2ºAULA

Introdução ao TSO

Comandos básicos

Í n d i c e

TSO

TSO são as iniciais de Time Sharing Option.

O TSO disponibiliza aos usuários, através de um terminal, um ambiente com as ferramentas adequadas ao desenvolvimento e gestão de aplicações e sistemas informatizados.

É através do TSO que podemos:

- Parametrizar o terminal para sua utilização;
- Manipular Bibliotecas, Data Sets e membros;
- Visualizar e executar Jobs; etc

Teclas de Função (PFs)

- **PF1**   Help - Auxilio

- **PF2** Split - Cria mais sessão (Tela)

- **PF3** Volta ao menu anterior

- **PF4** Volta ao comando anterior

- **PF5** Repete o último comando

- **PF6** Repete última alteração

- **PF7** Volta página

- **PF8** Avança página

- **PF9** Navega entre duas sessões (Telas)

- **PF10** Desloca tela á esquerda

- **PF11** Desloca tela á direita

- **PF12** Retrieve / Cancel

- **ENTER** Passa a informação teclada para o TSO

Outras teclas CLEAR, RESET e INSERT .

Vamos então detalhar o acesso o TSO.

Siga sempre o exemplo colocado abaixo do comando.

Digite na linha de comando digite a letra P e tecle <ENTER>.

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

                                              USERID - ALUNOJ3
                                              TIME  - 21:47

   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
```

Começaremos pela opção Utilities em seguida veremos as demais.

Digite em na linha de comando o número **3** e tecle <ENTER>.

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

 0  Settings      Terminal and user parameters        User ID . : ALUNOJ3
 1  View          Display source data or listings     Time. . . : 21:50
 2  Edit          Create or change source data        Terminal. : 3278
 3  Utilities     Perform utility functions           Screen. . : 1
 4  Foreground    Interactive language processing     Language. : ENGLISH
 5  Batch         Submit job for language processing  Appl ID . : PDF
 6  Command       Enter TSO or Workstation commands   TSO logon : IKJACCNT
 7  Dialog Test   Perform dialog testing              TSO prefix: ALUNOJ3
 8  LM Facility   Library administrator functions     System ID : PRE7
 9  IBM Products  IBM program development products     MVS acct. : ASL
 10 SCLM          SW Configuration Library Manager     Release . : ISPF 4.5
 11 Workplace     ISPF Object/Action Workplace


      Enter X to Terminate using log/list defaults



 Option ===> 3

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

Digite na linha de comando o número **4** e tecle <ENTER>, Os comandos podem ser digitados agrupadamente, neste caso poderíamos na primeira Tela ter digitado **P.3.4** e teclado <ENTER>.

```
  Menu  Help
--------------------------------------------------------------------------------
                          Utility Selection Panel

1  Library     Compress or print data set.  Print index listing.  Print,
                   rename, delete, browse, edit or view members
2  Data Set    Allocate, rename, delete, catalog, uncatalog, or display
                   information of an entire data set
3  Move/Copy   Move, copy, or promote members or data sets
4  Dslist      Print or display (to process) list of data set names.
                   Print or display VTOC information
5  Reset       Reset statistics for members of ISPF library
6  Hardcopy    Initiate hardcopy output
7  Download    Download ISPF C/S, VA for ISPF, transfer map, or data set.
8  Outlist     Display, delete, or print held job output
9  Commands    Create/change an application command table
*  Reserved    This option reserved for future expansion.
11 Format      Format definition for formatted data Edit/Browse
12 SuperC      Compare data sets                              (Standard Dialog)
13 SuperCE     Compare data sets Extended                     (Extended Dialog)
14 Search-For  Search data sets for strings of data           (Standard Dialog)
15 Search-ForE Search data sets for strings of data Extended (Extended Dialog)
Option ===> 4

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

A Biblioteca ou Particionado é um repositório onde armazenamos nossos Programas, JOB´s e outros arquivos, utilizaremos a biblioteca da escola **FUTURE.FONTES.COBOL**, como exemplo, então digite em frente ao **Dsname level... FUTURE.FONTES.COBOL**,e tecle <ENTER>.

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

  blank Display data set list             P Print data set list
      V Display VTOC information         PV Print VTOC information

Enter one or both of the parameters below:
   Dsname Level . . . FUTURE.FONTES.COBOL
   Volume serial  . .

Data set list options
   Initial View . . . 1  1. Volume         Enter "/" to select option
                         2. Space        /  Confirm Data Set Delete
                         3. Attrib       /  Confirm Member Delete
                         4. Total

When the data set list is displayed, enter either:
  "/" on the data set list command field for the command prompt pop-up,
  an ISPF line command, the name of a TSO command, CLIST, or REXX exec, or
  "=" to execute the previous command.

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

O TSO trará uma lista das bibliotecas, neste caso apenas uma foi selecionada, para visualizaremos o conteúdo da biblioteca digite no lado esquerdo da biblioteca a letra **E** e tecle <ENTER>, a letra E corresponde à Edit.

```
  Menu  Options  View  Utilities  Compilers  Help
 ------------------------------------------------------------------------------
 DSLIST - Data Sets Matching FUTURE.FONTES.COBOL                    Row 1 of 1

 Command - Enter "/" to select action                   Message         Volume
 ------------------------------------------------------------------------------
 E        FUTURE.FONTES.COBOL                                            PR39C7
 *****************************  End of Data Set list  ***************************




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

Agora o TSO trouxe uma lista dos membros da biblioteca solicitada, os membros poderão ser Editados através do comando <E> ou somente visualizados através dos comandos <V> ou <B> .

```
  Menu  Functions  Confirm  Utilities  Help
 ------------------------------------------------------------------------------
 EDIT           FUTURE.FONTES.COBOL                   Row 00001 of 00032
          Name    Prompt     VV MM   Changed      Size  Init  Mod   ID
 _____ ALOCAARQ           01.05 08/10/04 14:17   116   207    0 IBMUSER
 _____ EXER0001           01.04 08/08/06 18:08   281   198    0 IBMUSER
 _____ EXER0002           01.05 08/08/06 18:18   286   198    0 IBMUSER
 _____ EXER0003           01.00 08/08/06 18:45   278   278    0 IBMUSER
 _____ EXER0004           01.00 08/08/06 18:48   278   278    0 IBMUSER
 _____ EXER0005
 _____ EXER0006           01.00 02/05/08 06:18   374   374    0 IBMUSER
 _____ EXER0007
 _____ EXER0008           01.03 09/12/05 10:51   370   381    0 IBMUSER
 _____ EXER0009           01.00 08/06/04 20:35   393   393    0 IBMUSER
 _____ EXER0010
 _____ EXER0011           01.00 09/08/26 19:41   514   514    0 IBMUSER
 _____ EXER0012           01.01 08/08/06 17:55   571   571    0 IBMUSER
 _____ EXER0013           01.00 08/09/20 15:35   434   434    0 IBMUSER
 _____ EXER0014           01.00 09/08/12 21:03   446   446    0 IBMUSER
 _____ EXER0015           01.03 09/07/27 19:34   710   708    0 IBMUSER
 _____ EXER0016
 _____ EXER0017           01.02 09/08/26 21:14   478   485    0 IBMUSER
 Command ===>                                           Scroll ===> PAGE
  F1=Help       F3=Exit     F10=Actions  F12=Cancel
```

Vamos iniciar pelo comando de edição <E> que tem a função de Editar e permitir a alteração de um membro, para isso digitaremos a letra E do lado esquerdo do Membro EXER0001 a ser editado e teclar <ENTER>. **Exemplos** _E_____ ou ___E____ ou _____E__ , qualquer lugar sobre a linha tracejada o comando será válido.

```
   Menu  Functions  Confirm  Utilities  Help
 ------------------------------------------------------------------------------
 EDIT            FUTURE.FONTES.COBOL                    Row 00001 of 00032
          Name    Prompt      VV MM    Changed      Size  Init  Mod   ID
          ALOCAARQ            01.05 08/10/04 14:17  116   207     0 IBMUSER
     E    EXER0001            01.04 08/08/06 18:08  281   198     0 IBMUSER
          EXER0002            01.05 08/08/06 18:18  286   198     0 IBMUSER
          EXER0003            01.00 08/08/06 18:45  278   278     0 IBMUSER
          EXER0004            01.00 08/08/06 18:48  278   278     0 IBMUSER
          EXER0005
          EXER0006            01.00 02/05/08 06:18  374   374     0 IBMUSER
          EXER0007
          EXER0008            01.03 09/12/05 10:51  370   381     0 IBMUSER
          EXER0009            01.00 08/06/04 20:35  393   393     0 IBMUSER
          EXER0010
          EXER0011            01.00 09/08/26 19:41  514   514     0 IBMUSER
          EXER0012            01.01 08/08/06 17:55  571   571     0 IBMUSER
          EXER0013            01.00 08/09/20 15:35  434   434     0 IBMUSER
          EXER0014            01.00 09/08/12 21:03  446   446     0 IBMUSER
          EXER0015            01.03 09/07/27 19:34  710   708     0 IBMUSER
          EXER0016
          EXER0017            01.02 09/08/26 21:14  478   485     0 IBMUSER
 Command ===>                                        Scroll ===> PAGE
  F1=Help     F3=Exit     F10=Actions  F12=Cancel
```

O EXER0001 é um programa em COBOL, nos o utilizaremos para aprender os comandos de edição no TSO.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 ------------------------------------------------------------------------------
 EDIT      FUTURE.FONTES.COBOL(EXER0001) - 01.04        Columns 00001 00072
 ****** *************************** Top of Data ****************************
 000001        IDENTIFICATION  DIVISION.
 000002        PROGRAM-ID.     EXER0001.
 000003        AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
 000004        *
 000005        * GERAR ARQUIVO DE PECAS SELECIONADAS
 000006        *
 000007        ENVIRONMENT     DIVISION.
 000008        CONFIGURATION   SECTION.
 000009        SPECIAL-NAMES.
 000010                        DECIMAL-POINT IS COMMA.
 000011        *
 000012        INPUT-OUTPUT    SECTION.
 000013        FILE-CONTROL.
 000014          SELECT  CADPECA      ASSIGN  TO  UT-S-CADPECA
 000015                  FILE STATUS   IS FS-CADPECA.
 000016        *
 000017          SELECT  CADATU       ASSIGN  TO  UT-S-CADATU
 000018                  FILE STATUS   IS FS-CADATU.
 Command ===>                                        Scroll ===> CSR
  F1=Help     F3=Exit     F5=Rfind    F6=Rchange  F12=Cancel
```

Comandos de linha de edição

Comandos básicos.

Deletar linhas, os comandos para deleção de linhas são digitados sempre sobre a numeração de linha (qualquer lugar marcado em vermelho) do programa.

D Indica a deleção da linha corrente;

Para delter-mos uma linha digitar um **D** na sobre o número da linha 000300 e teclar <ENTER>.

```
     File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
-------------------------------------------------------------------------------
EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.05          Columns 00001 00072
****** ***************************** Top of Data *****************************
000100         IDENTIFICATION  DIVISION.
000200         PROGRAM-ID.     EXER0001.
D00300         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
```

Constatamos abaixo que a linha 000300 foi deletada.

```
     File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
-------------------------------------------------------------------------------
EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.05          Columns 00001 00072
****** ***************************** Top of Data *****************************
000100         IDENTIFICATION  DIVISION.
000200         PROGRAM-ID.     EXER0001.
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
```

Deleção de várias linhas simultaneas:

D5 Indica a deleção da linha corrente e as próximas 4 linhas;
Digitar na linha 000200 **D5** e teclar <ENTER>.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 ------------------------------------------------------------------------------
 EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.05         Columns 00001 00072
 ****** ***************************** Top of Data *****************************
 000100         IDENTIFICATION  DIVISION.
 000200         PROGRAM-ID.     EXER0001.
 D50300         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
```

Constatamos abaixo que as 5 Linhas marcadas foram deletadas.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 ------------------------------------------------------------------------------
 EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.05         Columns 00001 00072
 ****** ***************************** Top of Data *****************************
 000100         IDENTIFICATION  DIVISION.
 000200         PROGRAM-ID.     EXER0001.
 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.
 001900         *
 002000         DATA            DIVISION.
 002100         FILE            SECTION.
 002200         *
 002300         FD  CADPECA
 Command ===>                                            Scroll ===> CSR
  F1=Help     F3=Exit     F5=Rfind    F6=Rchange  F12=Cancel
```

Deleção de um bloco de linhas:

DD Indica um início e um fim de bloco a ser deletado.
Digitaremos DD na linha 000200 (início) e na linha DD 0001200 (fim) e teclamos <ENTER>.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 --------------------------------------------------------------------------------
 EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.05          Columns 00001 00072
 ****** **************************** Top of Data *****************************
 000100         IDENTIFICATION  DIVISION.
 DD0200         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      *
 DD1200         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
```

Podemos observar que o bloco entre 000200 e 001200, marcado com o DD foi excluído.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 --------------------------------------------------------------------------------
 EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.05          Columns 00001 00072
 ****** **************************** Top of Data *****************************
 000100         IDENTIFICATION  DIVISION.
 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
```

2.0   Inserção de linhas**;**
I2   Insere duas linhas a partir da linha corrente.

Digite **I2** na linha 000400 e teclar <ENTER>.   Obs. Caso não seja digitado nada na linha que foi inserida o TSO removera a linha quando teclar o próximo <ENTER>.

```
   File   Edit   Confirm   Menu   Utilities   Compilers   Test   Help
 ------------------------------------------------------------------------------
 EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.05        Columns 00001 00072
 ****** **************************** Top of Data ****************************
 000100        IDENTIFICATION   DIVISION.
 000200        FILE-CONTROL.
 000300           SELECT   CADPECA        ASSIGN  TO  UT-S-CADPECA
 I20400                    FILE STATUS    IS FS-CADPECA.
 000500        *
 000600           SELECT   CADATU         ASSIGN  TO  UT-S-CADATU
 000700                    FILE STATUS    IS FS-CADATU.
 000800        *
 000900      DATA           DIVISION.
 001000      FILE           SECTION.
 001100        *
 001200      FD  CADPECA
 001300         RECORD    CONTAINS  80  CHARACTERS
 001400         RECORDING MODE     IS  F
 001500         LABEL    RECORD    IS  STANDARD
 001600         DATA    RECORD     IS  REG-CADPECA.
 001700      01  REG-CADPECA.
 001800         05  COD-PECA              PIC  9(05).
 Command ===>                                          Scroll ===> CSR
  F1=Help     F3=Exit     F5=Rfind     F6=Rchange  F12=Cancel
```

Constatamos que linhas em branco foram acrescentadas.

```
   File   Edit   Confirm   Menu   Utilities   Compilers   Test   Help
 ------------------------------------------------------------------------------
 EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.05        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        *
 Command ===>                                          Scroll ===> CSR
  F1=Help     F3=Exit     F5=Rfind     F6=Rchange  F12=Cancel
```

2.0   Repetição de linhas**;**

R5   Indica que a linha corrente será repetida 5 vezes;
Digite **R5** na linha 000400 e teclar <ENTER>.

```
  File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
-------------------------------------------------------------------------------
EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.05         Columns 00001 00072
****** **************************** Top of Data ****************************
000100        IDENTIFICATION  DIVISION.
000200        PROGRAM-ID.     EXER0001.
000300        AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
R50400        *
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
```

Podemos observar abaixo a repetição da linha 400 repetida 5 vezes.

```
  File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
-------------------------------------------------------------------------------
EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.05         Columns 00001 00072
****** **************************** Top of Data ****************************
000100        IDENTIFICATION  DIVISION.
000200        PROGRAM-ID.     EXER0001.
000300        AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
000400        *
000410        *
000420        *
000430        *
000440        *
000450        *
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.
Command ===>                                            Scroll ===> CSR
 F1=Help    F3=Exit    F5=Rfind    F6=Rchange  F12=Cancel
```

RR   Indica a início e fim de um bloco a ser repetido;
Digite **RR** na linha 000100 e **RR** na linha 000400 e teclar <ENTER>.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 ---------------------------------------------------------------------
 EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.05       Columns 00001 00072
 ****** **************************** Top of Data ****************************
 RR0100       IDENTIFICATION  DIVISION.
 000200       PROGRAM-ID.     EXER0001.
 000300       AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
 RR0400       *
 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
```

Podemos observar que o bloco com inicio na linha 000100 e termino na linha 000400 foi repetido.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 ---------------------------------------------------------------------
 EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.05       Columns 00001 00072
 ****** **************************** Top of Data ****************************
 000100       IDENTIFICATION  DIVISION.
 000200       PROGRAM-ID.     EXER0001.
 000300       AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
 000400       *
 000410       IDENTIFICATION  DIVISION.
 000420       PROGRAM-ID.     EXER0001.
 000430       AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
 000440       *
 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
 Command ===>                                         Scroll ===> CSR
  F1=Help    F3=Exit     F5=Rfind     F6=Rchange  F12=Cancel
```

RR2   Indica a iníco e fim de um bloco a ser repetido 2 vezes;
Digite **RR2** na linha 000100 e **RR2** na linha 000400 e teclar <ENTER>.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 --------------------------------------------------------------------------
 EDIT        FUTURE.FONTES.COBOL(EXER0001) - 01.05        Columns 00001 00072
 ****** **************************** Top of Data ****************************
 RR2100         IDENTIFICATION  DIVISION.
 000200         PROGRAM-ID.     EXER0001.
 000300         AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
 RR2400         *
 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
```

Podemos observar que o bloco com inicio na linha 100 e termino na linha 400 foi repetido 2 vezes.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 --------------------------------------------------------------------------
 EDIT        FUTURE.FONTES.COBOL(EXER0001) - 01.05        Columns 00001 00072
 ****** **************************** Top of Data ****************************
 000100         IDENTIFICATION  DIVISION.
 000200         PROGRAM-ID.     EXER0001.
 000300         AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
 000400         *
 000410         IDENTIFICATION  DIVISION.
 000420         PROGRAM-ID.     EXER0001.
 000430         AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
 000440         *
 000450         IDENTIFICATION  DIVISION.
 000460         PROGRAM-ID.     EXER0001.
 000470         AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
 000480         *
 000500         * GERAR ARQUIVO DE PECAS SELECIONADAS
 000600         *
 000700         ENVIRONMENT     DIVISION.
 000800         CONFIGURATION   SECTION.
 000900         SPECIAL-NAMES.
 001000                         DECIMAL-POINT IS COMMA.
 Command ===>                                           Scroll ===> CSR
  F1=Help     F3=Exit     F5=Rfind    F6=Rchange  F12=Cancel
```

3.0 Cópia de linha**;**

C Indica que a linha corrente será copiada;
Digite **C** na linha 000300 e **A** na linha 000400 e teclar <ENTER>.

> ➤ **A →** De After → A linha será copiada **imediatamente após** a linha onde for digitado a letra A.

> ➤ **B →** De Before → A linha será copiada **imediatamente antes** da linha onde for digitado a letra B.

```
 File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 -----------------------------------------------------------------------------
 EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.05          Columns 00001 00072
 ****** **************************** Top of Data ****************************
 000100        IDENTIFICATION  DIVISION.
 000200        PROGRAM-ID.     EXER0001.
 C00300        AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
 A00400        *
 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
```

Podemos observar que o conteúdo da linha 000300 AUTHOR foi copiado para linha 000500.

```
  File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 -----------------------------------------------------------------------------
 EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.05          Columns 00001 00072
 ****** **************************** Top of Data ****************************
 000100        IDENTIFICATION  DIVISION.
 000200        PROGRAM-ID.     EXER0001.
 000300        AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
 000400        *
 000410        AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
 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 ===>                                           Scroll ===> CSR
  F1=Help     F3=Exit     F5=Rfind     F6=Rchange F12=Cancel
```

C3   Indica que a linha corrente será copiada 3 vezes;
Digite **C** na linha 000100 e **A** na linha 000400 e teclar <ENTER>.

```
 File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
---------------------------------------------------------------------------
EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.05          Columns 00001 00072
****** **************************** Top of Data ****************************
C30100        IDENTIFICATION  DIVISION.
000200        PROGRAM-ID.     EXER0001.
000300        AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
A00400        *
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
```

Podemos observar que foram copiadas as 3 linhas marcadas anteriormente.

```
 File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
---------------------------------------------------------------------------
EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.05          Columns 00001 00072
****** **************************** Top of Data ****************************
000100        IDENTIFICATION  DIVISION.
000200        PROGRAM-ID.     EXER0001.
000300        AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
000400        *
000410        IDENTIFICATION  DIVISION.
000420        PROGRAM-ID.     EXER0001.
000430        AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
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.
Command ===>                                          Scroll ===> CSR
 F1=Help    F3=Exit     F5=Rfind     F6=Rchange  F12=Cancel
```

CC   Indica a primeira e a última linha de um bloco que será copiado;

Digite **CC** na linha 00100 , **CC** na linha 000400 e **A** na linha 000900 e teclar <ENTER>.

```
   File   Edit   Confirm   Menu   Utilities   Compilers   Test   Help
 ------------------------------------------------------------------------------
 EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.05          Columns 00001 00072
 ****** **************************** Top of Data ****************************
 CC0100         IDENTIFICATION  DIVISION.
 000200         PROGRAM-ID.     EXER0001.
 000300         AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
 CC0400         *
 000500         * GERAR ARQUIVO DE PECAS SELECIONADAS
 000600         *
 000700         ENVIRONMENT     DIVISION.
 000800         CONFIGURATION   SECTION.
 A00900         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
```

Podemos observar o bloco marcado com inicio **CC** linha 100 e o **CC** fim linha 400 foi copiado após a linha 900.

```
   File   Edit   Confirm   Menu   Utilities   Compilers   Test   Help
 ------------------------------------------------------------------------------
 EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.05          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.
 000910         IDENTIFICATION  DIVISION.
 000920         PROGRAM-ID.     EXER0001.
 000930         AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
 000940         *
 001000                         DECIMAL-POINT IS COMMA.
 001100         *
 001200         INPUT-OUTPUT    SECTION.
 001300         FILE-CONTROL.
 001400            SELECT  CADPECA       ASSIGN  TO  UT-S-CADPECA
 Command ===>                                            Scroll ===> CSR
  F1=Help      F3=Exit      F5=Rfind     F6=Rchange  F12=Cancel
```

4.0 Movimentação de linha;

M Indica que a linha corrente será movimentado;
Digite **M** na linha 000200 e **A** na linha 000400 e teclar <ENTER

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
-------------------------------------------------------------------------------
EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.05         Columns 00001 00072
****** ***************************** Top of Data ******************************
000100        IDENTIFICATION  DIVISION.
M00200        PROGRAM-ID.     EXER0001.
000300        AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
A00400        *
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
```

Podemos observar a movimentação do PROGRAM-ID LINHA 410.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
-------------------------------------------------------------------------------
EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.05         Columns 00001 00072
****** ***************************** Top of Data ******************************
000100        IDENTIFICATION  DIVISION.
000300        AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
000400        *
000410        PROGRAM-ID.     EXER0001.
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
```

M3   Indica que a linha corrente será movimentado 3 vezes;
Digite **M3** na linha 000100 e **A** na linha 000800 e teclar <ENTER>.

```
   File   Edit   Confirm  Menu  Utilities  Compilers  Test  Help
 ----------------------------------------------------------------------------
 EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.05        Columns 00001 00072
 ****** *************************** Top of Data ****************************
 M30100        IDENTIFICATION   DIVISION.
 000200        PROGRAM-ID.     EXER0001.
 000300        AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
 000400        *
 000500        * GERAR ARQUIVO DE PECAS SELECIONADAS
 000600        *
 000700        ENVIRONMENT     DIVISION.
 A00800        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
```

Podemos observar que as linhas iniciais foram movimentas após a linha 800.

```
   File   Edit   Confirm  Menu  Utilities  Compilers  Test  Help
 ----------------------------------------------------------------------------
 EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.05        Columns 00001 00072
 ****** *************************** Top of Data ****************************
 000400        *
 000500        * GERAR ARQUIVO DE PECAS SELECIONADAS
 000600        *
 000700        ENVIRONMENT     DIVISION.
 000800        CONFIGURATION   SECTION.
 000810        IDENTIFICATION   DIVISION.
 000820        PROGRAM-ID.     EXER0001.
 000830        AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
 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
```

MM   Indica a primeira e a última linha de um bloco que será movimentado;
Digite **MM** na linha 000200 , **MM** na linha 000500 **A** na linha 000900 e teclar <ENTER>.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
---------------------------------------------------------------------------
EDIT        FUTURE.FONTES.COBOL(EXER0001) - 01.05        Columns 00001 00072
****** **************************** Top of Data ****************************
000100         IDENTIFICATION  DIVISION.
MM0200         PROGRAM-ID.     EXER0001.
000300         AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
000400         *
MM0500         * GERAR ARQUIVO DE PECAS SELECIONADAS
000600         *
000700         ENVIRONMENT     DIVISION.
000800         CONFIGURATION   SECTION.
A00900         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
```

Podemos observar que o bloco com inicio na linha 200 e fim na linha 500 foi movimentado
após a linha 900

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
---------------------------------------------------------------------------
EDIT        FUTURE.FONTES.COBOL(EXER0001) - 01.05        Columns 00001 00072
****** **************************** Top of Data ****************************
000100         IDENTIFICATION  DIVISION.
000600         *
000700         ENVIRONMENT     DIVISION.
000800         CONFIGURATION   SECTION.
000900         SPECIAL-NAMES.
000910         PROGRAM-ID.     EXER0001.
000920         AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
000930         *
000940         * GERAR ARQUIVO DE PECAS SELECIONADAS
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
```

LC   Indica que a linha corrente será conterá apenas letras minúsculas;
Digite **LC** na linha 000300 tecle <ENTER>.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
-----------------------------------------------------------------------------
EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.08        Columns 00001 00072
****** ***************************** Top of Data *****************************
000100         IDENTIFICATION   DIVISION.
000200         PROGRAM-ID.     EXER0001.
LC0300         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
```

Podemos observar que o conteúdo da linha 00300 ficou com a letra minúscula.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
-----------------------------------------------------------------------------
EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.08        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
```

UC   Indica que a linha corrente terá apenas letras maiúsculas;
Digite **UC** na linha 000300 tecle <ENTER>.

```
  File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
------------------------------------------------------------------------
EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.08        Columns 00001 00072
****** **************************** Top of Data ****************************
000100       IDENTIFICATION  DIVISION.
000200       PROGRAM-ID.     EXER0001.
UC0300       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
```

Podemos observar que o conteúdo da linha 00300 ficou com a letra maiúscula.

```
  File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
------------------------------------------------------------------------
EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.08        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
```

Comandos de deslocamento.

)   ➜   Desloca para a direita de uma ou mais colunas;

Digite **)** na linha 000300 e tecle <ENTER>.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 ------------------------------------------------------------------------------
 EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.05          Columns 00001 00072
 ****** *************************** Top of Data ****************************
 000100        IDENTIFICATION  DIVISION.
 000200        PROGRAM-ID.     EXER0001.
 )00300        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
```

Podemos observar o deslocamento para a direita da linha 00300;

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 ------------------------------------------------------------------------------
 EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.05          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
```

(➔ Desloca para a esquerda de uma ou mais colunas;

Digite **(** na linha 000300 e tecle <ENTER>.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 ------------------------------------------------------------------------
 EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.05       Columns 00001 00072
 ****** **************************** Top of Data ****************************
 000100        IDENTIFICATION  DIVISION.
 000200        PROGRAM-ID.    EXER0001.
 (00300        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
```

Podemos observar o deslocamento para a esquerda da linha 00300;

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 ------------------------------------------------------------------------
 EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.05       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
```

Comandos Diversos.

COLS ➔   Trás uma ou mais requas, com a identificação das colunas.

Digite **COLS** na linha 000100 e tecle <ENTER>.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 ------------------------------------------------------------------------------
 EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.08            Invalid command
 ******* ***************************** Top of Data ****************************
 COLS         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
```

Podemos observar a requa com as posições delimitadas.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 ------------------------------------------------------------------------------
 EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.08         Columns 00001 00072
 ****** ***************************** Top of Data ****************************
 =COLS> ----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
 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 ===>                                          Scroll ===> CSR
  F1=Help     F3=Exit     F5=Rfind    F6=Rchange  F12=Cancel
```

MAX <PF7/PF8>

Exibir o início M + <PF7> ou o fim M + <PF8> do programa.

Exemplo: M + <PF7>

Digite **M** na linha de COMANDO e tecle <PF8>**.**

```
 File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
------------------------------------------------------------------------
EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.05         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 ===> M                                        Scroll ===> CSR
 F1=Help     F3=Exit     F5=Rfind     F6=Rchange  F12=Cancel
```

Podemos observar o deslocamento para o fim do programa;

```
 File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
------------------------------------------------------------------------
EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.05         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
```

Digite **M** na linha COMANDO e tecle < PF7>.

```
  File   Edit   Confirm   Menu   Utilities   Compilers   Test   Help
--------------------------------------------------------------------------
EDIT        FUTURE.FONTES.COBOL(EXER0001) - 01.05          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 ===> M                                          Scroll ===> CSR
 F1=Help      F3=Exit      F5=Rfind      F6=Rchange   F12=Cancel
```

Podemos observar o deslocamento para o início fim do programa;

```
  File   Edit   Confirm   Menu   Utilities   Compilers   Test   Help
--------------------------------------------------------------------------
EDIT        FUTURE.FONTES.COBOL(EXER0001) - 01.05          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
```

RESET

Para cancelar um estado de exibição dos dados durante a edição;

Digite **RESET** ou **RES** na linha COMANDO e tecle <ENTER>, para omitir a visualização das linhas de mensagens.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 -------------------------------------------------------------------------------
 EDIT       ALUNONA.FONTES.COBOL(EXER0001) - 01.10        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.
 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       *
 Command ===>    RES                                   Scroll ===> PAGE
  F1=Help      F3=Exit      F5=Rfind    F6=Rchange  F12=Cancel
```

Podemos observar que foram omitidas as linhas de mensagem;

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 -------------------------------------------------------------------------------
 EDIT       ALUNONA.FONTES.COBOL(EXER0001) - 01.10        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
```

PROFILE

Exibir o PROFILE do usuário corrente, isto é, as indicações de defaults usados para edição,
para que estes valores possam ser controlados ou alterados;

Digite **PROFILE** na linha COMANDO e tecle <ENTER>.

```
F1=Help      F3=Exit      F5=Rfind     F6=Rchange  F12=Cancel
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
--------------------------------------------------------------------------------
EDIT       FUTURE.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.
001900        *
Command ===> PROFILE                                    Scroll ===> CSR
```

Visualizaremos as configurações atuais do usuário corrente nas 5 primeiras linhas;

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
--------------------------------------------------------------------------------
EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.07        Columns 00001 00072
****** *************************** Top of Data ***************************
=PROF> ....RES (FIXED - 80)....RECOVERY OFF WARN....NUMBER ON STD..............
=PROF> ....CAPS ON....HEX OFF....NULLS OFF....TABS OFF.........................
=PROF> ....AUTOSAVE OFF PROMPT....AUTONUM OFF....AUTOLIST OFF....STATS ON......
=PROF> ....PROFILE UNLOCK....IMACRO NONE....PACK OFF....NOTE ON................
=PROF> ....HILITE COBOL FIND...................................................
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
Command ===>                                            Scroll ===> CSR
```

RECOVERY

Para Ativar ou Desativar o modo de recuperação, que tema finalidade de desfazer os comandos executados pelo usuário;

Digite **RECOVERY ON** na linha COMANDO e tecle <ENTER>.

```
  File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
--------------------------------------------------------------------------------
EDIT       FUTURE.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.
001900      *
Command ===> RECOVERY ON                                  Scroll ===> CSR
```

UNDO

Cancela o último comando executado, sucessivamente;

Digite na linha 000500 uma frase e tecle <ENTER>,depois digite **UNDO** na linha de COMANDO<ENTER>.

```
Scroll ===> CSR

  File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
------------------------------------------------------------------------
EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.08         Columns 00001 00072
000200         PROGRAM-ID.     EXER0001.
000300         AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
000400      *
000500      * TSO EDITOR MAINFRAME
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.
001900      *
002000         DATA         DIVISION.
002100         FILE         SECTION.
Command ===> UNDO                                  Scroll ===> CSR
```

Podemos observar que foi descartada a digitação feita na linha 000500, repetindo o comando **UNDO** ele irá desfazer o comando anterior a digitação da linha e assim sucessivamente..

```
   File   Edit   Confirm   Menu   Utilities   Compilers   Test   Help
 ------------------------------------------------------------------------------
 EDIT        FUTURE.FONTES.COBOL(EXER0001) - 01.07          Columns 00001 00072
 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.
 001900        *
 002000        DATA          DIVISION.
 002100        FILE          SECTION.
 Command ===>                                          Scroll ===> CSR
```

CANCEL
Cancelar uma edição sem salvar as alterações efetuadas;

Digite na linha de comando **CANCEL** e tecle <ENTER>.

```
   File   Edit   Confirm   Menu   Utilities   Compilers   Test   Help
 ------------------------------------------------------------------------------
 EDIT        FUTURE.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.
 001900        *
 Command ===> CANCEL                                    Scroll ===> CSR
```

Será pedida uma confirmação de cancelamento, pois todas as alterações feitas serão perdidas.

Caso queira cancelar tecle <ENTER>, caso não queira perder aos alterações tecle <F3> .

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 - .-------------------- Confirm Cancel --------------------. ----------------
E |                                                         | mns 00001 00072
* |                                                         | ****************
0 | Data set has been changed                               |
0 |                                                         |
0 |                                                         | O.
0 | Instructions:                                           |
0 |                                                         |
0 |    Press ENTER key to confirm cancel request.           |
0 |    (All changes will be discarded)                      |
0 |                                                         |
0 |    Enter END or EXIT command to return to               |
0 |    edit or view session.                                |
0 |                                                         |
0 |                                                         |
0 | Command ===>                                            |
0 '---------------------------------------------------------' CA
001500                    FILE STATUS    IS FS-CADPECA.
001600       *
001700         SELECT  CADATU        ASSIGN  TO  UT-S-CADATU
001800                    FILE STATUS    IS FS-CADATU.
001900       *
Command ===>                                          Scroll ===> CSR
```

LOCATE

Para localizar digite L 3500 e tecle <ENTER>. O TSO localizará o LINHA 003500.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 ------------------------------------------------------------------------------
EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.07      Columns 00001 00072
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.
001900       *
002000       DATA          DIVISION.
002100       FILE          SECTION.
Command ===> l 3500                                   Scroll ===> CSR
```

Podemos observar que foi localizada linha 003500.

```
   File   Edit   Confirm   Menu   Utilities   Compilers   Test   Help
-------------------------------------------------------------------------
EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.07          Columns 00001 00072
003500          05  PR-UNITARIO            PIC   9(07)V99.
003600          05  PERDA                  PIC   9(07)V99.
003700          05  TIPO                   PIC   X(01).
003800          05  FILLER                 PIC   X(06).
003900      *
004000      FD  CADATU
004100          RECORD    CONTAINS  80  CHARACTERS
004200          RECORDING MODE     IS   F
004300          LABEL     RECORD   IS   STANDARD
004400          DATA      RECORD     IS   REG-CADATU.
004500      01  REG-CADATU.
004600          05  COD-ATU                PIC   9(05).
004700          05  NOME-ATU               PIC   X(30).
004800          05  QTD-ATU                PIC   9(05).
004900          05  QTD-MIN-ATU            PIC   9(05).
005000          05  QTD-MAX-ATU            PIC   9(05).
005100          05  FORN-ATU               PIC   X(05).
005200          05  PR-UNIT-ATU            PIC   9(07)V99.
005300          05  PERDA-ATU              PIC   9(07)V99.
005400          05  TIPO-ATU               PIC   X(01).
Command ===>                                          Scroll ===> CSR
```

SAVE
Para salvar as alterações efetuadas em um arquivo;

Digite na linha de comando **SAVE** e tecle <ENTER>.

```
   File   Edit   Confirm   Menu   Utilities   Compilers   Test   Help
-------------------------------------------------------------------------
EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.07          No more to UNDO
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.
001900      *
002000      DATA         DIVISION.
002100      FILE         SECTION.
Command ===> SAVE                                     Scroll ===> CSR
```

Podemos observar que foi salvo o EXER0001, através da mensagem na tela.

```
  File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
--------------------------------------------------------------------------
EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.07        Member EXER0001 saved
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.
001900       *
002000       DATA          DIVISION.
002100       FILE          SECTION.
Command ===>                                         Scroll ===> CSR
```

FIND (F)
Para procurar um conjunto específico de caracteres no arquivo;

Digite na linha de comando **F** + (a literal a ser procurada) e tecle <ENTER>.

```
  File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
------------------------------------------------------------------------------
EDIT       FUTURE.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.
001900       *
Command ===> F PIC                                     Scroll ===> CSR
```

Constatamos que o cursor foi posicionado no 1º PIC encontrado no programa, para ir para o próximo PIC tecle <PF5> essa tecla de atalho visualiza todos PIC de 1 em 1.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
-------------------------------------------------------------------------
EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.07         CHARS 'PIC' found
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).
003300            05  QTD-MAXIMA          PIC  9(05).
003400            05  FORNECEDOR          PIC  X(05).
003500            05  PR-UNITARIO         PIC  9(07)V99.
003600            05  PERDA               PIC  9(07)V99.
003700            05  TIPO                PIC  X(01).
003800            05  FILLER              PIC  X(06).
003900        *
004000        FD  CADATU
004100            RECORD    CONTAINS  80  CHARACTERS
004200            RECORDING MODE      IS  F
004300            LABEL    RECORD    IS  STANDARD
004400            DATA     RECORD     IS  REG-CADATU.
004500        01  REG-CADATU.
004600            05  COD-ATU             PIC  9(05).
004700            05  NOME-ATU            PIC  X(30).
Command ===>                                          Scroll ===> CSR
```

X ALL
Usado para exibir linhas com conteúdo específico.
Digite na linha de comando **X ALL** e 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 ===> X ALL                                    Scroll ===> PAGE
 F1=Help     F3=Exit    F5=Rfind    F6=Rchange  F12=Cancel
```

Podemos observar que foram omitidas todas as linhas do programas, não foram excluídas apenas não estão sendo exibidas .

```
 File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
----------------------------------------------------------------------------
EDIT       ALUNONA.FONTES.COBOL(EXER0001) - 01.07        All lines excluded
****** **************************** Top of Data ******************************
- - - - - - - - - - - - - - - - - -   281 Line(s) not Displayed
****** *************************** Bottom of Data ***************************





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

O comando **X ALL,** como descrito enibe a exibição de todas as linhas, para visualizar as linhas com a literal desejada utilizamos o comando **FIND LITERAL ALL.**
Para exibir as linhas que contenham uma literal exemplo;

Selecionemos então as linhas de contenham a literal CADATU, digite o comando F CADATU ALL e tecle <ENTER>.

```
 File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
----------------------------------------------------------------------------
EDIT       ALUNONA.FONTES.COBOL(EXER0001) - 01.07        All lines excluded
****** **************************** Top of Data ******************************
- - - - - - - - - - - - - - - - - -   281 Line(s) not Displayed
****** *************************** Bottom of Data ***************************





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

Na tela temos apenas as linhas que contêm a literal CADATU, para visualizar as próximas telas basta teclar <PF8>. Para apresentar todas as linhas novamente digite na linha de commando RES e tecle <Enter>.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
--------------------------------------------------------------------------
EDIT      ALUNONA.FONTES.COBOL(EXER0001) - 01.07          19 CHARS 'CADATU'
****** ***************************** Top of Data ****************************
- - - - - - - - - - - - - - - - - - - - 16 Line(s) not Displayed
001700         SELECT  CADATU        ASSIGN  TO  UT-S-CADATU
001800                   FILE STATUS   IS FS-CADATU.
- - - - - - - - - - - - - - - - - - - - 21 Line(s) not Displayed
004000      FD  CADATU
- - - - - - - - - - - - - - - - - - - - 3 Line(s) not Displayed
004400         DATA     RECORD    IS  REG-CADATU.
004500         01  REG-CADATU.
- - - - - - - - - - - - - - - - - - - - 26 Line(s) not Displayed
007200         77  FS-CADATU              PIC  X(02) VALUE SPACES.
- - - - - - - - - - - - - - - - - - - - 32 Line(s) not Displayed
010500              OUTPUT  CADATU.
- - - - - - - - - - - - - - - - - - - - 11 Line(s) not Displayed
011700         PERFORM   001-03-FS-CADATU.
- - - - - - - - - - - - - - - - - - - - 18 Line(s) not Displayed
013600         001-03-FS-CADATU            SECTION.
- - - - - - - - - - - - - - - - - - - - 2 Line(s) not Displayed
Command ===>                                          Scroll ===> PAGE
 F1=Help     F3=Exit     F5=Rfind     F6=Rchange  F12=Cancel
```

CHANGE (CHG)

Para procurar e alterar um conjunto específico de caracteres no texto;

Digite na linha de comando **CHG** CADPECA CADALUNO ALL e tecle <ENTER>.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
--------------------------------------------------------------------------
EDIT      FUTURE.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 ===> CHG CADPECA CADALUNO ALL                Scroll ===> CSR
 F1=Help     F3=Exit     F5=Rfind     F6=Rchange  F12=Cancel
```

Podemos observar que todas as literais CADPECA foram alteradas para CADALUNO.

```
  File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 ------------------------------------------------------------------------
 EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.08     CHARS 'CADPECA' changed
 ****** **************************** 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.
 ==CHG>        SELECT  CADALUNO      ASSIGN  TO  UT-S-CADALUNO
 ==CHG>                FILE STATUS   IS FS-CADALUNO.
 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
```

Agora vamos fazer o comando CHANGE sem a opção all.

Tecle <PF5> essa tecla de atalho visualiza todos cadaluno de 1 em 1 sem alterar.

```
  File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 ------------------------------------------------------------------------
 EDIT       ALUNONA.FONTES.COBOL(EXER0001) - 01.14     Columns 00001 00072
 ****** **************************** Top of Data ****************************
 000001        IDENTIFICATION  DIVISION.
 000002        PROGRAM-ID.     EXER0001.
 000003        AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
 000004        *
 000005        * GERAR ARQUIVO DE PECAS SELECIONADAS
 000006        *
 000007        ENVIRONMENT     DIVISION.
 000008        CONFIGURATION   SECTION.
 000009        SPECIAL-NAMES.
 000010                DECIMAL-POINT IS COMMA.
 000011        *
 000012        INPUT-OUTPUT    SECTION.
 000013        FILE-CONTROL.
 000014        SELECT  CADPECA       ASSIGN  TO  UT-S-CADPECA
 000015                FILE STATUS   IS FS-CADPECA.
 000016        *
 000017        SELECT  CADATU        ASSIGN  TO  UT-S-CADATU
 000018                FILE STATUS   IS FS-CADATU.
 000019        *
 Command ===> CHG CADPECA CADALUNO                       Scroll ===> CSR
```

Podemos observar que todas as literais CADPECA não são alteradas para CADALUNO quando teclamos PF5.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
  ------------------------------------------------------------------------------
  EDIT       ALUNONA.FONTES.COBOL(EXER0001) - 01.15        CHARS 'CADPECA' found
  ****** ***************************** Top of Data *****************************
  000001        IDENTIFICATION  DIVISION.
  000002        PROGRAM-ID.    EXER0001.
  000003        AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
  000004        *
  000005        * GERAR ARQUIVO DE PECAS SELECIONADAS
  000006        *
  000007        ENVIRONMENT    DIVISION.
  000008        CONFIGURATION   SECTION.
  000009        SPECIAL-NAMES.
  000010                   DECIMAL-POINT IS COMMA.
  000011        *
  000012        INPUT-OUTPUT    SECTION.
  000013        FILE-CONTROL.
  000014           SELECT  CADALUNO      ASSIGN  TO  UT-S-CADPECA
  000015                   FILE STATUS   IS FS-CADPECA.
  000016        *
  000017           SELECT  CADATU        ASSIGN  TO  UT-S-CADATU
  000018                   FILE STATUS   IS FS-CADATU.
  000019        *
  Command ===>                                           Scroll ===> CSR
```

CHANGE sem a opção all.

Tecle <PF6> essa tecla de atalho visualiza todos cadaluno de 1 em 1 alterando-os.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
  -------------------------------------------------------------------------------
  EDIT       ALUNONA.FONTES.COBOL(EXER0001) - 01.14        Columns 00001 00072
  ****** ***************************** Top of Data *****************************
  000001        IDENTIFICATION  DIVISION.
  000002        PROGRAM-ID.    EXER0001.
  000003        AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
  000004        *
  000005        * GERAR ARQUIVO DE PECAS SELECIONADAS
  000006        *
  000007        ENVIRONMENT    DIVISION.
  000008        CONFIGURATION   SECTION.
  000009        SPECIAL-NAMES.
  000010                   DECIMAL-POINT IS COMMA.
  000011        *
  000012        INPUT-OUTPUT    SECTION.
  000013        FILE-CONTROL.
  000014           SELECT  CADPECA       ASSIGN  TO  UT-S-CADPECA
  000015                   FILE STATUS   IS FS-CADPECA.
  000016        *
  000017           SELECT  CADATU        ASSIGN  TO  UT-S-CADATU
  000018                   FILE STATUS   IS FS-CADATU.
  000019        *
  Command ===> CHG CADPECA CADALUNO                      Scroll ===> CSR

   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help

  Scroll ===> CSR
```

Podemos observar que as literais CADPECA são alteradas para CADALUNO quando teclamos PF6,uma a uma.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 ------------------------------------------------------------------------------
 EDIT       ALUNONA.FONTES.COBOL(EXER0001) - 01.15     CHARS 'CADPECA' changed
 ****** ***************************** Top of Data *****************************
 000001       IDENTIFICATION  DIVISION.
 000002       PROGRAM-ID.     EXER0001.
 000003       AUTHOR.          FUTURE SCHOOL CURSOS DE COMPUTACAO.
 000004       *
 000005       * GERAR ARQUIVO DE PECAS SELECIONADAS
 000006       *
 000007       ENVIRONMENT     DIVISION.
 000008       CONFIGURATION    SECTION.
 000009       SPECIAL-NAMES.
 000010                       DECIMAL-POINT IS COMMA.
 000011       *
 000012       INPUT-OUTPUT     SECTION.
 000013       FILE-CONTROL.
 000014          SELECT  CADALUNO      ASSIGN  TO  UT-S-CADALUNO|
 000015                   FILE STATUS    IS FS-CADPECA.
 000016       *
 000017          SELECT  CADATU        ASSIGN  TO  UT-S-CADATU
 000018                   FILE STATUS    IS FS-CADATU.
 000019       *
 Command ===>
```

HEX

Usado para ligar ou desligar o modo de exibição das linhas no formato hexadecimal.

Digite na linha de comando **HEX ON** e tecle <ENTER>.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 ------------------------------------------------------------------------------
 EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.08         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 ===> HEX ON                                  Scroll ===> CSR
  F1=Help      F3=Exit      F5=Rfind      F6=Rchange  F12=Cancel
```

Podemos observar o programa em código hexadecimal.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
--------------------------------------------------------------------------------
EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.08          Columns 00001 00072
****** ***************************** Top of Data ******************************



--------------------------------------------------------------------------------
000100        IDENTIFICATION  DIVISION.
     4444444CCCDECCCCCECDD44CCECECDD4444444444444444444444444444444444444444444
     000000094553969313965004959296 5B000000000000000000000000000000000000000000
--------------------------------------------------------------------------------
000200        PROGRAM-ID.    EXER0001.
     4444444DDDCDCD6CC444444CECDFFFF4444444444444444444444444444444444444444444
     00000007967914094B0000057590001B000000000000000000000000000000000000000000
--------------------------------------------------------------------------------
000300        AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
     4444444CEECDD4444444444CEEEDC4ECCDDD4CEDEDE4CC4CDDDEECCCD444444444444444444
     0000000143869B0000000000643495023866303492620450364743131 6B00000000000000
--------------------------------------------------------------------------------
000400        *
     4444445444444444444444444444444444444444444444444444444444444444444444444444
     000000C000000000000000000000000000000000000000000000000000000000000000000000
Command ===>                                            Scroll ===> CSR
```

Digite na linha de comando <u>HEX OFF</u> e tecle <ENTER>.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
--------------------------------------------------------------------------------
EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.08          Columns 00001 00072
****** ***************************** Top of Data ******************************



--------------------------------------------------------------------------------
000100        IDENTIFICATION  DIVISION.
     4444444CCCDECCCCCECDD44CCECECDD4444444444444444444444444444444444444444444
     000000094553969313965004959296 5B000000000000000000000000000000000000000000
--------------------------------------------------------------------------------
000200        PROGRAM-ID.    EXER0001.
     4444444DDDCDCD6CC444444CECDFFFF4444444444444444444444444444444444444444444
     00000007967914094B0000057590001B000000000000000000000000000000000000000000
--------------------------------------------------------------------------------
000300        AUTHOR.         FUTURE SCHOOL CURSOS DE COMPUTACAO.
     4444444CEECDD4444444444CEEEDC4ECCDDD4CEDEDE4CC4CDDDEECCCD444444444444444444
     0000000143869B0000000000643495023866303492620450364743131 6B00000000000000
--------------------------------------------------------------------------------
000400        *
     4444445444444444444444444444444444444444444444444444444444444444444444444444
     000000C000000000000000000000000000000000000000000000000000000000000000000000
Command ===> HEX OFF                                    Scroll ===> CSR
 F1=Help      F3=Exit     F5=Rfind    F6=Rchange  F12=Cancel
```

Podemos observar o programa em linguagem COBOL novamente.

```
  File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
-----------------------------------------------------------------------
EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.08        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
```

Comandos de numeração

NUMBER

Liga ou desliga a facilidade de numeração de linhas;

Digite na linha de comando **NUMBER** e tecle <ENTER>.

```
  File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
-----------------------------------------------------------------------
EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.08        Invalid parameter
****** ***************************** 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 ===> NUMBER OFF                                 Scroll ===> CSR
 F1=Help     F3=Exit     F5=Rfind    F6=Rchange  F12=Cancel
```

Podemos observar que a numeração das linhas foram alteradas..

```
  File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
--------------------------------------------------------------------------------
EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.08         Columns 00001 00072
****** ***************************** Top of Data *****************************
000001         IDENTIFICATION  DIVISION.
000002         PROGRAM-ID.      EXER0001.
000003         AUTHOR.          FUTURE SCHOOL CURSOS DE COMPUTACAO.
000004      *
000005      * GERAR ARQUIVO DE PECAS SELECIONADAS
000006      *
000007       ENVIRONMENT    DIVISION.
000008       CONFIGURATION   SECTION.
000009       SPECIAL-NAMES.
000010                       DECIMAL-POINT IS COMMA.
000011      *
000012       INPUT-OUTPUT    SECTION.
000013       FILE-CONTROL.
000014          SELECT  CADPECA      ASSIGN  TO  UT-S-CADPECA
000015                  FILE STATUS   IS FS-CADPECA.
000016      *
000017          SELECT  CADATU       ASSIGN  TO  UT-S-CADATU
000018                  FILE STATUS   IS FS-CADATU.
Command ===>                                         Scroll ===> CSR
 F1=Help     F3=Exit     F5=Rfind    F6=Rchange  F12=Cancel
```

RENUM
Para ligar a facilidade de numeração de linhas e renumerá-las;

Digite na linha de comando **RENUM** e tecle <ENTER>.

```
  File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
--------------------------------------------------------------------------------
EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.08         Columns 00001 00072
****** ***************************** Top of Data *****************************
000001         IDENTIFICATION  DIVISION.
000002         PROGRAM-ID.      EXER0001.
000003         AUTHOR.          FUTURE SCHOOL CURSOS DE COMPUTACAO.
000004      *
000005      * GERAR ARQUIVO DE PECAS SELECIONADAS
000006      *
000007       ENVIRONMENT    DIVISION.
000008       CONFIGURATION   SECTION.
000009       SPECIAL-NAMES.
000010                       DECIMAL-POINT IS COMMA.
000011      *
000012       INPUT-OUTPUT    SECTION.
000013       FILE-CONTROL.
000014          SELECT  CADPECA      ASSIGN  TO  UT-S-CADPECA
000015                  FILE STATUS   IS FS-CADPECA.
000016      *
000017          SELECT  CADATU       ASSIGN  TO  UT-S-CADATU
000018                  FILE STATUS   IS FS-CADATU.
Command ===> RENUM                                   Scroll ===> CSR
 F1=Help     F3=Exit     F5=Rfind    F6=Rchange  F12=Cancel
```

Podemos observar que a numeração das linhas foram alteradas.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 ------------------------------------------------------------------------
 EDIT       FUTURE.FONTES.COBOL(EXER0001) - 01.08        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
```

Overlay
Repetição especial;
OO (duas letras O) indica a primeira e a última linha de um bloco a ser mergeado;

Um exemplo prático, caso você queira comentar varias linhas.
Digite **C** na linha que contém o asterisco na coluna 7 ex: 000400, após digite **OO** na linha 001200 e **OO** na linha 001500 e teclar <ENTER>.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 ------------------------------------------------------------------------
 EDIT       ALUNONA.FONTES.COBOL(EXER0001) - 01.11        Columns 00001 00072
 ****** *************************** Top of Data ***************************
 000100        IDENTIFICATION  DIVISION.
 000200        PROGRAM-ID.     EXER0001.
 000300        AUTHOR.        FUTURE SCHOOL CURSOS DE COMPUTACAO.
 00C400        *
 000500        * GERAR ARQUIVO DE PECAS SELECIONADAS
 000600        *
 000700        ENVIRONMENT     DIVISION.
 000800        CONFIGURATION   SECTION.
 000900        SPECIAL-NAMES.
 001000                  DECIMAL-POINT IS COMMA.
 001100        *
 00OO00        INPUT-OUTPUT    SECTION.
 001300        FILE-CONTROL.
 001400           SELECT  CADPECA       ASSIGN  TO  UT-S-CADPECA
 00OO00                   FILE STATUS   IS FS-CADPECA.
 001600        *
 001700           SELECT  CADATU        ASSIGN  TO  UT-S-CADATU
 001800                   FILE STATUS   IS FS-CADATU.
 001900        *
 Command ===>                                         Scroll ===> CSR
```

Podemos observar que o conteúdo da linha 000400 foi repetido para as linhas do bloco marcado sem alterar o conteúdo inicial do mesmos.

```
   File  Edit  Confirm  Menu  Utilities  Compilers  Test  Help
 ------------------------------------------------------------------------------
 EDIT       ALUNONA.FONTES.COBOL(EXER0001) - 01.12        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.
 001900        *
 Command ===>                                          Scroll ===> CSR
```

Parabéns você está apto para fazer a 3º aula.