

Pós-Graduação MBA Alta Plataforma Mainframe IBM

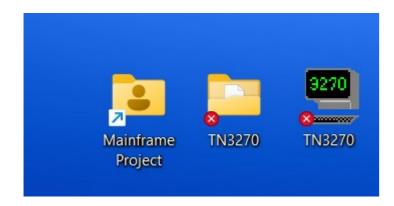
Professor: Vagner Bellacosa

Disciplina: Cobol & Além





COBOL



Modulo 02.03 – Configurações de Ambiente

- 1) VPN
- 2) Emulador TN3270 Plus
- 3) Emulador PCOMM
- 4) TSO
- 5) ISPF
- 6) Barra de Ferramentas ISPF
- 7) Duvidas





COBOL



1) Vagner Bellacosa seu facilitador

Analista programador desde 1989, onde comecei como auxiliar e tecnólogo em processamento de dados desbravando os primórdios da computação brasileira, um eterno aprendiz em processos Mainframe..

Desde então trabalhei em centenas de projetos, em 4 países e dezenas de instituições financeiras, ora como funcionário, consultor externo e freelancer.

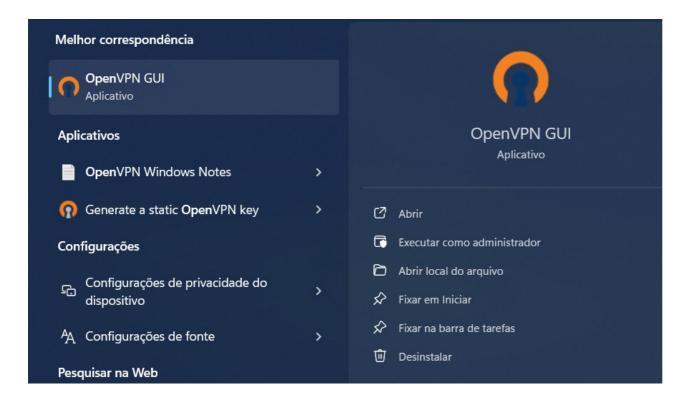
A mais memorável foi o Banco REAL, uma verdadeira escola, onde aprendi muito e tive a oportunidade de participar no aliciante Projeto Y2K, o temível bug do milênio.

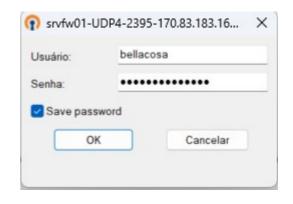
Participei em projetos na CESP, Fundação CESP, Transbrasil, ABSA, Real Seguros, BPN, Skandia, DGITA, BES, CGD, BPI, Barclay, Skandia, IBM Italia, Sistemi Informativi, Unicredit, Zurich Assicurazione, Banco Safra e Banco Itaú.

Atualmente trabalho na Spread no Projeto BRB em Brasília, via remoto.



OpenVPN GUI





Usuario e Senha serão fornecidos pelo suporte

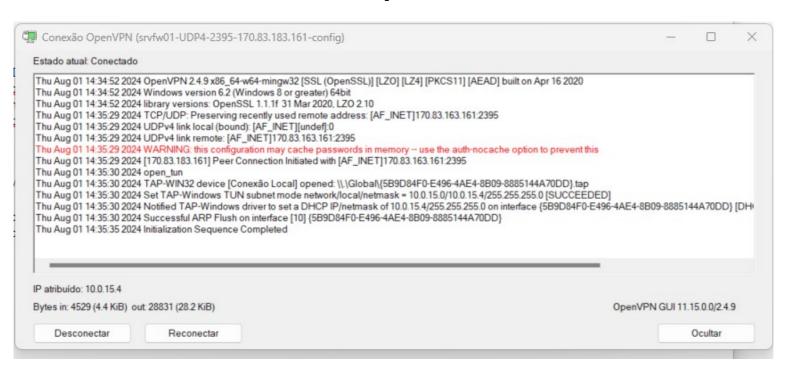
OpenVPN 2.4.9 x86_64-w64-mingw32 [SSL (OpenSSL)] [LZO] [LZ4] [PKCS11] [AEAD] built on Apr 16 2020

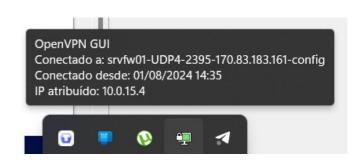
[AF_INET]170.83.163.161:2395





OpenVPN GUI - conectado







Emulador TN3270 Plus



Manual do usuário: http://www.sdisw.com/tn3270/manual/index.html

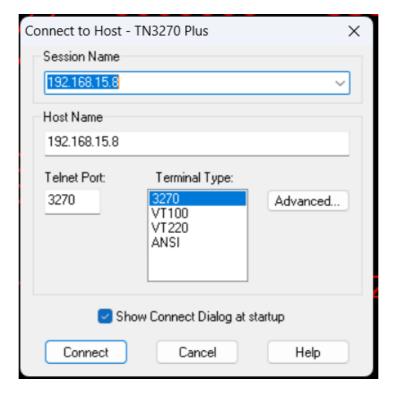
Documentos do suporte: http://www.sdisw.com/tn3270/whitepapers.htm

http://www.sdisw.com/



Conectando ao Sistema Central (Formação).





IP de acesso: 192.168.15.8

http://www.sdisw.com/





```
9 3: 192.168.15.8 - TN3270 Plus
Host Edit View Setup Macros Internet Help
               01/08/24
                 17:32:54
                                                                    TERMINAL VTAM
                                                                                      = LCL701
                                         CAPACITAÇÃO - COBOL
   ===> ENTRE "LOGON" SEGUIDO PELO USUARIO TSO. EXEMPLO: "LOGON INEFEXX" OU
   ===> ENTRE "L" SEGUIDO DO NOME DO CICS. EXEMPLOS: "L CIC5A01"
1: Hercules INEFE 3: 192.168.15.8
Connected to 192.168.15.8 port 3270
                                                                                00:00.000 24,01 IBM-3278-3-E
```

LOGON USERID

O USER-ID será fornecido via e-mail pelo suporte.

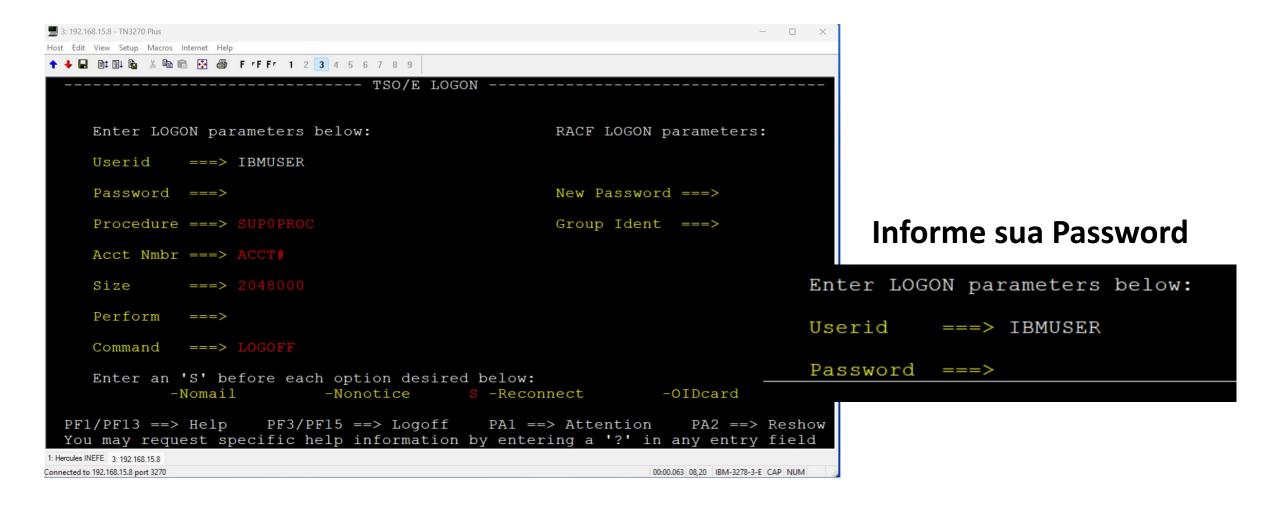


```
01/08/24
            17:32:54
                                                    TERMINAL VTAM = LCL701
                               CAPACITAÇÃO - COBOL
 ===> ENTRE "LOGON" SEGUIDO PELO USUARIO TSO. EXEMPLO: "LOGON INEFEXX" OU
 ===> ENTRE "L" SEGUIDO DO NOME DO CICS. EXEMPLOS:
logon ibmuser
```

LOGON USER-ID Conectando ao Host

==> ENTRE "LOGON" SEGUIDO PR ===> ENTRE "L" SEGUIDO DO NOR logon ibmuser







```
----- TSO/E LOGON ------
  Enter LOGON parameters below:
                                             RACF LOGON parameters:
  Userid ===> KC02746
  Password ===> _
                                             New Password ===>
  Procedure ===> DBPROCCG
                                             Group Ident ===>
  Acct Nmbr ===> ACCT#
  Size ===> 32768
  Perform ===>
  Command ===>
  Enter an 'S' before each option desired below:
                       -Nonotice S -Reconnect -OIDcard
         -Nomail
PF1/PF13 ==> Help PF3/PF15 ==> Logoff PA1 ==> Attention PA2 ==> Reshow
You may request specific help information by entering a '?' in any entry field
                0.4 05/24/23.144 09:34AM zos.kctr.marist.edu
                                                                  8,20
```

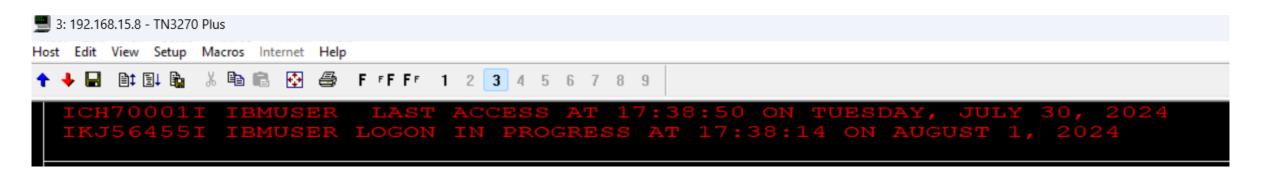
Informe sua senha Password

```
Enter LOGON parameters below:

Userid ===> KC02746

Password ===>
```





Mr Wizards i'm online...

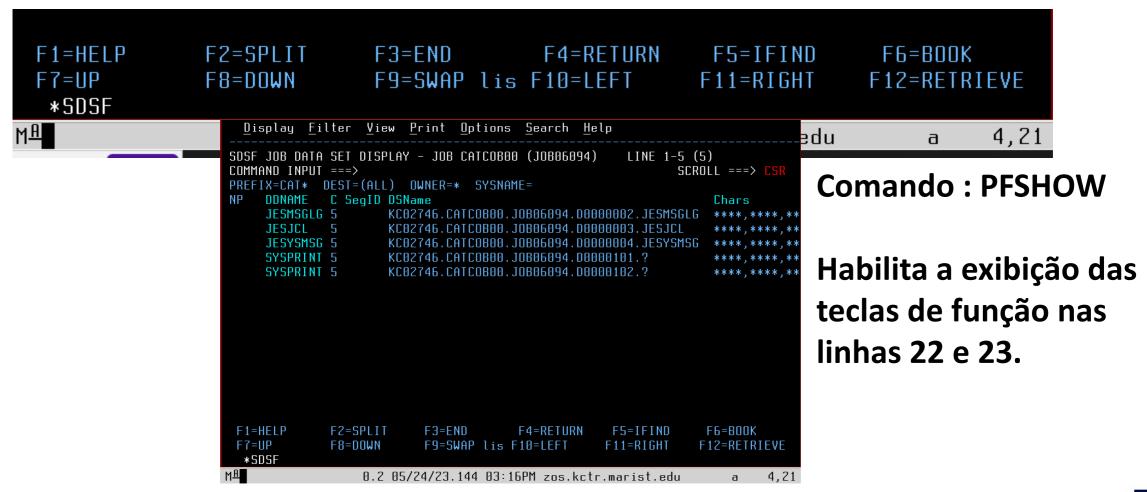




Menu Utilities Compilers Options Status Help			
ISPF Primary Option Menu (Suporte técnico) Option ===>			
0 Settings 1 View 2 Edit 3 Utilities 6 Command SD SDSF RC RACF IP IPCS DI DITTO OM OMVS SM SMP/E IS ISMF S2 SDF II DB DB2 AD DB2 Admin MQ WMQS FM FMOC Enter X	Terminal and user parameters Display source data or listings Create or change source data Perform utility functions Enter TSO or Workstation commands System Display And Search Facility Resource Access Control Facility Iteractive Product Control System Data Interfile Transfer, Testing And O Open Edition For MVS System Management Product Integrated Storage Management Facilit Screen Definition Facility II DB2 user tasks DB2 administrator tasks WMQ Series Operations and Control File Manager Operations and Control	User ID : IBMUSER Time. : 17:39 Terminal. : 3278 Screen. : 1 Language. : ENGLISH Appl ID : ISR TSO logon : SUPOPROC TSO prefix: System ID : ADCD MVS acct. : ACCT# Release : ISPF 6.1	



Teclas de Função





```
Menu Utilities Compilers Options Status Help
                         ISPF Primary Option Menu
Option ===>
                                         More:
                                                       User ID . : KC02746
 Settings Terminal and user parameters
               Display source data or listings
  View
                                                       Time. . . : 08:37
  Edit
               Create or change source data
                                                       Terminal.: 3278A
  Utilities
               Perform utility functions
                                                       Screen. . : 1
               Interactive language processing
                                                       Language. : ENGLISH
  Foreground
                Submit job for language processing
                                                       Appl ID . : ISR
  Batch
  Command
               Enter TSO or Workstation commands
                                                       TSO logon: DBPROCCG
  Dialog Test
               Perform dialog testing
                                                       TSO prefix:
 LM Facility Library administrator functions
                                                       System ID : SOW1
                                                       MVS acct. : ACCI#
  IBM Products IBM program development products
                                                       Release . : ISPF 7.4
Licensed Materials - Property of IBM
            Copyright IBM Corp. 1980, 2019.
5650-ZOS
US Government Users Restricted Rights -
Use, duplication or disclosure restricted
by GSA ADP Schedule Contract with IBM Corp.
                                              ity
 *DR2@PRI
```

IDE para desenvolvimento de programas Mainframe.



```
Menu Utilities Compilers Options Status Help
                           ISPF Primary Option Menu
Option ===> START
                                           More:
  Settings
                 Terminal and user parameters
                                                         User ID . : KC02746
                 Display source data or listings
                                                         Time. . . : 08:37
   View
  Edit
                 Create or change source data
                                                         Terminal.: 3278A
   Utilities
                 Perform utility functions
                                                         Screen. .: 1
   Foreground
                 Interactive language processing
                                                         Language. : ENGLISH
   Batch
                 Submit job for language processing
                                                         Appl ID . : ISR
                 Enter ISO or Workstation commands
                                                         TSO logon : DBPROCCG
   Command
   Dialog Test
                 Perform dialog testing
                                                         TSO prefix:
   LM Facility
                Library administrator functions
                                                         System ID : SOW1
   IBM Products IBM program development products
                                                         MVS acct. : ACCT#
                                                         Release . : ISPF 7.4
 Licensed Materials - Property of IBM
 5650-ZOS
              Copyright IBM Corp. 1980, 2019.
 US Government Users Restricted Rights -
 Use, duplication or disclosure restricted
 by GSA ADP Schedule Contract with IBM Corp.
                                                itu
  *DB2@PRI
MΗ
                                                                    ŷ a
                   0.1 05/24/23.144 09:37AM zos.kctr.marist.edu
                                                                           4,19
```

Comando Start

Cria novas janelas a

Option ===> <u>START</u>

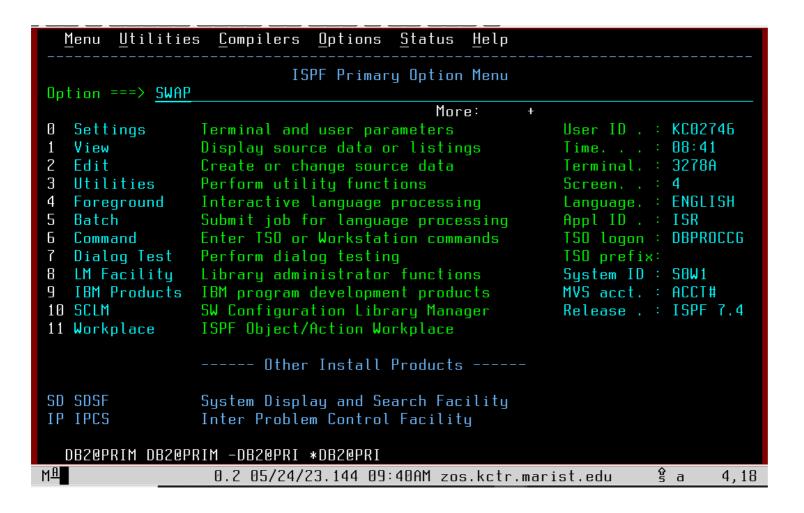


Menu Utiliti€	es <u>C</u> ompilers <u>O</u> ptions <u>S</u> tatus <u>H</u> elp		
	ISPF Primary Option Menu		
Option ===>			
	More: +		
_	Terminal and user parameters	< Calendar >	
1 View		May 2023	
	Create or change source data	Su Mo Tu We Th Fr Sa	
	Perform utility functions	1 2 3 4 5 6	
_	Interactive language processing	7 8 9 10 11 12 13	
5 Batch		14 15 16 <u>17</u> 18 19 20	
6 Command	Enter TSO or Workstation commands	21 22 23 <mark>24</mark> 25 26 27	
_	Perform dialog testing	28 29 30 31	
_	Library administrator functions		
	. 3	Time : 08:39	
10 SCLM	SW Configuration Library Manager	Day of year. : 144	
11 Workplace	ISPF Object/Action Workplace		
	Other Install Products		
SD SDSF	System Display and Search Facility		
IP IPCS	Inter Problem Control Facility		
-DB2@PRI *DB2@PRI			
Mπ	0.2 05/24/23.144 09:38AM zos.kctr.mar	ist.edu a 4,14	

Comando Start

Esta limitado a oito janelas, que podem ser renomeadas e permite navegação via mouse ou linha de comando.



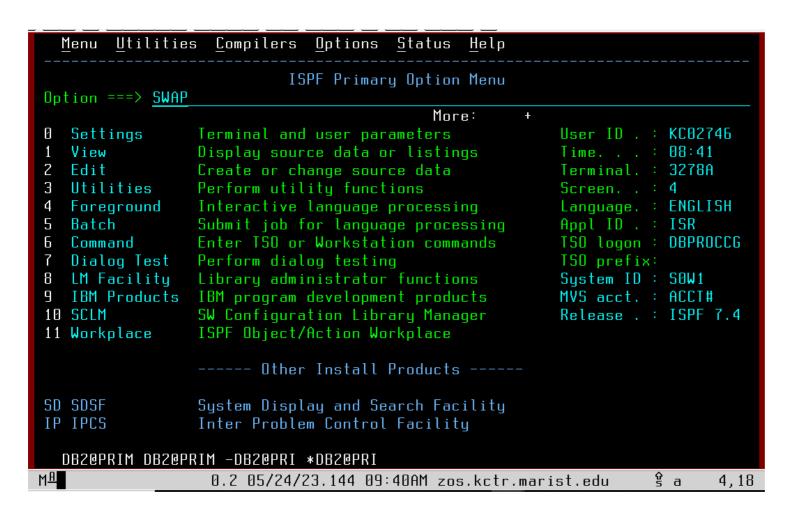


Comando Swap

Permite Navegar nas janelas abertas, da esquerda para direita num formato carrossel, voltando a

```
Option ===> <u>SWAP</u>
```





Comando Swap

Permite Navegar nas janelas abertas, da esquerda para direita num formato carrossel, voltando a primeira.

```
Option ===> <u>SWAP</u>

A Sattings Lormin
```



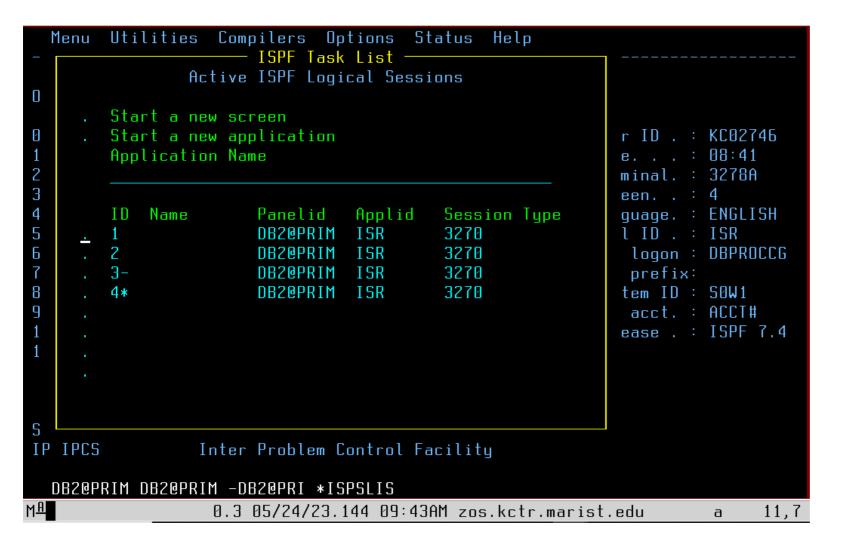
```
Menu Utilities Compilers Options Status Help
                           ISPF Primary Option Menu
Option ===> SWAP LIST
                                           More:
  Settings
                 Terminal and user parameters
                                                         User ID . : KC02746
   View
                 Display source data or listings
                                                         Time. . . : 08:41
2 Edit
                 Create or change source data
                                                         Terminal.: 3278A
   Utilities
                 Perform utility functions
                                                         Screen. . : 4
   Foreground
                 Interactive language processing
                                                         Language. : ENGLISH
                 Submit job for language processing
                                                         Appl ID . : ISR
   Batch
  Command
                 Enter TSO or Workstation commands
                                                         TSO logon : DBPROCCG
7 Dialog Test
                 Perform dialog testing
                                                         TSO prefix:
  LM Facility Library administrator functions
                                                         System ID : SOW1
                                                         MVS acct. : ACCT#
  IBM Products IBM program development products
10 SCLM
                 SW Configuration Library Manager
                                                         Release . : ISPF 7.4
11 Workplace
                 ISPF Object/Action Workplace
                 ----- Other Install Products -----
SD SDSF
                 System Display and Search Facility
IP IPCS
                 Inter Problem Control Facility
  DB2@PRIM DB2@PRIM -DB2@PRI *DB2@PRI
MH
                  0.2 05/24/23.144 09:41AM zos.kctr.marist.edu
                                                                          4,23
```

Comando Swap LIST

Abre uma janela que permite selecionar a janela diretamente.

```
Option ===> <u>SWAP_LIST</u>
```





Comando Swap LIST

Pode ser selecionado pelo ID ou colocando S na

```
. Start a new screen
. Start a new application
Application Name
1_______

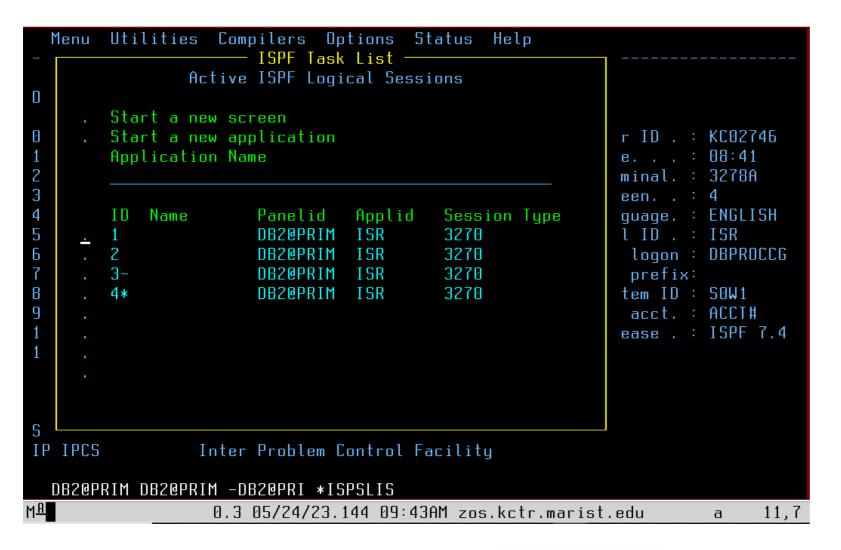
ID Name Panelid
1 DB2@PRIM
```

```
Active ISPF Logical Sessions

. Start a new screen
. Start a new application
Application Name

ID Name Panelid Applid Session Type
s 1 DB28PRIM ISR 3270
```





Comando Swap LIST

Pode ser selecionado pelo ID ou colocando S na frente.

```
. Start a new screen
. Start a new application
Application Name
1______
ID Name Panelid
1 DB2@PRIM
```

```
Active ISPF Logical Sessions

. Start a new screen
. Start a new application
Application Name

ID Name Panelid Applid Session Type
s 1 DB28PRIM ISR 3270
```



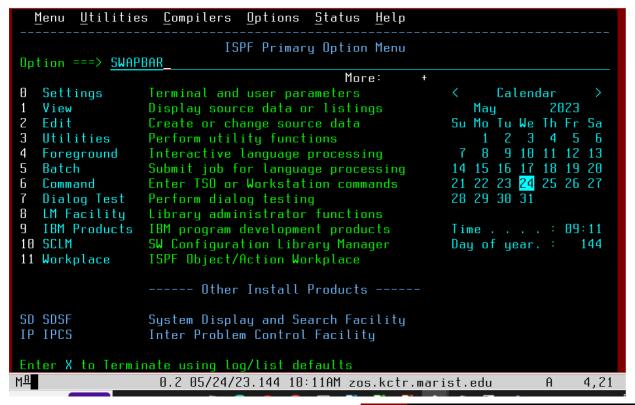
Menu RefList RefMode Utilities Workstation Help			
View Entry Panel Invalid command Command ===> <u>SCRNAME VIEWFILE</u>			
ISPF Library: Project KC02746 Group ELSON			
Name + Volume Serial (If not cataloged) Workstation File:			
File Name Options Initial Macro Confirm Cancel/Move/Replace Profile Name Browse Mode Format Name View on Workstation Data Set Password Warn on First Data Change Record Length Mixed Mode DB2@PRIM -DB2@PRI DB2@PRIM DB2@PRIM *VIEW WORK			
M≞ 0.1 05/24/23.144 10:09AM zos.kctr.marist.edu A 4,18			

Comando SCRNAME

Utilizado para renomear uma janela







Comando SWAPBAR

LIGA/DESLIGA a barra de navegação das janelas

```
Menu Utilities Compilers Op

ISPF
Option ===> SWAPBAR

O Settings Terminal and us
```

```
SD SDSF System Display and Search Facility
IP IPCS Inter Problem Control Facility

DB2@PRIM *DB2@PRI DB2@PRIM DB2@PRIM -VIEWFIL WORK

MA

0.2 05/24/23.144 10:12AM zos.kctr.marist.edu
```



Outros comandos de interesse

```
File Edit Edit_Settings Menu Utilities Compilers Test Help
          IBMUSER.WORKBOOK.COBOL(TSOCOMAN) - 01.03 Columns 00001 00072
***** *************************** Top of Data **********************
          TTTTTT SSSSS OOOOOO

TTTTTTT SS OO OO

TT SS OO OO

TT SSSSS OO OO

TT SSSSS OO OO

TT SS OO OO

TT SSSSS OOOOO
000004 ***
000005 ***
000006 ***
000007 ***
       *** COMANDOS UTEIS PARA O DIA A DIA NA EDICAO DE PROGRAMAS
           CONFIGURAÇÃO DE AMBIENTE DE EDIÇÃO
000014 [AUTOSAVE] ON / OF
000015 GRAVA AS EDICOES DE ARQUIVO NO TSO, QUANDO APERTAMOS O F3
000016
000017 [CAPS] ON / OFF
000018 NA EDICAO DE ARQUIVOS OS CARACTERES AUTOMATICAMENTE FICAM EM MAISCULAS
000019
000020 [HEX] ON / OFF
000021
        CONVERTE O ARQUIVO EM EDICAO DO FORMATO EBCDIC PARA HEXADECIMAL
000022
000023
       [HLITE] JCL / COBOL / SQL
000024
        CORES DE COMANDO NA LINGUAGEM SELECIONADA, FACILITA A CODIFICACAO
000026 [NUMBER] ON / OFF STD / COBOL
  *DSLIST
```

IBMUSER.WORKBOOK.COBOL(TSOCOMAN)





Outros comandos de interesse

```
ommand ===>
        [NUMBER] ON / OFF STD / COBOL
000027
        LIGA A NUMERACAO AUTOMATICA NA EDICAO DE ARQUIVOS
000028
000029
        [AUTONUM]
000030
        RENUMERA AUTOMATICA O ARQUIVO DE EDICAO
000031
000032
        [START]
        CRIA UMA NOVA JANELA DE EDICAO NA IDE TSO
000033
000034
000035
        [SPLIT]
        DIVID
000036
                A JANELA EM DUAS VISOES DE ACORDO COM O CURSO
000037
000038 [UP]
       SOBE UMA PAGINA / CSR DE TELA
000039
000040
      [DOWN]
000041
       DESCE UMA PAGINA / CSR DE TELA
000042
000043
000044
      [SWAP]
       NAVEGA NA JANELAS ATIVA NA SESSAO
000046
000047 [SWAPLIST]
       EXIBE
              UMA TELA COM TODAS AS JANELAS ATIVAS
00048
000049
      [SWAPBAR]
       EXIBE NA LINHA 24 ATALHO PARA AS JANELAS ATIVAS
```

IBMUSER.WORKBOOK.COBOL(TSOCOMAN)





Outros comandos de interesse

```
Command
                                                                 Scroll ===>
                                                                             CSR
000052
000053
       [SCRNAME] NOME
000054
        RENOMEIA UMA JANELA, UTIL PARA A NAVEGACAO
000055
000056
       [RESET] [RES]
000057
       LIMPA A JANELA ATIVA, ELIMINANDO WARNINGS E SUJEIRAS
000058
000059
       [SUB]
000060
        SUBMETE UM JCL PARA A EXECUCAO
000061
000062
       [SAVE]
000063
       SALVE UM ARQUIVO EM EDICAO
000064
000065
       [SRCHFOR] ATRIBUTO
000066
       PESQUISA NA BIBLIOTECA UMA DETERMINADA VARIAVEL
000067
000068
                                     FIM DO ARQUIVO
                                     Bottom of Data
```

IBMUSER.WORKBOOK.COBOL(TSOCOMAN)





Barra de Ferramentas ISPF

```
Menu Functions Confirm Utilities Help

VIEW IBMUSER.WORKBOOK.COBOL Member TSOCOMAN saved
```

```
Menu Functions Confirm Util

1. Settings |

2. View |

3. Edit |

4. ISPF Command Shell |

5. Dialog Test... |

6. Other IBM Products... |

7. SCLM |

8. ISPF Workplace |

9. Status Area... |

10. Exit |
```

```
Functions Confirm Utilities

1. Save List | 1

2. Change Colors |

3. Initial Sort View... |
```



Barra de Ferramentas ISPF

```
Menu Functions Confirm Utilities Help

VIEW IBMUSER.WORKBOOK.COBOL Member TSOCOMAN saved
```

```
Confirm Utilities Help

2 *. Set Delete Confirmation On

2. Set Delete Confirmation Off
```

```
Utilities Help
  1. Library
   2. Data set
   3. Move/Copy
   4. Data Set List
   5. Reset Statistics
   6. Hardcopy
  7. Download...
  8. Outlist
   9. Commands...
  *0. Reserved
  11. Format
 12. SuperC
 13. SuperCE
 14. Search-For
 15. Search-ForE
 16. Table Utility
 17. Directory List
```



Barra de Ferramentas ISPF

```
Menu Functions Confirm Utilities Help

VIEW IBMUSER.WORKBOOK.COBOL Member TSOCOMAN saved
```

```
Help
   1. Workplace General
   2. Library/DSLIST General
   3. Scrolling
   4. Pattern matching
   5. LOCATE command
   6. SORT command
   7. SAVE command
   8. RESET command
   9. SELECT command
  10. MLC command
  11. MLS command
  12. S line command
  13. Statistics
  14. Appendices
  15. Index
```



COBOL

DUVIDAS

Vamos conversar e tirar duvidas...

