RECEPTION' part of the program: from F05 to END-OF-RECEPTION (F45-FN).

The automatic functions in this part of the program are generated if there is at least one variable data element (NATURE = 'V') defined on the screen.

The F0510 sub-function contains the 'SCREEN RECEPTION' procedure, which is actually processed by the F81RE sub-function. The F81RE sub-function is called by a PERFORM, which facilitates any necessary modifications.

If an initialization character has been specified on the Screen Definition screen, it will be replaced by blanks (except when a branch to a "HELP" screen is executed).

The F0512 sub-function is generated if a documentation call has been entered on the Screen Definition screen. It initializes the fields that are necessary for branching to the "HELP" screen.

The F0520 sub-function is generated if a variable data element from the screen, or a special PFKEY data element, is defined as an Operation Code on the Screen Call of Elements.

The internal Operation Code 'OPER' is set according to the:

- Value of the screen data element defined as an Operation Code (values specified with TYPE OF LINE = 'O' on the Data Element Description (-D) screen;
- Value of the PFKEY data element (entered on the Screen Call of Elements (-CE)).

If an error is found in the value of the Operation Code, subsequent 'reception' procedures are not executed.

VIP GENERATED PROGRAM  
 F05 : RECEPTION

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```

*****
*                                     *
*   RECEPTION                         *
*                                     *
*****
F05.  IF ICF = ZERO GO TO END-OF-RECEPTION.
F0510.
      PERFORM F81RE THRU F81RE-FN.
      IF ICF = ZERO GO TO END-OF-RECEPTION.
      PERFORM F81ES THRU F81ES-FN.
      MOVE 7-CD01-XTERM TO K-S0030-XTERM.
      IF 0030-CA (7-CD01-XLOMES) NOT = 7-ETX
      ADD 1 TO 7-CD01-XLOMES.
      MOVE 7-HT TO 0030-CA (7-CD01-XLOMES).
      MOVE ZERO TO K01 K02.
F0510-A.
      ADD 1 TO K01. IF K01 > 7-CD01-XLOMES GO TO F0510-C.
F0510-B. ADD 1 TO K02.
      IF K02 > 0030-XLOMES GO TO F0510-C.
      IF 0030-CA (K01) = 7-HT AND
      0030-CP (K02) NOT = 7-HT
      MOVE SPACE TO 0030-CP (K02) GO TO F0510-B.
      IF 0030-CA (K01) = 7-HT GO TO F0510-A.
      IF 0030-CP (K02) = 7-HT MOVE ZERO TO ICF
      GO TO END-OF-RECEPTION.
      MOVE 0030-CA (K01) TO 0030-CP (K02)
      GO TO F0510-A.
F0510-C. PERFORM F8155 THRU F8155-FN.
      MOVE "A" TO OPER MOVE SPACE TO OPERD.
      PERFORM F8150 THRU F8150-FN.
      IF K-S0030-ERCOD = ZERO
      INSPECT I-0030 REPLACING ALL "-" BY SPACE.
F0510-FN. EXIT.
F0512. IF K-S0030-ERCOD NOT = ZERO
      NEXT SENTENCE ELSE GO TO F0512-FN.
      MOVE "2" TO K-S0030-DOC
      MOVE PROGE TO K-S0030-PROGE
      MOVE LIBRA TO K-S0030-LIBRA.
      IF K-S0030-ERCOD NOT = SPACE
      MOVE "3" TO K-S0030-DOC.
      MOVE K-S0030-XTERM TO HE00-XTERM
      PERFORM F80-HELP-R THRU F80-FN
      MOVE HE00-SCREEN TO O-0030
      PERFORM F8130 THRU F8130-FN
      MOVE O-0030 TO HE00-SCREEN
      PERFORM F80-HELP-RW THRU F80-FN
      MOVE PRDOC TO 5-0030-PROGE K-S0030-PROHE
      MOVE "O" TO OPER GO TO F4040.
F0512-FN. EXIT.
*****
*                                     *
*   VALIDATION OF OPERATION CODE     *
*                                     *
*****
F0520.
      IF I-0030-CHOIX = "1"
      MOVE "DO0000 " TO 5-0030-PROGE
      MOVE "O" TO OPER GO TO F40-A.
      IF I-0030-CHOIX = "2"
      MOVE "DO0010 " TO 5-0030-PROGE
      MOVE "O" TO OPER GO TO F40-A.
      IF I-0030-CHOIX = "3"
      MOVE "DO0020 " TO 5-0030-PROGE
      MOVE "O" TO OPER GO TO F40-A.
      IF I-0030-CHOIX = "4"
      MOVE "DO0040 " TO 5-0030-PROGE
      MOVE "O" TO OPER GO TO F40-A.
      IF I-0030-CHOIX = "5"
      MOVE "DO0050 " TO 5-0030-PROGE
      MOVE "O" TO OPER GO TO F40-A.
      IF I-0030-CHOIX = "0"
      MOVE "DO0070 " TO 5-0030-PROGE
      MOVE "O" TO OPER GO TO F40-A.
      IF I-0030-CHOIX = "7"
      MOVE "M" TO OPER GO TO F0520-900.
      IF I-0030-CHOIX = "8"
      MOVE "S" TO OPER GO TO F0520-900.

```

VIP GENERATED PROGRAM  
F05 : RECEPTION

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```
MOVE "5" TO ER-0030-CHOIX MOVE "4" TO SCR-ER DO0030
GO TO F3999-ITER-FT. DO0030
F0520-900. DO0030
IF OPER NOT = "A" AND OPER NOT = "M" AND OPER NOT = "O" DO0030
GO TO F3999-ITER-FT. DO0030
F0520-FN. EXIT. DO0030
F05-FN. EXIT. DO0030
+-----+
LEVEL 10 I NO UPDATE ==> END OF RECEIVE I P000
+-----+ P000
F08BB. IF OPER NOT = "M" P000
NEXT SENTENCE ELSE GO TO F08BB-FN. P000
GO TO F3999-ITER-FT. P100
F08BB-FN. EXIT. P000
```



## 5.7. F40 : END OF RECEPTION

### F40 : END-OF-RECEPTION

The END-OF-RECEPTION (F40) function contains the procedures for the end-of-reception processing of the program. It is executed as long as no errors have been found.

Within this function, there are four sub-functions which correspond to four procedures that are conditioned by the value of the Operation Code. Functions F4010, F4011, F4012 and F4020 are managed by Parameterized Macro-Structures. Examples of such P.M.S.'s are given in Chapter "P.M.S. CALLS").

#### MEMORIZATION OF KEYS (F4010)

This function is executed for a "display" or "update" operation. The keys to the segments with no preceding segment, or which are used in display, are given a value here.

#### NEXT PAGE (F4020)

This function is executed for a "screen continuation" operation. It contains the memorization of the first key for the display of the screen continuation, if the segment is used in the repetitive category.

#### END OF TRANSACTION (F4030)

This function is executed for an end-of-transaction operation.

#### TRANSFER TO ANOTHER SCREEN (F4040)

This function is executed for a transfer to another screen operation.

VIP GENERATED PROGRAM  
 F40 : END OF RECEPTION

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```

F40.          IF SCR-ER > "1"  MOVE "A" TO OPER GO TO F40-FN.          DO0030
F40-A.        IF OPERD NOT = SPACE  MOVE OPERD TO OPER.                DO0030
              +-----+
              I MEMORIZATION OF KEYS                                I          P000
              +-----+
F4010.        IF   OPER = "A" OR "M"                                P000
              NEXT SENTENCE ELSE GO TO   F4010-FN.                  P000
              MOVE      CA00-NUCOM TO K-ACD05-NUCOM.                 P105
              +-----+
              I REPETITIVE CATEGORY                                I          P000
              +-----+
F4011.        MOVE      J-0030-LINE (1) TO I-0030-LINE.              P001
              -----> ACCES DB-KEY                                  P305
F4011-FN.     EXIT.                                                 P000
              +-----+
              I END-OF-SCREEN                                    I          P000
              +-----+
F4012.        EXIT.                                                 P000
F4012-FN.     EXIT.                                                 P000
              +-----+
              I NEXT PAGE                                        I          P000
              +-----+
F4020.        IF   OPER = "S"                                P000
              NEXT SENTENCE ELSE GO TO   F4020-FN.                  P000
              SET K-RCD10-DBKEY (1)                                  P105
              SET K-RCD10-DBKEY (1)                                  P305
              TO K-RCD10-DBKEY (2).                                  P308
F4020-FN.     EXIT.                                                 P000
              *****
              *                                                     *
              *   END OF TRANSACTION                               *
              *                                                     *
              *****
              DO0030
F4030.        IF OPER NOT = "E" GO TO F4030-FN.                    DO0030
              MOVE K-S0030-XTERM TO HE00-XTERM                      DO0030
              PERFORM F80-HELP-D THRU F80-FN.                       DO0030
              MOVE      LOW-VALUE TO NEXT-TPR                      DO0030
              MOVE 1 TO 7-CD02-XNDEST                              DO0030
              MOVE K-S0030-XTERM TO 7-CD02-XTERM                    DO0030
              MOVE 3 TO 7-CD02-XLOMES                              DO0030
              SEND 7-CD02 FROM 0030-MESSO WITH EGI                 DO0030
              AFTER ADVANCING 0 LINES.                              DO0030
              PERFORM F81FR THRU F81FR-FN.                          DO0030
              PERFORM F81FI THRU F81FI-FN.                          DO0030
F4030-A.      EXIT PROGRAM.                                         DO0030
F4030-FN.     EXIT.                                                 DO0030
              *****
              *                                                     *
              *   TRANSFER TO ANOTHER SCREEN                       *
              *                                                     *
              *****
              DO0030
F4040.        IF OPER NOT = "O" GO TO F4040-FN.                    DO0030
              MOVE 5-0030-PROGE TO NEXT-TPR.                       DO0030
              PERFORM F81FI THRU F81FI-FN.                          DO0030
F4040-A.      EXIT PROGRAM.                                         DO0030
F4040-FN.     EXIT.                                                 DO0030
F40-FN.       EXIT.                                                 DO0030
END-OF-RECEPTION.      EXIT.                                         DO0030
  
```

## 5.8. *F8Z : DISPLAY AND END OF PROGRAM*

### F8Z : DISPLAY AND END OF PROGRAM

The DISPLAY AND END OF PROGRAM (F8Z) function is always generated.

Sub-function F8Z05 is generated if a call for HELP documentation is entered on the Screen Definition screen.

The Help function does not backup the fields entered before the HELP call.

In order to ensure such a backup, the user can describe a mono-record database in which all the fields of the screen will be stored. The access key of this database can be the terminal code.

Physical accesses to this database may be described in a macro-structure inserted in Function F8095 and which uses the labels F80-HELP-... .

Sub-function F8Z10 is executed through a PERFORM of sub- functions F81SE and F81SM.

Sub-function F8Z20 contains the end-of-program operation.

VIP GENERATED PROGRAM  
 F8Z : DISPLAY AND END OF PROGRAM

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```

F8Z.          EXIT.          DO0030
F8Z05.  IF SCR-ER = "1"      DO0030
      NEXT SENTENCE ELSE GO TO F8Z05-FN.  DO0030
      IF K-S0030-DOC NOT = "1"      GO TO F8Z05-A.  DO0030
      MOVE K-S0030-ERCOD9 TO K01 K02.  DO0030
      IF K02 > INR                DO0030
      COMPUTE K02 = K01 + (INR - INA) * (IRR - 1).  DO0030
      IF K02 < 1 OR K02 > INT MOVE 1 TO K02.  DO0030
      MOVE "X" TO DE-AT (4, K02)      DO0030
      PERFORM F7020 THRU F7020-FN.    DO0030
F8Z05-A.
      MOVE K-S0030-XTERM TO HE00-XTERM.  DO0030
      IF K-S0030-DOC = "1"            DO0030
      PERFORM F80-HELP-R THRU F80-FN  DO0030
      MOVE HE00-SCREEN TO O-0030      DO0030
      MOVE "0" TO K-S0030-DOC      GO TO F8Z05-FN.  DO0030
      IF K-S0030-DOC NOT = ZERO      GO TO F8Z05-FN.  DO0030
      PERFORM F80-HELP-R THRU F80-FN.  DO0030
      MOVE K-S0030-XTERM TO HE00-XTERM  DO0030
      MOVE O-0030 TO HE00-SCREEN.     DO0030
      IF IK = "1"                    DO0030
      PERFORM F80-HELP-W THRU F80-FN  ELSE  DO0030
      PERFORM F80-HELP-RW THRU F80-FN.  DO0030
F8Z05-FN.  EXIT.            DO0030
      *****                DO0030
      *                      *      DO0030
      * DISPLAY              *      DO0030
      *                      *      DO0030
      *****                DO0030
F8Z10.
      IF SCR-ER NOT > "1"            DO0030
      AND DE-AT (4, 011) = "X"      DO0030
      PERFORM F7020 THRU F7020-FN.  DO0030
      PERFORM F8145 THRU F8145-FN.  DO0030
      MOVE 1 TO 7-CD02-XNDEST        DO0030
      MOVE K-S0030-XTERM TO 7-CD02-XTERM.  DO0030
      IF SCR-ER NOT > "1"            DO0030
      MOVE PROGR TO K-S0030-PROGR    DO0030
      PERFORM F8140 THRU F8140-FN    DO0030
      PERFORM F81SE THRU F81SE-FN.   DO0030
      IF SCR-ER > "1"                DO0030
      OR K50L > ZERO                  DO0030
      PERFORM F81SM THRU F81SM-FN.   DO0030
      IF 7-SENDVAR = "1"             DO0030
      MOVE MESS-LENGV TO 7-CD02-XLOMES  DO0030
      SEND 7-CD02 FROM 0030-MESSV WITH EMI  DO0030
      AFTER ADVANCING 0 LINES PERFORM F81ES THRU F81ES-FN.  DO0030
      MOVE 0030-XLOUT TO 7-CD02-XLOMES  DO0030
      SEND 7-CD02 FROM 0030-MESSF WITH EGI  DO0030
      AFTER ADVANCING 0 LINES PERFORM F81ES THRU F81ES-FN.  DO0030
F8Z10-F.  EXIT.            DO0030
F8Z10-G.
      PERFORM F81FR THRU F81FR-FN.   DO0030
F8Z10-FN.  EXIT.            DO0030
      *****                DO0030
      *                      *      DO0030
      * END OF PROGRAM        *      DO0030
      *                      *      DO0030
      *****                DO0030
F8Z20.
      PERFORM F81FI THRU F81FI-FN.   DO0030
      MOVE PROGE TO NEXT-TPR.        DO0030
F8Z20-A.  EXIT PROGRAM.     DO0030
F8Z20-FN.  EXIT.            DO0030
F8Z-FN.   EXIT.            DO0030
  
```

## 5.9. F81 : PERFORMED VALIDATION FUNCTIONS

### F81 : PERFORMED VALIDATIONS FUNCTIONS

The PERFORMED VALIDATIONS FUNCTIONS (F81) are always generated.

F81ER contains the abnormal end routine.

F81ES is called by a 'PERFORM' in order to check the return code after each 'SEND' or 'RECEIVE'.

F81FI closes all the files used in the program.

F81FR frees the resources at the end of the conversation.

F81RE is called by a PERFORM at the beginning of the program. It ensures the reception of the message.

F81SE and F81SM

are called by a 'PERFORM' in the Screen Display procedure:  
F81SE sends the message if no error was found.  
F81SM sends the message if there is an error.

F81UT stores the user's errors.

F8110 is generated when there is a numeric field on the screen. It contains the procedures which format the field to be validated in the work area, the numeric class validation, and the positioning of error messages, if required.

F8115 ensures the initialization of the output variable fields. It is performed in Function F0510 if the ICF indicator is equal to '0'.

F8120 is generated if at least one variable data element ('V') has a date format, or if an 'AD'-type operator is specified on the Procedural Code (-P) lines of the program (in this case, the F8120-ER and F8120-KO functions are not generated).

It also contains date formatting and validations.

F8130 is generated if a call for HELP documentation is entered on the Screen Definition screen. It prepares the field to be saved in the backup file.

F8140 replaces blanks by another value so that the at-tribute affects the whole field even if it includes blanks.

F8145 transfers the message which has been formatted in the work areas (OUTPUT-SCREEN-FIELDS) to the fields used for display.

F8150 checks the first character of each input field to detect either of the two documentation Help characters (screen-level or field-level documentation).

F8155 transfers the message received into the work areas (INPUT-SCREEN-FIELDS).

## VIP GENERATED PROGRAM

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## F81 : PERFORMED VALIDATION FUNCTIONS

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```

F81.          EXIT.                                DO0030
          *****                                DO0030
          *                                     *                                DO0030
          * ABNORMAL END PROCEDURE             *                                DO0030
          *                                     *                                DO0030
          *****                                DO0030
F81ER.        DO0030
          CALL ".ABORT".                          DO0030
F81ER-FN.     EXIT.                                DO0030
F81ES.        DO0030
          IF 7-CD01-XMSTA NOT = ZERO              DO0030
          OR 7-CD02-XMSTA NOT = ZERO              DO0030
          PERFORM F81FI THRU F81FI-FN            DO0030
          CALL ".ABORT".                          DO0030
F81ES-FN.     EXIT.                                DO0030
F81FI.        DO0030
          CLOSE EM-FILE.                          DO0030
          CLOSE HE-FILE.                          DO0030
          CLOSE ME-FILE.                          DO0030
          CALL ".FNLCP".                          DO0030
          CALL ".DCKPF".                          DO0030
F81FI-FN.     EXIT.                                DO0030
F81FR.        DO0030
          CALL ".FREER" USING TP-STORAGE.         DO0030
F81FR-FN.     EXIT.                                DO0030
F81RE.        DO0030
          RECEIVE 7-CD01 MESSAGE INTO 0030-MESSI DO0030
          NO DATA MOVE SPACE TO 0030-MESSI      DO0030
          MOVE 7-CD01-XTERM TO K-S0030-XTERM     DO0030
          MOVE ZERO TO ICF.                       DO0030
F81RE-FN.     EXIT.                                DO0030
F81SE.        DO0030
          MOVE 0030-LMESSF TO 0030-XLOUT          DO0030
          MOVE MESS-LENGF TO 7-CD02-XLOMES        DO0030
          SEND 7-CD02 FROM 0030-MESSO1 WITH EMI   DO0030
          AFTER ADVANCING 0 LINES PERFORM F81ES THRU F81ES-FN. DO0030
F81SE-FN.     EXIT.                                DO0030
F81SM.        DO0030
          INSPECT O-0030-ERMSG (01) REPLACING ALL SPACE BY "19". DO0030
          MOVE ERROR-LENGF TO 7-CD02-XLOMES        DO0030
          SEND 7-CD02 FROM ERROR-MESSO1 WITH EMI  DO0030
          AFTER ADVANCING 0 LINES PERFORM F81ES THRU F81ES-FN. DO0030
F81SM-FN.     EXIT.                                DO0030
          *****                                DO0030
          *                                     *                                DO0030
          * MEMORIZATION OF USER'S ERRORS       *                                DO0030
          *                                     *                                DO0030
          *****                                DO0030
F81UT.        DO0030
          IF K50L < K50M ADD 1 TO K50L            DO0030
          MOVE XEMKY TO T-XEMKY (K50L). MOVE "E" TO CAT-ER. DO0030
F81UT-FN.     EXIT.                                DO0030
          *****                                DO0030
          *                                     *                                DO0030
          * NUMERIC VALIDATION                   *                                DO0030
          *                                     *                                DO0030
          *****                                DO0030
F8110.        DO0030
          MOVE ZERO TO TPOINT K01 K02 K03 ZONUM3 ZONUM2 DO0030
          C9 C91.                                  DO0030
F8110-1.      DO0030
          IF K01 > 26 OR K02 > 17 GO TO F8110-5.  DO0030
          ADD 1 TO K01.                             DO0030
          IF C1 (K01) = SPACE OR C1 (K01) = "." GO TO F8110-1. DO0030
          IF C1 (K01) NOT = "-" AND C1 (K01) NOT = "+" GO TO F8110-2. DO0030
          IF C9 NOT = ZERO                          DO0030
          MOVE "5" TO DEL-ER GO TO F8110-FN.        DO0030
          IF K02 = ZERO MOVE "1" TO C91.            DO0030
          IF C1 (K01) = "+" MOVE 1 TO C9 GO TO F8110-1. DO0030
          IF SIGNE = " " MOVE "5" TO DEL-ER GO TO F8110-FN. DO0030
          MOVE -1 TO C9 GO TO F8110-1.             DO0030
F8110-2.      DO0030
          IF C1 (K01) NOT = " " GO TO F8110-4.     DO0030
          IF TPOINT = "1" OR NBCHP = 0             DO0030
          MOVE "5" TO DEL-ER GO TO F8110-FN.        DO0030
F8110-3.      DO0030
          IF K02 > NBCHA MOVE "5" TO DEL-ER GO TO F8110-FN. DO0030
          COMPUTE K04 = 18 - NBCHA + K02 MOVE 1 TO C3 (K04) DO0030
          DIVIDE ZONUM4 INTO ZONUM9 MOVE NBCHA TO K02 DO0030
          MOVE "1" TO TPOINT GO TO F8110-1.        DO0030
F8110-4.      DO0030
          IF C1 (K01) NOT NUMERIC MOVE "4" TO DEL-ER DO0030
          GO TO F8110-FN.                           DO0030

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## VIP GENERATED PROGRAM

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## F81 : PERFORMED VALIDATION FUNCTIONS

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IF C9 NOT = ZERO AND C91 = ZERO                                DO0030
MOVE "5" TO DEL-ER GO TO F8110-FN.                            DO0030
IF C1 (K01) = "0" AND K02 = ZERO AND TPOINT = "0"            DO0030
GO TO F8110-1. ADD 1 TO K02 MOVE C1 (K01) TO C2 (K02).        DO0030
IF TPOINT = "1" ADD 1 TO K03. IF K03 > NBCHP MOVE "5"        DO0030
TO DEL-ER GO TO F8110-FN. GO TO F8110-1.                    DO0030
F8110-5. IF TPOINT = "0" AND K02 > ZERO GO TO F8110-3.        DO0030
IF SIGNE NOT = "+" GO TO F8110-FN.                            DO0030
IF C9 = ZERO MOVE 1 TO C9.                                    DO0030
ADD NBCHA NBCHP GIVING K01 MULTIPLY C9 BY C29 (K01).          DO0030
IF C29 (K01) = ZERO AND C9 = -1 MOVE C4 TO C2 (K01).          DO0030
F8110-FN. EXIT.                                               DO0030
F8115.                                                         DO0030
MOVE ALL "-"                                                  DO0030
TO O-0030-CHOIX.                                              DO0030
MOVE ALL "-"                                                  DO0030
TO O-0030-MATE.                                               DO0030
MOVE ALL "-"                                                  DO0030
TO O-0030-RELEA.                                              DO0030
MOVE ALL "-"                                                  DO0030
TO O-0030-RUE.                                                DO0030
MOVE ALL "-"                                                  DO0030
TO O-0030-COPOS.                                              DO0030
MOVE ALL "-"                                                  DO0030
TO O-0030-VILLE.                                              DO0030
MOVE ALL "-"                                                  DO0030
TO O-0030-REFCLI.                                             DO0030
MOVE "._____"                                                DO0030
TO O-0030-DATE.                                               DO0030
MOVE ALL "-"                                                  DO0030
TO O-0030-CORRES.                                             DO0030
MOVE ALL "-"                                                  DO0030
TO F-0030-REMIS.                                              DO0030
MOVE ZERO TO ICATR.                                           DO0030
F8115-GRP. ADD 1 TO ICATR                                       DO0030
MOVE P-0030-LINE (ICATR) TO O-0030-LINE                       DO0030
MOVE ALL "-"                                                  DO0030
TO O-0030-CODMVT.                                             DO0030
MOVE ALL "-"                                                  DO0030
TO O-0030-FOURNI.                                             DO0030
MOVE ALL "-"                                                  DO0030
TO F-0030-QTMAC.                                              DO0030
MOVE ALL "-"                                                  DO0030
TO F-0030-QTMAL.                                             DO0030
MOVE ALL "-"                                                  DO0030
TO F-0030-QTMAR.                                             DO0030
MOVE ALL "-"                                                  DO0030
TO O-0030-INFOR.                                             DO0030
MOVE O-0030-LINE TO P-0030-LINE (ICATR).                     DO0030
IF ICATR < IRR GO TO F8115-GRP.                               DO0030
MOVE ALL "-"                                                  DO0030
TO O-0030-EDIT.                                               DO0030
F8115-FN. EXIT.                                               DO0030
*****                                                         DO0030
*                                                               DO0030
* VALIDATION AND SETTING OF DATE *                             DO0030
*                                                               DO0030
*****                                                         DO0030
F8120. EXIT.                                                  DO0030
F8120-C. MOVE DAT73C TO DATCTY.                                DO0030
MOVE DAT71C TO DAT71.                                          DO0030
MOVE DAT72C TO DAT72.                                          DO0030
MOVE DAT74C TO DAT73.                                          DO0030
MOVE "00111" TO TT-DAT GO TO F8120-T.                         DO0030
F8120-D. MOVE CENTUR TO DATCTY DAT73C.                         DO0030
MOVE DAT71 TO DAT71C.                                          DO0030
MOVE DAT72 TO DAT72C.                                          DO0030
MOVE DAT73 TO DAT74C.                                          DO0030
MOVE "00111" TO TT-DAT GO TO F8120-T.                         DO0030
F8120-E. MOVE CENTUR TO DATCTY DAT83C.                         DO0030
MOVE DAT81 TO DAT81C.                                          DO0030
MOVE DAT82 TO DAT82C.                                          DO0030
MOVE DAT83 TO DAT84C MOVE DATSEP TO DAT8S1C DAT8S2C.         DO0030
MOVE "01011" TO TT-DAT GO TO F8120-T.                         DO0030
F8120-G. MOVE DAT81G TO DATCTY.                                DO0030
MOVE DAT82G TO DAT61.                                          DO0030
MOVE DAT83G TO DAT62.                                          DO0030

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## VIP GENERATED PROGRAM

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## F81 : PERFORMED VALIDATION FUNCTIONS

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MOVE DAT84G TO DAT63. DO0030
MOVE "10110" TO TT-DAT GO TO F8120-T. DO0030
F8120-I. MOVE CENTUR TO DATCTY DAT61C. DO0030
MOVE DAT61 TO DAT62C. DO0030
MOVE DAT62 TO DAT63C. DO0030
MOVE DAT63 TO DAT64C. DO0030
MOVE "10101" TO TT-DAT GO TO F8120-T. DO0030
F8120-M. MOVE DAT83C TO DATCTY. DO0030
MOVE DAT81C TO DAT81. DO0030
MOVE DAT82C TO DAT82. DO0030
MOVE DAT84C TO DAT83 MOVE DATSEP TO DAT8S1 DAT8S2. DO0030
MOVE "01011" TO TT-DAT GO TO F8120-T. DO0030
F8120-S. MOVE DAT61C TO DATCTY. DO0030
MOVE DAT62C TO DAT61. DO0030
MOVE DAT63C TO DAT62. DO0030
MOVE DAT64C TO DAT63. DO0030
MOVE "10101" TO TT-DAT. DO0030
F8120-T. IF T-DAT (1) = "1" DO0030
MOVE DAT61 TO DAT73 DAT74C DO0030
MOVE DAT62 TO DAT72 DAT72C DO0030
MOVE DAT63 TO DAT71 DAT71C DO0030
MOVE DATCTY TO DAT73C. DO0030
IF T-DAT (2) = "1" DO0030
MOVE DAT81 TO DAT71 DAT71C DO0030
MOVE DAT82 TO DAT72 DAT72C DO0030
MOVE DAT83 TO DAT73 DAT74C DO0030
MOVE DATCTY TO DAT73C. DO0030
IF T-DAT (3) = "1" DO0030
MOVE DAT71 TO DAT81 DAT81C DO0030
MOVE DAT72 TO DAT82 DAT82C DO0030
MOVE DAT73 TO DAT83 DAT84C DO0030
MOVE DATSEP TO DAT8S1 DAT8S2 DAT8S1C DAT8S2C DO0030
MOVE DATCTY TO DAT83C. DO0030
IF T-DAT (4) = "1" DO0030
MOVE DAT71 TO DAT63 DAT64C DO0030
MOVE DAT72 TO DAT62 DAT63C DO0030
MOVE DAT73 TO DAT61 DAT62C DO0030
MOVE DATCTY TO DAT61C. DO0030
IF T-DAT (5) = "1" DO0030
MOVE DAT61 TO DAT82G DO0030
MOVE DAT62 TO DAT83G DO0030
MOVE DAT63 TO DAT84G DO0030
MOVE DATSET TO DAT8S1G DAT8S2G DO0030
MOVE DATCTY TO DAT81G. DO0030
F8120-Z. EXIT. DO0030
F8120-ER. MOVE "1" TO DEL-ER. DO0030
IF DAT6 NOT NUMERIC GO TO F8120-KO. DO0030
IF DATCTY NOT NUMERIC GO TO F8120-KO. DO0030
IF DAT62 > "12" OR DAT62 = "00" OR DO0030
DAT63 > "31" OR DAT63 = "00" GO TO F8120-KO. DO0030
IF DAT63 > "30" AND DO0030
(DAT62 = "04" OR DAT62 = "06" OR DO0030
DAT62 = "09" OR DAT62 = "11") GO TO F8120-KO. DO0030
IF DAT62 NOT = "02" GO TO F8120-FN. DO0030
IF DAT63 > "29" GO TO F8120-KO. DO0030
IF DAT619 = ZERO DO0030
DIVIDE DATCTY9 BY 4 GIVING LEAP-REM DO0030
COMPUTE LEAP-REM = DATCTY9 - 4 * LEAP-REM DO0030
ELSE DIVIDE DAT619 BY 4 GIVING LEAP-REM DO0030
COMPUTE LEAP-REM = DAT619 - 4 * LEAP-REM. DO0030
IF DAT63 < "29" OR LEAP-REM = ZERO GO TO F8120-FN. DO0030
F8120-KO. MOVE "5" TO DEL-ER. DO0030
F8120-FN. EXIT. DO0030
***** DO0030
* DO0030
* HELP SUB-FUNCTION * DO0030
* DO0030
***** DO0030
F8130. DO0030
IF I-0030-CHOIX NOT = HIGH-VALUE DO0030
MOVE I-0030-CHOIX TO O-0030-CHOIX. DO0030
IF I-0030-MATE NOT = HIGH-VALUE DO0030
MOVE I-0030-MATE TO O-0030-MATE. DO0030
IF I-0030-RELEA NOT = HIGH-VALUE DO0030
MOVE I-0030-RELEA TO O-0030-RELEA. DO0030
IF I-0030-RUE NOT = HIGH-VALUE DO0030
MOVE I-0030-RUE TO O-0030-RUE. DO0030

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## VIP GENERATED PROGRAM

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## F81 : PERFORMED VALIDATION FUNCTIONS

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IF      I-0030-COPOS  NOT = HIGH-VALUE          DO0030
MOVE    I-0030-COPOS          TO O-0030-COPOS.   DO0030
IF      I-0030-VILLE  NOT = HIGH-VALUE          DO0030
MOVE    I-0030-VILLE          TO O-0030-VILLE.   DO0030
IF      I-0030-REFCLI NOT = HIGH-VALUE          DO0030
MOVE    I-0030-REFCLI         TO O-0030-REFCLI.   DO0030
IF      I-0030-DATE   NOT = HIGH-VALUE          DO0030
MOVE    I-0030-DATE           TO O-0030-DATE.    DO0030
IF      I-0030-CORRES NOT = HIGH-VALUE          DO0030
MOVE    I-0030-CORRES         TO O-0030-CORRES.   DO0030
IF      E-0030-REMIS  NOT = HIGH-VALUE          DO0030
MOVE    E-0030-REMIS          TO F-0030-REMIS.    DO0030
MOVE    ZERO TO ICATR.                DO0030
F8130-GRP.  ADD 1 TO ICATR                DO0030
MOVE    J-0030-LINE (ICATR) TO I-0030-LINE        DO0030
MOVE    P-0030-LINE (ICATR) TO O-0030-LINE        DO0030
IF      I-0030-CODMVT NOT = HIGH-VALUE          DO0030
MOVE    I-0030-CODMVT         TO O-0030-CODMVT.   DO0030
IF      I-0030-FOURNI NOT = HIGH-VALUE          DO0030
MOVE    I-0030-FOURNI         TO O-0030-FOURNI.   DO0030
IF      E-0030-QTMAC  NOT = HIGH-VALUE          DO0030
MOVE    E-0030-QTMAC          TO F-0030-QTMAC.    DO0030
IF      E-0030-QTMAL  NOT = HIGH-VALUE          DO0030
MOVE    E-0030-QTMAL          TO F-0030-QTMAL.    DO0030
IF      E-0030-QTMAR  NOT = HIGH-VALUE          DO0030
MOVE    E-0030-QTMAR          TO F-0030-QTMAR.    DO0030
IF      I-0030-INFOR  NOT = HIGH-VALUE          DO0030
MOVE    I-0030-INFOR          TO O-0030-INFOR.    DO0030
MOVE    O-0030-LINE          TO P-0030-LINE (ICATR). DO0030
IF ICATR < IRR GO TO F8130-GRP.                DO0030
IF      I-0030-EDIT   NOT = HIGH-VALUE          DO0030
MOVE    I-0030-EDIT         TO O-0030-EDIT.      DO0030
F8130-FN.  EXIT.                          DO0030
F8140.
MOVE 3 TO K01.                                DO0030
F8140-A.  ADD 1 TO K01.                        DO0030
IF K01 > MESS-LENGF                            DO0030
GO TO F8140-FN.                                DO0030
IF 0030-CX (K01) = "20"                        DO0030
ADD 3 TO K01 GO TO F8140-A.                      DO0030
IF 0030-CX (K01) = "028"                        DO0030
ADD 5 TO K01 GO TO F8140-A.                      DO0030
IF 0030-CX (K01) = SPACE                        DO0030
MOVE "19" TO 0030-CX (K01).                    DO0030
GO TO F8140-A.                                  DO0030
F8140-FN.  EXIT.                                DO0030
F8145.
MOVE T01004 TO S01004.                          DO0030
MOVE T01015 TO S01015.                          DO0030
MOVE T01060 TO S01060.                          DO0030
MOVE T01071 TO S01071.                          DO0030
MOVE T03018 TO S03018.                          DO0030
MOVE T03034 TO S03034.                          DO0030
MOVE T03063 TO S03063.                          DO0030
MOVE T04013 TO S04013.                          DO0030
MOVE T05009 TO S05009.                          DO0030
MOVE T05052 TO S05052.                          DO0030
MOVE T05060 TO S05060.                          DO0030
MOVE T06016 TO S06016.                          DO0030
MOVE T06061 TO S06061.                          DO0030
MOVE T07018 TO S07018.                          DO0030
MOVE T07061 TO S07061.                          DO0030
MOVE T10003 TO S10003.                          DO0030
MOVE T10007 TO S10007.                          DO0030
MOVE T10016 TO S10016.                          DO0030
MOVE T10026 TO S10026.                          DO0030
MOVE T10035 TO S10035.                          DO0030
MOVE T10042 TO S10042.                          DO0030
MOVE T11003 TO S11003.                          DO0030
MOVE T11007 TO S11007.                          DO0030
MOVE T11016 TO S11016.                          DO0030
MOVE T11026 TO S11026.                          DO0030
MOVE T11035 TO S11035.                          DO0030
MOVE T11042 TO S11042.                          DO0030
MOVE T12003 TO S12003.                          DO0030
MOVE T12007 TO S12007.                          DO0030
MOVE T12016 TO S12016.                          DO0030

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## VIP GENERATED PROGRAM

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## F81 : PERFORMED VALIDATION FUNCTIONS

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MOVE T12026 TO S12026. DO0030
MOVE T12035 TO S12035. DO0030
MOVE T12042 TO S12042. DO0030
MOVE T13003 TO S13003. DO0030
MOVE T13007 TO S13007. DO0030
MOVE T13016 TO S13016. DO0030
MOVE T13026 TO S13026. DO0030
MOVE T13035 TO S13035. DO0030
MOVE T13042 TO S13042. DO0030
MOVE T14003 TO S14003. DO0030
MOVE T14007 TO S14007. DO0030
MOVE T14016 TO S14016. DO0030
MOVE T14026 TO S14026. DO0030
MOVE T14035 TO S14035. DO0030
MOVE T14042 TO S14042. DO0030
MOVE T15003 TO S15003. DO0030
MOVE T15007 TO S15007. DO0030
MOVE T15016 TO S15016. DO0030
MOVE T15026 TO S15026. DO0030
MOVE T15035 TO S15035. DO0030
MOVE T15042 TO S15042. DO0030
MOVE T16003 TO S16003. DO0030
MOVE T16007 TO S16007. DO0030
MOVE T16016 TO S16016. DO0030
MOVE T16026 TO S16026. DO0030
MOVE T16035 TO S16035. DO0030
MOVE T16042 TO S16042. DO0030
MOVE T17003 TO S17003. DO0030
MOVE T17007 TO S17007. DO0030
MOVE T17016 TO S17016. DO0030
MOVE T17026 TO S17026. DO0030
MOVE T17035 TO S17035. DO0030
MOVE T17042 TO S17042. DO0030
MOVE T18003 TO S18003. DO0030
MOVE T18007 TO S18007. DO0030
MOVE T18016 TO S18016. DO0030
MOVE T18026 TO S18026. DO0030
MOVE T18035 TO S18035. DO0030
MOVE T18042 TO S18042. DO0030
MOVE T20022 TO S20022. DO0030
MOVE T20033 TO S20033. DO0030
MOVE T23002 TO S23002. DO0030
MOVE T24002 TO S24002. DO0030
F8145-FN. EXIT. DO0030
***** DO0030
* DO0030
* SEARCH FOR DOCUMENTATION REQUEST * DO0030
* DO0030
***** DO0030
F8150. DO0030
MOVE ZERO TO K-S0030-ERCOD. DO0030
IF I-0030-CHOIX = "$" DO0030
MOVE HIGH-VALUE TO I-0030-CHOIX DO0030
MOVE 001 TO K-S0030-ERCOD GO TO F8150-FN. DO0030
IF I-0030-CHOIX = "=" DO0030
MOVE HIGH-VALUE TO I-0030-CHOIX DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN. DO0030
IF I-0030-MATE = "$" DO0030
MOVE HIGH-VALUE TO I-0030-MATE DO0030
MOVE 002 TO K-S0030-ERCOD GO TO F8150-FN. DO0030
IF I-0030-MATE = "=" DO0030
MOVE HIGH-VALUE TO I-0030-MATE DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN. DO0030
IF I-0030-RELEA = "$" DO0030
MOVE HIGH-VALUE TO I-0030-RELEA DO0030
MOVE 003 TO K-S0030-ERCOD GO TO F8150-FN. DO0030
IF I-0030-RELEA = "=" DO0030
MOVE HIGH-VALUE TO I-0030-RELEA DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN. DO0030
IF I-0030-RUE = "$" DO0030
MOVE HIGH-VALUE TO I-0030-RUE DO0030
MOVE 004 TO K-S0030-ERCOD GO TO F8150-FN. DO0030
IF I-0030-RUE = "=" DO0030
MOVE HIGH-VALUE TO I-0030-RUE DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN. DO0030
IF I-0030-COPOS = "$" DO0030
MOVE HIGH-VALUE TO I-0030-COPOS DO0030

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## VIP GENERATED PROGRAM

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## F81 : PERFORMED VALIDATION FUNCTIONS

9

```

MOVE 005 TO K-S0030-ERCOD GO TO F8150-FN. DO0030
  IF I-0030-COPOS = "=" DO0030
    MOVE HIGH-VALUE TO I-0030-COPOS DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN. DO0030
  IF I-0030-VILLE = "$" DO0030
    MOVE HIGH-VALUE TO I-0030-VILLE DO0030
MOVE 006 TO K-S0030-ERCOD GO TO F8150-FN. DO0030
  IF I-0030-VILLE = "=" DO0030
    MOVE HIGH-VALUE TO I-0030-VILLE DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN. DO0030
  IF I-0030-REFCLI = "$" DO0030
    MOVE HIGH-VALUE TO I-0030-REFCLI DO0030
MOVE 007 TO K-S0030-ERCOD GO TO F8150-FN. DO0030
  IF I-0030-REFCLI = "=" DO0030
    MOVE HIGH-VALUE TO I-0030-REFCLI DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN. DO0030
  IF I-0030-DATE = "$" DO0030
    MOVE HIGH-VALUE TO I-0030-DATE DO0030
MOVE 008 TO K-S0030-ERCOD GO TO F8150-FN. DO0030
  IF I-0030-DATE = "=" DO0030
    MOVE HIGH-VALUE TO I-0030-DATE DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN. DO0030
  IF I-0030-CORRES = "$" DO0030
    MOVE HIGH-VALUE TO I-0030-CORRES DO0030
MOVE 009 TO K-S0030-ERCOD GO TO F8150-FN. DO0030
  IF I-0030-CORRES = "=" DO0030
    MOVE HIGH-VALUE TO I-0030-CORRES DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN. DO0030
  IF E-0030-REMIS = "$" DO0030
    MOVE HIGH-VALUE TO E-0030-REMIS DO0030
MOVE 010 TO K-S0030-ERCOD GO TO F8150-FN. DO0030
  IF E-0030-REMIS = "=" DO0030
    MOVE HIGH-VALUE TO E-0030-REMIS DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN. DO0030
F8150-GRP. ADD 1 TO ICATR. DO0030
MOVE J-0030-LINE (ICATR) TO I-0030-LINE DO0030
  IF I-0030-CODMVT = "$" DO0030
    MOVE HIGH-VALUE TO I-0030-CODMVT DO0030
MOVE 011 TO K-S0030-ERCOD GO TO F8150-A. DO0030
  IF I-0030-CODMVT = "=" DO0030
    MOVE HIGH-VALUE TO I-0030-CODMVT DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-A. DO0030
  IF I-0030-FOURNI = "$" DO0030
    MOVE HIGH-VALUE TO I-0030-FOURNI DO0030
MOVE 012 TO K-S0030-ERCOD GO TO F8150-A. DO0030
  IF I-0030-FOURNI = "=" DO0030
    MOVE HIGH-VALUE TO I-0030-FOURNI DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-A. DO0030
  IF E-0030-QTMAC = "$" DO0030
    MOVE HIGH-VALUE TO E-0030-QTMAC DO0030
MOVE 013 TO K-S0030-ERCOD GO TO F8150-A. DO0030
  IF E-0030-QTMAC = "=" DO0030
    MOVE HIGH-VALUE TO E-0030-QTMAC DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-A. DO0030
  IF E-0030-QTMAL = "$" DO0030
    MOVE HIGH-VALUE TO E-0030-QTMAL DO0030
MOVE 014 TO K-S0030-ERCOD GO TO F8150-A. DO0030
  IF E-0030-QTMAL = "=" DO0030
    MOVE HIGH-VALUE TO E-0030-QTMAL DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-A. DO0030
  IF E-0030-QTMAR = "$" DO0030
    MOVE HIGH-VALUE TO E-0030-QTMAR DO0030
MOVE 015 TO K-S0030-ERCOD GO TO F8150-A. DO0030
  IF E-0030-QTMAR = "=" DO0030
    MOVE HIGH-VALUE TO E-0030-QTMAR DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-A. DO0030
  IF I-0030-INFOR = "$" DO0030
    MOVE HIGH-VALUE TO I-0030-INFOR DO0030
MOVE 016 TO K-S0030-ERCOD GO TO F8150-A. DO0030
  IF I-0030-INFOR = "=" DO0030
    MOVE HIGH-VALUE TO I-0030-INFOR DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-A. DO0030
MOVE I-0030-LINE TO J-0030-LINE (ICATR). DO0030
IF ICATR < IRR GO TO F8150-GRP. DO0030
  IF I-0030-EDIT = "$" DO0030
    MOVE HIGH-VALUE TO I-0030-EDIT DO0030

```

## VIP GENERATED PROGRAM

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## F81 : PERFORMED VALIDATION FUNCTIONS

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MOVE 017 TO K-S0030-ERCOD GO TO F8150-FN.	DO0030
IF I-0030-EDIT = "="	DO0030
MOVE HIGH-VALUE TO I-0030-EDIT	DO0030
MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN.	DO0030
GO TO F8150-B.	DO0030
F8150-A. MOVE I-0030-LINE TO J-0030-LINE (ICATR).	DO0030
F8150-B. EXIT.	DO0030
F8150-FN. EXIT.	DO0030
F8155.	DO0030
MOVE S03034 TO R03034 T03034.	DO0030
MOVE S03063 TO R03063 T03063.	DO0030
MOVE S05009 TO R05009 T05009.	DO0030
MOVE S05052 TO R05052 T05052.	DO0030
MOVE S05060 TO R05060 T05060.	DO0030
MOVE S06016 TO R06016 T06016.	DO0030
MOVE S06061 TO R06061 T06061.	DO0030
MOVE S07018 TO R07018 T07018.	DO0030
MOVE S07061 TO R07061 T07061.	DO0030
MOVE S10003 TO R10003 T10003.	DO0030
MOVE S10007 TO R10007 T10007.	DO0030
MOVE S10016 TO R10016 T10016.	DO0030
MOVE S10026 TO R10026 T10026.	DO0030
MOVE S10035 TO R10035 T10035.	DO0030
MOVE S10042 TO R10042 T10042.	DO0030
MOVE S11003 TO R11003 T11003.	DO0030
MOVE S11007 TO R11007 T11007.	DO0030
MOVE S11016 TO R11016 T11016.	DO0030
MOVE S11026 TO R11026 T11026.	DO0030
MOVE S11035 TO R11035 T11035.	DO0030
MOVE S11042 TO R11042 T11042.	DO0030
MOVE S12003 TO R12003 T12003.	DO0030
MOVE S12007 TO R12007 T12007.	DO0030
MOVE S12016 TO R12016 T12016.	DO0030
MOVE S12026 TO R12026 T12026.	DO0030
MOVE S12035 TO R12035 T12035.	DO0030
MOVE S12042 TO R12042 T12042.	DO0030
MOVE S13003 TO R13003 T13003.	DO0030
MOVE S13007 TO R13007 T13007.	DO0030
MOVE S13016 TO R13016 T13016.	DO0030
MOVE S13026 TO R13026 T13026.	DO0030
MOVE S13035 TO R13035 T13035.	DO0030
MOVE S13042 TO R13042 T13042.	DO0030
MOVE S14003 TO R14003 T14003.	DO0030
MOVE S14007 TO R14007 T14007.	DO0030
MOVE S14016 TO R14016 T14016.	DO0030
MOVE S14026 TO R14026 T14026.	DO0030
MOVE S14035 TO R14035 T14035.	DO0030
MOVE S14042 TO R14042 T14042.	DO0030
MOVE S15003 TO R15003 T15003.	DO0030
MOVE S15007 TO R15007 T15007.	DO0030
MOVE S15016 TO R15016 T15016.	DO0030
MOVE S15026 TO R15026 T15026.	DO0030
MOVE S15035 TO R15035 T15035.	DO0030
MOVE S15042 TO R15042 T15042.	DO0030
MOVE S16003 TO R16003 T16003.	DO0030
MOVE S16007 TO R16007 T16007.	DO0030
MOVE S16016 TO R16016 T16016.	DO0030
MOVE S16026 TO R16026 T16026.	DO0030
MOVE S16035 TO R16035 T16035.	DO0030
MOVE S16042 TO R16042 T16042.	DO0030
MOVE S17003 TO R17003 T17003.	DO0030
MOVE S17007 TO R17007 T17007.	DO0030
MOVE S17016 TO R17016 T17016.	DO0030
MOVE S17026 TO R17026 T17026.	DO0030
MOVE S17035 TO R17035 T17035.	DO0030
MOVE S17042 TO R17042 T17042.	DO0030
MOVE S18003 TO R18003 T18003.	DO0030
MOVE S18007 TO R18007 T18007.	DO0030
MOVE S18016 TO R18016 T18016.	DO0030
MOVE S18026 TO R18026 T18026.	DO0030
MOVE S18035 TO R18035 T18035.	DO0030
MOVE S18042 TO R18042 T18042.	DO0030
MOVE S20022 TO R20022 T20022.	DO0030
MOVE S20033 TO R20033 T20033.	DO0030
F8155-FN. EXIT.	DO0030
F81-FN. EXIT.	DO0030

## **6. HELP FUNCTION**

## 6.1. PRESENTATION

### PRESENTATION

The user can access context-sensitive help for a screen or a data element on that screen through the activation of a program commonly known as the "HELP Function".

The purpose of the HELP function is to display the messages contained in the Error Message file.

For information on the character used to call the HELP documentation of a given screen or data element, refer to Subchapter, "DIALOGUE OR SCREEN DEFINITION" in the ON-LINE SYSTEMS DEVELOPMENT Reference Manual.

### USING THE "HELP" PROGRAM

To use the specifications of the "HELP" function in a dialogue, an additional screen has to be defined.

This screen belongs to the dialogue. Thus, the first two characters of its code must be the same as those of the corresponding dialogue, the last four being the code of the HELP screen. For Dialogue 'XX', the HELP screen would be coded: 'XXHELP'.

The 'XXHELP' screen must be defined but not described (i.e., only the Definition screen must be created). It must have the same variants as the dialogue. Coding the external names (MAP and PROGRAM) is not restricted and is up to the user.

The user must generate and compile the 'XXHELP' program (the generated COBOL program has the same structure as an on-line screen program).

The HELP program ensures the display of the documentation as follows:

- For the Screen documentation:
  - . Screen-related documentation (texts and comments),
  - . Segment access error messages.
- For the Data Element documentation:
  - . Standard error messages generated by the System,
  - . Explicit manual error messages,
  - . Description lines associated with the Data Element (CH: E.....D),
  - . Screen general documentation lines associated with the Data Element (CH: O.....G).

(For further details, refer to Subchapter "ERROR MESSAGES: CODING", Chapter "ERROR MESSAGES - HELP FUNCTION" in the ON-LINE SYSTEMS DEVELOPMENT Reference Manual).

NOTE: If the Error Message file is generated with the 'C1' option, only the error messages are generated. If it is generated with the 'C2' option, in addition to the error messages, comments and documentation associated with the Screen are also generated.

A "HELP" program generated from a dialogue may be used by different dialogues. The 'XXHELP' screens of these dialogues must contain the external name of the generated program.



HELP FUNCTION  
PRESENTATION

```
-----  
!                APPLICATION BULL DPS8                *PDSG.NDOC.AD8.20!  
! ON-LINE SCREEN DEFINITION.....: DOHELP                !  
!                !  
! SCREEN NAME.....: HELP FUNCTION SCREEN                !  
!                !  
! SCREEN SIZE (LINES, COLUMNS).....: 24      080                !  
! LABEL TYPE, TABS, INITIALIZATION...: L      01      -                !  
! HELP CHARACTER SCREEN, DATA ELEMENT: =      $                !  
!                !  
!                LABELS  DISPLAY  INPUT  ER.MESS.  ER.FLD!  
! INTENSITY ATTRIBUTE. ....: N      N      N      N      N      !  
! PRESENTATION ATTRIBUTE.. ....: N      N      N      N      N      !  
! COLOR ATTRIBUTE.....: W      W      W      W      W      !  
!                !  
! TYPE OF COBOL AND MAP TO GENERATE..: 6  C      DPS8 TP8 (MULTI-SCREENS)  !  
! CONTROL CARD OPTIONS FRONT & BACK..:                (PROGRAM)                (MAP)  !  
! EXTERNAL NAMES.....: DOP050                (PROGRAM)                (MAP)  !  
! TRANSACTION CODE.....: * DO50                !  
!                !  
! EXPLICIT KEYWORDS..:                !  
! SESSION NUMBER.....: 0020                LIBRARY : AD8      LOCK....:                !  
!                !  
! O: C1 CH: Odohelp                ACTION:                !  
-----
```

HELP FUNCTION  
PRESENTATION

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```
-----  
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!  
! ON-LINE SCREEN GENERAL DOC.      DO0030 *** ORDER INPUT SCREEN ***                !  
!                                                                              LIB !  
! A LIN : T COMMENT                                                            LIB !  
! . 020 : C      THIS SCREEN ALLOWS TO ENTER AN ORDER OF DOCUMENTATION          *ACC!  
! . 030 : C      PLACED BY ANY REFERENCE CLIENT.                               *ACC!  
! . 050 : C      FROM THIS SCREEN, YOU MAY ACCESS ANY OTHER SCREEN OF          *ACC!  
! . 055 : C      THE DIALOGUE BY ENTERING THE CORRESPONDING CHOICE FIELD        *ACC!  
! . 060 : C      VALUE. THE DIFFERENT VALUES ARE DISPLAYED IN THE             *ACC!  
! . 070 : C      BOTTOM PART OF ALL DIALOGUE SCREENS.                         *ACC!  
! . 120 : S CD05                                                                *ACC!  
! . 122 : U F 8  TECHNICAL PROBLEM CALL E.D.P. DEPT.(CODE 030-CD05 F8)        *ACC!  
! . 124 : U F 9  TECHNICAL PROBLEM CALL E.D.P. DEPT.(CODE 030-CD05 F9)        *ACC!  
! . 130 : U G 9  TECHNICAL PROBLEM CALL E.D.P. DEPT.(CODE 030-CD05 G9)        *ACC!  
! . 150 : S CD10 R                                                                *ACC!  
! . 152 : U F 8  INCORRECT UPDATE REQUEST                                     *ACC!  
! . 154 : U F 9  INCORRECT CREATION REQUEST                                   *ACC!  
! . 160 : U G 9  END OF DISPLAY FOR THIS ORDER                               *ACC!  
! . 180 : S ME00 Z                                                                *ACC!  
! . 190 : U G 9  TECHNICAL PROBLEM CALL E.D.P. DEPT.(CODE 030-ME00 G9)        *ACC!  
! . 200 : S FO10 R                                                                *ACC!  
! . 210 : U F 9  MANUAL DOES NOT BELONG TO DOCUMENTATION                     *ACC!  
!                                                                              !  
! O: C1 CH: Odo0030 G                                                         !  
-----
```

```
-----  
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!  
! ON-LINE SCREEN GENERAL DOC.      DO0030 *** ORDER INPUT SCREEN ***           !  
!                                                                              LIB !  
! A LIN : T COMMENT                                                         LIB !  
! . 350 : F CODMVT                                                           *ACC!  
! . 360 : C      AN ACTION CODE MUST BE ENTERED                             *ACC!  
! . 400 : F FOURNI                                                           *ACC!  
! . 402 : C      THE FIELD 'ITEM' IS ENTERED WITH THE 3-CHARACTER CODE      *ACC!  
! . 403 : C      OF THE MANUAL. IT IS NOT POSSIBLE TO ENTER                 *ACC!  
! . 404 : C      REQUESTS CONCERNING THE BINDERS                            *ACC!  
! . 430 : U      A THIS PROCEDURE DOES NOT PERMIT TO ORDER BINDERS.         *ACC!  
! . 450 : F MATE                                                             *ACC!  
! . 451 : T      0 DOCUM DD                                                  *ACC!  
! . 453 : U      5 THIS TYPE OF HARDWARE IS NOT SUPPORTED.                 *ACC!  
! . 500 : F QTMAC                                                            *ACC!  
! . 510 : C      THE 'QUANTITY ORDERED' FIELD MUST BE ENTERED WITH THE      *ACC!  
! . 520 : C      NUMBER OF COPIES NEEDED FOR THE SPECIFIED MANUAL.          *ACC!  
! . 530 : C      ACCORDING TO STOCK AVAILABILITY, THE SYSTEM FILLS IN      *ACC!  
! . 540 : C      THE 'QUANTITY DELIVERED' AND, IF NEEDED, THE 'QUANTITY    *ACC!  
! . 541 : C      OUTSTANDING'.                                              *ACC!  
! . 600 : F INFOR                                                            *ACC!  
! . 610 : C      THE 'REMARKS' COLUMN ALLOWS TO ENTER SPECIFICS           *ACC!  
!                                                                              !  
! O: C1 CH: -G350                                                         !  
-----
```

```
-----  
!  
!DOCUMENTATION OF THE SCREEN   ***  ORDER INPUT SCREEN  ***  
!  
!  
!           THIS SCREEN ALLOWS TO ENTER AN ORDER OF DOCUMENTATION  
!           PLACED BY ANY REFERENCED CLIENT.  
!           FROM THIS SCREEN, YOU MAY ACCESS ANY OTHER SCREEN OF  
!           THE DIALOGUE BY ENTERING THE CORRESPONDING CHOICE FIELD  
!           VALUE. THE DIFFERENT VALUES ARE DISPLAYED AT THE  
!           BOTTOM OF ALL DIALOGUE SCREENS.  
!  
! F018E TECHNICAL PROBLEM  CALL E.D.P. DEPT.(CODE 030-CD05 F8)  
!  
! F019E TECHNICAL PROBLEM  CALL E.D.P. DEPT.(CODE 030-CD05 F9)  
!  
! F028E INCORRECT UPDATE REQUEST.  
!  
! F029E INCORRECT CREATION REQUEST.  
!  
! F038E INVALID CREATION RECORD           MANUALS  
!  
!CHOICE.....: S      (E: END - T: TOP - S: NEXT)  
-----
```

```
-----  
!  
!DOCUMENTATION OF DATA ELEMENT: QUANTITY ORDERED  
!  
!  
! THE 'QUANTITY ORDERED' FIELD MUST BE ENTERED WITH THE  
! NUMBER OF COPIES NEEDED FOR THE SPECIFIED MANUAL.  
! ACCORDING TO STOCK AVAILABILITY, THE SYSTEM FILLS IN  
! THE 'QUANTITY DELIVERED' AND, IF NEEDED, THE 'QUANTITY  
! OUTSTANDING'.  
!  
! (01 50) ABOVE 50 SHIP VIA OTHER CHANNEL  
!  
! 0122 INVALID ABSENCE FOR THE FIELD QUANTITY ORDERED  
!  
! 0124 NON-NUMERICAL CLASS FIELD QUANTITY ORDERED  
!  
! 0125 INVALID VALUE FOR THE FIELD QUANTITY ORDERED  
!  
!  
!  
!  
!CHOICE.....: S (E: END - T: TOP - S: NEXT)  
-----
```

6.2. GENERATED 'HELP' PROGRAM (TP8 MULTI-SCREEN)

```
IDENTIFICATION DIVISION.  
PROGRAM-ID. DOP050. DOHELP  
AUTHOR. HELP FUNCTION SCREEN. DOHELP  
DATE-COMPILED. 03/08/93. DOHELP  
ENVIRONMENT DIVISION. DOHELP  
CONFIGURATION SECTION. DOHELP  
SOURCE-COMPUTER. LEVEL-66-ASCII. DOHELP  
OBJECT-COMPUTER. LEVEL-66-ASCII. DOHELP  
SPECIAL-NAMES. DOHELP  
    DECIMAL-POINT IS COMMA. DOHELP  
INPUT-OUTPUT SECTION. DOHELP  
FILE-CONTROL. DOHELP  
    SELECT EM-FILE DOHELP  
        ASSIGN TO EM XM DOHELP  
        ORGANIZATION INDEXED DOHELP  
        ACCESS IS DYNAMIC DOHELP  
        RECORD KEY IS EM00-EMKEY DOHELP  
        FILE STATUS 1-EM00-STATUS. DOHELP  
DATA DIVISION. DOHELP  
SUB-SCHEMA SECTION. D100  
    DB COMSSCH WITHIN MNGMENT. D200  
FILE SECTION. DOHELP  
FD DOHELP  
    EM-FILE DOHELP  
    BLOCK 00001 RECORDS DOHELP  
    LABEL RECORD STANDARD. DOHELP  
01 EM00. DOHELP  
    05 EM00-EMKEY. DOHELP  
    10 EM00-LIBRA PICTURE X(3). DOHELP  
    10 EM00-ENTYP PICTURE X. DOHELP  
    10 EM00-XEMKY. DOHELP  
    15 EM00-PROGR PICTURE X(6). DOHELP  
    15 EM00-ERCOD. DOHELP  
    20 EM00-ERCOD9 PICTURE 9(3). DOHELP  
    15 EM00-ERTYP PICTURE X. DOHELP  
    10 EM00-LINUM PICTURE 9(3). DOHELP  
    05 EM00-ERLVL PICTURE X. DOHELP  
    05 EM00-ERMSG PICTURE X(66). DOHELP  
    05 FILLER PICTURE X(6). DOHELP  
WORKING-STORAGE SECTION. DOHELP  
01 WSS-BEGIN. DOHELP  
    05 FILLER PICTURE X(7) VALUE "WORKING". DOHELP  
    05 IK PICTURE X. DOHELP  
    05 BLANC PICTURE X VALUE SPACE. DOHELP  
    05 OPER PICTURE X. DOHELP  
    05 OPERD PICTURE X VALUE SPACE. DOHELP  
    05 CATX PICTURE X. DOHELP  
    05 CATM PICTURE X. DOHELP  
    05 ICATR PICTURE 99. DOHELP  
    05 SCR-ER PICTURE X. DOHELP  
    05 FT PICTURE X. DOHELP  
    05 ICF PICTURE X. DOHELP  
    05 OCF PICTURE X. DOHELP  
    05 CAT-ER PICTURE X. DOHELP  
    05 I-PFKEY PICTURE XX. DOHELP  
    05 7-ACCES PICTURE XX. DOHELP  
    05 K66 PICTURE 999. DOHELP  
    05 7-YCREE PICTURE X VALUE "E". DOHELP  
    05 7-YCREF PICTURE X VALUE "F". DOHELP  
    05 7-YCREP PICTURE X VALUE "P". DOHELP  
    05 7-YCRES PICTURE X VALUE "R". DOHELP  
    05 7-YCREX PICTURE X VALUE "X". DOHELP  
    05 INA PICTURE 999 VALUE 000. DOHELP  
    05 INR PICTURE 999 VALUE 000. DOHELP  
    05 INZ PICTURE 999 VALUE 001. DOHELP  
    05 IRR PICTURE 99 VALUE 17. DOHELP  
    05 INT PICTURE 999 VALUE 001. DOHELP  
    05 IER PICTURE 99 VALUE 01. DOHELP  
    05 DEL-ER PICTURE X. DOHELP  
01 PACBASE-CONSTANTS. DOHELP  
    OLSO DATES PACE30 : /02/93 DOHELP  
        PACE80 : 05/03/93 PAC7SG : 930225 DOHELP  
    05 SESSI PICTURE X(5) VALUE "0311 ". DOHELP
```

## HELP FUNCTION

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## GENERATED 'HELP' PROGRAM (TP8 MULTI-SCREEN)

2

05 LIBRA	PICTURE X(3)	VALUE "AD8".	DOHELP
05 DATGN	PICTURE X(8)	VALUE "03/08/93".	DOHELP
05 PROGR	PICTURE X(6)	VALUE "DOHELP".	DOHELP
05 PROGE	PICTURE X(8)	VALUE "DOP050".	DOHELP
05 TIMGN	PICTURE X(8)	VALUE "10:32:56".	DOHELP
05 USERCO	PICTURE X(8)	VALUE "PDSG".	DOHELP
05 PRCGI	PICTURE X(8)	VALUE "ZAR980".	DOHELP
05	5-HELP-PROGE	PICTURE X(8).	DOHELP
01 DATCE.			DOHELP
05 CENTUR	PICTURE XX	VALUE "19".	DOHELP
05 DATOR.			DOHELP
10 DATOA	PICTURE XX.		DOHELP
10 DATOM	PICTURE XX.		DOHELP
10 DATOJ	PICTURE XX.		DOHELP
01 DAT6.			DOHELP
10 DAT61.			DOHELP
15 DAT619	PICTURE 99.		DOHELP
10 DAT62.			DOHELP
15 DAT629	PICTURE 99.		DOHELP
10 DAT63	PICTURE XX.		DOHELP
01 DAT7.			DOHELP
10 DAT71	PICTURE XX.		DOHELP
10 DAT72	PICTURE XX.		DOHELP
10 DAT73	PICTURE XX.		DOHELP
01 DAT8.			DOHELP
10 DAT81	PICTURE XX.		DOHELP
10 DAT8S1	PICTURE X.		DOHELP
10 DAT82	PICTURE XX.		DOHELP
10 DAT8S2	PICTURE X.		DOHELP
10 DAT83	PICTURE XX.		DOHELP
01 DATSEP	PICTURE X	VALUE "/".	DOHELP
01 DATSET	PICTURE X	VALUE "-".	DOHELP
01 DATCTY.			DOHELP
05 DATCTY9	PICTURE 99.		DOHELP
01 DAT6C.			DOHELP
10 DAT61C	PICTURE XX.		DOHELP
10 DAT62C	PICTURE XX.		DOHELP
10 DAT63C	PICTURE XX.		DOHELP
10 DAT64C	PICTURE XX.		DOHELP
01 DAT7C.			DOHELP
10 DAT71C	PICTURE XX.		DOHELP
10 DAT72C	PICTURE XX.		DOHELP
10 DAT73C	PICTURE XX.		DOHELP
10 DAT74C	PICTURE XX.		DOHELP
01 DAT8C.			DOHELP
10 DAT81C	PICTURE XX.		DOHELP
10 DAT8S1C	PICTURE X	VALUE "/".	DOHELP
10 DAT82C	PICTURE XX.		DOHELP
10 DAT8S2C	PICTURE X	VALUE "/".	DOHELP
10 DAT83C	PICTURE XX.		DOHELP
10 DAT84C	PICTURE XX.		DOHELP
01 DAT8G.			DOHELP
10 DAT81G	PICTURE XX.		DOHELP
10 DAT82G	PICTURE XX.		DOHELP
10 DAT8S1G	PICTURE X	VALUE "-".	DOHELP
10 DAT83G	PICTURE XX.		DOHELP
10 DAT8S2G	PICTURE X	VALUE "-".	DOHELP
10 DAT84G	PICTURE XX.		DOHELP
01 TIMCO.			DOHELP
02 TIMCOG.			DOHELP
05 TIMCOH	PICTURE XX.		DOHELP
05 TIMCOM	PICTURE XX.		DOHELP
05 TIMCOS	PICTURE XX.		DOHELP
02 TIMCOC	PICTURE XX.		DOHELP
01 TIMDAY.			DOHELP
05 TIMHOU	PICTURE XX.		DOHELP
05 TIMS1	PICTURE X	VALUE ":".	DOHELP
05 TIMMIN	PICTURE XX.		DOHELP
05 TIMS2	PICTURE X	VALUE ":".	DOHELP
05 TIMSEC	PICTURE XX.		DOHELP
01 CONFIGURATIONS.			DOHELP
05 EM00-CF	PICTURE X.		DOHELP
01 STATUS-AREA.			DOHELP
05 1-EM00-STATUS	PICTURE XX	VALUE ZERO.	DOHELP
01	K-HELP-CLE.		*AA010
03	K-RHELP-LIGNE	OCCURS 1.	*AA010
10	K-REM00-EMKEY	PICTURE X(17).	*AA010

## HELP FUNCTION

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## GENERATED 'HELP' PROGRAM (TP8 MULTI-SCREEN)

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01      HELP-MESSO.                                *AA040
02      HELP-MESSI.                                *AA040
05      S01002 PICTURE X(011).                    *AA040
05      S03002 PICTURE X(030).                    *AA040
05      S03033 PICTURE X(036).                    *AA040
05      S05004 PICTURE X(074).                    *AA040
05      S06004 PICTURE X(074).                    *AA040
05      S07004 PICTURE X(074).                    *AA040
05      S08004 PICTURE X(074).                    *AA040
05      S09004 PICTURE X(074).                    *AA040
05      S10004 PICTURE X(074).                    *AA040
05      S11004 PICTURE X(074).                    *AA040
05      S12004 PICTURE X(074).                    *AA040
05      S13004 PICTURE X(074).                    *AA040
05      S14004 PICTURE X(074).                    *AA040
05      S15004 PICTURE X(074).                    *AA040
05      S16004 PICTURE X(074).                    *AA040
05      S17004 PICTURE X(074).                    *AA040
05      S18004 PICTURE X(074).                    *AA040
05      S19004 PICTURE X(074).                    *AA040
05      S20004 PICTURE X(074).                    *AA040
05      S21004 PICTURE X(074).                    *AA040
05      S23002 PICTURE X(019).                    *AA040
05      S23022 PICTURE X(001).                    *AA040
05      S23028 PICTURE X(030).                    *AA040
05      S24002 PICTURE X(072).                    *AA040
01      AT-HELP-MESSO.                             *AA041
05      AT-S01002 PICTURE X(12) VALUE "01001011LNNW". *AA041
05      AT-S03002 PICTURE X(12) VALUE "03001030FNNW". *AA041
05      AT-R000101-LIBEC REDEFINES AT-S03002 PICTURE X(12). *AA041
05      AT-S03033 PICTURE X(12) VALUE "03032036FNNW". *AA041
05      AT-R000101-LIENT REDEFINES AT-S03033 PICTURE X(12). *AA041
05      AT-S05004 PICTURE X(12) VALUE "05003074FNNW". *AA041
05      AT-R010101-ERMSGD REDEFINES AT-S05004 PICTURE X(12). *AA041
05      AT-S06004 PICTURE X(12) VALUE "06003074FNNW". *AA041
05      AT-R020101-ERMSGD REDEFINES AT-S06004 PICTURE X(12). *AA041
05      AT-S07004 PICTURE X(12) VALUE "07003074FNNW". *AA041
05      AT-R030101-ERMSGD REDEFINES AT-S07004 PICTURE X(12). *AA041
05      AT-S08004 PICTURE X(12) VALUE "08003074FNNW". *AA041
05      AT-R040101-ERMSGD REDEFINES AT-S08004 PICTURE X(12). *AA041
05      AT-S09004 PICTURE X(12) VALUE "09003074FNNW". *AA041
05      AT-R050101-ERMSGD REDEFINES AT-S09004 PICTURE X(12). *AA041
05      AT-S10004 PICTURE X(12) VALUE "10003074FNNW". *AA041
05      AT-R060101-ERMSGD REDEFINES AT-S10004 PICTURE X(12). *AA041
05      AT-S11004 PICTURE X(12) VALUE "11003074FNNW". *AA041
05      AT-R070101-ERMSGD REDEFINES AT-S11004 PICTURE X(12). *AA041
05      AT-S12004 PICTURE X(12) VALUE "12003074FNNW". *AA041
05      AT-R080101-ERMSGD REDEFINES AT-S12004 PICTURE X(12). *AA041
05      AT-S13004 PICTURE X(12) VALUE "13003074FNNW". *AA041
05      AT-R090101-ERMSGD REDEFINES AT-S13004 PICTURE X(12). *AA041
05      AT-S14004 PICTURE X(12) VALUE "14003074FNNW". *AA041
05      AT-R100101-ERMSGD REDEFINES AT-S14004 PICTURE X(12). *AA041
05      AT-S15004 PICTURE X(12) VALUE "15003074FNNW". *AA041
05      AT-R110101-ERMSGD REDEFINES AT-S15004 PICTURE X(12). *AA041
05      AT-S16004 PICTURE X(12) VALUE "16003074FNNW". *AA041
05      AT-R120101-ERMSGD REDEFINES AT-S16004 PICTURE X(12). *AA041
05      AT-S17004 PICTURE X(12) VALUE "17003074FNNW". *AA041
05      AT-R130101-ERMSGD REDEFINES AT-S17004 PICTURE X(12). *AA041
05      AT-S18004 PICTURE X(12) VALUE "18003074FNNW". *AA041
05      AT-R140101-ERMSGD REDEFINES AT-S18004 PICTURE X(12). *AA041
05      AT-S19004 PICTURE X(12) VALUE "19003074FNNW". *AA041
05      AT-R150101-ERMSGD REDEFINES AT-S19004 PICTURE X(12). *AA041
05      AT-S20004 PICTURE X(12) VALUE "20003074FNNW". *AA041
05      AT-R160101-ERMSGD REDEFINES AT-S20004 PICTURE X(12). *AA041
05      AT-S21004 PICTURE X(12) VALUE "21003074FNNW". *AA041
05      AT-R170101-ERMSGD REDEFINES AT-S21004 PICTURE X(12). *AA041
05      AT-S23002 PICTURE X(12) VALUE "23001019FNNW". *AA041
05      AT-R000101-LICHOI REDEFINES AT-S23002 PICTURE X(12). *AA041
05      AT-S23022 PICTURE X(12) VALUE "23021001 NNW". *AA041
05      AT-R000101-OPDOC REDEFINES AT-S23022 PICTURE X(12). *AA041
05      AT-S23028 PICTURE X(12) VALUE "23027030FNNW". *AA041
05      AT-R000101-LIOPT REDEFINES AT-S23028 PICTURE X(12). *AA041
05      AT-S24002 PICTURE X(12) VALUE "24001072FNNW". *AA041
05      AT-R000101-ERMSG REDEFINES AT-S24002 PICTURE X(12). *AA041
01      AT-HELP-MESSA REDEFINES AT-HELP-MESSO.     *AA041
05      AT-HELP-LIGNE OCCURS 024.                  *AA041
10      AT-HELP-YPCUR PICTURE 9(5).                *AA041

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## HELP FUNCTION

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## GENERATED 'HELP' PROGRAM (TP8 MULTI-SCREEN)

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	10	AT-HELP-LENGTH	PICTURE 999.	*AA041
	10	AT-HELP-ATTRN	PICTURE X.	*AA041
	10	AT-HELP-ATTRI	PICTURE X.	*AA041
	10	AT-HELP-ATTRP	PICTURE X.	*AA041
	10	AT-HELP-ATTRC	PICTURE X.	*AA041
01		INPUT-HELP.		*AA042
	05	R23022	PICTURE X(1).	*AA042
01		INPUT-SCREEN-FIELDS	REDEFINES INPUT-HELP.	*AA045
	02	I-HELP.		*AA045
	03	I-HELP-ENDRE.		*AA045
	05	I-HELP-OPDOC	PICTURE X.	*AA045
01		OUTPUT-HELP.		*AA049
	05	T03002	PICTURE X(30).	*AA049
	05	T03033	PICTURE X(36).	*AA049
	05	T05004	PICTURE X(74).	*AA049
	05	T06004	PICTURE X(74).	*AA049
	05	T07004	PICTURE X(74).	*AA049
	05	T08004	PICTURE X(74).	*AA049
	05	T09004	PICTURE X(74).	*AA049
	05	T10004	PICTURE X(74).	*AA049
	05	T11004	PICTURE X(74).	*AA049
	05	T12004	PICTURE X(74).	*AA049
	05	T13004	PICTURE X(74).	*AA049
	05	T14004	PICTURE X(74).	*AA049
	05	T15004	PICTURE X(74).	*AA049
	05	T16004	PICTURE X(74).	*AA049
	05	T17004	PICTURE X(74).	*AA049
	05	T18004	PICTURE X(74).	*AA049
	05	T19004	PICTURE X(74).	*AA049
	05	T20004	PICTURE X(74).	*AA049
	05	T21004	PICTURE X(74).	*AA049
	05	T23002	PICTURE X(19).	*AA049
	05	T23022	PICTURE X(1).	*AA049
	05	T23028	PICTURE X(30).	*AA049
	05	T24002	PICTURE X(72).	*AA049
01		OUTPUT-SCREEN-FIELDS	REDEFINES OUTPUT-HELP.	*AA050
	02	O-HELP.		*AA050
	03	O-HELP-BEGIN.		*AA050
	05	O-HELP-LIBEC	PICTURE X(30).	*AA050
	05	O-HELP-LIENT	PICTURE X(36).	*AA050
	03	P-HELP-LIGNE	OCCURS 17.	*AA050
	10	FILLER	PICTURE X(74).	*AA050
	03	O-HELP-ENDRE.		*AA050
	05	O-HELP-LICHOI	PICTURE X(19).	*AA050
	05	O-HELP-OPDOC	PICTURE X.	*AA050
	05	O-HELP-LIOPT	PICTURE X(30).	*AA050
	05	O-HELP-ERMS.		*AA050
	10	O-001	OCCURS 1.	*AA050
	15	O-HELP-ERMSG	PICTURE X(72).	*AA050
01		REPEAT-LINE.		*AA050
	02	O-HELP-LIGNE.		*AA050
	05	O-HELP-ERMSGD	PICTURE X(74).	*AA050
01		CMES-COMMUNICATION.		*AA060
	05	CMES-YR00	PICTURE X(4000).	*AA060
	05	CMES-YO00	PICTURE X(3798).	*AA060
	05	CMES-PFKEY	PICTURE XX.	*AA060
	05	CMES-IND1	COMP-6.	*AA060
	05	CMES-IND2	COMP-6.	*AA060
	05	CMES-YMAT	PICTURE X.	*AA060
	05	CMES-YCRE	PICTURE X.	*AA060
	05	CMES-YPCUR	PICTURE X(5) VALUE SPACE.	*AA060
01		END-CONVERSATION.		*AA070
	05	END-MESSAGE	PICTURE X(30) VALUE SPACE.	*AA070
	05	END-ATTR	PICTURE X(12) VALUE "01001030FNNW".	*AA070
01		HELP-MPRIOR	PICTURE X(80).	*AA076
01		VALIDATION-TABLE-FIELDS.		*AA150
	02	DE-ERR.		*AA150
	05	DE-ER	PICTURE X	*AA150
			OCCURS 001.	*AA150
	02	DE-E	REDEFINES DE-ERR.	*AA150
	03	ER-HELP-ENDRE.		*AA150
	05	ER-HELP-OPDOC	PICTURE X.	*AA150
01		TT-DAT.		*AA200
	05	T-DAT	PICTURE X OCCURS 5.	*AA200
01		USERS-ERROR.		*AA200
	05	XEMKY.		*AA200
	10	XPROGR	PICTURE X(6).	*AA200

## HELP FUNCTION

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## GENERATED 'HELP' PROGRAM (TP8 MULTI-SCREEN)

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	10 XERCD	PICTURE X(4).	*AA200
	05 T-XEMKY	OCCURS 01.	*AA200
	10 T-XPROGR	PICTURE X(6).	*AA200
	10 T-XERCD	PICTURE X(4).	*AA200
01	PACBASE-INDEXES	COMPUTATIONAL-6.	*AA200
	05 TALLY	PICTURE S9(4) VALUE ZERO.	*AA200
	05 K01	PICTURE S9(4).	*AA200
	05 K02	PICTURE S9(4).	*AA200
	05 K03	PICTURE S9(4).	*AA200
	05 K04	PICTURE S9(4).	*AA200
	05 K50R	PICTURE S9(4) VALUE ZERO.	*AA200
	05 K50L	PICTURE S9(4) VALUE ZERO.	*AA200
	05 K50M	PICTURE S9(4)	*AA200
		VALUE +01.	*AA200
	05 5-CA00-LTH	PICTURE S9(4) VALUE +0147.	*AA200
	05 5-EM00-LTH	PICTURE S9(4) VALUE +0090.	*AA200
	05 LTH	PICTURE S9(4) VALUE ZERO.	*AA200
	05 5-HELP-LENGTH	PICTURE S9(4)	*AA200
		VALUE +0883.	*AA200
01		TABLE-OF-ATTRIBUTES.	*AA250
	02	DE-ATT.	*AA250
	03	DE-ATT1 OCCURS 4.	*AA250
	05	DE-AT PICTURE X	*AA250
		OCCURS 001.	*AA250
	02	DE-A REDEFINES DE-ATT.	*AA250
	03	DE-ATT2 OCCURS 4.	*AA250
	04	A-HELP-ENDRE.	*AA250
	05	A-HELP-OPDOC PICTURE X.	*AA250
01		AT-SV.	*AA260
	10	FILLER PICTURE X(6) VALUE "022NNW".	*AA260
01		TABLE-SV-AT REDEFINES AT-SV.	*AA265
	02	LIGNE-SV-AT OCCURS 001.	*AA265
	05	SV-AT PICTURE 999.	*AA265
	05	SV-ATTRI PICTURE X.	*AA265
	05	SV-ATTRP PICTURE X.	*AA265
	05	SV-ATTRC PICTURE X.	*AA265
01		FIRST-ON-SEGMENT.	*AA301
	05	EM00-FST PICTURE X.	*AA301
01		STOP-FIELDS-HELP.	*AA400
	02	C-HELP-LE.	*AA400
	05	C-HELP-LIBRA PICTURE XXX.	*AA400
	05	C-HELP-ERCOD PICTURE XXX.	*AA400
	05	C-HELP-PROGR PICTURE X(6).	*AA400
	05	C-HELP-ENTYP PICTURE X.	*AA400
	02	HELP-LIENT PICTURE X(36) VALUE SPACE.	*AA400
	02	HELP-LIBEC PICTURE X(30) VALUE SPACE.	*AA400
01		7-HELP-LIBEL.	*AA400
	05	7-HELP-ERMS.	*AA400
	10	7-HELP-ERMSG.	*AA400
	15	7-HELP-ERMSG1 PICTURE X(12).	*AA400
	15	7-HELP-ERMSG2 PICTURE X(18).	*AA400
	10	7-HELP-ERMSG PICTURE X(36).	*AA400
01		SCREEN-LIGNE.	*AA400
	05	7-HELP-ERMSGD PICTURE X(74).	*AA400
	05	7-HELP-CODIF REDEFINES 7-HELP-ERMSGD.	*AA400
	10	7-HELP-VALRU PICTURE X(12).	*AA400
	10	FILLER PICTURE X.	*AA400
	10	7-HELP-SIGNI.	*AA400
	15	FILLER PICTURE X(18).	*AA400
	15	7-HELP-ERMSC1 PICTURE X(43).	*AA400
	05	7-HELP-DOCUM REDEFINES 7-HELP-ERMSGD.	*AA400
	10	7-HELP-XEMKY.	*AA400
	15	FILLER PICTURE XXX.	*AA400
	15	7-HELP-ERTYP PICTURE X.	*AA400
	15	FILLER PICTURE X.	*AA400
	10	7-HELP-LITAC PICTURE X(69).	*AA400
01		XZ00.	*AA400
	10	XZ00-EMKEY PICTURE X(17).	*AA400
	10	XZ00-ERLVL PICTURE X.	*AA400
	10	XZ00-ERMSG PICTURE X(66).	*AA400
	10	FILLER PICTURE X(6).	*AA400
01		IO-STATUS PICTURE X(7).	*ST100
	88	OK VALUE "0000000".	*ST120
	88	END-OF-SET VALUE "0502100".	*ST140
	88	NOT-FOUND VALUE "0502400".	*ST160
	88	NEXT-FOUND VALUE "0502401".	*ST180
		LINKAGE SECTION.	DOHELP

HELP FUNCTION  
 GENERATED 'HELP' PROGRAM (TP8 MULTI-SCREEN)

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COPY TP-STORAGE OF TP.                                *0Z010
01  CONSTANT-STORAGE PICTURE X(4).                    *0Z015
01  TRANSACTION-STORAGE.                              *0Z020
    02  K-SHELP-YMAT PICTURE X.                        *00000
    02  K-SHELP-PROGR PICTURE X(6).                    *00000
    02  K-SHELP-XTERM PICTURE X(12).                   *00000
    02  CA00.                                           *00001
        10  CA00-CLECD.                                 *00001
        15  CA00-NUCOM PICTURE 9(5).                    *00001
        10  CA00-CLECL1.                                *00001
        15  CA00-NUCLIE PICTURE 9(8).                    *00001
        10  CA00-ME00.                                  *00001
        15  CA00-CLEME.                                 *00001
        20  CA00-COPERS PICTURE X(5).                    *00001
        20  CA00-NUMORD PICTURE XX.                      *00001
        15  CA00-MESSA PICTURE X(75).                    *00001
        10  CA00-PREM PICTURE X.                         *00001
        10  CA00-LANGU PICTURE X.                       *00001
        10  CA00-RAISOC PICTURE X(50).                   *00001
    02  K-SHELP-CDOC PICTURE X.                         *00002
    02  K-SHELP-PROGE PICTURE X(8).                      *00002
    02  K-SHELP-LIBRA PICTURE XXX.                       *00002
    02  K-SHELP-PROHE PICTURE X(8).                      *00002
    02  K-SHELP-ERCOD.                                   *00002
    05  K-SHELP-ERCOD9 PICTURE 999.                       *00002
    02  K-SHELP-ERTYP PICTURE X.                          *00002
    02  K-SHELP-NULIX.                                    *00002
    05  K-SHELP-LINUM PICTURE 999.                       *00002
    02  K-SHELP-PFKEY PICTURE XX.                         *00002
    02  FILLER PICTURE X(0700).                          *00002
COMMUNICATION SECTION.                                  *90010
CD  7-CD01 INPUT                                        *90020
    SYMBOLIC QUEUE 7-CD01-CTRAN                          *90030
    MESSAGE DATE 7-CD01-XDATE                            *90040
    MESSAGE TIME 7-CD01-XTIME                            *90050
    SYMBOLIC SOURCE 7-CD01-XTERM                          *90060
    TEXT LENGTH 7-CD01-XLOMES                             *90070
    END KEY 7-CD01-XFINME                                 *90080
    STATUS KEY 7-CD01-XMSTA.                              *90090
CD  7-CD02 OUTPUT                                        *90100
    DESTINATION COUNT 7-CD02-XNDEST                       *90110
    TEXT LENGTH 7-CD02-XLOMES                             *90120
    STATUS KEY 7-CD02-XMSTA                              *90130
    ERROR KEY 7-CD02-XMERR                               *90140
    SYMBOLIC DESTINATION 7-CD02-XTERM.                    *90150
PROCEDURE DIVISION USING TP-STORAGE CONSTANT-STORAGE  *99999
    TRANSACTION-STORAGE.                                  *99999
    *****
    *
    * INITIALIZATIONS *
    *
    *****
F01. EXIT. DOHELP
F0101. DOHELP
    OPEN INPUT EM-FILE. DOHELP
F0101-FN. EXIT. DOHELP
F0105. DOHELP
    MOVE ZERO TO K01. DOHELP
F0105-B. ADD 1 TO K01. DOHELP
    MOVE SV-AT (K01) TO K02. DOHELP
    MOVE SV-ATTRI (K01) TO AT-HELP-ATTRI (K02) DOHELP
    MOVE SV-ATTRP (K01) TO AT-HELP-ATTRP (K02) DOHELP
    MOVE SV-ATTRC (K01) TO AT-HELP-ATTRC (K02). DOHELP
    IF K01 < INT GO TO F0105-B. DOHELP
F0105-FN. EXIT. DOHELP
F0110. DOHELP
    MOVE ZERO TO CATX FT K50L. DOHELP
    MOVE "1" TO ICF OCF SCR-ER. DOHELP
    MOVE ZERO TO VALIDATION-TABLE-FIELDS. DOHELP
    MOVE ZERO TO 7-CD01-XMSTA 7-CD02-XMSTA. DOHELP
    MOVE SPACE TO CATM OPER OPERD CAT-ER. DOHELP
    MOVE SPACE TO TABLE-OF-ATTRIBUTES. DOHELP
    MOVE ZERO TO CONFIGURATIONS. DOHELP
    MOVE SPACE TO XEMKY. DOHELP
    MOVE ZERO TO USERS-ERROR. DOHELP
    IF PROGR NOT = K-SHELP-PROGR DOHELP
        MOVE ZERO TO ICF. DOHELP
    
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## HELP FUNCTION

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## GENERATED 'HELP' PROGRAM (TP8 MULTI-SCREEN)

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      IF PRIOR-TPR = LOW-VALUE MOVE ZERO TO ICF          DOHELP
RECEIVE 7-CD01 MESSAGE INTO HELP-MPRIOR                DOHELP
NO DATA MOVE "1" TO IK.                                DOHELP
      IF PRIOR-TPR = LOW-VALUE                            DOHELP
PERFORM F81ES THRU F81ES-FN                             DOHELP
MOVE 7-CD01-XTERM TO K-SHELP-XTERM.                    DOHELP
MOVE LOW-VALUE TO O-HELP.                               DOHELP
      IF ICF = ZERO PERFORM F8115 THRU F8115-FN.          DOHELP
MOVE "X" TO DE-AT (4, 001).                             DOHELP
MOVE SPACE TO O-HELP-ERMSG (01).                        DOHELP
F0110-FN. EXIT.                                          DOHELP
F0120.                                                    DOHELP
      MOVE "1" TO OCF.                                    DOHELP
      IF K-SHELP-CDOC = "D" OR K-SHELP-CDOC = "R"        DOHELP
MOVE "1" TO ICF GO TO F0120-FN.                         DOHELP
MOVE "A" TO OPER                                        DOHELP
MOVE SPACE TO K-SHELP-ERTYP                             DOHELP
MOVE ZERO TO K-SHELP-LINUM                             DOHELP
MOVE "D" TO K-SHELP-CDOC GO TO F3999-ITER-FT.          DOHELP
F0120-FN. EXIT.                                          DOHELP
F01-FN. EXIT.                                            DOHELP
      *****                                           DOHELP
      *                                                     * DOHELP
      * RECEPTION                                           * DOHELP
      *                                                     * DOHELP
      *****                                           DOHELP
F05. IF ICF = ZERO GO TO END-OF-RECEPTION.              DOHELP
F0510.                                                    DOHELP
      PERFORM F81RE THRU F81RE-FN.                       DOHELP
      IF ICF = ZERO GO TO END-OF-RECEPTION.              DOHELP
      PERFORM F81ES THRU F81ES-FN.                       DOHELP
MOVE 7-CD01-XTERM TO K-SHELP-XTERM.                    DOHELP
MOVE 7-CD01-XLOMES TO CMES-IND1.                        DOHELP
MOVE AT-HELP-MESSA TO CMES-YO00.                        DOHELP
MOVE K-SHELP-YMAT TO CMES-YMAT.                         DOHELP
MOVE K-SHELP-PFKEY TO CMES-PFKEY.                       DOHELP
MOVE 7-YCRER TO CMES-YCRE.                              DOHELP
CALL "ZAR980" USING CMES-COMMUNICATION                  DOHELP
      IF CMES-YR00 = ALL "*" MOVE ZERO TO ICF            DOHELP
      GO TO END-OF-RECEPTION.                            DOHELP
MOVE CMES-PFKEY TO I-PFKEY K-SHELP-PFKEY.              DOHELP
      IF CMES-YCRE = 7-YCREP                              DOHELP
MOVE CMES-IND1 TO 7-CD02-XLOMES                         DOHELP
MOVE 1 TO 7-CD02-XNDEST                                 DOHELP
MOVE K-SHELP-XTERM TO 7-CD02-XTERM                     DOHELP
SEND 7-CD02 FROM CMES-YR00 WITH EGI                     DOHELP
AFTER ADVANCING 0 LINES PERFORM F81ES THRU F81ES-FN    DOHELP
GO TO F8Z10-G.                                          DOHELP
MOVE CMES-YR00 TO HELP-MESSO.                           DOHELP
PERFORM F8155 THRU F8155-FN.                             DOHELP
MOVE "A" TO OPER MOVE SPACE TO OPERD.                  DOHELP
F0510-FN. EXIT.                                          DOHELP
      *****                                           DOHELP
      *                                                     * DOHELP
      * VALIDATION OF OPERATION CODE                       * DOHELP
      *                                                     * DOHELP
      *****                                           DOHELP
F0520.                                                    DOHELP
      IF I-HELP-OPDOC = "E" OR "F"                      DOHELP
MOVE K-SHELP-PROGE TO 5-HELP-PROGE                      DOHELP
MOVE "O" TO OPER OPERD GO TO F0520-900.                DOHELP
      IF I-HELP-OPDOC = "T" OR "D"                      DOHELP
MOVE SPACE TO K-SHELP-ERCOD K-SHELP-ERTYP              DOHELP
MOVE ZERO TO K-SHELP-LINUM                             DOHELP
MOVE "A" TO OPER GO TO F0520-900.                       DOHELP
      IF I-HELP-OPDOC = "S"                              DOHELP
MOVE "A" TO OPER GO TO F0520-900.                       DOHELP
MOVE "5" TO ER-HELP-OPDOC MOVE "4" TO SCR-ER           DOHELP
GO TO F3999-ITER-FT.                                    DOHELP
F0520-900.                                              DOHELP
      IF OPER NOT = "A" AND OPER NOT = "O"              DOHELP
GO TO F3999-ITER-FT.                                    DOHELP
F0520-FN. EXIT.                                          DOHELP
F05-FN. EXIT.                                            DOHELP
      *****                                           DOHELP
      *                                                     * DOHELP
      * CATEGORY PROCESSING LOOP                           * DOHELP
      *****                                           DOHELP

```

HELP FUNCTION  
 GENERATED 'HELP' PROGRAM (TP8 MULTI-SCREEN)

```

*
*****
F10.          EXIT.
F1010.        MOVE SPACE TO CATM.
              IF CAT-ER = "E" MOVE "4" TO SCR-ER GO TO F3999-ITER-FT.
              MOVE SPACE TO CAT-ER.
              IF CATX = "0" MOVE "Z" TO CATX GO TO F1010-FN.
F1010-A.      GO TO F3999-ITER-FT.
F1010-FN.     EXIT.
F10-FN.       EXIT.
*****
*
*   DATA ELEMENT VALIDATION
*
*****
F20.          EXIT.
F20Z.        IF CATX NOT = "Z" GO TO F20Z-FN.
F20A7.
              IF I-HELP-OPDOC NOT = SPACE
              MOVE "1" TO ER-HELP-OPDOC.
F20A7-FN.     EXIT.
F20Z-FN.     EXIT.
F20-FN.       EXIT.
F3999-ITER-FI. GO TO F10.
F3999-ITER-FT. EXIT.
F3999-FN.     EXIT.
F40.          IF SCR-ER > "1" MOVE "A" TO OPER GO TO F40-FN.
F40-A.        IF OPERD NOT = SPACE MOVE OPERD TO OPER.
F4005.        IF OPER NOT = "O" GO TO F4005-FN.
              IF K-SHELP-CDOC = "D"
              MOVE "2" TO K-SHELP-CDOC.
              IF K-SHELP-CDOC = "R"
              MOVE "3" TO K-SHELP-CDOC.
              MOVE ZERO TO K-SHELP-LINUM.
              IF K-SHELP-ERCOD = SPACE
              OR K-SHELP-ERCOD NOT NUMERIC
              MOVE "001" TO K-SHELP-ERCOD.
              IF K-SHELP-ERCOD > "001"
              SUBTRACT 1 FROM K-SHELP-ERCOD9.
F4005-FN.     EXIT.
F4010.        IF OPER NOT = "A" GO TO F4010-FN.
              MOVE SPACE TO EM00-EMKEY
              MOVE K-SHELP-LIBRA TO EM00-LIBRA
              MOVE "H" TO EM00-ENTYP
              MOVE K-SHELP-PROGR TO EM00-PROGR
              MOVE K-SHELP-ERCOD TO EM00-ERCOD
              MOVE K-SHELP-ERTYP TO EM00-ERTYP
              MOVE K-SHELP-LINUM TO EM00-LINUM
              MOVE EM00-EMKEY TO K-REM00-EMKEY (1).
F4010-FN.     EXIT.
*****
*
*   END OF TRANSACTION
*
*****
F4030.        IF OPER NOT = "E" GO TO F4030-FN.
              MOVE LOW-VALUE TO NEXT-TPR
              MOVE 1 TO 7-CD02-XNDEST
              MOVE K-SHELP-XTERM TO 7-CD02-XTERM
              MOVE END-MESSAGE TO CMES-YR00.
              MOVE END-ATTR TO CMES-YO00.
              MOVE K-SHELP-YMAT TO CMES-YMAT.
              MOVE 7-YCREF TO CMES-YCRE.
              CALL "ZAR980" USING CMES-COMMUNICATION
              MOVE CMES-IND1 TO 7-CD02-XL0MES
              SEND 7-CD02 FROM CMES-YR00 WITH EGI
              AFTER ADVANCING 0 LINES.
              PERFORM F81FR THRU F81FR-FN.
              PERFORM F81FI THRU F81FI-FN.
F4030-A.      EXIT PROGRAM.
F4030-FN.     EXIT.
*****
*
*   TRANSFER TO ANOTHER SCREEN
*
*****
F4040.        IF OPER NOT = "O" GO TO F4040-FN.

```

## HELP FUNCTION

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## GENERATED 'HELP' PROGRAM (TP8 MULTI-SCREEN)

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```

        MOVE 5-HELP-PROGE TO NEXT-TPR.
        PERFORM F81FI THRU F81FI-FN.
F4040-A.  EXIT PROGRAM.
F4040-FN.  EXIT.
F40-FN.   EXIT.
END-OF-RECEPTION.  EXIT.
*****
*
*   DISPLAY PREPARATION
*
*****
F50.     IF OCF = "0" GO TO END-OF-DISPLAY.
F5010.
        MOVE ZERO TO CATX.
        MOVE ZERO TO CONFIGURATIONS.
        MOVE ALL "1" TO FIRST-ON-SEGMENT.
        IF SCR-ER > "1" MOVE LOW-VALUE TO HELP-MESSO.
        IF SCR-ER > "1" GO TO F6999-ITER-FT.
        MOVE SPACE TO O-HELP.
        PERFORM F8115 THRU F8115-FN.
F5010-FN.  EXIT.
F5020.    IF K-SHELP-ERTYP NOT = SPACE
          NEXT SENTENCE ELSE GO TO F5020-FN.
        MOVE SPACE TO EM00-ERTYP.
        IF K-SHELP-ERCOD < "001"
        MOVE SPACE TO EM00-ERCOD.
        MOVE ZERO TO EM00-LINUM
        PERFORM F80-EM00-P THRU F80-FN.
        IF IK = "1" GO TO F5020-FN.
        IF EM00-ERCOD NOT = SPACE
        MOVE EM00-ERMSG TO 7-HELP-ERMS
        MOVE 7-HELP-ERMSC TO HELP-LIENT
        MOVE "DOCUMENTATION OF DATA ELEMENT "
          TO HELP-LIBEC ELSE
        MOVE EM00-ERMSG TO HELP-LIENT
        MOVE "DOCUMENTATION OF THE SCREEN "
          TO HELP-LIBEC.
F5020-FN.  EXIT.
F50-FN.   EXIT.
*****
*
*   CATEGORY PROCESSING LOOP
*
*****
F55.     EXIT.
F5510.
        MOVE SPACE TO CAT-ER.
        IF CATX = "0" MOVE " " TO CATX GO TO F5510-FN.
        IF CATX = " " MOVE "R" TO CATX MOVE ZERO TO ICATR.
        IF CATX NOT = "R" OR ICATR > IRR GO TO F5510-R.
        IF ICATR > ZERO
        MOVE O-HELP-LIGNE TO
          P-HELP-LIGNE (ICATR).
        ADD 1 TO ICATR.
        IF ICATR NOT > IRR
        MOVE P-HELP-LIGNE (ICATR) TO
          O-HELP-LIGNE.
        GO TO F5510-FN.
F5510-R.  EXIT.
F5510-Z.
        IF CATX = "R" MOVE "Z" TO CATX GO TO F5510-FN.
F5510-900. GO TO F6999-ITER-FT.
F5510-FN.  EXIT.
F55-FN.   EXIT.
*****
*
*   SEGMENT ACCESS FOR DISPLAY
*
*****
F60.     EXIT.
F60R.    IF CATX NOT = "R" OR FT = "1" GO TO F60R-FN.
F60R-FN.  EXIT.
F6010.    IF CATX NOT = "R" OR FT = "1" GO TO F6010-FN.
        MOVE "0" TO EM00-CF.
        IF EM00-FST = "1"
        MOVE K-REM00-EMKEY (1) TO EM00-EMKEY
        MOVE EM00-LIBRA TO C-HELP-LIBRA

```

## HELP FUNCTION

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## GENERATED 'HELP' PROGRAM (TP8 MULTI-SCREEN)

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```

MOVE          EM00-ENTYP  TO  C-HELP-ENTYP          DOHELP
MOVE          EM00-PROGR  TO  C-HELP-PROGR          DOHELP
MOVE          EM00-ERCOD  TO  C-HELP-ERCOD          DOHELP
PERFORM F80-EM00-P THRU F80-FN                      DOHELP
MOVE ZERO TO EM00-FST   ELSE                          DOHELP
PERFORM F80-EM00-RN THRU F80-FN.                    DOHELP
IF IK = "0"                                          DOHELP
  IF          EM00-LIBRA NOT = C-HELP-LIBRA          DOHELP
  OR          EM00-ENTYP NOT = C-HELP-ENTYP          DOHELP
  OR          EM00-PROGR NOT = C-HELP-PROGR          DOHELP
MOVE "1" TO IK.                                     DOHELP
IF IK = "1" MOVE "G109" TO XERCD MOVE "1" TO FT     DOHELP
PERFORM F81UT THRU F81UT-FN      GO TO F6010-FN.    DOHELP
MOVE "1" TO EM00-CF.                                DOHELP
MOVE EM00-ERCOD TO K-SHELP-ERCOD                    DOHELP
MOVE EM00-ERTYP TO K-SHELP-ERTYP                    DOHELP
MOVE EM00-LINUM TO K-SHELP-LINUM.                   DOHELP
IF EM00-ERCOD NOT = C-HELP-ERCOD                    DOHELP
AND EM00-ERCOD > "000"                              DOHELP
MOVE "1" TO FT   GO TO F6010-FN.                    DOHELP
IF EM00-ERTYP = SPACE                               DOHELP
NEXT SENTENCE ELSE GO TO F6010-FN.                  DOHELP
IF EM00-ERCOD > ZERO                                DOHELP
MOVE EM00-ERMSG TO 7-HELP-ERMS                      DOHELP
MOVE 7-HELP-ERMSC TO HELP-LIENT                     DOHELP
MOVE "DOCUMENTATION OF DATA ELEMENT "             DOHELP
      TO HELP-LIBEC                                 DOHELP
      ELSE                                          DOHELP
MOVE EM00-ERMSG TO HELP-LIENT                       DOHELP
MOVE "DOCUMENTATION OF THE SCREEN "                DOHELP
      TO HELP-LIBEC.                               DOHELP
IF EM00-ERCOD > "999"                              DOHELP
MOVE SPACE TO HELP-LIENT                            DOHELP
MOVE "COMPLEMENTARY DOCUMENTATION "               DOHELP
      TO HELP-LIBEC.                               DOHELP
GO TO F6010.                                         DOHELP
F6010-FN. EXIT.                                     DOHELP
F60-FN. EXIT.                                       DOHELP
*****
*                                                     * DOHELP
* DATA ELEMENT TRANSFER                             * DOHELP
*                                                     * DOHELP
*****
F65. EXIT.                                          DOHELP
F6520. IF FT = "1" OR EM00-ERTYP = " " GO TO F6520-FN. DOHELP
IF ICATR > IRR GO TO F6520-FN.                    DOHELP
MOVE SPACE TO 7-HELP-ERMSGD.                       DOHELP
IF EM00-ERTYP = "1"                                DOHELP
MOVE EM00-ERMSG TO 7-HELP-ERMS                     DOHELP
MOVE 7-HELP-ERMSG2 TO 7-HELP-SIGNI                 DOHELP
MOVE 7-HELP-ERMSC TO 7-HELP-ERMSC1                DOHELP
MOVE 7-HELP-ERMSG1 TO 7-HELP-VALRU                DOHELP
GO TO F6520-900.                                    DOHELP
IF EM00-ERTYP = "0"                                DOHELP
MOVE SPACE TO 7-HELP-XEMKY                          DOHELP
MOVE EM00-ERMSG TO 7-HELP-LITAC                    DOHELP
GO TO F6520-900.                                    DOHELP
MOVE EM00-ERMSG TO 7-HELP-LITAC.                   DOHELP
IF EM00-LINUM NOT = ZERO                            DOHELP
GO TO F6520-900.                                    DOHELP
MOVE EM00-ERCOD TO 7-HELP-XEMKY                     DOHELP
MOVE EM00-ERTYP TO 7-HELP-ERTYP.                   DOHELP
F6520-900.                                          DOHELP
MOVE 7-HELP-ERMSGD TO O-HELP-ERMSGD.               DOHELP
F6520-FN. EXIT.                                     DOHELP
F6530. IF CATX NOT = "Z" GO TO F6530-FN.           DOHELP
MOVE HELP-LIENT TO O-HELP-LIENT                     DOHELP
MOVE HELP-LIBEC TO O-HELP-LIBEC.                   DOHELP
MOVE "CHOICE.....:" TO O-HELP-LICHOI              DOHELP
MOVE "(E: END - T: TOP - S: NEXT) "                DOHELP
      TO O-HELP-LIOPT.                              DOHELP
IF XERCD NOT = "G109"                               DOHELP
MOVE "S" TO O-HELP-OPDOC GO TO F6530-FN.           DOHELP
MOVE "E" TO O-HELP-OPDOC.                           DOHELP
IF K-SHELP-ERCOD NUMERIC AND K-SHELP-ERCOD > ZERO  DOHELP
ADD 1 TO K-SHELP-ERCOD9.                            DOHELP
F6530-FN. EXIT.                                     DOHELP

```

## HELP FUNCTION

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## GENERATED 'HELP' PROGRAM (TP8 MULTI-SCREEN)

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```

F65-FN.          EXIT.                                DOHELP
F6999-ITER-FI.  GO TO F55.                            DOHELP
F6999-ITER-FT.  EXIT.                                DOHELP
F6999-FN.       EXIT.                                DOHELP
F70.            DOHELP
                GO TO F7020.                          DOHELP
                *****                                DOHELP
                *                                     * DOHELP
                *   ERROR PROCESSING                   * DOHELP
                *                                     * DOHELP
                *****                                DOHELP
F7010.          MOVE ZERO TO K01 K02 K04 MOVE 1 TO K03. DOHELP
                MOVE LIBRA TO EM00-LIBRA MOVE PROGR TO EM00-PROGR DOHELP
                MOVE ZERO TO EM00-LINUM MOVE "H" TO EM00-ENTYP. DOHELP
F7010-A.        IF K02 = INR AND K03 < IRR MOVE INA TO K02 DOHELP
                ADD 1 TO K03. ADD 1 TO K01 K02.        DOHELP
                IF DE-ER (K01) > "1" OR < "0" MOVE "Y" TO DE-AT (4, K01) DOHELP
                MOVE "N" TO DE-AT (1, K01)            DOHELP
                MOVE "N" TO DE-AT (2, K01)            DOHELP
                MOVE "W" TO DE-AT (3, K01)            DOHELP
                IF K04 < IER MOVE DE-ER (K01) TO EM00-ERTYP DOHELP
                MOVE K02 TO K66                       DOHELP
                MOVE K66 TO EM00-ERCOD9 MOVE EM00-XEMKY TO EM00-ERMSG DOHELP
                PERFORM F80-EM00-R THRU F80-FN ADD 1 TO K04 DOHELP
                MOVE EM00-ERMSG TO O-HELP-ERMSG (K04). DOHELP
                IF K01 < INT GO TO F7010-A.            DOHELP
                MOVE ZERO TO K50R.                    DOHELP
F7010-B.        DOHELP
                ADD 1 TO K50R IF K50R > K50L OR K04 NOT < IER GO TO DOHELP
                F7010-FN. MOVE T-XEMKY (K50R) TO EM00-XEMKY EM00-ERMSG DOHELP
                PERFORM F80-EM00-R THRU F80-FN. ADD 1 TO K04 DOHELP
                MOVE EM00-ERMSG TO O-HELP-ERMSG (K04) DOHELP
                GO TO F7010-B.                        DOHELP
F7010-FN.       EXIT.                                DOHELP
                *****                                DOHELP
                *                                     * DOHELP
                *   POSITIONING OF ATTRIBUTES             * DOHELP
                *                                     * DOHELP
                *****                                DOHELP
F7020.          DOHELP
                MOVE ZERO TO TALLY INSPECT DE-ATT1 (4) DOHELP
                TALLYING TALLY FOR CHARACTERS BEFORE "Y". DOHELP
                IF TALLY NOT < 0001                   DOHELP
                MOVE ZERO TO TALLY INSPECT DE-ATT1 (4) DOHELP
                TALLYING TALLY FOR CHARACTERS BEFORE "Z". DOHELP
                IF TALLY NOT < 0001                   DOHELP
                MOVE ZERO TO TALLY INSPECT DE-ATT1 (4) DOHELP
                TALLYING TALLY FOR CHARACTERS BEFORE "X". DOHELP
                IF TALLY NOT < 0001                   DOHELP
                MOVE ZERO TO TALLY.                   DOHELP
                ADD 1 TO TALLY.                       DOHELP
                MOVE SV-AT (TALLY) TO K01              DOHELP
                MOVE AT-HELP-YPCUR (K01) TO CMES-YPCUR. DOHELP
                MOVE ZERO TO K01.                    DOHELP
F7020-A.        DOHELP
                ADD 1 TO K01. IF K01 > INT GO TO F7020-FN. DOHELP
                MOVE SV-AT (K01) TO K02.              DOHELP
                IF SV-ATTRI (K01) = "D" AND DE-AT (1, K01) NOT = "D" DOHELP
                MOVE "D" TO DE-AT (1, K01).          DOHELP
                IF DE-AT (1, K01) NOT = SPACE         DOHELP
                MOVE DE-AT (1, K01) TO AT-HELP-ATTRI (K02). DOHELP
                IF DE-AT (2, K01) NOT = SPACE         DOHELP
                MOVE DE-AT (2, K01) TO AT-HELP-ATTRP (K02). DOHELP
                IF DE-AT (3, K01) NOT = SPACE         DOHELP
                MOVE DE-AT (3, K01) TO AT-HELP-ATTRC (K02). DOHELP
                GO TO F7020-A.                        DOHELP
F7020-FN.       EXIT.                                DOHELP
F7030.          DOHELP
                IF ER-HELP-OPDOC = "5"               DOHELP
                MOVE "INVALID CHOICE" TO O-HELP-ERMSG (1). DOHELP
                IF XERCD = "G109"                    DOHELP
                MOVE "*** END ***" TO O-HELP-ERMSG (1). DOHELP
F7030-FN.       EXIT.                                DOHELP
F70-FN.         EXIT.                                DOHELP
END-OF-DISPLAY. EXIT.                                DOHELP
F8Z.           EXIT.                                DOHELP
                *****                                DOHELP

```



HELP FUNCTION  
GENERATED 'HELP' PROGRAM (TP8 MULTI-SCREEN)

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```
*
* DISPLAY
*
*****
F8Z10.
  IF SCR-ER NOT > "1"
  AND DE-AT (4, 001) = "X"
  PERFORM F7020 THRU F7020-FN.
  PERFORM F8145 THRU F8145-FN.
  MOVE 1 TO 7-CD02-XNDEST
  MOVE K-SHELP-XTERM TO 7-CD02-XTERM.
  MOVE 7-YCREX TO CMES-YCRE.
  MOVE SPACE TO K-SHELP-PFKY.
  IF SCR-ER NOT > "1"
  MOVE 7-YCREE TO CMES-YCRE
  PERFORM F8105 THRU F8105-FN.
  MOVE HELP-MESSO TO CMES-YR00
  MOVE AT-HELP-MESSA TO CMES-YO00
  MOVE K-SHELP-YMAT TO CMES-YMAT
  CALL "ZAR980" USING CMES-COMMUNICATION.
  PERFORM F81SE THRU F81SE-FN.
F8Z10-F. EXIT.
F8Z10-G.
  PERFORM F81FR THRU F81FR-FN.
F8Z10-FN.
  EXIT.
  *****
  *
  * END OF PROGRAM
  *
  *****
F8Z20.
  PERFORM F81FI THRU F81FI-FN.
  MOVE PROGE TO NEXT-TPR.
F8Z20-A. EXIT PROGRAM.
F8Z20-FN. EXIT.
F8Z-FN.
  EXIT.
  *****
  *
  * PHYSICAL SEGMENT ACCESS ROUTINES *
  *
  *****
F80.
  EXIT.
F80-EM00-R.
  READ EM-FILE INVALID KEY GO TO F80-KO.
  GO TO F80-OK.
F80-EM00-RU.
  READ EM-FILE INVALID KEY GO TO F80-KO.
  GO TO F80-OK.
F80-EM00-P.
  START EM-FILE KEY NOT <
  EM00-EMKEY INVALID KEY GO TO F80-KO.
F80-EM00-RN.
  READ EM-FILE NEXT AT END GO TO F80-KO.
  GO TO F80-OK.
F8001-FN. EXIT.
F80-OK. MOVE "0" TO IK MOVE Progr TO XPROGR GO TO F80-FN.
F80-KO. MOVE "1" TO IK MOVE Progr TO XPROGR.
F8099-FN. EXIT.
F80-FN. EXIT.
F81.
  EXIT.
  *****
  *
  * ABNORMAL END PROCEDURE
  *
  *****
F81ER.
  CALL ".ABORT".
F81ER-FN. EXIT.
F81ES.
  IF 7-CD01-XMSTA NOT = ZERO
  OR 7-CD02-XMSTA NOT = ZERO
  PERFORM F81FI THRU F81FI-FN
  CALL ".ABORT".
F81ES-FN. EXIT.
F81FI.
  CLOSE EM-FILE.
  CALL ".FNLCP"
```

HELP FUNCTION  
GENERATED 'HELP' PROGRAM (TP8 MULTI-SCREEN)

```
CALL ".DCKPF". DOHELP
F81FI-FN. EXIT. DOHELP
F81FR. CALL ".FREER" USING TP-STORAGE. DOHELP
F81FR-FN. EXIT. DOHELP
F81RE. MOVE SPACE TO CMES-YR00 DOHELP
RECEIVE 7-CD01 MESSAGE INTO CMES-YR00 DOHELP
NO DATA MOVE SPACE TO HELP-MESSI DOHELP
MOVE 7-CD01-XTERM TO K-SHELP-XTERM DOHELP
MOVE ZERO TO ICF. DOHELP
F81RE-FN. EXIT. DOHELP
F81SE. IF CMES-IND2 > ZERO DOHELP
MOVE CMES-IND1 TO 7-CD02-XLOMES DOHELP
SEND 7-CD02 FROM CMES-YR00 WITH EMI DOHELP
AFTER ADVANCING 0 LINES PERFORM F81ES THRU F81ES-FN DOHELP
MOVE CMES-IND2 TO 7-CD02-XLOMES DOHELP
SEND 7-CD02 FROM CMES-YO00 WITH EGI DOHELP
AFTER ADVANCING 0 LINES PERFORM F81ES THRU F81ES-FN. DOHELP
IF CMES-IND2 = ZERO DOHELP
MOVE CMES-IND1 TO 7-CD02-XLOMES DOHELP
SEND 7-CD02 FROM CMES-YR00 WITH EGI DOHELP
AFTER ADVANCING 0 LINES PERFORM F81ES THRU F81ES-FN. DOHELP
F81SE-FN. EXIT. DOHELP
***** DOHELP
* DOHELP
* MEMORIZATION OF USER'S ERRORS * DOHELP
* DOHELP
***** DOHELP
F81UT. IF K50L < K50M ADD 1 TO K50L DOHELP
MOVE XEMKY TO T-XEMKY (K50L). MOVE "E" TO CAT-ER. DOHELP
F81UT-FN. EXIT. DOHELP
F8105. IF CMES-YCRE = "G" GO TO F8105-FN. DOHELP
MOVE " " TO S01002. DOHELP
F8105-FN. EXIT. DOHELP
F8115. EXIT. DOHELP
F8115-FN. EXIT. DOHELP
F8145. MOVE T03002 TO S03002. DOHELP
MOVE T03033 TO S03033. DOHELP
MOVE T05004 TO S05004. DOHELP
MOVE T06004 TO S06004. DOHELP
MOVE T07004 TO S07004. DOHELP
MOVE T08004 TO S08004. DOHELP
MOVE T09004 TO S09004. DOHELP
MOVE T10004 TO S10004. DOHELP
MOVE T11004 TO S11004. DOHELP
MOVE T12004 TO S12004. DOHELP
MOVE T13004 TO S13004. DOHELP
MOVE T14004 TO S14004. DOHELP
MOVE T15004 TO S15004. DOHELP
MOVE T16004 TO S16004. DOHELP
MOVE T17004 TO S17004. DOHELP
MOVE T18004 TO S18004. DOHELP
MOVE T19004 TO S19004. DOHELP
MOVE T20004 TO S20004. DOHELP
MOVE T21004 TO S21004. DOHELP
MOVE T23002 TO S23002. DOHELP
MOVE T23022 TO S23022. DOHELP
MOVE T23028 TO S23028. DOHELP
MOVE T24002 TO S24002. DOHELP
F8145-FN. EXIT. DOHELP
F8155. MOVE S23022 TO R23022. DOHELP
F8155-FN. EXIT. DOHELP
F81-FN. EXIT. DOHELP
```

## 7. P.M.S. CALLS

## *7.1. INTRODUCTION*

### INTRODUCTION

This chapter presents the Parameterized Macro-Structures (P.M.S.) used in the program.

These P.M.S.s are used to write functions one time, which can be used in several programs. (For more details, refer to Chapter "PARAMETERIZED MACRO-STRUCTURES" in the STRUCTURED CODE Reference Manual.)

## 7.2. AADOCP ZIP CODE VALIDATION

```
-----  
!                APPLICATION BULL DPS8                *PDSG.NDOC.AD8.20!  
! PROGRAM DEFINITION..... AADOCP                      !  
!                !                                     !  
! PROGRAM NAME.....: ZIP CODE VALIDATION              !  
!                !                                     !  
! CODE FOR SEQUENCE GENERATION.....: AADOCP           !  
!                !                                     !  
! TYPE OF CODE TO GENERATE.....: N                    !  
! COBOL NUMBERING AND ALIGNMENT OPT...:               !  
! CONTROL CARDS IN FRONT OF PROGRAM...:               !  
! CONTROL CARDS IN BACK OF PROGRAM...:               !  
! COBOL PROGAM-ID.....: AADOCP                        !  
! MODE OF PROGRAMMING.....: P                        !  
! TYPE AND STRUCTURE OF PROGRAM.....: B              !  
! PROGRAM CLASSIFICATION CODE.....: N    M.S NOT EXPANS !  
! TYPE OF PRESENCE VALIDATION.....:                 !  
! SQL INDICATORS GENERATION WITH '_'...:              !  
!                !                                     !  
! EXPLICIT KEYWORDS...:                               !  
!                !                                     !  
! SESSION NUMBER.....: 0038          LIBRARY.....:ACC   LOCK.... !  
!                !                                     !  
! O: C1 CH: Paadocp                ACTION:            !  
-----
```

P.M.S. CALLS

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AADOCP ZIP CODE VALIDATION

2

```

-----
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!
! PROGRAM CROSS-REFERENCES                                AADOCP ZIP CODE VALIDATION !
! A T P PG/SC LN C : COMMENTS OR PARAMETER VALUES           D E !
! . C           05 : $1 : LOCATION IN '-W' LINE             (2 CHARACTERS) !
! . O D00030     : WP/                                     !
! :                                                       !
! :                                                       !
! :                                                       !
! :                                                       !
! :                                                       !
! :                                                       !
! :                                                       !
! :                                                       !
! :                                                       !
! :                                                       !
! :                                                       !
! :                                                       !
! :                                                       !
! :                                                       !
! :                                                       !
! :                                                       !
! :                                                       !
! O: C1 CH: -XP                                           !
-----

```

```
-----  
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!  
! WORK AREAS.....ENTITY TYPE P AADOC P Z      ZIP CODE VALIDATION      !  
! !  
! CODE FOR PLACEMENT..:          $1                                           !  
! A LIN T LEVEL OR SECTION WORK AREA DESCRIPTION      OCCURS!  
! . 000    01                WP100                                           !  
! . 010    02                WP10                                           !  
! . 020    05                FILLER PIC X (25) VALUE                          !  
! . 030                '23400BRISBAME' .                                       !  
! . 040    05                FILLER PIC X (25) VALUE                          !  
! . 050                '56400VICTORIA' .                                       !  
! . 060    05                FILLER PIC X (25) VALUE                          !  
! . 070                '76500ALICE SPRING' .                                       !  
! . 080    05                FILLER PIC X (25) VALUE                          !  
! . 090                '55300MELBOURNE' .                                       !  
! . 100    05                FILLER PIC X (25) VALUE                          !  
! . 110                '11000CAMBERRA' .                                       !  
! . 120    05                FILLER PIC X (25) VALUE                          !  
! . 130                '34500PERTH' .                                       !  
! . 140    05                FILLER PIC X (25) VALUE                          !  
! . 150                '85270DARWIN' .                                       !  
! . 160    05                FILLER PIC X (25) VALUE                          !  
! !  
! O: C1 CH: -W  
-----
```

P.M.S. CALLS

7

AADOCP ZIP CODE VALIDATION

2

```

-----
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!
! WORK AREAS.....ENTITY TYPE P AADOCP Z      ZIP CODE VALIDATION                !
!
! CODE FOR PLACEMENT..:          $1                                             !
! A LIN T LEVEL OR SECTION WORK AREA DESCRIPTION                                OCCURS!
! . 170                               '94000HOBART                               ' .      !
! . 180      05                       FILLER PIC X (25) VALUE                               !
! . 190                               '89300SIDNEY                               ' .      !
! . 300      02                       WP20 REDEFINES WP10 OCCURS 9.                               9!
! . 320 E   05                       WP-COPOS                               !
! . 340 E   05                       WP-VILLE                               !
! . 400      02                       WP30                               !
! . 410 I   05                       WP30-COPOS                               !
! . 500      02                       WP40                               !
! . 510 E   05                       WP40-VILLE                               !
! . 520 E   05                       WP40-VILLEL                               !
!
!
!
!
! O: C1 CH:
-----

```







### 7.3. AITACA REPETITIVE CATEGORY STORAGE

```
-----  
!                APPLICATION BULL DPS8                *PDSG.NDOC.AD8.20!  
! PROGRAM DEFINITION..... AITACA                      !  
!                !  
! PROGRAM NAME.....: DPS8 : REPET. CAT. STORAGE      !  
!                !  
! CODE FOR SEQUENCE GENERATION.....: AITACA          !  
!                !  
! TYPE OF CODE TO GENERATE.....: N                  !  
! COBOL NUMBERING AND ALIGNMENT OPT...:              !  
! CONTROL CARDS IN FRONT OF PROGRAM...:              !  
! CONTROL CARDS IN BACK OF PROGRAM...:              !  
! COBOL PROGAM-ID.....: AITACA                       !  
! MODE OF PROGRAMMING.....: P                       !  
! TYPE AND STRUCTURE OF PROGRAM.....: M              !  
! PROGRAM CLASSIFICATION CODE.....: M    MACRO-STRUCTURE !  
! TYPE OF PRESENCE VALIDATION.....:                  !  
! SQL INDICATORS GENERATION WITH '_'...:              !  
!                !  
! EXPLICIT KEYWORDS...:                              !  
!                !  
! SESSION NUMBER.....: 0038          LIBRARY.....:DCC    LOCK....: !  
!                !  
! O: C1 CH: Paitaca                ACTION:           !  
-----
```

P.M.S. CALLS

7

AITACA REPETITIVE CATEGORY STORAGE

3

```
-----  
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!  
! PROGRAM CROSS-REFERENCES           AITACA DPS8 : REPET. CAT. STORAGE           !  
!                                     !  
! A T P PG/SC  LN C : COMMENTS OR PARAMETER VALUES           D E           !  
! . C           10 : $1 = LAST 4 CHARACTERS OF THE SCREEN CODE           !  
! . C           15 : $2 = REPETITIVE CATEGORY BEGINNING LABEL           !  
! . C           20 :           DEFINED ON THE '-CE' SCREEN           !  
! O DO0030     : 0030/LINE           !  
!           :           !  
!           :           !  
!           :           !  
!           :           !  
!           :           !  
!           :           !  
!           :           !  
!           :           !  
!           :           !  
!           :           !  
!           :           !  
!           :           !  
!           :           !  
!           :           !  
!           :           !  
!           :           !  
!           :           !  
!           :           !  
! O: C1 CH: -XP           !  
-----
```



7.4. AITACB REPET. CAT. STORAGE CONT.

```
-----  
!                APPLICATION BULL DPS8                *PDSG.NDOC.AD8.20!  
! PROGRAM DEFINITION..... AITACB                      !  
!                !  
! PROGRAM NAME.....: DPS8 : REPET. CAT. STORAGE  CONT. !  
!                !  
! CODE FOR SEQUENCE GENERATION.....: AITACB           !  
!                !  
! TYPE OF CODE TO GENERATE.....: N                   !  
! COBOL NUMBERING AND ALIGNMENT OPT...:              !  
! CONTROL CARDS IN FRONT OF PROGRAM...:              !  
! CONTROL CARDS IN BACK OF PROGRAM...:              !  
! COBOL PROGAM-ID.....: AITACB                       !  
! MODE OF PROGRAMMING.....: P                       !  
! TYPE AND STRUCTURE OF PROGRAM.....: M             !  
! PROGRAM CLASSIFICATION CODE.....: M   MACRO-STRUCTURE !  
! TYPE OF PRESENCE VALIDATION.....:                !  
! SQL INDICATORS GENERATION WITH '_'...:            !  
!                !  
! EXPLICIT KEYWORDS...:                              !  
!                !  
! SESSION NUMBER.....: 0038          LIBRARY.....:DCC   LOCK....: !  
!                !  
! O: C1 CH: Paitacb                ACTION:          !  
-----
```

P.M.S. CALLS

7

AITACB REPET. CAT. STORAGE CONT.

4

```

-----
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!
! PROGRAM CROSS-REFERENCES          AITACB DPS8 : REPET. CAT. STORAGE CONT          !
!
! A T P PG/SC  LN C : COMMENTS OR PARAMETER VALUES                               D E                               !
! . C          05  : $1 = LINE NUMBER FIRST 2 CHARACTERS                          !
! . C          10  : $2 = FIELD TO MEMORIZE (DDSS-DELCO)                           !
! . C          15  : $3 = SEGMENT CODE                                             !
! . C          20  : $4 = KEY DATA ELEMENT CODE (DEFINED IN                       !
! . C          25  : SPECIFICATIONS DICTIONNARY)                                  !
! . C          30  : $5 = SEGMENT ACCESS KEY                                       !
!   O DO0030    : 30/CA00-NUCOM/CD10/DBKEY/CD05-NUCOM/                             !
!   :                                                    :                             !
!   :                                                    :                             !
!   :                                                    :                             !
!   :                                                    :                             !
!   :                                                    :                             !
!   :                                                    :                             !
!   :                                                    :                             !
!   :                                                    :                             !
!   :                                                    :                             !
!   :                                                    :                             !
!   :                                                    :                             !
!   :                                                    :                             !
!   :                                                    :                             !
! O: C1 CH: -XP
-----

```

P.M.S. CALLS  
AITACB REPET. CAT. STORAGE CONT.

PAGE

296

7  
4

```
-----  
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!  
! WORK AREAS.....ENTITY TYPE P AITACB DPS8 REPET. CAT. STORAGE CONT !  
!                               !  
! CODE FOR PLACEMENT..:                01                               !  
! A LIN T LEVEL OR SECTION WORK AREA DESCRIPTION OCCURS!  
! . $18 I      05                S-R$3-$4 OCCURS "                !  
!                               !  
!                               !  
!                               !  
!                               !  
!                               !  
!                               !  
!                               !  
!                               !  
!                               !  
!                               !  
!                               !  
!                               !  
!                               !  
!                               !  
!                               !  
!                               !  
! O: C1 CH: -W                !  
-----
```







### 7.5. AITADB POSITIONING WITH DB-KEY

```
-----  
!                APPLICATION BULL DPS8                *PDSG.NDOC.AD8.20!  
! PROGRAM DEFINITION..... AITADB                      !  
!                !  
! PROGRAM NAME.....: DPS8 : POSITIONING WITH DB-KEY    !  
!                !  
! CODE FOR SEQUENCE GENERATION.....: AITADB           !  
!                !  
! TYPE OF CODE TO GENERATE.....: N                   !  
! COBOL NUMBERING AND ALIGNMENT OPT...:              !  
! CONTROL CARDS IN FRONT OF PROGRAM...:              !  
! CONTROL CARDS IN BACK OF PROGRAM...:              !  
! COBOL PROGAM-ID.....: AITADBB                       !  
! MODE OF PROGRAMMING.....: P                        !  
! TYPE AND STRUCTURE OF PROGRAM.....: B              !  
! PROGRAM CLASSIFICATION CODE.....: M   MACRO-STRUCTURE !  
! TYPE OF PRESENCE VALIDATION.....:                 !  
! SQL INDICATORS GENERATION WITH '_'...:             !  
!                !  
! EXPLICIT KEYWORDS...:                               !  
!                !  
! SESSION NUMBER.....: 0038          LIBRARY.....:DCC   LOCK...: !  
!                !  
! O: C1 CH: Paitadb                ACTION              !  
-----
```

P.M.S. CALLS

7

AITADB POSITIONING WITH DB-KEY

5

```

-----
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!
! PROGRAM CROSS-REFERENCES          AITADB DPS8 : POSITIONING WITH DB-KEY          !
!
! A T P PG/SC  LN C : COMMENTS OR PARAMETER VALUES                               D E          !
! . C          10  : $1 = SUB-FUNCTION CODE                                     !
! . C          20  : $2 = SEGMENT CODE                                         !
! . C          30  : $3 = NAME OF THE FIELD CONTAINING THE DB-KEY              !
!   O DO0030    : LS/CD10/K-RCD10-DBKEY (1)/                                  !
!   :                                                    !
!   :                                                    !
!   :                                                    !
!   :                                                    !
!   :                                                    !
!   :                                                    !
!   :                                                    !
!   :                                                    !
!   :                                                    !
!   :                                                    !
!   :                                                    !
!   :                                                    !
!   :                                                    !
!   :                                                    !
!   :                                                    !
! O: C1 CH: -XP
-----

```

```
!-----!  
! APPLICATION BULL DPS8 *PDSG.NDOC.AD8.20!  
! PROG PROCEDURAL CODE P AITADB DPS8 : POSITIONING WITH DB-KEY FUNCTION: 80 !  
!  
! A SF LIN OPE OPERANDS LVTY CONDITION !  
! . $1 N READ WITHIN DN-KEY 10BL !  
! . $1 100 YP $2 !  
! . $1 120 M ZERO IK !  
! . $1 200 BFD DB-KEY IS !  
! . $1 210 $3 !  
! . $1 300 M DB-STATUS IO-STATUS !  
! . $1 400 COB GO TO F80-$2-RN 99IT OK !  
! . $1 450 COB GO TO F80-KO 99IT NOT-FOUND !  
! . $1 920 P F81ER !  
! - - - - - !  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
! *** END *** !  
! O: C1 CH: -P !  
!-----!
```

## 7.6. AITAKE F4010 CONDITIONING

```
-----  
!                APPLICATION BULL DPS8                *PDSG.NDOC.AD8.20!  
! PROGRAM DEFINITION..... AITAKE                      !  
!                !  
! PROGRAM NAME.....: DPS8 : F4010 CONDITIONING        !  
!                !  
! CODE FOR SEQUENCE GENERATION.....: AITAKE           !  
!                !  
! TYPE OF CODE TO GENERATE.....: N                   !  
! COBOL NUMBERING AND ALIGNMENT OPT...:              !  
! CONTROL CARDS IN FRONT OF PROGRAM...:              !  
! CONTROL CARDS IN BACK OF PROGRAM...:              !  
! COBOL PROGAM-ID.....: AITAKE                       !  
! MODE OF PROGRAMMING.....: P                       !  
! TYPE AND STRUCTURE OF PROGRAM.....: B              !  
! PROGRAM CLASSIFICATION CODE.....: M   MACRO-STRUCTURE !  
! TYPE OF PRESENCE VALIDATION.....:                 !  
! SQL INDICATORS GENERATION WITH '_'...:            !  
!                !  
! EXPLICIT KEYWORDS...:                             !  
!                !  
! SESSION NUMBER.....: 0038          LIBRARY.....:AD8    LOCK...: !  
!                !  
! O: C1 CH: Paitake                ACTION:           !  
-----
```

-----  
! APPLICATION BULL DPS8 \*PDSG.NDOC.AD8.20!  
! PROGRAM CROSS-REFERENCES AITAKE DPS8 : F4010 CONDITIONING !  
! !  
! A T P PG/SC LN C : COMMENTS OR PARAMETER VALUES D E !  
! . C 05 : \$1 = LAST 4 CHARACTERS OF THE SCREEN CODE !  
! O : 0030/ !  
! : !  
! : !  
! : !  
! : !  
! : !  
! : !  
! : !  
! : !  
! : !  
! : !  
! : !  
! : !  
! : !  
! : !  
! : !  
! : !  
! : !  
! : !  
! : !  
! O: C1 CH: -XP !  
-----

```

-----
! APPLICATION BULL DPS8 *PDSG.NDOC.AD8.20!
! WORK AREAS.....ENTITY TYPE P AITAKE DPS8 : F4010 CONDITIONING !
!
! CODE FOR PLACEMENT..: 01 !
! A LIN T LEVEL OR SECTION WORK AREA DESCRIPTION OCCURS!
! . 001 02 K-$1 !
! !
! !
! !
! !
! !
! !
! !
! !
! !
! !
! !
! !
! !
! !
! !
! O: C1 CH: -W !
-----
  
```





### 7.7. AITASS CALL OF THE SUB-SCHEMA

```
-----  
!                APPLICATION BULL DPS8                *PDSG.NDOC.AD8.20!  
! PROGRAM DEFINITION..... AITASS                      !  
! !                                                    !  
! PROGRAM NAME.....: DPS8 : CALL OF THE SUB-SCHEMA    !  
! !                                                    !  
! CODE FOR SEQUENCE GENERATION.....: AITASS           !  
! !                                                    !  
! TYPE OF CODE TO GENERATE.....: N                   !  
! COBOL NUMBERING AND ALIGNMENT OPT...:              !  
! CONTROL CARDS IN FRONT OF PROGRAM...:              !  
! CONTROL CARDS IN BACK OF PROGRAM...:              !  
! COBOL PROGAM-ID.....: AITASS                       !  
! MODE OF PROGRAMMING.....: P                        !  
! TYPE AND STRUCTURE OF PROGRAM.....: B              !  
! PROGRAM CLASSIFICATION CODE.....: M   MACRO-STRUCTURE !  
! TYPE OF PRESENCE VALIDATION.....:                 !  
! SQL INDICATORS GENERATION WITH '_'...:             !  
! !                                                    !  
! EXPLICIT KEYWORDS...:                              !  
! !                                                    !  
! SESSION NUMBER.....: 0038          LIBRARY.....:DCC   LOCK....: !  
! !                                                    !  
! O: C1 CH: Paitass                ACTION:           !  
-----
```

P.M.S. CALLS

7

AITASS CALL OF THE SUB-SCHEMA

7

```

-----
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!
! PROGRAM CROSS-REFERENCES          AITASS DPS8 : CALL OF THE SUB-SCHEMA          !
!
! A T P PG/SC  LN C : COMMENTS OR PARAMETER VALUES          D E          !
! . C          10  : $1 = SUB-SCHEMA NAME                    !
! . C          20  : $2 = SCHEMA NAME                        !
! O DOHELP     : COMSSCH/MNGMENT/                            !
! O DO0030     : COMSSCH/MNGMENT/                            !
!              :                                             !
!              :                                             !
!              :                                             !
!              :                                             !
!              :                                             !
!              :                                             !
!              :                                             !
!              :                                             !
!              :                                             !
!              :                                             !
!              :                                             !
!              :                                             !
!              :                                             !
!              :                                             !
! O: C1 CH: -XP                                             !
-----

```



### 7.8. AITCAN DELETION OF A RECORD

```
-----  
!                APPLICATION BULL DPS8                *PDSG.NDOC.AD8.20!  
! PROGRAM DEFINITION..... AITCAN                      !  
! !                                                    !  
! PROGRAM NAME.....: DPS8 : DELETION OF A RECORD      !  
! !                                                    !  
! CODE FOR SEQUENCE GENERATION.....: AITCAN           !  
! !                                                    !  
! TYPE OF CODE TO GENERATE.....: N                   !  
! COBOL NUMBERING AND ALIGNMENT OPT...:              !  
! CONTROL CARDS IN FRONT OF PROGRAM...:              !  
! CONTROL CARDS IN BACK OF PROGRAM...:              !  
! COBOL PROGAM-ID.....: AITCAN                       !  
! MODE OF PROGRAMMING.....: P                        !  
! TYPE AND STRUCTURE OF PROGRAM.....: B              !  
! PROGRAM CLASSIFICATION CODE.....: M   MACRO-STRUCTURE !  
! TYPE OF PRESENCE VALIDATION.....:                 !  
! SQL INDICATORS GENERATION WITH '_'...:             !  
! !                                                    !  
! EXPLICIT KEYWORDS...:                              !  
! !                                                    !  
! SESSION NUMBER.....: 0038          LIBRARY.....:DCC   LOCK....: !  
! !                                                    !  
! O: C1 CH: Paitcan                ACTION:           !  
-----
```

```
-----  
!                APPLICATION BULL DPS8                *PDSG.NDOC.AD8.20!  
! PROGRAM CROSS-REFERENCES                AITCAN DPS8 : DELETION OF A RECORD    !  
!                :                                     :                               !  
! A T P PG/SC  LN C : COMMENTS OR PARAMETER VALUES                D E        !  
! . C          10  : $1 = SUB-FUNCTION CODE                        !          !  
! . C          15  : $2 = PACBASE CODE OF IDS RECORD TO DELETE     !          !  
! . C          20  : $3 = COMPLEMENTARY PARAMETERS IF NECESSARY   !          !  
!   O DO0030    : LQ/CD10/                                         !          !  
!                :                                               !          !  
!                :                                               !          !  
!                :                                               !          !  
!                :                                               !          !  
!                :                                               !          !  
!                :                                               !          !  
!                :                                               !          !  
!                :                                               !          !  
!                :                                               !          !  
!                :                                               !          !  
!                :                                               !          !  
!                :                                               !          !  
!                :                                               !          !  
!                :                                               !          !  
!                :                                               !          !  
!                :                                               !          !  
!                :                                               !          !  
! O: C1 CH: -XP                                                !          !  
-----
```

P.M.S. CALLS

7

AITCAN DELETION OF A RECORD

8

```

-----
!                 APPLICATION BULL DPS8                 *PDSG.NDOC.AD8.20!
! PROG PROCEDURAL CODE P AITCAN DPS8 : DELETION OF A RECORD  FUNCTION: 80  !
!
! A SF LIN OPE OPERANDS                               LVTY CONDITION      !
! . $1      N  RECORD DELETION                        10BL                      !
! . $1  20 YD  $2                                     !                      !
! . $1  30 BFD CURRENT $2                             !                      !
! . $1  40 M   ZERO IK                                !                      !
! . $1 120 BER $2                                     !                      !
! . $1 140      $3                                     !                      !
! . $1 160      DB-STATUS IO-STATUS                    !                      !
! . $1 180 COB GO TO F80-OK                            99IT OK                    !
! . $1 200 P   F81ER                                   !                      !
! - - - - -                                           -----
!
!
!
!
!
!
!
!
! *** END ***
! O: C1 CH: -P
-----

```

### 7.9. AITCCR CREATION OF A RECORD

```
-----  
!                APPLICATION BULL DPS8                *PDSG.NDOC.AD8.20!  
! PROGRAM DEFINITION..... AITCCR                    !  
! !                                                  !  
! PROGRAM NAME.....: DPS8 : CREATION OF A RECORD    !  
! !                                                  !  
! CODE FOR SEQUENCE GENERATION.....: AITCCR         !  
! !                                                  !  
! TYPE OF CODE TO GENERATE.....: N                 !  
! COBOL NUMBERING AND ALIGNMENT OPT...:            !  
! CONTROL CARDS IN FRONT OF PROGRAM...:            !  
! CONTROL CARDS IN BACK OF PROGRAM...:            !  
! COBOL PROGAM-ID.....: AITCCR                     !  
! MODE OF PROGRAMMING.....: P                     !  
! TYPE AND STRUCTURE OF PROGRAM.....: B           !  
! PROGRAM CLASSIFICATION CODE.....: M   MACRO-STRUCTURE !  
! TYPE OF PRESENCE VALIDATION.....:              !  
! SQL INDICATORS GENERATION WITH '_'...:          !  
! !                                                  !  
! EXPLICIT KEYWORDS...:                            !  
! !                                                  !  
! SESSION NUMBER.....: 0038          LIBRARY.....:DCC   LOCK....: !  
! !                                                  !  
! O: C1 CH: Paitccr                    ACTION:      !  
-----
```



```
-----  
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!  
! PROGRAM CROSS-REFERENCES                               AITCCR DPS8 : CREATION OF A RECORD                               !  
!                                                                                               !  
! A T P PG/SC LN C : COMMENTS OR PARAMETER VALUES                               D E                               !  
! . C          10 : $1 = SUB-FUNCTION CODE                               !  
! . C          15 : $2 = PACBASE CODE OF IDS RECORD TO DELETE                               !  
! O DO0030      : LM/CD10                               !  
! O DO0030    10 : EG/CD20/                               !  
! :                                                                                               !  
! :                                                                                               !  
! :                                                                                               !  
! :                                                                                               !  
! :                                                                                               !  
! :                                                                                               !  
! :                                                                                               !  
! :                                                                                               !  
! :                                                                                               !  
! :                                                                                               !  
! :                                                                                               !  
! :                                                                                               !  
! :                                                                                               !  
! :                                                                                               !  
! :                                                                                               !  
! O: C1 CH: -XP                               !  
-----
```



### 7.10. AITCMO MODIFICATION OF A RECORD

```
-----  
!                APPLICATION BULL DPS8                *PDSG.NDOC.AD8.20!  
! PROGRAM DEFINITION..... AITCMO                      !  
!                !  
! PROGRAM NAME.....: DPS8 : MODIFICATION OF A RECORD  !  
!                !  
! CODE FOR SEQUENCE GENERATION.....: AITCMO           !  
!                !  
! TYPE OF CODE TO GENERATE.....: N                   !  
! COBOL NUMBERING AND ALIGNMENT OPT...:              !  
! CONTROL CARDS IN FRONT OF PROGRAM...:              !  
! CONTROL CARDS IN BACK OF PROGRAM...:              !  
! COBOL PROGAM-ID.....: AITCMO                       !  
! MODE OF PROGRAMMING.....: P                       !  
! TYPE AND STRUCTURE OF PROGRAM.....: B              !  
! PROGRAM CLASSIFICATION CODE.....: M   MACRO-STRUCTURE !  
! TYPE OF PRESENCE VALIDATION.....:                 !  
! SQL INDICATORS GENERATION WITH '_'...:             !  
!                !  
! EXPLICIT KEYWORDS...:                              !  
!                !  
! SESSION NUMBER.....: 0038          LIBRARY.....:DCC   LOCK....: !  
!                !  
! O: C1 CH: Paitcmo                ACTION:           !  
-----
```

```
-----  
!                APPLICATION BULL DPS8                *PDSG.NDOC.AD8.20!  
! PROGRAM CROSS-REFERENCES                AITCMO DPS8 : MODIFICATION OF A RECORD !  
!                !  
! A T P PG/SC LN C : COMMENTS OR PARAMETER VALUES                D E                !  
! . C                10 : $1 = SUB-FUNCTION CODE                !  
! . C                15 : $2 = PACBASE CODE OF IDS RECORD TO MODIFY                !  
! . C                20 : $3 = COMPLEMENTARY PARAMETERS IF NECESSARY                !  
! . C                25 : IF THE PROGRAM IS POSITIONED ON THE RIGHT RECORD                !  
! . C                30 : TYPE, LINES 60 TO 100 CAN BE SUPPRESSED                !  
! O DO0030                : BC/CD05/                !  
! O DO0030                10 : FP/FO10/                !  
! O DO0030                20 : LJ/CD10/                !  
! O DO0030                30 : EF/CD20/                !  
!                :                !  
!                :                !  
!                :                !  
!                :                !  
!                :                !  
!                :                !  
!                :                !  
!                :                !  
!                :                !  
!                :                !  
!                :                !  
!                :                !  
! O: C1 CH: -XP                !  
-----
```

```
-----  
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!  
!  PROG PROCEDURAL CODE P AITCMO DPS8 : MODIFICATION OF A RECORD FUNCTION: 80 !  
!  
! A SF LIN OPE OPERANDS                                         LVTY CONDITION      !  
! . $1     N   RECORD MODIFICATION                               10BL                 !  
! . $1  20 YRW $2                                               !  
! . $1  30 BDF CURRENT $2                                       !  
! . $1  40 M   ZERO IK                                           !  
! . $1 120 BMD $2                                               !  
! . $1 140     $3                                               !  
! . $1 160 M   DB-STATUS IO-STATUS                               99BL                 !  
! . $1 180 COB GO TO F80-OK                                       99IT OK             !  
! . $1 200 P   F81ER                                             !  
! . $1 990 YUN $2                                               99BL                 !  
! . $1 995 COB GO TO F80-OK                                       !  
! -----  
!  
!  
!  
!  
!  
!  
! *** END ***  
! O: C1 CH: -P  
-----
```

P.M.S. CALLS  
AITCRE READ WITHIN CALCULATED KEY

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### 7.11. AITCRE READ WITHIN CALCULATED KEY

```
-----  
!                APPLICATION BULL DPS8                *PDSG.NDOC.AD8.20!  
! PROGRAM DEFINITION..... AITCRE                      !  
!                !  
! PROGRAM NAME.....: DPS8 : READ WITHIN CALCUL. KEY  !  
!                !  
! CODE FOR SEQUENCE GENERATION.....: AITCRE           !  
!                !  
! TYPE OF CODE TO GENERATE.....: N                   !  
! COBOL NUMBERING AND ALIGNMENT OPT...:              !  
! CONTROL CARDS IN FRONT OF PROGRAM...:              !  
! CONTROL CARDS IN BACK OF PROGRAM...:              !  
! COBOL PROGAM-ID.....: AITCRE                       !  
! MODE OF PROGRAMMING.....: P                       !  
! TYPE AND STRUCTURE OF PROGRAM.....: B              !  
! PROGRAM CLASSIFICATION CODE.....: M   MACRO-STRUCTURE !  
! TYPE OF PRESENCE VALIDATION.....:                 !  
! SQL INDICATORS GENERATION WITH '_'...:             !  
!                !  
! EXPLICIT KEYWORDS...:                             !  
!                !  
! SESSION NUMBER.....: 0038          LIBRARY.....:DCC   LOCK....: !  
!                !  
! O: C1 CH: Paitcre                ACTION:           !  
-----
```

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AITCRE READ WITHIN CALCULATED KEY

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```

-----
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!
! PROGRAM CROSS-REFERENCES                AITCRE DPS8 : READ WITHIN CALCUL. KEY                !
!
! A T P PG/SC  LN C : COMMENTS OR PARAMETER VALUES                                D E                                !
! . C          10  : $1 = SUB-FUNCTION CODE                                        !
! . C          20  : $2 = SEGMENT CODE                                           !
! O DO0030     : BB/CD05/                                                         !
! O DO0030    10  : F0/FO10/                                                     !
! :                                                                                   !
! :                                                                                   !
! :                                                                                   !
! :                                                                                   !
! :                                                                                   !
! :                                                                                   !
! :                                                                                   !
! :                                                                                   !
! :                                                                                   !
! :                                                                                   !
! :                                                                                   !
! :                                                                                   !
! :                                                                                   !
! :                                                                                   !
! :                                                                                   !
! O: C1 CH: -XP                                                                    !
-----

```

P.M.S. CALLS  
AITCRE READ WITHIN CALCULATED KEY

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```
-----  
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!  
! PROG PROCEDURAL CODE P AITCRE DPS8 : READ WITHIN CALCUL. KEY FUNCTION: 80 !  
!                               !  
! A SF LIN OPE OPERANDS                               LVTY CONDITION                               !  
! . $1      N  READ CALCULATED KEY $2                 10BL                               !  
! . $1 100 YR  $2                                       !  
! . $1 110 YRU $2                                       !  
! . $1 120 M   ZERO IK                                       !  
! . $1 150 BFD ANY $2                                       !  
! . $1 200 M   DB-STATUS IO-STATUS                               99BL                               !  
! . $1 250 BG  $2                                       99IT OK                               !  
! . $1 300 COB GO TO F80-OK                                       !  
! . $1 350 COB GO TO F80-KO                               99IT NOT FOUND                       !  
! . $1 900 P   F81ER                                       !  
! -----  
!                               !  
!                               !  
!                               !  
!                               !  
!                               !  
!                               !  
!                               !  
! *** END ***                                       !  
! O: C1 CH: -P                                       !  
-----
```



P.M.S. CALLS  
AITCRF READ FIRST WITHIN

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## 7.12. AITCRF READ FIRST WITHIN

```
-----  
!                APPLICATION BULL DPS8                *PDSG.NDOC.AD8.20!  
! PROGRAM DEFINITION..... AITCRF                      !  
!                !  
! PROGRAM NAME.....: DPS8 : READ FIRST WITHIN        !  
!                !  
! CODE FOR SEQUENCE GENERATION.....: AITCRF          !  
!                !  
! TYPE OF CODE TO GENERATE.....: N                   !  
! COBOL NUMBERING AND ALIGNMENT OPT...:              !  
! CONTROL CARDS IN FRONT OF PROGRAM...:              !  
! CONTROL CARDS IN BACK OF PROGRAM...:              !  
! COBOL PROGAM-ID.....: AITCRF                       !  
! MODE OF PROGRAMMING.....: P                        !  
! TYPE AND STRUCTURE OF PROGRAM.....: B              !  
! PROGRAM CLASSIFICATION CODE.....: M   MACRO-STRUCTURE !  
! TYPE OF PRESENCE VALIDATION.....:                 !  
! SQL INDICATORS GENERATION WITH '_'...:            !  
!                !  
! EXPLICIT KEYWORDS..:                               !  
!                !  
! SESSION NUMBER.....: 0038          LIBRARY.....:DCC   LOCK....: !  
!                !  
! O: C1 CH: Paitcrf                ACTION:          !  
-----
```

P.M.S. CALLS

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AITCRF READ FIRST WITHIN

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```

-----
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!
! PROGRAM CROSS-REFERENCES          AITCRF DPS8 : READ FIRST WITHIN          !
!
! A T P PG/SC  LN C : COMMENTS OR PARAMETER VALUES          D E          !
! . C          : $1 = SUB-FUNCTION CODE          !
! . C          10 : $2 = SEGMENT CODE          !
! . C          20 : $3 = SET OR AREA CODE          !
!   O D00030    : ED/CD20/SET02/          !
!           :          !
!           :          !
!           :          !
!           :          !
!           :          !
!           :          !
!           :          !
!           :          !
!           :          !
!           :          !
!           :          !
!           :          !
!           :          !
!           :          !
!           :          !
!           :          !
! O: C1 CH: -XP          !
-----

```

P.M.S. CALLS  
AITCRF READ FIRST WITHIN

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```
-----  
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!  
! PROG PROCEDURAL CODE P AITCRF DPS8 : READ FIRST WITHIN           FUNCTION: 80      !  
!                               !  
! A SF LIN OPE OPERANDS                                     LVTY CONDITION   !  
! . $1      N  READ 'FIRST...WITHIN...'                   10BL              !  
! . $1  90  YP  $2                                         !  
! . $1 100  YR  $2                                         !  
! . $1 110  YRU $2                                         !  
! . $1 120  M   ZERO IK                                    !  
! . $1 150  BFD FIRST $2 WITHIN $3                         !  
! . $1 250  M   DB-STATUS IO-STATUS                       !  
! . $1 300  BG  $2                                         99IT OK          !  
! . $1 350  COB GO TO F80-OK                               !  
! . $1 400  COB GO TO F80-KO                               99IT NOT FOUND  !  
! . $1 900  P   F81ER                                       !  
! -----  
! !  
! !  
! !  
! !  
! !  
! !  
! !  
! !  
! *** END ***  
! O: C1 CH: -P  
-----
```

### 7.13. AITCRN READ NEXT USING

```
-----  
!                APPLICATION BULL DPS8                *PDSG.NDOC.AD8.20!  
! PROGRAM DEFINITION..... AITCRN                    !  
! !                                                  !  
! PROGRAM NAME.....: DPS8 : READ NEXT WITHIN        !  
! !                                                  !  
! CODE FOR SEQUENCE GENERATION.....: AITCRN         !  
! !                                                  !  
! TYPE OF CODE TO GENERATE.....: N                  !  
! COBOL NUMBERING AND ALIGNMENT OPT...:             !  
! CONTROL CARDS IN FRONT OF PROGRAM...:            !  
! CONTROL CARDS IN BACK OF PROGRAM...:            !  
! COBOL PROGAM-ID.....: AITCRN                      !  
! MODE OF PROGRAMMING.....: P                      !  
! TYPE AND STRUCTURE OF PROGRAM.....: B            !  
! PROGRAM CLASSIFICATION CODE.....: M   MACRO-STRUCTURE !  
! TYPE OF PRESENCE VALIDATION.....:                !  
! SQL INDICATORS GENERATION WITH '_'...:           !  
! !                                                  !  
! EXPLICIT KEYWORDS...:                             !  
! !                                                  !  
! SESSION NUMBER.....: 0038          LIBRARY.....:DCC   LOCK....: !  
! !                                                  !  
! O: C1 CH: Paitcrn                ACTION:         !  
-----
```

```
-----  
!           APPLICATION BULL DPS8           *PDSG.NDOC.AD8.20!  
! PROGRAM CROSS-REFERENCES           AITCRN DPS8 : READ NEXT WITHIN           !  
!                                     !  
! A T P PG/SC LN C : COMMENTS OR PARAMETER VALUES           D E           !  
! . C           10 : $1 = SUB-FUNCTION CODE           !  
! . C           20 : $2 = SEGMENT CODE           !  
! . C           30 : $3 = SET OR AREA NAME           !  
!   O DO0030    : LN/CD10/SET01/           !  
!           :           !  
!           :           !  
!           :           !  
!           :           !  
!           :           !  
!           :           !  
!           :           !  
!           :           !  
!           :           !  
!           :           !  
!           :           !  
!           :           !  
!           :           !  
!           :           !  
!           :           !  
! O: C1 CH: -XP           !  
-----
```

P.M.S. CALLS

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AITCRN READ NEXT USING

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```

-----
!                               APPLICATION BULL DPS8                     *PDSG.NDOC.AD8.20!
!  PROG PROCEDURAL CODE  P AITCRN  DPS8 : READ NEXT WITHIN             FUNCTION: 80      !
!
!  A SF LIN OPE OPERANDS                                               LVTY CONDITION    !
!  . $1      N  READ NEXT ON SEGMENT $2                                10BL              !
!  . $1 100 YRN $2                                                       !
!  . $1 120 M   ZERO IK                                                !
!  . $1 150 BFD NEXT $2 WITHIN                                         !
!  . $1 200      $3                                                       !
!  . $1 250 M   DB-STATUS IO-STATUS                                     !
!  . $1 300 BG   $2                                                       99IT OK           !
!  . $1 350 COB GO TO F80-OK                                           OR NEXT-FOUND     !
!  . $1 400 COB GO TO F80-KO                                           99IT NOT FOUND    !
!  . $1 900 P   F81ER                                                     !
!  - - - - - -----
!
!
!
!
!
!
!
!
! *** END ***
! O: C1 CH: -P
-----

```

### 7.14. AITCRU READING WITHIN USING

```
-----  
!                APPLICATION BULL DPS8                *PDSG.NDOC.AD8.20!  
! PROGRAM DEFINITION..... AITCRU                    !  
! !                                                    !  
! PROGRAM NAME.....: DPS8 : READING WITHIN USING    !  
! !                                                    !  
! CODE FOR SEQUENCE GENERATION.....: AITCRU         !  
! !                                                    !  
! TYPE OF CODE TO GENERATE.....: N                  !  
! COBOL NUMBERING AND ALIGNMENT OPT...:             !  
! CONTROL CARDS IN FRONT OF PROGRAM...:            !  
! CONTROL CARDS IN BACK OF PROGRAM...:            !  
! COBOL PROGAM-ID.....: AITCRU                      !  
! MODE OF PROGRAMMING.....: P                       !  
! TYPE AND STRUCTURE OF PROGRAM.....: B             !  
! PROGRAM CLASSIFICATION CODE.....: M   MACRO-STRUCTURE !  
! TYPE OF PRESENCE VALIDATION.....:                !  
! SQL INDICATORS GENERATION WITH '_'...:           !  
! !                                                    !  
! EXPLICIT KEYWORDS...:                             !  
! !                                                    !  
! SESSION NUMBER.....: 0038          LIBRARY.....:DCC   LOCK....: !  
! !                                                    !  
! O: C1 CH: Paitcru                ACTION:          !  
-----
```

```
-----  
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!  
! PROGRAM CROSS-REFERENCES                               AITCRU DPS8 : READING WITHIN USING                               !  
!                                                                                               !  
! A T P PG/SC LN C : COMMENTS OR PARAMETER VALUES                               D E                               !  
! . C          10 : $1 = SUB-FUNCTION CODE                               !  
! . C          20 : $2 = SEGMENT CODE                               !  
! . C          30 : $3 = SET OR AREA NAME                               !  
! . C          40 : $4 = ITEM IDENTIFIERS                               !  
! O DO0030      : LI/CD10/SET01/CD10-FOURNI/                               !  
! :                                                                                               !  
! :                                                                                               !  
! :                                                                                               !  
! :                                                                                               !  
! :                                                                                               !  
! :                                                                                               !  
! :                                                                                               !  
! :                                                                                               !  
! :                                                                                               !  
! :                                                                                               !  
! :                                                                                               !  
! :                                                                                               !  
! :                                                                                               !  
! :                                                                                               !  
! :                                                                                               !  
! :                                                                                               !  
! O: C1 CH: -XP                               !  
-----
```



P.M.S. CALLS  
AITCRU READING WITHIN USING

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```
-----  
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!  
! PROG PROCEDURAL CODE P AITCRU DPS8 : READING WITHIN USING FUNCTION: 80 !  
!  
! A SF LIN OPE OPERANDS                               LVTY CONDITION                               !  
! . $1      N  READ WITHIN USING                       10BL                               !  
! . $1 100 YR  $2                                       !  
! . $1 110 YRU $2                                       !  
! . $1 120 M   ZERO IK                                       !  
! . $1 150 BFD $2 WITHIN $3 USING                       !  
! . $1 200      $4                                       !  
! . $1 250 M   DB-STATUS IO-STATUS                       !  
! . $1 300 BG  $2                                       99IT OK                               !  
! . $1 350 COB GO TO F80-OK                               !  
! . $1 400 COB GO TO F80-KO                               99IT NOT FOUND                       !  
! . $1 900 P   F81ER                                       !  
! -----  
!  
!  
!  
!  
!  
!  
! *** END ***  
! O: C1 CH: -P  
-----
```

### 7.15. BBDEBR NO VALIDATION WITHOUT UPDATE

```
-----  
!                APPLICATION BULL DPS8                *PDSG.NDOC.AD8.20!  
! PROGRAM DEFINITION..... BBDEBR                    !  
! !                                                    !  
! PROGRAM NAME.....: NO VALIDATION WITHOUT UPDATE   !  
! !                                                    !  
! CODE FOR SEQUENCE GENERATION.....: BBDEBR         !  
! !                                                    !  
! TYPE OF CODE TO GENERATE.....: N                  !  
! COBOL NUMBERING AND ALIGNMENT OPT...:              !  
! CONTROL CARDS IN FRONT OF PROGRAM...:              !  
! CONTROL CARDS IN BACK OF PROGRAM...:              !  
! COBOL PROGAM-ID.....: BBDEBR                      !  
! MODE OF PROGRAMMING.....: P                      !  
! TYPE AND STRUCTURE OF PROGRAM.....: B             !  
! PROGRAM CLASSIFICATION CODE.....: M   MACRO-STRUCTURE !  
! TYPE OF PRESENCE VALIDATION.....:                 !  
! SQL INDICATORS GENERATION WITH '_'...:            !  
! !                                                    !  
! EXPLICIT KEYWORDS...:                             !  
! !                                                    !  
! SESSION NUMBER.....: 0038          LIBRARY.....:DCC   LOCK.....: !  
! !                                                    !  
! O: C1 CH: Pbbdebr                ACTION:          !  
-----
```

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BBDEBR NO VALIDATION WITHOUT UPDATE

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```
-----  
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!  
! PROGRAM CROSS-REFERENCES          BBDEBR          NO VALIDATION WITHOUT UPDATE      !  
!                               !  
! A T P PG/SC  LN C : COMMENTS OR PARAMETER VALUES          D E          !  
! . O D00030   :                                             !  
!               :                                             !  
!               :                                             !  
!               :                                             !  
!               :                                             !  
!               :                                             !  
!               :                                             !  
!               :                                             !  
!               :                                             !  
!               :                                             !  
!               :                                             !  
!               :                                             !  
!               :                                             !  
!               :                                             !  
!               :                                             !  
!               :                                             !  
! O: C1 CH: -XP                                             !  
-----
```

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BBDEBR NO VALIDATION WITHOUT UPDATE

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```
-----!
!        APPLICATION BULL DPS8                        *PDSG.NDOC.AD8.20!
! PROG PROCEDURAL CODE  P BBDEBR NO VALIDATION WITHOUT UPDATE  FUNCTION: 08  !
!                                                                     !
!  A SF LIN OPE OPERANDS                                LVTY CONDITION      !
!   . BB      N    NO UPDATE ==> END OF RECEIVE         10IT OPER NOT = 'M'    !
!   . BB 100 GFT                                       !
! - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - !
!                                                                     !
!                                                                     !
!                                                                     !
!                                                                     !
!                                                                     !
!                                                                     !
!                                                                     !
!                                                                     !
!                                                                     !
!                                                                     !
!                                                                     !
!                                                                     !
! *** END ***                                             !
! O: C1 CH: -P                                           !
!-----!
```

### 7.16. BBINIT GENERAL PROCESSING

```
-----  
!                APPLICATION BULL DPS8                *PDSG.NDOC.AD8.20!  
! PROGRAM DEFINITION..... BBINIT                    !  
! !                                                  !  
! PROGRAM NAME.....: GENERAL PROCESSING              !  
! !                                                  !  
! CODE FOR SEQUENCE GENERATION.....: BBINIT          !  
! !                                                  !  
! TYPE OF CODE TO GENERATE.....: N                   !  
! COBOL NUMBERING AND ALIGNMENT OPT...:              !  
! CONTROL CARDS IN FRONT OF PROGRAM...:              !  
! CONTROL CARDS IN BACK OF PROGRAM...:              !  
! COBOL PROGAM-ID.....: BBINIT                       !  
! MODE OF PROGRAMMING.....: P                       !  
! TYPE AND STRUCTURE OF PROGRAM.....: B              !  
! PROGRAM CLASSIFICATION CODE.....: M   MACRO-STRUCTURE !  
! TYPE OF PRESENCE VALIDATION.....:                 !  
! SQL INDICATORS GENERATION WITH '_'...:             !  
! !                                                  !  
! EXPLICIT KEYWORDS...:                             !  
! !                                                  !  
! SESSION NUMBER.....: 0038          LIBRARY.....:DCC   LOCK....: !  
! !                                                  !  
! O: C1 CH: Pbbinit                ACTION:          !  
-----
```

```
-----  
!                APPLICATION BULL DPS8                *PDSG.NDOC.AD8.20!  
! PROGRAM CROSS-REFERENCES                BBINIT GENERAL PROCESSING                !  
!                !                !                !                !  
! A T P PG/SC  LN C : COMMENTS OR PARAMETER VALUES                D E                !  
! . O D00030                :                :                :                !  
!                :                :                :                !  
!                :                :                :                !  
!                :                :                :                !  
!                :                :                :                !  
!                :                :                :                !  
!                :                :                :                !  
!                :                :                :                !  
!                :                :                :                !  
!                :                :                :                !  
!                :                :                :                !  
!                :                :                :                !  
!                :                :                :                !  
!                :                :                :                !  
!                :                :                :                !  
!                :                :                :                !  
!                :                :                :                !  
!                :                :                :                !  
!                :                :                :                !  
! O: C1 CH: -XP                !  
-----
```



## **8. SCREEN GENERATED WITH INTEREL RDBC - RFM**



## *8.1. INTRODUCTION*

### INTRODUCTION

This chapter presents the COBOL lines automatically generated when a screen accesses an INTEREL RDBC or RFM relational database.

The PROCEDURE DIVISION is not shown in full since functionalities are similar to those presented in the general example. This chapter only presents the specific parts of the WORKING STORAGE SECTION and specific related functions in the PROCEDURE DIVISION.

### PROGRAM GENERATION

To generate On-line programs it may be necessary to use the complementary screens:

- . Work Areas (-W),
- . Call of Macro-structures (-CP).

On Work Areas (-W) screens, 'AA' is a reserved value for the code FOR COBOL PLACEMENT; It is used internally by the OLSF Function.

The automatically generated lines are identified in the COBOL code by the '\*AAnn' character string from columns 72 to 80. They can be overridden on the Work Areas (-W) screen on 'AAnn'-numbered lines.

The user can use the General Documentation (-G) lines of the screen or dialogue to override the value of some generated constants. For more details, refer to Chapter 'DESCRIPTION OF A TRANSACTION', Subchapter 'SCREEN GENERAL DOCUMENTATION (-G)' in the OLSF Reference Manual.

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INTRODUCTION

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```

-----
!                               APPLICATION BULL DPS8                               *PDSG.NDOC.AD8.20!
! ON-LINE SCREEN CALL OF SEGM. DOSQLC CALL SQL INTEREL RDBC - RFM                               !
!-----
! A SEGM      :      USE PREC ACCESS KEY      ACCESS      D EXTERNAL LIB. S      : LIBR!
! C CODE C LN : G R D SEGM SOURCE      KEY      B O T NAME      SEGM N LV:      !
! . DZ05 R 00 :      X A      COCARA      C      QTBL0C      DZ06      : *DCC!
! . DZ05 R 02 :      NUCODO      : *DCC!
! . DZ05 R 04 :      FOURNI      : *DCC!
! . DZ10 R 00 :      X A      COCARA      C 1 QTBL0C      DZ11      : *DCC!
! . DZ10 R 02 :      NUCOM      : *DCC!
!      :      :      :      :      :      !
!      :      :      :      :      :      !
!      :      :      :      :      :      !
!      :      :      :      :      :      !
!      :      :      :      :      :      !
!      :      :      :      :      :      !
!      :      :      :      :      :      !
!      :      :      :      :      :      !
!      :      :      :      :      :      !
!      :      :      :      :      :      !
!      :      :      :      :      :      !
!      :      :      :      :      :      !
!      :      :      :      :      :      !
!      :      :      :      :      :      !
! O: C1 CH: ODOSQLCCS
-----

```

## 8.2. WORKING-STORAGE SECTION

### WORKING-STORAGE SECTION

The WORKING-STORAGE section includes:

- The description of input/output fields (Host variables).

The segment descriptions are located between the SQL orders: 'BEGIN DECLARE SECTION' and 'END DECLARE SECTION'.

For the variable Data Elements (VARCHAR) called in a 'FFnn' code Segment (Data Elements with 'V', 'L' or 'W' in the key area of the segment description), the following lines are generated:

```
ffnn-DELCO PICTURE ...  
          VARYING.
```

The LFFnn-delco field must be input with the real length of the field before updating.

- Presence validation keys: each field (delco) of a table or a SQL view (FFnn) is associated with a presence validation key (VFFnnDelco or V-FFnn-Delco if the SQLREF option is indicated in Dialogue complement (-O)).

The descriptions of the presence validation keys are located between the SQL orders 'BEGIN DECLARE SECTION' and 'END DECLARE SECTION'.

Those keys are generated separately on line AA351. The SQLIND option, input by the user in Dialogue complement, allows for the management of those keys in update and display. The keys are initialized in function F30 and conditioned for transfer in DISPLAY by the column presence (for columns which can be null).

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 WORKING-STORAGE SECTION

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```

01      EXEC SQL BEGIN DECLARE SECTION END-EXEC.          DOSQLC
          DZ05.                                           DOSQLC
10      DZ05-COCARA PICTURE X.                            DOSQLC
10      DZ05-NUCODO                                       DOSQLC
          COMPUTATIONAL-7.                                DOSQLC
10      DZ05-FOURNI PICTURE X(3).                        DOSQLC
10      DZ05-NUCLIF                                       DOSQLC
          COMPUTATIONAL-6.                                DOSQLC
10      DZ05-DATE PICTURE X(6).                          DOSQLC
10      DZ05-RELEA PICTURE X(3).                         DOSQLC
10      DZ05-REFCLI PICTURE X(30).                      DOSQLC
10      DZ05-RUE PICTURE X(40).                         DOSQLC
10      DZ05-COPOS PICTURE X(5).                        DOSQLC
10      DZ05-VILLE PICTURE X(20).                      DOSQLC
10      DZ05-CORES PICTURE X(32000).                   DOSQLC
10      DZ05-REMIS1 PICTURE S9(4)V99                    DOSQLC
          SIGN IS LEADING SEPARATE.                     DOSQLC
10      DZ05-MATE PICTURE X(8).                         DOSQLC
10      DZ05-PRIX1                                       DOSQLC
          COMPUTATIONAL-12.                              DOSQLC
10      DZ05-PRIX2                                       DOSQLC
          COMPUTATIONAL-11.                              DOSQLC
10      DZ05-GROUPH.                                     DOSQLC
15      DZ05-HEURE PICTURE X(8).                        DOSQLC
15      DZ05-PRECIS PICTURE X(26).                     DOSQLC
01      DZ10.                                           DOSQLC
10      DZ10-COCARA PICTURE X.                            DOSQLC
10      DZ10-NUCOMD                                       DOSQLC
          COMPUTATIONAL-6.                                DOSQLC
10      DZ10-FOURNP PICTURE X(3).                      DOSQLC
10      DZ10-QTMLIV                                       DOSQLC
          COMPUTATIONAL-6.                                DOSQLC
10      DZ10-QTMCOM                                       DOSQLC
          COMPUTATIONAL-7.                                DOSQLC
10      DZ10-INFOR PICTURE X(35).                      DOSQLC
EXEC SQL END DECLARE SECTION END-EXEC.                  DOSQLC
01      SQLCODE COMP-6.                                  *AA350
01      SQL-MSG.                                         *AA350
05      ERROR-CODE COMP-6.                               *AA350
05      MSG-LENGTH COMP-6.                              *AA350
05      LINE-NUMBER PICTURE 9(6).                       *AA350
05      STATEMENT-KEYWORD PICTURE X(12).                *AA350
05      ERROR-MESSAGE PICTURE X(482).                  *AA350
05      ROW-COUNT COMP-6.                               *AA350
05      FOR-FUTURE-EXPANSION PICTURE X(24).            *AA350
EXEC SQL BEGIN DECLARE SECTION END-EXEC.                *AA351
01      VDZ05.                                           *AA351
05      VDZ05COCARA COMP-6.                             *AA351
05      VDZ05NUCODO COMP-6.                             *AA351
05      VDZ05FOURNI COMP-6.                             *AA351
05      VDZ05NUCLIF COMP-6.                             *AA351
05      VDZ05DATE COMP-6.                              *AA351
05      VDZ05RELEA COMP-6.                             *AA351
05      VDZ05REFCLI COMP-6.                            *AA351
05      VDZ05RUE COMP-6.                               *AA351
05      VDZ05COPOS COMP-6.                             *AA351
05      VDZ05VILLE COMP-6.                           *AA351
05      VDZ05CORES COMP-6.                             *AA351
05      VDZ05REMIS1 COMP-6.                            *AA351
05      VDZ05MATE COMP-6.                              *AA351
05      VDZ05PRIX1 COMP-6.                             *AA351
05      VDZ05PRIX2 COMP-6.                             *AA351
05      VDZ05HEURE COMP-6.                             *AA351
05      VDZ05PRECIS COMP-6.                            *AA351
01      VDZ10.                                           *AA351
05      VDZ10COCARA COMP-6.                             *AA351
05      VDZ10NUCOMD COMP-6.                             *AA351
05      VDZ10FOURNP COMP-6.                            *AA351
05      VDZ10QTMLIV COMP-6.                            *AA351
05      VDZ10QTMCOM COMP-6.                            *AA351
05      VDZ10INFOR COMP-6.                             *AA351
EXEC SQL END DECLARE SECTION END-EXEC.                  *AA351

```

### *8.3. COMMUNICATION AREA*

#### COMMUNICATION AREA

After the description of the common area (CA00), display keys are grouped by category under the K-eeee level.

All Data Elements declared as display Segment keys in the Screen Call of Segments (-CS) are present and independently located on level 05.

They are also independently input in the PROCEDURE DIVISION.

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LINKAGE SECTION.	DOSQLC
COPY TP-STORAGE OF TP.	*0Z010
01 CONSTANT-STORAGE PICTURE X(4).	*0Z015
01 TRANSACTION-STORAGE.	*0Z020
02 K-SSQLC-YMAT PICTURE X.	*00000
02 K-SSQLC-PROGR PICTURE X(6).	*00000
02 K-SSQLC-XTERM PICTURE X(12).	*00000
02 CA00.	*00001
10 CA00-CLECD.	*00001
15 CA00-NUCOM PICTURE 9(5).	*00001
10 CA00-CLECL1.	*00001
15 CA00-NUCLIE PICTURE 9(8).	*00001
10 CA00-ME00.	*00001
15 CA00-CLEME.	*00001
20 CA00-COPERS PICTURE X(5).	*00001
20 CA00-NUMORD PICTURE XX.	*00001
15 CA00-MESSA PICTURE X(75).	*00001
10 CA00-PREM PICTURE X.	*00001
10 CA00-LANGU PICTURE X.	*00001
10 CA00-RAISOC PICTURE X(50).	*00001
02 K-SSQLC-DOC PICTURE X.	*00002
02 K-SSQLC-PROGE PICTURE X(8).	*00002
02 K-SSQLC-LIBRA PICTURE XXX.	*00002
02 K-SSQLC-PROHE PICTURE X(8).	*00002
02 K-SSQLC-ERCOD.	*00002
05 K-SSQLC-ERCOD9 PICTURE 999.	*00002
02 K-SSQLC-ERTYP PICTURE X.	*00002
02 K-SSQLC-LINUM PICTURE 999.	*00002
02 K-SSQLC-PFKEY PICTURE XX.	*00002
02 K-SQLC.	*00002
05 K-RDZ05-COCARA PICTURE X.	*00002
05 K-RDZ05-NUCODO PICTURE COMPUTATIONAL-7.	*00002
05 K-RDZ05-FOURNI PICTURE X(3).	*00002
05 K-RDZ10-COCARA PICTURE X.	*00002
05 K-RDZ10-NUCOM PICTURE 9(5).	*00002
02 FILLER PICTURE X(0676).	*00002

#### *8.4. PROCEDURE*

##### DECLARE CURSOR: F0Aff

This function contains the SQL orders concerning the CURSOR declaration when a table is used in display in the repetitive category:

- . Clause FROM 'external name of the table': it is the external name of the table or the view called in the database block(-DR). By default the external name is looked for in the Segment definition screen. The block code is indicated in the 'EXTERNAL NAME' area of the call lines of segments (-CS).
- . Clause WHERE ... ORDER: the key data elements are ranged on call lines of segments in the order of those lines (-CS).



FOADZ.				DOSQLC
EXEC SQL	DECLARE	DISPLAY_DZ05		DOSQLC
CURSOR FOR SELECT ALL				DOSQLC
COCARA ,				DOSQLC
NUCODO ,				DOSQLC
FOURNI ,				DOSQLC
NUCLIF ,				DOSQLC
DATE ,				DOSQLC
RELEA ,				DOSQLC
REFERENCECLIENT ,				DOSQLC
RUE ,				DOSQLC
COPOS ,				DOSQLC
VILLE ,				DOSQLC
CORES ,				DOSQLC
REMIS1 ,				DOSQLC
MATERIEL ,				DOSQLC
PRIX1 ,				DOSQLC
PRIX2 ,				DOSQLC
HEURE ,				DOSQLC
PRECIS				DOSQLC
FROM DODZ06				DOSQLC
WHERE COCARA > :DZ05-COCARA				DOSQLC
OR (COCARA = :DZ05-COCARA				DOSQLC
AND NUCODO > :DZ05-NUCODO)				DOSQLC
OR (COCARA = :DZ05-COCARA				DOSQLC
AND NUCODO = :DZ05-NUCODO				DOSQLC
AND FOURNI >= :DZ05-FOURNI)				DOSQLC
ORDER BY COCARA,				DOSQLC
NUCODO,				DOSQLC
FOURNI				DOSQLC
END-EXEC.				DOSQLC
EXEC SQL	DECLARE	DISPLAY_DZ10		DOSQLC
CURSOR FOR SELECT ALL				DOSQLC
COCARA ,				DOSQLC
NUCOMD ,				DOSQLC
FOURNP ,				DOSQLC
LIVRABLE ,				DOSQLC
QTMCOM ,				DOSQLC
INFOR				DOSQLC
FROM DODZ11				DOSQLC
WHERE COCARA > :DZ10-COCARA				DOSQLC
OR (COCARA = :DZ10-COCARA				DOSQLC
AND >= :DZ10-NUCOM)				DOSQLC
ORDER BY COCARA,				DOSQLC
				DOSQLC
END-EXEC.				DOSQLC
FOADZ-FN. EXIT.				DOSQLC

PERFORMED VALIDATIONS FUNCTIONS: F0101

ABEND

The F0101 function processes SQL errors.

NOTE: Only labels are generated for the sub-function F81ES. Procedure code is to be performed by the user.

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```
*****  
*                               *  
*   INITIALIZATIONS           *  
*                               *  
*****  
F01.          EXIT.  
F0101.        EXEC SQL WHENEVER NOT FOUND GO TO F80-KO END-EXEC.  
              EXEC SQL WHENEVER SQLERROR GO TO F81EQ  END-EXEC.  
              OPEN INPUT  EM-FILE.  
              OPEN I-O    HE-FILE.  
F0101-FN.     EXIT.  
DOSQLC  
DOSQLC  
DOSQLC  
DOSQLC  
DOSQLC  
DOSQLC  
DOSQLC  
DOSQLC  
DOSQLC  
DOSQLC  
DOSQLC  
DOSQLC  
DOSQLC  
DOSQLC
```

PHYSICAL SEGMENT ACCESS ROUTINES: F80

All 'SELECT' orders are generated with option ALL.

The presence validation keys are shown with the commands:

SELECT (in the INTO clause),  
UPDATE (in the SET clause),  
INSERT (in the VALUES clause).

```

*****
*                               *
*   PHYSICAL SEGMENT ACCESS ROUTINES *
*                               *
*****
F80.                               EXIT.
F80-DZ05-R.
EXEC SQL                               SELECT ALL
      COCARA ,
      NUCODO ,
      FOURNI ,
      NUCLIF ,
      DATE ,
      RELEA ,
      REFERENCECLIENT ,
      RUE ,
      COPOS ,
      VILLE ,
      CORES ,
      REMIS1 ,
      MATERIEL ,
      PRIX1 ,
      PRIX2 ,
      HEURE ,
      PRECIS
INTO  :DZ05-COCARA:VDZ05COCARA ,
      :DZ05-NUCODO:VDZ05NUCODO ,
      :DZ05-FOURNI:VDZ05FOURNI ,
      :DZ05-NUCLIF:VDZ05NUCLIF ,
      :DZ05-DATE:VDZ05DATE ,
      :DZ05-RELEA:VDZ05RELEA ,
      :VDZ05-REFCLI:VDZ05REFCLI ,
      :VDZ05-RUE:VDZ05RUE ,
      :DZ05-COPOS:VDZ05COPOS ,
      :VDZ05-VILLE:VDZ05VILLE ,
      :VDZ05-CORES:VDZ05CORES ,
      :DZ05-REMIS1:VDZ05REMIS1 ,
      :VDZ05-MATE:VDZ05MATE ,
      :DZ05-PRIX1:VDZ05PRIX1 ,
      :DZ05-PRIX2:VDZ05PRIX2 ,
      :DZ05-HEURE:VDZ05HEURE ,
      :DZ05-PRECIS:VDZ05PRECIS
FROM DODZ06
WHERE COCARA = :DZ05-COCARA
AND NUCODO = :DZ05-NUCODO
AND FOURNI = :DZ05-FOURNI
END-EXEC.
GO TO F80-OK.
F80-DZ05-RU.
EXEC SQL                               SELECT ALL
      COCARA ,
      NUCODO ,
      FOURNI ,
      NUCLIF ,
      DATE ,
      RELEA ,
      REFERENCECLIENT ,
      RUE ,
      COPOS ,
      VILLE ,
      CORES ,
      REMIS1 ,
      MATERIEL ,
      PRIX1 ,
      PRIX2 ,
      HEURE ,
      PRECIS
INTO  :DZ05-COCARA:VDZ05COCARA ,
      :DZ05-NUCODO:VDZ05NUCODO ,
      :DZ05-FOURNI:VDZ05FOURNI ,
      :DZ05-NUCLIF:VDZ05NUCLIF ,
      :DZ05-DATE:VDZ05DATE ,
      :DZ05-RELEA:VDZ05RELEA ,
      :VDZ05-REFCLI:VDZ05REFCLI ,
      :VDZ05-RUE:VDZ05RUE ,
      :DZ05-COPOS:VDZ05COPOS ,
      :VDZ05-VILLE:VDZ05VILLE ,
      :DZ05-CORES:VDZ05CORES ,
      :DZ05-REMIS1:VDZ05REMIS1 ,
      :VDZ05-MATE:VDZ05MATE ,
      :DZ05-PRIX1:VDZ05PRIX1 ,
      :DZ05-PRIX2:VDZ05PRIX2 ,
      :DZ05-HEURE:VDZ05HEURE ,
      :DZ05-PRECIS:VDZ05PRECIS
FROM DODZ06

```

```
          :VDZ05-CORES:VDZ05CORES,          DOSQLC
          :DZ05-REMIS1:VDZ05REMIS1,          DOSQLC
          :VDZ05-MATE:VDZ05MATE,            DOSQLC
          :DZ05-PRIX1:VDZ05PRIX1,           DOSQLC
          :DZ05-PRIX2:VDZ05PRIX2,           DOSQLC
          :DZ05-HEURE:VDZ05HEURE,           DOSQLC
          :DZ05-PRECIS:VDZ05PRECIS          DOSQLC
          FROM DODZ06                        DOSQLC
WHERE COCARA = :DZ05-COCARA                  DOSQLC
  AND NUCODO = :DZ05-NUCODO                  DOSQLC
  AND FOURNI = :DZ05-FOURNI                 DOSQLC
  END-EXEC.                                  DOSQLC
GO TO F80-OK.                                DOSQLC
F80-DZ05-P.                                   DOSQLC
  EXEC SQL                                     OPEN      DISPLAY_DZ05  DOSQLC
  END-EXEC.                                  DOSQLC
F80-DZ05-RN.                                  DOSQLC
  EXEC SQL                                     FETCH      DISPLAY_DZ05  DOSQLC
  INTO :DZ05-COCARA:VDZ05COCARA,            DOSQLC
        :DZ05-NUCODO:VDZ05NUCODO,          DOSQLC
        :DZ05-FOURNI:VDZ05FOURNI,         DOSQLC
        :DZ05-NUCLIF:VDZ05NUCLIF,        DOSQLC
        :DZ05-DATE:VDZ05DATE,             DOSQLC
        :DZ05-RELEA:VDZ05RELEA,          DOSQLC
        :VDZ05-REFCLI:VDZ05REFCLI,       DOSQLC
        :VDZ05-RUE:VDZ05RUE,             DOSQLC
        :DZ05-COPOS:VDZ05COPOS,          DOSQLC
        :VDZ05-VILLE:VDZ05VILLE,        DOSQLC
        :VDZ05-CORES:VDZ05CORES,         DOSQLC
        :DZ05-REMIS1:VDZ05REMIS1,        DOSQLC
        :VDZ05-MATE:VDZ05MATE,           DOSQLC
        :DZ05-PRIX1:VDZ05PRIX1,          DOSQLC
        :DZ05-PRIX2:VDZ05PRIX2,          DOSQLC
        :DZ05-HEURE:VDZ05HEURE,          DOSQLC
        :DZ05-PRECIS:VDZ05PRECIS          DOSQLC
  END-EXEC.                                  DOSQLC
GO TO F80-OK.                                DOSQLC
F80-DZ05-W.                                   DOSQLC
  EXEC SQL                                     INSERT     DOSQLC
        INTO DODZ06                          DOSQLC
        ( COCARA ,                            DOSQLC
          NUCODO ,                            DOSQLC
          FOURNI ,                            DOSQLC
          NUCLIF ,                            DOSQLC
          DATE ,                              DOSQLC
          RELEA ,                             DOSQLC
          REFERENCECLIENT ,                  DOSQLC
          RUE ,                               DOSQLC
          COPOS ,                             DOSQLC
          VILLE ,                             DOSQLC
          CORES ,                             DOSQLC
          REMIS1 ,                            DOSQLC
          MATERIEL ,                          DOSQLC
          PRIX1 ,                             DOSQLC
          PRIX2 ,                             DOSQLC
          HEURE ,                             DOSQLC
          PRECIS )                            DOSQLC
  VALUES (:DZ05-COCARA:VDZ05COCARA,        DOSQLC
          :DZ05-NUCODO:VDZ05NUCODO,         DOSQLC
          :DZ05-FOURNI:VDZ05FOURNI,         DOSQLC
          :DZ05-NUCLIF:VDZ05NUCLIF,        DOSQLC
          :DZ05-DATE:VDZ05DATE,             DOSQLC
          :DZ05-RELEA:VDZ05RELEA,          DOSQLC
          :VDZ05-REFCLI:VDZ05REFCLI,       DOSQLC
          :VDZ05-RUE:VDZ05RUE,             DOSQLC
          :DZ05-COPOS:VDZ05COPOS,          DOSQLC
          :VDZ05-VILLE:VDZ05VILLE,        DOSQLC
          :VDZ05-CORES:VDZ05CORES,         DOSQLC
          :DZ05-REMIS1:VDZ05REMIS1,        DOSQLC
          :VDZ05-MATE:VDZ05MATE,           DOSQLC
          :DZ05-PRIX1:VDZ05PRIX1,          DOSQLC
          :DZ05-PRIX2:VDZ05PRIX2,          DOSQLC
          :DZ05-HEURE:VDZ05HEURE,          DOSQLC
          :DZ05-PRECIS:VDZ05PRECIS)         DOSQLC
  END-EXEC.                                  DOSQLC
GO TO F80-OK.                                DOSQLC
F80-DZ05-RW.                                  DOSQLC
```

```

EXEC SQL          UPDATE          DOSQLC
                  DODZ06          DOSQLC
SET NUCLIF =      DOSQLC
   :DZ05-NUCLIF:VDZ05NUCLIF,    DOSQLC
DATE =           DOSQLC
   :DZ05-DATE:VDZ05DATE,        DOSQLC
RELEA =         DOSQLC
   :DZ05-RELEA:VDZ05RELEA,      DOSQLC
REFERENCECLIENT = DOSQLC
   :VDZ05-REFCLI:VDZ05REFCLI,   DOSQLC
RUE =           DOSQLC
   :VDZ05-RUE:VDZ05RUE,        DOSQLC
COPOS =         DOSQLC
   :DZ05-COPOS:VDZ05COPOS,      DOSQLC
VILLE =        DOSQLC
   :VDZ05-VILLE:VDZ05VILLE,   DOSQLC
CORES =         DOSQLC
   :VDZ05-CORES:VDZ05CORES,     DOSQLC
REMIS1 =        DOSQLC
   :DZ05-REMIS1:VDZ05REMIS1,    DOSQLC
MATERIEL =      DOSQLC
   :VDZ05-MATE:VDZ05MATE,       DOSQLC
PRIX1 =          DOSQLC
   :DZ05-PRIX1:VDZ05PRIX1,      DOSQLC
PRIX2 =          DOSQLC
   :DZ05-PRIX2:VDZ05PRIX2,      DOSQLC
HEURE =         DOSQLC
   :DZ05-HEURE:VDZ05HEURE,      DOSQLC
PRECIS =        DOSQLC
   :DZ05-PRECIS:VDZ05PRECIS     DOSQLC
WHERE COCARA =   :DZ05-COCARA     DOSQLC
AND NUCODO =    :DZ05-NUCODO      DOSQLC
AND FOURNI =    :DZ05-FOURNI     DOSQLC
END-EXEC.       DOSQLC
GO TO F80-OK.   DOSQLC
F80-DZ05-UN.    DOSQLC
GO TO F80-OK.   DOSQLC
F80-DZ05-CL.    DOSQLC
EXEC SQL          CLOSE          DISPLAY_DZ05
END-EXEC.       DOSQLC
GO TO F80-OK.   DOSQLC
F8001-FN.      EXIT.             DOSQLC
F80-DZ10-R.    DOSQLC
EXEC SQL          SELECT ALL     DOSQLC
                  COCARA ,       DOSQLC
                  NUCOMD ,       DOSQLC
                  FOURNP ,       DOSQLC
                  LIVRABLE ,     DOSQLC
                  QTMCOM ,       DOSQLC
                  INFOR           DOSQLC
INTO :DZ10-COCARA:VDZ10COCARA,   DOSQLC
     :DZ10-NUCOMD:VDZ10NUCOMD,    DOSQLC
     :DZ10-FOURNP:VDZ10FOURNP,    DOSQLC
     :DZ10-QTMLIV:VDZ10QTMLIV,    DOSQLC
     :DZ10-QTMCOM:VDZ10QTMCOM,    DOSQLC
     :VDZ10-INFOR:VDZ10INFOR      DOSQLC
FROM DODZ11                       DOSQLC
WHERE COCARA = :DZ10-COCARA       DOSQLC
END-EXEC.       DOSQLC
GO TO F80-OK.   DOSQLC
F80-DZ10-RU.    DOSQLC
EXEC SQL          SELECT ALL     DOSQLC
                  COCARA ,       DOSQLC
                  NUCOMD ,       DOSQLC
                  FOURNP ,       DOSQLC
                  LIVRABLE ,     DOSQLC
                  QTMCOM ,       DOSQLC
                  INFOR           DOSQLC
INTO :DZ10-COCARA:VDZ10COCARA,   DOSQLC
     :DZ10-NUCOMD:VDZ10NUCOMD,    DOSQLC
     :DZ10-FOURNP:VDZ10FOURNP,    DOSQLC
     :DZ10-QTMLIV:VDZ10QTMLIV,    DOSQLC
     :DZ10-QTMCOM:VDZ10QTMCOM,    DOSQLC
     :VDZ10-INFOR:VDZ10INFOR      DOSQLC
FROM DODZ11                       DOSQLC
WHERE COCARA = :DZ10-COCARA       DOSQLC
END-EXEC.       DOSQLC

```

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```

GO TO F80-OK.
F80-DZ10-P.
EXEC SQL OPEN DISPLAY_DZ10
END-EXEC.
F80-DZ10-RN.
EXEC SQL FETCH DISPLAY_DZ10
INTO :DZ10-COCARA:VDZ10COCARA,
:DZ10-NUCOMD:VDZ10NUCOMD,
:DZ10-FOURNP:VDZ10FOURNP,
:DZ10-QTMLIV:VDZ10QTMLIV,
:DZ10-QTMCOM:VDZ10QTMCOM,
:VDZ10-INFOR:VDZ10INFOR
END-EXEC.
GO TO F80-OK.
F80-DZ10-W.
EXEC SQL INSERT
INTO DODZ11
(COCARA ,
NUCOMD ,
FOURNP ,
LIVRABLE ,
QTMCOM ,
INFOR )
VALUES (:DZ10-COCARA:VDZ10COCARA,
:DZ10-NUCOMD:VDZ10NUCOMD,
:DZ10-FOURNP:VDZ10FOURNP,
:DZ10-QTMLIV:VDZ10QTMLIV,
:DZ10-QTMCOM:VDZ10QTMCOM,
:VDZ10-INFOR:VDZ10INFOR)
END-EXEC.
GO TO F80-OK.
F80-DZ10-RW.
EXEC SQL UPDATE
DODZ11
SET NUCOMD =
:DZ10-NUCOMD:VDZ10NUCOMD,
FOURNP =
:DZ10-FOURNP:VDZ10FOURNP,
LIVRABLE =
:DZ10-QTMLIV:VDZ10QTMLIV,
QTMCOM =
:DZ10-QTMCOM:VDZ10QTMCOM,
INFOR =
:VDZ10-INFOR:VDZ10INFOR
WHERE COCARA = :DZ10-COCARA
END-EXEC.
GO TO F80-OK.
F80-DZ10-UN.
GO TO F80-OK.
F80-DZ10-CL.
EXEC SQL CLOSE DISPLAY_DZ10
END-EXEC.
GO TO F80-OK.
F8002-FN. EXIT.
F80-HELP-R.
READ HE-FILE INVALID KEY GO TO F80-KO.
GO TO F80-OK.
F80-HELP-W.
WRITE HE00 INVALID KEY GO TO F80-KO.
GO TO F80-OK.
F80-HELP-RW.
REWRITE HE00 INVALID KEY GO TO F80-KO.
GO TO F80-OK.
F80-HELP-D.
DELETE HE-FILE INVALID KEY GO TO F80-KO.
GO TO F80-OK.
F8095-FN. EXIT.
F80-EM00-R.
READ EM-FILE INVALID KEY GO TO F80-KO.
GO TO F80-OK.
F8098-FN. EXIT.
F80-OK. MOVE "0" TO IK MOVE PROGR TO XPROGR GO TO F80-FN.
F80-KO. MOVE "1" TO IK MOVE PROGR TO XPROGR.
F8099-FN. EXIT.
F80-FN. EXIT.

```



## **9. CHART OF VARIABLES AND CONSTANTS**

```

+-----+
!           CHART OF ON-LINE CONSTANTS AND VARIABLES           !
+-----+
!           !           !
! CURPOS ! CURSOR POSITIONING IN RECEPTION SCREEN WHERE !
!           ! CPOSL = LINE NUMBER & CPOSC = COLUMN NUMBER !
!           ! (except for DPS7 FORMS). !
!           !           !
! CPOSN  ! "ABSOLUTE" CURSOR POSITIONING WHERE CPOSL = 1 !
!           ! AND CPOSC = 1 !
!           ! (except for DPS7 FORMS). !
!           !           !
! INA    ! NUMBER OF DATA ELEMENTS IN SCREEN-TOP CATEGORY !
!           !           !
! INR    ! INA + NUMBER OF DATA ELEMENTS IN REPETITIVE !
!           ! CATEGORY !
!           !           !
! INZ    ! INR + NUMBER OF DATA ELEMENTS IN SCREEN-BOTTOM !
!           ! CATEGORY !
!           !           !
! IRR    ! NUMBER OF REPETITIONS IN REPETITIVE CATEGORY !
!           !           !
! INT    ! NUMBER OF INPUT FIELDS IN SCREEN !
!           !           !
! IER    ! NUMBER OF SCREEN-RELATED ERROR MESSAGES !
!           !           !
! SESSI  ! SESSION NUMBER OF GENERATED PROGRAM !
!           !           !
! LIBRA  ! LIBRARY CODE !
!           !           !
! USERCO ! USER CODE !
!           !           !
! DATGN  ! DATE OF GENERATED PROGRAM !
!           !           !
! TIMGN  ! TIME OF GENERATED PROGRAM !
!           !           !
! PROGR  ! PROGRAM CODE !
!           !           !
! PROGE  ! PROGRAM EXTERNAL NAME !
!           !           !
! PRCOC  ! HELP PROGRAM EXTERNAL NAME !
!           !           !
+-----+

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!      CHART OF ON-LINE CONSTANTS AND VARIABLES  (CONT'D)  !
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!      !                                                    !
! DATOR ! YEAR-MONTH-DAY FORMATTED MACHINE DATE                !
!      !                                                    !
! DATSEP ! SEPARATOR USED IN DATES                          !
!      ! DEFAULT VALUE: '/'                                !
!      !                                                    !
! DAT6   ! DATE FORMATTING: DDMYY OR YMMDD                 !
! DAT7   ! ALSO OUTPUT FORMATS (DD/MM/YY FOR INSTANCE) IF  !
! DAT8   ! A VARIABLE DATA ELEMENT (V) HAS A DATE FORMAT !
!      !                                                    !
! DATCTY ! FIELD FOR CENTURY LOAD                          !
!      !                                                    !
! DAT6C  ! NON-FORMATTED DATE WITH CENTURY                 !
! DAT7C  !                                                    !
!      !                                                    !
! DAT8C  ! FORMATTED DATE WITH CENTURY: MM/DD/CCYY        !
!      !                                                    !
! DAT8G  ! GREGORIAN FORMATTED DATE: CCYY/MM/DD           !
!      !                                                    !
! TIMCO  ! TIME                                             !
!      !                                                    !
! TIMDAY ! FORMATTED TIME: HH:MM:SS                       !
!      !                                                    !
! 5-scrn-! THIS FIELD CONTAINS THE NAME OF THE            !
! PROGE  ! PROGRAM TO BRANCH TO                           !
!      !                                                    !
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!           CHART OF VALIDATION VARIABLES AND INDICATORS           !
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!           !
! ICF      ! CONFIGURATION VARIABLE                                     !
!           ! '1' = SCREEN IN INPUT                               !
!           ! '0' = NO SCREEN IN INPUT                               !
!           !
! OCF      ! CONFIGURATION VARIABLE                                     !
!           ! '1' = SCREEN IN OUTPUT                               !
!           ! '0' = NO SCREEN IN OUTPUT                               !
!           !
! OPER     ! OPERATION CODE                                           !
!           ! 'A' = INQUIRY                                           !
!           ! 'M' = UPDATE                                           !
!           ! 'S' = SCREEN CONTINUATION                               !
!           ! 'E' = CONVERSATION END                               !
!           ! 'P' = PREVIOUS DISPLAY                               !
!           ! 'O' = TRANSFER TO ANOTHER SCREEN                     !
!           !
! OPERD    ! OPERATION CODE FOR DEFERRED BRANCHING                     !
!           ! 'O' = DEFERRED CALL OF ANOTHER SCREEN                 !
!           ! INITIALIZED IN F0520 AND MOVED INTO OPER IN F40     !
!           !
! CATX     ! CATEGORY BEING PROCESSED                                   !
!           ! '0' = BEGINNING OF RECEPTION OR DISPLAY             !
!           ! ' ' = SCREEN TOP                                   !
!           ! 'R' = REPETITIVE CATEGORY                         !
!           ! 'Z' = SCREEN BOTTOM                                 !
!           !
! CATM     ! TRANSACTION CODE                                           !
!           ! 'C' = CREATION                                           !
!           ! 'M' = MODIFICATION                                       !
!           ! 'A' = DELETION                                           !
!           ! 'X' = IMPLICIT UPDATE                                   !
!           !
! ICATR    ! INDICATOR OF CATEGORY BEING PROCESSED                   !
!           ! (REPETITIVE CATEGORY ONLY)                           !
!           !
! FT       ! END OF REPETITIVE CATEGORY INDICATOR                   !
!           ! '0' LINES TO DISPLAY                                   !
!           ! '1' NO MORE LINES TO DISPLAY                       !
!           !
! ddss-CF ! SEGMENT CONFIGURATION INDICATOR (seg. ddss)                 !
!           ! '1' THE SEGMENT IS PROCESSED                       !
!           ! '0' THE SEGMENT IS NOT PROCESSED                   !
!           !
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!      CHART OF VALIDATION VARIABLES AND INDICATORS (CONT'D) !
+-----+
! IK      ! PHYSICAL FILE ACCESS ERROR INDICATOR      !
!         ! '0' NO ERROR                               !
!         ! '1' ERROR                                   !
!         !                                           !
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!                      ERROR VARIABLES          !
+-----+
!         !
! SCR-ER ! STORAGE OF SCREEN ERROR                  !
!         ! '1' NO ERROR                           !
!         ! '4' ERROR                               !
!         !
! CAT-ER ! STORAGE OF ERROR ON CURRENT CATEGORY    !
!         ! ' ' NO ERROR                          !
!         ! 'E' ERROR                             !
!         !
!ER-scrn-! MEMORIZATION OF DATA ELEMENT ERROR      !
! delcod ! '0' DATA ELEMENT ABSENT                !
!         ! '1' DATA ELEMENT PRESENT         !
!         ! '2' INVALID ABSENCE                !
!         ! '4' INVALID CLASS                  !
!         ! '5' INVALID VALUE                  !
!         !
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