

# NAF - NATSPOOL and Natural Security

This chapter describes the Natural Security features supported by Natural Advanced Facilities and how these features can be used.

- User Types
  - User-Type-Dependent Menus
  - SPOOL Parameter in Library Security Profile
  - Restriction of NATSPOOL Functions
  - NATSPOOL-Internal Security
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## User Types

Under Natural Security, there are three types of Natural Advanced Facilities users:

- System Administrators
- Group Administrators
- End-Users

## System Administrators

A NATSPOOL system administrator is either an owner of the library SYSPPOOL, as defined in Natural Security, or, if no owner has been defined for SYSPPOOL, a user defined as administrator (user type A) in Natural Security.

System administrators can access all NATSPOOL functions, unless certain restrictions have been imposed within NATSPOOL itself.

## Group Administrators

If any owners are defined in Natural Security for library SYSPPOOL, users defined as administrators (user type A) but not defined as owners are group administrators.

Group administrators can perform administrative functions, too, but only within the group(s) they belong to. The Natural Security administrator must define valid group IDs and define which users are members of which groups by using the User Maintenance functions of Natural Security (see the Natural Security documentation). The group administrator must be a member of the corresponding group(s).

## End-Users

End-users are users who are neither defined as system administrators nor as group administrators.

## User-Type-Dependent Menus

Depending on which user type invokes NATSPOOL with startup program MENU, different menus are displayed.

- Menu for System Administrators
- Menu for Group Administrators or End-Users

### Menu for System Administrators

```

Time 12:31:03          *** Natural Spool Administration ***          Date 2002-10-17
User SAG                M e n u                                File 7/411

      Administration                                Information

      10 Reports/Queues                               20 Cross-Reference
      11 Devices                                       21 Statistics
      12 Abstracts                                     22 Look at Spool File
      13 Applications                                  23 CALLNAT Handling
      14 Change Spool File

      Maintenance                                     Control Functions

      30 Spool File Properties                         40 Check Spool File
      31 Objects                                       41 Logging Data
      32 Mass Update                                   42 Create Test Reports
      33 Hardcopy Allocations                         43 Delete Reports by Date
      34 Transfer Objects

Enter function, mark with cursor, or press a PF-key.
Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help           Exit  Repor Devic Flip  Abstr Appli Cross Stati Look  Canc

```

The NATSPOOL menu for system administrators under Natural Security corresponds to the NATSPOOL menu without Natural Security.

If Natural Security has not been installed, all users of Natural Advanced Facilities are system administrators.

### Menu for Group Administrators or End-Users

For users defined as group administrators or end-users, the NATSPOOL menu provides only a subset of the functions available for the system administrator.

```

Time 12:34:25          *** Natural Spool Administration ***      Date 2002-10-17
User SAG              M e n u                                  File 7/411

10 Reports/Queues
11 Devices
12 Abstracts
13 Applications

Enter function, mark with cursor, or press a PF-key.
Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---
      Help      Exit  Repor Devic      Abstr Appli

```

When accessing objects, such as printers or reports, the corresponding subfunctions are restricted. The restrictions imposed by Natural Security can be further restricted by NATSPOOL itself.

## SPOOL Parameter in Library Security Profile

If Natural Security is installed, it is possible to use different NATSPOOL user profiles for different libraries without leaving the Natural session. This is accomplished by entering a SPOOL parameter (a user profile name) in the SPOOL profile field in the library security profile in Natural Security.

The user profile specified in the SPOOL parameter of the library security profile should contain the same number of printers as used for the NTPRINT macro or PRINT parameter. At the beginning of a Natural session, Natural executes a GETMAIN (REQM) for the number of printers specified. If the default is 3 (for example, NTPRINT (1-3), AM=NAF) and a library which has a user profile with 4 printers specified is accessed, only 3 can be used. This is because GETMAIN (REQM) is only executed at the beginning of the Natural session.

At logon time it is checked whether a SPOOL parameter has been specified for the library. A blank value for the SPOOL parameter causes the usage of the user profile which was activated at the start of the Natural session. If the SPOOL parameter is different from the previous one, the corresponding logical printers are re-initialized.

The maximum number of logical printers contained in the NTPRINT macro or PRINT parameter at Natural startup time is taken into account. Therefore, during the initialization by using the user profile specified with Natural Security, there are three possibilities as to how many printer profiles will be changed:

- If the new number of logical printers is equal to the old number of logical printers, all logical printers will be re-initialized.

- If the new number of logical printers is less than the old number of logical printers, only the new number of logical printers will be re-initialized. All the other logical printers will be deleted.
- If the new number of logical printers is greater than the old number of logical printers, all numbers of logical printers will be initialized.

Any attempt to write to a printer which has a number greater than those initialized results in error message NAT0361 (printer number not allocated).

## Restriction of NATSPOOL Functions

Usage of the functions provided on the NATSPOOL menu can be restricted by disallowing the appropriate Natural modules in the library security profile of library SYSPPOOL.

The modules can be restricted on a global basis by modifying the library security profile of SYSPPOOL. Further control can be exercised on an individual basis by defining individual *special links* to SYSPPOOL for individual users.

The NATSPOOL functions are contained in the following Natural modules:

| NATSPPOOL Function       | Function Code | Natural Module                  |
|--------------------------|---------------|---------------------------------|
| Reports/Queues           | 10            | SPPREP*                         |
| Devices                  | 11            | SPPPSE*                         |
| Abstracts                | 12            | SPPSES*                         |
| Applications             | 13            | SPPAPC*                         |
| Change Spool File        | 14            | SPPCSF*                         |
| Entire Output Management | 15            | SPPEOM01                        |
| Cross-Reference          | 20            | SPPCR*                          |
| Statistics               | 21            | SPPSTA*                         |
| Look at Spool File       | 22            | SPPLOO*                         |
| CALLNAT Handling         | 23            | SPPUSP*                         |
| Layout of Spool File     | 30            | SPPFIL*<br>SPPFOR*              |
| Objects                  | 31            | SPPUSE*<br>SPPSEL01<br>SPPHCO01 |
| Mass Update              | 32            | SPPMA*                          |
| Hardcopy Allocations     | 33            | SPPHC*                          |
| Transfer Objects         | 34            | SPPTRF*                         |
| Check Spool File         | 40            | SPPCHE*                         |
| Logging Data             | 41            | SPPLGG*                         |
| Create Test Report(s)    | 42            | SPPTREP*                        |
| Delete Reports by Date   | 43            | SPPRBT*                         |

## NATSPPOOL-Internal Security

Regardless of whether Natural Security is installed, the following NATSPPOOL internal security features apply:

### Report Protection

Reports can be protected both when being displayed in online mode and when being printed. See *Function 31.2*.

### Object Protection

Objects can be protected both when being modified or used. See *Function 31.7*.