

Creating and Managing PAC Jobs

PAC provides jobs for processing migration events, for submitting jobs, and for importing to and exporting from partitioned datasets (PDS). Refer to Appendix B for a list of the jobs provided by PAC.

PAC jobs are grouped by operating system. Within each of these groups, the jobs are classified by the type of migration to be processed. The job for each migration type follows its own set of steps to completion, allowing the event to be processed in increments.

PAC maintenance facilities can be used to customize batch jobs to meet the requirements at your site for job names, account codes, dataset names, and other standards.

User-defined/specific jobs can also be loaded into PAC and submitted for execution using the Remote Job Entry (RJE) facility.

Note:

As part of the installation / upgrade process includes the re-loading of PAC jobs, it is recommended that you copy the delivered jobs to customized names, before any site-specific information is changed. Otherwise these changes will be lost when upgrading to a higher version.

This chapter covers the following topics:

- Accessing the Job Sub-Functions
 - Adding (Defining) a Job
 - Displaying or Modifying a Job
 - Selecting a Job
 - Copying a Job
 - Renaming a Job
 - Submitting a Job
 - Editing Job Control
 - Job Control Substitution Parameters
 - Purging a Job
-

Accessing the Job Sub-Functions

To access the PAC job maintenance and reporting sub-functions, enter Code J (Jobs) on the PAC Main Menu.

Depending on your user profile, either the Job Menu or the Job Reporting Menu appears. The Job Menu, which combines the maintenance and reporting menus, is used in discussions throughout this section.

```

15:29:32          ***** PREDICT APPLICATION CONTROL *****          2000-02-09
ser PACUSR          - Job Menu -

Code  Sub-Function          Code  Sub-Function
-----  -----          -----  -----
A  Add a Job                P  Purge Job
C  Copy Job                 R  Rename Job
D  Display Job              S  Select Job
E  Edit JCL                 U  Submit a Job
H  Hardcopy JCL             ?  Help
M  Modify Job               .  Exit
L  List JCL                 -----  -----

Code ..... _
Job ..... _____
New Job ... _____
Keyword ... _____

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

Field Description

- Job Identifies new or existing jobs. You may enter a job name, an alias, or range notation. The job name must begin with an alphabetic character and may be up to 32 characters in length. Embedded blanks are allowed but are translated by PAC to the underscore (_) character. Job names must be unique: if a duplicate job name is entered, an error message is displayed.
- New Job Used to designate a new name for an existing job that is being copied or renamed.
- Keyword Keyword for job Identifies a keyword already assigned to a job(s); used to facilitate job selection. Keywords may be assigned using Additional Options from a relevant sub-function.

Note:

All of the sub-functions listed above, except Add, may be selected for processing directly from the Job Selection List that is accessed using the Select Job sub-function.

Adding (Defining) a Job

1. To access the Add Job screen, enter Code A and a unique job name on the Job Menu.

The job name must begin with an alphabetic character and may be up to 32 characters in length. Embedded blanks are allowed but are translated by PAC to the underscore (_) character. If a duplicate job name is entered, an error message is displayed.

Alternatively, you may enter the ADD JOB direct command on the command line. Refer to the PAC Reference documentation for the correct syntax.

```

16:38:16          ***** PREDICT APPLICATION CONTROL *****          2000-07-01
User PACUSR          - Add Job -

Job ..... NEW-JOB          Modified: 2000-07-01 by PACUSR
Keys ..... / / / / / / / / / /

Notes.... _____
          _____
          _____
          _____
          _____
          _____

Additional Options ... Y

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

The job name you entered on the Job Menu is reflected on the Add Job screen and cannot be modified.

2. (Optional) You may add notes in the Notes field. See the Job Selection List for an example of how these notes are used in PAC.
3. Select the Additional Options field by pressing PF4 (Opts), or by typing Y (Yes) over the default.
4. From the resulting Additional Options window, select the options you wish to edit:

Option Description

Aliases	Alias for job Job alias Add an alternative name for the job. Refer to the section Assigning Aliases to a PAC Entity on page for more information.
Keys	Job keyword Keyword for job Assign keywords for the job. Keywords must already have been defined to PAC. Refer to Appendix , Defining Keywords to PAC, on page for more information.
JCL	Edit the JCL/JCS for the job on the Natural Editor screen. Refer to the PAC Reference documentation for information about using the editor.

The Date option displays information about the dates and times the job was added/modified, and also identifies the user who performed the addition/modification.

5. Press ENTER to add the job.

Displaying or Modifying a Job

The Display Job and Modify Job screens are similar to the Add Job screen: they display notes and keywords for the specified job. The Display screen may not be modified. Refer to Add (Define) an Application for more information.

To access the Display or Modify screens, enter Code D (Display Job) or M (Modify Job) and the name of the job on the Job Menu. Alternatively, enter the DISPLAY or MODIFY direct command on the command line. Refer to the PAC Reference documentation for the correct syntax.

Selecting a Job

To display a list of jobs, enter Code S (Select Job) on the Job Menu. Alternatively, enter the SELECT JOB direct command on the command line to access the Job Selection List screen. Refer to the PAC Reference documentation for the correct syntax.

```

12:28:54          ***** PREDICT APPLICATION CONTROL *****          2000-12-02
User VMU          - Job Selection List -
DISPLAY Job *
C Nr Job Name          Job Notes
- - - - -
_ 1 OS_ARCHIVE_RELOAD  Reload Archived NATURAL Objects into PAC
_ 2 OS_ARCHIVE_UNLOAD  Archive NATURAL Objects from PAC
_ 3 OS_BATCH_JCL       OS Batch JCL for PAC-REQUESTS
_ 4 OS_COMPARE         Compare NATURAL objects in NATURAL and/o
_ 5 OS_EXPORT_JCL     Export PAC JCL to an OS PDS
_ 6 OS_IMPORT_JCL     Import JCL from an OS PDS into PAC
_ 7 OS_INCORPORATE     Include NAT appl.from wkfile into CONTRO
_ 8 OS_INCORPORATE_WORKFILE Include NAT appl.from wkfile and migrate
_ 9 OS_MIGRATE         Migrate NATURAL and FOREIGN Objects
_10 OS_MIGRATE_WORKFILE Migrate NATURAL and FOREIGN Objects u
_11 OS_PREDICT_MIGRATE_IN Migrate PREDICT Objects into PAC 2.2
_12 OS_PREDICT_MIGRATE_OUT Migrate PREDICT Objects out of PAC
_13 OS_SYSTRANS_MIGRATE_IN Immigrate NATURAL objects from SYSTRANS
_14 OS_SYSTRANS_MIGRATE_OUT Emigrate NATURAL objects from SYSTRANS
          Mark Selection, Enter Number or 'T' (Top) __

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

If you accessed the Job Selection List screen with Code S (Select a Job) or with the SELECT direct command for one of the listed jobs, you may invoke the following sub-functions directly by entering the code in the "C" column:

Code	Sub-Function
C	Copy
D	Display
E	Edit
M	Modify
P	Purge
X or S	Select
R	Rename
U	Submit

The Copy, Rename, and Submit sub-functions each display a window on which you may enter the new name of the job to be copied, renamed, or submitted.

If you mark the job with the cursor, or enter an X or an S in the "C" column, or enter the job number (from the "Nr" column) in the Mark Selection... field, the Job Menu appears with the specified job already displayed in the Job field.

Copying a Job

You may copy a job from the Job Menu, from the Job Selection List, or by issuing a direct command.

1. To copy an existing job from the Job Menu, enter Code C (Copy Job), the name of the job you wish to copy (Job field) and a new name for the job (New Job field).

In the Job Selection List mark the job you wish to copy with C in the "C" column. On the resulting Copy Job window, enter a new name for the copied job.

Alternatively, enter the COPY JOB command on the command line. Refer to the PAC Reference documentation for the correct syntax.

The Copy PAC Job screen appears; this screen is similar to the Add Job screen. You may modify the Notes field and the Additional Options, including Aliases, Keywords, and the JCL.

2. Press ENTER to confirm your modifications.

The message that the job (that is, the old job name) has been copied appears at the bottom of the screen.

Renaming a Job

You may rename a job from the Job Menu, from the Job Selection List, or by issuing a direct command.

Note:

If you rename a job, you must also rename it in the migration paths that use this job. Refer to Migration Path for information about migration path defaults.

1. To rename an existing job from the Job Menu, enter Code R (Rename Job), the name of the job you wish to rename (Job field), and a new name for the job (New Job field).

From the Job Selection List mark the job you wish to rename with R in the "C" column. On the resulting Rename Job window, enter a new name for the job.

Alternatively, enter the RENAME JOB command on the command line. Refer to the PAC Reference documentation for the correct syntax.

2. Press ENTER to confirm your modifications.

The message that the job (that is, the old job name) has been renamed appears at the bottom of the screen.

Submitting a Job

You may submit a job for execution from the Job Menu, from the Job Selection List, or by issuing a direct command.

Note:

Jobs for migration events must be submitted from the Submit Migration Event screen because of the automatic substitution of various PAC substitution characters. Refer to Authorizing and Submitting a Migration Event for more information. For more information about PAC substitution characters, see Job Control Substitution Parameters.

1. To submit a job from the Job Menu, enter Code U (Submit a Job) and the name of the job.

From the Job Selection List mark the job you wish to submit with U in the "C" column.

Alternatively, enter the SUBMIT JOB command on the command line or the SUB command on the command line of the JCL screen (i.e., the Natural editor). Refer to the PAC Reference documentation for the correct syntax.

2. On the resulting Submit Confirmation window, confirm the request by entering Confirm or pressing PF5 (Sub).

When a job is submitted successfully, a message to that effect appears at the bottom of the screen.

Editing Job Control

You may edit job control statements (JCL/JCS) on the Natural editor screen using Natural editor commands and variable substitution parameters identified by an "@" prefix. Setting and modifying the @ prefix character is a PAC administrator function.

Refer to the PAC Reference documentation for more information about Natural editor commands.

Variable substitution parameters are discussed in the section Job Control Substitution Parameters.

1. Access the Natural editor from one of the following screens as indicated:

Screen	Action
Add Job	Access Additional Options and enter Y (yes) in the JCL field.
Job Menu	Enter Code E (Edit JCL) and the job name.
Job Menu	Enter Code M (Modify Job) and the job name; from the resulting Modify Job screen, access Additional Options and enter Y (yes) in the JCL field.
Any Job screen	Enter EDIT JOB on the command line. Refer to the PAC Reference documentation for the correct syntax.

The Natural editor screen appears. The following example shows JCL source in the editor:

```

09:15:40                * PREDICT APPLICATION CONTROL *                2000-05-06
Entity Job                Obj: OS_MIGRATE
>
> + TX: JCL
...+...1...+...2...+...3...+...4...+...5...+...6...+...7..Top
//@USER    JOB @USER,CLASS=A,MSGCLASS=X,TIME=1440,REGION=3M
//*
//*
//*      *****
//*      *                MIGRATE                *
//*      *****
//*
//* @EVENT
//*
//* @APPLIC
//*
//* EVENT PROCESSING
//*
//* 1) Interrogate and expand the Object List of the Event
//* 2) Depending on From Status, the following occurs:
//*   a) If From Status is DEVELOPMENT or MAINTENANCE, Migrate
//*       the Objects to CONTROL, create new Object Versions,
//*       and Re-Compile.
//*   b) If From Status is INCORPORATION, Migrate the
...+...1...+... Size: 1483  Chars free: 39419  ..+...6. S 1    L 45
    
```

2. Enter new JCL/JCS or modify existing JCL/JCS on the Natural editor screen.
3. Type SAVE on the command line to save your changes.

The message "CATALOG/SAVE completed successfully" appears at the bottom of the screen.

4. To exit the Natural editor screen, type a period (.) on the command line.

If you have made changes and attempt to exit the screen without typing SAVE, a window appears giving you the following options:

- Enter a period (.) to abandon any changes;
- Enter E to continue editing;
- Enter C to save changes.

Otherwise, the Job Menu appears displaying the message "Text editing completed."

Job Control Substitution Parameters

Variable substitution parameters add flexibility to the standard Natural editor commands and facilities. These parameters are uniquely identified by an "@" prefix (for example, "@PASSWORD") and fall into the following categories:

- Automatic Substitution Parameters are predefined to PAC. Each time a job is submitted, PAC automatically substitutes values for these parameters. These parameters may exist in JCL/JCS for either job submission or migration events.
- User-prompted substitution parameters require additional, manual input before they can be executed. Each time the job is submitted, a window is displayed requesting values for these substitution variables. The JCL/JCS text is scanned for such substitution parameters. These parameters are used in job submission JCL/JCS only.

Rules for Using Substitution Parameters

The following rules apply when using all JCL/JCS substitution parameters:

- A maximum of 10 variables is allowed for any given job.
- There is no limit to the number of occurrences of any given parameter within a job.
- A default character other than "@" may be specified by the PAC administrator for identifying substitution parameters.
- The name of the job itself may be substituted in the JCL/JCS by using the text string @JOB-ID.
- When a particular line of JCL/JCS is parsed, the substitution string is terminated if any of the following characters is encountered:

' quote (apostrophe)
, comma
(left parenthesis
) right parenthesis
; semicolon
: colon
\$ dollar sign

In addition to these characters, another instance of the substitution character "@" will terminate the substitution string.

Automatic Substitution Parameters

Automatic JCL substitution parameters are identified and explained in the following table:

Automatic Parameter	Replaced by . . .
@APPLIC	the name of the application being migrated.
@APL-CONTROL	the DBnr/Fnr of the ACF system file.
@DATD	the current date in the format dd.mm.yy.
@DATE	the current date in the format dd/mm/yy.
@DATG	the current date in the format ddmonthnameyyyy.
@DATI	the current date in the format yy-mm-dd.
@DATJ	the current Julian date in the format yyddd.
@DATN	the current date in the format yyyymmdd.
@DATU	the current date in the format mm-dd-yy.
@DBID_LIBRARY	database ID of transfer library for OpenSystem objects
@EVENT	the name of the migration event being processed.
@FDIC-FROM	the FDIC (the Predict dictionary file) from which the files are being migrated (in the format "(DBnr/Fnr)").
@FDIC-TO	the FDIC to which the files are being migrated (in the format "(DBnr/Fnr)").
@FNR_LIBRARY	file number of transfer library for OpenSystem objects
@FUSER-FROM	the name of the Natural FUSER from which the files are being migrated (in the format "(DBnr/Fnr)").
@FUSER-TO	the name of the Natural FUSER to which the files are being migrated (in the format "(DBnr/Fnr)").
@LIBRARY_TEMP	temporary transfer library for OpenSystem objects
@PASSWORD	an 8-character user password that is obtained from the user at submission time. (Input will be "hidden").
@PRD-CONTROL	the DBnr/Fnr of the PCF system file (in the format "(DBnr/Fnr)").
@TIME	the current time in the format 'hhmmss'.
@USER	the user ID of the user submitting the job. If a batch ID has been specified in the user profile, the batch ID will be substituted.

User-Prompted Substitution Parameters



Warning:

When using the "@" prefix with user-prompted substitution parameters, the length of the expanded job card must not exceed 72 characters.

User-prompted JCL substitution parameters are displayed on the Job Submission screen each time the job is submitted.; the user must supply the appropriate value for each unique substitution parameter. If there are no user-prompted substitution parameters in the JCL, this screen does not appear and the job is submitted without intervention.

The variables you enter on the Job Submission screen are then substituted into the job stream so that you may specify each variable for each job without using the Natural editor.

As an example of this feature, the JCL for your job might consist of the following statements:

```
//USER      JOB @USER,CLASS=A,MSGCLASS=X,REGION=2048K  
//*  
//CMWKF01 DD DSN=@LIBRARY(@MEMBER),DISP=SHR
```

The first line of the listed JCL statements contains the automatic JCL substitution parameter "@USER"; this value will automatically be replaced in the job stream with the user ID of the user submitting the job.

In addition to this automatic JCL substitution parameter, the JCL statements contain the user-prompted JCL substitution parameters @LIBRARY and @MEMBER. You will need to specify a value for each of these variable on the Job Submission screen. You will only be prompted once for each unique user-prompted substitution parameter.

Purging a Job

To purge a job, enter Code P (Purge a Job) and the job name on the Job Menu. Alternatively, enter PURGE JOB on the command line of the Job Menu. Refer to the PAC Reference documentation for the complete syntax.

From the resulting Purge Confirmation window

- Type Confirm or press PF5 to purge the job.
- Type a period (.) or PF3 to return to the Job Menu without purging the job.