

# Fujitsu Software BS2000 SPOOL V04.9

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Readme file

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# 1 Introduction

This Readme file contains the changes and extensions for SPOOL V4.9A, implemented after manual publication.

# 1.1 Related manual

The changes described below concern the following manual:

[1] Spool & Print Commands (BS2000/OSD) Order number U25561-J-Z125-4-76 Issued: Mai 2005 Readme SPOOL V04.9A Edition June 2019

# 2 Software extensions

# 2.1 New command SHOW-PRINT-JOB-INFORMATION

The SHOW-PRINT-JOB-INFORMATION command shows information about print jobs. The print jobs can be selected by specifying for example their creation date.

This is the solution for change request A0611162 which asked for a possibility to display the creation date of print jobs and using the creation date as selection criteria.

The command supports structured output in S variables and text output to SYSOUT, SYSLST and Console.

#### Notes

The command can be executed only by TSOS users.

The subsystems SPOOL and RSO do not have to be loaded.

#### **Format**

```
SHOW-PRINT-JOB-INFORMATION
                                                                                                      Alias: SHPRJI
SELECT = *ALL / *PARAMETERS (...)
  *PARAMETERS (...)
    | TSN = *ANY / <alphanum-name 1..4>
    | ,FORM-NAME = *ANY / <alphanum-name 1..6 with-wild(24)> / list-poss(16): <alphanum-name 1..6>
    , SPOOLOUT-NAME = *ANY / <alphanum-name 1..8 with-wild(24)> / list-poss(16): <alphanum-name 1..8>
    | , PRIORITY = *ANY / <integer 30...255> / *RANGE(...)
         * RANGE (...)
            | LOW = 30 / < integer 30...255 >
            |,HIGH = <u>255</u> / <integer 30...255>
    | , DESTINATION = *ANY / *CENTRAL / *REMOTE / <alphanum-name 1..8 with-wild(24)> /
                       list-poss(16): <alphanum-name 1..8>
    | ,REQUESTOR-TSN = *ANY / <alphanum-name 1..4>
    | ,USER-IDENTIFICATION = *ANY / < name 1..8 with-wild(24) > / list-poss(16): < name 1..8 >
    | , ACCOUNT = \frac{*ANY}{} / <alphanum-name 1..8 with-wild(24)> / list-poss(16): <alphanum-name 1..8>
    , CREATION-DATE = *ANY / *TODAY / *YESTERDAY / <integer -9999..0> / <date> / *INTERVAL(...)
         *INTERVAL(...)
              FROM = *ANY / *TODAY / *YESTERDAY / <integer -9999..0> / <date>
,TO = *ANY / *TODAY / *YESTERDAY / <integer -9999..0> / <date>
, OUTPUT = *SYSOUT / *SYSLST / *CONSOLE / *NONE
,STRUCTURE-OUTPUT = *SYSINF / structured-name_1..20(...) / *NONE
   structured-name_1..20(...)
    | WRITE-MODE = *REPLACE / *EXTEND
,COLUMN-1 = <u>*TSN</u> / *USERID / *ACCOUNT / *PNAME / *PRI / *RTSN / *DESTINATION / *FORM / *CREATION-DATE
, SORTING-ORDER = *ASCENDING / *DESCENDING
```

# **Operands**

#### SELECT =

Selection criteria for spoolout jobs on which information is to be output.

# SELECT = \*ALL

Information is to be output on all print jobs.

# SELECT = \*PARAMETERS(...)

Selection criteria for print jobs on which information is to be output.

The standard value \*ANY means always that there is no restriction concerning the corresponding criteria.

# $TSN = \frac{*ANY}{} / <alphanum-name 1..4>$

Task sequence numbers of the print job on which information is to be output.

FORM-NAME =  $\frac{*ANY}{}$  / <alphanum-name 1..6 with-wild(24)> / list-poss(16): <alphanum-name 1..6> Form names of the print jobs on which information is to be output.

SP00L0UT-NAME =  $\frac{*ANY}{}$  / <alphanum-name 1..8 with-wild(24)> / list-poss(16): <alphanum-name 1..8> Spoolout names of the print jobs on which information is to be output.

# PRIORITY = \*ANY / <integer 30...255> / \*RANGE(...)

Information is to be output on print jobs with priorities within the specified range.

#### PRIORITY = <integer 30...255>

Information on print jobs with the specified priority is to be output.

# PRIORITY = \*RANGE(LOW=..., HIGH=...)

Priority range. Range specifications are inclusive of the limit values.

# LOW = 30 / <integer 30..255>

Lower limit of the range.

# HIGH = 255 / <integer 30..255>

Upper limit of the range.

# DESTINATION = $\frac{*ANY}{*}$ / \*CENTRAL / \*REMOTE / <alphanum-name 1..8 with-wild(24)> / list-poss(16): <alphanum-name 1..8>

Information is to be output on print jobs of the specified type or printer name.

# **DESTINATION** = \*CENTRAL

Information is to be output on print jobs whose destination is the central Spool.

# **DESTINATION = \*REMOTE**

Information is to be output on print jobs whose destination is RSO.

Information is to be output on print jobs whose destination is the specified printer.

# REQUESTOR-TSN = \*ANY / <alphanum-name 1..4>

Task sequence number of the task which created the print job is a selection criteria.

USER-IDENTIFICATION =  $\frac{*ANY}{}$  / < name 1..8 with-wild(24)> / list-poss(16): < name 1..8> User IDs of print jobs on which information is to be output.

ACCOUNT =  $\frac{*ANY}{}$  <alphanum-name 1..8 with-wild(24)> / list-poss(16): <alphanum-name 1..8> Account numbers of print jobs on which information is to be output.

```
CREATION-DATE = \frac{*ANY}{} / *TODAY / *YESTERDAY / <integer -9999..0> / <date> / *INTERVAL(...)
```

Returns information on fprint jobs on the basis of their creation date.

*Note:* Dates before the 1.1.2000 are rejected.

# CREATION-DATE = \*TODAY

Information is to be output on print jobs created at today's date.

# CREATION-DATE = \*YESTERDAY

Information is to be output on print jobs created at yesterday's date.

# CREATION-DATE = <integer -9999..0> / <date>

Information is to be output on print jobs which were created on the specified date.

The date can be specified either as a relative date value by number of days from today's date, in the form -n for dates in the past (5 digits, with preceding sign) or 0 for today, or in the form YY-MM-DD (YY = year, MM = month, DD = day).

# CREATION-DATE = \*INTERVAL(FROM=..., TO=...)

Information is to be output on print jobs created within the specified time period. The upper and lower limits are both included in the specified range. It is also possible to specify limits using only operand FROM (lower limit) or TO (upper limit). Whichever of the operands is not specified will be replaced by the default value for use as the limit of the range. The use of range limits for information output can only be meaningful if the chosen lower limit ≤ the upper limit.

FROM =  $\frac{*ANY}{}$  / \*TODAY / \*YESTERDAY / <integer -9999..0> / <date> Returns information on print jobs created after the specified date (i.e. CREATION-DATE  $\geq$  specified date).

# FROM = \*TODAY

Returns information on print jobs created at the present day.

#### FROM = \*YESTERDAY

Returns information on the print jobs created after the preceding day.

# FROM = <integer -9999..0> / <date>

Returns information on print jobs created after the specified date.

T0 =  $\frac{*ANY}{}$  / \*T0DAY / \*YESTERDAY / <integer -9999..0> / <date> Returns information on print jobs created up to the specified date (i.e. CREATION-DATE  $\leq$  specified date).

# TO = \*TODAY

Returns information on print jobs created up to present day.

# TO = \*YESTERDAY

Returns information on print jobs created until preceding day.

# TO = <integer -9999..0> / <date>

Returns information on print jobs created until the specified date.

# OUTPUT = \*SYSOUT / \*SYSLST / \*CONSOLE / \*NONE

The OUTPUT operand defines the output medium for the text-output.

# OUTPUT = \*SYSOUT

The text-output will be routed to SYSOUT.

# OUTPUT = \*SYSLST

The text-output will be routed to SYSLST.

# OUTPUT = \*CONSOLE

The text-output will be routed to console.

# OUTPUT = \*NONE

The text-output will be suppressed.

# STRUCTURE-OUTPUT = \*SYSINF / <structured-name 1..20> (...) / \*NONE Controls structured output to S variables.

# STRUCTURE-OUTPUT = \*SYSINF

Structured output is directed to the S variable stream SYSINF.

# STRUCTURE-OUTPUT = <structured-name 1..20>(WRITE-MODE=...)

Structured output is directed to the specified S variable.

# WRITE-MODE = \*REPLACE / \*EXTEND

Defines whether the output should replace or complement the current content of the S variable.

# WRITE-MODE = \*REPLACE

The current content of the S variable is replaced by the new output.

**Note:** The S variable will be declared by the command. An already existing variable with same name will get deleted and newly declared.

# WRITE-MODE = \*EXTEND

The new output extends the current content of the S variable.

# STRUCTURE-OUTPUT = \*NONE

No structured output takes place.

# COLUMN-1 = \*TSN / \*USERID / \*ACCOUNT /\*PNAME / \*PRI / \*RTSN / \*DESTINATION / \*FORM / \*DATE The parameter controls the sequence of columns and lines in the text-output to SYSOUT, SYSLST and console. The specified value is displayed in the first column and the lines are sorted before output.

# COLUMN-1 = \*TSN

Task sequence number of the print jobs is displayed in column 1 and the text-output is sorted by it.

# COLUMN-1 = \*USERID

User ID of the print jobs is displayed in column 1 and the text-output is sorted by it.

# COLUMN-1 = \*ACCOUNT

Account number of the print jobs is displayed in column 1 and the text-output is sorted by it.

# COLUMN-1 = \*PNAME

Spoolout name of the print jobs is displayed in column 1 and the text-output is sorted by it.

# COLUMN-1 = \*PRI

Priority of the print jobs is displayed in column 1 and the text-output is sorted by it.

# COLUMN-1 = \*RTSN

Task sequence number of the print job owner is displayed in column 1 and the text-output is sorted by it.

# COLUMN-1 = \*DESTINATION

Destination is displayed in column 1 and the text-output is sorted by it.

#### COLUMN-1 = \*FORM

Form name is displayed in column 1 and the text-output is sorted by it.

# COLUMN-1 = \*DATE

Creation date and creation time are displayed in column 1 and the text-output is sorted by it.

# SORTING-ORDER = \*ASCENDING / \*DESCENDING

The parameter determines the sorting order of text-output.

# SORTING-ORDER = \*ASCENDING

The text-output is sorted from the lowest to the highest value.

#### SORTING-ORDER = \*DESCENDING

The text-output is sorted from the highest to the lowest value.

#### Return codes

(SC2)	SC1	Maincode	Bedeutung	
0	0	CMD0001	No errors Guaranteed message: SCP0947	
0	1	CMD0202	Syntax error	
0	64	CMD0080	Date selection before 1.1.2000 is not allowed	
2	0	SCP0932	No corresponding print job found	
2	64	SCP0975	No authorization for command	

# **Outputs**

There are various output formats depending on what is specified at operand COLUMN-1. The meanings of the output fields are listed in a table after the output formats.

# Sequence of columns for text-output if COLUMN-1=\*TSN is specified

#### Sequence of columns for text-output if COLUMN-1=\*USERID is specified

# Sequence of columns for text-output if COLUMN-1=\*ACCOUNT is specified

# Sequence of columns for text-output if COLUMN-1=\*PNAME is specified

# Sequence of columns for text-output if COLUMN-1=\*PRI is specified

# Sequence of columns for text-output if COLUMN-1=\*RTSN is specified

# Sequence of columns for text-output if COLUMN-1=\*DESTINATION is specified

# Sequence of columns for text-output if COLUMN-1=\*FORM is specified

# Sequence of columns for text-output if COLUMN-1=\*CREATION-DATE is specified

# Meaning of the output fields

Output field	Meaning / contents				
TSN	Task sequence number of the print job				
USERID	User ID under which the print job is to be executed				
ACCOUNT	Account number under which the print job is to be executed				
PNAME	SPOOLOUT name of the print job				
PRI	Priority of the print job				
RTSN	TSN of the task which issued the print job				
DESTINATION	Device name of the requested printer or *CENTRAL				
FORM	Form with which the print job must be processed				
CRE.DATE + TIME	Date and time the print job was accepted				

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# Output in S variables

Output information	Name of the S Variable	Т	Contents
TSN of the print job	var(*LIST).TSN	S	<tsn></tsn>
User ID under which the print job is to be executed	var(*LIST).USER-ID		<user-id></user-id>
Account number under which the print job is to be executed	var(*LIST).ACCOUNT		' ' / <account></account>
Name of the print job	var(*LIST).SPOOLOUT-NAME	S	''/ <spoolout-name></spoolout-name>
Form name	var(*LIST).FORM-NAME		<form-name></form-name>
Priority of the print job	var(*LIST).PRI		30255
Spoolout class	var(*LIST).PRINT-JOB-CLASS	S	0255
TSN of the print job owner	var(*LIST).RTSN	S	<tsn></tsn>
Destination of the print job	var(*LIST).DESTINATION	S	*CENTRAL / *REMOTE
Name of the RSO printer	var(*LIST).DEV-NAME	S	''/ printer name if DESTINATON=*REMOTE
Creation date	var(*LIST).RDATE	S	<yyyy-mm-dd></yyyy-mm-dd>
Creation time	var(*LIST).RTIME	S	<hh:mm></hh:mm>
File type	var(*LIST).FILE-TYPE	S	*DMS / *PLM / *UFS
File name	var(*LIST).FILE-NAME	S	''/ <path-name> if FILE-TYPE=*DMS / *UFS</path-name>
Library name	var(*LIST).LIBRARY-NAME	S	''/ <path-name> if FILE-TYPE=*PLM</path-name>
Element name	var(*LIST).ELEMENT-NAME	S	''/ <element-name> if FILE-TYPE=*PLM</element-name>
Element type	var(*LIST).ELEMENT-TYPE	S	''/ <element-type> if FILE-TYPE=*PLM</element-type>
Size of the file (in PAM pages)	var(*LIST).F-SIZE	S	0 2147483647
Access method (FCB type)	var(*LIST).ACCESS-METHOD	S	*BTAM / *EAM / *ISAM / *PAM / *SAM / *TAPE
Coded Character Set of the print file	var(*LIST).CCS-NAME	S	''/ <name 18=""></name>
Name of the Server	var(*LIST).SERVER-NAME	S	*HOME / <server-name></server-name>
Name of the host	var(*LIST).HOST-NAME	S	<host-name></host-name>
Degree by which the pages are rotated before printing	var(*LIST).ROT	S	0 / 90 / 180 / 270 / 0/180 / 90/270 / 180/0 / 270/90 / *NO / *YES
Interpretation of the control characters	var(*LIST).CONTR-CHAR	S	''/*APA/*LINE/*LOG/*NO/*PHYS/*TRAN
Number of copies requested	var(*LIST).ADD-COP	S	0255
Number of page copies requested	var(*LIST).PAGE-COP	S	0255
Name of the FOB data overlay	var(*LIST).FOB-NAME	S	''/ <name></name>
Size of the FOB data over- lay	var(*LIST).FOB-SIZE	S	<integer></integer>
Name of the DIA file	var(*LIST).DIA-NAME	S	''/ <name></name>
Mail address of the print job owner's user ID	var(*LIST).MAIL-ADDRESS	S	''/ <c-string 1-64=""></c-string>

# **Examples**

Example 1: Output of print jobs accepted on 1.2.2018 to SYSOUT.

```
/show-print-job-information select=*parameters(creation-date=18-02-01)
%TSN USERID ACCOUNT PNAME PRI RTSN DESTINATION FORM CRE.DATE + TIME
%7584 TSOS
                 ADMINSTR IMON
                                    128 7583 *CENTRAL STD 2018-02-01 07:02
                                    128 7591 *CENTRAL STD 2018-02-01 11:07
128 7594 *CENTRAL STD 2018-02-01 11:12
128 7597 *CENTRAL STD 2018-02-01 11:22
128 7602 *CENTRAL STD 2018-02-01 12:06
128 7605 *CENTRAL STD 2018-02-01 12:08
%7592 TSOS
               ADMINSTR IMON
%7595 TSOS
               ADMINSTR IMON
%7598 TSOS
               ADMINSTR IMON
%7603 TSOS
               ADMINSTR IMON
%7606 TSOS
                ADMINSTR IMON
%7612 TSOS
                ADMINSTR IMON
                                    128 7611 *CENTRAL
                                                             STD
                                                                     2018-02-01 12:51
                 ADMINSTR IMON 128 7614 *CENTRAL
                                                            STD 2018-02-01 12:53
%7615 TSOS
  SCP0947 8 JOBS FOUND WITH 48 PAM PAGES. COMMAND TERMINATED
```

Example 2: Output of RSO print jobs with SPOLOUT-NAME= TEST01 created between 1.2.2018 and 31.5.2018 to SYSOUT.

```
/show-print-job-information select=*parameters(spoolout-name=test01,
destination=*remote, creation-date=*interval(from=18-02-01, to=18-05-31))
     USERID
               ACCOUNT PNAME
                                PRI RTSN DESTINATION FORM
                                                             CRE.DATE + TIME
%2587 TSOS
               ADMINSTR TEST01
                                 210 2585 PRINTER2
                                                      HP80
                                                             2018-05-17 09:49
%2944 TSOS
               ADMINSTR TEST01
                                 210 2936 PRINTER3
                                                      STD
                                                             2018-05-31 13:56
%7640 TSOS
               ADMINSTR TEST01
                                 210 7636 PRINTER2
                                                      STD
                                                             2018-02-02 13:42
%9567 TSOS
               ADMINSTR TEST01
                                 210 9564 PRINTER1
                                                      STD
                                                             2018-03-27 08:34
%9569 TSOS
               ADMINSTR TEST01
                                 210 9563 PRINTER1
                                                      HP80
                                                             2018-03-27 09:18
%9718 TSOS
               ADMINSTR TEST01
                                 210 9715 PRINTER1
                                                      STD
                                                             2018-04-03 13:57
   SCP0947 6 JOBS FOUND WITH 29 PAM PAGES. COMMAND TERMINATED
```

Example 3: Output of print jobs waiting for printout one week or longer to console. The text-output is sorted by creation date.

The current date in this example was 24.8.2018.

```
/getjv $sysjv.date
%18-08-24236
/show-print-job-information select=*param(creation-date=*interval(to=-7)),output=
*console,column-1=*date
The text-output was redirected to console:
%7955-000.135818 %CRE.DATE + TIME TSN USERID ACCOUNT PNAME
                                                              PRI RTSN DESTINATION FORM
%7955-000.135818 %2018-08-07 10:15 7481 AUFTR A4712 R27208 210 7477 *CENTRAL
%7955-000.135818 %2018-08-15 10:16 7716 AUFTR
                                            A4711 R17246 210 7713 *CENTRAL
%7955-000.135818 %2018-08-15 12:01 7719 AUFTR A4711 R17247
                                                               210 7714 *CENTRAL
%7955-000.135818 %2018-08-15 13:18 7721 AUFTR
                                              A4711
                                                      R17248
                                                               210 7714 *CENTRAL
%7955-000.135818
                % SCP0947 4 JOBS FOUND WITH 12 PAM PAGES. COMMAND TERMINATED
```

Example 4: Structured output of information about print job with TSN 7100 to S variable TSN7100. The S variable is created by the SHOW-PRINT-JOB-INFORMATION command.

```
/show-print-job-information tsn=7100, structure-output=tsn7100, output=*no
/show-variable tsn7100
TSN7100(*LIST).TSN = 7100
TSN7100(*LIST).USER-ID = TSOS
TSN7100(*LIST).ACCOUNT = ADMINSTR
TSN7100(*LIST).SPOOLOUT-NAME = SPJI01
TSN7100(*LIST).FORM-NAME = STD
TSN7100(*LIST).PRI = 210
TSN7100(*LIST).PRINT-JOB-CLASS = 1
TSN7100(*LIST).RTSN = 7099
TSN7100(*LIST).DESTINATION = *CENTRAL
TSN7100(*LIST).DEV-NAME =
```

```
TSN7100 (*LIST).RDATE = 2018-07-23
TSN7100(*LIST).RTIME = 13:45
TSN7100(*LIST).FILE-TYPE = *PLM
TSN7100 (*LIST).FILE-NAME =
TSN7100(*LIST).LIBRARY-NAME = :S20B:$TSOS.SYSDOC.REWAS.020.OSS
TSN7100(*LIST).ELEMENT-NAME = LICENSE.CURL.7.52.1.TXT
TSN7100(*LIST).ELEMENT-TYPE = X
TSN7100(*LIST).F-SIZE = 1
TSN7100 (*LIST).ACCESS-METHOD = *PAM
TSN7100(*LIST).CCS-NAME =
TSN7100(*LIST).SERVER-NAME = *HOME
TSN7100(*LIST).HOST-NAME = MB183020
TSN7100(*LIST).ROT = *NO
TSN7100(*LIST).CONTR-CHAR = *NO
TSN7100(*LIST).ADD-COP = 0
TSN7100 (*LIST).PAGE-COP = 0
TSN7100 (*LIST).FOB-NAME =
TSN7100(*LIST).FOB-SIZE = 0
TSN7100(*LIST).DIA-NAME =
TSN7100(*LIST).MAIL-ADDRESS = SYSTEM ADMINISTRATOR
```

Example 5: Output of information about print jobs which have to be processed with FORM=HP80 on device PRINTER1 to SYSOUT and into S variable VAR1 by assigning stream SYSINF to the S variable.

The S variable VAR1 must be created by the user.

```
/declare-variable var1, type=structure, multiple-elements=*list
/assign-stream stream-name=sysinf,to=*variable(variable-name=var1)
/show-print-job-info form-name=hp80,dest=printer1,column-1=date
%CRE.DATE + TIME TSN USERID ACCOUNT PNAME
                                                 PRI RTSN DESTINATION FORM
%2018-03-27 09:18 9569 TSOS
                              ADMINSTR TEST01
                                                 210 9563 PRINTER1
  SCP0947 1 JOBS FOUND WITH 1 PAM PAGES. COMMAND TERMINATED
/show-variable var1
VAR1(*LIST).TSN = 9569
VAR1(*LIST).USER-ID = TSOS
VAR1 (*LIST) .ACCOUNT = ADMINSTR
VAR1 (*LIST).SPOOLOUT-NAME = TEST01
VAR1(*LIST).FORM-NAME = HP80
VAR1(*LIST).PRI = 210
VAR1(*LIST).PRINT-JOB-CLASS = 1
VAR1(*LIST).RTSN = 9563
VAR1(*LIST).DESTINATION = *REMOTE
VAR1(*LIST).DEV-NAME = PRINTER1
VAR1(*LIST).RDATE = 2018-03-27
VAR1(*LIST).RTIME = 09:18
VAR1(*LIST).FILE-TYPE = *DMS
VAR1(*LIST).FILE-NAME = :S20B:$TSOS.BULLETIN
VAR1(*LIST).LIBRARY-NAME =
VAR1(*LIST).ELEMENT-NAME =
VAR1(*LIST).ELEMENT-TYPE =
VAR1(*LIST).F-SIZE = 1
VAR1(*LIST).ACCESS-METHOD = *SAM
VAR1(*LIST).CCS-NAME =
VAR1(*LIST).SERVER-NAME = *HOME
VAR1(*LIST).HOST-NAME = MB183020
VAR1(*LIST).ROT = *NO
VAR1(*LIST).CONTR-CHAR = *NO
VAR1(*LIST).ADD-COP = 0
VAR1(*LIST).PAGE-COP = 0
VAR1(*LIST).FOB-NAME =
VAR1(*LIST).FOB-SIZE = 0
VAR1(*LIST).DIA-NAME = D1
VAR1 (*LIST) .MAIL-ADDRESS = SYSTEM ADMINISTRATOR
```