

# Finding Your Way In Natural Security

This section provides information on handling Natural Security. It covers the following topics:

- Invoking a Function
  - Pressing the ENTER Key
  - Help
  - Not Sure What to Enter?
  - Handling a List
  - Direct Commands
- 

## Invoking a Function

You can invoke Natural Security functions from within the Natural Security library SYSSEC or from outside of SYSSEC.

Within SYSSEC:

- You can invoke a function by selecting it from a Natural Security menu or selection list.
- You can invoke a function by issuing a direct command.

Outside of SYSSEC:

- You can invoke a function via one of the application programming interfaces provided.
- You can invoke a function by issuing a direct command.

## Profile Security

Regardless of how you invoke a function, Natural Security's administrator/owner settings will always apply; that is, you can only apply functions to those security profiles you are allowed to maintain.

## Functional Security

All SYSSEC-specific commands are defined in the command processor NSCCMD01. You can disallow Natural Security functions by disallowing the corresponding commands in NSCCMD01. For details on NSCCMD01, see the section *Functional Security for Library SYSSEC*.

If functions are disallowed in NSCCMD01, the corresponding menu items will not be visible on the Natural Security menus. This means that within SYSSEC you only see the functions you are allowed to use.

## Aborting a Function

*Do not* use the Natural terminal command "%" to abort a Natural Security function, as this may cause inconsistencies in your Natural Security data.

## Pressing the ENTER Key

To tell Natural Security to perform a particular action, you enter the appropriate function code, command, etc. and then press the ENTER key.

So, if the Natural Security documentation tells you to "enter a function code", this means, "type in the function code and press ENTER".

If a function requires that you press another key, this is explicitly mentioned in the Natural Security documentation.

## Help

To invoke online help for a Natural Security function:

- you enter a question mark (?) as a function code on screens with a function code input field; or
- you press PF1 on any Natural Security screen.

An explanation of a given screen and the information necessary to proceed will be displayed.

### Note:

If certain items displayed on a Natural Security screen are not directly relevant for the execution of the function concerned, these items are not always explained in this documentation. In these cases, you will find the corresponding explanations in the online help.

## Not Sure What to Enter?

If you are not sure what you can enter in an input field on a Natural Security menu or selection screen, enter an asterisk (\*) in the field: a window will be displayed showing you all the possible values for the field; in the window, you can then select the desired value.

## Handling a List

This section covers the following topics:

- Selecting the Range of Objects to be Listed
- Scrolling a List
- Selecting an Object from a List

## Selecting the Range of Objects to be Listed

When you invoke the Maintenance or Retrieval subsystem for a certain object type (user, library, etc.), a list of these objects will be displayed. Normally such a list will contain all objects.

For example, to list all users defined to Natural Security, you mark object type "User".

```

+-----MAINTENANCE-----+
! Please select one type of object: !
!                                     !
!  X User                             !
!  _ Application                       !
!  _ Library                           !
!  _ File                               !
!  _ Mailbox                            !
!  _ Utility                            !
!                                     !
!                                     !
! Start Value .. _____          !
! Type/Status .. _____          !
+-----+

```

The contents of the above selection window may vary depending on the platform and the types of external objects available. If the list of object types exceeds the size of the window, you can use PF7 and PF8 to scroll within the window.

If you do not want a list of all objects but would like only certain objects to be listed, you may use the option "Start Value".

For users, applications, libraries and files, you may also use the option "Type/Status" - either alone or in combination with the "Start Value" option. For other objects, only the "Start Value" option is available.

### Start Value

In this field you may enter a start value, which may consist of one or more characters, or of one or more characters followed by an asterisk (\*). The option to enter a value followed by an asterisk is referred to as *asterisk notation* throughout the Natural Security documentation.

For example, to list all users, starting from the first user whose ID begins with "TOM", you mark object type "User" and enter the following:

```
Start Value .. TOM
```

For example, to list only those users whose IDs begin with "TOM", you mark object type "User" and enter the following:

```
Start Value .. TOM*
```

### Type/Status

In this field you may enter a user type, application type, library protection status, or (on mainframes) a file status.

## User Type

User type may be one of the following:

<b>G</b>	Group
<b>M</b>	Member
<b>P</b>	Person
<b>A</b>	Administrator
<b>T</b>	Terminal
<b>B</b>	Batch User

## Library Protection Status

Library protection status may be one of the following:

<b>NN</b>	Not protected.
<b>LN</b>	Not protected, but linkable for one group.
<b>YN</b>	People-protected only.
<b>NY</b>	Terminal-protected only.
<b>YY</b>	People- or terminal-protected.
<b>YA</b>	People- and terminal-protected.
<b>PN</b>	For private libraries: same as "YN".
<b>PY</b>	For private libraries: same as "YY".
<b>PA</b>	For private libraries: same as "YA".

(The above protection combinations are explained in the section *Protecting Libraries*.)

## File Status

File status may be one of the following:

<b>PRIV</b>	Private.
<b>ACCE</b>	Access.
<b>PUBL</b>	Public.
<b>UNDF</b>	Undefined; that is, DDMs for which no file security profiles have been created (*).
<b>DEFI</b>	Defined; that is, all PRIV, ACCE, and PUBL files (*).
<b>NDDM</b>	File security profiles for which no DDMs exist (*).
<b>DDM</b>	All PRIV, ACCE, PUBL and UNDF files (*)

\* This is not an actual file status, but for selection purposes only.

If you do not select a file status, all PRIV, ACCE, and PUBL files will be listed.

### Application Type

Application type may be one of the following:

<b>B or BASE</b>	Base applications.
<b>C or COMP</b>	Compound applications.

If you do not select an application type, both base and compound applications will be listed.

### Example of Type/Status option:

To list all users of user type "Member", you mark object type "User" and enter the following:

```
Type/Status .. M
```

### Example of combining Start Value and Type/Status:

To list only users of user type "Member" whose IDs begin with "T", you mark object type "User" and enter the following:

```
Start Value .. T*
Type/Status .. M
```

### Scrolling a List

Once a list of objects is displayed, you may scroll it backwards and forwards in the following manner:

- To scroll a list one page forward, you press PF8 (+).
- To scroll a list one page backward, you press PF7 (-).
- To scroll a list to its beginning, you press PF19 (- -).
- To scroll a list to a specified start value, you may use the *intensified* field above the IDs, in the same way as described above for the Start Value field.
- For a list of users or applications, you can also use the *intensified* field above the Type column in the same way as described above for the Type/Status field. For a list of libraries, the same is true for the field above the Protection Status column. These fields display the currently valid type/status selection criterion.

11:38:39	*** NATURAL SECURITY ***		2009-07-31
	- User Maintenance -		
Co	User ID	User Name	Type Message
___	AAZ	ABDUL ALHAZRED	A
___	AD	ARTHUR DENT	A
___	AH	ALICE HARGREAVES	M
___	ER	ELLEN RIPLEY	M
___	LL	LOCKE LAMORA	M
___	TN	THURSDAY NEXT	A
___	VV	VINCENT VEGA	P

## Selecting an Object from a List

To select an object from a list for a function, you simply type in the appropriate function code for the function next to the object in the left-hand column (entitled "Co") of a selection screen.

If you do not remember the function code for the function you wish to perform, enter an asterisk (\*) in the "Co" column. A window will be displayed which shows all the function codes available; in the window, you can then select the desired function code.

## Direct Commands

This section covers the following topics

- General Command Information
- Commands to Invoke a Function
- Commands to Invoke a Selection List
- Special Commands
- Issuing a Command Outside of SYSSEC

### General Command Information

Once you are familiar with Natural Security and know how to find your way from menu to menu, you may be interested in invoking the function you want directly. This is done by using *direct commands*.

You can enter a direct command on any Natural Security screen which provides a *command line*:

<b>Command ===&gt;</b>		
Enter-PF1---	PF2---PF3---	PF4---PF5---
PF6---	PF7---	PF8---
PF9---	PF10---	PF11---
PF12---	Help	Exit
		Cancel

If you enter a direct command which is invalid, you will receive an appropriate error message. If you enter a command which is incomplete, you will be prompted to specify the missing item(s).

After a function invoked by a direct command has been executed, the screen from which that function would "normally" be invoked will be displayed - *not* the screen on which the command had been entered.

There are three types of direct commands:

- commands to invoke a function,
- commands to invoke a selection list,
- special commands.

## Commands to Invoke a Function

### General Command Syntax

Generally, a direct command which is used to invoke a function consists of the following components, which you specify in the following order:

*function object-type object-ID parameters*

First, you specify a *function*. Possible functions are:

ADD	Add security profile.
COPY	Copy security profile.
MODIFY	Modify security profile.
RENAME	Rename security profile.
DELETE	Delete security profile.
DISPLAY	Display security profile.
EDIT	Edit group members.
LINK	Link object to another object.
XREF	Cross-reference object.

After the function, you specify an *object-type* (for example, USER, LIBRARY).

After the object type, you can specify an *object-ID* (for example, a user ID or library ID).

After the ID, you can specify one or more *parameters* (for example, a user type).

### Parameters for Security-Profile Components

For the functions DISPLAY and MODIFY, several *parameters* are available which allow you to directly access those components of a security profile which are not on the main security-profile screen, but on one of profile's Additional Options screens. These are:

For all *object-types*:

Parameter	Security-Profile Component
DIR	Maintenance Information.
NOTES	Security Notes.
OWNERS	Owners.

For *object-type* USER:

Parameter	Security-Profile Component
MAILBOXES	Mailboxes.
ACTIVATION	Activation Dates.
FUNCSEC	Functional Security.
PRIVLIB	Private Library (only for user types A and P).
SESSION	Session Options (only for user types A and P).

For *object-type* LIBRARY:

Parameter	Security-Profile Component
MAILBOXES	Mailboxes.
TIMEW	Time Windows.
STEPLIBS	Steplibs.
FUNCSEC	Functional Security.
USEREXIT	User Exit.
OPTIONS	Security Options.
LIMITS	Security Limits.
PARAMETERS	Session Parameters.
RPC	Natural RPC Restrictions.
COMMANDS	Command Restrictions.
EDITORS	Editing Restrictions.
STATEMENTS	Statement Restrictions.
MODULES	Disallow/Allow Modules.
DDMSTATUS	Set Status of DDMs.

### Abbreviating a Command

You may abbreviate the *function* component of a direct command as you please, as long as the abbreviation uniquely identifies the function.



You may abbreviate the *object-type* component of a direct command to 2 characters.

**Examples:**

<b>DISPLAY USER ADE</b>	This command causes the security profile of user "ADE" to be displayed.
<b>DISPLAY US ADE DIS USER ADE DI US ADE</b>	Each of these three commands also causes the security profile of user "ADE" to be displayed.
<b>DE US ADE</b>	This command invokes the Delete function for user "ADE".
<b>D US AE</b>	This command is <i>invalid</i> , because "D" does not uniquely identify a function; it could stand for DISPLAY or DELETE.

Several Natural system commands are available within Natural Security; they must also be taken into consideration as far as the unique identification of a function is concerned.

**Command Examples**

<b>ADD</b>	If you enter this command on a Maintenance selection list, the Add function for that type of object will be invoked. If you enter it somewhere else, the command is incomplete, because no object type was specified.
<b>ADD US</b>	The Add User window will be invoked for you to enter a user ID and user type.
<b>ADD US CMOT</b>	The Add User window will be invoked for you to enter a user type.
<b>ADD US CMOT M ANKH</b>	The Add User screen for user "CMOT" of user type "Member", using default profile "ANKH" as the basis of the user profile to be created, will be invoked for you to define the user.
<b>MODIFY</b>	This command is incomplete, because no object type was specified after the function.
<b>MODIFY LIB</b>	This command displays the Library Maintenance selection list, as no library ID was specified.
<b>MOD LIB BOOKS</b>	The security profile of library "BOOKS" will be displayed for modification.
<b>CO US ESME</b>	The Copy User window will be displayed for you to enter the user ID of the new user.
<b>CO US ESME OGG</b>	The Copy User screen for user "OGG" will be invoked with the security profile of user "ESME" copied into the security profile of user "OGG". The copying is without links.
<b>CO US ESME OGG Y</b>	The Copy User screen for user "OGG" will be invoked with the security profile of user "ESME" copied into the security profile of user "OGG". The copying is with links.
<b>EDIT US DOC</b>	Invokes the Edit Group Members function for the group "DOC".
<b>XREF MAIL MAIL1</b>	Invokes the Cross-Reference function for mailbox "MAIL1".
<b>LK LI ODDS US</b>	The Link Users To Library screen will be invoked for users to be linked to library "ODDS"; the list will contain all users.
<b>LINK US IW LI</b>	The Link User To Libraries screen will be invoked for user "IW" to be linked to libraries; the list will contain all libraries.

## Commands to Invoke a Selection List

The following commands can be used to invoke a selection list:

Command	Function
<u>MAINTENANCE</u> <i>object-type</i> <i>object-ID parameters</i>	<p>If you specify only the command itself, the object selection window for maintenance functions will be displayed.</p> <p>If you specify an <i>object-type</i> after the command, the Maintenance selection list for that type of object will be displayed.</p> <p>If you specify an <i>object-type</i> and an <i>object-ID</i> after the command, the Maintenance selection list for that type of object will be displayed, and the <i>object-ID</i> will be used as start value for the list.</p> <p>After the <i>object-ID</i>, you can specify one or more <i>parameters</i> (for example, user type) as further selection criteria for the Maintenance selection list to be displayed.</p>
<u>RETRIEVAL</u> <i>object-type</i> <i>object-ID parameters</i>	<p>If you specify only the command itself, the object selection window for retrieval functions will be displayed.</p> <p>In the same manner as for the MAINTENANCE command (see above), you can specify an <i>object-type</i>, <i>object-ID</i> and <i>parameters</i> with this command.</p>

## Special Commands

Apart from commands which invoke a particular function or selection list (as described above), and several Natural system commands (which are described in the *Natural System Commands* documentation), the following special commands are available (underlining indicates the shortest abbreviation possible):

<b>Command</b>	<b>Function</b>
<u>ADMIN</u>	Invokes the Administrator Services Menu.
ADMIN_D	Invokes the Administrator Services function Library And User Preset Values.
ADMIN_I	Invokes the Administrator Services function Application Programming Interfaces.
ADMIN_N	Invokes the Administrator Services function Maintenance Log Records.
ADMIN_S	Invokes the Administrator Services function Definition of System Libraries.
ADMIN_U	Invokes the Administrator Services function User Default Profiles.
ADMIN_X	Invokes the Administrator Services function Utility Defaults/Templates.
ADMIN_Y	Invokes the Administrator Services function Library Default Profiles.
ADMIN_1	Invokes the Administrator Services function Environment Profiles.
ADMIN_3	Invokes the Administrator Services function Definition of Undefined Libraries.
CONVUTIL	Invokes the function for the conversion of utility profiles.
CUSTOM1 CUSTOM2 CUSTOM3 CUSTOM4 CUSTOM5	These commands invoke Natural programs of the same names. You can write your own programs of these names to perform whatever functions you require; this allows you to invoke such functions from within Natural Security.
ERRDEL	Deletes all logon/countersign error entries (see also Deleting All Error Entries - Direct Command ERRDEL in the section <i>Administrator Services</i> ).
ERROR	Invokes the Logon/Countersign Errors Menu.
LOGDEL	Deletes all logon records (see also Deleting All Logon Records - Direct Command LOGDEL in the section <i>Administrator Services</i> ).
LOGFILE	Invokes the Administrator Services function Log File Maintenance.
<u>LOGREC</u>	Invokes the Logon Records Menu.
MENU	Invokes the Natural Security Main Menu.
. (period)	Terminates the given processing level and displays the screen of the next higher processing level (the same as PF3).

## Issuing a Command Outside of SYSSEC

You can also issue a Natural Security direct command from outside of the Natural Security library SYSSEC. This allows you to perform a Natural Security function from anywhere in your Natural session without having to log on to the library SYSSEC.

To do so, you enter the direct command - prefixed by SYSSEC - in the Natural command line.

For example:

```
SYSSEC MOD LIB XYZ
```

When you leave the screen invoked by the direct command, you will be returned to the Natural screen from which you have issued the command.

**Note:**

When you issue a direct command which invokes a function, you have to specify the full command, that is, you must not omit any command component necessary to invoke the actual function (and not only a selection screen or start-value window). For example, the command `COPY USER ABC` would be incomplete, because the new user ID is missing.