3ºAULA

Introdução ao TSO

Comandos Diversos

.

Í n d i c e

.

PAGINAÇÃO

SCROOL → Tem duas formas de paginar, CSR ou PAGE, CSR ao avançar ou retornar colocará a linha corrente na primeira, já o PAGE avançará sem çlevar em consideração a posição do cursor .

Editaremos na biblioteca ALUNONA.FONTES.COBOL o membro EXER0001 e faremos o SCROLL com a opção CSR conforme abaixo:

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 ------------------------------------------------------------------------------
 EDIT       ALUNONA.FONTES.COBOL(EXER0001) - 01.07         Columns 00001 00072
 ****** **************************** Top of Data ****************************** 000100
 IDENTIFICATION  DIVISION.
 000200        PROGRAM-ID.      EXER0001.
 000300        AUTHOR.          FUTURE SCHOOL CURSOS DE COMPUTACAO.
 000400        *
 000500        * GERAR ARQUIVO DE PECAS SELECIONADAS
 000600        *                                                    000700
 ENVIRONMENT   DIVISION.
 000800        CONFIGURATION   SECTION.
 000900        SPECIAL-NAMES.
 001000                   DECIMAL-POINT IS COMMA.
 001100        *                                                    001200
 INPUT-OUTPUT   SECTION.
 001300        FILE-CONTROL.
 001400  |        SELECT  CADPECA       ASSIGN  TO  UT-S-CADPECA      001500
 FILE STATUS    IS FS-CADPECA.
 001600        *
 001700        SELECT  CADATU       ASSIGN  TO  UT-S-CADATU          001800
 FILE STATUS    IS FS-CADATU.
 Command ===>                                  Scroll ===> CSR    F1=Help
 F3=Exit    F5=Rfind    F6=Rchange  F12=Cancel
```

Scroll na opção CSR.

Com o cursor na linha 001400 e tecle PF8 .
Podemos observar que a linha 001400 foi movimentada para cabeçalho da página.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 ------------------------------------------------------------------------------
 EDIT       ALUNONA.FONTES.COBOL(EXER0001) - 01.07         Columns 00001 00072
 001400        SELECT  CADPECA       ASSIGN  TO  UT-S-CADPECA        001500
 FILE STATUS    IS FS-CADPECA.
 001600        *
 001700        SELECT  CADATU       ASSIGN  TO  UT-S-CADATU          001800
 FILE STATUS    IS FS-CADATU.
 001900        *                                                    002000
 DATA          DIVISION.
 002100        FILE           SECTION.
 002200        *
 002300        FD  CADPECA
 002400            RECORD   CONTAINS  80  CHARACTERS
 002500            RECORDING MODE      IS  F
 002600            LABEL    RECORD   IS  STANDARD                    002700
 DATA    RECORD    IS  REG-CADPECA.
 002800        01  REG-CADPECA.
 002900            05  COD-PECA           PIC  9(05).
 003000            05  NOME-PECA          PIC  X(30).
 003100            05  QTD-PECA           PIC  9(05).
 003200            05  QTD-MINIMA         PIC  9(05).
 Command ===>                                  Scroll ===> CSR
 F1=Help    F3=Exit    F5=Rfind    F6=Rchange  F12=Cancel
```

Com o cursor na linha 002900 e tecle PF7 .
Podemos observar abaixo que a linha 002900 foi movimentada para rodapé da página.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 ------------------------------------------------------------------------------
 EDIT        ALUNONA.FONTES.COBOL(EXER0001) - 01.07         Columns 00001 00072
 001100      *                                                           001200
INPUT-OUTPUT    SECTION.
 001300      FILE-CONTROL.
 001400         SELECT  CADPECA       ASSIGN  TO  UT-S-CADPECA            001500
FILE STATUS   IS FS-CADPECA.
 001600      *
 001700         SELECT  CADATU        ASSIGN  TO  UT-S-CADATU             001800
FILE STATUS   IS FS-CADATU.
 001900      *                                                           002000
DATA          DIVISION.
 002100      FILE            SECTION.
 002200      *
 002300      FD  CADPECA
 002400         RECORD   CONTAINS  80  CHARACTERS
 002500         RECORDING MODE     IS  F
 002600         LABEL    RECORD   IS  STANDARD                           002700
DATA    RECORD    IS  REG-CADPECA.
 002800         01  REG-CADPECA.
 002900         05  COD-PECA            PIC  9(05).
 Command ===>                              Scroll ===> CSR    F1=Help
 F3=Exit     F5=Rfind   F6=Rchange  F12=Cancel
```

Com o cursor na linha de comando teclando PF8 posso avançar pagina á pagina até o fim do programa.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 ------------------------------------------------------------------------------
 EDIT        ALUNONA.FONTES.COBOL(EXER0001) - 01.07         Columns 00001 00072
 026400      *==============================================================*  026500
900-00-ERRO                    SECTION.
 026600      *==============================================================*
 026700
 026800         DISPLAY '**************** EXER0001 ****************'
 026900         DISPLAY '*                                       *'
 027000         DISPLAY '* ERRO ' FS-OPERACAO ' DO ARQUIVO ' FS-ARQUIVO ' *'
 027100         DISPLAY '*                                       *'
 027200         DISPLAY '* FILE STATUS = ' FS-COD-STATUS
 027300                 '                    *'
 027400         DISPLAY '*                                       *'
 027500         DISPLAY '* PROGRAMA ENCERRADO'
 027600                 '                    *'
 027700         DISPLAY '*                                       *'
 027800         DISPLAY '**************** EXER0001 ****************'   027900
STOP   RUN.
 028000                                                              028100
900-00-FIM.        EXIT.
 ****** ****************************** Bottom of Data ************************************
 Command ===>  |                                 Scroll ===> CSR
  F1=Help     F3=Exit     F5=Rfind    F6=Rchange  F12=Cancel
```

Com o cursor na linha de comando teclando PF7 podemos retornar pagina á pagina até o inicio do programa.

.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
--------------------------------------------------------------------------------
 EDIT       ALUNONA.FONTES.COBOL(EXER0001) - 01.07        Columns 00001 00072
****** *************************** Top of Data **************************** 000100
IDENTIFICATION  DIVISION.
 000200      PROGRAM-ID.    EXER0001.
 000300      AUTHOR.        FUTURE SCHOOL CURSOS DE COMPUTACAO.
 000400      *
 000500      * GERAR ARQUIVO DE PECAS SELECIONADAS
 000600      *                                                         000700
ENVIRONMENT   DIVISION.
 000800      CONFIGURATION   SECTION.
 000900      SPECIAL-NAMES.
 001000                  DECIMAL-POINT IS COMMA.
 001100      *                                                         001200
INPUT-OUTPUT   SECTION.
 001300      FILE-CONTROL.
 001400         SELECT  CADPECA       ASSIGN  TO  UT-S-CADPECA         001500
FILE STATUS   IS FS-CADPECA.
 001600      *
 001700         SELECT  CADATU        ASSIGN  TO  UT-S-CADATU          001800
FILE STATUS   IS FS-CADATU.                      Command ===>  |
Scroll ===> CSR    F1=Help     F3=Exit     F5=Rfind    F6=Rchange  F12=Cancel
```

Scroll na opção PAGE.

Altere a opção Scrool para PAGE, conforme abaixo:

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 --------------------------------------------------------------------------------
 EDIT       ALUNONA.FONTES.COBOL(EXER0001) - 01.07        Columns 00001 00072
****** *************************** Top of Data **************************** 000100
IDENTIFICATION  DIVISION.
 000200      PROGRAM-ID.    EXER0001.
 000300      AUTHOR.        FUTURE SCHOOL CURSOS DE COMPUTACAO.
 000400      *
 000500      * GERAR ARQUIVO DE PECAS SELECIONADAS
 000600      *                                                         000700
ENVIRONMENT   DIVISION.
 000800      CONFIGURATION   SECTION.
 000900      SPECIAL-NAMES.
 001000                  DECIMAL-POINT IS COMMA.
 001100      *                                                         001200
INPUT-OUTPUT   SECTION.
 001300      FILE-CONTROL.
 001400         SELECT  CADPECA       ASSIGN  TO  UT-S-CADPECA         001500
FILE STATUS   IS FS-CADPECA.
 001600      *
 001700         SELECT  CADATU        ASSIGN  TO  UT-S-CADATU          001800
FILE STATUS   IS FS-CADATU.                      Command ===>
Scroll ===> PAGE
  F1=Help     F3=Exit     F5=Rfind     F6=Rchange  F12=Cancel
```

. Independente a linha que estiver o cursor, teclando PF8 você poderá visualizar pagina á pagina até o fim do programa.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 ------------------------------------------------------------------------------
 EDIT       ALUNONA.FONTES.COBOL(EXER0001) - 01.07          Columns 00001 00072
 026400      *=================================================================*  026500
 900-00-ERRO                    SECTION.
 026600      *=================================================================*
 026700
 026800          DISPLAY '**************** EXER0001 ****************'
 026900          DISPLAY '*                                       *'
 027000          DISPLAY '* ERRO ' FS-OPERACAO ' DO ARQUIVO ' FS-ARQUIVO ' *'
 027100          DISPLAY '*                                       *'
 027200          DISPLAY '* FILE STATUS = ' FS-COD-STATUS
 027300                  '                           *'
 027400          DISPLAY '*                                       *'
 027500          DISPLAY '* PROGRAMA ENCERRADO'
 027600                  '                 *'
 027700          DISPLAY '*                                       *'
 027800          DISPLAY '**************** EXER0001 ****************'         027900
 STOP    RUN.
 028000                                                                      028100
 900-00-FIM.        EXIT.
 ****** **************************** Bottom of Data ***************************
 Command ===>                                          Scroll ===> PAGE
  F1=Help     F3=Exit     F5=Rfind     F6=Rchange  F12=Cancel
```

Independente a linha que estiver o cursor, teclando PF7 visualizaremos pagina á pagina até o inicio do programa.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 ------------------------------------------------------------------------------
 EDIT       ALUNONA.FONTES.COBOL(EXER0001) - 01.07          Columns 00001 00072
 ****** **************************** Top of Data ****************************  000100
 IDENTIFICATION   DIVISION.
 000200      PROGRAM-ID.    EXER0001.
 000300      AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
 000400      *
 000500      * GERAR ARQUIVO DE PECAS SELECIONADAS
 000600      *                                                               000700
 ENVIRONMENT    DIVISION.
 000800      CONFIGURATION   SECTION.
 000900      SPECIAL-NAMES.
 001000                 DECIMAL-POINT IS COMMA.
 001100      *                                                               001200
 INPUT-OUTPUT   SECTION.
 001300      FILE-CONTROL.
 001400          SELECT CADPECA       ASSIGN  TO  UT-S-CADPECA               001500
 FILE STATUS    IS FS-CADPECA.
 001600      *
 001700          SELECT CADATU        ASSIGN  TO  UT-S-CADATU                001800
 FILE STATUS    IS FS-CADATU.
 Command ===>                                          Scroll ===> PAGE
  F1=Help     F3=Exit     F5=Rfind     F6=Rchange  F12=Cancel
```

.

FILE TRANFER – TRANFERÊNCIAS DE ARQUIVOS

Podemos transferir arquivos do Mainframe para outras tecnologias ou também de outras tecnologias para o Mainframe, veremos abaixo como fazer:

Digite P em OPTION e tecle <ENTER>.

```
                       CUSTOMPAC MASTER APPLICATION MENU
 OPTION ===> P                                          SCROLL ===> PAGE

                                                USERID - ALUNOJ2
                                                TIME   - 01:35

   IS   ISMF     - Interactive Storage Management Facility
   P    PDF      - ISPF/Program Development Facility
   IP   IPCS     - Interactive Problem Control Facility
   OS   SUPPORT  - OS/390 ISPF System Support Options
   OU   USER     - OS/390 ISPF User Options
   SM   SMP/E    - SMP/E Dialogs
   IC   ICSF     - Integrated Cryptographic Service Facility
   SD   SDSF     - System Display and Search Facility
   R    RACF     - Resource Access Control Facility
   HC   HCD      - Hardware Configuration Definition
   BMB  BMR BLD  - BookManager Build (Create Online Documentation)
   BMR  BMR READ - BookManager Read (Read Online Documentation)
   BMI  BMR INDX - BookManager Read (Create Bookshelf Index)
   X    EXIT     - Terminate ISPF using list/log defaults


   F1=HELP      F2=SPLIT     F3=END       F4=RETURN    F5=RFIND     F6=RCHANGE
   F7=UP        F8=DOWN      F9=SWAP      F10=LEFT     F11=RIGHT    F12=RETRIEVE
```

Digite 6 em OPTION e tecle <ENTER>.

```
   Menu  Utilities  Compilers  Options  Status  Help
 ------------------------------------------------------------------------------
                         ISPF Primary Option Menu            Invalid option

 0  Settings      Terminal and user parameters         No. of keys: 12
 1  View          Display source data or listings      Keys / line: SIX
 2  Edit          Create or change source data         Primary set: SIX
 3  Utilities     Perform utility functions            Display set: PRI
 4  Foreground    Interactive language processing      List name. : ISRSAB
 5  Batch         Submit job for language processing   List applid: ISR
 6  Command       Enter TSO or Workstation commands    List type. : SHARED
 7  Dialog Test   Perform dialog testing               Keylists . : PRIVATE
 8  LM Facility   Library administrator functions
 9  IBM Products  IBM program development products
 10 SCLM          SW Configuration Library Manager
 11 Workplace     ISPF Object/Action Workplace


       Enter X to Terminate using log/list defaults



 Option ===> 6                                                        F1=Help
 F3=Exit      F10=Actions  F12=Cancel
```
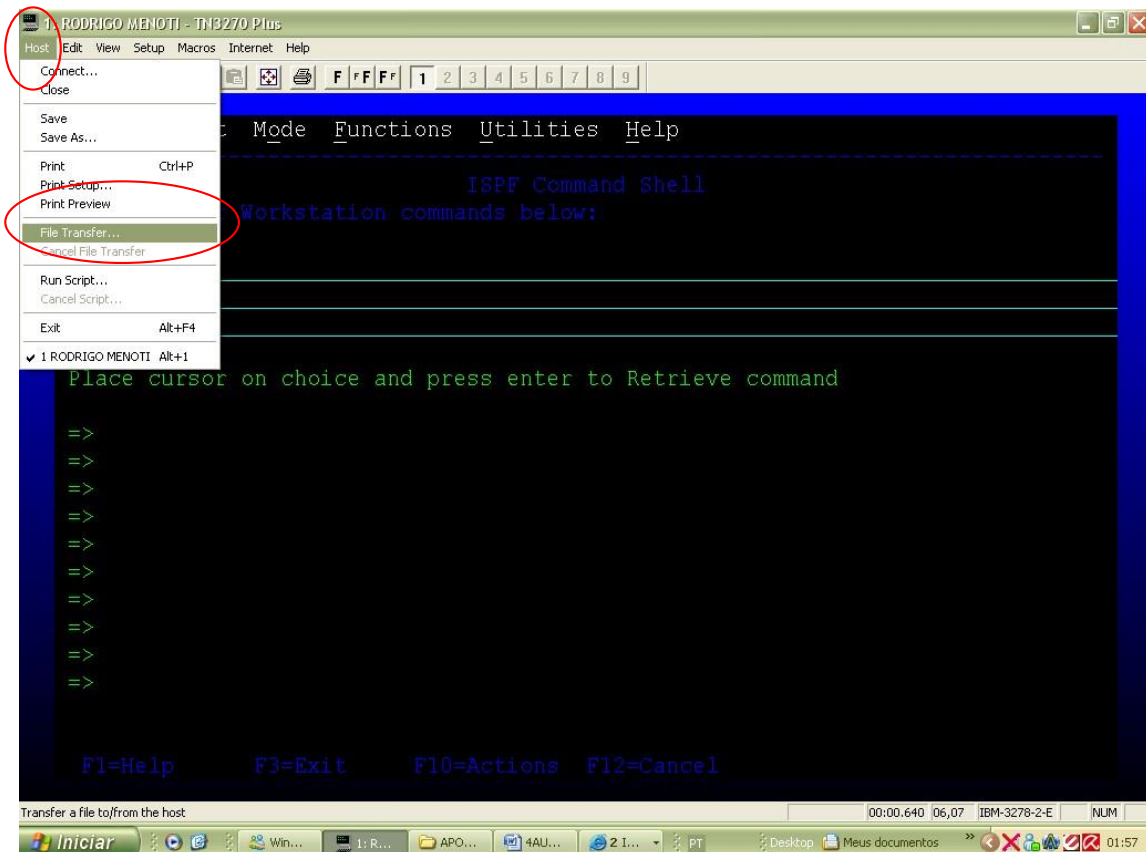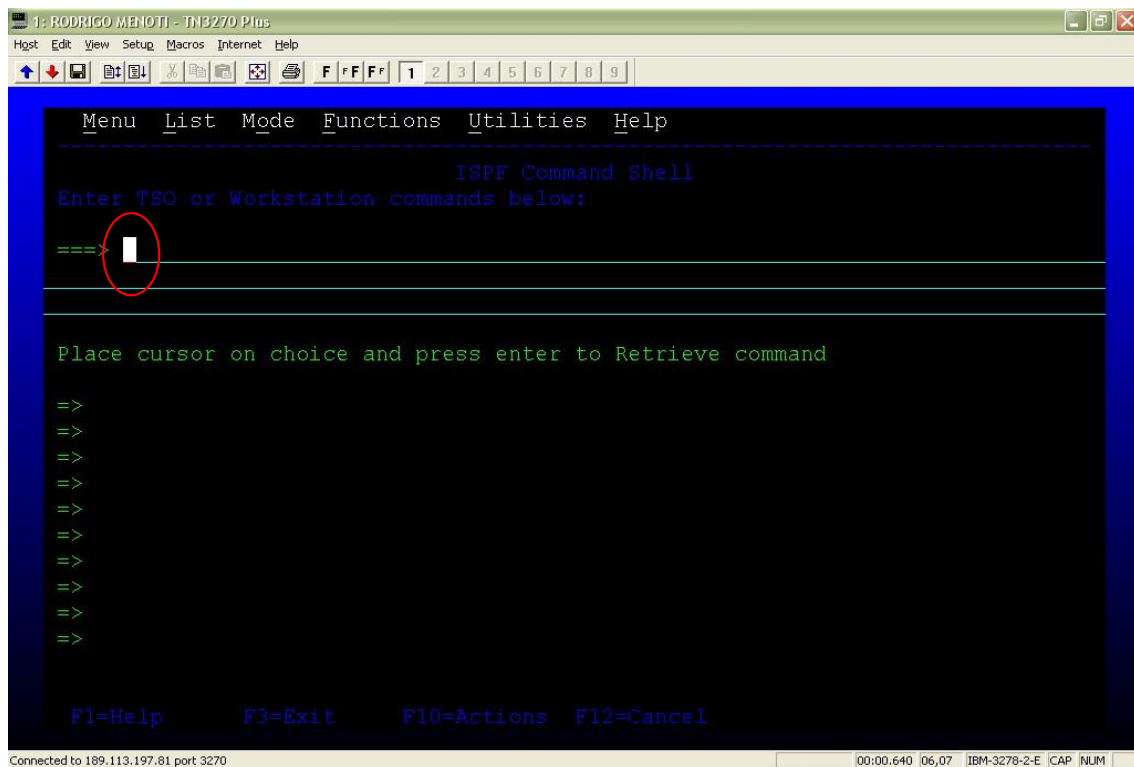
.

Lembre-se o cursor deve estar na 1º posição da linha.

Com o mouse clique em Host, e após na opção File Tranfer
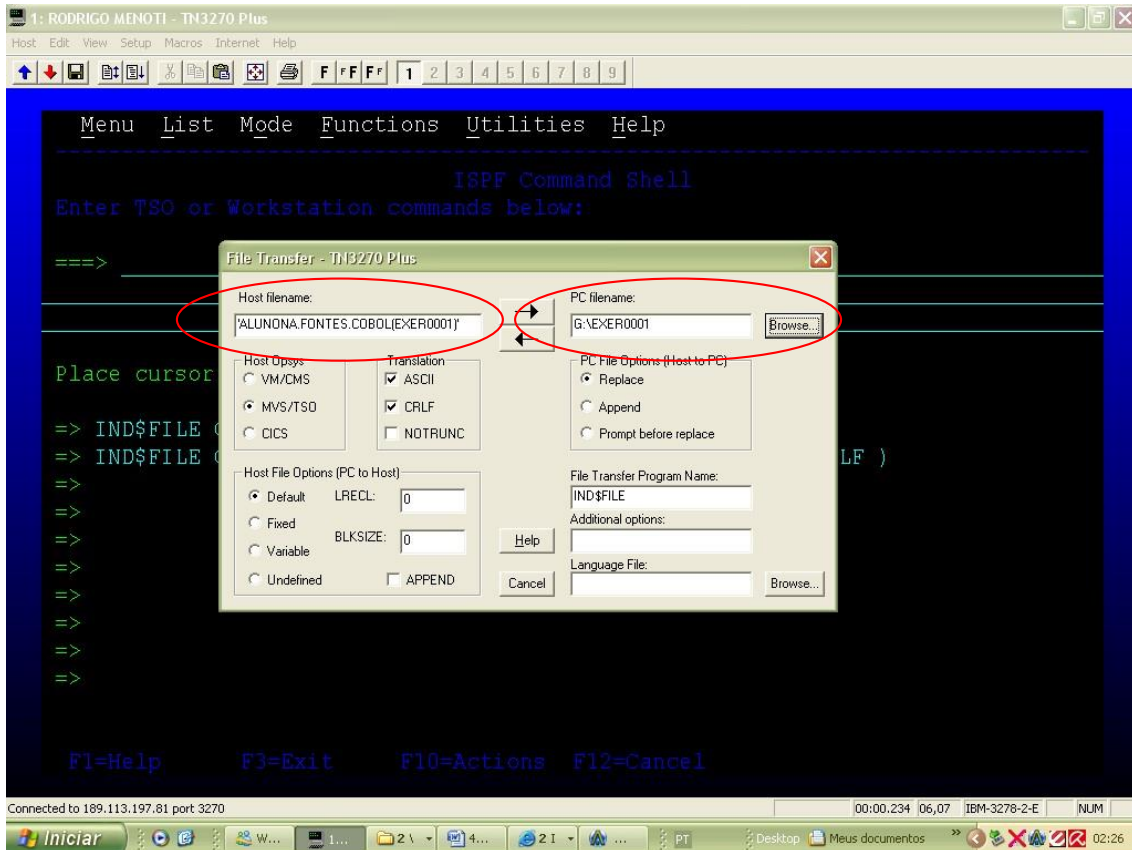
Vejamos como preencher as informações necessárias.

Host Filename → abrir aspas simples, digitar a biblioteca para onde quero copiar ou inserir um membro e entre parenteses ponho nome desse membro exemplo:

'ALUNONA.FONTES.COBOL(EXER0001)'

Pc Filename → clique no botão Browse e procure o diretório onde vai copiar o membro no exemplo da tela copiarei para o Pendrive G:\ mais o nome do membro.

Se quisermos tranferir do (Mainframe) da biblioteca do aluno para o pendrive devo cliclar no botão seta de cima →
Se quisermos tranferir do pendrive para o (Mainframe) para biblioteca do aluno devo clicar no botão seta de baixo ←

.

START
Comando usado para abrir janelas de trabalho.
Digite na linha de comando **START** tecle <ENTER>.

```
  File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 --------------------------------------------------------------------------
 EDIT       ALUNONA.FONTES.COBOL(EXER0001) - 01.07       Columns 00001 00072
 ****** **************************** Top of Data ****************************  000100
 IDENTIFICATION  DIVISION.
 000200      PROGRAM-ID.     EXER0001.
 000300      AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
 000400      *
 000500      * GERAR ARQUIVO DE PECAS SELECIONADAS
```

```
 000600          *                                                            000700
ENVIRONMENT      DIVISION.
 000800          CONFIGURATION    SECTION.
 000900          SPECIAL-NAMES.
 001000                         DECIMAL-POINT IS COMMA.
 001100          *                                                            001200
INPUT-OUTPUT     SECTION.
 001300          FILE-CONTROL.
 001400             SELECT  CADPECA       ASSIGN  TO  UT-S-CADPECA            001500
FILE STATUS     IS FS-CADPECA.
 001600          *
 001700             SELECT  CADATU        ASSIGN  TO  UT-S-CADATU
Command ===> START                                        Scroll ===> PAGE
 F1=Help       F3=Exit       F5=Rfind      F6=Rchange   F12=Cancel
```

Podemos observar que mais uma janela foi aberta.

```
                 CUSTOMPAC MASTER APPLICATION MENU
 OPTION ===>                                        SCROLL ===> PAGE

                                           USERID - ALUNOJ2
                                           TIME  - 22:04

   IS  ISMF     - Interactive Storage Management Facility
   P   PDF      - ISPF/Program Development Facility
   IP  IPCS     - Interactive Problem Control Facility
   OS  SUPPORT  - OS/390 ISPF System Support Options
   OU  USER     - OS/390 ISPF User Options
   SM  SMP/E    - SMP/E Dialogs
   IC  ICSF     - Integrated Cryptographic Service Facility
   SD  SDSF     - System Display and Search Facility
   R   RACF     - Resource Access Control Facility
   HC  HCD      - Hardware Configuration Definition
   BMB BMR BLD  - BookManager Build (Create Online Documentation)
   BMR BMR READ - BookManager Read (Read Online Documentation)
   BMI BMR INDX - BookManager Read (Create Bookshelf Index)
   X   EXIT     - Terminate ISPF using list/log defaults

   F1=HELP      F2=SPLIT     F3=END      F4=RETURN    F5=RFIND     F6=RCHANGE
   F7=UP        F8=DOWN      F9=SWAP     F10=LEFT     F11=RIGHT    F12=RETRIEVE
```

PF9 Para Altenar entre as duas janelas Tecle
PF9 e navegue, variando entre as telas.

.

SWAP LIST

Podem ser abertas até 8 janelas no TSO.
Quando abrir mais de duas janelas para visualizá-las use o comando **SWAP LIST** . Digite
START na linha de comando <ENTER>.

```
  Menu  Functions  Confirm  Utilities  Help
 ------------------------------------------------------------------------
 EDIT            ALUNONA.FONTES.COBOL                    Row 00001 of 00004
         Name    Prompt      VV MM   Changed     Size  Init  Mod   ID
 _____ EXER0001 *Edited   01.07 10/08/22 21:35  281   198   281  ALUNOJ2
```

```
_____  TESTE222           01.00 10/08/17 16:37     5     5     0 ALUNOJ2
_____  TESTE555           01.00 10/08/17 16:37     5     5     0 ALUNOJ2
_____  TESTE777           01.00 10/08/17 16:37     5     5     0 ALUNOJ2
           **End**
```

```
Command ===> START                                        Scroll ===> PAGE
 F1=Help      F3=Exit     F10=Actions  F12=Cancel
```

O comando start abrirá uma 2º tela.

Digite OPTION P.3.2 <ENTER>

```
                    CUSTOMPAC MASTER APPLICATION MENU
OPTION ===> P.3.2                                   SCROLL ===> PAGE

                                              USERID - ALUNOJ2
                                              TIME   - 22:25

  IS  ISMF    - Interactive Storage Management Facility
P  PDF      - ISPF/Program Development Facility
  IP  IPCS    - Interactive Problem Control Facility
  OS  SUPPORT - OS/390 ISPF System Support Options
  OU  USER    - OS/390 ISPF User Options
  SM  SMP/E   - SMP/E Dialogs
  IC  ICSF    - Integrated Cryptographic Service Facility
  SD  SDSF    - System Display and Search Facility
  R   RACF    - Resource Access Control Facility
  HC  HCD     - Hardware Configuration Definition
  BMB BMR BLD - BookManager Build (Create Online Documentation)
  BMR BMR READ - BookManager Read (Read Online Documentation)
  BMI BMR INDX - BookManager Read (Create Bookshelf Index)
  X   EXIT    - Terminate ISPF using list/log defaults


  F1=HELP      F2=SPLIT     F3=END      F4=RETURN    F5=RFIND     F6=RCHANGE     F7=UP
F8=DOWN      F9=SWAP      F10=LEFT     F11=RIGHT    F12=RETRIEVE
```

.

Digite **START** na linha de comando <ENTER>.

```
  Menu  RefList  Utilities  Help
  ------------------------------------------------------------------------
                         Data Set Utility

   A Allocate new data set            C Catalog data set
```

```
     R Rename entire data set                U Uncatalog data set
  D Delete entire data set            S Data set information (short)      blank
  Data set information               M Allocate new data set
  V VSAM Utilities

                                                      ISPF Library:

     Project  . .
     Group  . . .
     Type . . . .

                              Other Partitioned, Sequential or VSAM Data Set:
     Data Set Name . . .
     Volume Serial . . .         (If not cataloged, required for option "C")

  Data Set Password  . .         (If password protected)

  Option ===> START
   F1=Help      F3=Exit     F10=Actions  F12=Cancel
```

Abrirá uma 3º tela.

```
                CUSTOMPAC MASTER APPLICATION MENU
  OPTION ===>                                        SCROLL ===> PAGE

                                          USERID - ALUNOJ2
                                          TIME  - 17:51

    IS  ISMF     - Interactive Storage Management Facility
    P   PDF      - ISPF/Program Development Facility
    IP  IPCS     - Interactive Problem Control Facility
    OS  SUPPORT  - OS/390 ISPF System Support Options
    OU  USER     - OS/390 ISPF User Options
    SM  SMP/E    - SMP/E Dialogs
    IC  ICSF     - Integrated Cryptographic Service Facility
    SD  SDSF     - System Display and Search Facility
    R   RACF     - Resource Access Control Facility
    HC  HCD      - Hardware Configuration Definition
    BMB BMR BLD  - BookManager Build (Create Online Documentation)
    BMR BMR READ - BookManager Read (Read Online Documentation)
    BMI BMR INDX - BookManager Read (Create Bookshelf Index)
    X   EXIT     - Terminate ISPF using list/log defaults

   F1=HELP     F2=SPLIT     F3=END       F4=RETURN    F5=RFIND    F6=RCHANGE
   F7=UP       F8=DOWN      F9=SWAP      F10=LEFT     F11=RIGHT   F12=RETRIEVE
```

.

Para ver a lista de Janelas digite **SWAP LIST** na linha de comando <ENTER>.

```
OPTION ===> SWAP LIST                                SCROLL ===> PAGE

                                             USERID - ALUNOJ2
                                             TIME  - 17:51

   IS  ISMF     - Interactive Storage Management Facility
   P   PDF      - ISPF/Program Development Facility
   IP  IPCS     - Interactive Problem Control Facility
   OS  SUPPORT  - OS/390 ISPF System Support Options
   OU  USER     - OS/390 ISPF User Options
   SM  SMP/E    - SMP/E Dialogs
   IC  ICSF     - Integrated Cryptographic Service Facility
   SD  SDSF     - System Display and Search Facility
   R   RACF     - Resource Access Control Facility
   HC  HCD      - Hardware Configuration Definition
   BMB BMR BLD  - BookManager Build (Create Online Documentation)
   BMR BMR READ - BookManager Read (Read Online Documentation)
   BMI BMR INDX - BookManager Read (Create Bookshelf Index)
   X   EXIT     - Terminate ISPF using list/log defaults


   F1=HELP     F2=SPLIT    F3=END     F4=RETURN   F5=RFIND    F6=RCHANGE    F7=UP
 F8=DOWN      F9=SWAP     F10=LEFT    F11=RIGHT   F12=RETRIEVE
```

Nesta tela abaixo teremos :

1. Última tela aberta terá somente o ID.
2. Penúltima tela aberta terá o ID mais um -.
3. Primeira tela aberta terá o ID mais um *.

Para abrir umas das telas posicione o cursor ao lado esquerdo da escolhida e tecle <ENTER>.


```
            CUSTOMPAC MASTER APPLICATION MENU
O .----------- ISPF Task List -----------.          SCROLL ===> PAGE
  |     Active ISPF Logical Sessions     |
  |                                      |          USERID - ALUNOJ2
  |    ID  Name      Panelid  Applid     |          TIME  - 17:51
  | |. 1   DSLIST    ISPSTRTP PDF        |
  | .  2-  EDIT      ISPSTRTP PDF        | ment Facility
  | .  3*            ISP@MSTR ISP        | acility
  | .                                    | l Facility
  | .                                    |  Options
  | .                                    |
  | .                                    |
  | .                                    | ervice Facility
  |                                      | Facility
  |                                      | cility
  | F1=Help     F3=Exit     F12=Cancel   | inition
  '--------------------------------------' Online Documentation)
  BMR BMR READ - BookManager Read (Read Online Documentation)
  BMI BMR INDX - BookManager Read (Create Bookshelf Index)
  X   EXIT     - Terminate ISPF using list/log defaults


   F1=HELP     F2=SPLIT    F3=END     F4=RETURN   F5=RFIND    F6=RCHANGE
```

Compilação.

Digite o programa, lembrando que para isso existem regras da linguagem COBOL. Informações no site sobre nossas apostila didática(COBOL).

```
       IDENTIFICATION   DIVISION.
       PROGRAM-ID.      EXER0001.
       AUTHOR.          FUTURE SCHOOL CURSOS DE COMPUTACAO.
*
* GERAR ARQUIVO DE PECAS SELECIONADAS
*
       ENVIRONMENT      DIVISION.
       CONFIGURATION    SECTION.
       SPECIAL-NAMES.
                 DECIMAL-POINT IS COMMA.
*
       INPUT-OUTPUT     SECTION.
       FILE-CONTROL.
          SELECT  CADPECA       ASSIGN  TO  UT-S-CADPECA
                  FILE STATUS   IS FS-CADPECA.
*
          SELECT  CADATU        ASSIGN  TO  UT-S-CADATU
                  FILE STATUS   IS FS-CADATU.
*
       DATA            DIVISION.
       FILE            SECTION.
*
       FD  CADPECA
           RECORD    CONTAINS 80  CHARACTERS
           RECORDING MODE    IS F          LABEL
RECORD    IS  STANDARD           DATA    RECORD
IS  REG-CADPECA.
       01  REG-CADPECA.
           05  COD-PECA             PIC  9(05).
           05  NOME-PECA            PIC  X(30).
           05  QTD-PECA             PIC  9(05).
           05  QTD-MINIMA           PIC  9(05).
           05  QTD-MAXIMA           PIC  9(05).
           05  FORNECEDOR           PIC  X(05).
           05  PR-UNITARIO          PIC  9(07)V99.
           05  PERDA                PIC  9(07)V99.
           05  TIPO                 PIC  X(01).
           05  FILLER               PIC  X(06).
     *
       FD  CADATU
           RECORD    CONTAINS  80  CHARACTERS
           RECORDING MODE       IS  F
LABEL     RECORD    IS  STANDARD           DATA
RECORD    IS  REG-CADATU.
       01  REG-CADATU.
           05  COD-ATU             PIC  9(05).
           05  NOME-ATU            PIC  X(30).
           05  QTD-ATU             PIC  9(05).
           05  QTD-MIN-ATU         PIC  9(05).
           05  QTD-MAX-ATU         PIC  9(05).
           05  FORN-ATU            PIC  X(05).
           05  PR-UNIT-ATU         PIC  9(07)V99.
           05  PERDA-ATU           PIC  9(07)V99.
           05  TIPO-ATU            PIC  X(01).
           05  FILLER              PIC  X(06).
*
       WORKING-STORAGE SECTION.
*
*  AREAS EDITADAS
*
       01  WS-LIDOS-ED             PIC  ZZZ.ZZZ.ZZZ.ZZ9.
       01  WS-GRAVADOS-ED          PIC  ZZZ.ZZZ.ZZZ.ZZ9.
```

```
.  *
*   ACUMULADORES
*
      77  ACUM-LIDOS                 PIC  9(12) VALUE 0.
      77  ACUM-GRAVADOS              PIC  9(12) VALUE 0.
*
*   FILE STATUS
*
      77  FS-CADPECA                 PIC  X(02) VALUE SPACES.
      77  FS-CADATU                  PIC  X(02) VALUE SPACES.
      77  FS-COD-STATUS              PIC  X(02) VALUE SPACES.
      77  FS-ARQUIVO                 PIC  X(08) VALUE SPACES.
      77  FS-OPERACAO                PIC  X(13) VALUE SPACES.
      77  FS-ABERTURA                PIC  X(13) VALUE 'NA ABERTURA'.         77  FS-
LEITURA             PIC  X(13) VALUE 'NA LEITURA'.        77  FS-GRAVACAO
PIC  X(13) VALUE 'NA GRAVACAO'.
      77  FS-FECHAMENTO              PIC  X(13) VALUE 'NO FECHAMENTO'.
      *
      PROCEDURE      DIVISION.

      *================================================================*
       000-00-INICIO                  SECTION.
      *================================================================*

          PERFORM    001-00-ABRIR-ARQUIVOS.

          PERFORM    002-00-VER-ARQ-VAZIO.

          PERFORM           003-00-TRATAR-CADPECA      UNTIL
FS-CADPECA EQUAL '10'.

          PERFORM    004-00-FECHAR-ARQUIVOS.

          STOP       RUN.

      *================================================================*
       001-00-ABRIR-ARQUIVOS          SECTION.
      *================================================================*

          MOVE    FS-ABERTURA          TO     FS-OPERACAO.

          OPEN      INPUT     CADPECA
OUTPUT  CADATU.

          PERFORM    001-01-TESTAR-FS.

       001-00-FIM.        EXIT.

      *================================================================*
       001-01-TESTAR-FS               SECTION.
      *================================================================*

          PERFORM    001-02-FS-CADPECA.

          PERFORM    001-03-FS-CADATU.

       001-01-FIM.                     EXIT.

      *================================================================*
       001-02-FS-CADPECA              SECTION.
      *================================================================*

          MOVE    'CADPECA'            TO     FS-ARQUIVO.

          MOVE    FS-CADPECA           TO     FS-COD-STATUS.

          IF  FS-CADPECA      NOT EQUAL    '00' AND '10'
PERFORM 900-00-ERRO          END-IF.
```

```
    001-02-FIM.                    EXIT.

   *================================================================*
    001-03-FS-CADATU               SECTION.
   *================================================================*                    MOVE
'CADATU'              TO      FS-ARQUIVO.

        MOVE    FS-CADATU                TO      FS-COD-STATUS.

        IF  FS-CADATU       NOT EQUAL   '00' AND '10'
PERFORM 900-00-ERRO            END-IF.

    001-03-FIM.                    EXIT.

   *================================================================*
    002-00-VER-ARQ-VAZIO           SECTION.
   *================================================================*

        PERFORM    002-01-LER-CADPECA.
        IF  FS-CADPECA      EQUAL   '10'
            DISPLAY '*************** EXER0001 ***************'
            DISPLAY '*                                      *'
            DISPLAY '*          ARQUIVO CADPECA VAZIO       *'
            DISPLAY '*                                      *'
            DISPLAY '*            PROGRAMA CANCELADO         *'
            DISPLAY '*                                      *'
            DISPLAY '*************** EXER0001 ***************'
            PERFORM  004-00-FECHAR-ARQUIVOS
STOP    RUN            END-IF.

    002-00-FIM.        EXIT.

   *================================================================*
    002-01-LER-CADPECA             SECTION.
   *================================================================*

        MOVE    FS-LEITURA               TO      FS-OPERACAO.

        READ    CADPECA.

        IF  FS-CADPECA      NOT EQUAL    '10'
            PERFORM 001-02-FS-CADPECA
            ADD     1                        TO      ACUM-LIDOS
END-IF.

    002-01-FIM.        EXIT.

   *================================================================*
    003-00-TRATAR-CADPECA          SECTION.
   *================================================================*

        PERFORM    003-01-GRAVAR-CADATU.

        PERFORM    002-01-LER-CADPECA.

    003-00-FIM.        EXIT.

   *================================================================*
    003-01-GRAVAR-CADATU           SECTION.
   *================================================================*

        WRITE   REG-CADATU               FROM    REG-CADPECA

        MOVE    FS-GRAVACAO              TO      FS-OPERACAO.

        PERFORM    001-03-FS-CADATU.

        ADD     1                TO      ACUM-GRAVADOS.
```

```
.
        003-01-FIM.         EXIT.

      *===============================================================*
       004-00-FECHAR-ARQUIVOS         SECTION.
      *===============================================================*                    MOVE
FS-FECHAMENTO            TO      FS-OPERACAO.

          CLOSE          CADPECA
CADATU.

          PERFORM    001-01-TESTAR-FS.

          MOVE    ACUM-LIDOS              TO     WS-LIDOS-ED.

          MOVE    ACUM-GRAVADOS          TO     WS-GRAVADOS-ED.

          DISPLAY         ' '.

          DISPLAY
          '************************************************************
-    '**********'
          DISPLAY
          '**                  ESTATISTICA DE PROCESSAMENTO
-    '       **'
          DISPLAY
          '**---------------------------------------------------------
-    '--------**'
          DISPLAY
          '**                      PROGRAMA EXER0001
-    '       **'
          DISPLAY
          '**---------------------------------------------------------
-    '--------**'
          DISPLAY
          '**  DDNAME  | FUN | DESCRICAO DO ARQUIVO      |    QUANTID
-    'ADE    **'
          DISPLAY
          '** -------- | --- | ------------------------ | -----------
-    '------- **'
          DISPLAY
          '** CADPECA  |  L  | CADASTRO DE PECAS         |  '
                                    WS-LIDOS-ED        '  **'
          DISPLAY
          '** CADATU   |  G  | CADATRO ATUALIZADO        |  '
                                    WS-GRAVADOS-ED      '  **'
          DISPLAY
          '**---------------------------------------------------------
-    '--------**'
          DISPLAY
          '************************************************************
-    '**********'.

          DISPLAY ' '.


        004-00-FIM.        EXIT.

      *===============================================================*
       900-00-ERRO                      SECTION.
      *===============================================================*

          DISPLAY '*************** EXER0001 ***************'
          DISPLAY '*                               *'
          DISPLAY '* ERRO ' FS-OPERACAO ' DO ARQUIVO ' FS-ARQUIVO ' *'
          DISPLAY '*                               *'
          DISPLAY '* FILE STATUS = ' FS-COD-STATUS
                   '                    *'
          DISPLAY '*                               *'
          DISPLAY '* PROGRAMA ENCERRADO'
```

```
                   '                        *'
              DISPLAY '*                                        *'
              DISPLAY  '***************  EXER0001  ***************'
  STOP    RUN.
  .
          900-00-FIM.           EXIT.
```

Tecle PF3
Copiar da biblioteca da escola FUTURE.FONTES.JCLS (JCOMPCOB). Dúvidas
volte na aula3.

Digite **E** editar compilador que na escola tem nome de JCOMCOB.

```
  Menu  Functions  Confirm  Utilities  Help
 ------------------------------------------------------------------------------
 EDIT            ALUNONA.FONTES.COBOL                    Row 00001 of 00005
          Name     Prompt      VV MM   Changed      Size  Init  Mod  ID
 _____  EXER0001             01.07 10/08/22 21:35   281   198  281 ALUNOJ2
 _E_       JCOMPCOB             01.41 08/03/05 21:40    35    35    0 IBMUSER
 _____  TESTE222             01.00 10/08/17 16:37     5     5    0 ALUNOJ2
 _____  TESTE555             01.00 10/08/17 16:37     5     5    0 ALUNOJ2
 _____  TESTE777             01.00 10/08/17 16:37     5     5    0 ALUNOJ2
          **End**
```

```
  Command ===>                                   Scroll ===> PAGE    F1=Help
 F3=Exit    F10=Actions  F12=Cancel
```

Mude NOTIFY=IBMUSER para seu NOTIFY=ALUNOXX.
Informações no site sobre nossas apostilas didáticas (JCLS).

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 ------------------------------------------------------------------------------
 EDIT       ALUNONA.FONTES.COBOL(JCOMPCOB) - 01.41        Columns 00001 00072
 ****** *************************** Top of Data **********************************
 000001 //JCOMPCOB JOB IBMUSERB,MSGCLASS=A,CLASS=C,NOTIFY=ALUNONA
 000002 //IGYWCLG PROC SYSLBLK=3200,
 000003 //            LIBPRFX='CEE'
 000004 //*
 000005 //COBOL  EXEC  PGM=IGYCRCTL,REGION=2048K,
 000006 //        PARM=(LIST,MAP,APOST,DYNAM)
 000007 //SYSPRINT DD  SYSOUT=*
 000008 //STEPLIB  DD  DISP=SHR,DSN=IGY.V2R1M0.SIGYCOMP
 000009 //SYSLIN   DD  DSNAME=&&LOADSET,UNIT=SYSDA,
 000010 //            DISP=(MOD,PASS),SPACE=(TRK,(3,3)),
 000011 //            DCB=(BLKSIZE=&SYSLBLK)
 000012 //SYSUT1   DD  UNIT=SYSDA,SPACE=(CYL,(1,1))
 000013 //SYSUT2   DD  UNIT=SYSDA,SPACE=(CYL,(1,1))
 000014 //SYSUT3   DD  UNIT=SYSDA,SPACE=(CYL,(1,1))
 000015 //SYSUT4   DD  UNIT=SYSDA,SPACE=(CYL,(1,1))
 000016 //SYSUT5   DD  UNIT=SYSDA,SPACE=(CYL,(1,1))
 000017 //SYSUT6   DD  UNIT=SYSDA,SPACE=(CYL,(1,1))
 000018 //SYSUT7   DD  UNIT=SYSDA,SPACE=(CYL,(1,1))
 Command ===>                                      Scroll ===> PAGE
  F1=Help     F3=Exit      F5=Rfind     F6=Rchange  F12=Cancel
```

Podemos observar que na linha 000026 entre parênteses digite o membro a ser compilado EXER0001 , na Linha 000035 mude DSN=FUTURE para seu aluno DSN=ALUNOXX e entre parênteses digite o membro a ser compilado EXER0001.

```
 File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 -------------------------------------------------------------------------------
EDIT        ALUNONA.FONTES.COBOL(JCOMPCOB) - 01.42         Columns 00001 00072
000019 //LKED   EXEC PGM=HEWL,COND=(4,LT,COBOL),REGION=1024K
000020 //SYSLIB   DD  DSNAME=&LIBPRFX..SCEELKED,DISP=SHR
000021 //         DD  DSN=CSF.SCSFMOD0,DISP=SHR
000022 //         DD  DSN=IBMUSER.PGMS.LOADLIB,DISP=SHR
000023 //SYSPRINT DD  SYSOUT=*
000024 //SYSLIN   DD  DSNAME=&&LOADSET,DISP=(OLD,DELETE)
000025 //         DD  DDNAME=SYSIN
000026 //SYSLMOD  DD DSN=FUTURE.LMODUL.COBOL(EXER0001),DISP=SHR
000027 //SYSUT1   DD  UNIT=SYSDA,SPACE=(TRK,(10,10))
000028 //STEPLIB  DD  DSNAME=&LIBPRFX..SCEERUN,DISP=SHR
000029 //SYSPRINT DD  SYSOUT=A
000030 //CEEDUMP  DD  SYSOUT=*
000031 //SYSUDUMP DD  SYSOUT=*
000032 //SYSOUT   DD  SYSOUT=A
000033 //         PEND
000034 //COBGO    EXEC  IGYWCLG
000035 //COBOL.SYSIN DD DSN=ALUNONA.FONTES.COBOL(EXER0001),DISP=SHR
****** **************************** Bottom of Data ***************************

 Command ===>                                        Scroll ===> PAGE    F1=Help
F3=Exit      F5=Rfind      F6=Rchange  F12=Cancel
```

Digite na linha de comando **SUBMIT** ou **SUB**<ENTER>.

```
  File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 -------------------------------------------------------------------------------
EDIT        ALUNONA.FONTES.COBOL(JCOMPCOB) - 01.42         Columns 00001 00072
000019 //LKED   EXEC PGM=HEWL,COND=(4,LT,COBOL),REGION=1024K
000020 //SYSLIB   DD  DSNAME=&LIBPRFX..SCEELKED,DISP=SHR
000021 //         DD  DSN=CSF.SCSFMOD0,DISP=SHR
000022 //         DD  DSN=IBMUSER.PGMS.LOADLIB,DISP=SHR
000023 //SYSPRINT DD  SYSOUT=*
000024 //SYSLIN   DD  DSNAME=&&LOADSET,DISP=(OLD,DELETE)
000025 //         DD  DDNAME=SYSIN
000026 //SYSLMOD  DD DSN=FUTURE.LMODUL.COBOL(EXER0001),DISP=SHR
000027 //SYSUT1   DD  UNIT=SYSDA,SPACE=(TRK,(10,10))
000028 //STEPLIB  DD  DSNAME=&LIBPRFX..SCEERUN,DISP=SHR
000029 //SYSPRINT DD  SYSOUT=A
000030 //CEEDUMP  DD  SYSOUT=*
000031 //SYSUDUMP DD  SYSOUT=*
000032 //SYSOUT   DD  SYSOUT=A
000033 //         PEND
000034 //COBGO    EXEC  IGYWCLG
000035 //COBOL.SYSIN DD DSN=ALUNONA.FONTES.COBOL(EXER0001),DISP=SHR
****** **************************** Bottom of Data ***************************
```

```
Command ===> SUB                                    Scroll ===> PAGE    F1=Help
F3=Exit      F5=Rfind      F6=Rchange  F12=Cancel
```

.

Mensagem na tela de job submetido.

```
IKJ56250I JOB JCOMPCOB(JOB06081) SUBMITTED
***
```

Tecle <ENTER>.

```
23.01.17 JOB06081 $HASP165 JCOMPCOB ENDED AT N1   MAXCC=8 CN(INTERNAL)
 ***
```

Tecle <ENTER>.

Podemos observar que o return code MAXCC=8;

O compilador indica ao programador se deu erro ou não através do Return Code *'retornando um código', veremos abaixo;*

MAXCC=**0** → indica que não ouve erro.

MAXCC=**4** → indica que existe alguns comentários do compilador,mas não houve erro.

MAXCC=**8** → indica que houve erro de compilação é necessário à correção.

MAXCC=12 → indica que houve erro grave de compilação é necessário à correção.

Digite **START** na linha de comando <ENTER> para abrir uma janela,vamos na tela chamada spool editar o compilador JCOMPCOB e ver a linha que está o erro no programa.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 ------------------------------------------------------------------------------
 EDIT       ALUNONA.FONTES.COBOL(JCOMPCOB) - 01.42       Columns 00001 00072
 000019 //LKED    EXEC PGM=HEWL,COND=(4,LT,COBOL),REGION=1024K
 000020 //SYSLIB   DD  DSNAME=&LIBPRFX..SCEELKED,DISP=SHR
 000021 //         DD DSN=CSF.SCSFMOD0,DISP=SHR
 000022 //         DD DSN=IBMUSER.PGMS.LOADLIB,DISP=SHR
 000023 //SYSPRINT DD  SYSOUT=*
 000024 //SYSLIN   DD  DSNAME=&&LOADSET,DISP=(OLD,DELETE)
 000025 //         DD  DDNAME=SYSIN
 000026 //SYSLMOD  DD DSN=FUTURE.LMODUL.COBOL(EXER0001),DISP=SHR
 000027 //SYSUT1   DD  UNIT=SYSDA,SPACE=(TRK,(10,10))
 000028 //STEPLIB  DD  DSNAME=&LIBPRFX..SCEERUN,DISP=SHR
 000029 //SYSPRINT DD  SYSOUT=A
 000030 //CEEDUMP  DD  SYSOUT=*
 000031 //SYSUDUMP DD  SYSOUT=*
 000032 //SYSOUT   DD  SYSOUT=A
```

```
000033 //          PEND
000034 //COBGO   EXEC  IGYWCLG
000035 //COBOL.SYSIN DD DSN=ALUNONA.FONTES.COBOL(EXER0001),DISP=SHR
****** ***************************** Bottom of Data ***************************

Command ===> START                                Scroll ===> PAGE    F1=Help
F3=Exit      F5=Rfind     F6=Rchange  F12=Cancel
```

Digite na Linha de comando opção SD.ST <ENTER>.

```
                   CUSTOMPAC MASTER APPLICATION MENU
OPTION ===> SD.ST                                  SCROLL ===> PAGE

                                        USERID - ALUNONA
                                        TIME   - 23:13

  IS  ISMF     - Interactive Storage Management Facility
  P   PDF      - ISPF/Program Development Facility
  IP  IPCS     - Interactive Problem Control Facility
  OS  SUPPORT  - OS/390 ISPF System Support Options
  OU  USER     - OS/390 ISPF User Options
  SM  SMP/E    - SMP/E Dialogs
  IC  ICSF     - Integrated Cryptographic Service Facility
  SD  SDSF     - System Display and Search Facility
  R   RACF     - Resource Access Control Facility
  HC  HCD      - Hardware Configuration Definition
  BMB BMR BLD  - BookManager Build (Create Online Documentation)
  BMR BMR READ - BookManager Read (Read Online Documentation)
  BMI BMR INDX - BookManager Read (Create Bookshelf Index)
  X   EXIT     - Terminate ISPF using list/log defaults

  F1=HELP      F2=SPLIT     F3=END      F4=RETURN   F5=RFIND     F6=RCHANGE      F7=UP
F8=DOWN        F9=SWAP      F10=LEFT    F11=RIGHT   F12=RETRIEVE
```

Cursor na opção FILTER <ENTER>.

```
  Display  F|ilter  View  Print  Options  Help
---------------------------------------------------------------------------
 SDSF STATUS DISPLAY ALL CLASSES                      LINE 1-1 (1)
 NP   JOBNAME  JOBID     OWNER    PRTY QUEUE      C  POS  SAFF  ASYS STATUS
      ALUNONA  TSU06080  ALUNONA   15 EXECUTION             SYS1  SYS1




 COMMAND INPUT ===>                                    SCROLL ===> PAGE
  F1=HELP      F2=SPLIT     F3=END      F4=RETURN   F5=IFIND     F6=BOOK       F7=UP
F8=DOWN        F9=SWAP      F10=LEFT    F11=RIGHT   F12=RETRIEVE
```

Digite opção **2** <ENTER>.

```
  Display  Filter  View  Print  Options  Help
-------- .----------------------------. -----------------------------------
SDSF STA |  2  1. Filter...            |            LINE 1-1 (1)
NP   JOB |     2. Prefix of jobname... | E    C  POS  SAFF  ASYS STATUS
     ALU |     3. Owner...             | UTION          SYS1 SYS1
         |     4. Destination...       |
         |     5. System name...       |
         |     6. Change APPC to OFF   |
         '----------------------------'






COMMAND INPUT ===>                                      SCROLL ===> PAGE
 F1=HELP     F2=SPLIT     F3=END       F4=RETURN   F5=IFIND     F6=BOOK
```

Digite * <ENTER>.

```
  Display  Filter  View  Print  Options  Help
-------- .------------------------------------------------. ---------------------
SDSF STA |               Prefix of Jobname                | E 1-1 (1)
NP   JOB |                                                | FF  ASYS STATUS
     ALU | Type a prefix to limit jobs on the DA, H,      | S1  SYS1
         | I, O and ST panels.                            |
         |                                                |
         | *           (string, may include * and %)      |
         |                                                |
         | F1=Help    F2=Split   F3=Cancel  F9=Swap       |
         | F12=Cancel                                     |
         '------------------------------------------------'
```

```
COMMAND INPUT ===>                                          SCROLL ===> PAGE
 F1=HELP     F2=SPLIT     F3=END     F4=RETURN     F5=IFIND     F6=BOOK
```

.

Podemos visualizar tudo que está sendo rodado no spool.

```
 Display  Filter  View  Print  Options  Help
-------------------------------------------------------------------------------
 SDSF STATUS DISPLAY ALL CLASSES                              LINE 1-16 (23)
 NP    JOBNAME  JOBID    OWNER    PRTY QUEUE       C  POS  SAFF  ASYS STATUS
       ALUNONA  TSU06080 ALUNONA   15 EXECUTION           SYS1  SYS1
       RACF     STC06048 IBMUSER   15 EXECUTION           SYS1  SYS1
       SYSLOG   STC06051 +MASTER+  15 EXECUTION           SYS1  SYS1
       VTAM     STC06043 Y         15 EXECUTION           SYS1  SYS1
       INIT     STC06047 Y         15 EXECUTION           SYS1  SYS1
       BPXAS    STC06046 Y         15 EXECUTION           SYS1  SYS1
       INIT     STC06050 Y         15 EXECUTION           SYS1  SYS1
       INIT     STC06049 Y         15 EXECUTION           SYS1  SYS1
       INIT     STC06052 Y         15 EXECUTION           SYS1  SYS1
       TSO      STC06053 Y         15 EXECUTION           SYS1  SYS1
       TCPIP    STC06054 OMVSKERN  15 EXECUTION           SYS1  SYS1
       $MASCOMM STC01874           15 PRINT       A   1
       IBMUSER  TSU06066 IBMUSER    1 PRINT           2
       ALUNOA1  TSU06069 ALUNOA1    1 PRINT           3
       JCOMPCOB JOB06071 ALUNOJ2    1 PRINT       C   4
       ALUNOJ2C JOB06072 ALUNOJ2    1 PRINT       A   5
 COMMAND INPUT ===>                                          SCROLL ===> PAGE
  F1=HELP       F2=SPLIT      F3=END      F4=RETURN    F5=IFIND    F6=BOOK        F7=UP
 F8=DOWN      F9=SWAP     F10=LEFT    F11=RIGHT    F12=RETRIEVE
```

Cursor na opção FILTER <ENTER>. Digite
opção **3** <ENTER>.

```
 Display  Filter  View  Print  Options  Help
-------- .---------------------------. -------------------------------------
 SDSF STA | 3 |1. Filter...           |          LINE 1-16 (23)
 NP  JOB |    2. Prefix of jobname... | E    C  POS  SAFF  ASYS STATUS
     ALU |    3. Owner...             | UTION         SYS1  SYS1
     RAC |    4. Destination...       | UTION         SYS1  SYS1
     SYS |    5. System name...       | UTION         SYS1  SYS1
     VTA |    6. Change APPC to OFF   | UTION         SYS1  SYS1
     INI '---------------------------' UTION          SYS1  SYS1
     BPXAS    STC06046 Y         15 EXECUTION         SYS1  SYS1
     INIT     STC06050 Y         15 EXECUTION         SYS1  SYS1
     INIT     STC06049 Y         15 EXECUTION         SYS1  SYS1
```

```
       INIT     STC06052 Y            15 EXECUTION          SYS1  SYS1
       TSO      STC06053 Y            15 EXECUTION          SYS1  SYS1
       TCPIP    STC06054 OMVSKERN     15 EXECUTION          SYS1  SYS1
       $MASCOMM STC01874             15 PRINT       A     1
       IBMUSER  TSU06066 IBMUSER      1 PRINT             2
       ALUNOA1  TSU06069 ALUNOA1      1 PRINT             3
       JCOMPCOB JOB06071 ALUNOJ2      1 PRINT       C     4
       ALUNOJ2C JOB06072 ALUNOJ2      1 PRINT       A     5

 COMMAND INPUT ===>                                    SCROLL ===> PAGE
  F1=HELP      F2=SPLIT     F3=END       F4=RETURN   F5=IFIND    F6=BOOK
```

.

Digite o seu aluno,visualizaremos apenas o compilador do aluno<ENTER>.

```
   Display  Filter  View  Print  Options  Help
 -------- .---------------------------------------------. ---------------------
 SDSF STA |                   Owner                     | E 1-16 (23)
 NP   JOB |                                             | FF  ASYS STATUS
      ALU | Type an owner to limit jobs on the DA, H,   | S1  SYS1
      RAC | I, O and ST panels.                         | S1  SYS1
      SYS |                                             | S1  SYS1
      VTA |  ALUNONA    (string, may include * and %)   | S1  SYS1
      INI |                                             | S1  SYS1
      BPX |  F1=Help    F2=Split   F3=Cancel  F9=Swap   | S1  SYS1
      INI | F12=Cancel                                  | S1  SYS1
      INI '---------------------------------------------' S1  SYS1
      INIT     STC06052 Y            15 EXECUTION          SYS1  SYS1
      TSO      STC06053 Y            15 EXECUTION          SYS1  SYS1
      TCPIP    STC06054 OMVSKERN     15 EXECUTION          SYS1  SYS1
      $MASCOMM STC01874             15 PRINT       A     1
      IBMUSER  TSU06066 IBMUSER      1 PRINT             2
      ALUNOA1  TSU06069 ALUNOA1      1 PRINT             3
      JCOMPCOB JOB06071 ALUNOJ2      1 PRINT       C     4
      ALUNOJ2C JOB06072 ALUNOJ2      1 PRINT       A     5

 COMMAND INPUT ===>                                   SCROLL ===> PAGE    F1=HELP
 F2=SPLIT     F3=END       F4=RETURN    F5=IFIND     F6=BOOK
```

Podemos observar que estamos visualizando apenas referente a nosso aluno.

```
   Display  Filter  View  Print  Options  Help
 ------------------------------------------------------------------------------
 SDSF STATUS DISPLAY ALL CLASSES                           LINE 1-2 (2)
 NP   JOBNAME  JOBID    OWNER    PRTY QUEUE        C  POS  SAFF  ASYS STATUS
      ALUNONA  TSU06080 ALUNONA   15 EXECUTION            SYS1  SYS1
      JCOMPCOB JOB06081 ALUNONA    1 PRINT        C   12
```

```
 COMMAND INPUT ===>                                        SCROLL ===> PAGE
   F1=HELP     F2=SPLIT     F3=END     F4=RETURN    F5=IFIND    F6=BOOK        F7=UP
 F8=DOWN      F9=SWAP     F10=LEFT    F11=RIGHT    F12=RETRIEVE
```

.

Seleção do job no spool é feita pelo **S** → select,tecle **S** <ENTER>.

```
   Display  Filter  View  Print  Options  Help
 ------------------------------------------------------------------------------
  SDSF STATUS DISPLAY ALL CLASSES                        LINE 1-2 (2)
  NP   JOBNAME  JOBID    OWNER    PRTY QUEUE        C  POS  SAFF  ASYS STATUS
 ALUNONA   TSU06080 ALUNONA    15 EXECUTION           SYS1  SYS1                   s
 JCOMPCOB JOB06081 ALUNONA     1 PRINT      C    12
```

```
 COMMAND INPUT ===>                                        SCROLL ===> PAGE
   F1=HELP     F2=SPLIT     F3=END     F4=RETURN    F5=IFIND    F6=BOOK
   F7=UP       F8=DOWN      F9=SWAP    F10=LEFT    F11=RIGHT    F12=RETRIEVE
```

Digite na linha de comando **M** e tecle PF8.

```
   Display  Filter  View  Print  Options  Help
 ------------------------------------------------------------------------------
  SDSF OUTPUT DISPLAY JCOMPCOB JOB06081  DSID     2 LINE 0        COLUMNS 02- 81
 COMMAND INPUT ===> M                                    SCROLL ===> PAGE
 *****************************  TOP OF DATA  ********************************
                     J E S 2   J O B   L O G  --  S Y S T E M   S Y S 1  --  N
```

```
23.01.14 JOB06081 ---- MONDAY,   23 AUG 2010 ----                     23.01.14
JOB06081  IRR010I  USERID ALUNONA  IS ASSIGNED TO THIS JOB.           23.01.14
JOB06081  IEF677I WARNING MESSAGE(S) FOR JOB JCOMPCOB ISSUED          23.01.15
JOB06081  ICH70001I ALUNONA  LAST ACCESS AT 22:58:54 ON MONDAY, AUGUST  23.01.15
JOB06081  $HASP373 JCOMPCOB STARTED - INIT 3   - CLASS C - SYS SYS1   23.01.15
JOB06081  IEF403I JCOMPCOB - STARTED - TIME=23.01.15                  23.01.17
JOB06081  -                                         --TIMINGS (M 23.01.17
JOB06081  -JOBNAME   STEPNAME PROCSTEP   RC   EXCP   CONN    TCB   SRB 23.01.17
JOB06081  -JCOMPCOB          COBGO       08    722      0    .01   .00 23.01.17
JOB06081  -JCOMPCOB          COBGO  FLUSH  0      0    .00   .00 23.01.17
JOB06081  IEF404I JCOMPCOB - ENDED - TIME=23.01.17                    23.01.17
JOB06081  -JCOMPCOB ENDED.  NAME-                     TOTAL TCB CPU TIM 23.01.17
JOB06081  $HASP395 JCOMPCOB ENDED                                    ------
JES2 JOB STATISTICS ------
  F1=HELP     F2=SPLIT    F3=END     F4=RETURN   F5=IFIND    F6=BOOK     F7=UP
F8=DOWN     F9=SWAP     F10=LEFT    F11=RIGHT   F12=RETRIEVE
```

.

Tecle PF7 procure a linha LineID Message code Messade text,após essa linha visualizo erros do programa e 'em que linhas eles estão'.

```
WRK-STOR LOCATED AT 001290 FOR 000000AD BYTES
DSA       WILL BE ALLOCATED FOR 00000120 BYTES
PP 5648-A25 IBM COBOL for OS/390 & VM  2.1.2              EXER0001  Date 08
LineID  Message code  Message text

   17  IGYDS1082-E   A period was required.  A period was assumed before "SELEC
                                                                              34
IGYDS1082-E   A period was required.  A period was assumed before "05".
Messages    Total    Informational    Warning    Error    Severe    Terminating
Printed:       2                                    2                          *
Statistics for COBOL program EXER0001:
*    Source records = 281
*    Data Division statements = 33
*    Procedure Division statements = 78                                End of
     compilation 1,  program EXER0001,  highest severity 8.
Return code 8
****************************** BOTTOM OF DATA *******************************
  F1=HELP     F2=SPLIT    F3=END     F4=RETURN   F5=IFIND    F6=BOOK     F7=UP
F8=DOWN     F9=SWAP     F10=LEFT    F11=RIGHT   F12=RETRIEVE
```

Sei que linhas estão os erros,vou editar o membro EXER001.

PF9 Navegar entre duas sessões
Tecle PF9 e navegue, variando entre as telas

Na 1º tela estou com o compilador editado (JCOMPCOB) na outra com as linhas que estão os erros.

```
  File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 -------------------------------------------------------------------------
 EDIT       ALUNONA.FONTES.COBOL(JCOMPCOB) - 01.42        Columns 00001 00072
```

```
000016 //SYSUT5   DD  UNIT=SYSDA,SPACE=(CYL,(1,1))
000017 //SYSUT6   DD  UNIT=SYSDA,SPACE=(CYL,(1,1))
000018 //SYSUT7   DD  UNIT=SYSDA,SPACE=(CYL,(1,1))
000019 //LKED   EXEC PGM=HEWL,COND=(4,LT,COBOL),REGION=1024K
000020 //SYSLIB   DD  DSNAME=&LIBPRFX..SCEELKED,DISP=SHR
000021 //         DD  DSN=CSF.SCSFMOD0,DISP=SHR
000022 //         DD  DSN=IBMUSER.PGMS.LOADLIB,DISP=SHR
000023 //SYSPRINT DD  SYSOUT=*
000024 //SYSLIN   DD  DSNAME=&&LOADSET,DISP=(OLD,DELETE)
000025 //         DD  DDNAME=SYSIN
000026 //SYSLMOD  DD  DSN=FUTURE.LMODUL.COBOL(EXER0001),DISP=SHR
000027 //SYSUT1   DD  UNIT=SYSDA,SPACE=(TRK,(10,10))
000028 //STEPLIB  DD  DSNAME=&LIBPRFX..SCEERUN,DISP=SHR
000029 //SYSPRINT DD  SYSOUT=A
000030 //CEEDUMP  DD  SYSOUT=*
000031 //SYSUDUMP DD  SYSOUT=*
000032 //SYSOUT   DD  SYSOUT=A
000033 //         PEND
Command ===>                                          Scroll ===> PAGE    F1=Help
F3=Exit    F5=Rfind    F6=Rchange  F12=Cancel
```

. Tecle PF3

Edite o membro.

```
 Menu  Functions  Confirm  Utilities  Help
-------------------------------------------------------------------------------
EDIT             ALUNONA.FONTES.COBOL                     Row 00001 of 00005
         Name     Prompt       VV MM   Changed        Size  Init  Mod   ID
    E    EXER0001 *Edited     01.09 10/08/23 22:48    281   198  281 ALUNOJ2
_____  JCOMPCOB *Edited     01.42 10/08/23 22:35     35    35    0 ALUNOJ2
_____  TESTE222             01.00 10/08/17 16:37      5     5    0 ALUNOJ2
_____  TESTE555             01.00 10/08/17 16:37      5     5    0 ALUNOJ2
_____  TESTE777             01.00 10/08/17 16:37      5     5    0 ALUNOJ2
         **End**




 Command ===>                                          Scroll ===> PAGE    F1=Help
 F3=Exit    F10=Actions  F12=Cancel
```

Tecle PF9 e navegue, variando entre as telas.

Tire os erros que aprenderemos na apostila de COBOL e vamos submeter novamente o job de compilação.

Editaremos novamente o compilador JCOMPCOB.

```
Menu  Functions  Confirm  Utilities  Help
 ------------------------------------------------------------------------------
 EDIT            ALUNONA.FONTES.COBOL                    Row 00001 of 00005
          Name     Prompt       VV MM   Changed      Size  Init  Mod  ID
 _____ EXER0001 *Edited      01.10 10/08/24 00:14   281   198  281 ALUNONA
 E_____ JCOMPCOB *Edited      01.42 10/08/23 22:35    35    35    0 ALUNOJ2
 _____ TESTE222              01.00 10/08/17 16:37     5     5    0 ALUNOJ2
 _____ TESTE555              01.00 10/08/17 16:37     5     5    0 ALUNOJ2
 _____ TESTE777              01.00 10/08/17 16:37     5     5    0 ALUNOJ2
          **End**




















 Command ===>                                           Scroll ===> PAGE
  F1=Help     F3=Exit      F10=Actions  F12=Cancel
```
.

Submeter novamente, SUB<ENTER>.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 ------------------------------------------------------------------------------
 EDIT       ALUNONA.FONTES.COBOL(JCOMPCOB) - 01.42        Columns 00001 00072
 ****** **************************** Top of Data ******************************
 ==MSG> -Warning- The UNDO command is not available until you change       ==MSG>
 your edit profile using the command RECOVERY ON.
 000001 //JCOMPCOB JOB IBMUSERB,MSGCLASS=A,CLASS=C,NOTIFY=ALUNONA
 000002 //IGYWCLG PROC SYSLBLK=3200,
 000003 //             LIBPRFX='CEE'
 000004 //*
 000005 //COBOL   EXEC  PGM=IGYCRCTL,REGION=2048K,
 000006 //          PARM=(LIST,MAP,APOST,DYNAM)
 000007 //SYSPRINT DD   SYSOUT=*
 000008 //STEPLIB  DD   DISP=SHR,DSN=IGY.V2R1M0.SIGYCOMP
 000009 //SYSLIN   DD   DSNAME=&&LOADSET,UNIT=SYSDA,
 000010 //              DISP=(MOD,PASS),SPACE=(TRK,(3,3)),
 000011 //              DCB=(BLKSIZE=&SYSLBLK)
 000012 //SYSUT1   DD   UNIT=SYSDA,SPACE=(CYL,(1,1))
 000013 //SYSUT2   DD   UNIT=SYSDA,SPACE=(CYL,(1,1))
 000014 //SYSUT3   DD   UNIT=SYSDA,SPACE=(CYL,(1,1))
 000015 //SYSUT4   DD   UNIT=SYSDA,SPACE=(CYL,(1,1))
 Command ===> SUB                                        Scroll ===> PAGE
  F1=Help     F3=Exit      F5=Rfind    F6=Rchange  F12=Cancel
```

Mensagem na tela de job submetido.

```
 IKJ56250I JOB JCOMPCOB(JOB06083) SUBMITTED
 ***
```

Tecle <ENTER>.

```
00.22.53 JOB06083 $HASP165 JCOMPCOB ENDED AT N1  MAXCC=0 CN(INTERNAL) ***
```

Foi gerado um módulo carga em linguagem máquina.