

Implementing Print Services

Specify the format of a print request and where it is printed. Define printer and form settings, set default printers, and add control characters.

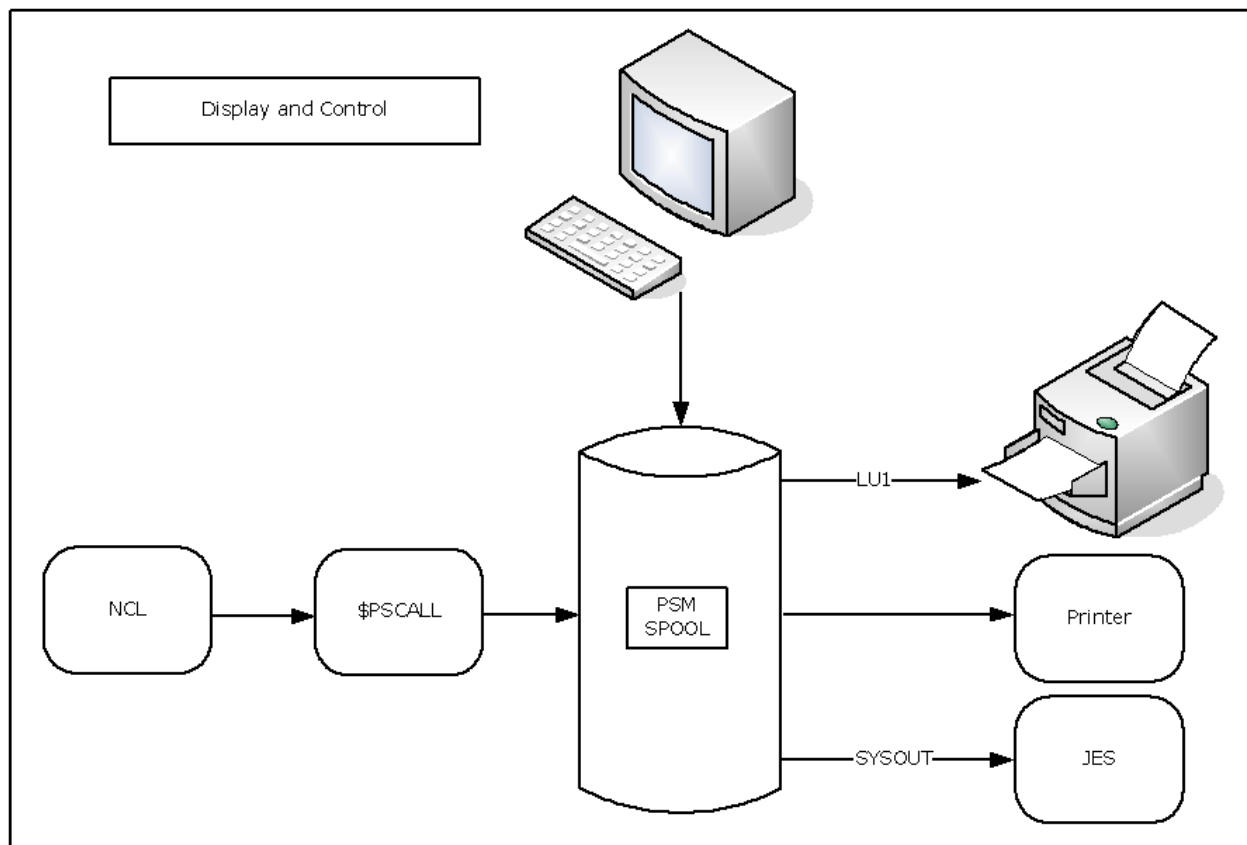
Print Services Manager

Print Services Manager (PSM) allows you to specify the format of a print request and on which printer it is printed. Print requests can be viewed online before or after printing and can be redirected to files rather than printers.

PSM provides the following features, which can be customized to suit your requirements:

- Printer definition facilities
- Form definition maintenance
- Setup definition maintenance
- Default printer assignment maintenance
- Alias printer name definitions
- Banner page customization on output
- Spooled print request browsing, retention, and redirection to a different printer
- Integration with NCL-based components

The following illustration shows the different ways that PSM can be used to control printing requirements.



Access PSM

The customizable functions of PSM are accessed from the Primary Menu for PSM.

To access PSM, enter

/PSM

at the prompt.

You can also access PSM directly by invoking the \$PSCALL NCL procedure from OCS or an installation written NCL procedure. The PSM NCL interface is described in [Network Control Language Reference](#).

Add a Printer Definition

A printer definition defines where, how, and on what paper output is printed. A printer definition is required for each printer at which output is printed.

Follow these steps:

1. Enter

/PSMPRTR

at the prompt.

The Printer Definition List appears.

2. Press F4 (Add).

The Printer Definition panel appears.

3. Complete the fields, as required.

For information about the fields, press F1 (Help).

4. Press F3 (File).

The definition is saved.

List Printer Definitions

You can list all the printer definitions that are defined for your region. You can browse and maintain the listed definitions.

To list all printer definitions, enter

/PSMPRTR

at the prompt.

Add a Form Definition

A form definition is required for each type of paper on which output is printed. The Form Definition Menu is used to set up and administer these form definitions.

Follow these steps:

1. Enter

/PSMFORM

at the prompt.

The Form Definition List appears.

2. Press F4 (Add).

The Form Definition panel appears.

3. Complete the fields, and press F3 (File).

The form definition is saved.

Note:

For information about the fields, press F1 (Help).

List Form Definitions

You can list all form definitions that are defined for your region, and then browse and maintain them.

To list all form definitions, enter

/PSMFORM

at the prompt.

Add Control Characters

Control characters are sent to a printer before or after (or both) the output is printed. They are defined in setup definitions.

Follow these steps:

1. Enter

/PSMSET

at the prompt.

The Setup Definition List appears.

2. Press F4 (Add).

The Setup Definition panel appears. To access the second panel of the setup definition, press F8 (Forward).

Complete the fields, as required.

For information about the fields, press F1 (Help).

3. Press F3 (File).

The setup definition is saved.

List Control Characters

You can display a list of all the setup definitions that are defined for your region. This list lets you browse and maintain the listed definitions.

To list control characters, enter

/PSMSET

at the prompt.

Add a Default Printer for a User ID

Each user ID in your region can be assigned a default printer. Default printer assignments let you define the printer to which output is sent whenever a user ID does not specify a printer.

Follow these steps:

1. Enter

/PSMDFTP

at the prompt.

The Default Printer Assignment List appears.

2. Press F4 (Add).

The Default Printer Assignment panel appears.

3. Complete the following fields:

User ID

Specifies the User ID of the user to whom the printer is assigned a default.

Printer Name

Specifies the name of the printer to which the printing of this user is sent.

Press F3 (File).

The default printer assignment is saved.

List Default Printers

You can display a list of all the default printer assignments that are defined for each user ID. This list lets you browse and maintain the listed definitions.

To list default printers, enter

/PSMDFTP

at the prompt.

Clear the Printer Spool

Print requests are retained on the print spool under any one of the following conditions:

- An error occurs during printing.
- HELD is specified on the Print Request panel.

The PSM clear spool panel is used to clear print requests from the print queue.

Note:

This function is available to authorized users only.

Follow these steps:

1. Enter

/PSMADMN

at the prompt.

The Administration Menu for PSM appears.

2. Enter

CS

at the prompt.

The Clear Spool panel appears.

3. Complete the following field:

Date

Specifies the date that determines which print requests are deleted. PSM deletes all print requests added to the spool before or on this date.

Press F6 (Action).

The print requests are deleted.

Exits to Send Print Requests to a Data Set

Two printer exit procedures are distributed with your product. Each writes the output for a print request to a data set. The procedure \$PSDS81X can be customized to specific site requirements. The procedure \$PSDS81Z offers the same functionality with improved performance, but cannot be customized. The target data sets for both procedures can be sequential or partitioned.

Parameters that control the operation of the exit are defined in the Exit Data portion of the printer definition. Procedures that pass data to PSM for printing can override the exit data that is specified in the PSM printer definition.

The procedures use the parameters in the exit data to perform the following tasks:

- Determine the target data set.
- Determine how to process a data line with a skip amount of zero.
- Set the length of the lines print.

How the Procedures Process a Print Request

The procedures read each line of print data and write it directly to the nominated data set. Each print line is analyzed according to skip control before processing. This process continues until all lines of data for the print request have been received from PSM and written to the nominated data set.

\$PSDS81X and \$PSDS81Z Parameters

The \$PSDS81X and \$PSDS81Z exits have the following keyword parameters:

```
DSN=
datasetname

[ DISP={
SHR
| OLD | NEW | MOD } ]
[ LRECL={
n
|
80
} ]
[ SKIP0={
NEWLINE
| DISCARD | DESTRUCTIVE |
NONDESTRUCTIVE } ]
[ CYL=
pri
[,
sec
] [,
dir
] ]
[ TRK={
pri
[,
sec
] [,
dir
] |
15,5
} ]
[ BLKSZ=
n
]
[ STORC=
storclas
]
[ MGMTC=
mgmtclas
]
[ DATAC=
dataclas
]
[ VOL=
```

```

volser
]
[ UNIT={
unit
| SYSALLDA} ]
[ RECFM={ F |
FB
| V | VB } ]

```

DSN= *datasetname*

Specifies the target data set name. If the data set is partitioned, the member name must be included or the data set is corrupted.

You can use the following symbolics in the

Datasetname

parameter:

- &DAY is the day of the week (for example, MON).
- &YY is the two-digit representation of the year (for example, 11).
- &YYYY is the four-digit representation of the year (for example, 2011).
- &MM is the two-digit representation of the month (for example, 02).
- &MON is the three-character representation of the month (for example, JAN and FEB).
- &DD is the day of the month.
- &HHMMSS is the time.
- &HH is the hour.
- &MIN is the minute.
- &JOBID is the job ID.
- &JOBNAME is the job name.
- &NMID is the region ID.
- &NMDID is the region domain ID (DID).
- &GRPNAME is the sysplex name.
- &SYSID is the system ID.
- &SYSNAME is the system name.
- &USERID is the requesting user ID.

A period (.) or another symbolic acts as a delimiter. (that is, &YY&MM. is the same as &YY.&MM.). Symbolics are also allowed in a member name.

Specifies how to process a data line with a skip amount of zero.

- NEWLINE creates a line of data.
- DISCARD discards the line of data.
- DESTRUCTIVE causes the data to replace the existing data line.
- NONDESTRUCTIVE overlays the data on the existing data line, but only where blanks were present on the existing data line. No existing characters are modified.

The procedures ignore the following PSM print options: NEWPAGE and USCORE.

Printer Exit Definition Example

This example directs the output for a PSM print request, which is assigned to the printer DSEXIT, to the data set member PROD.PSM.DATA(TEST1). The record length of this data set is 80. Overlay lines in the data are removed.

```
PROD1----- PSM : Printer Definition -----
-----
Command ==>
Function=BROWSE

Printer Name ... DSEXIT
Type ..... EXIT                (JES, VTAM, ALIAS, EXIT)
Description .... Print to a data set
Lower Case? .... YES           (Yes or No)
Line Limit ..... 0             (0 to 999999)
Form Name .....+ FORM0

ALIAS Printer

Real Name .....+              (Real printer name)

JES Printer

Destination ....              (destid.userid)
Output Class ...              (A to Z, 0 to 9)

VTAM Printer

LU Name .....
Logmode .....

EXIT

Exit Name ..... $PSDS81Z
Exit Data ..... DSN=PROD.PSM.DATA(TEST1) LRECL=80
                SKIP0=DISCARD
```

Any previous references to parameters WKVOL, CYL, and LIST in the exit data are no longer required. Remove them from the printer definition before using \$PSDS81Z or \$PSDS81X, or the print request fails.

Print-to-Email

The printer definition, \$PSEMAIL, lets you email the output of a printing request. The request can be either an attachment or in the body of the email. When the output is sent as an attachment, the email uses the PS8803 message as its body and the PS8804 message as its salutation:

Data attached for
email_subject

Yours,

user_name

user_name

Displays the sender name that is defined in UAMS.

You can maintain these messages from the Message Definition List panel. The shortcut to the panel is /CASMSG.