



4º AULA

Introdução ao TSO

Comandos Diversos

Í n d i c e

1	Scrool	Erro! Indicador não definido.
2	File Transfer_.....	7
3	Start.....	10
4	Swap list.....	11
4	Compilação.....	14

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 ===>
F1=Help      F3=Exit      F5=Rfind      F6=Rchange  F12=Cancel

Scroll ===> CSR
```

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 ===>
F1=Help      F3=Exit      F5=Rfind      F6=Rchange  F12=Cancel

Scroll ===> CSR
```

Com o cursor na linha 002900 e tecla 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 ==>
F1=Help    F3=Exit    F5=Rfind    F6=Rchange    F12=Cancel

```

Scro1l ==> CSR

Com o cursor na linha de comando teclando PF8 posso avançar página a página 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      DISPLAY '*'
027400      DISPLAY '*'
027500      DISPLAY '* PROGRAMA ENCERRADO'
027600      DISPLAY '*'
027700      DISPLAY '*'
027800      DISPLAY '***** EXER0001 *****'
027900      STOP RUN.
028000
028100      900-00-FIM.          EXIT.
***** ***** Bottom of Data *****
Command ==> |
F1=Help    F3=Exit    F5=Rfind    F6=Rchange    F12=Cancel

```

Scro1l ==> CSR

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 Scroll 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 início 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 TRANSFER – TRANSFERÊNCIAS 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 tecla <ENTER>.

```
OPTION ===> P CUSTOMPAC MASTER APPLICATION MENU          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 tecla <ENTER>.

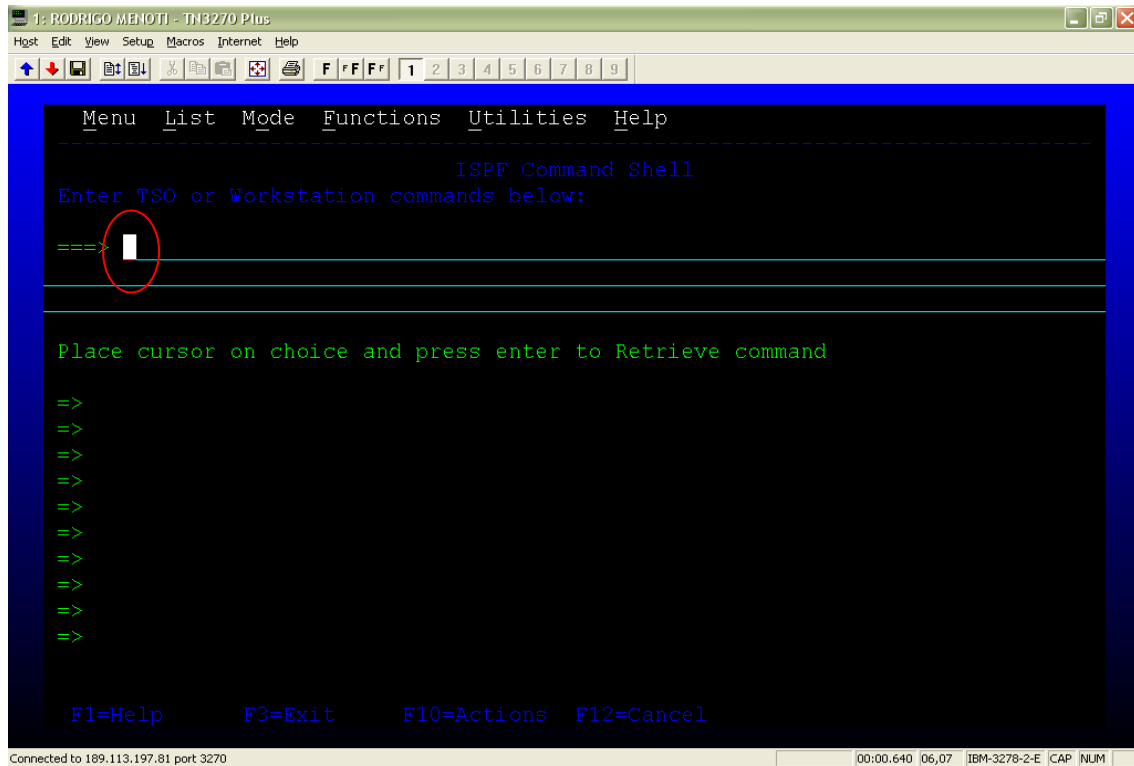
```
Menu  Utilities  Compilers  Options  Status  Help
-----
ISPF Primary Option Menu          Invalid option

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

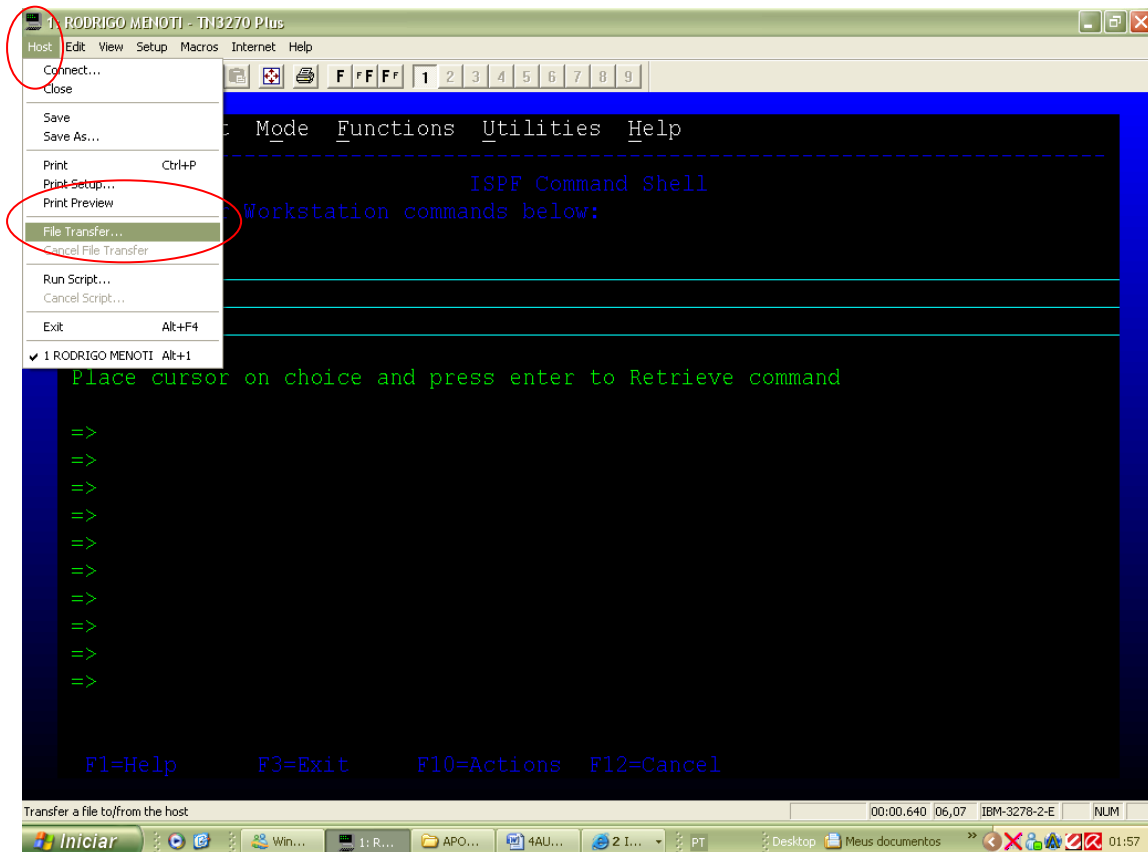
Enter X to Terminate using log/list defaults

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

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



Com o mouse clique em Host, e após na opção File Transfer



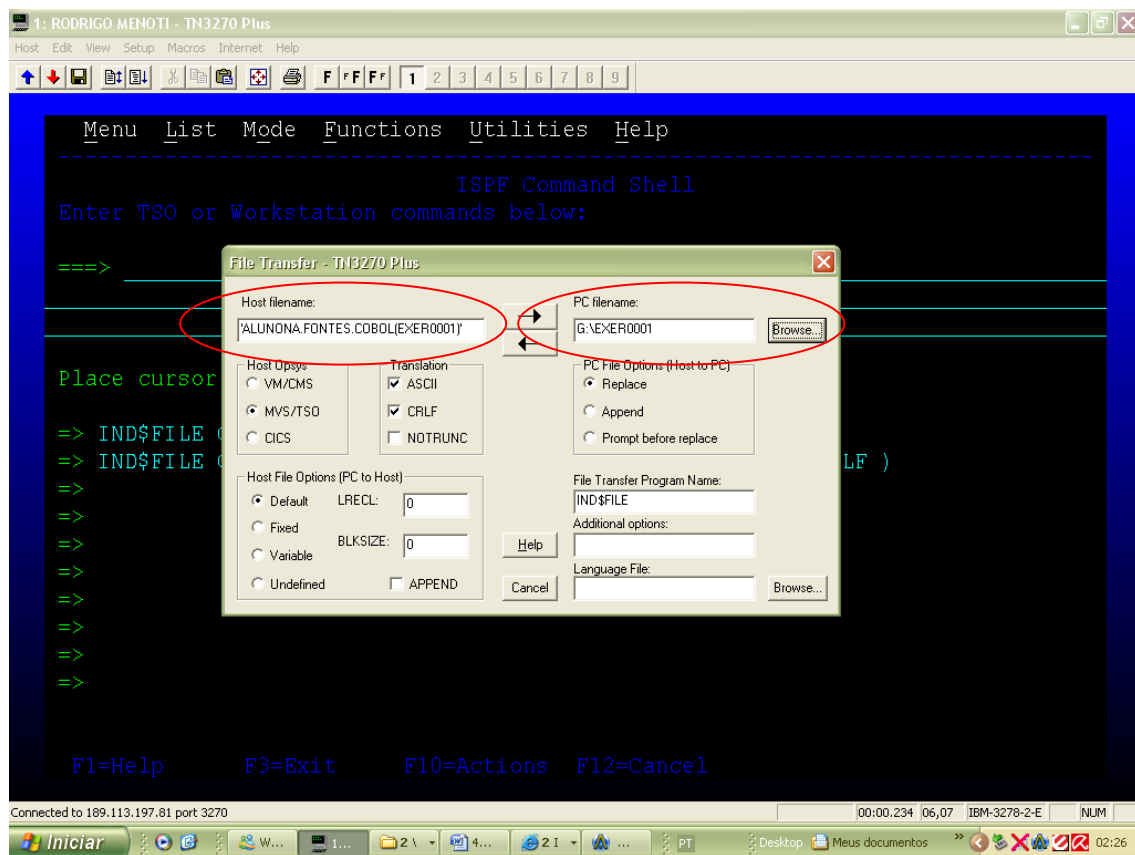
Vejam como preencher as informações necessárias.

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 clicar 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** tecla <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 Alternar entre as duas janelas

Tecla 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
F1=Help      F3=Exit      F10=Actions  F12=Cancel

```

O comando start abrirá uma 2ª tela.

Digite OPTION P.3.2 <ENTER>

```

OPTION ==> P.3.2
CUSTOMPAC MASTER APPLICATION MENU
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
      R Rename entire data set
      D Delete entire data set
blank Data set information

      C Catalog data set
      U Uncatalog data set
      S Data set information (short)
      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>.

```

CUSTOMPAC MASTER APPLICATION MENU
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 |
| ID Name Panelid Applid | USERID - ALUNOJ2
| |. 1 DSLIST ISPSTRTP PDF | TIME - 17:51
| |. 2- EDIT ISPSTRTP PDF | ment Facility
| |. 3* ISP@MSTR ISP | acility
| |. | | l Facility
| |. | | Options
| |. | |
| |. | | ervice Facility
| |. | | Facility
| |. | | cility
| |. | | inition
| F1=Help F3=Exit F12=Cancel | 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.

```

Tecla 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				
	Name	Prompt	VV MM	Changed
	EXER0001		01.07 10/08/22	21:35
	JCOMPCOB		01.41 08/03/05	21:40
	TESTE222		01.00 10/08/17	16:37
	TESTE555		01.00 10/08/17	16:37
	TESTE777		01.00 10/08/17	16:37
	End			

Command ==>

F1=Help

F3=Exit

F10=Actions

F12=Cancel

Scroll ==> PAGE

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
*****	*****	*****	*****	*****	*****	*****	*****
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  DSNNAME=&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  DSNNAME=&&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  DSNNAME=&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  DSNNAME=&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  DSNNAME=&&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  DSNNAME=&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  
***
```

Tecla <ENTER>.

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

Tecla <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 houve 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 DSN=&LIBPRFX..SCEELKED,DISP=SHR  
000021 // DD DSN=CSF.SCSFMOD0,DISP=SHR  
000022 // DD DSN=IBUSER.PGMS.LOADLIB,DISP=SHR  
000023 //SYSPRINT DD SYSOUT=*  
000024 //SYSLIN DD DSN=&&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 DSN=&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 Filter 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 ===>
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 ===>
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
IBMUER     TSU06066 IBMUER     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 ==>
F1=HELP      F2=SPLIT      F3=END      F4=RETURN      F5=IFIND      F6=BOOK
SCROLL ==> PAGE

```

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

```


Seleção do job no spool é feita pelo **S** → select, tecla **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
   JCOMPCOB JOB06081 ALUNONA  1 PRINT  C  12

```

```

COMMAND INPUT ==>
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 tecla 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

```

Tecla PF7 procure a linha LineID Message code Message 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
PF 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
* 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

Tecla 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  DSNNAME=&LIBPRFX..SCEELKED,DISP=SHR
000021 //          DD  DSN=CSF.SCSFMOD0,DISP=SHR
000022 //          DD  DSN=IBUSER.PGMS.LOADLIB,DISP=SHR
000023 //SYSPRINT  DD  SYSOUT=*
000024 //SYSLIN   DD  DSNNAME=&&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  DSNNAME=&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 ==>
F1=Help      F3=Exit      F5=Rfind      F6=Rchange      F12=Cancel
Scroll ==> PAGE
  
```

Tecla PF3

Edite o membro.

```
Menu  Functions  Confirm  Utilities  Help
-----
EDIT                                     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 ==>

F1=Help F3=Exit F10=Actions F12=Cancel

Scroll ==> PAGE

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                                     Row 00001 of 00005
      Name      Prompt      VV MM      Changed      Size      Init      Mod      ID
-----
  E  EXER0001  *Edited      01.10 10/08/24 00:14      281      198      281  ALUNONA
      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 ==>

F1=Help F3=Exit F10=Actions F12=Cancel

Scroll ==> PAGE

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 DSNNAME=&&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
***
```

Tecla <ENTER>.

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

Foi gerado um módulo carga em linguagem máquina.