VisualAge Pacbase 2.5

UNISYS A SERIES OLSD REFERENCE MANUAL

DDOUA000021A

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TABLE OF CONTENTS

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.

2. PRESENTATION OF THE EXAMPLE

2.1. THE 'DO' DIALOGUE

```
--------------------------------------------------------------------------------
!                  UNISYS A SERIES                          *PDSG.NDOC.AUA.2!
! ON-LINE 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:   10       11                          !
!                                                                              !
!                                    LABELS   DISPLAY  INPUT  ER.MESS.  ER.FL!
! 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..:   8   C     UNISYS A  (MULTI-SCREEN)    !
! CONTROL CARD OPTIONS FRONT & BACK..:            (PROGRAM)               (MAP)!
! EXTERNAL NAMES ....................:            (PROGRAM)               (MAP)!
! TRANSACTION CODE...................:   DO00                                  !
!                                                                              !
!                                                                              !
! EXPLICIT KEYWORDS..: DOC                                                     !
! SESSION NUMBER.....: 0020        LIBRARY......: AUA    LOCK....:             !
!                                                                              !
! O: C1 CH: Odo                         ACTION:                                !
--------------------------------------------------------------------------------
```

```
!                    UNISYS A SERIES                              *PDSG.NDOC.AUA.2!
! DIALOGUE COMPLEMENT....:  DO PACBASE DOCUMENTATION MANAG.                       !
!                                                                                 !
!                                                                                 !
! COMMON AREA-DATA STRUCTURE CODE.......: CA                                      !
!                                                                                 !
! ERROR MESSAGE FILE CHARACTERISTICS                                              !
!                       ORGANIZATION....: V                                       !
!                       EXTERNAL NAME...: EM                                      !
!                                                                                 !
! FIRST SCREEN CODE OF THE DIALOGUE.....: 0060                                    !
!                                                                                 !
! COMPLEMENTARY COMMON AREA LENGTH......:  700                                    !
!                                                                                 !
! CODE OF PSB OR SUB-SCHEMA.............:                                         !
!                                                                                 !
!                                                                                 !
! OPTIONS : OCF F10                                                               !
!                                                                                 !
!                                                                                 !
!                                                                                 !
! SESSION NUMBER     : 0126  LIBRARY      : AUA                                   !
!                                                                                 !
! O: C1 CH: Odo O                       ACTION:                                   !
```

```
--------------------------------------------------------------------------------
!                    UNISYS A SERIES                              *PDSG.NDOC.AUA.2!
! ON-LINE SCREEN GENERAL DOC.     DO     PACBASE DOCUMENTATION MANAG.            !
!                                                                                !
! A LIN : T COMMENT                                                        LIB  !
! . 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                                                                !
--------------------------------------------------------------------------------
```

2.2. THE 'DO0030' SCREEN

```
--------------------------------------------------------------------------------
!                  UNISYS A SERIES                          *PDSG.NDOC.AUA.2!
! 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:   10       11                          !
!                                                                              !
!                                    LABELS   DISPLAY  INPUT  ER.MESS.  ER.FL!
! INTENSITY ATTRIBUTE ..............: * B        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..:   8   C     UNISYS A  (MULTI-SCREEN)    !
! CONTROL CARD OPTIONS FRONT & BACK..:            (PROGRAM)              (MAP)!
! EXTERNAL NAMES ...................:   DO0030P  (PROGRAM)      DO0030M  (MAP)!
! TRANSACTION CODE..................:   DO00                                   !
!                                                                              !
!                                                                              !
! EXPLICIT KEYWORDS..:                                                         !
! SESSION NUMBER.....: 0176        LIBRARY......: AUA    LOCK....:             !
!                                                                              !
! O: C1 CH: Odo0030                    ACTION:                                 !
--------------------------------------------------------------------------------
```

```
--------------------------------------------------------------------------------
!                   UNISYS A SERIES                              *PDSG.NDOC.AUA.2!
! ON-LINE SCREEN GENERAL DOC.     DO0030 ***  ORDER INPUT SCREEN  ***           !
!                                                                              !
! A LIN : T COMMENT                                                       LIB  !
! . 020 : C      THIS SCREEN ALLOWS TO ENTER AN ORDER OF PACBASE           *ACC!
! . 030 : C      DOCUMENTATION PLACED BY A REFERENCED CLIENT.              *ACC!
! . 050 : C      FROM THIS SCREEN, YOU MAY ACCESS ANY OTHER SCREEN OF      *ACC!
! . 055 : C      THE DIALOG 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 DIALOG'S 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 REQUEST FOR CREATION.                           *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 PACBASE DOCUMENTATION.          *ACC!
!                                                                              !
! O: C1 CH: Odo0030 G                                                          !
--------------------------------------------------------------------------------
```

```
--------------------------------------------------------------------------------
!                   UNISYS A SERIES                              *PDSG.NDOC.AUA.2!
! ON-LINE SCREEN GENERAL DOC.     DO0030 ***  ORDER INPUT SCREEN  ***           !
!                                                                              !
! 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 BY PACBASE.      *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!
! . 625 : C      CONCERNING THE LEAD TIMES OF OUTSTANDING ORDERS.        *ACC!
! O: C1 CH:                                                                  !
--------------------------------------------------------------------------------
```

```
--------------------------------------------------------------------------------
!                   UNISYS A SERIES                          *PDSG.NDOC.AUA.2!
! 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: Odo0030 CE                                                         !
--------------------------------------------------------------------------------
```

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--------------------------------------------------------------------------------
!                   UNISYS A SERIES                          *PDSG.NDOC.AUA.2!
! 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:                                                                    !
--------------------------------------------------------------------------------
```

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--------------------------------------------------------------------------------
!                   UNISYS A SERIES                              *PDSG.NDOC.AUA.2!
! SCREEN CALL OF ELEM... DO0030 ***  ORDER INPUT SCREEN  ***                     !
!                                                                               !
! A LIN : D.ELEM . PHYSICAL ATTRIBUTES         . LABEL                          !
!       :        . P LN COL N L HR VR IN PR CO . T LITERALS                    !
! ..............................................................................!
!   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:                                                                     !
--------------------------------------------------------------------------------
```

```
--------------------------------------------------------------------------------
!                   UNISYS A SERIES                              *PDSG.NDOC.AUA.2!
! SCREEN CALL OF ELEM... DO0030 ***  ORDER INPUT SCREEN  ***                     !
!                                                                               !
! A LIN : D.ELEM . PHYSICAL ATTRIBUTES         . LABEL                          !
!       :        . P LN COL N L HR VR IN PR CO . T LITERALS                    !
! ..............................................................................!
! . 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    .      004 Z                  .                                !
! . 400 :        . A 20 002 L                  .   PRINTING OF FORM  :/         !
! . 405 : EDIT   .      001 V F                .                                !
!   415 : DOAC31 . A 20 001 S                  .                                !
!   500 : DOAP05 . A 22 001 S                  .                                !
!       :        .                             .                                !
!       :        .                             .                                !
!                                                                               !
! O: C2 CH:                                                                     !
--------------------------------------------------------------------------------
```

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--------------------------------------------------------------------------------
!                   UNISYS A SERIES                          *PDSG.NDOC.AUA.2!
! ON-LINE SCREEN CALL OF SEGM. DO0030 ***  ORDER INPUT SCREEN  ***             !
! ...CA00...CD05...WP30..*CD00..*CD10..*FO10..£CD20.........................!
! A SEGM      :   USE PREC ACCESS KEY     ACCESS     D EXTERNAL LIB. S    :LIB !
! C CODE C LN : G R D SEGM SOURCE         KEY    B O T NAME     SEGM N LV :    !
!   CD05   00 :   M A      SPACES         KEYCD    V   DOCD00   CD05   12 :0021!
!   CD05   02 :            "B"            COCARA                          :0021!
!   CD05   04 :            CA00-NUCOM     NUCOM                           :0021!
!   CD10 R 00 :   T        "C"            KEYCD    V   DOCD00   CD10      :0021!
!   CD10 R 02 :            CA00-NUCOM     NUCOM                           :0021!
!   CD10 R 04 :            0030-FOURNI    FOURNI                          :0021!
!   CD10 R 06 :     A      SPACES         KEYCD                           :0021!
!   CD10 R 08 :            "C"            COCARA C                        :0021!
!   CD10 R 10 :            CA00-NUCOM     NUCOM  C                        :0021!
!   FO10 R 00 :   M N CD10 0030-FOURNI    CLEFO    V 1 DOFO00   FO10      :0021!
!   FO10 R 02 :            CA00-LANGU     LANGU                           :0021!
!   FO10 R 04 :            0030-RELEA     RELEA                           :0021!
!   FO10 R 06 :            0030-MATE      MATE                            :0021!
!   CD20 Z 00 :   X N      SPACES         KEYCD    V   DOCD00   CD20      :0021!
!   CD20 Z 02 :            "E"            COCARA                          :0021!
!   CD20 Z 04 :            CA00-NUCOM     NUCOM                           :0021!
! . ME00 Z 00 :   N A      CA00-CLEME     CLEME    V   DOME00   ME00      :*DCC!
!                                                                          !
! O: C1 CH: Odo0030 CS                                                     !
--------------------------------------------------------------------------------
```

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--------------------------------------------------------------------------------
!                   UNISYS A SERIES                              *PDSG.NDOC.AUA.2!
! ON-LINE SCREEN CALL OF P.M.S.......:     DO0030 ***  ORDER INPUT SCREEN  *** !
!                                                                                !
! A   MACRO  LN C : COMMENTS OR PARAMETER VALUES                      D E        !
! .   AADOCP      : WP/                                                         !
! .   BBDEBR      :                                                             !
! .   BBINIT      :                                                             !
!                 :                                                            !
!                 :                                                            !
!                 :                                                            !
!                 :                                                            !
!                 :                                                            !
!                 :                                                            !
!                 :                                                            !
!                 :                                                            !
!                 :                                                            !
!                 :                                                            !
!                 :                                                            !
!                 :                                                            !
!                 :                                                            !
!                 :                                                            !
!                 :                                                            !
!                 :                                                            !
!                 :                                                            !
!                 :                                                            !
!                                                                              !
! O: C1 CH: Odo0030 CP                                                         !
--------------------------------------------------------------------------------
```

```
--------------------------------------------------------------------------------
!                   UNISYS A SERIES                              *PDSG.NDOC.AUA.2!
! 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                                                          !
--------------------------------------------------------------------------------
```

```
--------------------------------------------------------------------------------
!                   UNISYS A SERIES                              *PDSG.NDOC.AUA.2!
! 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:                                                                    !
--------------------------------------------------------------------------------
```

```
--------------------------------------------------------------------------------
!                   UNISYS A SERIES                              *PDSG.NDOC.AUA.2!
! 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:                                                                    !
--------------------------------------------------------------------------------
```

```
--------------------------------------------------------------------------------
!   XXXXXXXX - 0808      ***  ORDER INPUT SCREEN  ***       XXXXXXXXXX 14:45:36!
!                                                                              !
!   ORDER NUMBER: 02345   SYSTEM: UNISYS A            RELEASE:                 !
!   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 : 05/03/91     !
!  .   ...      ..        ..       ..     ..................................  !
!  .   ...      ..        ..       ..     ..................................  !
!  .   ...      ..        ..       ..     ..................................  !
!  .   ...      ..        ..       ..     ..................................  !
!  .   ...      ..        ..       ..     ..................................  !
!  .   ...      ..        ..       ..     ..................................  !
!  .   ...      ..        ..       ..     ..................................  !
!  .   ...      ..        ..       ..     ..................................  !
!                                                                              !
! PRINTING OF FORM  : O  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.                                        !
! XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX    !
--------------------------------------------------------------------------------
```

```
FUNCTION : 02
ASFLIN OPE OPERANDS                        LVTY CONDITION
*CP    N   INIT. NUMBER OF LOADED ITEMS    10BL
*CP100 M   IWP20M IWP20L
------ --- ------------------------------ ---- ----------------------
FUNCTION : 08
ASFLIN OPE OPERANDS                        LVTY CONDITION
*BB    N   NO UPDATE ==> END OF RECEIVE    10IT OPER NOT = "M"
*BB100 GFT
------ --- ------------------------------ ---- ----------------------
FUNCTION : 15
ASFLIN OPE OPERANDS                        LVTY CONDITION
.AA    N   INITIALIZATION CATM (HEADING)   10IT CATX = SPACE
.AA100 M   "M" CATM                          AN OPER = "M"
------ --- ------------------------------ ---- ----------------------
FUNCTION : 20
ASFLIN OPE OPERANDS                        LVTY CONDITION
.BB    N   ITEM NOT AVAILABLE              10*A FOURNI
.BB100 ERR A FOURNI                        99IT I-0030-FOURNI = "CLA"
.BB110 GF                                    AN CATM NOT = SPACE
------ --- ------------------------------ ---- ----------------------
FUNCTION : 25
ASFLIN OPE OPERANDS                        LVTY CONDITION
.BB    N   ACCESS TO FO10                  12*P CD10
.BB100 M   "1" CD10-CF
------ --- ------------------------------ ---- ----------------------
FUNCTION : 28
ASFLIN OPE OPERANDS                        LVTY CONDITION
.BH    N   STOCK UPD.: ORDER DELETION/UPD  10IT (CATM = "A" OR "M")
.BH100 A   CD10-QTMAL FO10-QTMAS             AN CATX = "R"
.BH120                                       AN CAT-ER = SPACES
------ --- ------------------------------ ---- ----------------------
FUNCTION : 30
ASFLIN OPE OPERANDS                        LVTY CONDITION
.BD    N   QUANTITY PROCESSING             10*P R
------ --- ------------------------------ ---- ----------------------
.BF    N   CALC. DELIV. QUANT. STOCK UPD.  12IT CATM = "C" OR "M"
.BF100 M   I-0030-QTMAC  CD10-QTMAL        99IT FO10-QTMAS NOT <
.BF110                                          I-0030-QTMAC
.BF120 M   FO10-QTMAS    CD10-QTMAL        99EL
.BF130 S   CD10-QTMAL    FO10-QTMAS        99BL
.BF140 M   CD10-QTMAL    O-0030-QTMAL
------ --- ------------------------------ ---- ----------------------
FUNCTION : 64
ASFLIN OPE OPERANDS                        LVTY CONDITION
*DA    N   PREPARATION DISPLAY DATE/HOUR   10IT CATX = " "
*DA 40 AD6
*DA 80 AD  IM DATOR DAT8C
*DA120 TIM                                 99BL
*DA160 TIF TIMCOG TIMDAY
------ --- ------------------------------ ---- ----------------------
FUNCTION : 65
ASFLIN OPE OPERANDS                        LVTY CONDITION
.BB    N   REMAINS TO BE DELIVERED         10*P R
.BB100 C   WW10-QTMAR =                    99IT CD10-QTMAL NOT = ZERO
.BB110     CD10-QTMAC - CD10-QTMAL
.BB120 M   WW10-QTMAR   O-0030-QTMAR
------ --- ------------------------------ ---- ----------------------
FUNCTION : 93
ASFLIN OPE OPERANDS                        LVTY CONDITION
*CP    N   ZIP CODE VALIDATION             10BL
*CP100 SCH WP20-COPOS WP30-COPOS
*CP200 M   "5" DEL-ER                      99IT IWP20R > IWP20L
*CP220 GT  10
------ --- ------------------------------ ---- ----------------------
```

3. DATA : MULTI-SCREEN (8 C) VARIANT

3.1. BEGINNING OF PROGRAM

BEGINNING OF 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.

In the FILE-CONTROL section:

. A SELECT clause is generated for each file called with ORGANIZATION 'V' on the Screen Call of Segments (-CS) screen.

. A SELECT clause is generated for the Error Message file if it is declared with ORGANIZATION 'V' on the Dialogue Complement (-O) screen.

. A SELECT clause is generated for the file which stores the screen before a branch to HELP documentation provided that Screen and Field Help Call characters have been specified in the Dialogue Definition. The clause is not generated if the NOSAV option is activated in the Dialogue Complement (-O) screen. (Default filename: 'HE').

```
    IDENTIFICATION DIVISION.
    PROGRAM-ID. DO0030P.                                        DO0030
    AUTHOR.     ***  ORDER INPUT SCREEN  ***.                   DO0030
    DATE-COMPILED. 06/23/94.                                    DO0030
    ENVIRONMENT DIVISION.                                       DO0030
    CONFIGURATION SECTION.                                      DO0030
    SOURCE-COMPUTER. B6800.                                     DO0030
    OBJECT-COMPUTER. B6800.                                     DO0030
    SPECIAL-NAMES.                                              DO0030
         DECIMAL-POINT IS COMMA.                                DO0030
    INPUT-OUTPUT SECTION.                                       DO0030
    FILE-CONTROL.                                               DO0030
         SELECT    CDFILE    ASSIGN TO DISK                     DO0030
           ORGANIZATION INDEXED                                 DO0030
           ACCESS IS DYNAMIC                                    DO0030
           RECORD KEY IS CD00-KEYCD                             DO0030
           FILE STATUS 1-CD00-STATUS.                           DO0030
         SELECT    EMFILE    ASSIGN TO DISK                     DO0030
           ORGANIZATION INDEXED                                 DO0030
           ACCESS IS DYNAMIC                                    DO0030
           RECORD KEY IS EM00-EMKEY                             DO0030
           FILE STATUS 1-EM00-STATUS.                           DO0030
         SELECT    FOFILE    ASSIGN TO DISK                     DO0030
           ORGANIZATION INDEXED                                 DO0030
           ACCESS IS DYNAMIC                                    DO0030
           RECORD KEY IS FO10-CLEFO                             DO0030
           FILE STATUS 1-FO00-STATUS.                           DO0030
         SELECT    HEFILE    ASSIGN TO DISK                     DO0030
           ORGANIZATION INDEXED                                 DO0030
           ACCESS IS DYNAMIC                                    DO0030
           RECORD KEY IS HE00-XTERM                             DO0030
           FILE STATUS 1-HE00-STATUS.                           DO0030
         SELECT    MEFILE    ASSIGN TO DISK                     DO0030
           ORGANIZATION INDEXED                                 DO0030
           ACCESS IS DYNAMIC                                    DO0030
           RECORD KEY IS ME00-CLEME                             DO0030
           FILE STATUS 1-ME00-STATUS.                           DO0030
```

3.2. SEGMENT DESCRIPTIONS

SEGMENT DESCRIPTION

This part of the program is generated when at least one segment is used on the screen in 'V' organization.

The segment DESCRIPTION TYPE is defined by the user on the Screen Call of Segments (-CS) screen. The types of calls are:

. Complete segment (Common part and specific part in redefinition);

. Specific part only;

. Complete segment with variable length (common part and specific part in redefinition without FILLER).

STRUCTURE OF THE 'HE' FILE

The HE file stores the input fields before a branching to the documentation screen (HELP function). Its size must be 1,932 characters since that of the biggest screen is 1,920 characters.
The HE file is built as follows:

```
01          HE00.
     05     HE00-XTERM           PICTURE X(12).
     05     HE00-SCREEN          PICTURE X(1920).
```

HE is the default name of this file in the program, and SAVESCR is its default external name, used in the SELECT clause of the DATA DIVISION. The user may change these names using the comment lines (-G) of the screen (Option O: C2):

```
05          XX EXTFF
```

XX being the new, two-character name of the file, and XXTFF its new external name.

DATA : MULTI-SCREEN (8 C) VARIANT 3
SEGMENT DESCRIPTIONS 2

```
DATA DIVISION.                                                  DO0030
FILE SECTION.                                                   DO0030
FD          CDFILE                                              DO0030
      LABEL RECORD STANDARD.                                    DO0030
01                CD00.                                         DO0030
      10          CD00-KEYCD.                                   DO0030
       15         CD00-COCARA PICTURE X.                        DO0030
       15         CD00-NUCOM  PICTURE 9(5).                     DO0030
       15         CD00-FOURNI PICTURE X(3).                     DO0030
      10          CD00-SUITE.                                   DO0030
       15         FILLER      PICTURE X(00157).                 DO0030
01                CD05.                                         DO0030
      10          FILLER      PICTURE X(00009).                 DO0030
      10          CD05-NUCLIE PICTURE 9(8).                     DO0030
      10          CD05-DATE   PICTURE X(6).                     DO0030
      10          CD05-RELEA  PICTURE X(3).                     DO0030
      10          CD05-REFCLI PICTURE X(30).                    DO0030
      10          CD05-RUE    PICTURE X(40).                    DO0030
      10          CD05-COPOS  PICTURE X(5).                     DO0030
      10          CD05-VILLE  PICTURE X(20).                    DO0030
      10          CD05-CORRES PICTURE X(25).                    DO0030
      10          CD05-REMIS  PICTURE S9(4)V99.                 DO0030
      10          CD05-MATE   PICTURE X(8).                     DO0030
      10          CD05-LANGU  PICTURE X.                        DO0030
      10               FILLER PICTURE X(5).                     DO0030
01                CD10.                                         DO0030
      10          FILLER      PICTURE X(00009).                 DO0030
      10          CD10-QTMAC  PICTURE 99.                       DO0030
      10          CD10-QTMAL  PICTURE 99.                       DO0030
      10          CD10-INFOR  PICTURE X(35).                    DO0030
      10          CD10-ADFOU  PICTURE X(100).                   DO0030
      10          FILLER      PICTURE X(00018).                 DO0030
01                CD20.                                         DO0030
      10          FILLER      PICTURE X(00009).                 DO0030
      10          CD20-EDIT   PICTURE X.                        DO0030
      10          FILLER      PICTURE X(00156).                 DO0030
FD          EMFILE                                              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          FOFILE                                              DO0030
      LABEL RECORD STANDARD.                                    DO0030
01                FO10.                                         DO0030
      10          FO10-CLEFO.                                   DO0030
       15         FO10-FOURNI PICTURE X(3).                     DO0030
       15         FO10-MATE   PICTURE X(8).                     DO0030
       15         FO10-RELEA  PICTURE X(3).                     DO0030
       15         FO10-LANGU  PICTURE X.                        DO0030
      10          FO10-QTMAS  PICTURE S9(4)                     DO0030
                       BINARY.                                  DO0030
      10          FO10-QTMAM  PICTURE 9(4).                     DO0030
      10          FO10-LIBFO  PICTURE X(20).                    DO0030
      10          FO10-DATE   PICTURE X(6).                     DO0030
      10          FO10-HEURE  PICTURE X(8).                     DO0030
      10               FILLER PICTURE XX.                       DO0030
FD          HEFILE                                              DO0030
      LABEL RECORD STANDARD.                                    DO0030
01                HE00.                                         DO0030
      10          HE00-XTERM  PICTURE X(12).                    DO0030
      10          HE00-SCREEN PICTURE X(1920).                  DO0030
FD          MEFILE                                              DO0030
      LABEL RECORD STANDARD.                                    DO0030
01                ME00.                                         DO0030
      10          ME00-CLEME.                                   DO0030
       15         ME00-COPERS PICTURE X(5).                     DO0030
       15         ME00-NUMORD PICTURE XX.                       DO0030
```

DATA : MULTI-SCREEN (8 C) VARIANT 3
SEGMENT DESCRIPTIONS 2

```
          10          ME00-MESSA  PICTURE X(75).                 DO0030
```

3.3. BEGINNING OF WORKING-STORAGE

BEGINNING OF WORKING-STORAGE

The 'LIST OF REFERENCED ENTITIES' at the beginning of the WORKING-STORAGE SECTION is printed when the REFER option on the Dialogue Complement (-O) screen is selected.

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.
'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.

CURPOS Cursor position on the screen in 'reception', with CPOSL = line number, and CPOSC = column number.

CPOSN 'Absolute' cursor position on the screen (the '0' position corresponds to CPOSL = 1, and CPOSC = 1).

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 '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).

5-scrn-PROGE

This field must be filled by the user before a transfer to another screen (OPER = 'O'), except if it is an automatic branch (UPDATE OPTION = 'G' on the Screen Call of Elements (-CE).

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 to each Segment in the procedure.

The 'STATUS-AREA' level contains the '1-dd00-STATUS' fields, which correspond to the FILE-STATUS defined in each file's SELECT clause.

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.

DATA : MULTI-SCREEN (8 C) VARIANT 3
BEGINNING OF WORKING-STORAGE 3

```
   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 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
   * OLSD DATES PACE30 : 28/10/93                                   DO0030
   *           PACE80 : 04/01/94   PAC7SG : 931207                  DO0030
        05 SESSI  PICTURE X(5) VALUE "0404 ".                       DO0030
        05 LIBRA  PICTURE X(3) VALUE "AUA".                         DO0030
        05 DATGN  PICTURE X(8) VALUE "06/23/94".                    DO0030
        05 PROGR  PICTURE X(6) VALUE "DO0030".                      DO0030
        05 PROGE  PICTURE X(8) VALUE "DO0030P ".                    DO0030
        05 TIMGN  PICTURE X(8) VALUE "18:05:53".                    DO0030
        05 USERCO PICTURE X(8) VALUE "PDSG    ".                    DO0030
        05 PRDOC  PICTURE X(8) VALUE "DOP050".                      DO0030
        05 PRCGI  PICTURE X(16) 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
     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      CD10-CF      PICTURE X.                         DO0030
     05      CD20-CF      PICTURE X.                         DO0030
     05      FO10-CF      PICTURE X.                         DO0030
     05      ME00-CF      PICTURE X.                         DO0030
01     STATUS-AREA.                                          DO0030
     05    1-CD00-STATUS PICTURE XX VALUE ZERO.              DO0030
     05    1-EM00-STATUS PICTURE XX VALUE ZERO.              DO0030
     05    1-FO00-STATUS PICTURE XX VALUE ZERO.              DO0030
     05    1-HE00-STATUS PICTURE XX VALUE ZERO.              DO0030
     05    1-ME00-STATUS PICTURE XX VALUE ZERO.              DO0030
```

3.4. SCREEN DESCRIPTION

0030-MESSO

The 0030-MESSO level is a logical message input-output field that is passed on to the formatting sub-program. It includes one field per screen-field.

The AT-0030-MESSO table is a logical description of each message field; it is passed on to the sub-program. For each field, it specifies:

- its line-column position;
- its length;
- its nature (' ': variable field; 'F' or 'P': protected field);
- its intensity, presentation and color attributes.

The INPUT-0030 level is a message input field, redefined by the INPUT-SCREEN-FIELDS which includes the 'V' and 'F'-type fields.

The OUTPUT-0030 is a message output field, redefined by the OUTPUT-SCREEN-FIELDS which includes the 'V', 'F' and 'P'-type fields.

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.

DATA : MULTI-SCREEN (8 C) VARIANT 3
SCREEN DESCRIPTION 4

```
01          0030-MESSO.                                          *AA040
   02       0030-MESSI.                                          *AA040
     05     S01001  PICTURE X(004).                              *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(020).                              *AA040
     05     S05074  PICTURE X(005).                              *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
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     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
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     05     S13007  PICTURE X(003).                              *AA040
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     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
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     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
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        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-S01001  PICTURE X(12) VALUE "01001004PNNW".         *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 "01012001FNNW".         *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 "01024030FBNW".         *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 "03003013FBNW".         *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 "03025007FBNW".         *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 "03053008FBNW".         *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 "04003005FBNW".         *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 "05051020PNNW".         *AA041
         05 AT-R000101-VILLE  REDEFINES AT-S05052 PICTURE X(12).   *AA041
         05 AT-S05074  PICTURE X(12) VALUE "05073005 NNW".         *AA041
         05 AT-R000101-COPOS  REDEFINES AT-S05074 PICTURE X(12).   *AA041
         05 AT-S06004  PICTURE X(12) VALUE "06003011FBNW".         *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 "06048011FBNW".         *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 "07004012FBNW".         *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 "07045014FBNW".         *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 "09002001FBNW".         *AA041
         05 AT-L010101-CODMVT REDEFINES AT-S09003 PICTURE X(12).   *AA041
         05 AT-S09007  PICTURE X(12) VALUE "09006006FBNW".         *AA041
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05 AT-L010101-FOURNI REDEFINES AT-S09007 PICTURE X(12).    *AA041
05 AT-S09016  PICTURE X(12) VALUE "09015008FBNW".          *AA041
05 AT-L010101-QTMAC  REDEFINES AT-S09016 PICTURE X(12).    *AA041
05 AT-S09026  PICTURE X(12) VALUE "09025007FBNW".          *AA041
05 AT-L010101-QTMAL  REDEFINES AT-S09026 PICTURE X(12).    *AA041
05 AT-S09035  PICTURE X(12) VALUE "09034006FBNW".          *AA041
05 AT-L010101-QTMAR  REDEFINES AT-S09035 PICTURE X(12).    *AA041
05 AT-S09042  PICTURE X(12) VALUE "09041035FBNW".          *AA041
05 AT-L010101-INFOR  REDEFINES AT-S09042 PICTURE X(12).    *AA041
05 AT-S10003  PICTURE X(12) VALUE "10002001 NNW".          *AA041
05 AT-R010101-CODMVT REDEFINES AT-S10003 PICTURE X(12).    *AA041
05 AT-S10007  PICTURE X(12) VALUE "10006003 NNW".          *AA041
05 AT-R010101-FOURNI REDEFINES AT-S10007 PICTURE X(12).    *AA041
05 AT-S10016  PICTURE X(12) VALUE "10015002 NNW".          *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 NNW".          *AA041
05 AT-R010101-INFOR  REDEFINES AT-S10042 PICTURE X(12).    *AA041
05 AT-S11003  PICTURE X(12) VALUE "11002001 NNW".          *AA041
05 AT-R020101-CODMVT REDEFINES AT-S11003 PICTURE X(12).    *AA041
05 AT-S11007  PICTURE X(12) VALUE "11006003 NNW".          *AA041
05 AT-R020101-FOURNI REDEFINES AT-S11007 PICTURE X(12).    *AA041
05 AT-S11016  PICTURE X(12) VALUE "11015002 NNW".          *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 NNW".          *AA041
05 AT-R020101-INFOR  REDEFINES AT-S11042 PICTURE X(12).    *AA041
05 AT-S12003  PICTURE X(12) VALUE "12002001 NNW".          *AA041
05 AT-R030101-CODMVT REDEFINES AT-S12003 PICTURE X(12).    *AA041
05 AT-S12007  PICTURE X(12) VALUE "12006003 NNW".          *AA041
05 AT-R030101-FOURNI REDEFINES AT-S12007 PICTURE X(12).    *AA041
05 AT-S12016  PICTURE X(12) VALUE "12015002 NNW".          *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 NNW".          *AA041
05 AT-R030101-INFOR  REDEFINES AT-S12042 PICTURE X(12).    *AA041
05 AT-S13003  PICTURE X(12) VALUE "13002001 NNW".          *AA041
05 AT-R040101-CODMVT REDEFINES AT-S13003 PICTURE X(12).    *AA041
05 AT-S13007  PICTURE X(12) VALUE "13006003 NNW".          *AA041
05 AT-R040101-FOURNI REDEFINES AT-S13007 PICTURE X(12).    *AA041
05 AT-S13016  PICTURE X(12) VALUE "13015002 NNW".          *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 NNW".          *AA041
05 AT-R040101-INFOR  REDEFINES AT-S13042 PICTURE X(12).    *AA041
05 AT-S14003  PICTURE X(12) VALUE "14002001 NNW".          *AA041
05 AT-R050101-CODMVT REDEFINES AT-S14003 PICTURE X(12).    *AA041
05 AT-S14007  PICTURE X(12) VALUE "14006003 NNW".          *AA041
05 AT-R050101-FOURNI REDEFINES AT-S14007 PICTURE X(12).    *AA041
05 AT-S14016  PICTURE X(12) VALUE "14015002 NNW".          *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 NNW".          *AA041
05 AT-R050101-INFOR  REDEFINES AT-S14042 PICTURE X(12).    *AA041
05 AT-S15003  PICTURE X(12) VALUE "15002001 NNW".          *AA041
05 AT-R060101-CODMVT REDEFINES AT-S15003 PICTURE X(12).    *AA041
05 AT-S15007  PICTURE X(12) VALUE "15006003 NNW".          *AA041
05 AT-R060101-FOURNI REDEFINES AT-S15007 PICTURE X(12).    *AA041
05 AT-S15016  PICTURE X(12) VALUE "15015002 NNW".          *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
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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 "20001019FBNW".          *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 "20024007FNNW".          *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 "20034010FNNW".          *AA041
        05 AT-S20046  PICTURE X(12) VALUE "20045020FNNW".          *AA041
        05 AT-S21002  PICTURE X(12) VALUE "21001027FNNW".          *AA041
        05 AT-S21030  PICTURE X(12) VALUE "21029022FNNW".          *AA041
        05 AT-S21053  PICTURE X(12) VALUE "21052017FNNW".          *AA041
        05 AT-S22002  PICTURE X(12) VALUE "22001017FNNW".          *AA041
        05 AT-S22020  PICTURE X(12) VALUE "22019018FNNW".          *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 099.                               *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    R01001  PICTURE X(4).                                 *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(20).                                *AA042
      05    R05074  PICTURE X(5).                                 *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
      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-TRAN   PICTURE X(4).                          *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-VILLE  PICTURE X(20).                         *AA045
      05    I-0030-COPOS  PICTURE X(5).                          *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
```

DATA : MULTI-SCREEN (8 C) VARIANT 3
SCREEN DESCRIPTION 4

```
        05    T01001  PICTURE X(4).                              *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(20).                             *AA049
        05    T05074  PICTURE X(5).                              *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-TRAN   PICTURE X(4).                      *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
        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-VILLE  PICTURE X(20).                    *AA050
        05      O-0030-COPOS  PICTURE X(5).                     *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
```

3.5. 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.

CMES-COMMUNICATION

The CMES-COMMUNICATION level includes:

. YR00 : Message

. YO00 : Table of logical fields including their description; position (line-column), length, attributes

. PFKEY : Value of Function Key after RECEIVE

. IND1 : Message length after RECEIVE and before SEND,

. IND2 : Message length (used for message second part when its length exceeds 2000, for DPS8 only)

. YMAT : Screen type (initialized at '8' in the monitor)

. YCRE : Type of operation performed (Reception, Display in case of error, ...)

. YPCUR : cursor position (line-column)

END-CONVERSATION

The END-CONVERSATION level includes:

. MESSAGE : message displayed when conversation is ended (initial value : blank, length : 30 characters)

. ATTR : this field repositions the cursor in the screen's top left

This level is filled by MOVEs.

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).

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").

```
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     PICTURE S9(4) BINARY.                     *AA060
  05    CMES-IND2     PICTURE S9(4) BINARY.                     *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.                                            *AA070
     10 END-CTRAN     PICTURE X(04) VALUE SPACE.                *AA070
     10 END-LIBEL     PICTURE X(30) VALUE SPACE.                *AA070
  05    END-ATTR.                                               *AA070
     10 END-ATTRAN    PICTURE X(12) VALUE "01001004 NNW".       *AA070
     10 END-ATMES     PICTURE X(12) VALUE "01006030 NNW".       *AA070
  05    END-YPCUR     PICTURE X(05) VALUE "01001".              *AA070
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      D-ERROR-MESS.                                          *AA156
     05 D-ERROR-TEXT  PICTURE X(17) VALUE                      *AA156
        "ERROR IN PROGRAM ".                                   *AA156
     05 D-ERROR-PROGE PICTURE X(8).                           *AA156
     05 FILLER  PICTURE X(6) VALUE " FILE ".                  *AA156
     05 D-ERROR-XFILE PICTURE X(8).                           *AA156
     05 FILLER  PICTURE X(11) VALUE " FUNCTION ".             *AA156
     05 D-ERROR-XFUNCT PICTURE X(8).                          *AA156
     05 FILLER  PICTURE X(15) VALUE " FILE STATUS ".          *AA156
     05 D-ERROR-STATUS PICTURE X(6).                          *AA156
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 BINARY.                                  *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-CD00-LTH  PICTURE S9(4) VALUE +0166.               *AA200
        05    5-CD05-LTH  PICTURE S9(4) VALUE +0157.               *AA200
        05    5-CD10-LTH  PICTURE S9(4) VALUE +0139.               *AA200
        05    5-CD20-LTH  PICTURE S9(4) VALUE +0001.               *AA200
        05    5-FO10-LTH  PICTURE S9(4) VALUE +0061.               *AA200
        05    5-ME00-LTH  PICTURE S9(4) VALUE +0082.               *AA200
        05    5-CA00-LTH  PICTURE S9(4) VALUE +0147.               *AA200
        05    5-CD05-LTHV PICTURE S9(4) VALUE +0166.               *AA200
        05    5-CD10-LTHV PICTURE S9(4) VALUE +0148.               *AA200
        05    5-CD20-LTHV PICTURE S9(4) VALUE +0010.               *AA200
        05    5-FO10-LTHV PICTURE S9(4) VALUE +0061.               *AA200
        05    LTH         PICTURE S9(4) VALUE ZERO.                *AA200
        05      5-0030-LENGTH PICTURE S9(4)                        *AA200
                            VALUE      +0889.                      *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
```

3.6. 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 'AT-SV' level is generated if there is at least one in- put field in the screen. It indicates the actual rank of the Data Element in the screen. This rank is used as an index to search AT-0001-MESSO.

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.
```

```
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 "090NNW".                 *AA260
      10   FILLER PICTURE X(6) VALUE "011NNW".                 *AA260
      10   FILLER PICTURE X(6) VALUE "013NNW".                 *AA260
      10   FILLER PICTURE X(6) VALUE "016NNW".                 *AA260
      10   FILLER PICTURE X(6) VALUE "018NNW".                 *AA260
      10   FILLER PICTURE X(6) VALUE "020NNW".                 *AA260
      10   FILLER PICTURE X(6) VALUE "022NNW".                 *AA260
      10   FILLER PICTURE X(6) VALUE "024NNW".                 *AA260
      10   FILLER PICTURE X(6) VALUE "026NNW".                 *AA260
      10   FILLER PICTURE X(6) VALUE "033NNW".                 *AA260
      10   FILLER PICTURE X(6) VALUE "034NNW".                 *AA260
      10   FILLER PICTURE X(6) VALUE "035NNW".                 *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 "041NNW".                 *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 "047NNW".                 *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 "053NNW".                 *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 "059NNW".                 *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 "065NNW".                 *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 "071NNW".                 *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 "077NNW".                 *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 "083NNW".                 *AA260
      10   FILLER PICTURE X(6) VALUE "086NNW".                 *AA260
      10   FILLER PICTURE X(6) VALUE "088NNW".                 *AA260
01      TABLE-SV-AT REDEFINES AT-SV.                          *AA265
     02 LIGNE-SV-AT OCCURS 046.                               *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          STOP-FIELDS.                                      *AA300
    02      C-0030.                                           *AA300
      05    C-0030-COCARA     PICTURE X.                      *AA300
      05    C-0030-NUCOM      PICTURE 9(5).                   *AA300
01   FIRST-ON-SEGMENT.                                        *AA301
     05     CD10-FST    PICTURE X.                           *AA301
01             WW10-QTMAR                                    *BB200
                     PICTURE 99                              *BB200
               VALUE ZERO.                                   *BB201
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
```

3.7. COMMUNICATION AREA

The LINKAGE-SECTION includes the screens' COMMOMN AREA and the COMMUNICATION-MONITOR that contains the fields used for communication between the monitor and the screens, see Chapter "MONITOR: MULTI-SCREEN (8 C) VARIANT".

WORKING Descriptions may be inserted between the I-O-MESSAGE and the COMMON-AREA. Read explanations on Parameter 32 in the ON-LINE SYSTEMS DEVELOPMENT Reference Manual, Chapter "Description of a Transaction", Subchapter "Screen General Documentation (-G)".

DATA : MULTI-SCREEN (8 C) VARIANT 3
COMMUNICATION AREA 7

```
LINKAGE SECTION.                                                DO0030
01      I-O-MESSAGE       PICTURE X(4000).                      *00000
01      COMMON-AREA.                                            *00000
     02     K-S0030-YMAT  PICTURE X.                           *00000
     02     K-S0030-PROGR PICTURE X(6).                        *00000
     02     K-S0030-XTERM PICTURE X(12).                       *00000
     02     K-S0030-TRAN  PICTURE X(04).                       *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-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-A0030-DEBUT.                                     *00002
      05        K-ACD05-KEYCD  PICTURE X(00018).              *00002
     03     K-R0030-LINE   OCCURS 2.                           *00002
      05        K-RCD10-KEYCD  PICTURE X(00018).              *00002
     03     K-Z0030-END.                                       *00002
      05        K-ZME00-CLEME  PICTURE X(7).                  *00002
     02      FILLER        PICTURE X(0666).                    *00002
01           COMMUNICATION-MONITOR.                            *00010
     02    S-WWSS.                                            *00010
       10    S-WWSS-OPER   PICTURE X.                         *00010
       10    S-WWSS-PROGE  PICTURE X(8).                      *00010
       10    S-WWSS-XLOMES PICTURE 9(5).                      *00010
       10    S-WWSS-PFKEY  PICTURE XX.                        *00010
       10    FILLER        PICTURE X(44).                     *00010
```

4. PROCEDURE : MULTI-SCREEN (8 C) VARIANT

4.1. STRUCTURE OF THE PROCEDURE DIVISION

```
STRUCTURE OF THE PROCEDURE DIVISION

F0A         DECLARATIVES
F01         INITIALIZATIONS
F0101       file OPEN
F0105       re-initialization of attributes
F0110       initializations

------------------------------------------------------------

F05         RECEPTION  (ICF = '1')
F0510       screen reception
F0512       HELP call processing
F0520       definition of Operation Code
F10         CATEGORY PROCESSING LOOP      <-----------------
F15         VALIDATION OF TRANSACTION CODE                 !
F20         DATA ELEMENT VALIDATION                        !
F25         SEGMENT ACCESS FOR VALIDATION                  !
F30         DATA ELEMENT TRANSFER                          !
F35         SEGMENT ACCESS FOR UPDATE                      !
F3999-ITER-FN.  Go To F10. ---------------------------------
F3999-ITER-FT.  Exit.

F40         END OF RECEPTION
F4010       new screen display
F4020       display of the screen continuation
F4030       end of conversation
F4040       transfer to another screen

END OF RECEPTION.    (F45-FN)

------------------------------------------------------------

F50         DISPLAY    (OCF = '1')
F5010       initializations
F55         CATEGORY PROCESSING LOOP  <---------------------
F60         SEGMENT ACCESS FOR DISPLAY                     !
F65         DATA ELEMENT TRANSFER                          !
F6999-ITER-FN.  Go To F55. ---------------------------------
F6999-ITER-FT.  Exit.
F70         ERROR PROCESSING
F7020       cursor positioning
END OF DISPLAY.  (F78-FN)

------------------------------------------------------------
```

```
F8Z         DISPLAY AND END OF PROGRAM
F8Z05       screen store
F8Z10       call of sub-program for display
F8Z20       end of processing.  Return to beginning of
                iteration (F0110)

-------------- Performed validation functions --------------

F80         PHYSICAL SEGMENT ACCESS ROUTINES
F81ER       abnormal end procedure
F81FI       file CLOSE
F81UT       memorization of user errors
F8105       moves of the error messages
F8110       numeric class validation
F8115       initialization of variable output areas
F8120       date formatting and validation
F8130       HELP processing
F8145       move of display fields to message formatting
              sub-program
F8150       detection of documentation requests
F8155       transfer of messages in the reception fields.
```

4.2. F0A : DECLARATIVES

F0A : DECLARATIVES

The F0A function contains an F0Axx sub-function for each xx-file in the FILE-SECTION.

Each F0Axx sub-function manages the return codes of the corresponding file access.

```
PROCEDURE DIVISION USING I-O-MESSAGE,                          *99999
                         COMMON-AREA,                          *99999
                         COMMUNICATION-MONITOR.                *99999
DECLARATIVES.                                                  DO0030
SECCD SECTION.                                                 DO0030
      USE AFTER ERROR PROCEDURE ON CDFILE.                     DO0030
F0ACD.                                                         DO0030
      MOVE 1-CD00-STATUS TO D-ERROR-STATUS                     DO0030
      MOVE "DOCD00  "  TO D-ERROR-XFILE                       DO0030
      MOVE "1" TO IK.                                          DO0030
F0ACD-FN.    EXIT.                                             DO0030
SECEM SECTION.                                                 DO0030
      USE AFTER ERROR PROCEDURE ON EMFILE.                     DO0030
F0AEM.                                                         DO0030
      MOVE 1-EM00-STATUS TO D-ERROR-STATUS                     DO0030
      MOVE  "EM      "   TO D-ERROR-XFILE                      DO0030
      MOVE "1" TO IK.                                          DO0030
F0AEM-FN.    EXIT.                                             DO0030
SECFO SECTION.                                                 DO0030
      USE AFTER ERROR PROCEDURE ON FOFILE.                     DO0030
F0AFO.                                                         DO0030
      MOVE 1-FO00-STATUS TO D-ERROR-STATUS                     DO0030
      MOVE "DOFO00  "  TO D-ERROR-XFILE                       DO0030
      MOVE "1" TO IK.                                          DO0030
F0AFO-FN.    EXIT.                                             DO0030
SECHE SECTION.                                                 DO0030
      USE AFTER ERROR PROCEDURE ON HEFILE.                     DO0030
F0AHE.                                                         DO0030
      MOVE 1-HE00-STATUS TO D-ERROR-STATUS                     DO0030
      MOVE "HE"    TO D-ERROR-XFILE                            DO0030
      MOVE "1" TO IK.                                          DO0030
F0AHE-FN.    EXIT.                                             DO0030
SECME SECTION.                                                 DO0030
      USE AFTER ERROR PROCEDURE ON MEFILE.                     DO0030
F0AME.                                                         DO0030
      MOVE 1-ME00-STATUS TO D-ERROR-STATUS                     DO0030
      MOVE "DOME00  "  TO D-ERROR-XFILE                       DO0030
      MOVE "1" TO IK.                                          DO0030
F0AME-FN.    EXIT.                                             DO0030
END DECLARATIVES.                                              DO0030
MAIN SECTION.                                                  DO0030
F0A99-FN.    EXIT.                                             DO0030
F0A-FN.      EXIT.                                             DO0030
```

4.3. F01 : INITIALIZATIONS

F01 : INITIALIZATIONS

Function F01 is always generated.

F0101 includes the file OPEN.

F0105 re-initializes the attributes of the logical message table to their initial values.

F0110 initializes the work areas.

It sets the procedure to be executed if there is an error.

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

It indicates the cursor position for the first display.

```
*           ************************************                DO0030
*           *                                  *                DO0030
*           *  INITIALIZATIONS                 *                DO0030
*           *                                  *                DO0030
*           ************************************                DO0030
 F01.         EXIT.                                             DO0030
 F0101.                                                         DO0030
       MOVE "OPEN    " TO D-ERROR-XFUNCT   MOVE "0" TO IK.      DO0030
       OPEN I-O    CDFILE.                                      DO0030
       IF IK = "1" GO TO F81ES.                                 DO0030
       OPEN INPUT  EMFILE.                                      DO0030
       IF IK = "1" GO TO F81ES.                                 DO0030
       OPEN I-O    FOFILE.                                      DO0030
       IF IK = "1" GO TO F81ES.                                 DO0030
       OPEN I-O    HEFILE.                                      DO0030
       IF IK = "1" GO TO F81ES.                                 DO0030
       OPEN INPUT  MEFILE.                                      DO0030
       IF IK = "1" GO TO F81ES.                                 DO0030
 F0101-FN.    EXIT.                                             DO0030
 F0105.                                                         DO0030
       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.                                                         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 SPACE TO CATM OPER OPERD CAT-ER.                    DO0030
       MOVE SPACE TO TABLE-OF-ATTRIBUTES.                       DO0030
       MOVE ZERO TO CONFIGURATIONS.                             DO0030
       IF PROGR NOT =  K-S0030-PROGR                            DO0030
                    MOVE    ZERO  TO  ICF.                      DO0030
       MOVE LOW-VALUE TO O-0030.                                DO0030
       IF ICF = ZERO AND OCF = ZERO                             DO0030
       PERFORM F8115 THRU F8115-FN.                             DO0030
       MOVE    K-S0030-TRAN TO O-0030-TRAN.                     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.                                                         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
```

4.4. F05 : RECEPTION

F05 : RECEPTION

The RECEPTION (F05) function contains the conditions for all the procedures which concern 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.

F0510 includes the reception of the screen on program entry and transfers it to the INPUT-SCREEN-FIELDS; and, for Data Elements whose NATURE = 'V', transfers it to the OUTPUT-SCREEN-FIELDS.

If an initialization character is entered on the Screen Definition screen, this character is set to blank (except when a branch to a HELP documentation screen is executed).

F0512 is generated if a HELP documentation call is entered on the Screen Definition screen. It ensures the initialization of the fields necessary for branching to the documentation screen.

F0520 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 (-CE).

The internal Operation Code 'OPER' is positioned based on the values of:

- the screen Data Element defined as an Operation Code (value specified with TYPE OF LINE = 'O' on the Data Element Description (-D) screen);

- the special PFKEY Data Element (value entered on the Screen Call of Elements (-CE)).

If an error occurs on the Operation Code value, the subsequent 'RECEPTION' procedures are not executed.

```
*           ************************************                DO0030
*           *                                  *                DO0030
*           *  RECEPTION                       *                DO0030
*           *                                  *                DO0030
*           ************************************                DO0030
 F05.   IF ICF = ZERO GO TO END-OF-RECEPTION.                    DO0030
 F0510.                                                          DO0030
        MOVE I-O-MESSAGE    TO CMES-YR00.                        DO0030
        MOVE S-WWSS-XLOMES  TO CMES-IND1.                        DO0030
        MOVE AT-0030-MESSA  TO CMES-YO00.                        DO0030
        MOVE K-S0030-YMAT   TO CMES-YMAT.                        DO0030
        MOVE  "R"           TO CMES-YCRE.                        DO0030
        CALL PRCGI  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 S-WWSS-PFKEY.               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                              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
*            +-----------------------------------+               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
```

4.5. 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.

```
*           ************************************                DO0030
*           *                                  *                DO0030
*           *  CATEGORY PROCESSING LOOP        *                DO0030
*           *                                  *                DO0030
*           ************************************                DO0030
 F10.         EXIT.                                             DO0030
 F1010.     MOVE SPACE TO CATM.                                 DO0030
       IF CATX = "R"                                            DO0030
       MOVE  O-0030-LINE           TO                           DO0030
             P-0030-LINE    (ICATR)                           DO0030
       MOVE  A-0030-LINE   (1)      TO                         DO0030
             B-0030-LINE   (1, ICATR)                          DO0030
       MOVE  A-0030-LINE   (2)      TO                         DO0030
             B-0030-LINE   (2, ICATR)                          DO0030
       MOVE  A-0030-LINE   (4)      TO                         DO0030
             B-0030-LINE   (4, ICATR)                          DO0030
       MOVE  I-0030-LINE           TO                           DO0030
             J-0030-LINE    (ICATR)                           DO0030
       MOVE      ER-0030-LINE       TO                        DO0030
                   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                     DO0030
                 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
```

4.6. 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.

```
*           ************************************                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.   EXIT.                                               DO0030
*             +----------------------------------+              P000
* 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
```

4.7. 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).

```
*           ************************************                DO0030
*           *                                  *                DO0030
*           *  DATA ELEMENT VALIDATION         *                DO0030
*           *                                  *                DO0030
*           ************************************                DO0030
 F20.         EXIT.                                             DO0030
 F20A.  IF CATX NOT = " " GO TO F20A-FN.                        DO0030
 F20A2.                                                         DO0030
          IF I-0030-CHOIX  NOT = SPACE                          DO0030
       MOVE "1" TO    ER-0030-CHOIX.                          DO0030
 F20A2-FN.    EXIT.                                             DO0030
 F20B1.                                                         DO0030
          IF I-0030-MATE   NOT = SPACE                          DO0030
       MOVE "1" TO    ER-0030-MATE.                           DO0030
          IF     ER-0030-MATE     NOT = 1                      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
            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                   GO TO F20B1-FN.    DO0030
 F20B1-FN.    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                   GO TO F20B2-FN.    DO0030
         IF  I-0030-RELEA      = "7.2"                        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                   GO TO F20B2-FN.    DO0030
 F20B2-FN.    EXIT.                                             DO0030
 F20B5.                                                         DO0030
          IF I-0030-RUE    NOT = SPACE                         DO0030
       MOVE "1" TO    ER-0030-RUE.                            DO0030
 F20B5-FN.    EXIT.                                             DO0030
 F20B7.                                                         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                   GO TO F20B7-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                               DO0030
            I-0030-COPOS                                       DO0030
       MOVE DEL-ER TO    ER-0030-COPOS.                        DO0030
          IF     ER-0030-COPOS  > "1"                          DO0030
       MOVE "E" TO CAT-ER                   GO TO F20B7-FN.    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
          IF DEL-ER = "1"                                          DO0030
       MOVE I-0030-REMIS  TO  O-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
            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
          IF DEL-ER > 1 MOVE "E" TO CAT-ER  GO TO F20C5-FN.        DO0030
          MOVE ZONUM2 TO E-0030-QTMAC.                             DO0030
          IF DEL-ER = "1"                                          DO0030
       MOVE I-0030-QTMAC  TO  O-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
```

4.8. 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).

```
*           ************************************                DO0030
*           *                                  *                DO0030
*           *  SEGMENT ACCESS FOR VALIDATION   *                DO0030
*           *                                  *                DO0030
*           ************************************                DO0030
 F25.       IF CAT-ER NOT = SPACE GO TO F25-FN.                  DO0030
 F25A.  IF CATX NOT = " " GO TO F25A-FN.                         DO0030
 F2501.                                                          DO0030
        MOVE "0" TO CD05-CF.                                     DO0030
        IF CATM = SPACE                  GO TO F2501-FN.         DO0030
        MOVE    SPACES            TO    CD00-KEYCD              DO0030
        MOVE    "B"               TO    CD00-COCARA             DO0030
        MOVE    CA00-NUCOM        TO    CD00-NUCOM              DO0030
        PERFORM F80-CD05-RU THRU F80-FN.                         DO0030
        IF IK = "0"                                              DO0030
        MOVE "1" TO CD05-CF.                                     DO0030
        IF CATM NOT = "C" AND IK = "1"                           DO0030
                    MOVE  "F019" TO XERCD                        DO0030
                    PERFORM F81UT         GO TO F2501-FN.        DO0030
 F2501-FN.    EXIT.                                              DO0030
 F25A-FN.   EXIT.                                                DO0030
 F25R.  IF CATX NOT = "R" GO TO F25R-FN.                         DO0030
 F2502.                                                          DO0030
        MOVE "0" TO CD10-CF.                                     DO0030
        IF CATM = SPACE                  GO TO F2502-FN.         DO0030
        MOVE    "C"               TO    CD00-KEYCD              DO0030
        MOVE    CA00-NUCOM        TO    CD00-NUCOM              DO0030
        MOVE  I-0030-FOURNI       TO    CD00-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
*             +-----------------------------------+              P000
* 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    CD00-KEYCD              DO0030
        MOVE    "E"               TO    CD00-COCARA             DO0030
        MOVE    CA00-NUCOM        TO    CD00-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, 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
```

4.9. 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.

```
*           ************************************                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-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-MATE   = "1"                          DO0030
        MOVE     I-0030-MATE        TO     CD05-MATE.           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
```

4.10. 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.)

```
*           ************************************                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
```

4.11. F40 : END OF RECEPTION

F40 : END OF RECEPTION

This function contains the procedures for the END OF RECEPTION processing. It is executed if no errors are found.

Within this function, there are sub-functions which correspond to four automatically generated procedures that are conditioned by the value of the Operation Code.

F4010 NEW SCREEN DISPLAY

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

Depending on the categories defined on the screen, the access key to the display segment is stored in one of the following:

. F40A for the screen-top category,
. F40R for the repetitive category,
. F40Z for the screen-bottom category.

F4020 DISPLAY OF THE SCREEN CONTINUATION

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

F4030 END OF CONVERSATION

This is executed for an end-of-conversation operation. The following is executed:

. Stored screen is cleared,
. Files are closed,
. Return to the monitor.

F4040 TRANSFER TO ANOTHER SCREEN

This is executed for a screen transfer operation. The following is executed:

. Return to the monitor,
. Transfer of new screen code,
. Close files.

```
 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
*           ************************************                  DO0030
*           *                                  *                  DO0030
*           *  SET-UP KEYS FOR NEW DISPLAY     *                  DO0030
*           *                                  *                  DO0030
*           ************************************                  DO0030
 F4010.     IF OPER NOT = "A" AND NOT = "M" GO TO F4010-FN.       DO0030
 F40A.                                                            DO0030
        MOVE    SPACES            TO    CD00-KEYCD               DO0030
        MOVE    "B"               TO    CD00-COCARA              DO0030
        MOVE    CA00-NUCOM        TO    CD00-NUCOM               DO0030
        MOVE        CD00-KEYCD    TO K-ACD05-KEYCD.              DO0030
 F40A-FN.   EXIT.                                                 DO0030
 F40R.                                                            DO0030
        MOVE  J-0030-LINE   (1) TO                                DO0030
              I-0030-LINE.                                        DO0030
        MOVE    SPACES            TO    CD00-KEYCD               DO0030
        MOVE    "C"               TO    CD00-COCARA              DO0030
        MOVE    CA00-NUCOM        TO    CD00-NUCOM               DO0030
        MOVE        CD00-KEYCD    TO K-RCD10-KEYCD  (1).         DO0030
 F40R-FN.   EXIT.                                                 DO0030
 F40Z.                                                            DO0030
        MOVE    CA00-CLEME        TO    ME00-CLEME               DO0030
        MOVE        ME00-CLEME    TO K-ZME00-CLEME.              DO0030
 F40Z-FN.   EXIT.                                                 DO0030
 F4010-FN.    EXIT.                                               DO0030
*           ************************************                  DO0030
*           *                                  *                  DO0030
*           *  SET-UP KEYS FOR SCREEN PAGING   *                  DO0030
*           *                                  *                  DO0030
*           ************************************                  DO0030
 F4020.     IF OPER NOT = "S" GO TO F4020-FN.                     DO0030
        MOVE     K-RCD10-KEYCD  (2) TO                            DO0030
                 K-RCD10-KEYCD  (1).                              DO0030
 F4020-FN.    EXIT.                                               DO0030
*           ************************************                  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 K-S0030-TRAN   TO END-CTRAN.                         DO0030
        MOVE  END-MESSAGE   TO CMES-YR00.                         DO0030
        MOVE  END-ATTR      TO CMES-YO00.                         DO0030
        MOVE  END-YPCUR     TO CMES-YPCUR.                        DO0030
        MOVE K-S0030-YMAT   TO CMES-YMAT.                         DO0030
        MOVE  "F"           TO CMES-YCRE.                         DO0030
        CALL PRCGI  USING CMES-COMMUNICATION                      DO0030
        MOVE CMES-IND1 TO S-WWSS-XLOMES                           DO0030
        MOVE CMES-YR00 TO I-O-MESSAGE.                            DO0030
        MOVE OPER TO S-WWSS-OPER.                                 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
        MOVE  5-0030-PROGE TO S-WWSS-PROGE.                       DO0030
        MOVE OPER TO S-WWSS-OPER.                                 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
```

4.12. 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.

```
*           ************************************                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
       MOVE K-R0030-LINE   (1)  TO                              DO0030
            K-R0030-LINE   (2).                                 DO0030
 F5010-FN.    EXIT.                                             DO0030
 F50-FN.      EXIT.                                             DO0030
```

4.13. 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.

```
*           ************************************                DO0030
*           *                                  *                DO0030
*           *  CATEGORY PROCESSING LOOP        *                DO0030
*           *                                  *                DO0030
*           ************************************                DO0030
 F55.         EXIT.                                             DO0030
 F5510.                                                         DO0030
       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.                                                       DO0030
       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
```

4.14. 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.)

```
*           ************************************                DO0030
*           *                                  *                DO0030
*           *  SEGMENT ACCESS FOR DISPLAY      *                DO0030
*           *                                  *                DO0030
*           ************************************                DO0030
 F60.         EXIT.                                             DO0030
 F60A.  IF CATX NOT = " " GO TO F60A-FN.                        DO0030
 F6001.                                                         DO0030
        MOVE "0" TO CD05-CF.                                    DO0030
        MOVE     K-ACD05-KEYCD     TO   CD00-KEYCD              DO0030
        PERFORM F80-CD05-R  THRU F80-FN.                        DO0030
        IF IK = "1" MOVE  "G019" TO XERCD                       DO0030
        PERFORM F81UT THRU F81UT-FN       GO TO F6001-FN.       DO0030
        MOVE "1" TO CD05-CF.                                    DO0030
 F6001-FN.    EXIT.                                             DO0030
 F60A-FN.   EXIT.                                               DO0030
 F60R.  IF CATX NOT = "R" OR FT = "1" GO TO F60R-FN.            DO0030
 F6003.                                                         DO0030
        MOVE "0" TO CD10-CF.                                    DO0030
        IF          CD10-FST = "1"                              DO0030
        MOVE     K-RCD10-KEYCD  (1) TO  CD00-KEYCD              DO0030
        MOVE        CD00-COCARA   TO  C-0030-COCARA             DO0030
        MOVE        CD00-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"                                             DO0030
          IF        CD00-COCARA NOT = C-0030-COCARA             DO0030
          OR        CD00-NUCOM  NOT = C-0030-NUCOM              DO0030
        MOVE "1" TO IK.                                         DO0030
        IF IK = "1" MOVE  "G039" TO XERCD MOVE "1" TO FT        DO0030
        PERFORM F81UT THRU F81UT-FN       GO TO F6003-FN.       DO0030
        MOVE "1" TO CD10-CF.                                    DO0030
        MOVE        CD00-KEYCD    TO K-RCD10-KEYCD  (2).        DO0030
 F6003-FN.    EXIT.                                             DO0030
 F60R-FN.   EXIT.                                               DO0030
 F60Z.  IF CATX NOT = "Z" GO TO F60Z-FN.                        DO0030
 F6006.                                                         DO0030
        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 XERCD                       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
*            +----------------------------------+               P000
* LEVEL 10    I PREPARATION DISPLAY DATE/HOUR     I           P000
*            +----------------------------------+               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
```

4.15. 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.

```
*           ************************************                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-VILLE      TO                              DO0030
              O-0030-VILLE.                                     DO0030
 F65A-B1-FN. EXIT.                                              DO0030
 F65A-B2.                                                       DO0030
        MOVE    CD05-COPOS      TO                              DO0030
              O-0030-COPOS.                                     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-A4.                                                       DO0030
        MOVE    CD00-FOURNI     TO                              DO0030
              O-0030-FOURNI.                                    DO0030
 F65R-A4-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-A6.                                                       DO0030
        MOVE    CD10-QTMAL      TO                              DO0030
              O-0030-QTMAL.                                     DO0030
 F65R-A6-FN. EXIT.                                              DO0030
 F65R-A7.                                                       DO0030
        MOVE    CD10-INFOR      TO                              DO0030
              O-0030-INFOR.                                     DO0030
 F65R-A7-FN. EXIT.                                              DO0030
 F65R-CD10-FN. EXIT.                                            DO0030
*            +----------------------------------+                P000
```

```
* 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
```

4.16. F70 : ERROR PROCESSING

F70 : ERROR PROCESSING

This function is systematically generated.

F7010 includes:

. In F7010-A, testing of the DE-ERR vector, setting the error field attribute, access to the error message file, and loading of the screen error message,

. In F7010-B, testing of T-XEMKEY user error tables, access to error message file, and loading of the screen error message.

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

This sub-function positions the screen field attributes when there is an error on a variable field and positions the cursor on the first erroneous field.

```
 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 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
```

4.17. F8Z : DISPLAY AND END OF PROGRAM

F8Z : DISPLAY AND END OF PROGRAM

Sub-function F8Z05 is generated if a documentation call is entered on the screen definition line. It memorizes the screen fields in the HE file.

Sub-function F8Z10 sends the CMES-COMMUNICATION field containing the message to the formatting sub-program.

Sub-function F8Z20 contains the end of the reception-display iteration, and closes the files, after which the monitor takes over.

```
   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
                MOVE    K-S0030-TRAN TO O-0030-TRAN.                 DO0030
          PERFORM F8145 THRU F8145-FN.                               DO0030
          MOVE "X"  TO CMES-YCRE.                                    DO0030
          IF SCR-ER NOT > "1"                                        DO0030
          MOVE PROGR     TO          K-S0030-PROGR                   DO0030
          PERFORM F8105 THRU F8105-FN                                DO0030
          MOVE "E"  TO CMES-YCRE.                                    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 PRCGI USING CMES-COMMUNICATION.                       DO0030
          MOVE CMES-YR00   TO I-O-MESSAGE                            DO0030
          MOVE CMES-IND1   TO S-WWSS-XLOMES.                         DO0030
   F8Z10-FN.    EXIT.                                               DO0030
  *           ************************************                 DO0030
  *           *                                  *                 DO0030
  *           *  END OF PROGRAM                  *                 DO0030
  *           *                                  *                 DO0030
  *           ************************************                 DO0030
   F8Z20.                                                            DO0030
          MOVE OPER TO S-WWSS-OPER.                                  DO0030
          PERFORM F81FI THRU F81FI-FN.                               DO0030
   F8Z20-A.  EXIT PROGRAM.                                           DO0030
   F8Z20-FN.    EXIT.                                               DO0030
   F8Z-FN.      EXIT.                                               DO0030
```

4.18. F80 : PHYSICAL SEGMENT ACCESS ROUTINES

F80: PHYSICAL SEGMENT ACCESS ROUTINES

The PHYSICAL SEGMENT ACCESS ROUTINES (F80) function, which is generated when at least one segment is called in the screen, includes physical access to the segments.

The coding for these access sub-functions is illustrated in the following example. (The segment code from 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 physical access(es) to the back-up file is (are) generated. The coding of the access sub-functions is illustrated as follows:

```
F80-HELP-W   Write.

F80-HELP-RW  Rewrite.

F80-HELP-R   Direct read.

F80-HELP-D   Deletion.
```

If the access methods are user-programmed, refer to Chapter "USE OF STRUCTURED CODE" in the OLSD Reference Manual.

```
*           ************************************                DO0030
*           *                                  *                DO0030
*           *  PHYSICAL SEGMENT ACCESS ROUTINES *                DO0030
*           *                                  *                DO0030
*           ************************************                DO0030
 F80.         EXIT.                                             DO0030
 F80-CD05-R.                                                    DO0030
        MOVE "READ    " TO D-ERROR-XFUNCT MOVE ZERO TO IK.      DO0030
        READ    CDFILE    INVALID KEY GO TO F80-KO.             DO0030
          IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.            DO0030
 F80-CD05-RU.                                                   DO0030
        MOVE "READUPD " TO D-ERROR-XFUNCT MOVE ZERO TO IK.      DO0030
        READ    CDFILE    INVALID KEY GO TO F80-KO.             DO0030
          IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.            DO0030
 F80-CD05-RW.                                                   DO0030
        MOVE "REWRITE " TO D-ERROR-XFUNCT MOVE ZERO TO IK.      DO0030
        REWRITE     CD05 INVALID KEY GO TO F80-KO.              DO0030
          IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.            DO0030
 F80-CD05-UN.                                                   DO0030
        GO TO F80-OK.                                           DO0030
 F8001-FN.    EXIT.                                             DO0030
 F80-CD10-R.                                                    DO0030
        MOVE "READ    " TO D-ERROR-XFUNCT MOVE ZERO TO IK.      DO0030
        READ    CDFILE    INVALID KEY GO TO F80-KO.             DO0030
          IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.            DO0030
 F80-CD10-RU.                                                   DO0030
        MOVE "READUPD " TO D-ERROR-XFUNCT MOVE ZERO TO IK.      DO0030
        READ    CDFILE    INVALID KEY GO TO F80-KO.             DO0030
          IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.            DO0030
 F80-CD10-P.                                                    DO0030
        MOVE "START   " TO D-ERROR-XFUNCT MOVE ZERO TO IK.      DO0030
        START   CDFILE    KEY NOT <                             DO0030
                  CD00-KEYCD  INVALID KEY GO TO F80-KO.         DO0030
         IF IK = "1" GO TO F81ES.                               DO0030
 F80-CD10-RN.                                                   DO0030
        MOVE "READNEXT" TO D-ERROR-XFUNCT MOVE ZERO TO IK.      DO0030
        READ    CDFILE    NEXT AT END GO TO F80-KO.             DO0030
          IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.            DO0030
 F80-CD10-W.                                                    DO0030
        MOVE "WRITE   " TO D-ERROR-XFUNCT MOVE ZERO TO IK.      DO0030
        WRITE       CD10 INVALID KEY GO TO F80-KO.              DO0030
          IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.            DO0030
 F80-CD10-RW.                                                   DO0030
        MOVE "REWRITE " TO D-ERROR-XFUNCT MOVE ZERO TO IK.      DO0030
        REWRITE     CD10 INVALID KEY GO TO F80-KO.              DO0030
          IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.            DO0030
 F80-CD10-D.                                                    DO0030
        MOVE "DELETE  " TO D-ERROR-XFUNCT MOVE ZERO TO IK.      DO0030
        DELETE  CDFILE    INVALID KEY GO TO F80-KO.             DO0030
          IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.            DO0030
 F80-CD10-UN.                                                   DO0030
        GO TO F80-OK.                                           DO0030
 F8002-FN.    EXIT.                                             DO0030
 F80-CD20-RU.                                                   DO0030
        MOVE "READUPD " TO D-ERROR-XFUNCT MOVE ZERO TO IK.      DO0030
        READ    CDFILE    INVALID KEY GO TO F80-KO.             DO0030
          IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.            DO0030
 F80-CD20-W.                                                    DO0030
        MOVE "WRITE   " TO D-ERROR-XFUNCT MOVE ZERO TO IK.      DO0030
        WRITE       CD20 INVALID KEY GO TO F80-KO.              DO0030
          IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.            DO0030
 F80-CD20-RW.                                                   DO0030
        MOVE "REWRITE " TO D-ERROR-XFUNCT MOVE ZERO TO IK.      DO0030
        REWRITE     CD20 INVALID KEY GO TO F80-KO.              DO0030
          IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.            DO0030
 F80-CD20-UN.                                                   DO0030
        GO TO F80-OK.                                           DO0030
 F8003-FN.    EXIT.                                             DO0030
 F80-FO10-RU.                                                   DO0030
        MOVE "READUPD " TO D-ERROR-XFUNCT MOVE ZERO TO IK.      DO0030
        READ    FOFILE    INVALID KEY GO TO F80-KO.             DO0030
          IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.            DO0030
 F80-FO10-RW.                                                   DO0030
        MOVE "REWRITE " TO D-ERROR-XFUNCT MOVE ZERO TO IK.      DO0030
        REWRITE     FO10 INVALID KEY GO TO F80-KO.              DO0030
          IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.            DO0030
 F80-FO10-UN.                                                   DO0030
```

```
       GO TO F80-OK.                                              DO0030
   F8004-FN.    EXIT.                                             DO0030
   F80-ME00-R.                                                    DO0030
       MOVE "READ    " TO D-ERROR-XFUNCT MOVE ZERO TO IK.        DO0030
       READ    MEFILE    INVALID KEY GO TO F80-KO.                DO0030
         IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.               DO0030
   F8005-FN.    EXIT.                                             DO0030
   F80-HELP-R.                                                    DO0030
       MOVE "READ    " TO D-ERROR-XFUNCT   MOVE "0" TO IK.       DO0030
       READ    HEFILE    INVALID KEY GO TO F80-KO.                DO0030
         IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.               DO0030
   F80-HELP-W.                                                    DO0030
       MOVE "WRITE   " TO D-ERROR-XFUNCT   MOVE "0" TO IK.        DO0030
       WRITE   HE00 INVALID KEY GO TO F80-KO.                     DO0030
         IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.               DO0030
   F80-HELP-RW.                                                   DO0030
       MOVE "REWRITE " TO D-ERROR-XFUNCT   MOVE "0" TO IK.        DO0030
       REWRITE   HE00 INVALID KEY GO TO F80-KO.                   DO0030
         IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.               DO0030
   F80-HELP-D.                                                    DO0030
       MOVE "DELETE  " TO D-ERROR-XFUNCT   MOVE "0" TO IK.        DO0030
       DELETE  HEFILE    INVALID KEY GO TO F80-KO.                DO0030
         IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.               DO0030
   F8095-FN.    EXIT.                                             DO0030
   F80-EM00-R.                                                    DO0030
       MOVE "READ    " TO D-ERROR-XFUNCT   MOVE "0" TO IK.       DO0030
       READ    EMFILE    INVALID KEY GO TO F80-KO.                DO0030
         IF IK = "1" GO TO F81ES ELSE 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
```

4.19. F81 : PERFORMED VALIDATION FUNCTIONS

F81 : PERFORMED VALIDATION FUNCTIONS

This function is automatically generated.

F81ER contains the abend routine.

F81FI contains the CLOSE of the files used in the program.

F81UT contains the storing of user errors.

F8105 contains the moves of the error messages.

F8110 is generated if the screen contains at least one numeric field. It contains the procedures which format the field to be validated in a working area, the numeric class validation and the possible positioning of error messages.

F8115 ensures the initialization of variable output areas. It is performed in Function F0510 if the processsing indicator for reception, 'ICF', is equal to '0'.

F8120 is generated if at least one variable data element ('V') has a date format, or if a date processing operator is used in the program (in which case the F8120-ER and F8120-KO levels are not generated). It contains date formatting and validation.

F8130 is generated if a HELP documentation call is entered on the Screen Definition screen. It prepares the area to be saved in 'HE'.

F8145 ensures the moves of the display fields to be passed to the message formatting sub-program.

F8155 ensures the transfer of messages received in the reception fields (INPUT-SCREEN-FIELDS).

F8150 searches the first character of each input field in order to detect the two documentation request characters (documentation on the screen, or documentation of

F8155 ensures the transfer of messages received in the reception fields (INPUT-SCREEN-FIELDS).

```
 F81.        EXIT.                                                  DO0030
*           ************************************                    DO0030
*           *                                  *                    DO0030
*           *  ABNORMAL END PROCEDURE          *                    DO0030
*           *                                  *                    DO0030
*           ************************************                    DO0030
 F81ER.                                                             DO0030
       MOVE "X" TO S-WWSS-OPER.                                     DO0030
 F81ER-A. EXIT PROGRAM.                                             DO0030
 F81ER-FN.    EXIT.                                                 DO0030
 F81ES.                                                             DO0030
       MOVE PROGE TO D-ERROR-PROGE.                                 DO0030
       DISPLAY D-ERROR-MESS.                                        DO0030
 F81ES-A.  EXIT PROGRAM.                                            DO0030
 F81ES-FN.    EXIT.                                                 DO0030
 F81FI.                                                             DO0030
       MOVE "CLOSE   " TO D-ERROR-XFUNCT   MOVE "0" TO IK.          DO0030
       CLOSE   CDFILE.                                              DO0030
       IF IK = "1" GO TO F81ES.                                     DO0030
       CLOSE   EMFILE.                                              DO0030
       IF IK = "1" GO TO F81ES.                                     DO0030
       CLOSE   FOFILE.                                              DO0030
       IF IK = "1" GO TO F81ES.                                     DO0030
       CLOSE   HEFILE.                                              DO0030
       IF IK = "1" GO TO F81ES.                                     DO0030
       CLOSE   MEFILE.                                              DO0030
       IF IK = "1" GO TO F81ES.                                     DO0030
 F81FI-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
 F8105.                                                             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
      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
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           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
      *           ************************************              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
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            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
             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
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          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.                                                     DO0030
          MOVE  T01001 TO   S01001.                              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  T05074 TO   S05074.                              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     =         "1"                     DO0030
            MOVE  HIGH-VALUE  TO  I-0030-CHOIX                     DO0030
          MOVE 001  TO K-S0030-ERCOD  GO TO F8150-FN.              DO0030
            IF  I-0030-CHOIX     =         "1"                     DO0030
            MOVE  HIGH-VALUE  TO  I-0030-CHOIX                     DO0030
          MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN.              DO0030
            IF  I-0030-MATE      =         "1"                     DO0030
            MOVE  HIGH-VALUE  TO  I-0030-MATE                      DO0030
          MOVE 002  TO K-S0030-ERCOD  GO TO F8150-FN.              DO0030
            IF  I-0030-MATE      =         "1"                     DO0030
            MOVE  HIGH-VALUE  TO  I-0030-MATE                      DO0030
          MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN.              DO0030
            IF  I-0030-RELEA     =         "1"                     DO0030
            MOVE  HIGH-VALUE  TO  I-0030-RELEA                     DO0030
          MOVE 003  TO K-S0030-ERCOD  GO TO F8150-FN.              DO0030
            IF  I-0030-RELEA     =         "1"                     DO0030
            MOVE  HIGH-VALUE  TO  I-0030-RELEA                     DO0030
          MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN.              DO0030
            IF  I-0030-RUE       =         "1"                     DO0030
            MOVE  HIGH-VALUE  TO  I-0030-RUE                       DO0030
          MOVE 004  TO K-S0030-ERCOD  GO TO F8150-FN.              DO0030
            IF  I-0030-RUE       =         "1"                     DO0030
            MOVE  HIGH-VALUE  TO  I-0030-RUE                       DO0030
          MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN.              DO0030
            IF  I-0030-COPOS     =         "1"                     DO0030
            MOVE  HIGH-VALUE  TO  I-0030-COPOS                     DO0030
          MOVE 005  TO K-S0030-ERCOD  GO TO F8150-FN.              DO0030
            IF  I-0030-COPOS     =         "1"                     DO0030
            MOVE  HIGH-VALUE  TO  I-0030-COPOS                     DO0030
          MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN.              DO0030
            IF  I-0030-REFCLI    =         "1"                     DO0030
            MOVE  HIGH-VALUE  TO  I-0030-REFCLI                    DO0030
          MOVE 006  TO K-S0030-ERCOD  GO TO F8150-FN.              DO0030
            IF  I-0030-REFCLI    =         "1"                     DO0030
            MOVE  HIGH-VALUE  TO  I-0030-REFCLI                    DO0030
          MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN.              DO0030
            IF  I-0030-DATE      =         "1"                     DO0030
            MOVE  HIGH-VALUE  TO  I-0030-DATE                      DO0030
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          MOVE 007  TO K-S0030-ERCOD  GO TO F8150-FN.              DO0030
            IF  I-0030-DATE      =         "1"                   DO0030
            MOVE  HIGH-VALUE  TO  I-0030-DATE                     DO0030
          MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN.              DO0030
            IF  I-0030-CORRES    =         "1"                   DO0030
            MOVE  HIGH-VALUE  TO  I-0030-CORRES                   DO0030
          MOVE 008  TO K-S0030-ERCOD  GO TO F8150-FN.              DO0030
            IF  I-0030-CORRES    =         "1"                   DO0030
            MOVE  HIGH-VALUE  TO  I-0030-CORRES                   DO0030
          MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN.              DO0030
            IF  E-0030-REMIS     =         "1"                   DO0030
            MOVE  HIGH-VALUE  TO  E-0030-REMIS                    DO0030
          MOVE 009  TO K-S0030-ERCOD  GO TO F8150-FN.              DO0030
            IF  E-0030-REMIS     =         "1"                   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    =         "1"                   DO0030
            MOVE  HIGH-VALUE  TO  I-0030-CODMVT                   DO0030
          MOVE 010  TO K-S0030-ERCOD  GO TO F8150-A.               DO0030
            IF  I-0030-CODMVT    =         "1"                   DO0030
            MOVE  HIGH-VALUE  TO  I-0030-CODMVT                   DO0030
          MOVE SPACE TO K-S0030-ERCOD GO TO F8150-A.               DO0030
            IF  I-0030-FOURNI    =         "1"                   DO0030
            MOVE  HIGH-VALUE  TO  I-0030-FOURNI                   DO0030
          MOVE 011  TO K-S0030-ERCOD  GO TO F8150-A.               DO0030
            IF  I-0030-FOURNI    =         "1"                   DO0030
            MOVE  HIGH-VALUE  TO  I-0030-FOURNI                   DO0030
          MOVE SPACE TO K-S0030-ERCOD GO TO F8150-A.               DO0030
            IF  E-0030-QTMAC     =         "1"                   DO0030
            MOVE  HIGH-VALUE  TO  E-0030-QTMAC                    DO0030
          MOVE 012  TO K-S0030-ERCOD  GO TO F8150-A.               DO0030
            IF  E-0030-QTMAC     =         "1"                   DO0030
            MOVE  HIGH-VALUE  TO  E-0030-QTMAC                    DO0030
          MOVE SPACE TO K-S0030-ERCOD GO TO F8150-A.               DO0030
            IF  I-0030-INFOR     =         "1"                   DO0030
            MOVE  HIGH-VALUE  TO  I-0030-INFOR                    DO0030
          MOVE 013  TO K-S0030-ERCOD  GO TO F8150-A.               DO0030
            IF  I-0030-INFOR     =         "1"                   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      =         "1"                   DO0030
            MOVE  HIGH-VALUE  TO  I-0030-EDIT                     DO0030
          MOVE 014  TO K-S0030-ERCOD  GO TO F8150-FN.              DO0030
            IF  I-0030-EDIT      =         "1"                   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  S01001 TO   R01001.                                DO0030
          MOVE  S03034 TO   R03034.                                DO0030
          MOVE  S03063 TO   R03063.                                DO0030
          MOVE  S05009 TO   R05009.                                DO0030
          MOVE  S05052 TO   R05052.                                DO0030
          MOVE  S05074 TO   R05074.                                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
```

4.20. CALLED USER FUNCTIONS

```
*            +-----------------------------------+              P000
* LEVEL 10    I ZIP CODE VALIDATION               I              P000
*            +-----------------------------------+              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
```

5. LARGE SYSTEM (8 0) VARIANT

LARGE SYSTEM VARIANT

This variant uses the SDF formats. It is initiated by a '0' in the 'TYPE OF COBOL AND MAP TO GENERATE' item of the Screen Definition screen.

For each screen an SDF format and the corresponding COBOL program are genearted. Reception and send of the message, as well as the screen flow, are performed via a user TP.DRIVER.

This variant does not provide either dynamic modification of attributes or screen storage in case of a HELP call.

5.1. DATA : LARGE SYSTEM (8 0) VARIANT

```
FORMAT DO0030M (4"0C",FS,A04,RS
 ,C8,X1,"-",X1,C5,X5,"***  ORDER INPUT SCREEN  ***  ",X5,C10,X1,C8
 ,4"0D"
 ,4"0D"
 ,X3,"ORDER NUMBER:",X1,C5,X3,"SYSTEM:",US,A8,RS,X11,"RELEASE:"
 ,US,A3,RS,4"0D"
 ,X3,"CUST.",X4,C50,4"0D"
 ,X7,US,A40,RS,X1,FS,A20,RS,US,A5,RS,4"0D"
 ,X3,"CUST. REF.:",US,A30,RS,X2,"ORDER DATE:",US,A6,RS,4"0D"
 ,X4,"COORDINATOR:",US,A25,RS,X2,"DISCOUNT RATE:",US,A8,RS,4"0D"
 ,4"0D"
 ,X2,"A",X3,"ITEM  ",X3,"ORDERED ",X2,"DELIV. ",X2,"OUTST.",X1
 ,"REMARKS                            ",4"0D"
 ,X1,US,A1,RS,X1,US,A3,RS,X4,US,A2,RS,X6,FS,A2,RS,X5,FS,A2,RS,X3
 ,US,A35,RS,4"0D"
 ,X1,US,A1,RS,X1,US,A3,RS,X4,US,A2,RS,X6,FS,A2,RS,X5,FS,A2,RS,X3
 ,US,A35,RS,4"0D"
 ,X1,US,A1,RS,X1,US,A3,RS,X4,US,A2,RS,X6,FS,A2,RS,X5,FS,A2,RS,X3
 ,US,A35,RS,4"0D"
 ,X1,US,A1,RS,X1,US,A3,RS,X4,US,A2,RS,X6,FS,A2,RS,X5,FS,A2,RS,X3
 ,US,A35,RS,4"0D"
 ,X1,US,A1,RS,X1,US,A3,RS,X4,US,A2,RS,X6,FS,A2,RS,X5,FS,A2,RS,X3
 ,US,A35,RS,4"0D"
 ,X1,US,A1,RS,X1,US,A3,RS,X4,US,A2,RS,X6,FS,A2,RS,X5,FS,A2,RS,X3
 ,US,A35,RS,4"0D"
 ,X1,US,A1,RS,X1,US,A3,RS,X4,US,A2,RS,X6,FS,A2,RS,X5,FS,A2,RS,X3
 ,US,A35,RS,4"0D"
 ,X1,US,A1,RS,X1,US,A3,RS,X4,US,A2,RS,X6,FS,A2,RS,X5,FS,A2,RS,X3
 ,US,A35,RS,4"0D"
 ,X1,US,A1,RS,X1,US,A3,RS,X4,US,A2,RS,X6,FS,A2,RS,X5,FS,A2,RS,X3
 ,US,A35,RS,4"0D"
 ,4"0D"
 ,X1,"PRINTING OF FORM  :",US,A1,RS,X1,"CHOICE:",US,A1,RS,"UPD : '7',"
 ,X1,"ORDERS (NEXT) : '8',",4"0D"
 ,X1,"MENU : '1', CUSTOMER LIST :",X1,"'2', CUST. HIST : '3',",X1
 ,"ORDER LIST : '4',",4"0D"
 ,X1,"SCREEN DOC : '=',",X1,"DATA EL. DOC : '$'",4"0D"
 ,X1,C75,4"0D"
 ,X1,C72,4"0D"
 ,4"12").
IDENTIFICATION DIVISION.
PROGRAM-ID. DO0030P.                                                 DO0030
AUTHOR.     ***  ORDER INPUT SCREEN  ***.                            DO0030
DATE-COMPILED. 06/23/94.                                             DO0030
ENVIRONMENT DIVISION.                                                DO0030
CONFIGURATION SECTION.                                               DO0030
SOURCE-COMPUTER. B6800.                                              DO0030
OBJECT-COMPUTER. B6800.                                              DO0030
SPECIAL-NAMES.                                                       DO0030
     DECIMAL-POINT IS COMMA.                                         DO0030
INPUT-OUTPUT SECTION.                                                DO0030
FILE-CONTROL.                                                        DO0030
     SELECT    CDFILE    ASSIGN TO DISK                              DO0030
       ORGANIZATION INDEXED                                          DO0030
       ACCESS IS DYNAMIC                                             DO0030
       RECORD KEY IS CD00-KEYCD                                      DO0030
       FILE STATUS 1-CD00-STATUS.                                    DO0030
     SELECT    FOFILE    ASSIGN TO DISK                              DO0030
       ORGANIZATION INDEXED                                          DO0030
       ACCESS IS DYNAMIC                                             DO0030
       RECORD KEY IS FO10-CLEFO                                      DO0030
       FILE STATUS 1-FO00-STATUS.                                    DO0030
     SELECT    MEFILE    ASSIGN TO DISK                              DO0030
       ORGANIZATION INDEXED                                          DO0030
       ACCESS IS DYNAMIC                                             DO0030
       RECORD KEY IS ME00-CLEME                                      DO0030
       FILE STATUS 1-ME00-STATUS.                                    DO0030
     SELECT    EMFILE    ASSIGN TO DISK                              DO0030
       ORGANIZATION INDEXED                                          DO0030
       ACCESS IS DYNAMIC                                             DO0030
```

```
       RECORD KEY IS EM00-EMKEY                                  DO0030
       FILE STATUS 1-EM00-STATUS.                                DO0030
   DATA DIVISION.                                                DO0030
   FILE SECTION.                                                 DO0030
   FD          CDFILE                                            DO0030
       LABEL RECORD STANDARD.                                    DO0030
   01              CD00.                                         DO0030
       10          CD00-KEYCD.                                   DO0030
        15         CD00-COCARA PICTURE X.                        DO0030
        15         CD00-NUCOM  PICTURE 9(5).                     DO0030
        15         CD00-FOURNI PICTURE X(3).                     DO0030
       10          CD00-SUITE.                                   DO0030
        15         FILLER      PICTURE X(00157).                 DO0030
   01              CD05.                                         DO0030
       10          FILLER      PICTURE X(00009).                 DO0030
       10          CD05-NUCLIE PICTURE 9(8).                     DO0030
       10          CD05-DATE   PICTURE X(6).                     DO0030
       10          CD05-RELEA  PICTURE X(3).                     DO0030
       10          CD05-REFCLI PICTURE X(30).                    DO0030
       10          CD05-RUE    PICTURE X(40).                    DO0030
       10          CD05-COPOS  PICTURE X(5).                     DO0030
       10          CD05-VILLE  PICTURE X(20).                    DO0030
       10          CD05-CORRES PICTURE X(25).                    DO0030
       10          CD05-REMIS  PICTURE S9(4)V99.                 DO0030
       10          CD05-MATE   PICTURE X(8).                     DO0030
       10          CD05-LANGU  PICTURE X.                        DO0030
       10              FILLER  PICTURE X(5).                     DO0030
   01              CD10.                                         DO0030
       10          FILLER      PICTURE X(00009).                 DO0030
       10          CD10-QTMAC  PICTURE 99.                       DO0030
       10          CD10-QTMAL  PICTURE 99.                       DO0030
       10          CD10-INFOR  PICTURE X(35).                    DO0030
       10          CD10-ADFOU  PICTURE X(100).                   DO0030
       10          FILLER      PICTURE X(00018).                 DO0030
   01              CD20.                                         DO0030
       10          FILLER      PICTURE X(00009).                 DO0030
       10          CD20-EDIT   PICTURE X.                        DO0030
       10          FILLER      PICTURE X(00156).                 DO0030
   FD          EMFILE                                            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          FOFILE                                            DO0030
       LABEL RECORD STANDARD.                                    DO0030
   01              FO10.                                         DO0030
       10          FO10-CLEFO.                                   DO0030
        15         FO10-FOURNI PICTURE X(3).                     DO0030
        15         FO10-MATE   PICTURE X(8).                     DO0030
        15         FO10-RELEA  PICTURE X(3).                     DO0030
        15         FO10-LANGU  PICTURE X.                        DO0030
       10          FO10-QTMAS  PICTURE S9(4)                     DO0030
                       BINARY.                                   DO0030
       10          FO10-QTMAM  PICTURE 9(4).                     DO0030
       10          FO10-LIBFO  PICTURE X(20).                    DO0030
       10          FO10-DATE   PICTURE X(6).                     DO0030
       10          FO10-HEURE  PICTURE X(8).                     DO0030
       10              FILLER  PICTURE XX.                       DO0030
   FD          MEFILE                                            DO0030
       LABEL RECORD STANDARD.                                    DO0030
   01              ME00.                                         DO0030
       10          ME00-CLEME.                                   DO0030
        15         ME00-COPERS PICTURE X(5).                     DO0030
        15         ME00-NUMORD PICTURE XX.                       DO0030
       10          ME00-MESSA  PICTURE X(75).                    DO0030
   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 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
    * OLSD DATES PACE30 : 28/10/93                               DO0030
    *            PACE80 : 04/01/94   PAC7SG : 931207            DO0030
        05 SESSI  PICTURE X(5) VALUE "0404 ".                    DO0030
        05 LIBRA  PICTURE X(3) VALUE "AUA".                      DO0030
        05 DATGN  PICTURE X(8) VALUE "06/23/94".                 DO0030
        05 PROGR  PICTURE X(6) VALUE "DO0030".                   DO0030
        05 PROGE  PICTURE X(8) VALUE "DO0030P ".                 DO0030
        05 TIMGN  PICTURE X(8) VALUE "18:19:30".                 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      CD10-CF      PICTURE X.                         DO0030
     05      CD20-CF      PICTURE X.                         DO0030
     05      FO10-CF      PICTURE X.                         DO0030
     05      ME00-CF      PICTURE X.                         DO0030
01     STATUS-AREA.                                          DO0030
     05    1-CD00-STATUS PICTURE XX VALUE ZERO.              DO0030
     05    1-FO00-STATUS PICTURE XX VALUE ZERO.              DO0030
     05    1-ME00-STATUS PICTURE XX VALUE ZERO.              DO0030
     05    1-EM00-STATUS PICTURE XX VALUE ZERO.              DO0030
01           INPUT-SCREEN-FIELDS.                           *AA050
     02      I-0030.                                        *AA050
     05      I-0030-MATE   PICTURE X(8).                    *AA050
     05      I-0030-RELEA  PICTURE X(3).                    *AA050
     05      I-0030-RUE    PICTURE X(40).                   *AA050
     05      I-0030-VILLE  PICTURE X(20).                   *AA050
     05      I-0030-COPOS  PICTURE X(5).                    *AA050
     05      I-0030-REFCLI PICTURE X(30).                   *AA050
     05      I-0030-DATE   PICTURE X(6).                    *AA050
     05      I-0030-CORRES PICTURE X(25).                   *AA050
     05      E-0030-REMIS.                                  *AA050
     10      I-0030-REMIS  PICTURE S9(4)V99.                *AA050
     10      FILLER        PICTURE X(2).                    *AA050
     05      J-0030-LINE   OCCURS 9.                        *AA050
     10      FILLER        PICTURE X(45).                   *AA050
     05      I-0030-EDIT   PICTURE X.                       *AA050
     05      I-0030-CHOIX  PICTURE X.                       *AA050
01           OUTPUT-SCREEN-FIELDS.                          *AA050
     02      O-0030.                                        *AA050
     05      O-0030-TRAN   PICTURE X(4).                    *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-VILLE  PICTURE X(20).                   *AA050
     05      O-0030-COPOS  PICTURE X(5).                    *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-CHOIX  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
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```
      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
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          ERROR-MESS.                                            *AA060
      05    FILLER   PICTURE 9(4) COMP VALUE à27E7à.               *AA060
      05    X-ERMS.                                                *AA060
        10  FILLER   PICTURE 9(8) COMP VALUE à277F4FF7à.          *AA060
        10  FILLER   PICTURE X(072).                              *AA060
      05    X-ERMS1  REDEFINES X-ERMS.                             *AA060
        10  X-ERMS2  OCCURS 01.                                   *AA060
         15 FILLER   PICTURE 9(8) COMP.                          *AA060
         15 O-0030-ERMSG  PICTURE X(072).                        *AA060
      05    FILLER   PICTURE 9(4) COMP VALUE à27E6à.               *AA060
      05    FILLER   PICTURE 9(4) COMP VALUE à277Fà.               *AA060
      05    X-ATPC  PICTURE 9(4)  COMP VALUE à7F5Dà.               *AA060
      05    FILLER  PICTURE 9(2)  COMP VALUE àFFà.                 *AA060
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       D-ERROR-MESS.                                             *AA156
      05 D-ERROR-TEXT  PICTURE X(17) VALUE                        *AA156
         "ERROR IN PROGRAM ".                                      *AA156
      05 D-ERROR-PROGE PICTURE X(8).                              *AA156
      05 FILLER  PICTURE X(6) VALUE " FILE ".                     *AA156
      05 D-ERROR-XFILE PICTURE X(8).                              *AA156
      05 FILLER  PICTURE X(11) VALUE " FUNCTION ".                *AA156
      05 D-ERROR-XFUNCT PICTURE X(8).                             *AA156
      05 FILLER  PICTURE X(15) VALUE " FILE STATUS ".             *AA156
      05 D-ERROR-STATUS PICTURE X(6).                             *AA156
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 BINARY.                                     *AA200
      05  TALLY      PICTURE S9(4) VALUE ZERO.                    *AA200
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      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-CD00-LTH  PICTURE S9(4) VALUE +0166.           *AA200
      05    5-CD05-LTH  PICTURE S9(4) VALUE +0157.           *AA200
      05    5-CD10-LTH  PICTURE S9(4) VALUE +0139.           *AA200
      05    5-CD20-LTH  PICTURE S9(4) VALUE +0001.           *AA200
      05    5-FO10-LTH  PICTURE S9(4) VALUE +0061.           *AA200
      05    5-ME00-LTH  PICTURE S9(4) VALUE +0082.           *AA200
      05    5-CA00-LTH  PICTURE S9(4) VALUE +0147.           *AA200
      05    5-CD05-LTHV PICTURE S9(4) VALUE +0166.           *AA200
      05    5-CD10-LTHV PICTURE S9(4) VALUE +0148.           *AA200
      05    5-CD20-LTHV PICTURE S9(4) VALUE +0010.           *AA200
      05    5-FO10-LTHV PICTURE S9(4) VALUE +0061.           *AA200
      05    LTH         PICTURE S9(4) VALUE ZERO.            *AA200
      05      5-0030-LENGTH PICTURE S9(4)                    *AA200
                        VALUE      +0872.                    *AA200
      05      L-0030        PICTURE S9(4) VALUE +789.        *AA200
      05      ERROR-LENGTH  PICTURE S9(4) VALUE +85.         *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 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 9(4) COMP VALUE à7CF3à.          *AA260
        10 FILLER  PICTURE 9(4) COMP VALUE àC17Fà.          *AA260
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          10 FILLER  PICTURE 9(4) COMP VALUE à5F7Fà.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE à4D5Bà.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE à895Bà.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE à616Cà.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE àE06Cà.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE àF150à.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE àE050à.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE à7F5Dà.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE à505Dà.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE à615Dà.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE àC95Dà.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE à7F5Cà.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE à505Cà.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE à615Cà.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE àC95Cà.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE à7F4Eà.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE à504Eà.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE à614Eà.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE àC94Eà.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE à7F6Bà.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE à506Bà.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE à616Bà.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE àC96Bà.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE à7F60à.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE à5060à.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE à6160à.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE àC960à.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE à7F4Bà.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE à504Bà.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE à614Bà.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE àC94Bà.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE à7F61à.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE à5061à.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE à6161à.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE àC961à.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE à7FF0à.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE à50F0à.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE à61F0à.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE àC9F0à.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE à7FF1à.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE à50F1à.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE à61F1à.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE àC9F1à.              *AA260
          10 FILLER  PICTURE 9(4) COMP VALUE àF5F3à.              *AA260
01      TABLE-SV-AT REDEFINES AT-SV.                              *AA265
     02 LIGNE-SV-AT OCCURS 046.                                  *AA265
       05 SV-YPCUR  PICTURE 9(4) COMP.                           *AA265
01           STOP-FIELDS.                                        *AA300
    02       C-0030.                                             *AA300
      05     C-0030-COCARA     PICTURE X.                        *AA300
      05     C-0030-NUCOM      PICTURE 9(5).                     *AA300
01    FIRST-ON-SEGMENT.                                         *AA301
     05      CD10-FST    PICTURE X.                            *AA301
01               WW10-QTMAR                                     *BB200
                       PICTURE 99                               *BB200
                 VALUE ZERO.                                    *BB201
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
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     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
   01      COMMON-AREA.                                              *00000
        02      7-CD01-WLENG  PICTURE 9(4).                          *00000
        02      7-CD01-WFORM  PICTURE X(6).                          *00000
        02      7-CD01-WNOMS  PICTURE X(18).                         *00000
        02      7-CD01-WNUMS  PICTURE 9(6).                          *00000
        02      7-CD01-WACTIO PICTURE 99.                            *00000
        02      7-CD01-WDEST  PICTURE 9(5).                          *00000
        02      7-CD01-WLIBR1 PICTURE X(30).                         *00000
        02      7-CD01-WLIBR2 PICTURE X(30).                         *00000
        02      7-CD01-WLIBR3 PICTURE X(30).                         *00000
        02      7-CD01-WLIBR4 PICTURE X(30).                         *00000
        02      7-CD01-WLIBR5 PICTURE X(30).                         *00000
        02      7-CD01-WDUMM  PICTURE X(12).                         *00000
        02      7-CD01-WCF    PICTURE X.                             *00000
        02      7-CD01-WTRAS  PICTURE X(8).                          *00000
        02      7-CD01-WLOZD  PICTURE 9(4).                          *00000
        02     K-S0030-PROGR PICTURE X(6).                           *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-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-A0030-DEBUT.                                        *00002
         05        K-ACD05-KEYCD  PICTURE X(00018).                 *00002
        03     K-R0030-LINE   OCCURS 2.                              *00002
         05        K-RCD10-KEYCD  PICTURE X(00018).                 *00002
        03     K-Z0030-END.                                          *00002
         05        K-ZME00-CLEME  PICTURE X(7).                     *00002
        02      FILLER        PICTURE X(0666).                       *00002
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5.2. PROCEDURE : LARGE SYSTEM (8 0) VARIANT

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PROCEDURE DIVISION USING INPUT-SCREEN-FIELDS,                    *99999
           OUTPUT-SCREEN-FIELDS,COMMON-AREA.                     *99999
DECLARATIVES.                                                    DO0030
SECCD SECTION.                                                   DO0030
      USE AFTER ERROR PROCEDURE ON CDFILE.                       DO0030
F0ACD.                                                           DO0030
      MOVE 1-CD00-STATUS TO D-ERROR-STATUS                       DO0030
      MOVE "DOCD00  "  TO D-ERROR-XFILE                         DO0030
      MOVE "1" TO IK.                                            DO0030
F0ACD-FN.    EXIT.                                               DO0030
SECFO SECTION.                                                   DO0030
      USE AFTER ERROR PROCEDURE ON FOFILE.                       DO0030
F0AFO.                                                           DO0030
      MOVE 1-FO00-STATUS TO D-ERROR-STATUS                       DO0030
      MOVE "DOFO00  "  TO D-ERROR-XFILE                         DO0030
      MOVE "1" TO IK.                                            DO0030
F0AFO-FN.    EXIT.                                               DO0030
SECME SECTION.                                                   DO0030
      USE AFTER ERROR PROCEDURE ON MEFILE.                       DO0030
F0AME.                                                           DO0030
      MOVE 1-ME00-STATUS TO D-ERROR-STATUS                       DO0030
      MOVE "DOME00  "  TO D-ERROR-XFILE                         DO0030
      MOVE "1" TO IK.                                            DO0030
F0AME-FN.    EXIT.                                               DO0030
SECEM SECTION.                                                   DO0030
      USE AFTER ERROR PROCEDURE ON EMFILE.                       DO0030
F0AEM.                                                           DO0030
      MOVE 1-EM00-STATUS TO D-ERROR-STATUS                       DO0030
      MOVE  "EM      "   TO D-ERROR-XFILE                        DO0030
      MOVE "1" TO IK.                                            DO0030
F0A10-FN.    EXIT.                                               DO0030
END DECLARATIVES.                                                DO0030
MAIN SECTION.                                                    DO0030
F0A99-FN.    EXIT.                                               DO0030
F0A-FN.      EXIT.                                               DO0030
*          ************************************                  DO0030
*          *                                  *                  DO0030
*          *  INITIALIZATIONS                 *                  DO0030
*          *                                  *                  DO0030
*          ************************************                  DO0030
 F01.         EXIT.                                              DO0030
 F0101.                                                          DO0030
       MOVE "OPEN    " TO D-ERROR-XFUNCT   MOVE "0" TO IK.       DO0030
       OPEN I-O    CDFILE.                                       DO0030
       IF IK = "1" GO TO F81ES.                                  DO0030
       OPEN I-O    FOFILE.                                       DO0030
       IF IK = "1" GO TO F81ES.                                  DO0030
       OPEN INPUT  MEFILE.                                       DO0030
       IF IK = "1" GO TO F81ES.                                  DO0030
       OPEN INPUT  EMFILE.                                       DO0030
       IF IK = "1" GO TO F81ES.                                  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 SPACE TO CATM OPER OPERD CAT-ER.                     DO0030
       MOVE SPACE TO TABLE-OF-ATTRIBUTES.                        DO0030
       MOVE ZERO TO CONFIGURATIONS.                              DO0030
       IF PROGR NOT =  K-S0030-PROGR                             DO0030
                     MOVE    ZERO  TO  ICF.                      DO0030
       MOVE SPACE  TO O-0030.                                    DO0030
       IF ICF = ZERO AND OCF = ZERO                              DO0030
       PERFORM F8115 THRU F8115-FN.                              DO0030
       MOVE "DO00"   TO  O-0030-TRAN.                            DO0030
         IF K-S0030-DOC = "2"  OR   K-S0030-DOC = "3"            DO0030
       MOVE "1" TO K-S0030-DOC     GO TO F8Z05.                  DO0030
       MOVE SPACE      TO            O-0030-ERMSG (01).          DO0030
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       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
*           ************************************               DO0030
*           *                                  *               DO0030
*           *  RECEPTION                       *               DO0030
*           *                                  *               DO0030
*           ************************************               DO0030
 F05.   IF ICF = ZERO GO TO END-OF-RECEPTION.                   DO0030
 F0510.                                                         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
       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                              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
*             +----------------------------------+              P000
* LEVEL 10    I NO UPDATE ==> END OF RECEIVE      I             P000
*             +----------------------------------+              P000
 F08BB.    IF    OPER NOT = "M"                                 P000
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           NEXT SENTENCE ELSE GO TO     F08BB-FN.                P000
       GO TO F3999-ITER-FT.                                       P100
 F08BB-FN.    EXIT.                                               P000
*           ************************************                 DO0030
*           *                                  *                 DO0030
*           *  CATEGORY PROCESSING LOOP        *                 DO0030
*           *                                  *                 DO0030
*           ************************************                 DO0030
 F10.         EXIT.                                              DO0030
 F1010.     MOVE SPACE TO CATM.                                  DO0030
        IF CATX = "R"                                             DO0030
        MOVE  O-0030-LINE            TO                           DO0030
              P-0030-LINE    (ICATR)                             DO0030
        MOVE  A-0030-LINE   (1)      TO                           DO0030
              B-0030-LINE   (1, ICATR)                           DO0030
        MOVE  A-0030-LINE   (2)      TO                           DO0030
              B-0030-LINE   (2, ICATR)                           DO0030
        MOVE  A-0030-LINE   (4)      TO                           DO0030
              B-0030-LINE   (4, ICATR)                           DO0030
        MOVE  I-0030-LINE            TO                           DO0030
              J-0030-LINE    (ICATR)                             DO0030
        MOVE      ER-0030-LINE       TO                           DO0030
                    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                       DO0030
                  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
*           ************************************                 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.   EXIT.                                                 DO0030
*             +----------------------------------+                P000
* 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
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*           ************************************                DO0030
*           *                                  *                DO0030
*           *  DATA ELEMENT VALIDATION         *                DO0030
*           *                                  *                DO0030
*           ************************************                DO0030
 F20.         EXIT.                                             DO0030
 F20A.  IF CATX NOT = " " GO TO F20A-FN.                        DO0030
 F20A2.                                                         DO0030
          IF I-0030-CHOIX  NOT = SPACE                          DO0030
       MOVE "1" TO    ER-0030-CHOIX.                          DO0030
 F20A2-FN.    EXIT.                                             DO0030
 F20B1.                                                         DO0030
          IF I-0030-MATE   NOT = SPACE                          DO0030
       MOVE "1" TO    ER-0030-MATE.                           DO0030
          IF     ER-0030-MATE     NOT = 1                      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
            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                  GO TO F20B1-FN.     DO0030
 F20B1-FN.    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                  GO TO F20B2-FN.     DO0030
         IF  I-0030-RELEA      = "7.2"                        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                  GO TO F20B2-FN.     DO0030
 F20B2-FN.    EXIT.                                             DO0030
 F20B5.                                                         DO0030
          IF I-0030-RUE    NOT = SPACE                         DO0030
       MOVE "1" TO    ER-0030-RUE.                            DO0030
 F20B5-FN.    EXIT.                                             DO0030
 F20B7.                                                         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                  GO TO F20B7-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                               DO0030
            I-0030-COPOS                                       DO0030
       MOVE DEL-ER TO    ER-0030-COPOS.                        DO0030
          IF     ER-0030-COPOS  > "1"                          DO0030
       MOVE "E" TO CAT-ER                  GO TO F20B7-FN.     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
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   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
          IF DEL-ER = "1"                                          DO0030
       MOVE I-0030-REMIS  TO  O-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
            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
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          MOVE DEL-ER TO    ER-0030-QTMAC                              DO0030
          IF DEL-ER > 1 MOVE "E" TO CAT-ER  GO TO F20C5-FN.            DO0030
          MOVE ZONUM2 TO E-0030-QTMAC.                                 DO0030
          IF DEL-ER = "1"                                              DO0030
       MOVE I-0030-QTMAC  TO  O-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
  *           ************************************                    DO0030
  *           *                                  *                    DO0030
  *           *  SEGMENT ACCESS FOR VALIDATION   *                    DO0030
  *           *                                  *                    DO0030
  *           ************************************                    DO0030
   F25.       IF CAT-ER NOT = SPACE GO TO F25-FN.                      DO0030
   F25A.  IF CATX NOT = " " GO TO F25A-FN.                             DO0030
   F2501.                                                              DO0030
          MOVE "0" TO CD05-CF.                                         DO0030
          IF CATM = SPACE                  GO TO F2501-FN.             DO0030
          MOVE    SPACES            TO    CD00-KEYCD                  DO0030
          MOVE    "B"               TO    CD00-COCARA                 DO0030
          MOVE    CA00-NUCOM        TO    CD00-NUCOM                  DO0030
          PERFORM F80-CD05-RU THRU F80-FN.                             DO0030
          IF IK = "0"                                                  DO0030
          MOVE "1" TO CD05-CF.                                         DO0030
          IF CATM NOT = "C" AND IK = "1"                               DO0030
                      MOVE  "F019" TO XERCD                            DO0030
                      PERFORM F81UT         GO TO F2501-FN.            DO0030
   F2501-FN.    EXIT.                                                  DO0030
   F25A-FN.   EXIT.                                                    DO0030
   F25R.  IF CATX NOT = "R" GO TO F25R-FN.                             DO0030
   F2502.                                                              DO0030
          MOVE "0" TO CD10-CF.                                         DO0030
          IF CATM = SPACE                  GO TO F2502-FN.             DO0030
          MOVE    "C"               TO    CD00-KEYCD                  DO0030
          MOVE    CA00-NUCOM        TO    CD00-NUCOM                  DO0030
          MOVE  I-0030-FOURNI       TO    CD00-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
  *             +----------------------------------+                   P000
  * 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
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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" 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    CD00-KEYCD              DO0030
           MOVE    "E"               TO    CD00-COCARA             DO0030
           MOVE    CA00-NUCOM        TO    CD00-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, 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
     *            ************************************            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-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-MATE   = "1"                         DO0030
           MOVE     I-0030-MATE        TO     CD05-MATE.          DO0030
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           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
         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
*           ************************************                   DO0030
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*           *                                   *                DO0030
*           *  SET-UP KEYS FOR NEW DISPLAY      *                DO0030
*           *                                   *                DO0030
*           *************************************                DO0030
 F4010.     IF OPER NOT = "A" AND NOT = "M" GO TO F4010-FN.       DO0030
 F40A.                                                            DO0030
        MOVE    SPACES            TO    CD00-KEYCD               DO0030
        MOVE    "B"               TO    CD00-COCARA              DO0030
        MOVE    CA00-NUCOM        TO    CD00-NUCOM               DO0030
        MOVE        CD00-KEYCD    TO K-ACD05-KEYCD.              DO0030
 F40A-FN.   EXIT.                                                 DO0030
 F40R.                                                            DO0030
        MOVE  J-0030-LINE   (1) TO                                DO0030
              I-0030-LINE.                                        DO0030
        MOVE    SPACES            TO    CD00-KEYCD               DO0030
        MOVE    "C"               TO    CD00-COCARA              DO0030
        MOVE    CA00-NUCOM        TO    CD00-NUCOM               DO0030
        MOVE        CD00-KEYCD    TO K-RCD10-KEYCD  (1).         DO0030
 F40R-FN.   EXIT.                                                 DO0030
 F40Z.                                                            DO0030
        MOVE    CA00-CLEME        TO    ME00-CLEME               DO0030
        MOVE        ME00-CLEME    TO K-ZME00-CLEME.              DO0030
 F40Z-FN.   EXIT.                                                 DO0030
 F4010-FN.    EXIT.                                               DO0030
*           *************************************                DO0030
*           *                                   *                DO0030
*           *  SET-UP KEYS FOR SCREEN PAGING    *                DO0030
*           *                                   *                DO0030
*           *************************************                DO0030
 F4020.     IF OPER NOT = "S" GO TO F4020-FN.                     DO0030
        MOVE     K-RCD10-KEYCD  (2) TO                            DO0030
                 K-RCD10-KEYCD  (1).                              DO0030
 F4020-FN.    EXIT.                                               DO0030
*           *************************************                DO0030
*           *                                   *                DO0030
*           *  END OF TRANSACTION               *                DO0030
*           *                                   *                DO0030
*           *************************************                DO0030
 F4030.     IF OPER NOT = "E" GO TO F4030-FN.                     DO0030
        PERFORM F80-HELP-D  THRU F80-FN.                          DO0030
        MOVE  5-0030-LENGTH TO 7-CD01-WLOZD.                      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
        MOVE  5-0030-PROGE  TO 7-CD01-WTRAS                       DO0030
        MOVE  5-0030-LENGTH TO 7-CD01-WLOZD.                      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
*           *************************************                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"  GO TO F6999-ITER-FT.                     DO0030
        MOVE SPACE TO  O-0030.                                    DO0030
        PERFORM F8115 THRU F8115-FN.                              DO0030
        MOVE K-R0030-LINE   (1)  TO                               DO0030
             K-R0030-LINE   (2).                                  DO0030
 F5010-FN.    EXIT.                                               DO0030
 F50-FN.      EXIT.                                               DO0030
*           *************************************                DO0030
*           *                                   *                DO0030
*           *  CATEGORY PROCESSING LOOP         *                DO0030
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*           *                                   *                DO0030
*           ************************************                 DO0030
 F55.         EXIT.                                              DO0030
 F5510.                                                          DO0030
        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.                                                        DO0030
        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
*           ************************************                 DO0030
*           *                                   *                DO0030
*           *  SEGMENT ACCESS FOR DISPLAY       *                DO0030
*           *                                   *                DO0030
*           ************************************                 DO0030
 F60.         EXIT.                                              DO0030
 F60A.  IF CATX NOT = " " GO TO F60A-FN.                         DO0030
 F6001.                                                          DO0030
        MOVE "0" TO CD05-CF.                                     DO0030
        MOVE     K-ACD05-KEYCD     TO   CD00-KEYCD               DO0030
        PERFORM F80-CD05-R  THRU F80-FN.                         DO0030
        IF IK = "1" MOVE  "G019" TO XERCD                        DO0030
        PERFORM F81UT THRU F81UT-FN       GO TO F6001-FN.        DO0030
        MOVE "1" TO CD05-CF.                                     DO0030
 F6001-FN.    EXIT.                                              DO0030
 F60A-FN.   EXIT.                                                DO0030
 F60R.  IF CATX NOT = "R" OR FT = "1" GO TO F60R-FN.             DO0030
 F6003.                                                          DO0030
        MOVE "0" TO CD10-CF.                                     DO0030
        IF          CD10-FST = "1"                               DO0030
        MOVE     K-RCD10-KEYCD  (1) TO  CD00-KEYCD               DO0030
        MOVE        CD00-COCARA   TO  C-0030-COCARA              DO0030
        MOVE        CD00-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"                                              DO0030
          IF        CD00-COCARA NOT = C-0030-COCARA              DO0030
          OR        CD00-NUCOM  NOT = C-0030-NUCOM               DO0030
        MOVE "1" TO IK.                                          DO0030
        IF IK = "1" MOVE  "G039" TO XERCD MOVE "1" TO FT         DO0030
        PERFORM F81UT THRU F81UT-FN       GO TO F6003-FN.        DO0030
        MOVE "1" TO CD10-CF.                                     DO0030
        MOVE        CD00-KEYCD    TO K-RCD10-KEYCD  (2).         DO0030
 F6003-FN.    EXIT.                                              DO0030
 F60R-FN.   EXIT.                                                DO0030
 F60Z.  IF CATX NOT = "Z" GO TO F60Z-FN.                         DO0030
 F6006.                                                          DO0030
        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 XERCD                        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
*           +-----------------------------------+                P000
* LEVEL 10    I PREPARATION DISPLAY DATE/HOUR     I            P000
*           +-----------------------------------+                P000
 F64DA.    IF    CATX = " "                                      P000
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            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
   *           ************************************                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-VILLE       TO                             DO0030
                 O-0030-VILLE.                                     DO0030
    F65A-B1-FN. EXIT.                                              DO0030
    F65A-B2.                                                       DO0030
           MOVE    CD05-COPOS       TO                             DO0030
                 O-0030-COPOS.                                     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
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 F65R-A4.                                                                DO0030
        MOVE    CD00-FOURNI      TO                                      DO0030
              O-0030-FOURNI.                                            DO0030
 F65R-A4-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-A6.                                                                DO0030
        MOVE    CD10-QTMAL       TO                                     DO0030
              O-0030-QTMAL.                                             DO0030
 F65R-A6-FN. EXIT.                                                       DO0030
 F65R-A7.                                                                DO0030
        MOVE    CD10-INFOR       TO                                     DO0030
              O-0030-INFOR.                                             DO0030
 F65R-A7-FN. EXIT.                                                       DO0030
 F65R-CD10-FN. EXIT.                                                     DO0030
*             +-----------------------------------+                      P000
* 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
 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 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.                                                                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-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.                                                                  DO0030
        MOVE ZERO TO TALLY  INSPECT DE-ATT1 (4)                          DO0030
        TALLYING TALLY FOR CHARACTERS BEFORE "Y".                        DO0030
        IF TALLY     NOT <       0046                                    DO0030
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          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-YPCUR (TALLY) TO X-ATPC.                         DO0030
   F7020-FN.    EXIT.                                               DO0030
   F70-FN.      EXIT.                                               DO0030
   END-OF-DISPLAY.    EXIT.                                         DO0030
   F8Z.         EXIT.                                               DO0030
   F8Z05.   IF SCR-ER = "1"                                         DO0030
          NEXT SENTENCE ELSE GO TO F8Z05-FN.                       DO0030
            IF K-S0030-DOC = "1"                                   DO0030
          PERFORM F80-HELP-R  THRU F80-FN                          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
          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
          MOVE  SPACE         TO 7-CD01-WTRAS.                     DO0030
          MOVE "DO00"   TO  O-0030-TRAN.                           DO0030
          IF SCR-ER NOT > "1"                                      DO0030
          MOVE PROGR     TO          K-S0030-PROGR                 DO0030
          MOVE  "DO0030M"     TO 7-CD01-WFORM                      DO0030
          MOVE  L-0030        TO 7-CD01-WLENG.                     DO0030
          IF SCR-ER > "1"                                          DO0030
          MOVE  SPACE  TO 7-CD01-WFORM                             DO0030
          MOVE  ERROR-LENGTH  TO 7-CD01-WLENG                      DO0030
          MOVE  ERROR-MESS    TO O-0030.                           DO0030
   F8Z10-FN.    EXIT.                                               DO0030
  *           ************************************                 DO0030
  *           *                                  *                 DO0030
  *           *  END OF PROGRAM                  *                 DO0030
  *           *                                  *                 DO0030
  *           ************************************                 DO0030
   F8Z20.                                                          DO0030
          PERFORM F81FI THRU F81FI-FN.                             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-CD05-R.                                                     DO0030
          MOVE "READ    " TO D-ERROR-XFUNCT MOVE ZERO TO IK.       DO0030
          READ    CDFILE    INVALID KEY GO TO F80-KO.              DO0030
            IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.             DO0030
   F80-CD05-RU.                                                    DO0030
          MOVE "READUPD " TO D-ERROR-XFUNCT MOVE ZERO TO IK.       DO0030
          READ    CDFILE    INVALID KEY GO TO F80-KO.              DO0030
            IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.             DO0030
   F80-CD05-RW.                                                    DO0030
          MOVE "REWRITE " TO D-ERROR-XFUNCT MOVE ZERO TO IK.       DO0030
          REWRITE     CD05 INVALID KEY GO TO F80-KO.               DO0030
            IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.             DO0030
   F80-CD05-UN.                                                    DO0030
          GO TO F80-OK.                                            DO0030
   F8001-FN.    EXIT.                                               DO0030
   F80-CD10-R.                                                     DO0030
          MOVE "READ    " TO D-ERROR-XFUNCT MOVE ZERO TO IK.       DO0030
          READ    CDFILE    INVALID KEY GO TO F80-KO.              DO0030
            IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.             DO0030
   F80-CD10-RU.                                                    DO0030
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       MOVE "READUPD " TO D-ERROR-XFUNCT MOVE ZERO TO IK.        DO0030
       READ    CDFILE    INVALID KEY GO TO F80-KO.              DO0030
         IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.             DO0030
F80-CD10-P.                                                     DO0030
       MOVE "START   " TO D-ERROR-XFUNCT MOVE ZERO TO IK.       DO0030
       START   CDFILE    KEY NOT <                             DO0030
                 CD00-KEYCD  INVALID KEY GO TO F80-KO.          DO0030
        IF IK = "1" GO TO F81ES.                                DO0030
F80-CD10-RN.                                                    DO0030
       MOVE "READNEXT" TO D-ERROR-XFUNCT MOVE ZERO TO IK.       DO0030
       READ    CDFILE    NEXT AT END GO TO F80-KO.             DO0030
         IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.             DO0030
F80-CD10-W.                                                     DO0030
       MOVE "WRITE   " TO D-ERROR-XFUNCT MOVE ZERO TO IK.       DO0030
       WRITE       CD10 INVALID KEY GO TO F80-KO.             DO0030
         IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.             DO0030
F80-CD10-RW.                                                    DO0030
       MOVE "REWRITE " TO D-ERROR-XFUNCT MOVE ZERO TO IK.       DO0030
       REWRITE     CD10 INVALID KEY GO TO F80-KO.             DO0030
         IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.             DO0030
F80-CD10-D.                                                     DO0030
       MOVE "DELETE  " TO D-ERROR-XFUNCT MOVE ZERO TO IK.       DO0030
       DELETE  CDFILE    INVALID KEY GO TO F80-KO.             DO0030
         IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.             DO0030
F80-CD10-UN.                                                    DO0030
       GO TO F80-OK.                                            DO0030
F8002-FN.    EXIT.                                              DO0030
F80-CD20-RU.                                                    DO0030
       MOVE "READUPD " TO D-ERROR-XFUNCT MOVE ZERO TO IK.       DO0030
       READ    CDFILE    INVALID KEY GO TO F80-KO.             DO0030
         IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.             DO0030
F80-CD20-W.                                                     DO0030
       MOVE "WRITE   " TO D-ERROR-XFUNCT MOVE ZERO TO IK.       DO0030
       WRITE       CD20 INVALID KEY GO TO F80-KO.             DO0030
         IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.             DO0030
F80-CD20-RW.                                                    DO0030
       MOVE "REWRITE " TO D-ERROR-XFUNCT MOVE ZERO TO IK.       DO0030
       REWRITE     CD20 INVALID KEY GO TO F80-KO.             DO0030
         IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.             DO0030
F80-CD20-UN.                                                    DO0030
       GO TO F80-OK.                                            DO0030
F8003-FN.    EXIT.                                              DO0030
F80-FO10-RU.                                                    DO0030
       MOVE "READUPD " TO D-ERROR-XFUNCT MOVE ZERO TO IK.       DO0030
       READ    FOFILE    INVALID KEY GO TO F80-KO.             DO0030
         IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.             DO0030
F80-FO10-RW.                                                    DO0030
       MOVE "REWRITE " TO D-ERROR-XFUNCT MOVE ZERO TO IK.       DO0030
       REWRITE     FO10 INVALID KEY GO TO F80-KO.             DO0030
         IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.             DO0030
F80-FO10-UN.                                                    DO0030
       GO TO F80-OK.                                            DO0030
F8004-FN.    EXIT.                                              DO0030
F80-ME00-R.                                                     DO0030
       MOVE "READ    " TO D-ERROR-XFUNCT MOVE ZERO TO IK.       DO0030
       READ    MEFILE    INVALID KEY GO TO F80-KO.             DO0030
         IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.             DO0030
F8005-FN.    EXIT.                                              DO0030
F80-HELP-R.  EXIT.                                              DO0030
F80-HELP-W.  EXIT.                                              DO0030
F80-HELP-RW. EXIT.                                              DO0030
F80-HELP-D.  EXIT.                                              DO0030
F8095-FN.    EXIT.                                              DO0030
F80-EM00-R.                                                     DO0030
       MOVE "READ    " TO D-ERROR-XFUNCT   MOVE "0" TO IK.     DO0030
       READ    EMFILE    INVALID KEY GO TO F80-KO.             DO0030
         IF IK = "1" GO TO F81ES ELSE 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
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*           ************************************                DO0030
 F81ER.       EXIT.                                             DO0030
 F81ER-A. EXIT PROGRAM.                                         DO0030
 F81ER-FN.    EXIT.                                             DO0030
 F81ES.                                                         DO0030
        MOVE PROGE TO D-ERROR-PROGE.                            DO0030
        DISPLAY D-ERROR-MESS.                                   DO0030
 F81ES-A.  EXIT PROGRAM.                                        DO0030
 F81ES-FN.    EXIT.                                             DO0030
 F81FI.                                                         DO0030
        MOVE "CLOSE   " TO D-ERROR-XFUNCT   MOVE "0" TO IK.     DO0030
        CLOSE   CDFILE.                                         DO0030
        IF IK = "1" GO TO F81ES.                                DO0030
        CLOSE   FOFILE.                                         DO0030
        IF IK = "1" GO TO F81ES.                                DO0030
        CLOSE   MEFILE.                                         DO0030
        IF IK = "1" GO TO F81ES.                                DO0030
        CLOSE   EMFILE.                                         DO0030
        IF IK = "1" GO TO F81ES.                                DO0030
 F81FI-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
        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
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          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
   *           ************************************                 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
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              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-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
  *           ************************************                  DO0030
  *           *                                  *                  DO0030
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*           * SEARCH FOR DOCUMENTATION REQUEST  *                DO0030
*           *                                   *                DO0030
*           ************************************                 DO0030
 F8150.                                                          DO0030
        MOVE ZERO TO K-S0030-ERCOD.                              DO0030
          IF  I-0030-CHOIX     =         "1"                     DO0030
          MOVE  HIGH-VALUE  TO  I-0030-CHOIX                     DO0030
        MOVE 001  TO K-S0030-ERCOD  GO TO F8150-FN.              DO0030
          IF  I-0030-CHOIX     =         "1"                     DO0030
          MOVE  HIGH-VALUE  TO  I-0030-CHOIX                     DO0030
        MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN.              DO0030
          IF  I-0030-MATE      =         "1"                     DO0030
          MOVE  HIGH-VALUE  TO  I-0030-MATE                      DO0030
        MOVE 002  TO K-S0030-ERCOD  GO TO F8150-FN.              DO0030
          IF  I-0030-MATE      =         "1"                     DO0030
          MOVE  HIGH-VALUE  TO  I-0030-MATE                      DO0030
        MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN.              DO0030
          IF  I-0030-RELEA     =         "1"                     DO0030
          MOVE  HIGH-VALUE  TO  I-0030-RELEA                     DO0030
        MOVE 003  TO K-S0030-ERCOD  GO TO F8150-FN.              DO0030
          IF  I-0030-RELEA     =         "1"                     DO0030
          MOVE  HIGH-VALUE  TO  I-0030-RELEA                     DO0030
        MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN.              DO0030
          IF  I-0030-RUE       =         "1"                     DO0030
          MOVE  HIGH-VALUE  TO  I-0030-RUE                       DO0030
        MOVE 004  TO K-S0030-ERCOD  GO TO F8150-FN.              DO0030
          IF  I-0030-RUE       =         "1"                     DO0030
          MOVE  HIGH-VALUE  TO  I-0030-RUE                       DO0030
        MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN.              DO0030
          IF  I-0030-COPOS     =         "1"                     DO0030
          MOVE  HIGH-VALUE  TO  I-0030-COPOS                     DO0030
        MOVE 005  TO K-S0030-ERCOD  GO TO F8150-FN.              DO0030
          IF  I-0030-COPOS     =         "1"                     DO0030
          MOVE  HIGH-VALUE  TO  I-0030-COPOS                     DO0030
        MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN.              DO0030
          IF  I-0030-REFCLI    =         "1"                     DO0030
          MOVE  HIGH-VALUE  TO  I-0030-REFCLI                    DO0030
        MOVE 006  TO K-S0030-ERCOD  GO TO F8150-FN.              DO0030
          IF  I-0030-REFCLI    =         "1"                     DO0030
          MOVE  HIGH-VALUE  TO  I-0030-REFCLI                    DO0030
        MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN.              DO0030
          IF  I-0030-DATE      =         "1"                     DO0030
          MOVE  HIGH-VALUE  TO  I-0030-DATE                      DO0030
        MOVE 007  TO K-S0030-ERCOD  GO TO F8150-FN.              DO0030
          IF  I-0030-DATE      =         "1"                     DO0030
          MOVE  HIGH-VALUE  TO  I-0030-DATE                      DO0030
        MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN.              DO0030
          IF  I-0030-CORRES    =         "1"                     DO0030
          MOVE  HIGH-VALUE  TO  I-0030-CORRES                    DO0030
        MOVE 008  TO K-S0030-ERCOD  GO TO F8150-FN.              DO0030
          IF  I-0030-CORRES    =         "1"                     DO0030
          MOVE  HIGH-VALUE  TO  I-0030-CORRES                    DO0030
        MOVE SPACE TO K-S0030-ERCOD GO TO F8150-FN.              DO0030
          IF  E-0030-REMIS     =         "1"                     DO0030
          MOVE  HIGH-VALUE  TO  E-0030-REMIS                     DO0030
        MOVE 009  TO K-S0030-ERCOD  GO TO F8150-FN.              DO0030
          IF  E-0030-REMIS     =         "1"                     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    =         "1"                     DO0030
          MOVE  HIGH-VALUE  TO  I-0030-CODMVT                    DO0030
        MOVE 010  TO K-S0030-ERCOD  GO TO F8150-A.               DO0030
          IF  I-0030-CODMVT    =         "1"                     DO0030
          MOVE  HIGH-VALUE  TO  I-0030-CODMVT                    DO0030
        MOVE SPACE TO K-S0030-ERCOD GO TO F8150-A.               DO0030
          IF  I-0030-FOURNI    =         "1"                     DO0030
          MOVE  HIGH-VALUE  TO  I-0030-FOURNI                    DO0030
        MOVE 011  TO K-S0030-ERCOD  GO TO F8150-A.               DO0030
          IF  I-0030-FOURNI    =         "1"                     DO0030
          MOVE  HIGH-VALUE  TO  I-0030-FOURNI                    DO0030
        MOVE SPACE TO K-S0030-ERCOD GO TO F8150-A.               DO0030
          IF  E-0030-QTMAC     =         "1"                     DO0030
          MOVE  HIGH-VALUE  TO  E-0030-QTMAC                     DO0030
        MOVE 012  TO K-S0030-ERCOD  GO TO F8150-A.               DO0030
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            IF  E-0030-QTMAC     =         "1"                    DO0030
            MOVE  HIGH-VALUE  TO  E-0030-QTMAC                    DO0030
          MOVE SPACE TO K-S0030-ERCOD GO TO F8150-A.              DO0030
            IF  I-0030-INFOR     =         "1"                    DO0030
            MOVE  HIGH-VALUE  TO  I-0030-INFOR                    DO0030
          MOVE 013  TO K-S0030-ERCOD  GO TO F8150-A.              DO0030
            IF  I-0030-INFOR     =         "1"                    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      =         "1"                    DO0030
            MOVE  HIGH-VALUE  TO  I-0030-EDIT                     DO0030
          MOVE 014  TO K-S0030-ERCOD  GO TO F8150-FN.             DO0030
            IF  I-0030-EDIT      =         "1"                    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
   F81-FN.      EXIT.                                             DO0030
  *             +-----------------------------------+             P000
  * LEVEL 10    I ZIP CODE VALIDATION               I             P000
  *             +-----------------------------------+             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
```

6. MONITOR : MULTI-SCREEN (8 C) VARIANT

EXAMPLE OF GENERATED MONITOR

The MONITOR is a program that manages the screen flow by calling several sub-programs. It is initiated on the Dialogue Definition screen.
Although the example presented in this chapter is generated with the MULTI-SCREEN variant ('8 C'), the LARGE SYSTEM variant ('8 0') is available.

It can be modified (addition of specific procedures, etc.) through the '-B', '-W', '-CP' and '-P' lines at the Dialogue level.

The Monitor's INPUT-OUTPUT SECTION includes one SELECT clause which calls the communication field backup file.
This file's external name can be modified in the Screen Geral Documentation, '-G' (see Chapter 'DESCRIPTION OF A TRANSACTION', Subchapter 'SCREEN GENERAL DOCUMENTATION of the OLSD REFERENCE MANUAL).

The WORKING STORAGE SECTION includes, apart from the standard fields (see Sub-chapters 'BEGINNING OF W.S.SECTION', 'SEGMENT DESCRIPTION' and 'DESCRIPTION OF VALIDATION AREAS')

- the COMMUNICATION MONITOR level, containing the fields used for communication with the Dialogue screens;
- the S-WWSS-OPER field, which corresponds to the OPER field of the generated screens and accepts the following values:
. 'O' = call of another screen
. 'E' = end of transaction
. 'X' = input-output error on a file or on the terminal.

The Monitor's structure is the following:

F01 = opening of the conversation backup file
F0510 = reception of message
F0520 = read of the conversation file
F10 = test on the first message processing
F28 = data transfer and activation of the next program to be executed
F29 = according to the contents of S-WWSS-OPER, move to the end of conversation or branching off to another screen.
F2910 = in case of input-output error in the called program, this sub-function goes to the F81-ER sub-function.
F2920 = display of message
F2930 = backup of the communication field
F2980 = end of program
F81-ER = display of error messages in case of input-output error on a file or call of program.

Specific procedures can be added to automatically generated procedures.

```
IDENTIFICATION DIVISION.                                          DO
PROGRAM-ID. DO.                                                   DO
AUTHOR.     PACBASE DOCUMENTATION MANAG.                          DO
DATE-COMPILED. 06/23/94.                                          DO
ENVIRONMENT DIVISION.                                             DO
CONFIGURATION SECTION.                                            DO
SOURCE-COMPUTER. B6800.                                           DO
OBJECT-COMPUTER. B6800.                                           DO
SPECIAL-NAMES.                                                    DO
    DECIMAL-POINT IS COMMA.                                       DO
INPUT-OUTPUT SECTION.                                             DO
FILE-CONTROL.                                                     DO
     SELECT  ZCFILE     ASSIGN TO DISK                            DO
     ORGANIZATION INDEXED                                         DO
     ACCESS IS RANDOM                                             DO
     FILE STATUS IS 1-ZC00-STATUS                                 DO
     RECORD KEY IS  ZC00-XTERM.                                   DO
DATA DIVISION.                                                    DO
FILE SECTION.                                                     DO
FD          ZCFILE                                                DO
            LABEL RECORD STANDARD.                                DO
01          ZC00.                                                 DO
     05     ZC00-XTERM   PICTURE 9(12).                           DO
     05     ZC00-MONIT   PICTURE X(60).                           DO
     05     ZC00-COMMON  PICTURE X(0889).                         DO
WORKING-STORAGE SECTION.                                          DO
01   WSS-BEGIN.                                                   DO
     05 FILLER PICTURE X(7) VALUE "WORKING".                       DO
     05 IK     PICTURE X.                                         DO
     05 BLANC  PICTURE X VALUE SPACE.                             DO
     05 I-PFKEY PICTURE XX.                                       DO
     05 7-XTERM PICTURE 9(12).                                    DO
     05 7-XTERM9 REDEFINES 7-XTERM USAGE IS DOUBLE.               DO
01   PACBASE-CONSTANTS.                                           DO
     05 SESSI  PICTURE X(5) VALUE "0404 ".                        DO
     05 LIBRA  PICTURE X(3) VALUE "AUA".                          DO
     05 DATGN  PICTURE X(8) VALUE "06/23/94".                     DO
     05 PROGR  PICTURE X(6) VALUE "DO    ".                       DO
     05 PROGE  PICTURE X(8) VALUE "DO      ".                     DO
     05 TIMGN  PICTURE X(8) VALUE "18:03:19".                     DO
     05 USERCO PICTURE X(8) VALUE "PDSG    ".                     DO
01     STATUS-AREA.                                               DO
     05   1-ZC00-STATUS  PICTURE XX.                              DO
01      COMMON-AREA.                                              *AA000
     02 K-YMAT   PICTURE X.                                       *AA000
     02 K-PROGR  PICTURE X(6).                                    *AA000
     02 K-XTERM  PICTURE 9(12).                                   *AA000
     02 K-CTRAN  PICTURE X(04).                                   *AA000
     02           CA00.                                          *AA001
       10         CA00-CLECD.                                    *AA001
        15        CA00-NUCOM  PICTURE 9(5).                      *AA001
       10         CA00-CLECL1.                                   *AA001
        15        CA00-NUCLIE PICTURE 9(8).                      *AA001
       10         CA00-ME00.                                     *AA001
        15        CA00-CLEME.                                    *AA001
         20       CA00-COPERS PICTURE X(5).                      *AA001
         20       CA00-NUMORD PICTURE XX.                        *AA001
        15        CA00-MESSA  PICTURE X(75).                     *AA001
       10         CA00-PREM   PICTURE X.                         *AA001
       10         CA00-LANGU  PICTURE X.                         *AA001
       10         CA00-RAISOC PICTURE X(50).                     *AA001
     02  K-SDOC PICTURE X.                                       *AA002
     02  FILLER PICTURE X(18).                                   *AA002
     02  FILLER      PICTURE X(0700).                            *AA002
01          COMMUNICATION-MONITOR.                               *AA010
     02    S-WWSS.                                               *AA010
       10    S-WWSS-OPER   PICTURE X.                           *AA010
       10    S-WWSS-PROGE  PICTURE X(8).                        *AA010
       10    S-WWSS-XLOMES PICTURE 9(5).                        *AA010
       10    S-WWSS-PFKEY  PICTURE XX.                          *AA010
       10    FILLER        PICTURE X(44).                       *AA010
01      I-O-MESSAGE.                                             *AA155
     02 I-CTRAN  PICTURE X(04).                                   *AA155
     02 FILLER   PICTURE X(3996).                                 *AA155
01      D-ERROR-MESS.                                            *AA156
     05 D-ERROR-TEXT  PICTURE X(15) VALUE                         *AA156
        "ONLINE PROGRAM ".                                        *AA156
```

```
      05 D-ERROR-XFUNCT PICTURE X(15).                          *AA156
      05 D-ERROR-STATUS.                                        *AA156
      10 D-ERROR-STATU9 PICTURE 99.                             *AA156
01       D-WWSS-PROGE.                                         *AA160
      05 D-WWSS-PREFIX PICTURE X(10) VALUE SPACE.               *AA160
      05 D-WWSS-PROGR  PICTURE X(8)  VALUE SPACE.               *AA160
01    PACBASE-INDEXES BINARY.                                   *AA200
      05 K01           PICTURE S9(4).                           *AA200
      05        TALLY PICTURE S9(4) VALUE ZERO.                 *AA200
      05    5-CA00-LTH  PICTURE S9(4) VALUE +0147.              *AA200
COMMUNICATION SECTION.                                         *00000
INPUT HEADER  COMS-IN;                                         *00100
  PROGRAMDESG    IS COMS-IN-PROGRAM;                           *00100
  FUNCTIONSTATUS IS COMS-IN-FUNCTION-STATUS;                   *00100
  FUNCTIONINDEX  IS COMS-IN-FUNCTION-INDEX;                    *00100
  USERCODE       IS COMS-IN-USERCODE;                          *00100
  SECURITYDESG   IS COMS-IN-SECURITY-DESG;                     *00100
  TRANSPARENT    IS COMS-IN-TRANSPARENT;                       *00100
  VTFLAG         IS COMS-IN-VT-FLAG;                           *00100
  TIMESTAMP      IS COMS-IN-TIMESTAMP;                         *00100
  STATION        IS COMS-IN-STATION;                           *00100
  TEXTLENGTH     IS COMS-IN-TEXT-LENGTH;                       *00100
  STATUSVALUE    IS COMS-IN-STATUS-KEY;                        *00100
  MESSAGECOUNT   IS COMS-IN-MSG-COUNT;                         *00100
  RESTART        IS COMS-IN-RST-LOC;                           *00100
  AGENDA         IS COMS-IN-AGENDA;                            *00100
  SDFINFO        IS COMS-IN-SDF-INFO.                          *00100
OUTPUT HEADER COMS-OUT;                                        *00100
  DESTCOUNT      IS COMS-OUT-COUNT;                            *00100
  TEXTLENGTH     IS COMS-OUT-TEXT-LENGTH;                      *00100
  STATUSVALUE    IS COMS-OUT-STATUS-KEY;                       *00100
  TRANSPARENT    IS COMS-OUT-TRANSPARENT;                      *00100
  VTFLAG         IS COMS-OUT-VT-FLAG;                          *00100
  CONFIRMFLAG    IS COMS-OUT-CONFIRM-FLAG;                     *00100
  CONFIRMKEY     IS COMS-OUT-CONFIRM-KEY;                      *00100
  DESTINATIONDESG IS COMS-OUT-DESTINATION;                     *00100
  NEXTINPUTAGENDA IS COMS-OUT-NEXT-INPUT-AGENDA;               *00100
  SETNEXTINPUTAGENDA IS COMS-OUT-SET-NEXT-INPUT-AGENDA;        *00100
  RETAINTRANSACTIONMODE IS COMS-OUT-SAVE-TRANS-MODE;           *00100
  AGENDA         IS COMS-OUT-AGENDA;                           *00100
  SDFINFO        IS COMS-OUT-SDF-INFO.                         *00100
PROCEDURE DIVISION.                                            *99999
DECLARATIVES.                                                  DO
SECZC SECTION.                                                 DO
      USE AFTER ERROR PROCEDURE ON ZCFILE.                     DO
F0AZC.                                                         DO
      MOVE 1-ZC00-STATUS TO D-ERROR-STATUS                     DO
      MOVE "1" TO IK.                                          DO
END DECLARATIVES.                                              DO
MAIN SECTION.                                                  DO
F0A99-FN.    EXIT.                                             DO
F0A-FN.      EXIT.                                             DO
*          ************************************                DO
*          *                                  *                DO
*          *  INITIALIZATIONS                 *                DO
*          *                                  *                DO
*          ************************************                DO
 F01.         EXIT.                                            DO
 F0101.                                                        DO
       CHANGE ATTRIBUTE LIBACCESS                              DO
          OF "DCILIBRARY" TO BYFUNCTION.                       DO
       CHANGE ATTRIBUTE FUNCTIONNAME                           DO
          OF "DCILIBRARY" TO "COMSSUPPORT".                    DO
       ENABLE INPUT COMS-IN KEY "ONLINE".                      DO
       MOVE "OPEN ERROR ZC" TO D-ERROR-XFUNCT                  DO
       MOVE "0" TO IK.                                         DO
       OPEN I-O   ZCFILE.                                      DO
       IF IK = "1" PERFORM F81ER THRU F81ER-FN.                DO
F0101-FN.    EXIT.                                             DO
F01-FN.      EXIT.                                             DO
F05.         EXIT.                                             DO
F0510.                                                         DO
       MOVE SPACE TO I-O-MESSAGE                               DO
       RECEIVE COMS-IN MESSAGE INTO I-O-MESSAGE.               DO
       IF COMS-IN-STATUS-KEY = 99                              DO
       GO TO F2990.                                            DO
       IF COMS-IN-FUNCTION-STATUS > 0                          DO
```

```
            MOVE "RECEIVE ERROR: " TO D-ERROR-XFUNCT            DO
            MOVE COMS-IN-FUNCTION-STATUS TO D-ERROR-STATU9      DO
            PERFORM F81ER THRU F81ER-FN  GO TO F2990.           DO
F0510-FN.    EXIT.                                              DO
F0520.                                                          DO
       MOVE SPACE TO ZC00.                                      DO
       MOVE COMS-IN-STATION TO 7-XTERM9                         DO
       MOVE 7-XTERM TO ZC00-XTERM                               DO
       READ ZCFILE    INVALID KEY                               DO
       MOVE SPACE TO COMMUNICATION-MONITOR COMMON-AREA          DO
       MOVE "8" TO K-YMAT                                       DO
       MOVE "DO0060  " TO S-WWSS-PROGE                          DO
       MOVE ZERO TO K-SDOC                                      DO
       MOVE I-CTRAN TO K-CTRAN                                  DO
       MOVE 7-XTERM  TO K-XTERM   GO TO F0520-FN.               DO
       MOVE ZC00-MONIT  TO COMMUNICATION-MONITOR                DO
       MOVE ZC00-COMMON TO COMMON-AREA                          DO
       MOVE 7-XTERM  TO K-XTERM                                 DO
       MOVE I-CTRAN TO K-CTRAN.                                 DO
       IF  COMS-IN-TEXT-LENGTH = 4                              DO
       MOVE "DO0060  " TO S-WWSS-PROGE                          DO
       MOVE SPACE    TO K-PROGR.                                DO
F0520-FN.    EXIT.                                              DO
F05-FN.      EXIT.                                              DO
F28.         EXIT.                                              DO
F2899.                                                          DO
       MOVE COMS-IN-TEXT-LENGTH TO S-WWSS-XLOMES.               DO
       MOVE S-WWSS-PROGE TO D-WWSS-PROGR                        DO
       CALL D-WWSS-PROGE USING I-O-MESSAGE COMMON-AREA          DO
       COMMUNICATION-MONITOR.                                   DO
F2899-FN.    EXIT.                                              DO
F28-FN.      EXIT.                                              DO
F29.       IF S-WWSS-OPER = "X"                                 DO
       PERFORM F81ER THRU F81ER-FN GO TO F2980.                 DO
F2910.     IF S-WWSS-OPER = "O"                                 DO
       GO TO F28.                                               DO
F2910-FN.    EXIT.                                              DO
F2920.                                                          DO
       MOVE 1  TO COMS-OUT-COUNT                                DO
       MOVE S-WWSS-XLOMES TO COMS-OUT-TEXT-LENGTH               DO
       MOVE K-XTERM       TO 7-XTERM                            DO
       MOVE 7-XTERM9      TO COMS-OUT-DESTINATION               DO
       MOVE 0  TO COMS-OUT-STATUS-KEY                           DO
       SEND COMS-OUT FROM I-O-MESSAGE.                          DO
       IF COMS-OUT-STATUS-KEY NOT = 0 AND 92                    DO
            MOVE "SEND ERROR: "  TO D-ERROR-XFUNCT              DO
            MOVE COMS-OUT-STATUS-KEY TO D-ERROR-STATU9          DO
            PERFORM F81ER THRU F81ER  GO TO F2980.              DO
F2920-FN.    EXIT.                                              DO
F2930.     IF S-WWSS-OPER NOT = "E" GO TO F2930-FN.             DO
       MOVE K-XTERM    TO ZC00-XTERM                            DO
       MOVE ZERO TO IK                                          DO
       DELETE ZCFILE    INVALID KEY MOVE "1" TO IK.             DO
       GO TO F2980.                                             DO
F2930-FN.    EXIT.                                              DO
F2940.                                                          DO
       MOVE K-XTERM    TO ZC00-XTERM                            DO
       MOVE ZERO TO IK                                          DO
       READ ZCFILE    INVALID KEY MOVE "1" TO IK.               DO
       MOVE COMMUNICATION-MONITOR TO ZC00-MONIT                 DO
       MOVE COMMON-AREA  TO ZC00-COMMON.                        DO
       IF IK = ZERO                                             DO
       REWRITE ZC00 INVALID KEY MOVE "1" TO IK                  DO
       ELSE MOVE ZERO TO IK                                     DO
       WRITE ZC00 INVALID KEY MOVE "1" TO IK.                   DO
       IF IK = "1" PERFORM F81ER THRU F81ER-FN.                 DO
F2940-FN.    EXIT.                                              DO
F2980.                                                          DO
       GO TO F05.                                               DO
F2980-FN.    EXIT.                                              DO
F2990.                                                          DO
       MOVE "CLOSE ERROR ZC" TO D-ERROR-XFUNCT                  DO
       MOVE "0" TO IK.                                          DO
       CLOSE ZCFILE.                                            DO
       IF IK = "1" PERFORM F81ER THRU F81ER-FN.                 DO
       STOP RUN.                                                DO
F2990-FN.    EXIT.                                              DO
```

```
F29-FN.      EXIT.                                    DO
F81ER.                                                DO
       DISPLAY D-ERROR-MESS.                          DO
F81ER-FN.    EXIT.                                    DO
```

7. HELP : MULTI-SCREEN (8 C) VARIANT

7.1. INTRODUCTION

INTRODUCTION

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 HELP documentation of a given screen or data element, refer to Chapter "DEFINITION AND DESCRIPTION OF A DIALOGUE OR SCREEN" 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 must be defined. Since this screen belongs to the dialogue which is to be documented, the first two characters of its code are the dialogue's code and the last four are the HELP screen's code. Thus, 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).

NOTE

A HELP program generated from one dialogue can be used by any number of dialogues. Therefore it is only generated once and the XXHELP screens of each dialogue must have the same external names (PROGRAM and MAP).

The 'backup' of fields entered before calling the HELP function is performed by the calling program on a file whose default name is HE (its length is 1932 and its key is 12).

The user can modify the HE name as well as the external code of the SELECT clause through the screen documentation lines by coding a '-G' line in the following manner:

```
    G  05                LE NOMEXT
```

This must be done in the 'O: C2' option.

In this example, the backup file code becomes 'LE' and the external name in the SELECT clause becomes 'NOMEXT'.

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

- For the Screen documentation:

. Screen-related documentation

. Segment access error messages.

- For the Data Element documentation:

. Standard error messages generated by PACBASE,

. Explicit manual error messages,

(CH: E.....D),

. Screen general documentation lines associated to the data element (CH: O.....G).

For further information, please refer to 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.

```
--------------------------------------------------------------------------------
!                   UNISYS A SERIES                          *PDSG.NDOC.AUA.!
! 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:   10       11                          !
!                                                                              !
!                                    LABELS   DISPLAY  INPUT  ER.MESS.  ER.FL!
! 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..:   8   C     UNISYS A  (MULTI-SCREEN)    !
! CONTROL CARD OPTIONS FRONT & BACK..:            (PROGRAM)              (MAP)!
! EXTERNAL NAMES ...................:   DOP050   (PROGRAM)      DOM050   (MAP)!
! TRANSACTION CODE..................: * DO50                                  !
!                                                                              !
!                                                                              !
! EXPLICIT KEYWORDS..: DO                                                      !
! SESSION NUMBER.....: 0002        LIBRARY......: ACC    LOCK....:             !
! *** END ***                                                                  !
! O: C1 CH: Odohelp                    ACTION:                                 !
--------------------------------------------------------------------------------
```

HELP : MULTI-SCREEN (8 C) VARIANT 7
INTRODUCTION 1

```
!                                                                              !
!DOCUMENTATION OF THE SCREEN   ***  ORDER INPUT SCREEN  ***                     !
!                                                                              !
!                                                                              !
!        THIS SCREEN ALLOWS TO ENTER AN ORDER OF PACBASE                       !
!        DOCUMENTATION PLACED BY ANY REFERENCED CLIENT.                        !
!        FROM THIS SCREEN, YOU MAY ACCESS ANY OTHER SCREEN OF                  !
!        THE DIALOG BY ENTERING THE CORRESPONDING CHOICE FIELD                 !
!        VALUE. THE DIFFERENT VALUES ARE DISPLAYED IN THE                      !
!        BOTTOM PART OF ALL THE DIALOG'S 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)                          !
!                                                                              !
```

HELP : MULTI-SCREEN (8 C) VARIANT 7
INTRODUCTION 1

```
--------------------------------------------------------------------------------
!                                                                              !
!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)                                !
!                                                                              !
--------------------------------------------------------------------------------
```

7.2. GENERATED 'HELP' PROGRAM

```
     IDENTIFICATION DIVISION.
     PROGRAM-ID. DOP050.                                                DOHELP
     AUTHOR.     HELP FUNCTION SCREEN.                                  DOHELP
     DATE-COMPILED. 06/23/94.                                           DOHELP
     ENVIRONMENT DIVISION.                                              DOHELP
     CONFIGURATION SECTION.                                             DOHELP
     SOURCE-COMPUTER. B6800.                                            DOHELP
     OBJECT-COMPUTER. B6800.                                            DOHELP
     SPECIAL-NAMES.                                                     DOHELP
          DECIMAL-POINT IS COMMA.                                       DOHELP
     INPUT-OUTPUT SECTION.                                              DOHELP
     FILE-CONTROL.                                                      DOHELP
          SELECT    EMFILE    ASSIGN TO DISK                           DOHELP
            ORGANIZATION INDEXED                                        DOHELP
            ACCESS IS DYNAMIC                                           DOHELP
            RECORD KEY IS EM00-EMKEY                                    DOHELP
            FILE STATUS 1-EM00-STATUS.                                  DOHELP
     DATA DIVISION.                                                     DOHELP
     FILE SECTION.                                                      DOHELP
     FD           EMFILE                                                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 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
     * OLSD DATES PACE30 : 28/10/93                                     DOHELP
     *            PACE80 : 04/01/94   PAC7SG : 931207                   DOHELP
          05 SESSI  PICTURE X(5) VALUE "0404 ".                         DOHELP
          05 LIBRA  PICTURE X(3) VALUE "AUA".                           DOHELP
          05 DATGN  PICTURE X(8) VALUE "06/23/94".                      DOHELP
          05 PROGR  PICTURE X(6) VALUE "DOHELP".                        DOHELP
          05 PROGE  PICTURE X(8) VALUE "DOP050  ".                      DOHELP
          05 TIMGN  PICTURE X(8) VALUE "18:04:26".                      DOHELP
          05 USERCO PICTURE X(8) VALUE "PDSG    ".                      DOHELP
          05 PRCGI  PICTURE X(16) VALUE "ZAR980".                       DOHELP
          05      5-HELP-PROGE  PICTURE X(8).                          DOHELP
     01  DATCE.                                                         DOHELP
       05  CENTUR   PICTURE XX VALUE "19".                             DOHELP
           05 DATOR.                                                   DOHELP
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        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
    01          HELP-MESSO.                                     *AA040
       02       HELP-MESSI.                                     *AA040
         05     S01001  PICTURE X(004).                         *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
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      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-S01001  PICTURE X(12) VALUE "01001004PNNW".           *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
     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    R01001  PICTURE X(4).                                   *AA042
     05    R23022  PICTURE X(1).                                   *AA042
01          INPUT-SCREEN-FIELDS  REDEFINES  INPUT-HELP.            *AA045
     02     I-HELP.                                                 *AA045
     03     I-HELP-TRAN   PICTURE X(4).                             *AA045
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      03      I-HELP-ENDRE.                                        *AA045
      05      I-HELP-OPDOC  PICTURE X.                             *AA045
01        OUTPUT-HELP.                                             *AA049
      05    T01001  PICTURE X(4).                                  *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-TRAN   PICTURE X(4).                          *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     PICTURE S9(4) BINARY.                        *AA060
  05    CMES-IND2     PICTURE S9(4) BINARY.                        *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.                                               *AA070
     10 END-CTRAN     PICTURE X(04) VALUE SPACE.                   *AA070
     10 END-LIBEL     PICTURE X(30) VALUE SPACE.                   *AA070
  05    END-ATTR.                                                  *AA070
     10 END-ATTRAN    PICTURE X(12) VALUE "01001004 NNW".          *AA070
     10 END-ATMES     PICTURE X(12) VALUE "01006030 NNW".          *AA070
  05    END-YPCUR     PICTURE X(05) VALUE "01001".                 *AA070
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      D-ERROR-MESS.                                              *AA156
      05 D-ERROR-TEXT  PICTURE X(17) VALUE                        *AA156
         "ERROR IN PROGRAM ".                                      *AA156
      05 D-ERROR-PROGE PICTURE X(8).                              *AA156
      05 FILLER  PICTURE X(6) VALUE " FILE ".                     *AA156
      05 D-ERROR-XFILE PICTURE X(8).                              *AA156
      05 FILLER  PICTURE X(11) VALUE " FUNCTION ".                *AA156
      05 D-ERROR-XFUNCT PICTURE X(8).                             *AA156
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     05 FILLER  PICTURE X(15) VALUE " FILE STATUS ".            *AA156
     05 D-ERROR-STATUS PICTURE X(6).                            *AA156
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
        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 BINARY.                                    *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      +0889.                         *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-ERMSC   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
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    10         FILLER       PICTURE X(6).                      *AA400
LINKAGE SECTION.                                               DOHELP
01      I-O-MESSAGE       PICTURE X(4000).                     *00000
01      COMMON-AREA.                                           *00000
     02     K-SHELP-YMAT  PICTURE X.                           *00000
     02     K-SHELP-PROGR PICTURE X(6).                        *00000
     02     K-SHELP-XTERM PICTURE X(12).                       *00000
     02     K-SHELP-TRAN  PICTURE X(04).                       *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-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      FILLER        PICTURE X(0700).                    *00002
01           COMMUNICATION-MONITOR.                           *00010
     02    S-WWSS.                                            *00010
       10    S-WWSS-OPER   PICTURE X.                         *00010
       10    S-WWSS-PROGE  PICTURE X(8).                      *00010
       10    S-WWSS-XLOMES PICTURE 9(5).                      *00010
       10    S-WWSS-PFKEY  PICTURE XX.                        *00010
       10    FILLER        PICTURE X(44).                     *00010
PROCEDURE DIVISION USING I-O-MESSAGE,                          *99999
                         COMMON-AREA,                          *99999
                         COMMUNICATION-MONITOR.                *99999
DECLARATIVES.                                                  DOHELP
SECEM SECTION.                                                 DOHELP
      USE AFTER ERROR PROCEDURE ON EMFILE.                     DOHELP
F0AEM.                                                         DOHELP
      MOVE 1-EM00-STATUS TO D-ERROR-STATUS                     DOHELP
      MOVE  "EM      "   TO D-ERROR-XFILE                      DOHELP
      MOVE "1" TO IK.                                          DOHELP
F0AEM-FN.    EXIT.                                             DOHELP
END DECLARATIVES.                                              DOHELP
MAIN SECTION.                                                  DOHELP
F0A99-FN.    EXIT.                                             DOHELP
F0A-FN.      EXIT.                                             DOHELP
*          ************************************                DOHELP
*          *                                  *                DOHELP
*          *  INITIALIZATIONS                 *                DOHELP
*          *                                  *                DOHELP
*          ************************************                DOHELP
F01.         EXIT.                                             DOHELP
F0101.                                                         DOHELP
       MOVE "OPEN    " TO D-ERROR-XFUNCT   MOVE "0" TO IK.     DOHELP
       OPEN INPUT  EMFILE.                                     DOHELP
       IF IK = "1" GO TO F81ES.                                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 SPACE TO CATM OPER OPERD CAT-ER.                   DOHELP
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         MOVE SPACE TO TABLE-OF-ATTRIBUTES.                          DOHELP
         MOVE ZERO TO CONFIGURATIONS.                                DOHELP
         MOVE SPACE TO XEMKY.                                        DOHELP
         IF PROGR NOT =  K-SHELP-PROGR                               DOHELP
                       MOVE    ZERO  TO  ICF.                        DOHELP
         MOVE LOW-VALUE TO O-HELP.                                   DOHELP
         IF ICF = ZERO AND OCF = ZERO                                DOHELP
         PERFORM F8115 THRU F8115-FN.                                DOHELP
         MOVE    K-SHELP-TRAN TO O-HELP-TRAN.                        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
         MOVE I-O-MESSAGE    TO CMES-YR00.                           DOHELP
         MOVE S-WWSS-XLOMES  TO CMES-IND1.                           DOHELP
         MOVE AT-HELP-MESSA  TO CMES-YO00.                           DOHELP
         MOVE K-SHELP-YMAT   TO CMES-YMAT.                           DOHELP
         MOVE  "R"           TO CMES-YCRE.                           DOHELP
         CALL PRCGI  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 S-WWSS-PFKEY.                  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
*           ************************************                    DOHELP
 F10.         EXIT.                                                  DOHELP
 F1010.     MOVE SPACE TO CATM.                                      DOHELP
       IF CAT-ER = "E" MOVE "4" TO SCR-ER GO TO F3999-ITER-FT.       DOHELP
         MOVE SPACE TO CAT-ER.                                       DOHELP
         IF CATX = "0" MOVE "Z" TO CATX GO TO F1010-FN.              DOHELP
 F1010-A.   GO TO F3999-ITER-FT.                                     DOHELP
 F1010-FN.    EXIT.                                                  DOHELP
 F10-FN.      EXIT.                                                  DOHELP
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*           ************************************                DOHELP
*           *                                  *                DOHELP
*           *  DATA ELEMENT VALIDATION         *                DOHELP
*           *                                  *                DOHELP
*           ************************************                DOHELP
 F20.         EXIT.                                             DOHELP
 F20Z.  IF CATX NOT = "Z" GO TO F20Z-FN.                        DOHELP
 F20A6.                                                         DOHELP
           IF I-HELP-OPDOC  NOT = SPACE                         DOHELP
        MOVE "1" TO    ER-HELP-OPDOC.                          DOHELP
 F20A6-FN.    EXIT.                                             DOHELP
 F20Z-FN.   EXIT.                                               DOHELP
 F20-FN.      EXIT.                                             DOHELP
 F3999-ITER-FI.  GO TO F10.                                     DOHELP
 F3999-ITER-FT.     EXIT.                                       DOHELP
 F3999-FN.    EXIT.                                             DOHELP
 F40.       IF SCR-ER > "1"  MOVE "A" TO OPER  GO TO F40-FN.    DOHELP
 F40-A.     IF OPERD NOT = SPACE   MOVE OPERD TO OPER.          DOHELP
 F4005. IF OPER NOT = "O"          GO TO F4005-FN.              DOHELP
        IF K-SHELP-CDOC = "D"                                   DOHELP
        MOVE "2" TO K-SHELP-CDOC.                               DOHELP
        IF K-SHELP-CDOC = "R"                                   DOHELP
        MOVE "3" TO K-SHELP-CDOC.                               DOHELP
        MOVE ZERO TO K-SHELP-LINUM.                             DOHELP
        IF K-SHELP-ERCOD = SPACE                                DOHELP
        OR K-SHELP-ERCOD NOT NUMERIC                            DOHELP
        MOVE "001"  TO  K-SHELP-ERCOD.                          DOHELP
        IF K-SHELP-ERCOD > "001"                                DOHELP
        SUBTRACT 1 FROM K-SHELP-ERCOD9.                         DOHELP
 F4005-FN.    EXIT.                                             DOHELP
 F4010.  IF OPER NOT = "A"    GO TO F4010-FN.                   DOHELP
        MOVE  SPACE          TO EM00-EMKEY                      DOHELP
        MOVE  K-SHELP-LIBRA  TO EM00-LIBRA                      DOHELP
        MOVE  "H"            TO EM00-ENTYP                      DOHELP
        MOVE  K-SHELP-PROGR  TO EM00-PROGR                      DOHELP
        MOVE  K-SHELP-ERCOD  TO EM00-ERCOD                      DOHELP
        MOVE  K-SHELP-ERTYP  TO EM00-ERTYP                      DOHELP
        MOVE  K-SHELP-LINUM  TO EM00-LINUM                      DOHELP
        MOVE  EM00-EMKEY     TO K-REM00-EMKEY (1).              DOHELP
 F4010-FN.    EXIT.                                             DOHELP
*           ************************************                DOHELP
*           *                                  *                DOHELP
*           *  END OF TRANSACTION              *                DOHELP
*           *                                  *                DOHELP
*           ************************************                DOHELP
 F4030.     IF OPER NOT = "E" GO TO F4030-FN.                   DOHELP
        MOVE K-SHELP-TRAN   TO END-CTRAN.                       DOHELP
        MOVE  END-MESSAGE   TO CMES-YR00.                       DOHELP
        MOVE  END-ATTR      TO CMES-YO00.                       DOHELP
        MOVE  END-YPCUR     TO CMES-YPCUR.                      DOHELP
        MOVE K-SHELP-YMAT   TO CMES-YMAT.                       DOHELP
        MOVE  "F"           TO CMES-YCRE.                       DOHELP
        CALL PRCGI  USING CMES-COMMUNICATION                    DOHELP
        MOVE CMES-IND1 TO S-WWSS-XLOMES                         DOHELP
        MOVE CMES-YR00 TO I-O-MESSAGE.                          DOHELP
        MOVE OPER TO S-WWSS-OPER.                               DOHELP
        PERFORM F81FI THRU F81FI-FN.                            DOHELP
 F4030-A.   EXIT PROGRAM.                                       DOHELP
 F4030-FN.    EXIT.                                             DOHELP
*           ************************************                DOHELP
*           *                                  *                DOHELP
*           *  TRANSFER TO ANOTHER SCREEN      *                DOHELP
*           *                                  *                DOHELP
*           ************************************                DOHELP
 F4040.     IF OPER NOT = "O" GO TO F4040-FN.                   DOHELP
        MOVE  5-HELP-PROGE TO S-WWSS-PROGE.                     DOHELP
        MOVE OPER TO S-WWSS-OPER.                               DOHELP
        PERFORM F81FI THRU F81FI-FN.                            DOHELP
 F4040-A.   EXIT PROGRAM.                                       DOHELP
 F4040-FN.    EXIT.                                             DOHELP
 F40-FN.      EXIT.                                             DOHELP
 END-OF-RECEPTION.      EXIT.                                   DOHELP
*           ************************************                DOHELP
*           *                                  *                DOHELP
*           *  DISPLAY PREPARATION             *                DOHELP
*           *                                  *                DOHELP
*           ************************************                DOHELP
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    F50.      IF OCF = "0" GO TO END-OF-DISPLAY.                    DOHELP
    F5010.                                                          DOHELP
           MOVE ZERO TO CATX.                                       DOHELP
           MOVE ZERO TO CONFIGURATIONS.                             DOHELP
           MOVE ALL "1" TO FIRST-ON-SEGMENT.                        DOHELP
           IF SCR-ER > "1" MOVE LOW-VALUE TO HELP-MESSO.            DOHELP
           IF SCR-ER > "1"  GO TO F6999-ITER-FT.                    DOHELP
           MOVE SPACE TO  O-HELP.                                   DOHELP
           PERFORM F8115 THRU F8115-FN.                             DOHELP
    F5010-FN.    EXIT.                                              DOHELP
    F5020.    IF  K-SHELP-ERTYP NOT = SPACE                         DOHELP
              NEXT SENTENCE ELSE   GO TO F5020-FN.                  DOHELP
           MOVE  SPACE  TO EM00-ERTYP.                              DOHELP
             IF K-SHELP-ERCOD < "001"                               DOHELP
           MOVE  SPACE  TO EM00-ERCOD.                              DOHELP
           MOVE  ZERO   TO EM00-LINUM                               DOHELP
           PERFORM F80-EM00-P  THRU F80-FN.                         DOHELP
             IF IK = "1"   GO TO F5020-FN.                          DOHELP
             IF EM00-ERCOD  NOT = SPACE                             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         ELSE                      DOHELP
           MOVE   EM00-ERMSG TO HELP-LIENT                          DOHELP
           MOVE  "DOCUMENTATION OF THE SCREEN   "                   DOHELP
                  TO HELP-LIBEC.                                    DOHELP
    F5020-FN.    EXIT.                                              DOHELP
    F50-FN.      EXIT.                                              DOHELP
   *           ************************************                 DOHELP
   *           *                                  *                 DOHELP
   *           *  CATEGORY PROCESSING LOOP        *                 DOHELP
   *           *                                  *                 DOHELP
   *           ************************************                 DOHELP
    F55.         EXIT.                                              DOHELP
    F5510.                                                          DOHELP
           MOVE SPACE TO CAT-ER.                                    DOHELP
           IF CATX = "0" MOVE " " TO CATX GO TO F5510-FN.           DOHELP
           IF CATX = " " MOVE "R" TO CATX MOVE ZERO TO ICATR.       DOHELP
           IF CATX NOT = "R" OR  ICATR > IRR GO TO F5510-R.         DOHELP
           IF ICATR > ZERO                                          DOHELP
           MOVE  O-HELP-LIGNE           TO                          DOHELP
                 P-HELP-LIGNE   (ICATR).                            DOHELP
           ADD 1 TO ICATR.                                          DOHELP
           IF ICATR NOT > IRR                                       DOHELP
           MOVE  P-HELP-LIGNE   (ICATR) TO                          DOHELP
                 O-HELP-LIGNE.                                      DOHELP
           GO TO F5510-FN.                                          DOHELP
    F5510-R.     EXIT.                                              DOHELP
    F5510-Z.                                                        DOHELP
           IF CATX = "R" MOVE "Z" TO CATX GO TO F5510-FN.           DOHELP
    F5510-900. GO TO F6999-ITER-FT.                                 DOHELP
    F5510-FN.    EXIT.                                              DOHELP
    F55-FN.      EXIT.                                              DOHELP
   *           ************************************                 DOHELP
   *           *                                  *                 DOHELP
   *           *  SEGMENT ACCESS FOR DISPLAY      *                 DOHELP
   *           *                                  *                 DOHELP
   *           ************************************                 DOHELP
    F60.         EXIT.                                              DOHELP
    F60R.  IF CATX NOT = "R" OR FT = "1" GO TO F60R-FN.             DOHELP
    F60R-FN.   EXIT.                                                DOHELP
    F6010.  IF CATX NOT = "R" OR FT = "1"  GO TO F6010-FN.          DOHELP
           MOVE "0" TO EM00-CF.                                     DOHELP
           IF          EM00-FST = "1"                               DOHELP
           MOVE     K-REM00-EMKEY  (1) TO EM00-EMKEY                DOHELP
           MOVE        EM00-LIBRA   TO  C-HELP-LIBRA                DOHELP
           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
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         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
         GO TO F6010.                                             DOHELP
 F6010-FN.    EXIT.                                               DOHELP
 F60-FN.      EXIT.                                               DOHELP
*           ************************************                  DOHELP
*           *                                  *                  DOHELP
*           *  DATA ELEMENT TRANSFER           *                  DOHELP
*           *                                  *                  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
 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
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           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 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
   *           *                                  *                     DOHELP
   *           *  DISPLAY                         *                     DOHELP
   *           *                                  *                     DOHELP
   *           ************************************                     DOHELP
    F8Z10.                                                              DOHELP
           IF SCR-ER  NOT > "1"                                         DOHELP
           AND DE-AT (4, 001) = "X"                                     DOHELP
           PERFORM F7020 THRU F7020-FN.                                 DOHELP
                  MOVE    K-SHELP-TRAN TO O-HELP-TRAN.                  DOHELP
           PERFORM F8145 THRU F8145-FN.                                 DOHELP
           MOVE "X"  TO CMES-YCRE.                                      DOHELP
           IF SCR-ER NOT > "1"                                          DOHELP
           PERFORM F8105 THRU F8105-FN                                  DOHELP
           MOVE "E"  TO CMES-YCRE.                                      DOHELP
           MOVE    HELP-MESSO TO CMES-YR00.                             DOHELP
           MOVE AT-HELP-MESSA TO CMES-YO00.                             DOHELP
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        MOVE K-SHELP-YMAT  TO CMES-YMAT.                          DOHELP
        CALL PRCGI USING CMES-COMMUNICATION.                      DOHELP
        MOVE CMES-YR00   TO I-O-MESSAGE                           DOHELP
        MOVE CMES-IND1   TO S-WWSS-XLOMES.                        DOHELP
 F8Z10-FN.    EXIT.                                               DOHELP
*           ************************************                  DOHELP
*           *                                  *                  DOHELP
*           *  END OF PROGRAM                  *                  DOHELP
*           *                                  *                  DOHELP
*           ************************************                  DOHELP
 F8Z20.                                                           DOHELP
        MOVE OPER TO S-WWSS-OPER.                                 DOHELP
        PERFORM F81FI THRU F81FI-FN.                              DOHELP
 F8Z20-A.  EXIT PROGRAM.                                          DOHELP
 F8Z20-FN.    EXIT.                                               DOHELP
 F8Z-FN.      EXIT.                                               DOHELP
*           ************************************                  DOHELP
*           *                                  *                  DOHELP
*           *  PHYSICAL SEGMENT ACCESS ROUTINES *                DOHELP
*           *                                  *                  DOHELP
*           ************************************                  DOHELP
 F80.         EXIT.                                               DOHELP
 F80-EM00-R.                                                      DOHELP
        MOVE "READ    " TO D-ERROR-XFUNCT MOVE ZERO TO IK.       DOHELP
        READ    EMFILE    INVALID KEY GO TO F80-KO.               DOHELP
          IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.              DOHELP
 F80-EM00-P.                                                      DOHELP
        MOVE "START   " TO D-ERROR-XFUNCT MOVE ZERO TO IK.        DOHELP
        START   EMFILE    KEY NOT <                               DOHELP
                    EM00-EMKEY  INVALID KEY GO TO F80-KO.         DOHELP
         IF IK = "1" GO TO F81ES.                                 DOHELP
 F80-EM00-RN.                                                     DOHELP
        MOVE "READNEXT" TO D-ERROR-XFUNCT MOVE ZERO TO IK.        DOHELP
        READ    EMFILE    NEXT AT END GO TO F80-KO.               DOHELP
          IF IK = "1" GO TO F81ES ELSE GO TO F80-OK.              DOHELP
 F8001-FN.    EXIT.                                               DOHELP
 F80-OK.  MOVE "0" TO IK MOVE PROGR TO XPROGR GO TO F80-FN.       DOHELP
 F80-KO.  MOVE "1" TO IK MOVE PROGR TO XPROGR.                    DOHELP
 F8099-FN.    EXIT.                                               DOHELP
 F80-FN.      EXIT.                                               DOHELP
 F81.         EXIT.                                               DOHELP
*           ************************************                  DOHELP
*           *                                  *                  DOHELP
*           *  ABNORMAL END PROCEDURE          *                  DOHELP
*           *                                  *                  DOHELP
*           ************************************                  DOHELP
 F81ER.                                                           DOHELP
        MOVE "X" TO S-WWSS-OPER.                                  DOHELP
 F81ER-A. EXIT PROGRAM.                                           DOHELP
 F81ER-FN.    EXIT.                                               DOHELP
 F81ES.                                                           DOHELP
        MOVE PROGE TO D-ERROR-PROGE.                              DOHELP
        DISPLAY D-ERROR-MESS.                                     DOHELP
 F81ES-A.  EXIT PROGRAM.                                          DOHELP
 F81ES-FN.    EXIT.                                               DOHELP
 F81FI.                                                           DOHELP
        MOVE "CLOSE   " TO D-ERROR-XFUNCT   MOVE "0" TO IK.       DOHELP
        CLOSE   EMFILE.                                           DOHELP
        IF IK = "1" GO TO F81ES.                                  DOHELP
 F81FI-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.       EXIT.                                               DOHELP
 F8105-FN.    EXIT.                                               DOHELP
 F8115.       EXIT.                                               DOHELP
 F8115-FN.    EXIT.                                               DOHELP
 F8145.                                                           DOHELP
        MOVE  T01001 TO   S01001.                                 DOHELP
        MOVE  T03002 TO   S03002.                                 DOHELP
        MOVE  T03033 TO   S03033.                                 DOHELP
        MOVE  T05004 TO   S05004.                                 DOHELP
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          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.                                                          DOHELP
          MOVE  S01001 TO   R01001.                                DOHELP
          MOVE  S23022 TO   R23022.                                DOHELP
   F8155-FN.    EXIT.                                              DOHELP
   F81-FN.      EXIT.                                              DOHELP
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8. 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
PRDOC	HELP PROGRAM EXTERNAL NAME

CHART OF ON-LINE CONSTANTS AND VARIABLES (CONT'D)	
DATOR	YEAR-MONTH-DAY FORMATTED MACHINE DATE
DATSEP	SEPARATOR USED IN DATES DEFAULT VALUE: '/'
DAT6 DAT7 DAT8	DATE FORMATTING: DDMMYY OR YYMMDD ALSO OUTPUT FORMATS (DD/MM/YY FOR INSTANCE) IF A VARIABLE DATA ELEMENT (V) HAS A DATE FORMAT
DATCTY	FIELD FOR CENTURY LOAD
DAT6C DAT7C	NON-FORMATTED DATE WITH CENTURY
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- PROGE	THIS FIELD CONTAINS THE NAME OF THE PROGRAM TO BRANCH TO

CHART OF VALIDATION VARIABLES AND INDICATORS	
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

CHART OF VALIDATION VARIABLES AND INDICATORS (CONT'D)		
IK	PHYSICAL FILE ACCESS ERROR INDICATOR	
	'0' NO ERROR	
	'1' ERROR	

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-delcod	MEMORIZATION OF DATA ELEMENT ERROR	
	'0' DATA ELEMENT ABSENT	
	'1' DATA ELEMENT PRESENT	
	'2' INVALID ABSENCE	
	'4' INVALID CLASS	
	'5' INVALID VALUE	