

# Menu Maintenance

Menu maintenance means customizing system menus to the requirements of your installation. You can add menus, and modify or delete existing ones.

**Note:**

As of Natural ISPF Version 2.4.1, the menu structure has changed. If you wish to use the former menu structure, define the menu "MAIO" as main menu and/or set the parameter APPLYMOD 104 to "X". See the subsections Authorization Table and APPLYMOD 104.

This section covers the following topics:

- Starting a Menu Edit Session
  - Syntax of Menu Definition
  - Customizing Menus
  - Maintaining Menus with Function Commands
- 

## Starting a Menu Edit Session

Natural ISPF offers three options for starting a menu edit session:

- The MENU option on the Administration Menu prompts you for a menu name; enter a menu name to start an edit session with the menu definition (see the subsection Syntax of Menu Definition);
- The MENU LIST on the Administration Menu prompts you for a prefix to list all menus with that prefix (enter the wildcard \* in this window and press ENTER to list all menus); see the example list in the subsection Maintaining Menus with Function Commands.
- You can also start an edit session using function commands entered from any system screen, addressing object-type MNU. Available function commands are LIST, EDIT, and DELETE. See the subsection Maintaining Menus with Function Commands.

## Syntax of Menu Definition

Below is a typical Natural ISPF Main Menu:

```

----- NATURAL / NATURAL ISPF Main Menu -----
OPTION  ==>

User ID  FHI
Time    15:47:27
Terminal DAEFTCS3
Library  NSPF241
Node    148

_ 1  NATURAL  - Development Functions
_ 2  NATURAL  - Development Environment Settings
_ 3  NATURAL  - Maintenance and Transfer Utilities
_ 4  NATURAL  - Debugging and Monitoring Utilities
_ 5  NAT/NSPF - Example Libraries

_ 6  SAG      - SAG    Products
_ 7  SYSTEM   - System Products

_ 8  NSPF     - NSPF Administration

_ 9  NSPF     - NSPF Changes

_ HELP HELP   - NSPF    Help System
_ NHLP HELP   - NATURAL Help System
_ END  EXIT   - Exit NATURAL ISPF

Enter-PF13--PF14--PF15--PF16--PF17--PF18--PF19--PF20--PF21--PF22--PF23--PF24---
      Help Relis $End !Br : t;fin !inf Up    Down Susp; Left Right Exc :
    
```

If you select the MENU option on the Administrator Menu and enter the menu name MAIN in the prompt window, the associated menu definition appears in Editor format in EDIT mode:

```

EDIT-MNU:MAIN ----- Columns 001 072
COMMAND==>                                SCROLL==> CSR
***** ***** top of data *****
000010 HDR =NATURAL ISPF MAIN MENU
=cols> ---+---1---+---2---+---3---+---4---+---5---+---6---+---7---
000020 HELP=MAIN
000030 LINE=0  MENU PROF      PROFILE  - Profile maintenance
000040 LINE=#   ENTRY NAT     NN1 NATURAL - Work with NATURAL objects
000050 LINE=#   ENTRY VIW     NN1 VIEWS   - Definition, content of NATURAL Vi
000060 LINE=#   ENTRY ERR     NN1 ERROR   - Work with NATURAL error messages
000070 LINE=#   ENTRY PRD     NN1 PREDICT - Work with PREDICT descriptions
000080 LINE=#   ENTRY OUT     WORKPOOL   - Listing user output
000090 LINE=#   ENTRY CTN     O  CONTAINER - Incore database container file
000100 ****=
000110 LINE=#   ENTRY JOB     MJ1 JOBS     - Display JOBS status and data (MVS)
000120 LINE=#   ENTRY PDS     MP1 PDS     - Work with PDS members
000130 LINE=#   ENTRY DS      MD1 DATA SETS - Maintain data sets
----- 13 line(s) not displayed
000270 LINE=#   MENU SAT      S  SAT       - System Automation Tools
000280 LINE=NEWS NEWS      CHANGES  - New features in NATURAL ISPF
000290 LINE=END          EXIT       - Exit NATURAL ISPF
000300 LINE=HELP          HELP       - Display help information
000310 CMD =X           END
000320 CMD =x           END
    
```

The type of line in the menu is specified by the label starting in Column 1 of each line. The fields in each line must be coded in a specific range of columns (see the columns line in the above figure).

The following table explains the lines in the menu:

Line	Meaning
HDR =<text> (A50)	Defines the menu header to be displayed at the top of the screen.
HELP=<member> (A8)	Name of the member containing the help text for the screen. Help texts supplied by Software AG are stored in the System Help Library. You can define site-specific help texts and store them in the User Help Library. When a user issues the HELP command, the User Help Library is always searched first for a specific help member, then the Software AG library is searched. See also the Section Site-Specific Online Information.
LINE=# ENTRY NAT NN1 Natural - Work with Natural objects	This line is an example of an option to appear on the menu. The detailed syntax is explained in the table on the following page.
****=<text>	Defines a text line to be displayed on the menu. No text specifies a blank line.
CMD =<synonym> <command>	Where: synonym is Command synonym (A11). command is Any Natural ISPF command (A50). This line defines a command synonym; this can be an abbreviation of a Natural ISPF command which the user enters in the command line, or the synonym can be used in a menu option line if the available 12 bytes are too short for the original command. The above example menu defines X in upper case and lower case as a synonym for the END command.

The number of displayable menu options is limited to 18. This means that the sum of LINE= and \*\*\*\*= lines to be displayed must not exceed 18.

## Detailed Syntax of a Menu Option

LINE=# ENTRY NAT NN1 Natural - Work with Natural objects
--

The items must be written in the appropriate column number as shown below:

<b>Parameter (Format)</b>	<b>Meaning</b>
<opt> (A4) (# in example above) (columns 6 to 9)	Automatic numeration of the option. The special character # assigns the next number following on from the previous option. The first option line can contain a real number (in the above example, the first option is 0 (zero)). The default is 1. Alternatively, you can specify a character string for the option.
<command> (A12) (ENTRY NAT in example) (columns 11 to 22)	Valid Natural ISPF command or command synonym. This command is executed when the user selects this option. When defining your own menus or modifying existing ones, the following commands are available: MENU <mymenu> Displays menu MYMENU. NAT <myprog> Executes Natural program MYPROG. <synonym> Executes the command assigned to the synonym (see the description of the CMD line on the previous page). <Natural ISPF command> Executes the specified Natural ISPF command.
<S> (A1) (first N in example) (column 23)	Signifies the subsystem. For example, N for Natural. For a list of possible options, see Subsystems Supported by Natural ISPF at the end of this documentation. The menu line is only displayed if the specified subsystem is activated in the CONFIG member.
<C> (A1) (second N in example) (column 24)	Denotes the authorization class as listed in the user authorization table, for example, N for Natural. If the menu option is site-defined, use the equal sign = here. The authorization codes are also used in the site control table (see the Section Open NSPF in the Natural ISPF Programmer's Guide). For a list of possible values, see Authorization Classes at the end of this documentation.
<L> (N1) (1 in example) (column 25)	Denotes the authorization level for the class. Possible options are 1-9. The option line will appear on a user's menu only if the level specified here is equal to or lower than the authorization level for the same class in the user's authorization table. The above example specifies Level 1 for class Natural. To bar a user from using the Natural option, the user must have Level 0 in his or her authorization table. If you specify 2 here and the user is authorized for Natural with Level 1, he or she will not see the option on his or her menu, but can execute Level 1 functions using function commands on the corresponding object types. See also the subsection Authorization Table in the Section User Definitions.
<descriptive text> (A50) (Natural -Work with Natural objects in example) (columns 27 to 76)	Description of the menu option to appear in the menu line.

## Customizing Menus

Use the Editor to customize menus. To create a new menu from scratch, or adapt an existing menu for your site's purposes, you are strongly advised to use an existing menu as a model for the new one.

The easiest way of doing this is to work in multi-session mode: start an edit session with a new menu name in one session and an Editor session with an existing menu in another. Use cross-section copying with two Editor line commands CC to mark the block of the existing menu to be copied, and an Editor line command A in the edit session with the new menu to mark the place where the menu lines are to be inserted (see also the subsection Multi-Session Operations in the Section Useful Features of the Natural ISPF User's Guide).

This subsection provides some typical examples of customized menus:

- Example 1: Menu to Extend Menu Structure
- Example 2: Menu to Invoke Natural Programs/Applications
- Example 3: Menu to Submit Batch Jobs
- Example 4: Menu to Execute Commands
- Example 5: Menu to Provide Example Menu Options
- Example 6: Menu NULL for Unauthorized Users

### Example 1: Menu to Extend Menu Structure

The following menu named SAG invokes other menus, using the MENU command:

```

----- Software AG MENU -----
OPTION  ==>

                                Userid  MBE
                                Time    17:52:12
                                Terminal DAEDC617
                                Library  MBE
                                Node

1  ISPF      - New features and functions
2  ISPF      - Error messages and comments
3  BATCH    - Batch utilities menu
4  NATURAL   - NATURAL utilities menu

5  JCL       - for NATURAL ISPF
S  SDSF     - System display/search facility

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help  Split End   Suspe Rfind Rchan Up      Down  Swap  Left  Right Curso

```

The following is the corresponding menu definition:

```

EDIT-MNU:SAG ----- Columns 001 072
COMMAND===> SCROLL===> CSR
***** ***** top of data *****
000010 HDR =Software AG MENU
000020 HELP=SAGHELP
=cols> ----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
000030 LINE=# NEWS ISPF - New features and functions
000040 LINE=# ERRM A4 ISPF - Error messages and comments
000050 LINE=# MENU BTCH =4 BATCH - Batch utilities menu
000060 LINE=# MENU UTIL NATURAL - NATURAL utilities menu
000070 ****=
000080 LINE=# MENU ISPF JCL - for NATURAL ISPF
000090 LINE=S MENU SDSF SDSF - System display/search facility
000100 ****=
000110 CMD =ERRM list pds nn(v2*)
***** ***** bottom of data *****

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Help Split End Suspe Rfind Rchan Up Down Swap Left Right Curso
    
```

**Explanation**

The line:

```
HELP=SAGHELP
```

invokes help member SAGHELP in the User Help Library when a user issues the HELP command from this menu.

The line:

```
LINE=S MENU SDSF SDSF - System display/search facility
```

defines an option **S**, which, when selected, displays the menu named SDSF. Since no subsystem and authorization codes are specified in this line, the option is subsystem-independent and will appear on this menu for all users. Only access to the options invoked by the ERRM and MENU BTCH commands are subject to authorization.

The command ERRM is a synonym for a command sequence, defined by the line:

```
CMD =ERRM list pds nn(v2*)
```

If you wish to make this menu available from any menu at your site, you must add the following line to the options on that menu definition:

```
LINE=# MENU SAG SAG - Software AG menu
```

**Example 2: Menu to Invoke Natural Programs/Applications**

The following menu invokes Natural programs or applications:

```

----- Natural ISPF Utility Menu -----
OPTION  ==>

                                Userid  BRY
                                Time    10:48:43
                                Terminal DAEFTC10
                                Library  BRY
                                Node

TP   SYSTP      - NATURAL TP monitor specifics
PROD SYSPROD   - Installed products
FIL  SYSPROF   - Files information
BPM  SYSBPM    - NATURAL Buffer pool
LOG  DBLOG     - Trace Database calls
DBA  SYSDBA    - DBA utilities
CAT  CATALL    - Catalog NATURAL Library
DIC  PREDICT   - PREDICT Dictionary
XREF XREF      - Active References

SEC  SYSSEC    - NATURAL Security
ERR  SYSERR    - NATURAL Error messages
CP   SYSMAIN   - NATURAL Copy utility

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help Split End  Suspe Rfind Rchan Up    Down Swap Left  Right Curso
    
```

The menu is created by the following definition:

```

EDIT-MNU:UTIL ----- Columns 001 072
COMMAND==>                                SCROLL==> CSR
***** ***** top of data *****
000010 HDR =NATURAL ISPF Utility Menu
=cols> ---+---1---+---2---+---3---+---4---+---5---+---6---+---7--
000020 LINE=TP   SYSTP      N1 SYSTP      - NATURAL TP monitor specifics
000030 LINE=PROD NAT SYSPROD N1 SYSPROD   - Installed products
000040 LINE=FIL  NAT SYSPROF N1 SYSPROF   - Files information
000050 LINE=BPM  APP SYSBPM  N1 SYSBPM   - NATURAL Buffer pool
000060 LINE=LOG  TDBLOG     N1 DBLOG    - Trace Database calls
000070 LINE=DBA  SYSDBA    N1 SYSDBA   - DBA utilities
000080 LINE=CAT  NAT CATALL  N1 CATALL   - Catalog NATURAL Library
000090 LINE=DIC  APP SYSDIC  N1 PREDICT  - PREDICT Dictionary
000100 LINE=XREF NAT L X     N1 XREF     - Active References
000110 ****=
000120 LINE=SEC  SYSSEC      N3 SYSSEC   - NATURAL Security
000130 LINE=ERR  SYSERR      N1 SYSERR   - NATURAL Error messages
000140 LINE=CP   APP SYSMAIN  N1 SYSMAIN  - NATURAL Copy utility
000150 ****=
000160 CMD =SYSTP  APP SYSTP  MENU
000170 CMD =SYSDBA APP SYSDBA MENU
000180 CMD =TDBLOG NAT TEST  DBLOG ?
000190 CMD =SYSERR APP SYSERR MENU
000200 CMD =SYSSEC  APP SYSSEC  MENU
    
```

**Explanation**

The line:

```

LINE=XREF  NAT L X      N1 XREF      - Active References
    
```

invokes Natural system command LIST with parameter XREF. This option is subsystem-independent with Authorization Level 1.

If you wish to add a site-specific option that invokes a different application, you must add a menu line similar to the following:

```
LINE=#      APP MYAPPL      =3 MYAPPL      - Natural my application
```

This example assumes that the application MYAPPL is terminated with the command RETURN on the stack.

This menu option adds a subsystem-independent option MYAPPL to the menu. The authorization class is **user-defined** (=) with Level 3, which means that a user must be authorized with at least Level 3 in his authorization table to see the option on his or her menu.

The line:

```
CMD =SYSERR APP SYSERR MENU
```

defines SYSERR as a synonym for the command sequence APPLICATION SYSERR MENU and is used in the SYSERR menu option to invoke the Natural error message maintenance facility.

If you wish to make the above menu available at your site, you must add the following line to the options on that menu definition:

```
LINE=#      MENU UTIL      UTIL      - Natural ISPF Utilities
```

### Example 3: Menu to Submit Batch Jobs

The selection of an option on the following menu results in the submission of a Batch job:

```
----- Batch Utilities Menu -----
OPTION  ===>

          1  IEBCOPY      - Online input for IEBCOPY
          2  ADAREP      - ADABAS Database Report
          3  TAPE        - Tape creation
          4  NATBAT      - NATURAL Batch execution

                                Userid  MBE
                                Time    17:52:12
                                Terminal DAEDC617
                                Library  MBE
                                Node

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help  Split End  Suspe Rfind Rchan Up    Down  Swap  Left  Right Curso
```

The following is the menu definition:

```

EDIT-MNU:BTCH ----- Columns 001 072
COMMAND===>                                SCROLL===> CSR
***** ***** top of data *****
000010 HDR =Batch Utilities Menu
000020 HELP=MAIN
=cols> ----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
000030 LINE=#      IEBCOPY          IEBCOPY      - Online input for IEBCOPY
000040 LINE=#      ADAREP          ADAREP      - ADABAS Database Report
000050 LINE=#      TAPE           TAPE        - Tape creation
000060 LINE=#      NATBAT         NATBAT      - NATURAL Batch execution
000070 ****=
000080 CMD =IEBCOPY SUBMIT PDS JWO.COMN.SOURCE(EXSUBMIT)
000090 CMD =ADAREP SUBMIT PDS JWO.COMN.SOURCE(EXADAREP)
000100 CMD =TAPE SUBMIT MACRO EXMAC2
000110 CMD =TAPE2 SUBMIT NAT NSPF1200(EXTAPENA)
000120 CMD =NATBAT SUBMIT PDS JWO.COMN.SOURCE(EXNATBAT)
***** ***** bottom of data *****

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help Split End  Suspe Rfind Rchan Up      Down Swap Left Right Curso

```

### Explanation

All options have no subsystem or authorization restrictions.

Please note the use of command synonyms in this example. For example, the line:

```
CMD =ADAREP SUBMIT PDS JWO.COMN.SOURCE(EXADAREP)
```

defines ADAREP as synonym for the command string:

```
SUBMIT PDS JWO.COMN.SOURCE(EXADAREP)
```

Selecting the ADAREP option on the menu submits JCL member EXADAREP in the PDS library JWO.COMN.SOURCE. JCL can also be contained in a Natural member (see the TAPE2 synonym).

The members submitted in this way can also make use of the Natural ISPF macro facility as described in Section Macro Facility in the Natural ISPF Programmer's Guide. For example, submission of JCL could result in a window being displayed in which you enter variable parameters before the job is submitted. Alternatively, for faster processing, you can submit compiled macros by submitting a MACRO object (see the TAPE option and synonym).

If you wish to make the above menu available from any menu at your site, you must add the following line to the options on that menu definition:

```
LINE=#      MENU BTCH          BATCH          - Batch Utilities
```

### Example 4: Menu to Execute Commands

For repetitive use of similar commands with different parameters, it may be useful to define a menu with options that reflect certain command sequences. This is done using the synonym feature. For example, the following menu provides a number of system monitoring functions (it may look familiar to you):

```

----- 'like SDSF' primary option menu -----
OPTION  ===>

                                Userid   MBE
                                Time     18:04:16
                                Terminal  DAEDC617
                                Library   MBE
                                Node

LOG   - Display the system log
DA    - Display active users of the system
I     - Display jobs in JES input queue
O     - Display jobs in JES output queue
H     - Display jobs in JES held output queue

ST    - Display status of jobs in JES queues
INIT  - Display JES initiators on this system

END   - Exit 'like SDSF'
HELP  - Display help information

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help Split End  Suspe Rfind Rchan Up    Down Swap Left  Right Curso
    
```

This menu is created by the following menu definition:

```

EDIT-MNU:SDSF ----- Columns 001 072
COMMAND===>                                SCROLL===> CSR
***** top of data *****
000010 HDR = 'like SDSF' primary option menu
000020 HELP=MAIN
=cols> ----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
000030 LINE=LOG  LOG          - Display the system log
000040 LINE=DA   UQ           - Display active users of the system
000050 LINE=I    QQ           - Display jobs in JES input queue
000060 LINE=O    QO           - Display jobs in JES output queue
000070 LINE=H    QH           - Display jobs in JES held output queue
000080 ****=
000090 LINE=ST   QS           - Display status of jobs in JES queues
000100 LINE=INIT  QX           - Display JES initiators on this system
000110 ****=
000120 LINE=END   - Exit 'like SDSF'
000130 LINE=HELP - Display help information
000140 CMD =X          END
000150 CMD =x          END
000160 CMD =QQ list job * QUEUE=I
000170 CMD =QO list job * QUEUE=O
000180 CMD =QX list ACT * TYPE=I
000190 CMD =QH list job * QUEUE=H
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help Split End  Suspe Rfind Rchan Up    Down Swap Left  Right Curso
    
```

## Explanation

The options have no subsystem or authorization restrictions. Note the use of command synonyms.

If you wish to make this menu available from any menu at your site, you must add the following line to the options on that menu definition:

```
LINE=#    MENU SDSF          SDSF          - SDSF-like options
```

## Example 5: Menu to Provide Example Menu Options

The following example menu illustrates how standard utilities and functions can be integrated into the Natural ISPF environment by defining them as menu options:

```
----- NATURAL ISPF example menu -----
OPTION  ===>

                                Userid  MBE
                                Time     13:02:26
                                Terminal DAELC521
                                Library  MBE
                                Node     148

1  Integrate menus
   NATURAL  - Utilities
2  SDSF     - SDSF entry panel
   Integrate NATURAL programs/applications
3  SYSPROD - Installed products
4  PREDICT  - PREDICT Dictionary
   Integrate Batch jobs
5  ADAREP   - ADABAS Database Report
6  TAPE     - Tape creation
7  TAPESCAN - Tapescan for VSE
   Use TSO Batch interface
8  TSO HELP - Display Help for TSO commands
9  TSO MENU - Use real TSO
   Use internal command
10 CON-NECT - List CON-NECT inbasket

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help Split End  Suspe Rfind Rchan Up      Down Swap Left Right :s
```

The example menu definition looks as follows:

```

EDIT-MNU:EXAM ----- Columns 001 072
COMMAND===> SCROLL===> CSR
***** ***** top of data *****
000010 HDR =NATURAL ISPF example menu
000020 HELP=MAIN
000030 ****=Integrate menus
000040 LINE=# MENU UTIL NN1 NATURAL - Utilities
000050 LINE=# MENU SDSF M SDSF - SDSF entry panel
000060 ****=Integrate NATURAL programs/applications
000070 LINE=# NAT SYSPROD NN1 SYSPROD - Installed products
000080 LINE=# APP SYSDIC NN1 PREDICT - PREDICT Dictionary
000090 ****=Integrate Batch jobs
000100 LINE=# ADAREP M ADAREP - ADABAS Database Report
000110 LINE=# TAPE M TAPE - Tape creation
000120 LINE=# DOST D TAPESCAN - Tapescan for VSE
000130 ****=Use TSO Batch interface
000140 LINE=# TSOH M31 TSO HELP - Display Help for TSO commands
000150 LINE=# MENU TSO M TSO MENU - Use real TSO
000160 ****=Use internal command
000170 LINE=# POST C CON-NECT - List CON-NECT inbasket
000180 CMD =X END
000190 CMD =x END
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Help Split End Suspe Rfind Rchan Up Down Swap Left Right :s
    
```

Issue the DOWN command (usually assigned to PF8) to display the rest of the menu definition:

```

EDIT-MNU:EXAM ----- Columns 001 072
COMMAND===> SCROLL===> CSR
000200 CMD =POST LS DOC * FO=POSTEINGANG FI=NEU
000210 CMD =ADAREP SUBMIT PDS SAG.ISP141.SRCE(EXADAREP)
000220 CMD =TAPE SUBMIT MACRO SYSISPE(MAC-MVS4)
000230 CMD =DOST SUBMIT MACRO SYSISPE(MAC-VSE2)
000240 CMD =TSOH SUBMIT MACRO SYSISPE(MAC-TSO1),TYPE=TSO
***** ***** bottom of data *****

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Help Split End Suspe Rfind Rchan Up Down Swap Left Right :s
    
```

**Explanation**

The menu options speak for themselves. Note the use of command synonyms to submit specific objects using a single simple command. In this way, site-specific functions can be made easy to use, for example, the command POST has been defined to check the Con-nect Inbasket.

If you wish to make this menu available from any menu at your site, you must add the following line to the options on that menu definition:

```

LINE=# MENU EXAM A1 EXAMPLE - Invoke example menu
    
```

## Example 6: Menu NULL for Unauthorized Users

If you wish to deny access to undefined users for whom there is no prefix authorization, you can define a menu similar to the following to be displayed when the user logs on:

```

----- NATURAL ISPF -----
OPTION  ===>

                                Userid   MBE
                                Time     17:52:12
                                Terminal DAEDC617
                                Library  MBE
                                Node

    You are not authorized to use NATURAL ISPF,
    please contact your ISPF administrator, who
    will give you access to the system.

    1  Terminate NATURAL ISPF

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help  Split End   Suspe Rfind Rchan Up    Down  Swap  Left  Right Curso
  
```

The menu definition looks like the following:

```

EDIT-MNU:NULL ----- Columns 001 072
COMMAND===>                                SCROLL===> CSR
***** ***** top of data *****
000010 HDR =NATURAL ISPF
=cols> ----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
000020 ****=
000030 ****=You are not authorized to use NATURAL ISPF,
000040 ****=please contact your ISPF administrator, who
000050 ****=will give you access to the system.
000060 ****=
000070 ****=
000080 LINE=#      END                Terminate NATURAL ISPF
***** ***** bottom of data *****

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help  Split End   Suspe Rfind Rchan Up    Down  Swap  Left  Right Curso
  
```

You must specify menu name NULL as Main Menu in the authorization table of the default definition (\*) which is assigned to undefined users for whom there is no prefix (group) definition (see the Section User Definitions).

## Maintaining Menus with Function Commands

Natural ISPF menus are separate objects within Natural ISPF with object type MNU. This means that you (and other authorized users) can maintain menu definitions with function command syntax entered from any system screen.

The available function commands are:

Command	Object Parameter Syntax
LIST	prefix
EDIT	menuname
DELETE	menuname

where prefix is a prefix notation followed by the wildcard \* to select only those menus that start with that prefix. The default is the wildcard \* for a list of all menus.

**Note:**

If you issue any of the commands without parameters, Natural ISPF prompts you for valid values.

**Example: EDIT**

The command:

```
EDIT MNU MAIN
```

displays the Main Menu definition in Editor format. You can modify the menu and save it with the command SAVE.

**Note:**

If you delete the modified menu, you only back out your changes: you cannot delete a system menu supplied by Software AG.

**Example: LIST**

The command:

```
LIST MNU *
```

lists all defined menus in the same format as when you select the MENU LIST option from the Administrator Menu, for example:

```

LIST-MNU:* ----- Row 0 of 13 - Columns 006 051
COMMAND===>                                     SCROLL===> CSR
MENU          TYPE HEADER
** ***** top of list *****
ADMN          SYS  CONFIGURATION MENU
BTCH          USER Batch Utilities Menu
DOC           USER NATURAL ISPF doctest
ISPF          USER JCL for ISPF development and ins
MAIN          USER NATURAL ISPF MAIN MENU
NULL          USER Sorry you are not authorized to
MPAN          SYS  NSPF MAIN MENU
SAG           USER Software AG MENU
PROF          SYS  PROFILES MENU
SDSF          USER 'like SDSF' primary option menu
TEST          USER 'LIKE SDSF' PRIMARY OPTION MENU
SYS           SYS  SYSTEM FACILITIES
UTIL          USER NATURAL ISPF Utility Menu
** ***** bottom of list *****

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help Split End  Suspe Rfind Rchan Up      Down Swap Left Right Curso
    
```

Meaning of the column headings:

Column	Meaning
MENU	Name of menu.
TYPE	Type of menu. Possible values: SYS System menu copied from installation tape as delivered by Software AG. USER Modified or new menus defined by authorized users. When your Natural ISPF system is upgraded by a later version, only SYS-type menus are overwritten by the new menus from the installation tape (see note below).

You can select any menu from the list with the **E** (EDIT) or **D** (DELETE) line command entered in the input field preceding the menu name. The EDIT option allows you to modify the menu definition.

**Note:**

When modifying a SYS-type menu, you actually create a new USER-type copy of it. If you delete this menu later, only the USER-type version is deleted, and the old SYS-type menu is displayed again. It is not possible to delete SYS-type menus.