

NAF - Statistics - Function 21

When you invoke this function, the **Statistics** window appears.

```

Time 15:21:22          *** Natural Spool Administration ***          Date 2002-10-22
User SAG              M e n u                                       File 7/411
+-----Statistics 7/411-----+
!                                     !                               Information
!   1   Snapshot                   !                                     !
!   2   Form Statistics              !   20 Cross-Reference
!   3   Printer Statistics           !   21 Statistics
!   4   User Statistics              !   22 Look at Spool File
!                                     !   23 CALLNAT Handling
!                                     !
!                                     !
!                                     !
!                                     !   Control Functions
!                                     !
!                                     !   40 Check Spool File
!                                     !   41 Logging Data
!   .   Exit                         !   42 Create Test Reports
!                                     !   43 Delete Reports by Date
!   Command / _ /                   !
+-----+
Enter command, or press a PF-key.
Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Entr  Help  Menu  Exit  Snaps Form  Print User                               Canc

```

The functions provided in the Statistics window are described in the following sections.

- Snapshot - Function 21.1
- Form, Printer and User Statistics

Snapshot - Function 21.1

When you invoke this function, the Snapshot window appears.

A snapshot of the spool file provides information on formatting, the number of existing profiles, and the amount of unused resources. In addition, it indicates whether the chosen format is appropriate for the reports to be created. Important for this are the values provided in the fields `Reports greater than one group` and `Unused Records/group (average)`.

```

Time 15:21:22          *** Natural Spool Administration ***          Date 2002-10-22
User SAG              M e n u                                          File 7/411
+-----+-----+ Snapshot Spool File : 7/411 -----+
!                               Usage of Report Data Area                               !
! Records/group                3           Reports in total                          7 !
! Groups formatted             1000        Reports greater than one group              1 !
! Groups used                   8           14.2 % greater than one group              !
! Groups free                   992        Unused Records/group (average)              2 !
!                               !                               !
!                               Records used for Object Area                               !
! User profile                 20 Logical printer                60 Model                2 !
! Allocation                   29 Physical printer                33 Format info            1 !
! Header page                   1 Application                    9 Acc. Author.           0 !
! Statistics                     1 Cluster                          3                          !
! Logging                       3 NTCC table                       12                         !
! Calendar/Year                 0 Message header                  2                          !
!                               !                               !
!                               Records used for Internal Area                               !
! Report Area                   3002      Checkpoint Area   176      Total   3178      !
+-----+-----+-----+-----+-----+-----+-----+
Press Enter.
Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Entr  Help  Menu  Exit                                          Canc

```

In the above example window, the following information is provided:

- The spool file is formatted with 1000 groups of 3 records each. 8 of these groups are in use, 992 of them are free.
- The spool file contains 7 reports. 6 of these reports cover one group. 1 report uses more than one group. That means that 14.2% of the reports cover more than one group.
- 20 records are used for user profiles, 60 records for logical printers, 29 records for allocations, 33 records for physical printers, and so on.

Take care that the number of reports that are greater than one group is kept to a small percentage. Otherwise, the spool file should be reformatted with a higher number of records per group (see *Function 30.3*).

The information Unused Records/group (average): 2 tells you that on average, two records per group are not in use. Thus, in the above example, formatting with two records per group would be sufficient.

Form, Printer and User Statistics

When you invoke the function **Form Statistics** (Function 21.2), **Printer Statistics** (Function 21.3) or **User Statistics** (Function 21.4), a selection window similar to the one below appears.

```

Time 09:40:43          *** Natural Spool Administration ***          Date 2002-10-23
User SAG              M e n u                                       File 7/411
+----- Form Statistics 7/411 -----+
!                                     !      Information
!   1   Display                !
!   2   Print                   !      20 Cross-Reference
!   3   Reset                   !      21 Statistics
!   4   Hit List                !      22 Look at Spool File
!   5   Define                  !      23 CALLNAT Handling
!                                     !
!                                     !
!                                     !
!                                     !      Control Functions
!                                     !
!                                     !      40 Check Spool File
!                                     !      41 Logging Data
!   .   Exit                   !      42 Create Test Reports
!                                     !      43 Delete Reports by Date
!   Command / _ /              !
+-----+
Enter command, or press a PF-key.
Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Entr  Help  Menu  Exit  Displ Print Reset Hitli          Defin          Canc

```

From this window, you can perform any of the following functions:

- Display
- Print
- Reset
- Hit List
- Define (not applicable to **Users Statistics**)

Display

When you select Function 1, the data collected for the selected statistics type are displayed on the screen, similar as shown for **Form Statistics** below.

```

Time 09:43:32          *** Natural Spool Administration ***          Date 2002-10-23
User SAG              Form Statistics                               File 7/411

Cm Dest./Fo. No.Lines  No.Pages  No.Repor.  First/Last date using CPU Time
-----
SE
__ DDR1171 A          532      112        4 97-08-19 09:12:15 97-08-19 17:23:16
__ DDR1490 A          856      214        3 97-07-11 08:23:01 97-08-22 19:11:18
__ STD      2          2689     354        1 97-08-20 10:23:53 97-08-21 20:12:44
__ STD      R          1629      28         1 97-08-18 13:34:43 97-08-21 10:09:39

Enter command or press PF key.
Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Entr  Help  Menu  Exit  Snaps Displ Print Defin +      Reset Hitli TOP  Canc
    
```

For each active object, the number of lines, pages and reports is shown. In addition, the date and time for the first and last value that was processed are provided.

If the statistics are activated for an object, the object name is highlighted. Normal display of the object name indicates that the statistics are currently deactivated.

If a counter is highlighted, the maximum value to be stored was exceeded and all following data can no longer be accumulated.

To maintain the data shown, you can enter one of the following function codes for an object:

Function Code	Description
AC	Activate the statistics function for the object.
DA	Deactivate the statistics function for the object. The data stored for this object will still be available.
DE	Delete statistics data. The statistics status for this object is set to deactivated.
RE	Delete statistics data. The statistics status for this object (active/deactivated) is not modified.
MT	Modify the Time Window which schedules data collection for this object (date and/or time for start and/or end of data collection).

Print

When you select Function 2, a window similar to the one below appears.

```

Time 09:45:58          *** Natural Spool Administration ***          Date 2002-10-23
User SAG                M e n u                                     File 7/411
+-----+
!                               !           Information
!   Enter a logical printer, which !
!   is to be used for the spool-out !           20 Cross-Reference
!   of the statistics ..... _____ !           21 Statistics
!   and number of positions for     !           22 Look at Spool File
!   the left margin ..... 0__      !           23 CALLNAT Handling
!                               !
!   Mark function to be executed after !
!   spool-out                        !
!                               !           Control Functions
!   Reset statistics .... _          !
!   Delete statistics .... _         !           40 Check Spool File
!                               !           41 Logging Data
!   If no function is marked, the    !           42 Create Test Reports
!   statistics are not modified.     !           43 Delete Reports by Date
!                               !
+-----+
Enter values.
Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Entr  Help  Menu  Exit  Displ Print Reset Hitli          Defin          Canc

```

In the window, specify the following:

- The logical printer which is used for the spool-out. You can also enter an asterisk (*) to select the logical printer from a list.
- A column number for the left margin.
- If you want to reset or delete the statistics data after generating the spool-out, mark the corresponding function.

Reset

When you invoke Function 3, a window appears similar to the example below, where you can specify whether to reset the statistical data of all objects for the statistics function specified.

```

Time 14:50:11          *** Natural Spool Administration ***          Date 2002-10-23
User SAG              M e n u                                       File 7/411
+----- Printer Statistics 7/411 -----+
!                                     !           Information
!   1   Display           !           !
!   2   Print             !           !   20 Cross-Reference
!   3   Reset            !           !   21 Statistics
!   4   Hit List         !           !   22 Look at Spool File
!   5   Define           !           !   23 CALLNAT Handling
!                                     !
!                                     !
+-----+                                     !
! With this function all records !           !           Control Functions
! for Printer Statistics are    !           !
! reset.                        !           !           40 Check Spool File
!                               !           !           41 Logging Data
! Execute Reset function Y / N _ !           !           42 Create Test Reports
+-----+                                     !           !           43 Delete Reports by Date
!   Command / 3 /              !           !
+-----+
Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Entr  Help  Menu  Exit  Displ Print Reset Hitli          Defin          Canc

```

Enter Y to confirm the action and reset the statistics data, or enter N to cancel the action.

Hit List

When you invoke Function 4, a window appears similar to the example of **Hit List Form Statistics** below.

```

Time 14:56:47          *** Natural Spool Administration ***          Date 2002-10-23
User SAG              M e n u                                       File 7/411
+---- Hit List Form Statistics 7/411 ----+
!                                     !           Information
!   Select sort function       !           !
!                               !           !   20 Cross-Reference
!                               !           !   21 Statistics
!   Number of lines ..... x   !           !   22 Look at Spool File
!                               !           !   23 CALLNAT Handling
!                               !
!                               !
!   Number of pages ..... _   !           !
!                               !
!                               !           Control Functions
!   Number of reports ..... _ !           !
!                               !           !           40 Check Spool File
!                               !           !           41 Logging Data
!                               !           !           42 Create Test Reports
!                               !           !           43 Delete Reports by Date
!                               !
+-----+
Enter values.
Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Entr  Help  Menu  Exit                                     Canc

```

In the **Hit List Statistics** window, mark one of the sort criteria listed:

- The number of lines.
- The number of pages.
- The number of reports.

When you press Enter, a screen appears similar to the example of **Hit List Form Statistics** below. This screen shows the most active objects for the statistics type selected. The sort criterion specified is highlighted. The maximum number of entries on this screen is 12.

```

Time 14:58:31          *** Natural Spool Administration ***          Date 2002-10-23
User SAG              Hit List Form Statistics                    File 7/411

Dest./Fo.
No.Lines

      %           No.Pages      %           No.Repor.      %
-----
DDR1171 A           532           9.3           112           15.8           4           44.5
DDR1490 A           856           15.0          214           30.2           3           33.3
STD      2           2689          47.2          354           50.0           1           11.1
STD      R           1629          28.5           28            4.0            1           11.1

-----
                        5706                        708                        9

Press 'Enter' to continue
Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Entr Help Menu Exit                                     Canc

```

Define

Not applicable to **Users Statistics**.

When you invoke Function 5, a window appears similar to the example of **Define Printer Statistics** below.

```

Time 15:24:46          *** Natural Spool Administration ***          Date 2002-11-25
User SAG                M e n u                File 19999/1241
+ Define Printer Statistics 19999/1241 -+
!                               !           Information
! Enter name of                !
!                               !           20 Cross-Reference
!       Printer                 !           21 Statistics
!                               !           22 Look at Spool File
! or                             !           23 CALLNAT Handling
!                               !
! *   for Selection             !
!                               !
! ?   for Help                  !           Control Functions
!                               !
! .   for End                   !           40 Check Spool File
!                               !           41 Logging Data
! -----                       !           42 Create Test Reports
! / _____ /                 !           43 Delete Reports by Date
!                               !
+-----+
Enter values.
Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---
Entr Help Menu Exit                                           Canc
    
```

In the **Define Statistics** window, depending on the type of statistics (Form or Printer Statistics), enter the name of the allocation table or printer. You can also enter an asterisk (*) to select the object from a list.

When you press Enter, the statistics flag for the selected object is set to active.

Additionally, a window appears similar to the example below, where you can specify whether to invoke the **Time Window** for the allocation table (Dest. /Fo. = Destination/Form) or printer (Phy. Prtr. = Physical Printer) specified. In the **Time Window**, you can define a data and time range for the data collection.

```

Time 09:51:25          *** Natural Spool Administration ***          Date 2002-10-23
User SAG                M e n u                File 7/411
+-----Selection-----+
! Start value ..... _____ !!           Information
! ----- !!
!   _ DAEPR10      _ DRHHI   !!           20 Cross-Reference
!   _ DR1171       x D9001   !!           21 Statistics
!   _ EXIT3        _ IMSPRI  !!           22 Look at Spool File
!   _ RSOEXAM      _ SYSTEM  !!           23 CALLNAT Handling
!   _ TESTWIN      !         !!
!                               !!
!                               +-----+
!                               ! Do you wish to define or modify !
!                               ! time windows for statistics   !
!                               ! concerning Phy.Prtr. D9001    !
!                               !                                     !
!                               ! (Y/N) Y                            !
! -----+
! Mark X (Select) . (End) !!
+-----+

Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---
Menu Exit                                           Canc
    
```


Enter N if you do not want to define a date/time range.

When you enter Y (this is the default), the **Time Window** appears as shown in the example of **Printer Statistics** below.

```

Time 09:51:25          *** Natural Spool Administration ***          Date 2002-10-23
User SAG              M e n u                                       File 7/411
+-----Selection-----+-----Time Window-----+
!   Start value ..... !
!   -----            !   Phy.Prtr.    D9001
!   _ DAEPR10         _ DRHHI   !
!   _ DR1171          x D9001   !   Date/time for start of statistics
!   _ EXIT3           _ IMSPRI  !
!   _ RSOEXAM         _ SYSTEM  !   YYYY-MM-DD  HH:II:SS  Null value
!   _ TESTWIN        !   _____  00:00:00  Y (Y/N)
!
!
!   Date/time for end of statistics
!
!
!   YYYY-MM-DD  HH:II:SS  Null value
!   _____  00:00:00  Y (Y/N)
!
!   -----
!   Note:
!   using time format CPU Time
!
!   Mark  X (Select)   . (End)
+-----+-----+
Modify values.
Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Menu  Exit                                           Canc

```

In the **Time Window**, in the corresponding fields, enter a valid start and end end value. A date must be specified in the format *YYYY-MM-DD* (*YYYY*= year, *MM*= month, *DD*= day). The time must be specified in the format *HH:II:SS* (*HH*= hours, *II*= minutes, *SS*= seconds).

If you do not want a start or end date/time to be evaluated, in the field *Null value*, enter a Y (this is the default).

If you press Enter, a window appears with the date/time specified in Natural or CPU format (see also Function 30.5 - Set Spool Option).

Enter Y to confirm the date/time settings, or enter N to cancel the action.