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PeopleSoft

PeopleTools 8.59: Process Scheduler

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Contents

Preface

Understanding the PeopleSoft Online Help and PeopleBooks

The PeopleSoft Online Help is a website that enables you to view all help content for PeopleSoft applications and PeopleTools. The help provides standard navigation and full-text searching, as well as context-sensitive online help for PeopleSoft users.

Hosted PeopleSoft Online Help

You can access the hosted PeopleSoft Online Help on the Oracle Help Center. The hosted PeopleSoft Online Help is updated on a regular schedule, ensuring that you have access to the most current documentation. This reduces the need to view separate documentation posts for application maintenance on My Oracle Support. The hosted PeopleSoft Online Help is available in English only.

To configure the context-sensitive help for your PeopleSoft applications to use the Oracle Help Center, see Configuring Context-Sensitive Help Using the Hosted Online Help Website.

Locally Installed Help

If you're setting up an on-premise PeopleSoft environment, and your organization has firewall restrictions that prevent you from using the hosted PeopleSoft Online Help, you can install the online help locally. See Configuring Context-Sensitive Help Using a Locally Installed Online Help Website.

Downloadable PeopleBook PDF Files

You can access downloadable PDF versions of the help content in the traditional PeopleBook format on the Oracle Help Center. The content in the PeopleBook PDFs is the same as the content in the PeopleSoft Online Help, but it has a different structure and it does not include the interactive navigation features that are available in the online help.

Common Help Documentation

Common help documentation contains information that applies to multiple applications. The two main types of common help are:

- Application Fundamentals
- Using PeopleSoft Applications

Most product families provide a set of application fundamentals help topics that discuss essential information about the setup and design of your system. This information applies to many or all applications in the PeopleSoft product family. Whether you are implementing a single application, some combination of applications within the product family, or the entire product family, you should be familiar with the contents of the appropriate application fundamentals help. They provide the starting points for fundamental implementation tasks.

In addition, the *PeopleTools: Applications User's Guide* introduces you to the various elements of the PeopleSoft Pure Internet Architecture. It also explains how to use the navigational hierarchy, components, and pages to perform basic functions as you navigate through the system. While your application or implementation may differ, the topics in this user's guide provide general information about using PeopleSoft applications.

Field and Control Definitions

PeopleSoft documentation includes definitions for most fields and controls that appear on application pages. These definitions describe how to use a field or control, where populated values come from, the effects of selecting certain values, and so on. If a field or control is not defined, then it either requires no additional explanation or is documented in a common elements section earlier in the documentation. For example, the Date field rarely requires additional explanation and may not be defined in the documentation for some pages.

Typographical Conventions

The following table describes the typographical conventions that are used in the online help.

Typographical Convention	***Description***
Key+Key	Indicates a key combination action. For example, a plus sign (+) between keys means that you must hold down the first key while you press the second key. For Alt+W, hold down the Alt key while you press the W key.
. . . (ellipses)	Indicate that the preceding item or series can be repeated any number of times in PeopleCode syntax.
{ } (curly braces)	Indicate a choice between two options in PeopleCode syntax. Options are separated by a pipe (|).
[ ] (square brackets)	Indicate optional items in PeopleCode syntax.
& (ampersand)	When placed before a parameter in PeopleCode syntax, an ampersand indicates that the parameter is an already instantiated object. Ampersands also precede all PeopleCode variables.
⇒	This continuation character has been inserted at the end of a line of code that has been wrapped at the page margin. The code should be viewed or entered as a single, continuous line of code without the continuation character.

ISO Country and Currency Codes

PeopleSoft Online Help topics use International Organization for Standardization (ISO) country and currency codes to identify country-specific information and monetary amounts.

ISO country codes may appear as country identifiers, and ISO currency codes may appear as currency identifiers in your PeopleSoft documentation. Reference to an ISO country code in your documentation does not imply that your application includes every ISO country code. The following example is a country-specific heading: "(FRA) Hiring an Employee."

The PeopleSoft Currency Code table (CURRENCY_CD_TBL) contains sample currency code data. The Currency Code table is based on ISO Standard 4217, "Codes for the representation of currencies," and also relies on ISO country codes in the Country table (COUNTRY_TBL). The navigation to the pages where you maintain currency code and country information depends on which PeopleSoft applications you are using. To access the pages for maintaining the Currency Code and Country tables, consult the online help for your applications for more information.

Region and Industry Identifiers

Information that applies only to a specific region or industry is preceded by a standard identifier in parentheses. This identifier typically appears at the beginning of a section heading, but it may also appear at the beginning of a note or other text.

Example of a region-specific heading: "(Latin America) Setting Up Depreciation"

Region Identifiers

Regions are identified by the region name. The following region identifiers may appear in the PeopleSoft Online Help:

- Asia Pacific
- Europe
- Latin America
- North America

Industry Identifiers

Industries are identified by the industry name or by an abbreviation for that industry. The following industry identifiers may appear in the PeopleSoft Online Help:

- USF (U.S. Federal)
- E&G (Education and Government)

Translations and Embedded Help

PeopleSoft 9.2 software applications include translated embedded help. With the 9.2 release, PeopleSoft aligns with the other Oracle applications by focusing our translation efforts on embedded help. We are not planning to translate our traditional online help and PeopleBooks documentation. Instead we offer very direct translated help at crucial spots within our application through our embedded help widgets. Additionally, we have a one-to-one mapping of application and help translations, meaning that the software and embedded help translation footprint is identical—something we were never able to accomplish in the past.

Using and Managing the PeopleSoft Online Help

Select About This Help in the left navigation panel on any page in the PeopleSoft Online Help to see information on the following topics:

- Using the PeopleSoft Online Help
- Managing Hosted online help
- Managing locally installed PeopleSoft Online Help

PeopleTools Related Links

PeopleTools 8.59 Home Page

PeopleTools Elasticsearch Home Page

"PeopleTools Product/Feature PeopleBook Index" (PeopleTools 8.59: Getting Started with PeopleTools)

PeopleSoft Hosted Online Help

PeopleSoft Information Portal

PeopleSoft Spotlight Series

PeopleSoft Training and Certification | Oracle University

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Send your suggestions to psoft-infodev_us@oracle.com. Please include the applications update image or PeopleTools release that you're using.

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Chapter 1

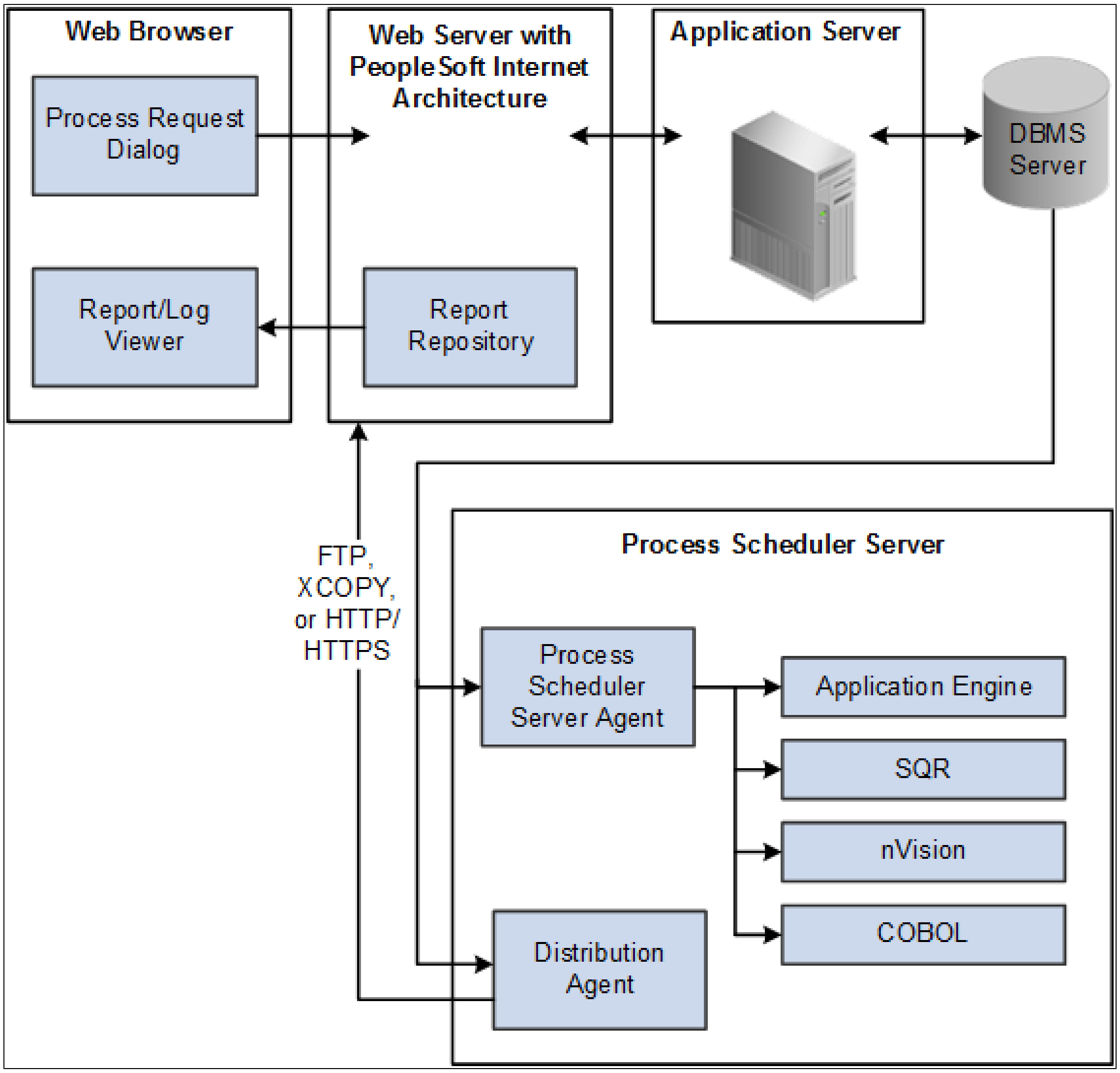
Getting Started With PeopleSoft Process Scheduler

PeopleSoft Process Scheduler Overview

PeopleSoft Process Scheduler is a centralized tool that enables application developers, system administrators, and application users to manage PeopleSoft batch processes. Using PeopleSoft Pure Internet Architecture, you can access a list of processes through a web browser and queue and run a process request. Process requests using PeopleSoft Pure Internet Architecture have the added functionality of new distribution options that enable you to distribute output through the web in different formats (HTML, PDF, Microsoft Excel, and so on) to other users based on their user or role ID. You also can send reports as email to other users.

Image: PeopleSoft Process Scheduler architecture

This example illustrates the overall PeopleSoft Process Scheduler architecture.



PeopleSoft Process Scheduler Implementation

This section provides information to consider before you begin to use PeopleSoft Process Scheduler.

Implementation of PeopleSoft Process Scheduler can be categorized into the following activities:

- Configure Process Scheduler general settings.
- Configure process security.
- Set server definitions.
- Configure jobs and jobsets.

Configuring Process Scheduler General Settings

To maintain a single-row table that stores system-wide parameters and system defaults, you perform the following steps:

Step	***Reference***
1. Define system settings.	See Defining System Settings.
2. Define process type definitions.	See Defining Process Type Definitions.
3. Define process definitions.	See Defining Process Definitions.
4. Define recurrence definition.	See Defining Recurrence Definitions.

Configuring Process Security

To secure access to the processes, you perform the following steps:

Step	***Reference***
1. Configure permission lists, roles, and user profiles.	See "Security Basics" (PeopleTools 8.59: Security Administration).
2. Set up Process Scheduler privileges and profiles.	See Setting Up PeopleSoft Process Scheduler Privileges and Profiles
3. Grant PeopleSoft Process Scheduler system administration role.	See Granting a PeopleSoft Process Scheduler System Administration Role.

Setting Server Definitions

To set up server definitions, you perform the following steps:

Step	***Reference***
1. Create server definitions.	See Creating Server Definitions.
2. Define report nodes.	See Defining Report Nodes.
3. Define daemon groups.	See Defining Daemon Groups.
4. Define batch timings.	See Defining Batch Timings.

Configuring Jobs and JobSets

To run several processes in one batch, you perform the following steps to define jobs and jobsets:

Step	***Reference***
1. Create job definitions.	See Creating Job Definitions.
2. Define scheduled jobsets.	See Defining Scheduled JobSets.

Other Sources of Information

In addition to implementation considerations presented in PeopleSoft Process Scheduler Implementation, take advantage of all PeopleSoft sources of information, including the installation guides, release notes, and PeopleBooks.

Related Links

Getting Started with PeopleTools

Chapter 2

Understanding PeopleSoft Process Scheduler

PeopleSoft Process Scheduler

The primary role of Process Scheduler is to support the PeopleSoft application environment. With a PeopleSoft application, you might want to perform certain processes (such as running programs, batch programs, reports, and so on) in the background of the online system. Running reports, posting journal entries, loading benefit enrollment forms, and calculating payroll deductions are all examples of processes that you might want to perform independently of the PeopleSoft application.

Using PeopleSoft Process Scheduler can streamline your business practices by enabling you to take advantage of the distributed computing environment at your site, whereby you can schedule performance-sensitive jobs to run on a powerful server while the online system is still available to end users.

PeopleSoft Process Scheduler enables you to:

- Schedule recurring processes.
- Create jobs (groups of processes).
- Schedule a process request to run on any date or during any time interval that your business requires, such as monthly, daily, hourly, or by the minute.
- Submit a job to run several processes and conditionally schedule successive processes based on the status of a previous process in the job.

Note: PeopleSoft Process Scheduler does not support any third-party products, such as AUTOSYS.

PeopleSoft Process Scheduler Architecture

End users need to be concerned only with successfully submitting process requests, monitoring their progress, and viewing their output in Report Manager. However, they also should understand how each part of PeopleSoft Process Scheduler functions.

The following sections describe the role of each of the basic components in a three-tier environment.

PeopleSoft Application Server

The application server runs the appropriate SQL against the database to add a row to the Process Request table (PSPRCSRQST) for the submitted process request. Process Monitor also uses SQL to fetch the process status from the Process Request table.

Note: In this context, *application server* refers to the physical machine on which the PeopleSoft Application Server runs. The PeopleSoft Application Server is the actual set of server processes that are controlled by Oracle Tuxedo. The PeopleSoft Process Scheduler Server is a separate component that does not necessarily need to run on the application server.

PeopleSoft Process Scheduler Server Agent

The PeopleSoft Process Scheduler Server Agent is the component that resides on a server and runs as a process; that is, after it is initiated, it runs continuously in the background and requires no user interaction until it receives a request to shut down. Although the PeopleSoft Process Scheduler Server can run on the application server machine, it can also run on any supported batch server or database server.

As with each of the server processes, such as PSAPPSRV, that run within a PeopleSoft Application Server domain, the PeopleSoft Process Scheduler Server maintains its own SQL connection to the database server.

The PeopleSoft Process Scheduler Server Agent becomes idle for a specified interval of time so that it does not consume server resources. It continues alternating between being idle and active until the database administrator stops it manually.

The PeopleSoft Process Scheduler Server Agent polls the Process Request table at a regular, user-defined interval to determine whether any process requests have been directed toward the server. If so, it starts the appropriate process, based on the requested run date and time. The agent also updates the run status of that process instance to Initiated and updates the session ID with the process ID (PID) of that process.

After the PeopleSoft Process Scheduler Server Agent initiates a process, the started process—if it is API-Aware—is responsible for updating the Run Status column in PSPRCSRQST accordingly. However, during the polling cycle, the agent also:

- Cancels (at the operating system-level) processes that have been canceled through the Process Monitor.
- Checks for processes with a run status of Initiated and Processing to determine whether these processes are actually running.

To make this determination, it uses the PID that is stored in the database when the process is started. If the PID does not exist, the process is then set to Error.

Database Server

The database server houses the Process Request tables that contain a variety of data that are related to the requests, such as command line parameters, output options, and process status.

Distribution Agent

Report distribution in the PeopleSoft system is closely associated with PeopleSoft Process Scheduler. Process Scheduler uses the PeopleSoft Process Scheduler Server Agent to run the reports and log files that you submit using a process request. When they have finished, the Distribution Agent transfers these reports and log files to the Report Repository where you can view them from a web browser using PeopleSoft Pure Internet Architecture. You can transfer the following files to the Report Repository:

- Reports
- Logs

- Trace files

Report distribution options enable you to restrict access to these reports based on user ID or role ID, as defined in PeopleSoft Security Administration.

For the Distribution Agent to pass authentication, you must ensure that the following rules are enforced:

- The user ID that you use to start the Process Scheduler server must include the *ProcessSchedulerAdmin* role.

  See Granting PeopleSoft Process Scheduler Administrative Rights.

- On the Report Node Definition page, the Universal Resource Locator (URL) Host must contain a fully qualified name.

  If you specify the Auth Token Domain name during the PeopleSoft Pure Internet Architecture installation, you must also include the domain name on the URL Host.

  See Defining HTTP Distribution Nodes.

The Distribution Agent process runs on the same server as the PeopleSoft Process Scheduler Server Agent. When you use the Server Definition page to set up the PeopleSoft Process Scheduler Server Agent with a distribution node, either the PeopleSoft Process Scheduler Server Agent or Oracle Tuxedo starts the Distribution Agent, depending on the operating system in which you start PeopleSoft Process Scheduler. In Windows and UNIX, Oracle Tuxedo starts the Distribution Agent, while in OS/390, the PeopleSoft Process Scheduler Server Agent starts it.

The PeopleSoft Process Scheduler Server Agent and the Distribution Agent both check the status of each process in the Report List table (PS_CDM_LIST). When the PeopleSoft Process Scheduler Server Agent initiates a process request that has an output destination type of Web, or if the Server Definition page is set up to transfer system log or trace files to Report Manager, then an entry is inserted into the Report List table. When the program that is associated with the process finishes, the status in the Report List table is updated to Generated, indicating that the files are ready to transfer to the Report Repository. In Windows and UNIX, where PeopleSoft Process Scheduler servers are started through Oracle Tuxedo, the Process Scheduler (PSPRCSRV) sends a Tuxedo service to the Distribution Agent (PSDSTSRV) to initiate transferring of reports to the Report Repository. In OS/390, the Distribution Agent polls the Report List table to determine which process requests have finished running and then transfers them to Report Repository.

Report Repository

The Report Repository is the designated server where the Distribution Agent transfers reports that are generated from the PeopleSoft Process Scheduler Server. The repository can be set up on either a UNIX or Microsoft Windows machine by installing PeopleSoft Pure Internet Architecture and certified web server software (WebLogic), and can be used by multiple PeopleSoft databases. The Distribution Agent determines the Report Repository to which it should transfer the reports based on the setting that is specified in the server definition. When the Distribution Agent transfers all the files for a specific request, it creates a subdirectory under the designated directory that is specified in the PeopleSoft Pure Internet Architecture as the PSReports home directory, for example:<Database Name>/<Transfer date in YYYMMDD format>/<Report Instance>.

PeopleSoft Process Scheduler Components

Process Scheduler has several components that work together to help you run reports and processes offline. After a job has been submitted, use Process Monitor to check the status of the job, and then use Report Manager to view the output of the job through a web browser.

Process Scheduler Manager involves the interaction of these components, which you can select from the menu:

Process Type Definitions	Set global definitions for processes.
Process Definitions	Define settings that are specific to a process.
Job Definitions	Group processes.
Schedule JobSet Definitions	Describe the jobsets that run on a recurring basis, such as weekly or monthly.
Recurrence Definitions	Describe the frequency of processes that run on a recurring basis, such as weekly or monthly.
Server Definitions	Define to instances of the PeopleSoft Process Scheduler Server Agent.
Report Node Definitions	Define the report distribution node, including URL, home directory, and File Transfer Protocol (FTP) address. Use this component to set the parameters that are needed for the PeopleSoft Process Scheduler Server to transfer reports and log and trace files that are generated from a process request to Report Manager.
Process System Settings	View or change the last process instance number, as well as the system's default operating system.
Process Request	Submit a job or process to run. This component is commonly integrated into applications to support process requests that you make by selecting Run from PeopleSoft applications. The Process Request page enables you to specify variables, such as where a process runs and in what format the process output is generated.

Note: Depending on your role at your site, you might be concerned with only one or two of these components. Most end users are concerned with only the basic tasks of submitting a process request, checking its progress, and viewing it in Report Manager.

Chapter 3

Submitting and Scheduling Process Requests

Understanding Run Control IDs

To run a report, you must tell the system when and where you want the report to run. For example, you might tell the system to run the report on the database server at midnight or on a Microsoft Windows server every Sunday afternoon, or you might tell it to run the report immediately. For most reports, you must also set parameters that determine the content of the report, such as the business unit or time period on which to report.

A run control is a database record that provides values for these settings. Instead of entering the same values each time you run a report, you create and save a run control with those settings. The next time that you run the report, you select the run control, and the system completes the settings.

You can create run controls that apply to several related reports. For example, suppose that all of the reports that you run at the end of a month require the same parameters: business unit, department, and from and to dates. You can create a single run control that provides values for these parameters and use it for every report.

Conversely, you can create several run controls for the same report to manage different situations. For example, you can create one run control that sets the parameters for a quarterly report and another run control that sets them for a year-to-date version of the same report. Each time that you run the report, you select the appropriate run control. This way, you can print several variations of the same report without changing the settings every time.

A run control ID is used as a key (with a user ID) for records that contain the parameters that a process needs at runtime. Storing the parameters in a table that the process can query using the run control ID and user ID enables the process to run without user intervention. Run control IDs are stored in a minimum of two tables: an application run control table and the Tools Run Control table (PSPRCSRQST). You can examine the PS_PRCSRUNCNTL table as a sample application run control table.

The PeopleTools Run Control table stores information that is required by PeopleSoft Process Scheduler, such as output type, format, distribution, file dependency, and destination. The application run control table stores information that is required to run a process, such as the from date, department ID, employee ID, and so on. All application run control tables are keyed by user ID and run control ID.

Important! It is recommended to use alphanumeric characters when possible since some special characters may cause conflicts with some products. Do not use the forward slash (/) for running COBOL processes.

Note: Run control IDs are product-specific. See your PeopleSoft product documentation for details on the run control IDs that you will be using.

Note: This topic is intended for the PeopleSoft application user who uses PeopleSoft Process Scheduler from a web browser to run background processes, such as PeopleSoft Application Engine, COBOL, or Structured Query Report (SQR). Depending on your security authorizations, you can run background processes on your browser or on a network server.

Submitting Process Requests

This section discusses how to submit process requests.

Using the Process Request Dialog Page

The Process Request Dialog page shows the run control ID that you selected or added for submitting your process request. It also includes links to Report Manager and Process Monitor so that you can check the progress of your job and view its content immediately after it is posted.

The Process Request Dialog page has two additional pages that show your options for submitting requests if you do not run the process from the browser:

- The Component Interface page enables you to run the process from a component.
- The ProcessRequest PeopleCode page enables you to run the process using PeopleCode.

This topic is written with the primary focus of submitting process requests from the browser. Click the *Run* button to access the Process Scheduler Request page.

Related Links

Scheduling Processes from Outside the PeopleSoft System
Using the PeopleCode ProcessRequest Class

Running Processes from PeopleSoft Applications

To expedite the process of running reports, PeopleTools delivers Run Control subpages for application developers. Using these subpages, application developers can run reports without accessing the Process Request Dialog page.

You can change the alignment of the run control subpages. By default, the subpages are left aligned. Select the Right Align Field Labels check box to right align the run control subpages.

The following subpages are recommended for application developers to use:

- PRCSRUN_LC_SBP
- PRCSRUN_RL_SBP
- PRCSRUN_SBP
- PRCSRUN_SBP2
- PRCSRUNCNTL_LC_SBP
- PRCSRUNCNTL_RL_SBP

- PRCSRUNCNTL_SBP
- PRCSRUNCNTL_SBP2

The subpages comprise the following buttons:

Run Now	Click to request a process to run without launching the Process Request Dialog page. Process Scheduler will run the first process as listed on the Process Request Dialog page. If the process has previously been run, the system will retain the default output type based on the Run Control record.
Advance Schedule	Click to launch the Process Scheduler Request page to submit requests and configure the output type and output format of the process. This option is synonymous with the Run button on the Process Request Dialog page.

Related Links

"Defining Subpages" (PeopleTools 8.59: Application Designer Developer's Guide)

Scheduling Process Requests

This section provides an overview of PeopleSoft Process Scheduler Requests and discusses how to schedule process requests.

Understanding PeopleSoft Process Scheduler Requests

The Process Scheduler Request page enables you to submit a job or process to run. This page is commonly integrated into applications to support process requests that you make from a PeopleSoft application by selecting Run.

When you select Run, the Process Scheduler Request page appears, showing all of the jobs and processes that you have the security to run.

The Process Scheduler Request page enables you to specify variables, such as where a process runs and in what format the process output is generated. You can set:

- Server name.
- Run date, run time, and time zone.
- Recurrence.
- Output type.
- Output format.
- Output destination.
- Distribution.

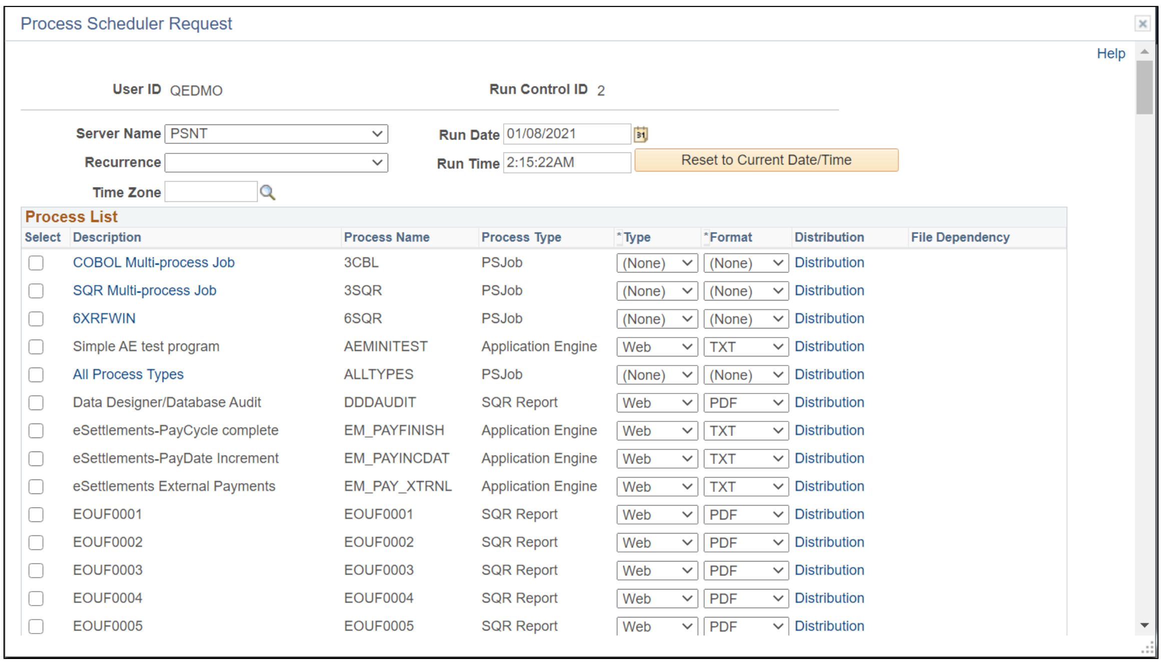
Specifying Process Variables

To specify process variables:

- Select PeopleTools > Process Scheduler > Schedule Process Requests.
- Select an existing run control ID or add a new run control ID.
- Select Run.

Image: Process Scheduler Request page

This example illustrates the fields and controls on the Process Scheduler Request page. You can find definitions for the fields and controls later on this page.



Server Name

Select the name of the server on which you want the process to run.

Note: The *Server Name* drop-down list displays only the configured servers, listed in the Server List page, in Process Monitor.

Recurrence

Select the recurring time intervals for the process to run.

For example, to run a process every weekday at 5:00 p.m., select the predefined recurrence definition *M-F at 5pm.*

Time Zone

Select the time zone in which the process will run.

For example, you might be in Eastern Standard Time (EST) and schedule a process to run in Pacific Standard Time (PST).

Run Date

Select the date on which you want the process to run.

Run Time	Select the time when you want the process to run.
Reset to Current Date/Time	Select to reset the run date and time to the present date and time.
Select	Select a job or process to run. You can select multiple jobs and processes.
Description	Identifies a process or job. Jobs are listed as links. Click the link to display the Job Detail page, which shows all of the individual processes and jobs that are associated with the selected main job.
Process Name and **Process Type**	Identifies the name and type (such as COBOL) of the process as it appears in the process or job definition.
Type	Select the output type for this job or process. An output type that is selected for a process at the process definition level overwrites the output type, and the output type drop-down list box becomes unavailable. An output type that is selected for a job at the main job level carries through to the job items. An output type that is selected for individual job items overwrites the output type that is entered for the parent job. Output type for an BI Publisher report is set at the report definition level. Options set at that level may render the output type drop-down list box unavailable. *File:* Writes the output to the file that you indicate in the Output Destination field. **Note:** For PS/nVision, the Output Destination must contain the full path and the name of the file. *Printer:* Sends the output to a printer. You can enter a custom printer location in the Output Destination field if you have the appropriate security access. If the Output Destination field is left blank, the printer that is defined on the Process Profile Permissions page is used. If that printer is undefined, the default printer that is defined for the process scheduler is used. *Email:* Sends the output by email. To distribute a report to an email list, enter the appropriate information on the Distribution Detail page by selecting the Distribution link. By default, the output is sent by email to the person running the process. This option is available for SQR, PS/nVision, and BI Publisher. *Web:* Sends all output of the process to the report repository, including log and trace files. The format of the report is specified by the format list.

Window: Sends the output to a new browser window. The status of the process now appears in the new browser window before the results are displayed. The different states can be *Queued, Initiated, Processing, Success, Error,* or *Warning.* All output for the process is also sent to the report repository, including log and trace files. The format of the report is specified by the format list.

When multiple processes are requested, a new browser window is opened for each request.

Note: This output type is not available if the user does not have REN server *Report Window* permission, or no active REN server cluster is available for Reporting.
To grant access to the new browser window, the permission lists of the users must include full access for the Realtime Event Notification for Reporting Window and the WEBLIB_RPT web library with full access.

Format

Select the output format for this job or process.

When an output format is selected for a process at the process definition level, it cannot be changed. Therefore, the Format drop-down list box becomes unavailable.

An output format that is selected for a job at the main job level carries through to the job items. The format that is selected for individual processes or jobs that are attached to a job override the format that is entered for the parent job.

Output format for a BI Publisher report is set at the report definition level. Options set at that level may render the output format drop-down list box unavailable.

Distribution

Select the Distribution link to access the Distribution Detail page, where you enter additional distribution information when the output type is *Web, Window,* or *Email.* Also use this page to select a folder name to which the output should be distributed when the output type is *Web* or *Window.*

Note: If a job is assigned with a recurrence pattern the distribution list should be added as part of the job definition on the job definitions options page. Any changes made to the distribution list at runtime will only apply to the first iteration.

See Defining Distribution Lists.

File Dependency

Select the File Dependency link to access the File Dependency page, where you can change the name of the file that is currently listed.

Note: File dependency information is saved with the run control ID. Therefore, information that is changed in the process definition will not appear here.

Output Destination

Enter the file directory path or printer destination for the output. This field is available only when the output type that you select is *File* or *Printer*.

If you select an output destination for a process at the process definition level, this field is populated with that output destination.

Note: For PS/nVision, if the output type is *File,* the output destination must contain the full path and the name of the file.

Related Links

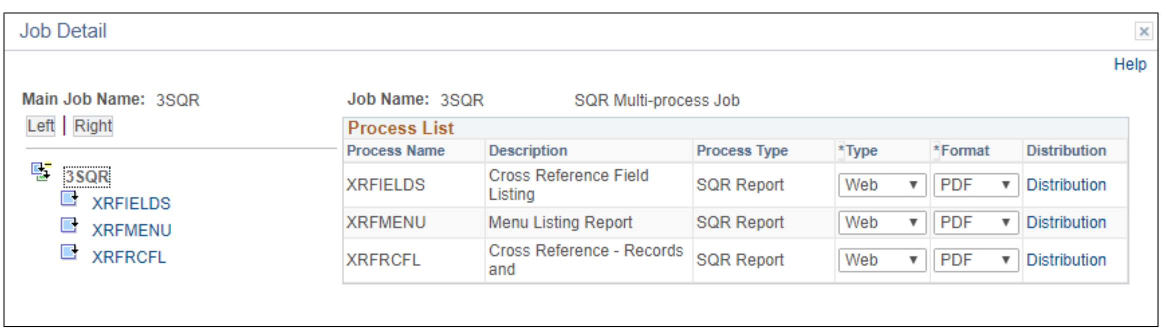
Viewing the Status of Servers
Defining Recurrence Definitions
Defining Process Type Definitions
Defining Process Output Types
Defining Process Output Formats
Setting Process Definition Options
"Defining Permissions" (PeopleTools 8.59: Security Administration)
"Creating Report Definitions" (PeopleTools 8.59: BI Publisher for PeopleSoft)

Setting Job Detail Information

To access the Job Detail page, select a job description listed on the Process Scheduler Request page.

Image: Job Detail page

This example illustrates the fields and controls on the Job Detail page.



When a job or JobSet is listed, only the main job appears on the Process Scheduler Request page. The Job Detail page displays all of the jobs and processes that are attached to the main job in a hierarchical view that assists you with specifying output options and distribution information for individual processes.

Note: You can specify the output options for jobs either at the main job level or for each job or process in the job.

Related Links

Understanding Jobs and JobSets

Selecting Output Types and Formats

You can choose from several file output types and formats for your process. The following table lists file output types by process type. The output type for PS/nVision is the same as the default output type on the PS/nVision Report Request page.

Note: The *Window* output type is not available if the user does not have REN server *Report Window* permission, or no active REN server cluster is available for Reporting.
To grant access to the new browser window, the permission lists of the users must include full access for the Realtime Event Notification for Reporting Window and the WEBLIB_RPT web library with full access.

See "Defining Permissions" (PeopleTools 8.59: Security Administration).

Note: For Process Type XML Publisher, available output options are based on the BI report definition template type.

See "Creating Report Definitions" (PeopleTools 8.59: BI Publisher for PeopleSoft).

Process Type	***Output Type***	***Default***
AppEngine (PeopleSoft Application Engine)	FILE, WEB, WINDOW, EMAIL **Note:** You can send only one attachment with the same output format. If multiple files of the same output format are generated and made available in the destination directory, one file may be picked up randomly and attached to an outgoing Email.	WEB
COBOL	NONE, WINDOW, WEB	NONE
Cube	NONE	NONE
nVision (PS/nVision)	WEB, WINDOW, EMAIL, FILE, PRINTER, DEFAULT	DEFAULT
SQR	WEB, WINDOW, EMAIL, FILE, PRINTER	WEB
WinWord (Microsoft Word)	WEB, WINDOW	WEB
Data Mover	FILE, WEB, WINDOW	WEB
Essbase Cube Builder	ANY Generates an OLAP cube which can be viewed via Smart View in MS Office applications, or in Essbase applications.	ANY

Process Type	Output Type	Default
XML Publisher	FILE, WEB, EMAIL, PRINTER	WEB
OTHER	WEB, WINDOW, EMAIL, FILE, PRINTER, NONE	NONE

The following table lists valid file output formats by process type.

Process Type	Output Type	Output Format	Default
AppEngine	FILE	PDF, XLS, TXT, HTM, XML **Note:** XML formats only apply when running Schedule queries. See "Scheduling Queries" (PeopleTools 8.59: Query).	TXT
AppEngine	WEB	PDF, XLS, TXT, HTM, XML **Note:** XML formats only apply when running Schedule queries.	TXT
AppEngine	WINDOW	PDF, XLS, TXT, HTM, XML **Note:** XML formats only apply when running Schedule queries.	TXT
AppEngine	EMAIL	PDF, XLS, TXT, HTM, XML **Note:** XML formats only apply when running Schedule queries. **Note:** You can send only one attachment with the same output format. If multiple files of the same output format are generated and made available in the destination directory, one file may be picked up randomly and attached to an outgoing Email.	TXT
COBOL	NONE	NONE	NONE
COBOL	WEB	TXT	TXT
COBOL	WINDOW	TXT	TXT
Cube	NONE	NONE	NONE

Process Type	***Output Type***	***Output Format***	***Default***
nVision	EMAIL	HTM, XLS	XLS
nVision	FILE	HTM, XLS	XLS
nVision	PRINTER	HTM, XLS	XLS
nVision	WEB	HTM, XLS	XLS
nVision	WINDOW	HTM, XLS	XLS
nVision	DEFAULT	DEFAULT	DEFAULT
SQR	EMAIL	CSV, HP, HTM, LP, PDF, PS, SPF **Note:** CSV output is not supported on OS390/zOS platforms.	PDF
SQR	FILE	CSV, HP, HTM, LP, PDF, PS, SPF, OTHER **Note:** CSV output is not supported on OS390/zOS platforms.	PDF
SQR	PRINTER	HP, LP, PS, WP, OTHER	PS
SQR	WEB	CSV, HP, HTM, LP, PDF, PS, SPF **Note:** CSV output is not supported on OS390/zOS platforms.	PDF
SQR	WINDOW	CSV, HP, HTM, LP, PDF, PS, SPF **Note:** CSV output is not supported on OS390/zOS platforms.	PDF
WinWord	WEB	DOC	DOC
WinWord	WINDOW	DOC	DOC
Data Mover	FILE	TXT	TXT
Data Mover	WEB	TXT	TXT
Data Mover	WINDOW	TXT	TXT
Essbase Cube Builder	ANY	OLAP cube	ANY

Process Type	***Output Type***	***Output Format***	***Default***
XML Publisher	FILE	PDF, HTM, RTF, XLS	HTM
XML Publisher	PRINTER	PDF	PDF
XML Publisher	WEB	PDF, HTM, RTF, XLS	HTM
XML Publisher	EMAIL	HTM, PDF, RTF, XLS	HTM
OTHER	NONE	NONE	NONE

Note: You must install Adobe Acrobat Reader on your workstation to read PDF files.

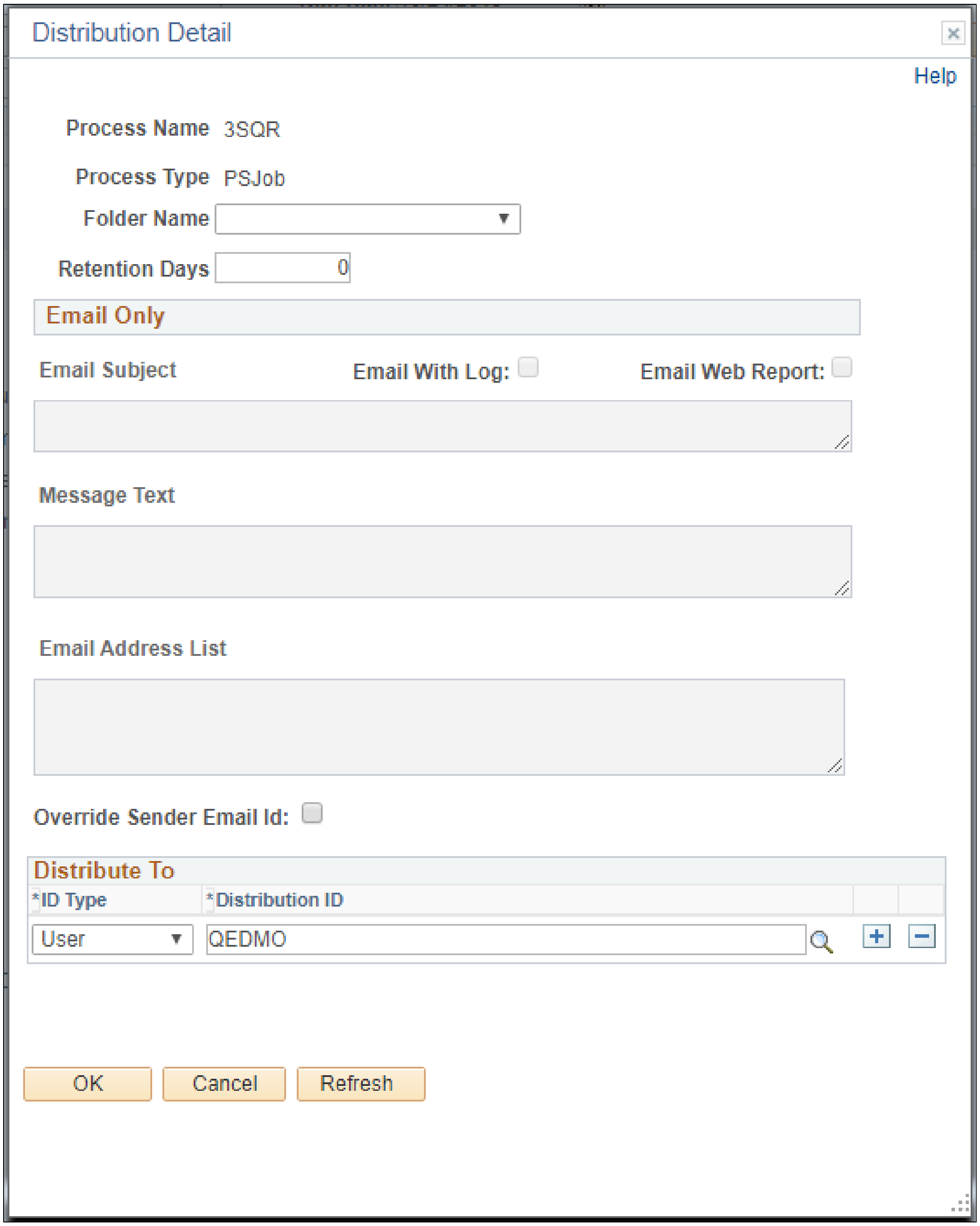
Setting Report Distribution

To access the Distribution Detail page, select a distribution link on the Process Scheduler Request page.

Note: You must specify an output type of *Web, Window,* or *Email* for the distribution list to be accepted when the process instance is created.

Image: Distribution Detail page

This example illustrates the fields and controls on the Distribution Detail page. You can find definitions for the fields and controls later on this page.



Folder Name	Select the folder in which the report results are posted. Folders organize report results into meaningful groups and can be viewed from Report Manager. **Note:** This option is available only when the output type on the Process Scheduler Request page for this process is *Web* or *Window.*

Retention Days	Set the retention days that are used to determine the expiration date. The expiration date is determined by adding the retention days from the date on which the report was generated.
Email Subject	Enter the text that appears in the subject line of the email. If this field is empty, the following default text message is used: Output from <Program Name>(<Process Instance>).
Email With Log	Select to include log files resulting from the SQR program as attachments to the email file (SQR only). **Note:** You can attach only *.out* log files to an email. You cannot attach a SQR log files to emails.
Email Web Report	Select to send an email with a link to the completed report output. This option is available only when the output type for the request is *Web.*
Message Text	Enter text to appear in the body of the email. If this field is empty, the following default text message is used: Message from Process Scheduler running on system <Process Scheduler Server Agent> using database <Database Name>.
Email Address List	Enter a list of email addresses, separated by semicolons, to which the email should be sent.
Override Sender Email Id	Select this option to override the From Email ID value in processes or jobs and consider the User Profile Primary Email ID as the sender ID for report distributions when the destination output type is set to Email for Process Notification.
Distribute To	Select the recipients of the process output. Select an ID type of *User* or *Role* and the corresponding distribution ID. Email recipients must be authorized to view the content of the email and their email addresses must be entered in their security user profiles.

Related Links

"Understanding User Profiles" (PeopleTools 8.59: Security Administration)

Setting Log/Output Directory and Report Repository

When Process Scheduler submits a request, the system creates a new subdirectory to store the log, trace, and reports that were generated by the request. This subdirectory is created in the directory that is specified in the Log/Output Directory parameter in the Process Scheduler configuration file psprcs.cfg. When a high volume of requests is being processed by the Process Scheduler server, limitations imposed by the operating system can prevent additional directories from being generated for the new requests. For instance, certain UNIX operating systems only allocate 32K nodes for a directory.

To prevent the Log/Output directory from reaching the limit that is imposed by the operating system, you can set up additional subdirectories using meta variables. You can modify the Log/Output directory parameter to include any of the meta variables that are listed below in order to build additional subdirectories.

The meta variables are:

Meta Variable	***Description***
%OPRID%	PeopleSoft User ID
%REPORTID%	Report Instance
%PRCSINSTANCE%	Process Instance
%PRCSTYPE%	Process Type
%SERVER%	Process Scheduler Server
%CURRDATE%	Current Date
%CURRHOUR%	Current Hour
%JOBNAME%	Job Name
%JOBINSTANCE%	Job Instance

Log/Output Directory

By default, the Log/Output directory is `%PS_SERVDIR%\log_output`. You can modify the structure of the subdirectory to include the date and hour as subdirectories by changing the default parameter to:

```
%PS_SERVDIR%\log_output\%CURRDATE%\%CURRHOUR%
```

Report Repository

You can use the same mechanism to alter the subdirectory structure for the Report Repository. To change the directory structure in the Report Repository, you need to modify the definition of the Report Node stored in the PS_CDM_DIST_NODE.

In the PS_CDM_DIST_NODE table, the field CDM_DIR_TEMPLATE sets the directory structure like this:

```
%DBNAME%/%CURRDATE%/%REPORTID
```

You can alter the value of the field to include any of the meta-variables listed previously.

Related Links

Log and Output Directory

Using Process Status Notifications

This section discusses the process status notification.

Understanding Process Status Notification

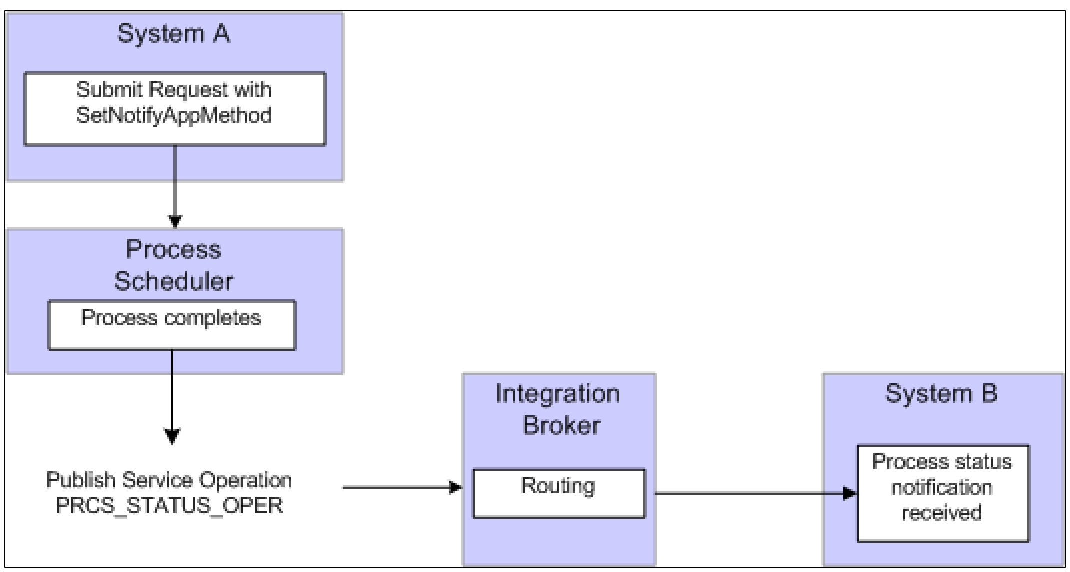
Process status notification provides the ability to publish a process request status notification either locally or to a remote application. Upon receipt of the notification, you can trigger additional logic in your application based on the notification results. Notifications are published using service operations and routed by the Integration Broker. The service operation PRCS_STATUS_OPER is delivered and triggered when the SetNotifyAppMethod is invoked. This service operation does not contain any delivered routings. You can also create your own service operation and trigger it with the SetNotifyService method. Your PeopleCode program should call only one of these methods: either SetNotifyAppMethod or SetNotifyService. If both methods are used, the last method called takes precedence over the former.

SetNotifyAppMethod

This method allows you to create your own application class to handle the notification and information you want to send. This method will invoke the service operation PRCS_STATUS_OPER, as shown in this diagram:

Image: SetNotifyAppMethod

This example illustrates how to create application class that handles the notification and information through PRCS_STATUS_OPER service operation.



To use this method:

1. Create an application class to handle notifications.

   This is an example of an application class to handle notifications:

```
class ProcessNotification
   method ProcessNotification();
   method ReceiveNotification(&_MSG As Message);
end-class;
```

```
method ProcessNotification
end-method;

method ReceiveNotification
   /+ &_MSG as Message +/
   Local Rowset &rs_msg, &NotifyInfo;
   Local Message &message;
   Local string &sName, &sValue;
   &rs_msg = &_MSG.GetRowset();

   /*********************************************************************/
   /* Add logic you want to execute upon receiving notification          */
   /* For example :                                                      */
   /* &RQST.SetNotifyAppMethod("RECEIVE_NOTIFICATION:ProcessNotification", */
   /* "ReceiveNotification");                                            */
   /*  &RQST.AddNotifyInfo("SQR Report", "XRFMENU");                     */

   If &rs_msg(1).PRCS_STATUS.RUNSTATUS.Value = "9" Then
   /* process ran to success*/

      &NotifyInfo = &rs_msg.GetRow(1).GetRowset(Scroll.PRCSNOTIFYATTR);
      /* if you have more name-value pairs                         */
      /* add code to traverse the rows from the PRCSNOTIFYATTR rowset*/

      /* e.g. Get the first name-value pair */
      &sName = &NotifyInfo(1).PRCSNOTIFYATTR.PRCS_ATTRIBUT_NAME.Value;
      &sValue = &NotifyInfo(1).PRCSNOTIFYATTR.PRCS_ATTRIBUT_VALU.Value;

      /* logic to excute on success  */
      /* e.g. submit another process */
      Local number &PrcsInstance;
      Local ProcessRequest &RQST;
      &RQST = CreateProcessRequest();
      &RQST.ProcessType = &sName;
      &RQST.ProcessName = &sValue;
      &RQST.RunControlID = "test";
      &RQST.RunLocation = "PSNT";
      &RQST.OutDestType = "WEB";
      &RQST.OutDestFormat = "PDF";
      &RQST.RunDateTime = %Datetime;
      &RQST.TimeZone = %ServerTimeZone;
      &RQST.Schedule();
   Else
      /* other processing */
   End-If;
   /**********************************************************/

end-method
```

See "Understanding Application Classes" (PeopleTools 8.59: PeopleCode API Reference).

2. Include SetNotifyAppMethod, using the application class and method created in step 1, in the process request.

3. Optionally, use AddNotifyInfo to include specific information in the message that will be published.

   This is an example of a process request:

```
/*********************************************************************
* Construct a ProcessRequest Object.                                 *
*********************************************************************/
&RQST = CreateProcessRequest();
&RQST.ProcessType = "SQR Report";
&RQST.Processname = "XRFMENU";
&RQST.RunControlID = "TEST";
&RQST.OutDestType = "WEB";
&RQST.OutDestFormat = "PDF";
&RQST.NotifyTextMsgSet = 65;
&RQST.NotifyTextMsgNum = 237;
```



```
&RQST.RunDateTime = %Datetime;
&RQST.TimeZone = %ServerTimeZone;
&RQST.SetNotifyAppMethod("RECEIVE_NOTIFICATION:ProcessNotification",
    "ReceiveNotification");
&RQST.AddNotifyInfo("SQR Report", "XRFMENU");
&RQST.Schedule();
&PRCSSTATUS = &RQST.Status;
&PRCSINSTANCE = &RQST.ProcessInstance;
If &PRCSSTATUS = 0 Then
   MessageBox(%MsgStyle_OK, "", 65, 366, "Process Instance",
     "XRFMENU",&PRCSINSTANCE);
Else
   MessageBox(%MsgStyle_OK, "", 65, 0, "Process Instance",
     "Process Not submitted");
End-If;
```

4. Add an outbound routing to the service operation PRCS_STATUS_OPER pointing to your remote system.

5. On the remote system add an inbound routing to the service operation PRCS_STATUS_OPER.

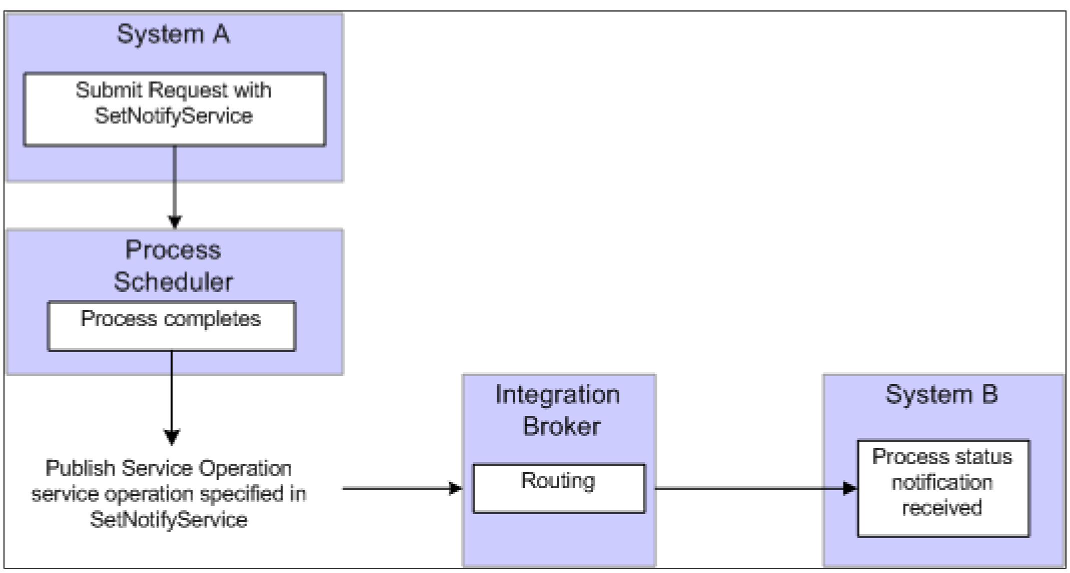
   See "Understanding Routing Definitions" (PeopleTools 8.59: Integration Broker).

SetNotifyService

This method requires you to create your own service operation and service operation handler to publish the message when the process request completes.

Image: SetNotifyService

This example illustrates how to create service operation and service operation handler to publish messages.



To use this method:

1. Create a service operation and service operation handler to handle the notification. The service operation must use the message definition PRCS_STATUS_MSG.

   Note: This service operation and all its related metadata, such as message and handler classes must be on all participating systems. You can create a project in Application Designer and migrate the definitions.

   ---

2. Include SetNotifyService using the service operation created in step 1 in the process request.

3. Optionally, include AddNotifyInfo in the process request.

4. Add an outbound routing to the service operation you created in step 1 pointing to your remote system.

5. On the remote system add an inbound routing to the service operation you created in step 1.

   See "Understanding Routing Definitions" (PeopleTools 8.59: Integration Broker).

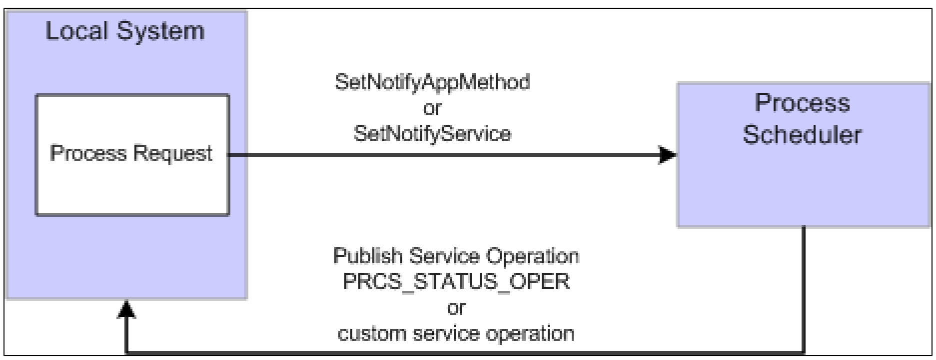
See "SetNotifyAppMethod" (PeopleTools 8.59: PeopleCode API Reference), "SetNotifyService" (PeopleTools 8.59: PeopleCode API Reference), "AddNotifyInfo" (PeopleTools 8.59: PeopleCode API Reference).

Enabling Process Status Notification Locally

This diagram illustrates how you can set up process status notification to run locally:

Image: Local process status notification

This diagram illustrates how you can set up process status notification to run locally.



To enable process status notification locally:

1. Include SetNotifyService or SetNotifyAppClass in the process request.

2. Include AddNotifyInfo in the process request.

3. Add a local-to-local routing to the service operation PRCS_STATUS_OPER if you are using SetNotifyAppMethod. If you are using SetNotifyService, add the local-to-local routing to the service operation referenced in the SetNotifyService method.

   To add the local routing to PRCS_STATUS_OPER service operation:

   a. Select PeopleTools >Integration Broker >Integration Setup >Service Operation Definitions.

   b. Select PRCS_STATUS_OPER.

   c. Select the Generate Local-to-Local check box.

   d. Click Save.

4. Submit the process request.

5. After the process request completes, you can check the service operation monitor to verify that your process notification was received.

   a. Select PeopleTools >Integration Broker >Service Operations Monitor > Monitoring >Monitor Asynchronous Services.

   b. Select the Operation Instances tab.

   c. Enter PRCS_STATUS_OPER (or your custom service operation if you used SetNotifyService) in the service operation field and click Refresh.

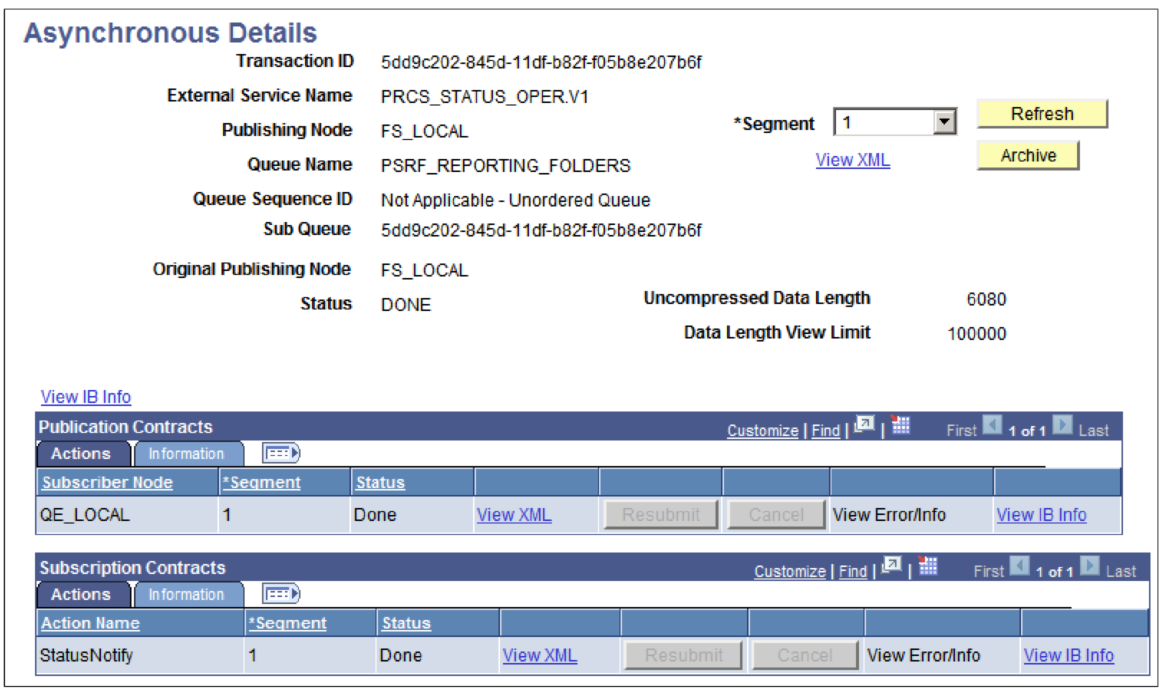
   d. Click the Details link for your Transaction Id.

   This is an example of the asynchronous details page. If any errors occur, the View Error/Info link can be used to view the error message. The View XML link will display the XML message.

   Note: The message may contain report instance related information for process requests with an output type of Web or Windows. Refer to the message PRCS_STATUS_MSG for the details on the fields that are published. (Select PeopleTools, Integration Broker, Integration Setup, Messages and search for message name PRCS_STATUS_MSG).

   Image: Asynchronous details page

   This example illustrates the fields and controls on the Asynchronous details page.



See "Managing System-Generated Routing Definitions" (PeopleTools 8.59: Integration Broker).

Enabling Process Notifications Between Systems

To enable process notification between systems:

1. Include SetNotifyService or SetNotifyAppClass in the process request.

2. Include AddNotifyInfo in the process request.
3. Add an outbound routing to the service operation PRCS_STATUS_OPER (or your custom service operation if you are using SetNotifyService) pointing to your remote system.
   a. Select PeopleTools >Integration Broker >Integration Setup >Service Operation Definitions.
   b. Select PRCS_STATUS_OPER.
   c. Access the Routing tab.
   d. Enter a Routing Name for your routing and click Add.
   e. Enter the Sender Node (node name for the system where you are logged on).
   f. Enter the Receiver Node (node of the PeopleSoft application where you want to send the notification).
   g. Click Save.
4. On the Receiving system, follow the steps a thru d in step 3.

   The Sending node is the remote system and the Receiving node is the current system.
5. Save the routing.

   See "Understanding Routing Definitions" (PeopleTools 8.59: Integration Broker).

Using the Run Control Registration Wizard

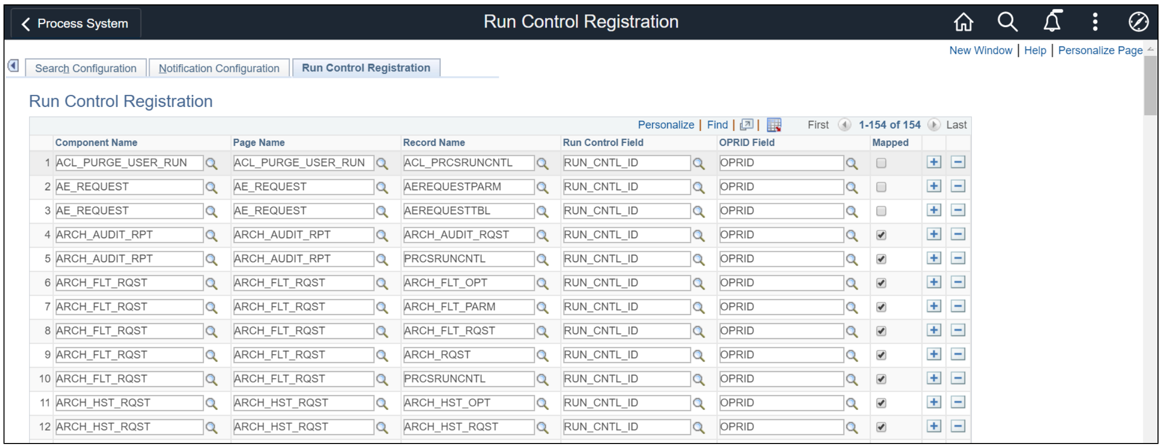
Run Control IDs are created to simplify a single task. When the task gets completed, these Run Control IDs become irrelevant. Run Control ID Management enables you to retrieve, validate, and delete Run Control IDs.

Any new run control component or page needs to be registered in the Run Control Registration wizard with run control record and fields information to be considered for Run Control ID Management.

To access the Run Control Registration wizard, select PeopleTools > Process Scheduler > Process Scheduler Settings > Run Control Registration.

Image: Run Control Registration wizard

This example illustrates the fields and controls on the Run Control Registration wizard. Definitions for the fields and controls appear following the example.



Component Name	Enter part or all of the component name, or click the Lookup button to search for one.
Page Name	Enter part or all of the page name, or click the Lookup button to search for one.
Record Name	Enter part or all of the record name, or click the Lookup button to search for one.
Run Control Field	Enter part or all of the run control name, or click the Lookup button to search for one.
OPRID Field	Enter the PeopleSoft User ID, using which the Run Control ID was created.
Mapped	Mapped Flag is checked when PRCSRUNCNTL is used as the Run Control Record for the component.

Note: Applications will have Run Control ID Management Wizard for managing Run Control IDs.

Related Links

Understanding Run Control IDs

Chapter 4

Using Process Monitor

Understanding Process Monitor

After you submit a job using the Process Scheduler Request page, use Process Monitor to review the status of scheduled or running processes. You can view all processes to see the status of any job in the queue and control processes that you initiated. Process Monitor consists of two pages: the Process List page and the Server List page.

Use the Process List page to monitor the process requests that you submit. If a process encounters an error, or if a server is down, you can find out almost immediately. You can also see what processes are queued to run in the future.

Use the Server List page to view information about each of the PeopleSoft Process Scheduler Server Agents that is defined in the system.

Viewing the Status of Processes

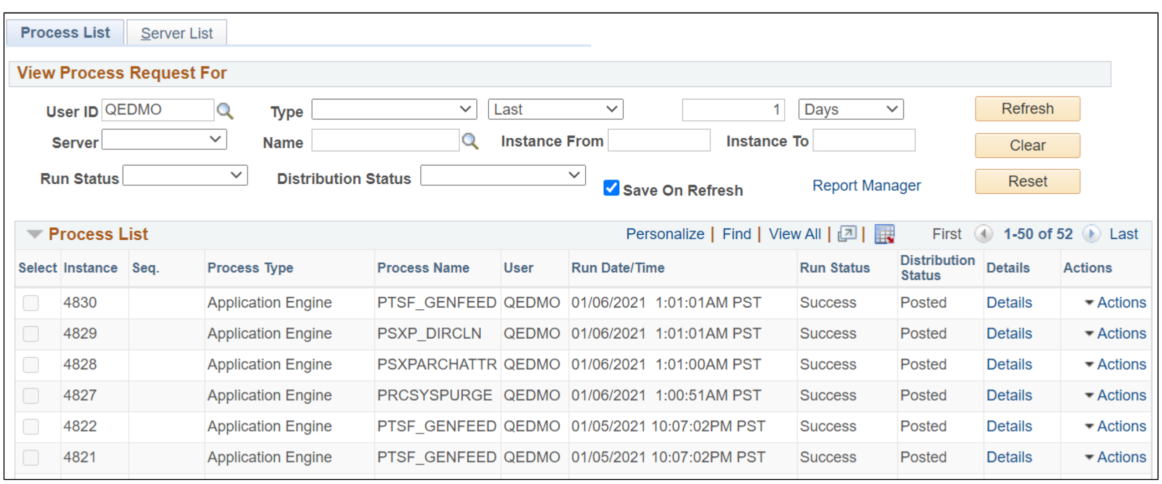
This section discusses how to view status of the processes.

Viewing the Process List

To access the Process List page, select PeopleTools > Process Scheduler > Process Monitor.

Image: Process List page

This example illustrates the fields and controls on the Process List page. You can find definitions for the fields and controls later on this page.



User ID	View the processes submitted by a user ID. Usually, you view your own user ID. Leave blank to view all of the processes that you are authorized to view.
Type	View by a process type, such as Application Engine, COBOL, SQR, or Application Engine.
Last or **Date Range**	Specify an interval of time by which to limit the process requests that appear in the list. select *Last* to display only those reports that were created in the last number of days, hours, years, or minutes. Enter a custom numerical value in the field and then select a unit type: *Days, Hours, Years,*, *Minutes,* or *All.* If you select *All,* the time interval fields will be grayed out and all process requests will appear. Select *Date Range* to display only those reports created between two specific dates. Enter a From date and a To date.
Refresh	After selecting your filtering options, select *Refresh* to display the filtered processes.
Clear	Select to clear the filters and set them to their default values.
Reset	Select to reset the filters to the last saved values in the database.
Server	View processes that are run on a particular server.
Name	View processes by a process name. **Note:** You will not be able to select a value for this field until you first select a process type.
Instance	Specify a range of instances by which to limit the process requests that appear in the list. To limit the view to a single request, enter the required instance ID in the first text field.
Report Manager	Select to go to the Report Manager page.
Run Status	View processes by status, such as *Success* or *Error.*
Distribution Status	View processes by distribution, such as *Generated* or *Posted.*
Save on Refresh	Select the check box to save changes to filter criteria when you select the Refresh button. The rules applying to *Save on Refresh* are listed later in this section.
Select All and **Deselect All**	The Select All and Deselect All buttons appear at the bottom of the page when the process list contains processes that can be deleted, cancelled, held, or restarted. Select Select All to select all valid processes. Once selected, select Delete Request to delete all the selected processes. Click

Cancel Request to cancel all of the selected processes. Click Hold Request to hold all of the selected processes. Click Restart Request to restart *multiple* processes or jobs that are on hold.

Click Deselect All to deselect all valid processes.

Use the check box that appears to the left of each process to select individual processes. The check box is only active for valid processes.

Note: The Delete, Cancel, Hold, and Restart options can be performed only on processes with specific run statuses. Therefore, the options will only be visible when processes are filtered by a valid run status for that option.

Instance — Displays the process instance; that is, the order in which the process appears in the queue. This number is generated automatically.

Seq (sequence) — Within a PSJob, each process request has a defined sequence in which it runs in relation to the others. This column displays this sequence, such as *1, 2, 3,* and so on.

Process Type — Displays the type of process, such as *Application Engine, COBOL,* or *SQL.*

Process Name — Displays the name of the process.

When a job or a jobset is listed, only the main job appears, and the system displays its name as a link. Click to see the status of all jobs and processes that are attached to the main job.

User — Displays the user ID of the person who submitted the request.

Run Date/Time — Displays the time and date at which the process request was created.

Run Status — Indicates the status of the process, such as *Queued, Initiated,* or *Cancelled.*

A complete list of Run Status values appears later in this section.

Distribution Status — Displays the distribution status for each individual job and process. Valid states are: *N/A, None, Generated (OS/390), Not Posted, Posting,* and *Posted.*

Note: If the Inter-Domain Gateway connections are done as per Push Notification configurations, Run Status Changes will get automatically updated for the processes or jobs in the list.

Details — Click to display the Process Details page.

Actions	Click the Actions menu for a list of related actions that can be performed on the current process: *Update Process:* Select to view a list of actions that can be performed on the process based on the current run status of the process. The options enabled here will be the same as the actions available under Update Process of the Process Detail page. See the Update Process section in Viewing Process Details for a list of valid actions that can be performed on the process. *Parameters:* Select to view the process request parameters for the process. *Message Log:* Select to view the message log for the process. *Batch Timings:* Select to view the batch timings of the process. *View Log/Trace:* Select to view the process log or trace details for the process. **Note:** The options displayed on the list depends on the current run status of the scheduled process request.

See Understanding Jobs and JobSets, Defining Recurrence Definitions.

Process Request Run Status

The Run Status column on the Process List page indicates the current state of a process. Knowing the status of a job helps you determine where it is in the queue or identify a problem if the process has an error.

Run Status	***Description***	***Updated By***
Blocked	The running of this process has been blocked, which indicates that this process is waiting for one of the following: the number of active occurrences of this process to drop below Max Concurrent value, a process recognized as mutually exclusive to complete, or a dependent file to be located.	Batch program
Cancel	Indicates that a user has requested to cancel the scheduling of a process request.	Process Monitor See Limitations of Process Scheduler Server.
Cancelled	Indicates that the server agent has successfully canceled the request after it has started.	PeopleSoft Process Scheduler Server Agent

Run Status	***Description***	***Updated By***
Error	Indicates that the program associated with the process request encountered an error while processing transactions within the program. In this case, delivered programs are coded to update the run status to Error before terminating.	Batch Program
Hold	Indicates that a user has requested that the scheduling of a process request be put on hold.	Process Monitor
Initiated	Indicates that a PeopleSoft Process Scheduler Server has acknowledged the new request. At this time, PeopleSoft Process Scheduler validates the parameters that are associated with this request and submits the command line to start the process.	PeopleSoft Process Scheduler
No Success	Indicates that the program encountered an error within the transaction. *No Success* is different from *Error* because the process is marked as restartable. (Application Engine is the only delivered process type that is restartable.)	Batch Program
Pending	Status assigned to an item of a new PSJob request. This indicates that this item is waiting for a previous item in the job before PeopleSoft Process Scheduler releases this item. When the previous item has completed successfully, PeopleSoft Process Scheduler changes the status of the item to *Queued.*	Process Request Dialog or ProcessRequest() PeopleCode function
Processing	Indicates that PeopleSoft Process Scheduler has successfully initiated the program. A status of *Processing* indicates that the program is running.	Batch Program
Queued	Status assigned to a new process request. The process request remains *Queued* until a PeopleSoft Process Scheduler Server picks up the new request.	Process Request Dialog or ProcessRequest() PeopleCode function
Restart	Indicates that a process, which encountered an error, is attempting to restart.	Batch program

Run Status	***Description***	***Updated By***
Success	Indicates that the program has successfully completed.	Batch Program
Warning	A warning status is available to use in a job definition. A job definition may continue or stop when a process encounters a warning. The warning status must be set using PeopleSoft Application Engine. Set the AE_APPSTATUS field to *1*.	Batch program

Save on Refresh

The following rules apply to the Save on Refresh check box:

- The Save on Refresh check box is selected by default.
- Instance to values are not saved, even if the Save on Refresh check box is selected.
- Selecting Save saves any changed filter criteria.
- Changed filter criteria is saved if you select the Refresh button and the Save on Refresh check box is selected.
- Changed filter criteria is not saved if you select the Refresh button and the Save on Refresh check box is not selected.

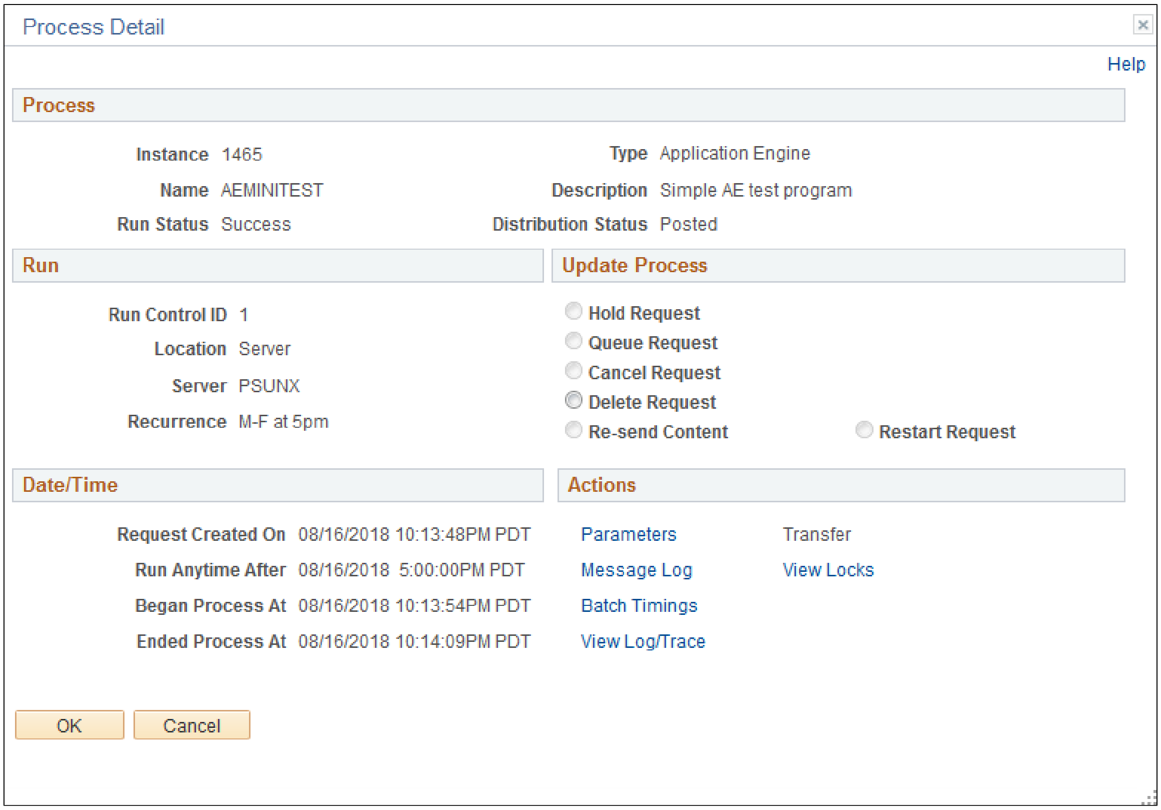
  However, a warning message appears when you attempt to leave the page.
- The save warning message appears when changes have been made to filter criteria and you attempt to leave the page without selecting the Refresh button.

Viewing Process Details

To access the Process Detail page, select the Details link on the Process List page.

Image: Process Detail page

This example illustrates the fields and controls on the Process Detail page.



Use the Process Detail page to view details, such as request parameters, message logs, and any recovery instances that have been run. Many of the items on this page are display-only. However, you can use some controls to manipulate the program run.

Note: You must select OK to confirm the Update Process request on the Process Detail page.

Process

This display-only group box contains general descriptive information to help you identify the process request, including the run and distribution states.

Run

Run Control ID and **Location**	Displays the run control ID and the run location.
Server	Displays the name of the server used, if the process runs on the server. **Note:** When the process is in queue status, the name of the requested server is appears.
Recurrence	Displays the recurrence name if this process has a recurring schedule.

Current Step For Application Engine Process Type only. The Step this Application Engine process is currently executing appears in PROGNAME.SECTION.Step format.

Update Process

The actions that are available in this group box depend on your user authorizations and the current status of the request. This group box is available only if your user ID is authorized to update the selected request.

The option that you select depends on the current run status of the process request. For instance, you cannot cancel a job that has already completed, and you cannot hold a request that is currently processing. The valid actions based on the current status of each process request appear in the following table:

Current Status	***Valid Actions***
Blocked	Hold, Cancel
Cancelled	Delete
Error	Delete
Hold	Delete, Cancel, Restart
Initiated	Cancel
No Success	Delete
Pending	Hold, Cancel
Processing	Cancel
Queued	Hold, Cancel
Restart	Hold, Cancel
Success	Delete
Warning	Delete

Note: The action *Resend Content* is available when the Distribution Status for a process is *Not Posted.*

Date/Time

Request Created On Displays the date and time at which the request appeared in the Process Request table (PSPRCSRQST). This is the same as the Start Request field on the Recurrence Definition page.

Run Anytime After Indicates the date and time at which the user selected File, Run in a PeopleSoft application.

Began Process At — Displays the actual date and time at which the process was selected and initiated.

For server-based requests, a large gap may exist between the Request Created On and Began Process At values because of PeopleSoft Process Scheduler Server Agent sleep time and other server processing activity.

Ended Process At — Indicates the date and time at which the selected process status updated to Success.

Note: If the request fails at initiation, the begin and end times do not appear.

Actions

This group box contains links to other pages, including Parameters, Message Log, Batch Timings, Transfer, and Temp Tables, and View Log/Trace. These pages provide additional details about the process.

Additional information about these actions is provided in the following Viewing Process Detail Actions section of this topic.

Viewing Process Detail Actions

This section discusses the process detail action pages.

Note: All action pages contain a group box that displays general information about the process.

Viewing Process Request Parameters

Access the Process Request Parameters page.

Use this page to view additional information about the process parameters.

All non-secure, runtime definition variables are expanded for both client and server requests in this group box. This information should help eliminate configuration problems by identifying incorrect entries in either the PeopleSoft Configuration Manager (PSADMIN) or the operating environment.

Command Line — Displays the path and program used to run the process.

You can select the command line and copy it into other tools. This is useful when trying to isolate a request-related problem originating outside of PeopleSoft Process Scheduler, such as an incorrect entry in Configuration Manager or an SQR compile problem.

For example, after copying the command line, you might paste the parameters directly into the target of an SQRW icon and then run the process outside of PeopleSoft Process Scheduler to isolate a problem.

Working Dir (working directory) — Displays the directory in which the database connectivity software is installed.

Destination	Displays the location of the completed output that is generated by the process, such as %%OutputDirectory%%. When the output destination for the process is Web, the destination lists the user or role IDs that are authorized to view the report in Report Manager.
Message Text	Displays additional information about the process status. Typically, this displays built-in messages that describe the status of the program that you are running.

Note: You must manually provide passwords (CP %OPPPSWD% params) that are required in the request parameters, because they are not exposed on the Process Request Parameters page for security reasons.

Viewing the Message Log

Access the Message Log page.

Use the Message Log page to view messages that are inserted into the message log by the program that are running.

Explain	Click to see a detailed explanation of the message.

Note: This option is available for PeopleSoft Application Engine and COBOL processes only.

Viewing Batch Timings

Click the Batch Timings link on the Process Detail page to access the Batch Timings report.

Note: The Batch Timings link is only available for process requests with a process type of *Application Engine.*

The Batch Timings report contains a set of statistics that system administrators can use to tune the system to gain better performance. This report relates specifically to PeopleSoft Application Engine program performance.

Viewing Transfer Pages

Click the Transfer link on the Process Detail page to access the page defined on the Page Transfer page for this process definition.

Viewing Temporary Tables

Click the Temp Tables link on the Process Detail page to access the Temporary Tables page.

Temporary tables can be important assets for many PeopleSoft Application Engine programs. They are used to:

- Store transient or intermediate results during a program run.
- Improve performance.

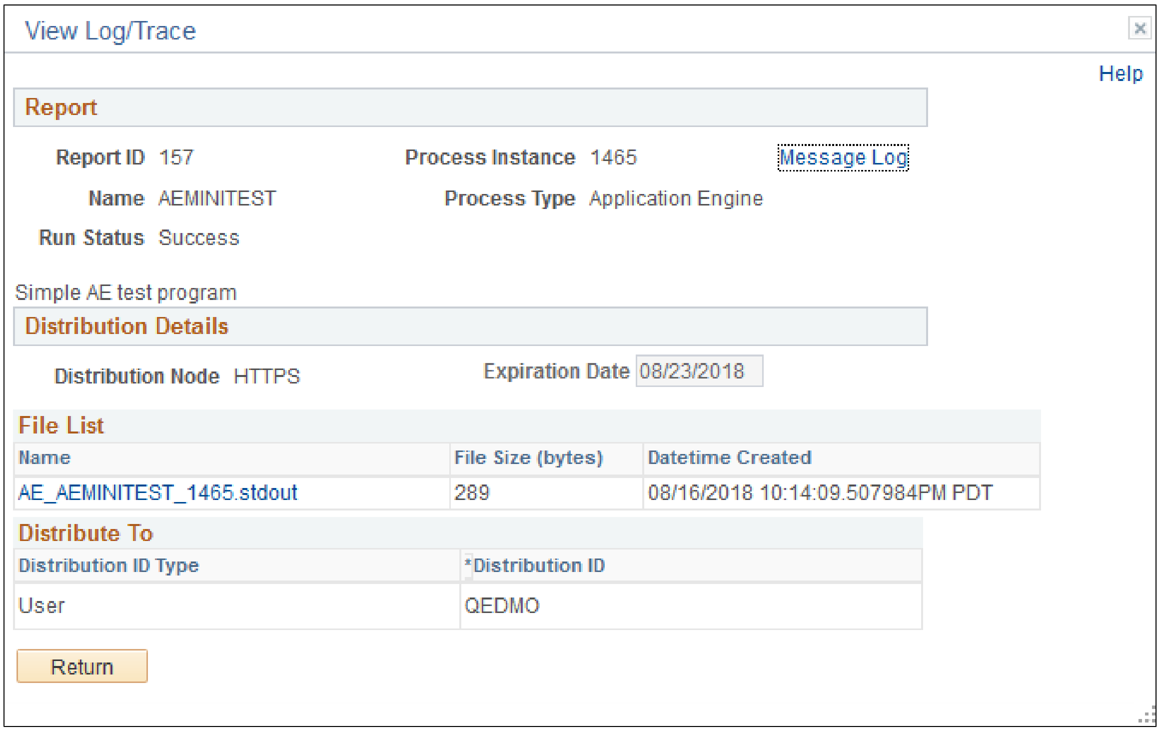
See "Understanding Temporary Tables" (PeopleTools 8.59: Application Engine).

Viewing Log and Trace Files

Click the View Log/Trace link on the Process Detail page to access the View Log/Trace page.

Image: View Log/Trace page

This example illustrates the fields and controls on the View Log/Trace page.



The View Log/Trace page enables you to view the output file, message log and trace file in a browser. The View Log/Trace link appears active on the Process Detail page when at least one of the following conditions is met:

- The output destination for the process request is *Web,* and the report and log files were successfully posted to the Report Repository by the Distribution Agent.

  The process must have a run status of *Success.*

  - If the report has not been transferred to the Report Repository, the run status of the process request remains *Processing* and the View Log/Trace link is not active.
  - If the status of the request remains *Processing,* check the message log for messages from the Distribution Agent indicating that problems occurred while transferring files to the Report Repository.

- The process request ran from a PeopleSoft Process Scheduler Server Agent that was set up using the Server Definition page with a distribution node.

  You must have also selected to transfer log files to the Report Repository when you set up the preferences on this page.

Viewing the Status of Servers

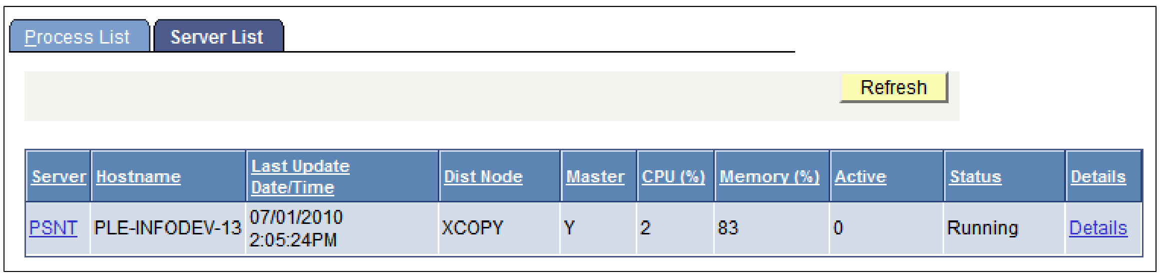
This section discusses how to view status of the servers.

Viewing the Server List

To access the Server List page, select PeopleTools > Process Scheduler > Server List.

Image: Process Monitor - Server List page

This example illustrates the fields and controls on the Process Monitor - Server List page. You can find definitions for the fields and controls later on this page.



Server	Displays the system name that identifies the server. Click to view activity details for the selected server.
Hostname	Displays the name of server on which the PeopleSoft Process Scheduler Server Agent was started.
Last Update Date/Time	Displays the last time that you refreshed the server list to display the most current information.
Dist Node (distribution node)	Displays the name of the report node where the Distribution Agent posted all generated reports, logs, or trace files.
Master	Displays *Y* if this server is designated as a Master Scheduler.
CPU (%)	Displays current CPU usage as a percentage of the total.
Memory (%)	Displays current memory usage as a percentage of the total.
Active	Displays the number of processes that are currently in an active state of processing.
Status	Status of the server. Values are *Running, Down,* and *Suspended.* A complete list of Status values appears later in this section.
Details	Click to display detailed information about the selected server agent.
Refresh	Click to display the most current status of a server.

Server Status

The Status column on the Server List page indicates the current state of a PeopleSoft Process Scheduler server. Knowing the status of a server helps you identify a problem if the server has an error. This table describes each server status:

Status	***Description***
Running	Server is active and querying the process request for any queued request to schedule.
Running With No Report Node	The server has not been assigned a report node in the server definition, so reports with output destination of Web will remain in posting status until a report node is specified. **Note:** Server is active and querying the process request for any queued request to schedule.
Down	Server was shut down.
Suspended - Disk Low	Server determined that the current Log/Output directory is below the disk threshold specified in the Process Scheduler configuration file. The server will not schedule new requests until space becomes available.
Suspended - Offline	Server is suspended because current day and time is not within the allowed operation times defined in the server definition.
Overload	The amount of CPU or memory used exceeds the percentage value thresholds entered. The server will wait to launch any new processes.

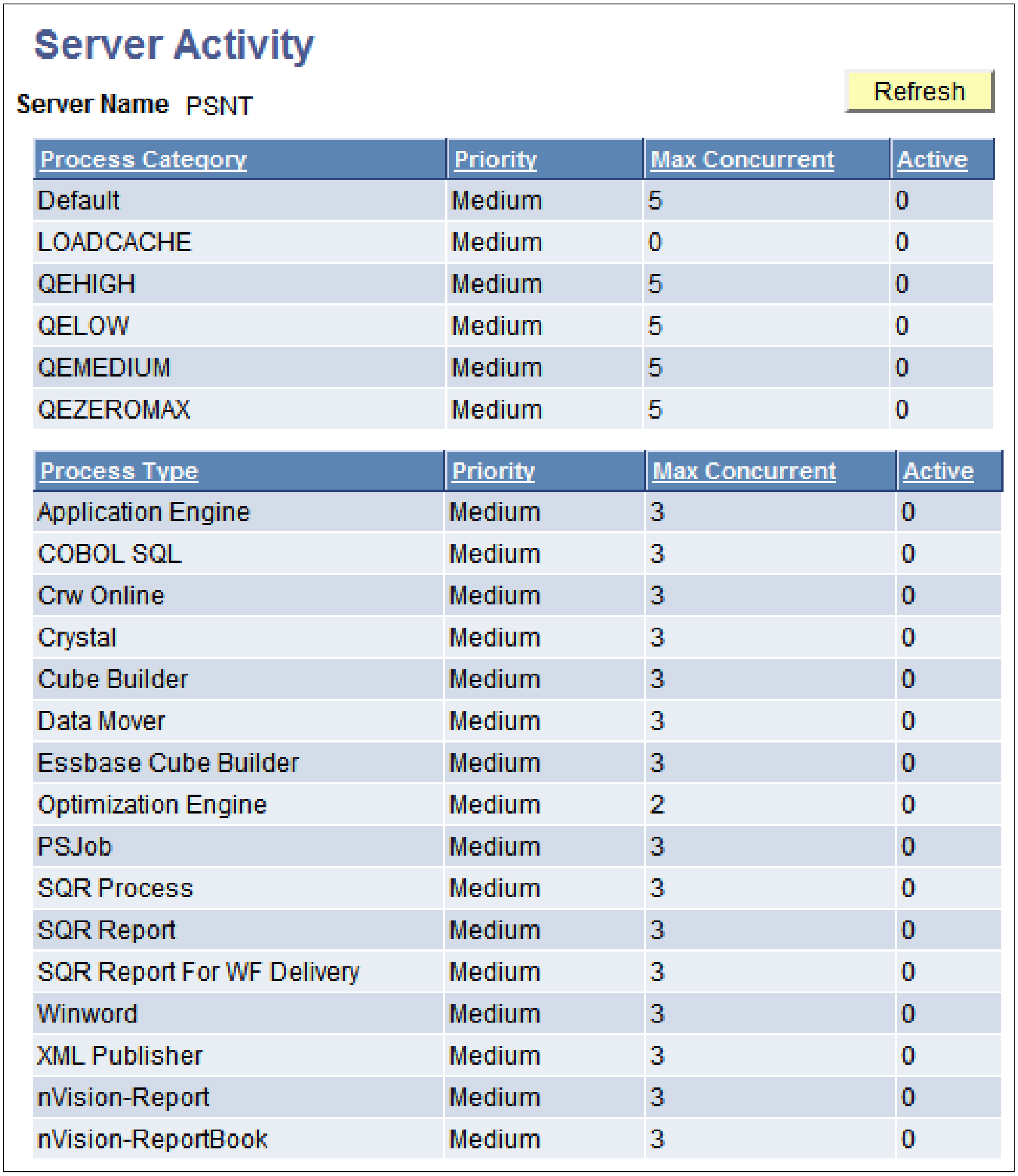
See Defining Servers.

Viewing Server Activity

To access the Server Activity page, click the name of a server on the Server List page.

Image: Server Activity page

This example illustrates the fields and controls on the Server Activity page.



Server Activity

Server Name PSNT

Refresh

Process Category	Priority	Max Concurrent	Active
Default	Medium	5	0
LOADCACHE	Medium	0	0
QEHIGH	Medium	5	0
QELOW	Medium	5	0
QEMEDIUM	Medium	5	0
QEZEROMAX	Medium	5	0

Process Type	Priority	Max Concurrent	Active
Application Engine	Medium	3	0
COBOL SQL	Medium	3	0
Crw Online	Medium	3	0
Crystal	Medium	3	0
Cube Builder	Medium	3	0
Data Mover	Medium	3	0
Essbase Cube Builder	Medium	3	0
Optimization Engine	Medium	2	0
PSJob	Medium	3	0
SQR Process	Medium	3	0
SQR Report	Medium	3	0
SQR Report For WF Delivery	Medium	3	0
Winword	Medium	3	0
XML Publisher	Medium	3	0
nVision-Report	Medium	3	0
nVision-ReportBook	Medium	3	0

Use this page to view the following server activity information by process type and by process category:

- Priority
- Max. Concurrent
- Active

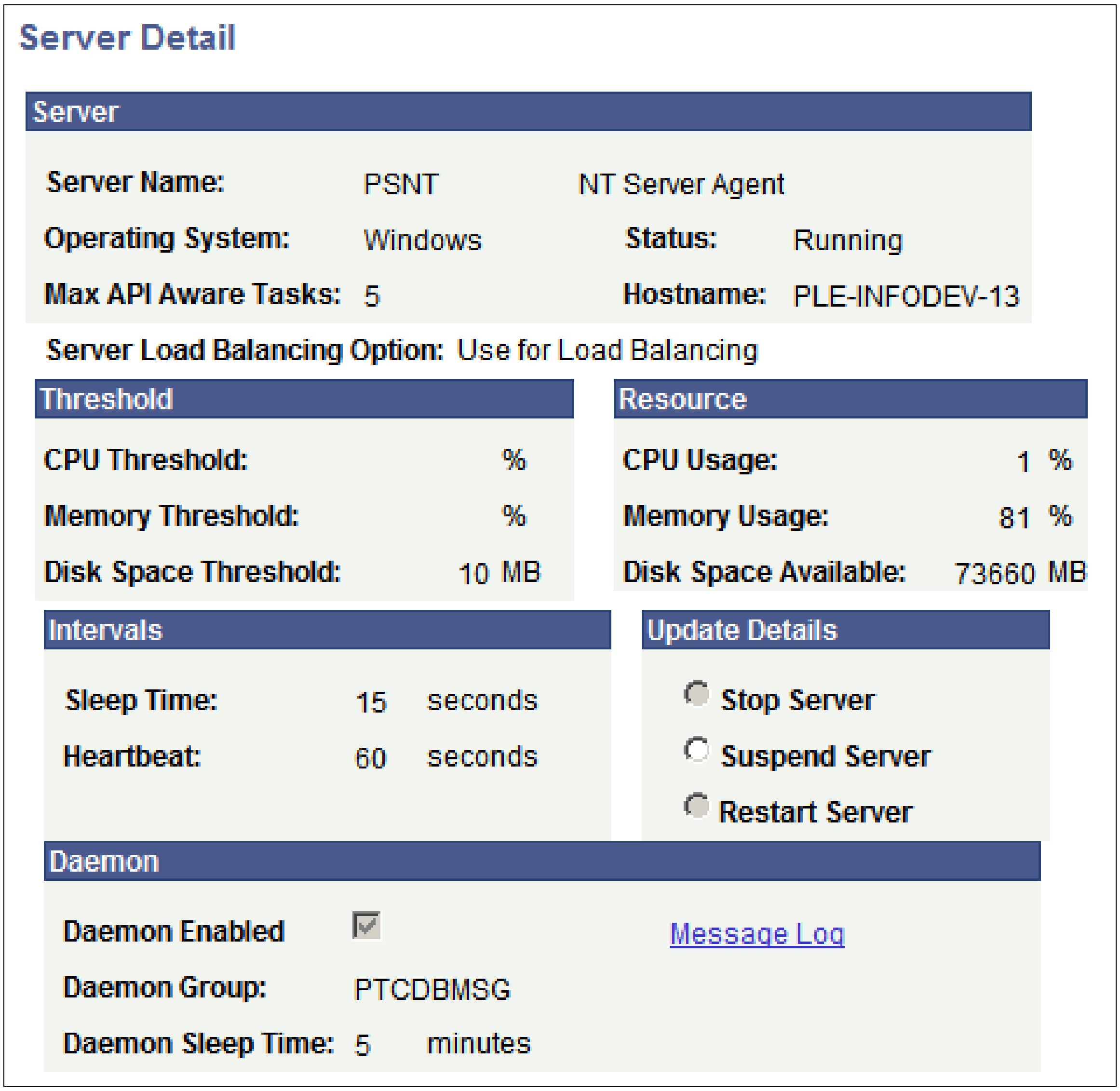
Click the Refresh button to refresh the information. Click Return to return to the Server List page.

Viewing Server Details

To access the Server Detail page, click the Details link on the Server List page.

Image: Server Detail page

This example illustrates the fields and controls on the Server Detail page. You can find definitions for the fields and controls later on this page.



Server

Server Name	Displays the name of the server on which this process runs.
Operating System	Displays the name of the operating system of the server.
Status	Displays the current status of the server: *Running, Down* or *Suspended.*

Max API Aware Tasks (maximum application programming interface aware tasks)	Displays the number of concurrent processes that can run on this PeopleSoft Process Scheduler Server.
Hostname	Displays the name of the server on which the PeopleSoft Process Scheduler Server Agent was started.
Server Load Balancing Option	Displays the Server Load Balancing Option value selected for this server.

See Understanding Process Request APIs.

Threshold

CPU Threshold	Displays the CPU threshold percentage value specified in the server definition. If CPU usage exceeds this value, the server will not schedule new requests until CPU usage drops below this amount.
Memory Threshold	Displays the Memory threshold percentage value specified in the server definition. If memory usage exceeds this value, the server will not schedule new requests until memory availability drops below this amount.
Disk Space Threshold	Displays the disk threshold specified in Process Scheduler configuration file. The server will not schedule new requests until space becomes available.

Usage

CPU Usage	Displays current CPU usage.
Memory Usage	Displays current memory usage.
Disk Space Available	Displays the amount of disk space available.

Intervals

Sleep Time	Displays the specified interval at which the PeopleSoft Process Scheduler Server Agent wakes up and polls the Process Request table.
Heartbeat	Displays the value used by the PeopleSoft Process Scheduler Server Agent to track server status. Each time the server issues a heartbeat message, it updates the last date and time stamp in this table with the current date and time. This prevents the database from accepting more than one PeopleSoft Process Scheduler Server Agent with the same name.

Update Details

Stop Server (OS/390 only)	Select to shut down a PeopleSoft Process Scheduler Server that is running or exhibiting problematic behavior.
Suspend Server	Select to prevent a running PeopleSoft Process Scheduler Server from accepting new process requests.
Restart Server	Select to restart a PeopleSoft Process Scheduler Server that has been suspended. If a server has been stopped, you must restart it using PSADMIN.

Note: After selecting one of these options, you must click OK to run the command.

Daemon

Daemon Enabled, Daemon Group, and **Daemon Sleep Time**	Displays the selections specified in the server definition.
Message Log	Click to go to the Message Log page. A Delete button is located on this page, but it remains hidden when the daemon is running. When the Delete button appears, click it to delete all the messages in the log.

Related Links

Understanding Server Definitions

Chapter 5

Using Report Manager

Understanding Report Manager

As part of PeopleSoft Process Scheduler, Report Manager provides several different methods of viewing reports, based on the level of access granted. For example, only users who are assigned to a Report Manager Administration role in PeopleSoft Security can delete reports from the database using the Report Manager - Administration page.

Using Report Manager, you can see all of the reports that you are authorized to view by opening your report list in a browser. Folders are provided to assist in organizing reports and reducing the size of the report lists.

Note: A warning message appears the first time you open the page if more than 1000 reports are in your view or when changing the filter criteria causes more than 1,000 reports to appear.

Administering Report Manager

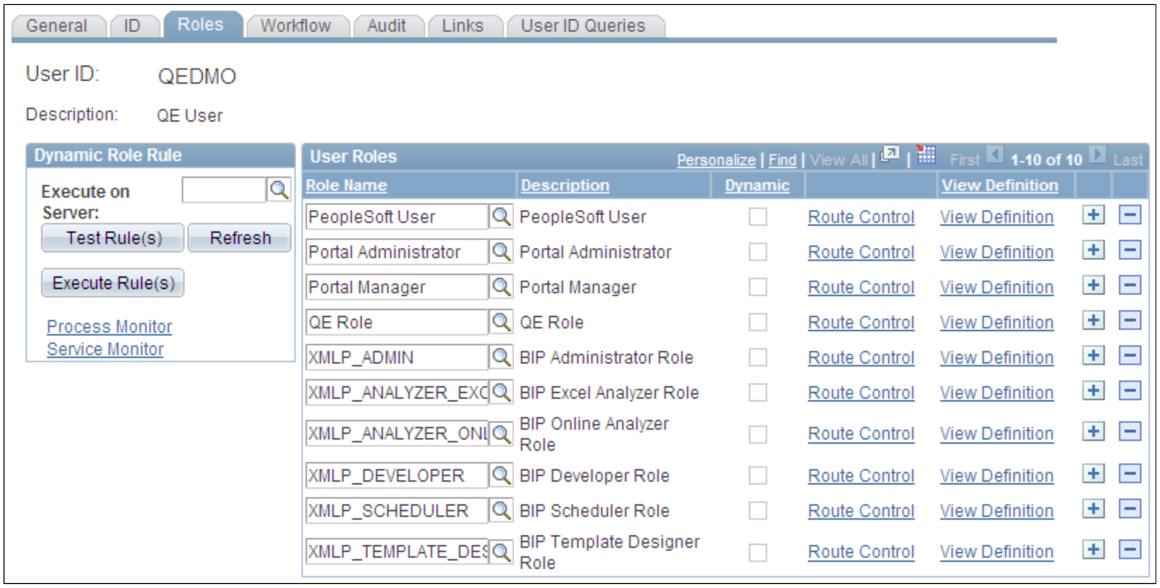
This section discusses how to work with the report manager.

Granting Report Manager Administrative Roles

To access the User Profiles - Roles page, select PeopleTools >Security >User Profiles >User Profiles >Roles.

Image: User Profiles - Roles page

This example illustrates the fields and controls on the User Profiles - Roles page.



Any user who maintains the content of Report Manager must be assigned a Report Manager administrator role in PeopleSoft Security. With this administrator role, the user can:

- Change the distribution list by adding or deleting a user or role ID.
- Delete a report from Report Manager.
- Alter the report's expiration date.

A *super user* role is also available that allows you to delete and update all report output in Report Manager. Super users are allowed to delete the report entry and update the distribution list or expiration date of report entries.

The difference between the administrator (ReportDistAdmin) and super user (ReportSuperUser) roles is that the administrator role can access and update any report in the Report Manager. The super user role can update only reports that they are authorized to view.

To grant a Report Manager administrator role to a user ID:

1. In the role list, insert a new row, if necessary.
2. Click the search button next to the Role Name field.
3. Select *ReportDistAdmin* or *ReportSuperUser.*
4. Save your changes.

Understanding Report Folders

The Distribution Agent determines the report folder in which the report is viewed in Report Manager using the following rules:

- The report folder was specified at the time that the request was scheduled, either through the Process Request Dialog page or the PeopleCode ProcessRequest class.
- If the report folder was not specified when the process request was scheduled, the Distribution Agent verifies whether a folder was set in the process definition.
- If the report folder was not specified when the process request was scheduled or in the process definition, the Distribution Agent assigns the default folder that is specified in the Report Folder Administration page.

Related Links

Defining Report Folders

Configuring Integration Broker

To view reports on the Report Manager - Explorer and Report Manager - List pages, the service operations that are used to send reports must be added to the local node and the domain must be activated.

To add service operations to the local node:

1. Select PeopleTools >Integration Broker > Integration Setup >Service Operation Definitions.
2. Open the service operation PSRF_FOLDER_CREATE.
3. Make sure the Active field is selected in the Default Service Operation Version section.
4. Save the service.
5. Perform the same steps as listed above for all of these services:
   - PSRF_FOLDER_CREATE
   - PSRF_REPORT_CREATE
   - PSRF_REPORT_DATE_CHANGE
   - PSRF_REPORT_DELETE

Note: Reports that have already run do not appear on the Report Manager - Explorer and Report Manager - List pages. To distribute previously run reports to the List and Explorer pages, you must rerun them.

Note: Integration Broker must be configured and your domain must be active.

See "Activating Pub/Sub Server Domains" (PeopleTools 8.59: Integration Broker Administration), "Configuring Service Operation Definitions" (PeopleTools 8.59: Integration Broker).

Posting Reports to Other PeopleSoft Applications

If you have several PeopleSoft applications, you may want to post reports to the report repository on another PeopleSoft databases. PeopleTools 8.50 uses the service operation PSRF_REPORT_CREATE_VERSION_2, releases prior to 8.50 use PSRF_REPORT_CREATE_VERSION_1. If you want to send reports to a system where VERSION_2 is the default (PT 8.50 and above) from a system using VERSION_1 (PT 8.49 and below), you will need to add a transformation in the Service Operation Version definition.

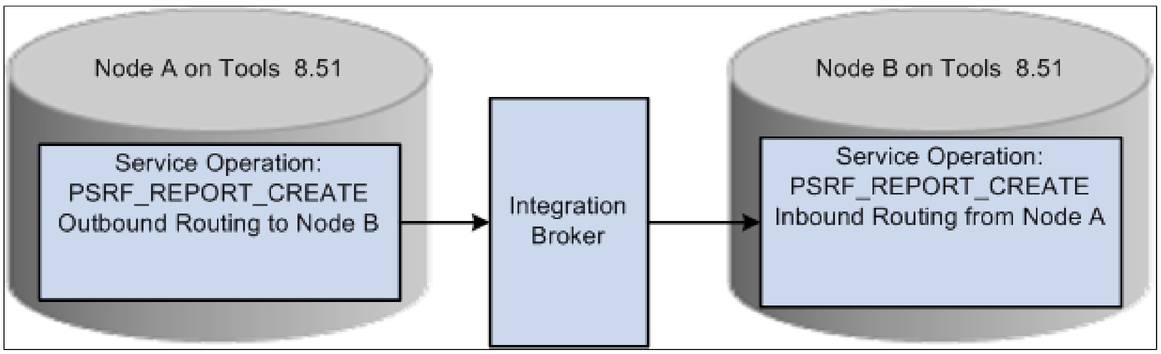
Note: You can not send reports from a system where VERSION_2 is the default to a system where VERSION_1 is the default.

Posting Reports to Another PeopleSoft Database with Same Version

If both databases use the same version of the service operation PSFT_REPORT_CREATE, you will need to add the outbound routing on the sending system and the inbound routing on the receiving system.

Image: Posting reports to another PeopleSoft database

This example illustrates how to post reports to another PeopleSoft database using the same version of the service operation.



To add service operation routings:

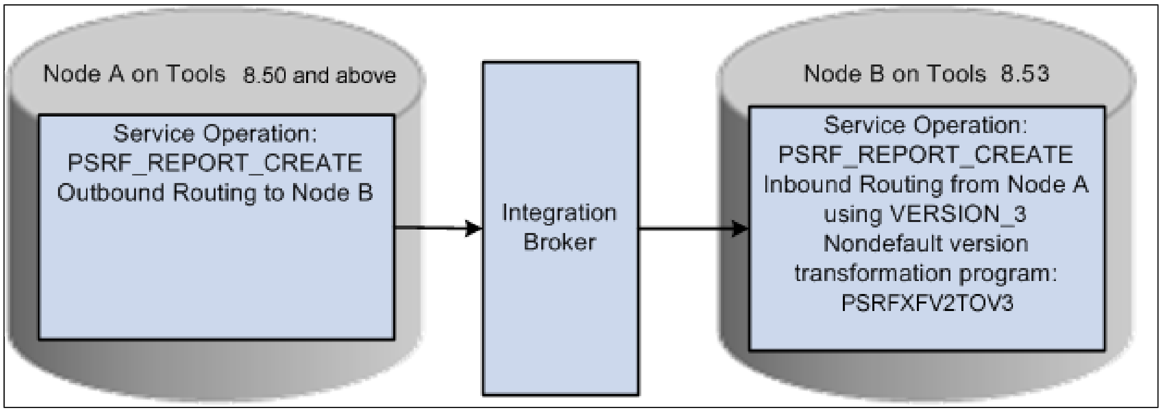
1. On the Sending system, select PeopleTools > Integration Broker > Integration Setup > Service Operation Definitions
2. Open the service operation PSRF_REPORT_CREATE.
3. Navigate to Routing tab.
4. Enter a Routing Name for your routing and click Add.
5. Enter the Sender Node (node name for the system where you are logged on).
6. Enter the Receiver Node (node name of the PeopleSoft application where you want to post the report).
7. Click Save.
8. On the Receiving system, repeat steps 1 thru 4 above.
9. The Sending node is the remote system and the Receiving node is the current system.
10. Save the routing.

Transforming Inbound Service Operation Version

If the sending database uses PSFT_REPORT_CREATE.VERSION_1 and the receiving database expects VERSION_2, you will need to activate the nondefault version of the message and add the transformation program PSRF851XFORM. This transformation program will transform the inbound message to VERSION_2.

Image: Inbound transformation

This diagram illustrates how to transform inbound service operation version.



To add the inbound routing:

1. On the Receiving system, select PeopleTools > Integration Broker > Integration Setup > Service Operation Definitions
2. Open the service operation PSRF_REPORT_CREATE.
3. Navigate to Routing tab.
4. Enter a Routing Name for your routing and click Add.
5. Select VERSION_1 for the Version.
6. Enter the Sender Node (remote node).
7. Enter the Receiver Node (current node).
8. Click Save.

To set up the non-default version:

1. Navigate back to General tab, click VERSION_1 under Non-Default Versions to open Service Operation VERSION_1.
2. Make sure the Active check box is selected.
3. In the Service Operation Mappings section enter PSRF851XFORM in the Transform to Default field.
4. Click Save.

Monitoring the Status of Reports

When a report fails to post to the Report Repository or fails to send the message to have the report added on the Report Manager - Explorer or Report Manager - List page, check the following sources to trace the problem:

- The distribution status on the Report Manager - Administration page and the Process Monitor - Process List page.
- The message log on the Report Manager - Report Detail page.

- The run status on the Process Monitor - Process List page.
- The Service Operations Monitor in PeopleSoft Integration Broker.
- The Distribution Agent log files.

See "Introduction to PeopleSoft Integration Broker" (PeopleTools 8.59: Integration Broker).

Distribution Status on the Report Manager - Administration Page

The Report Manager - Administration page displays the current state of a report. The distribution status of the report shows the process of a request without having to check the Process Monitor. The following table lists the available statuses:

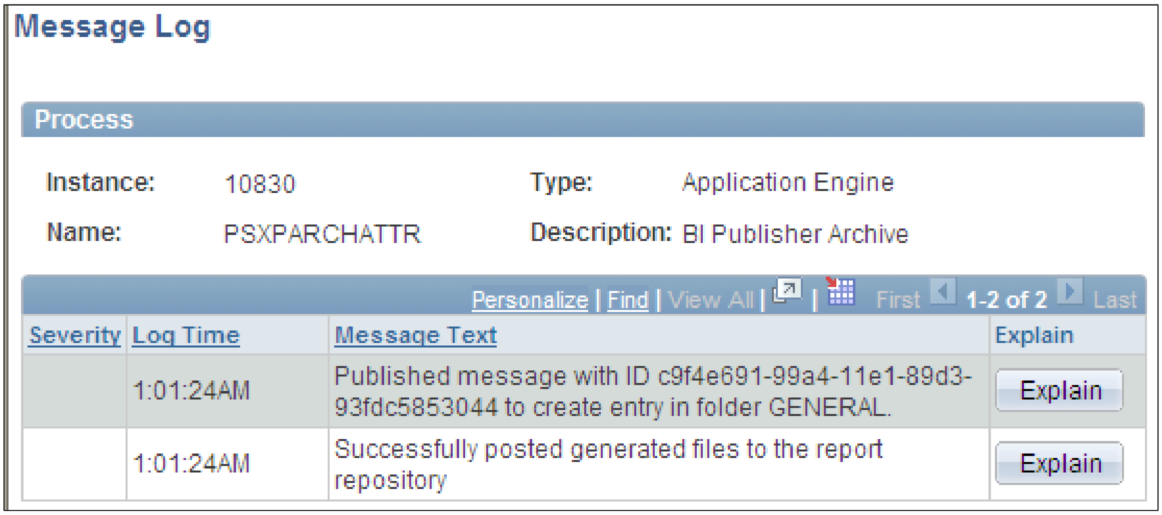
Status	***Description***
N/A or None	The process has just been added to the report request, but processing has not yet started. No file is available to post. An error has occurred and no file is available to post.
Generated (OS/390 and SQR only)	The report has finished processing and all files are available for transferring.
Posting	The report is in the process of being transferred to the Report Repository.
Posted	The report was successfully transferred to the Report Repository.
Not Posted	The Distribution Agent was unsuccessful in transferring the files from the PeopleSoft Process Scheduler server into the Report Repository.

Message Log on the Report Manager Detail page

When the Distribution Agent receives the request to post the report, the agent inserts information into the Message Log table, detailing any important event. This information can be helpful in tracking down problems that the Distribution Agent encountered. If HTTP is used to transfer reports to the Report Repository, the message log includes error messages that are received from the Java servlet (SchedulerTransfer). This example illustrates a message log entry.

Image: Example message log entry

This example illustrates the fields and controls on the Example message log entry.



Run Status on the Process Monitor Detail Page

The Process Monitor – Process Detail page in PeopleSoft Process Scheduler displays the run status of a scheduled request. As PeopleSoft Process Scheduler processes the reports, it updates the status of the request. The following table shows:

- The different stages that a process request with an output destination type of *Web* goes through from the time that the PeopleSoft Process Scheduler Server Agent initiates the process to the time that the Distribution Agent transfers the files to the Report Repository.
- How the Report Manager distribution status changes as each stage is completed.

Note: The table shows only process requests with an output destination type of *Web*. Other process requests can be tracked through the message log.

Stage of Process Request	***Distribution Status (Report Manager)***
A new process request is created.	N/A or None
The program for the process request is started.	N/A
The program has finished.	N/A
The Distribution Agent attempts to transfer the files to the Report Repository.	Posting

Stage of Process Request	***Distribution Status (Report Manager)***
The Distribution Agent failed to transfer a file to the Report Repository and hasn't reached the Maximum Transfer Retries value. **Note:** Maximum Transfer Retries value is the number that sets how many times the Distribution Agent should retry the report Repository file transfer when it fails. The message log for the process request is updated.	Posting
All files are successfully transferred to the Report Repository.	Posted
The Distribution Agent failed to transfer files to the Report Repository and has used up the maximum transfer retries.	Not Posted

See Viewing Process Details.

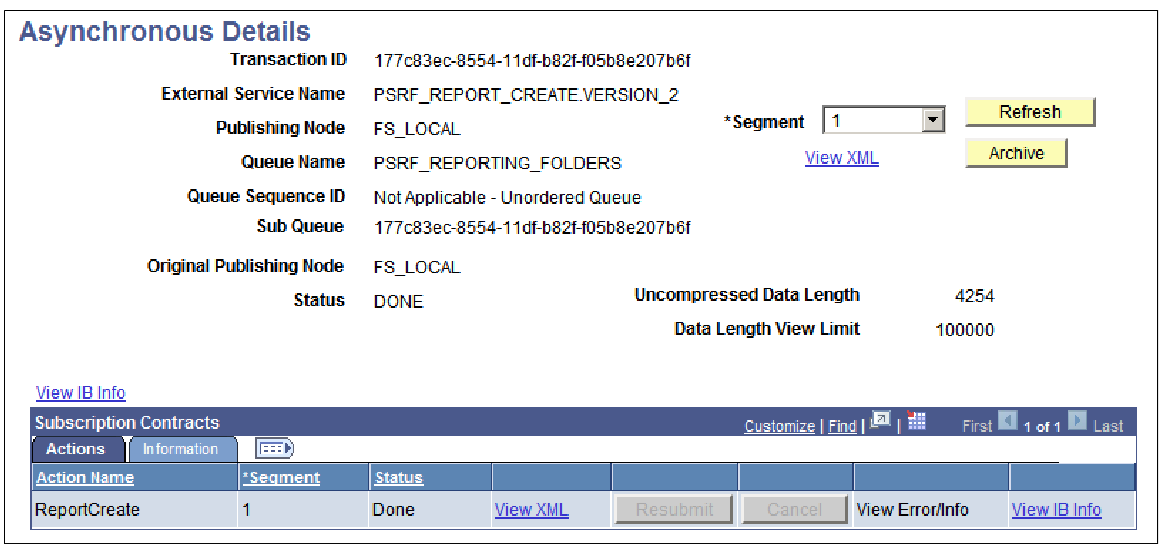
Service Operations Monitor in PeopleSoft Integration Broker

Select PeopleTools > Integration Broker > Service Operations Monitor > Monitoring > View Asynchronous Details to access the Asynchronous Details page.

Note: You can also access this page by selecting the Details link for a specific transaction ID on the PeopleTools > Integration Broker > Service Operations Monitor > Monitoring > Monitor Asynchronous Services > Subscription Contracts page.

Image: Asynchronous Details page

This example illustrates the fields and controls on the Asynchronous Details page.



After the Distribution Agent posts the report to the Report Repository, the final task is to send a message to have the entry added to the report folder table. The Distribution Agent writes the transaction information, which includes the transaction ID and the report folder. The transaction ID can be used to monitor the status of the sent message in PeopleSoft Integration Broker.

See "Messaging Types" (PeopleTools 8.59: Integration Broker), "Understanding Asynchronous Service Operations Statuses" (PeopleTools 8.59: Integration Broker Service Operations Monitor).

Distribution Agent Log Files

Additional information can be found in the Distribution Agent log files.

See Log and Output Directory.

Viewing Reports

This section provides an overview of the Report Manager views and discusses how to view reports in different ways.

Understanding the Report Manager Views

Use the Report Manager - Explorer and Report Manager - List pages to view all of the reports that are in the PeopleSoft system (across multiple databases) that the user is authorized to access. When a user first accesses Report Manager, the Report Manager - Explorer page appears, showing a hierarchical view of folders and reports.

Unlike the Report Manager - Administration page, the Report Manager - Explorer and Report Manager - List pages list reports when both of the following events occur:

1. The Distribution Agent has successfully posted the report to the report repository.

   When the report has posted, the Distribution Agent sends a message to have an entry added to the report folder table for the new report.

2. The local message node has received the message that was sent by the Distribution Agent by adding an entry for the report in the report folder table.

New reports that have been scheduled or are in the process of being posted to the report repository are viewed only through the Report Manager - Administration page.

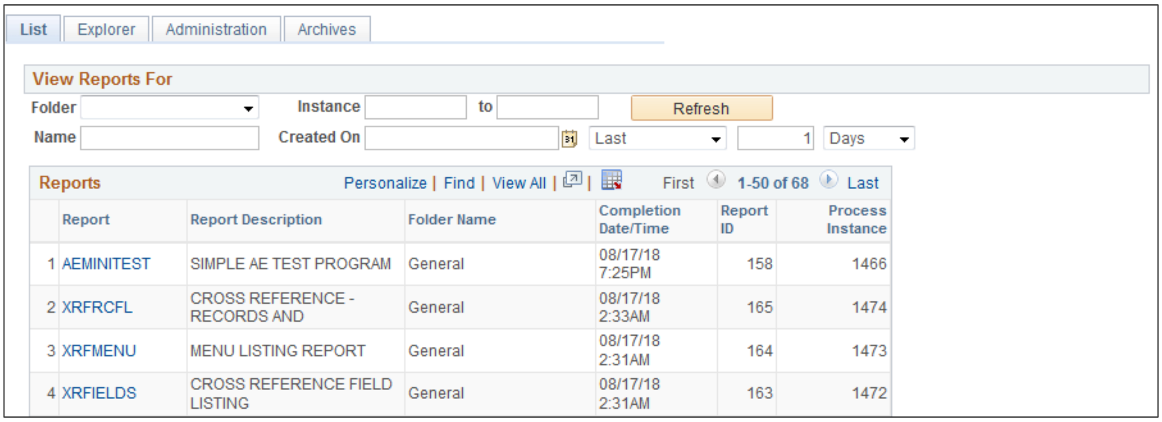
Note: Folders that have been deleted remain active until all reports have been purged from them. However, new reports cannot be added to a deleted folder.

Viewing a List of Reports to Which You Have Access

To access the Report Manager - List page, select Reporting Tools > Report Manager > List.

Image: Report Manager - List page

This example illustrates the fields and controls on the Report Manager - List page. You can find definitions for the fields and controls later on this page.



View Reports For

Enter criteria to filter the reports to list. Report Manager ignores criteria for fields that are blank.

Note: A warning message appears if more than 1,000 rows are available for display on the Report Manager List page.

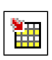
Folder	Select a specific folder to list only the reports that are contained in that folder.
Instance and **to**	Enter a range of process instances. Leave the to field blank to list all instances after the number that you enter in the Instance field.
Name	Enter the name or part of a name to list only reports that match the name that you enter.
Created On	Use the calendar or enter a specific date to list only reports that were created on that date.
Last or Date Range	Specify an interval of time by which to limit the reports that appear in the list. Select *Last* to display only those reports that were created in the last number of days, hours, years, or minutes. Enter a custom numerical value in the field, and then select a unit type: *Days, Hours, Years, Minutes,* or *All.*. For example, to list only those reports that were created within the last two hours, enter *2* and select *Hours.* If you select *All* the time interval fields will be grayed out and all reports will appear. Select *Date Range* to display only those reports created between two specific dates. Enter a From date and a To date.

Refresh	Click to update the report list with newly run reports and to use any newly entered filtering criteria.

Reports

This grid includes all of the reports in the PeopleSoft system that you are authorized to view across multiple databases. Filtering criteria is used to better manage the list.

Note: When a new user is added to the system or a new role is added to an existing user, the user will be able to view existing reports authorized to the role. If a role is removed from a user profile, the user will no longer be able to view the reports authorized by that role.

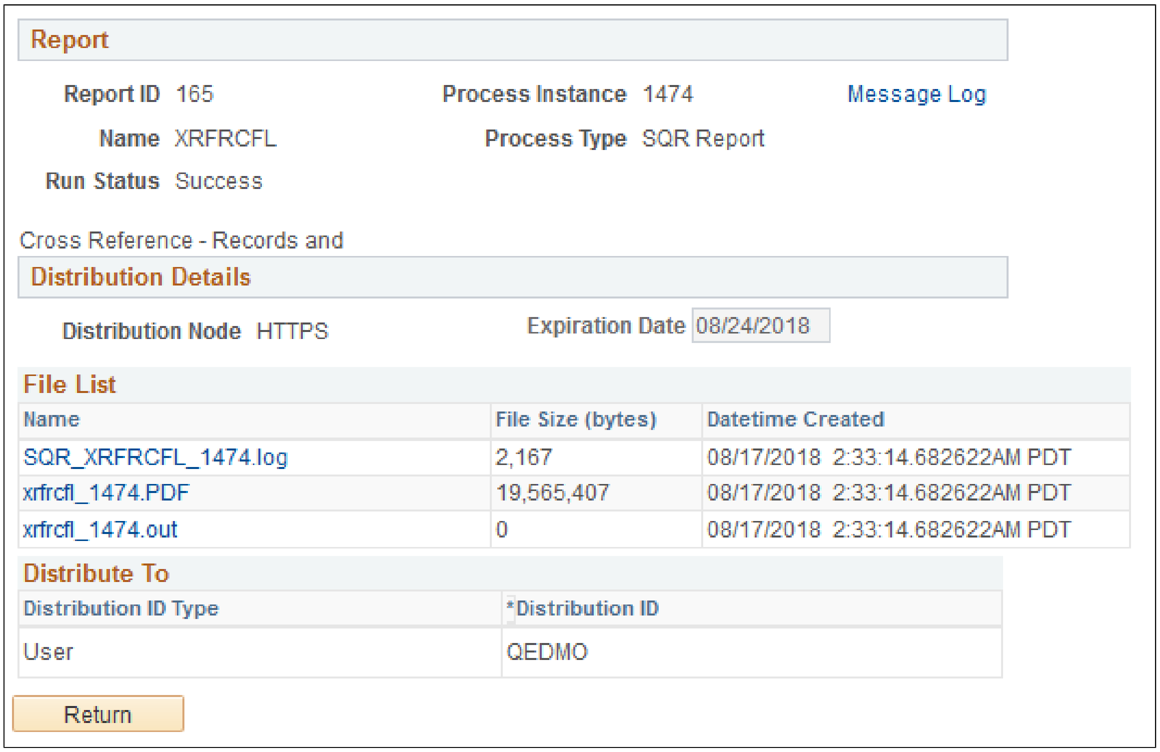
Report	Click the name of the report to display the Report Detail page. The File group box lists the output file names and any associated log or message file names. Click the output file name, or associated log or message file name, to display the report or message log in another browser window.
Report Description	Displays a detailed description of the report.
Folder Name	Displays the folder in which the report is located.
Completion Date/Time	Displays the date and time when the report was created.
Report ID	Displays the report ID that was automatically assigned when the report was run.
Process Instance	Displays the process instance number that was automatically assigned when the report was run.
	Click the Download icon on the navigation bar to download the list to a Microsoft Excel spreadsheet.

Report Detail Page

To access the Report Detail page, select Reporting Tools > Report Manager > List > Report

Image: Report Detail page

This example illustrates the fields and controls on the Report Detail page.



The Report Detail page displays the output file names and any associated log or message file names associated with that report. Click the output file name, or associated log or message file name, to display the report or message log in another browser window.

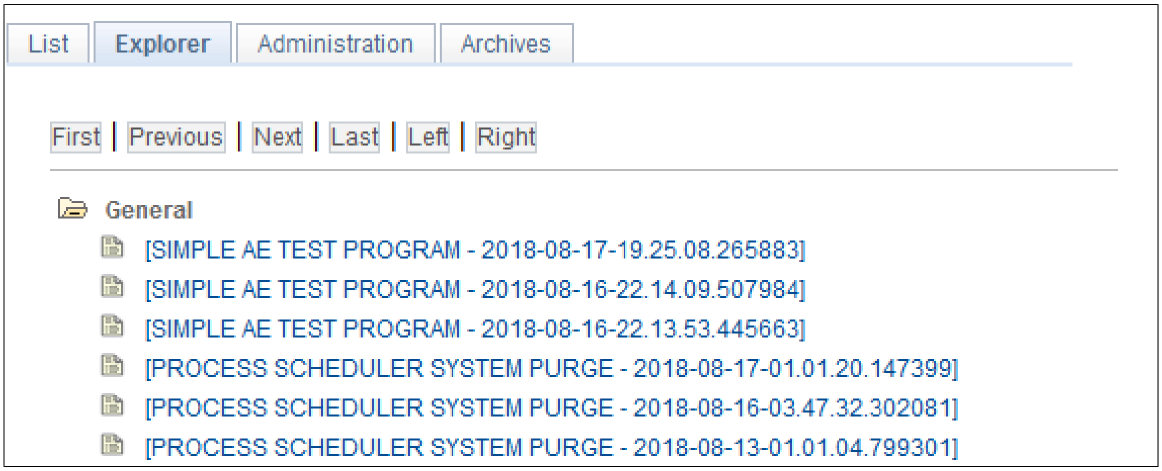
Click the Return button on the Report Detail page to go back to the Report Manager - List page.

Viewing a Hierarchical View of Folders and Reports

To access the Report Manager - Explorer page, select Reporting Tools > Report Manager > Explorer. You can also access this page from a link on the System Process Request page.

Image: Report Manager - Explorer page

This example illustrates the fields and controls on the Report Manager - Explorer page.



	Click to open a folder and view the contents. Click the folder again to close it.
	Click the Report Description link to display the Report Detail page. The File List group box lists the output file names and any associated log or message file names. Click the output file name, or associated log or message file name, to display the report or message log in another browser window.

The Report Manager - Explorer page displays a hierarchical view of the same reports that are listed on the Report Manager - List page. Subfolders can be created only in PS/nVision for organizing nVision reports.

Note: Empty folders are not included in the hierarchical view.

Related Links

"Creating Report Requests" (PeopleTools 8.59: PS/nVision)

Maintaining Reports

This section provides an overview of the purge reports process and discusses how to view archived reports.

Understanding the Purge Reports Process

When PeopleSoft Process Scheduler is set to perform a periodic purge on the System Purge tab in the system settings, it triggers the Application Engine program PRCSYSPURGE. This program purges both the Process Request and Report Manager tables. As part of the Report Manager cleanup, it also purges the reports from the Report Repository and archives the data into the Report Archive table.

The application server must be running during the purge process for reports posted by an HTTP report node or a FTP report node. This is necessary because:

- For reports posted by an HTTP report node, user authentication is done while deleting reports. The application server must be running to enable the purge process to delete expired reports.
- For reports posted by a FTP report node, a HTTP request is made to check if the reports are present in the report repository.

Note: The purge process will not run unless the user ID that starts the Process Scheduler has TLSALL listed as a process group within the primary process profile. The PRCSYSPURGE program is delivered with the TLSALL process group.

If multiple Process Schedulers are running against the same database, and each has its own Report Repository, PRCSYSPURGE is initially responsible for the purge process. It will remove all entries from the PS_CDM_LIST table and then purge all reports that match its server name or report node from its report repository. The PRCSYSPURGE program then inserts entries to the PS_CDM_LIST_PURGE table where neither the server name nor the report node name matches. If the PRCSYSPURGE program detects that more than one Process Scheduler is active, it schedules the Application Engine PRCSRVCLN program to run on all the other active Process Scheduler servers. The PRCSRVCLN program checks whether the server uses its own Report Repository and if so, the program deletes reports from the report Repository that is used by the server.

Note: If two Process Schedulers have the same report node (report repository), then one scheduler performs the deletions for both schedulers.

For BI Publisher reports, metadata related to expired reports is archived when the process PSXPARCHATTR runs. This process runs automatically as part of the PRCSYSPURGE program. The URLs of the report files are archived along with the process information in the PSXP_FLURL_ARCH table. Search data related to BI Publisher reports is stored along with the process information in the PSXP_RATTR_ARCH table.

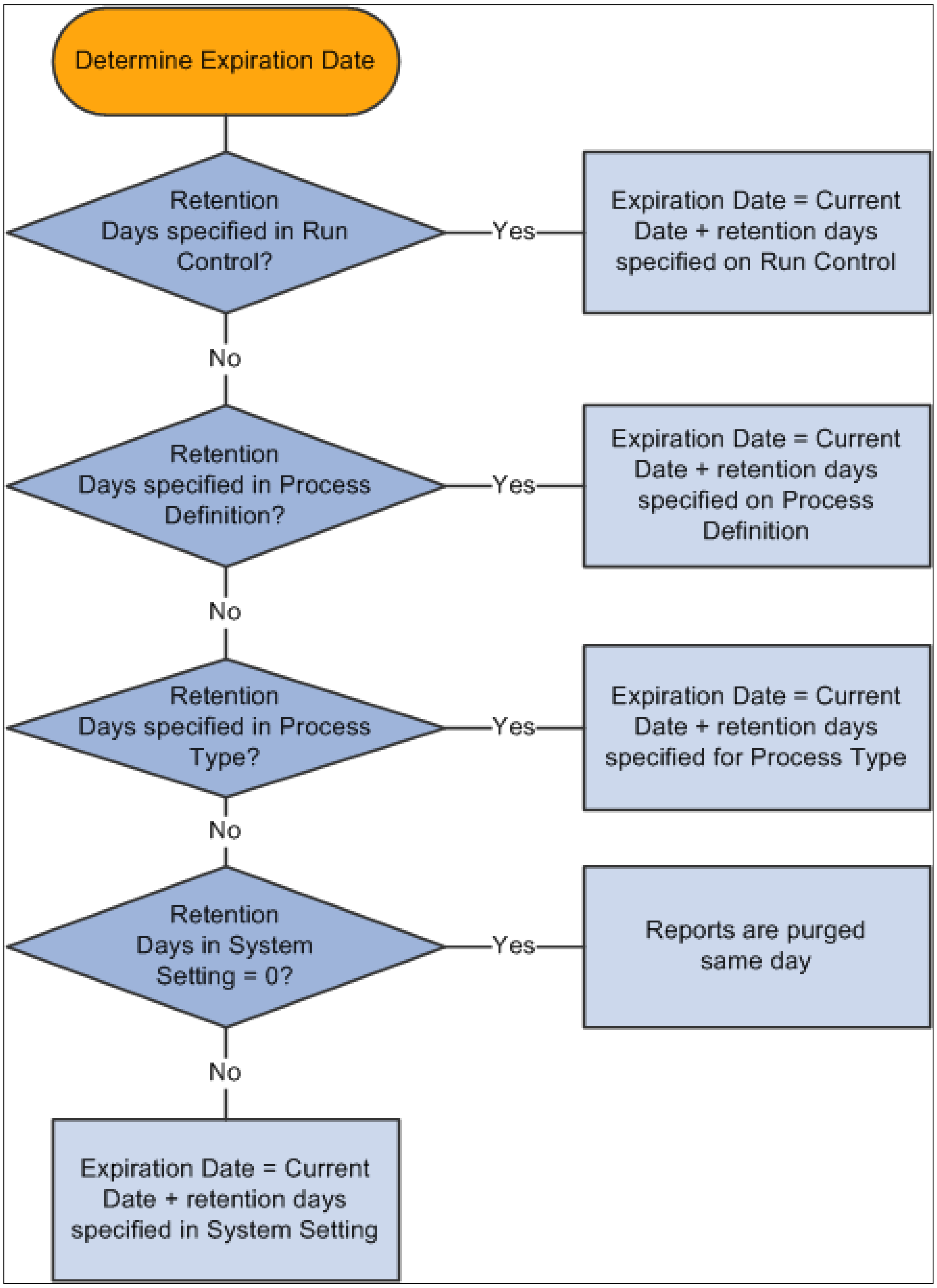
Expiration Date for Reports

The PeopleSoft Process Scheduler system settings feature has an option for that is used to calculate the expiration date of reports that are displayed in the Report Manager. The expiration date is determined by adding the retention days from the date on which the report was generated.

Retention days can be set at the system setting level, the process type, the process definition or the run control ID. In order for reports to be purged the same day, the retention days on the system setting must be 0 (zero). A value of 0 at the system setting level will be overridden by a non-zero value for retention days in the run control ID, process type or process definition.

Image: Expiration date calculation

This example illustrates how the system calculates the expiration date.



Related Links

Defining System Purge Options

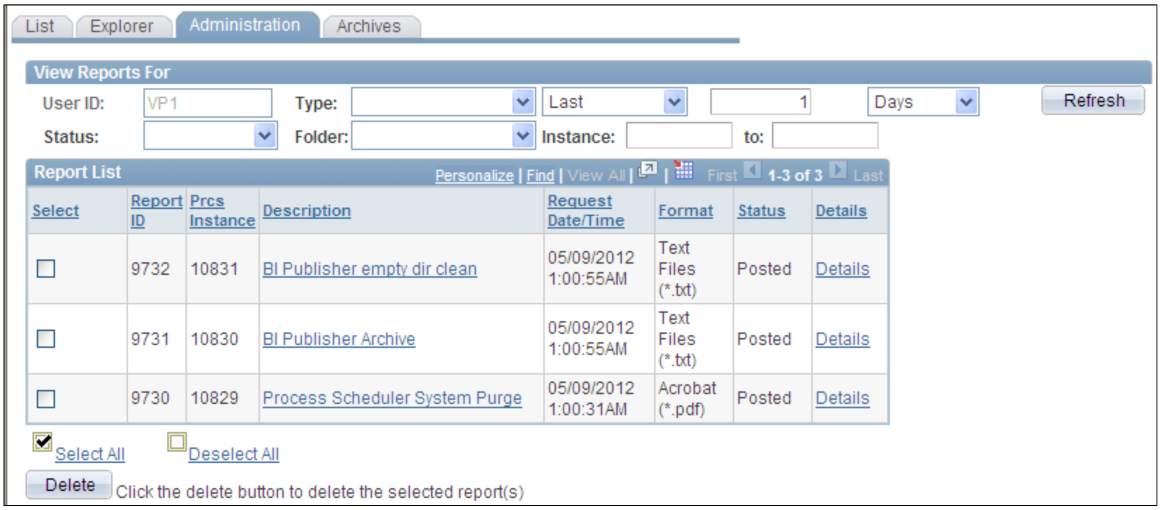
"Setting Process Permissions" (PeopleTools 8.59: Security Administration)

Deleting Reports and Adding Users to the Distribution List

To access the Report Manager - Administration page, select Reporting Tools, Report Manager, Administration.

Image: Report Manager - Administration page

This example illustrates the fields and controls on the Report Manager - Administration page. You can find definitions for the fields and controls later on this page.



To view the report results in another browser window, click the description of the required report. To view the report results or any associated log or message file, click the Details link. Click the name of the required report or message to display the output in another browser window.

Note: The reports that are listed on the Report Manager - Administration page are from only the database to which you are signed in.

This section discusses how to:

- Delete reports.
- Add users to the distribution list.

Deleting Reports

Select	Use the check box to the left of each report to select individual reports
Select All and **Deselect All**	Click Select All to select all the reports that you are authorized to delete. When they are selected, click the Delete button to delete all the selected reports. Click Deselect All to deselect all reports.

Adding Users to the Distribution List

To add users to the distribution list:

1. Click the Details link for the required report.

   The Report Detail page appears. If you do not have authorization to add users, the page is display-only.

2. Click the Add button to add user or role IDs to the distribution list.

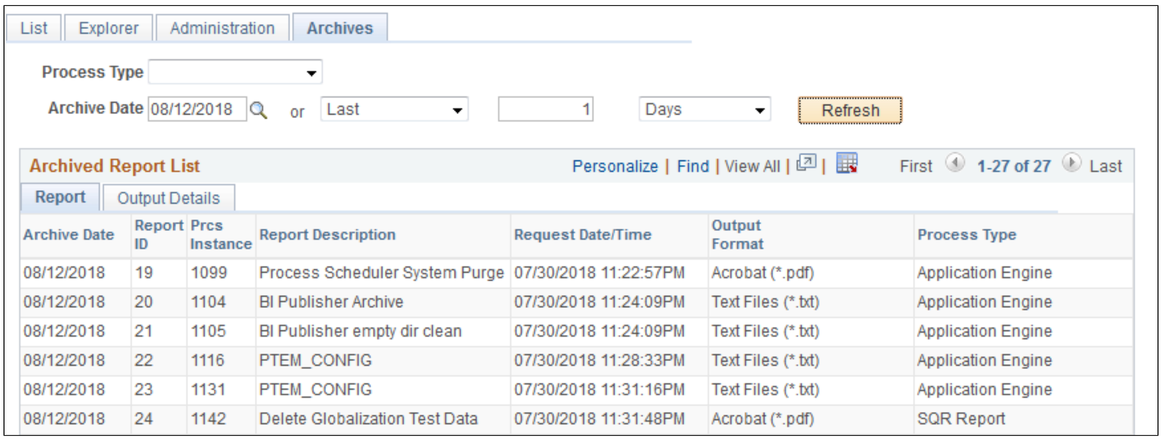
Note: You can save a report to your local workstation by right-clicking the appropriate Detail link and selecting *Save Target As*.

Viewing Archived Reports

Access the Report Manager - Archives page.

Image: Report Manager - Archives page

This example illustrates the fields and controls on the Report Manager - Archives page. You can find definitions for the fields and controls later on this page.



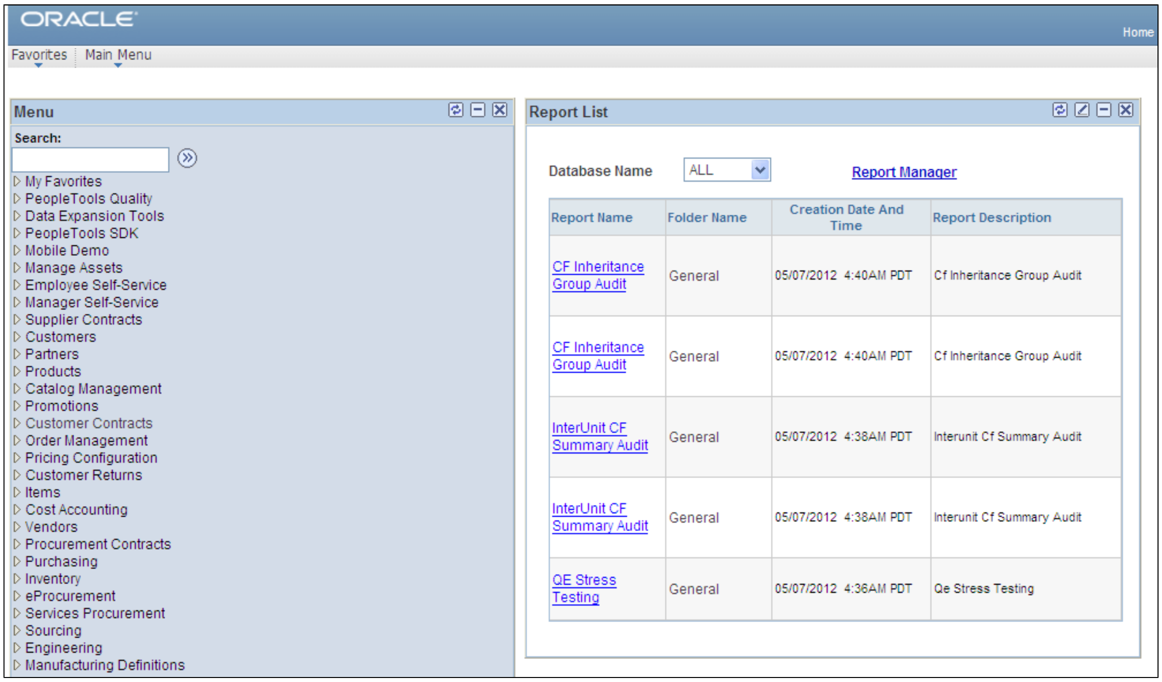
Use the Report Manager - Archives page to view reports that have been purged from the report list after they have passed their expiration date. You cannot retrieve a purged report from the list, but the list displays the information that you need to retrieve a report from the backup or history copies of reports.

Using the Report List Pagelet

The Report List pagelet enables you to display selected reports on your PeopleSoft home page. To view a report, click the report in the Report Name column. You can select the database name from the Database Name list to view the report from a specific system.

Image: Example of Report List pagelet

This example illustrates the fields and controls on the Example of My Reports pagelet. You can find definitions for the fields and controls later on this page.



Note: Use the Report Manager link to access the Report Manager - Explorer page.

To display the My Reports pagelet:

1. Select Personalize Content, which is located above the PeopleSoft menu.
2. Select My Reports from the PeopleSoft Applications menu.
3. Click Save to return to the home page.
4. Rearrange the home page layout by selecting Personalize Layout and making the required changes.
5. Click Save to return to the home page.
6. Click the Customize button at the top of the My Reports pagelet.

   The Personalize My Reports page appears.
7. Enter the maximum number of reports to display.
8. Select to display reports created within a specified number of days or hours.
9. Click the Save Options button.
10. Click the Close button and the Return to Home Page link.

Chapter 6

Working with Search Reports

Using Search Reports

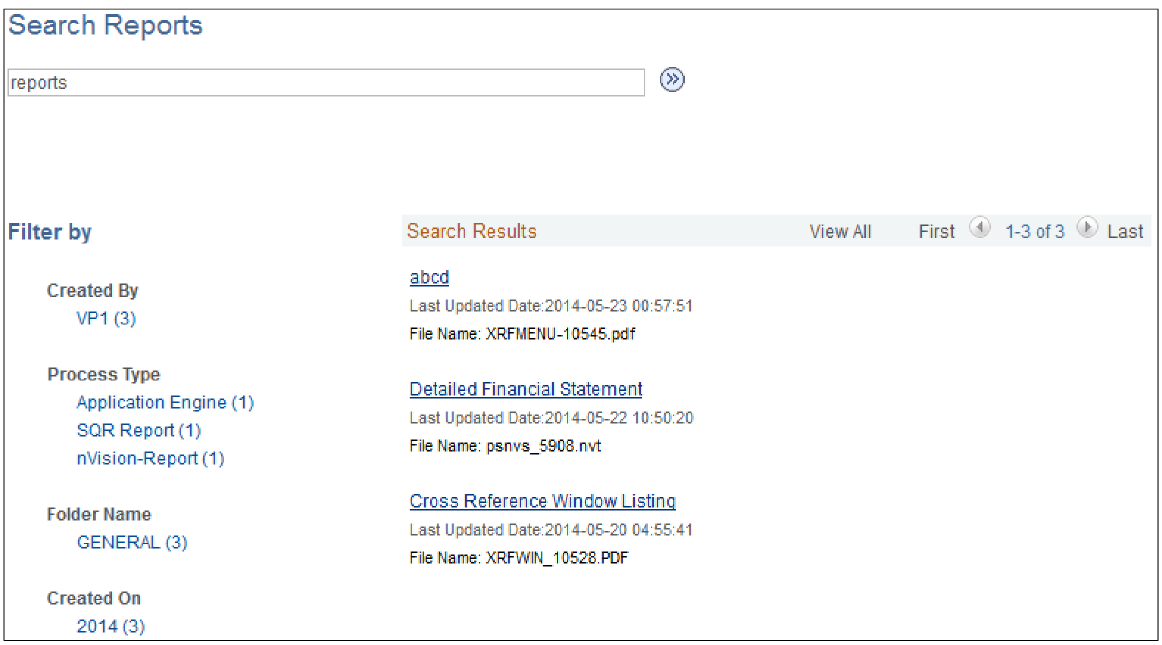
Using the Search Report page, you can:

- Search for reports that are stored in the report repository.
- Look up on the reports that matches the defined search attributes or keywords.

Use the Search Report page (PTRS_SRCH_PG) to search for reports. To access the Search Reports page, select Reporting Tools >Search Reports.

Image: Search Report page

This example illustrates the field and control on the Search Report page.



From the Search Result, click a report link. The report opens on a new tab.

Note: Search indexing supports the following file types: *.pdf*, *.xls*, *.xlsx*, *.doc*, *.docx*, *.csv*, *.txt*, *.log*, *.xml*, and *.htm*.

Using Search By Filters

The facet pane is the area left of the search results on the Search Reports pane under the Filter by heading. Using the facets defined for the current search definition, the end user can filter the search results and drill down closer to the desired information.

You can filter the search based on:

- Created By (User)

  Click the user link to filter the search based on user. In this example, click *VP1* to see all the reports created by this user.

- Process Type

  For example, click *Application Engine* to view Application Engine reports.

- Folder Name

  For example, click *General* to view the reports in the General folder.

- Created On (Creation data)

  For example, Click *2014* to display the reports created in the year 2014.

Related Links

"Working with Search Pages" (PeopleTools 8.59: Search Technology)

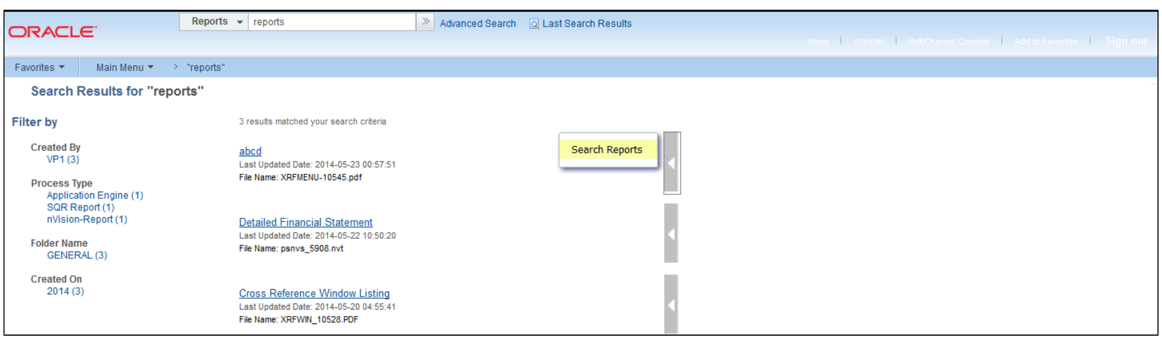
"Working with the Search Results" (PeopleTools 8.59: Search Technology)

Using Global Search

You can search for reports from the Global Search Bar that is on the Portal header.

Image: Global Search Result

This example illustrates the fields and controls on the Global Search Bar.



Related Links

"Working with Global Search" (PeopleTools 8.59: Search Technology)

"Understanding PeopleSoft Search" (PeopleTools 8.59: Search Technology)

Chapter 7

Defining PeopleSoft Process Scheduler Support Information

Understanding PeopleSoft Process Scheduler Support Information

Before you can schedule processes to run, you must first define the basic information that PeopleSoft Process Scheduler uses. PeopleSoft Process Scheduler is delivered with a complete set of process type, process, and server definitions for all processes that are delivered with each PeopleSoft application. You might need to configure some of the definitions to suit your specific needs, but otherwise, they are set up to run immediately.

PeopleSoft Process Scheduler uses the concepts of *process types* and *process definitions* to define the kinds of processes that you typically run. All process definitions are grouped under a process type. For example, most Structured Query Report (SQR) reports are defined in the PeopleSoft system with the process type of SQR Report, which contains settings that apply to all SQR process definitions under that process type. Within each process type, you must define specific process definitions, such as an SQR report named XRFWIN that you can run on a regular or as-needed basis.

You can also define the servers on which you want to run the process types or use the server definitions that PeopleSoft delivers with Process Scheduler. You must analyze the processes that you plan to schedule and group them logically, both to maximize server resources and to simplify procedures for users. Typically, a developer must establish PeopleSoft Process Scheduler definitions only once and then maintain them.

You must also consider other factors when incorporating PeopleSoft Process Scheduler into applications, including:

- Third-party application programming interface (API) support for COBOL and SQR.
- Types of PeopleCode that you can employ to interact with PeopleSoft Process Scheduler.

Note: You should plan the types of processes that you plan to schedule. Then, you should gather parameter information for each process before you begin.

Related Links

Understanding Process Request APIs

Defining System Settings

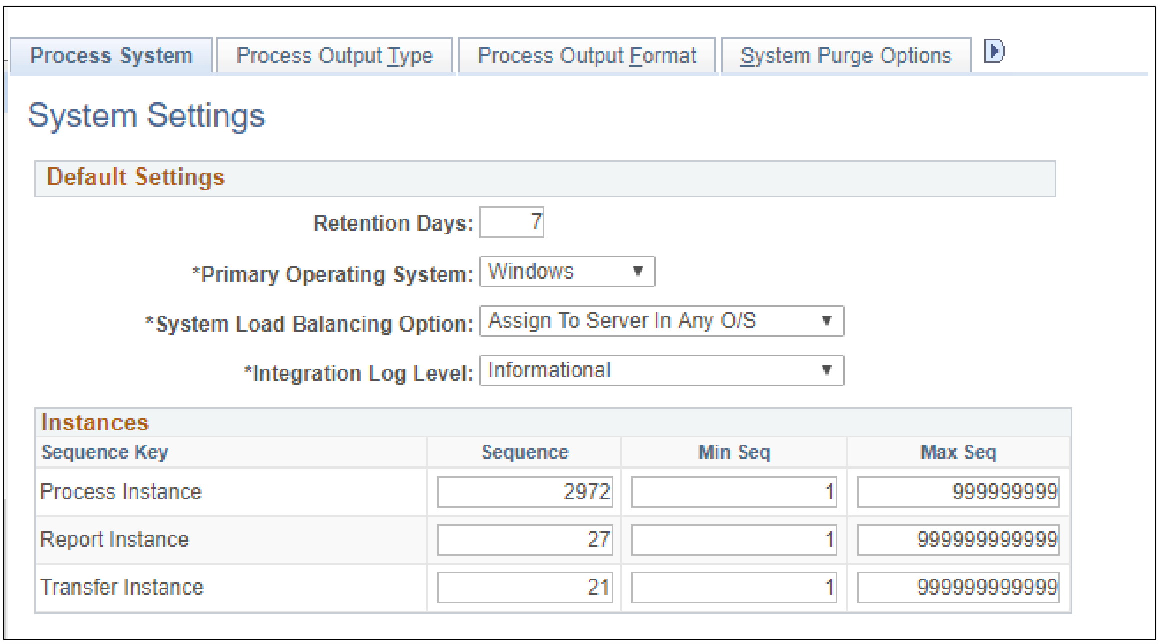
PeopleSoft Process Scheduler maintains a single-row table that stores system-wide parameters and system defaults that are related to all processes. The section discusses varied system setting requirements for the processes.

Defining Process System Settings

To access the System Settings page, select PeopleTools > Process Scheduler > Process Scheduler Settings > Process System.

Image: System Settings page

This example illustrates the fields and controls on the System Settings page. You can find definitions for the fields and controls later on this page.



Retention Days

Enter the number of days before the files that are on the report repository are deleted. This value is used with the current date to calculate the expiration date on reports in Report Manager when retention days are not specified in Process Type definition, Process definition, or Run Control.

See Defining System Purge Options.

Primary Operating System

Enter the default operating system. A run location of *Any* picks a server of this type.

Note: If this field is left blank, the request will be scheduled by a Process Scheduler server with the default O/S.

System Load Balancing Option

Select to assign to primary O/S only or server in any O/S.

Assign To Primary O/S Only: Select to have Master Scheduler reassign workload to another Process Scheduler server with the primary O/S

Assign To Server In Any O/S: Select to have Master Scheduler reassign workload to any available Process Scheduler server.

When the *Do Not Use Option* is selected on the Server Definition page, the server takes a request only when the name of the server has been specified on the Process Request page or in any of the definition tables.

Note: This field is used in conjunction with a Master Scheduler server. This field will be ignored if no Master Scheduler server is available to perform the load balancing.

Integration Log Level

Select to set the integration log level for process status change messages when SetNotifyAppMethod() or SetNotifyService() is used while scheduling the process.

Error: Select to log only error messages in IB transactions for process status changes.

Informational: Select to log all messages in IB transactions for process status changes.

None: Select to log no messages for process status changes.

Integration Log Level

The Integration Log can also be set at Process Definition but configuration at System Settings will take preference.

The preference for the configuration for individual levels are as defined in the below table:

System Settings	***Process Definition***	***Preference***
None	Any mode (ignored)	No messages will be logged for process status changes.
Error	None	No messages will be logged for process status changes for the particular process.
Error	Informational (ignored)	Only error messages in IB transaction for process status changes will be logged.
Informational	None	No messages will be logged for process status changes for the particular process.

System Settings	***Process Definition***	***Preference***
Informational	Error	Only error messages in IB transaction for process status changes will be logged for the particular process.
Informational	Informational	All status change messages with IB transaction IDs will be logged.

System Settings

Set system settings for the following sequence keys: Process Instance, Report Instance, and Transfer Instance. The instance number acts as a counter.

Sequence — Indicates the last instance number that was used.

Min Seq (minimum sequence) — Indicates the lowest instance number to be used.

Max Seq (maximum sequence) — Indicates the highest instance number to be used. When this number is reached, the system starts numbering again from the minimum sequence number.

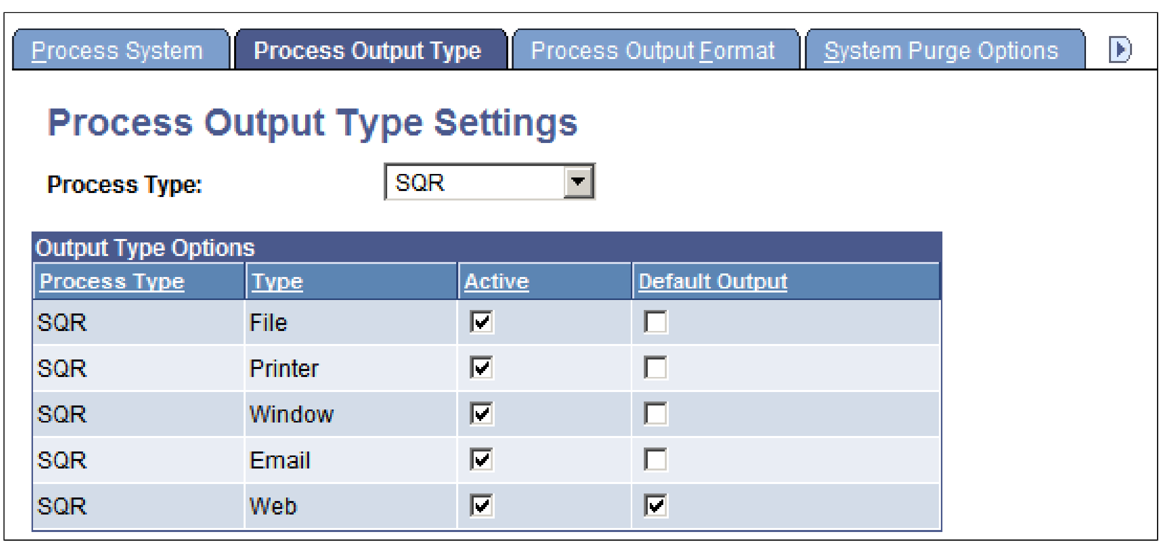
Note: The maximum value for Process Instance is 2,147,483,646. The maximum value for Report Instance and Transfer Instance is 999,999,999,999,999.

Defining Process Output Types

To access the Process Output Type Settings page, select PeopleTools > Process Scheduler > Process Scheduler Settings > Process Output Type.

Image: Process Output Type Settings page

This example illustrates the fields and controls on the Process Output Type Settings page. You can find definitions for the fields and controls later on this page.



Use this page to specify active and default output types for each process type.

Note: When you are scheduling a process through PeopleCode using the ProcessRequest object, the default output type is used when the output type that is specified has been deactivated or the output type was not specified.

Process Type	Select the process type that you want to edit or leave blank to display all process types.
Type	Lists the output types that are available for the selected process type. This field is display-only.
Active	Select the appropriate check box to make the output type active for the selected process type.
Default Output	Select the check box next to the output type that you want to display as the default on the Process Request page.

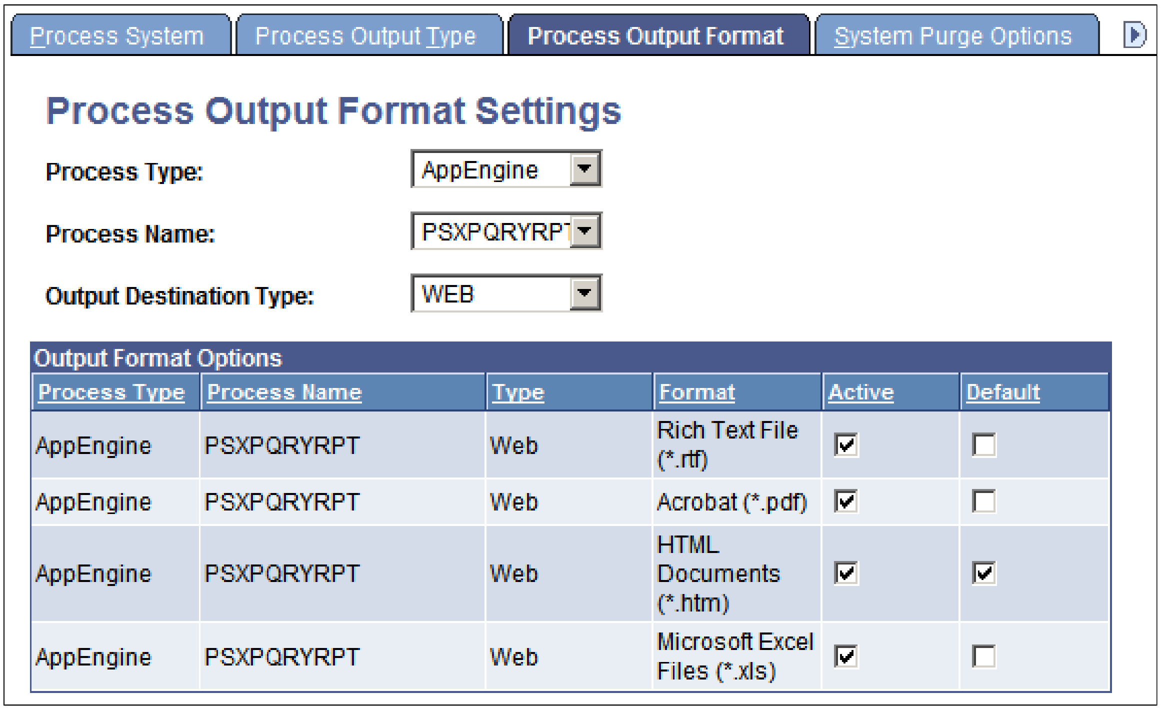
Note: The Process Output Format Settings page uses information about output types; therefore, you need to save any changes that were made to output type settings before attempting to change an output format setting.

Defining Process Output Formats

To access the Process Output Format Settings page, select PeopleTools > Process Scheduler > Process Scheduler Settings > Process Output Format.

Image: Process Output Format Settings page

This example illustrates the fields and controls on the Process Output Format Settings page. You can find definitions for the fields and controls later on this page.



Use the Process Output Format Settings page to specify active and default output formats for each process type.

Note: When you are scheduling a process through PeopleCode using the ProcessRequest object, the default output format is used when the output format that is specified has been deactivated, or the output format was not specified.

Process Type	Select the process type, or leave blank to display all process types.
Process Name	For process types that have registered non-unique processes, this field is used to identify the non-unique process. **Note:** Non-unique processes include Connected Query (PSCONQRS), Query (PSQUERY), and BI Publisher (PSXPQRYRPT).
Output Destination Type	Select a specific output type to further define the output format options. Only output types specified as *Active* appear.
Format	Lists the format types that are available for the selected process type and output type. This field is display-only.
Active	Select the appropriate check box to make the format type active for the selected process type and output type.

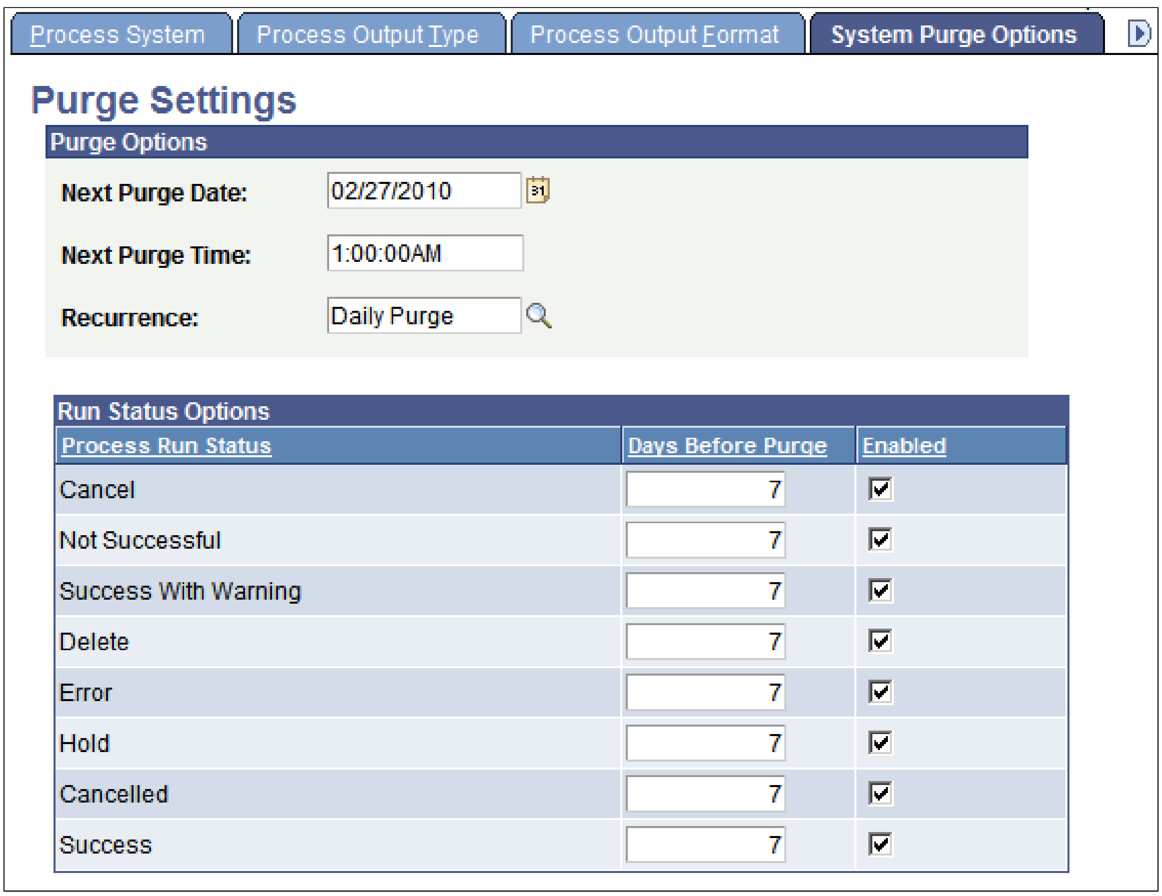
Default	Select the check box next to the format type that you want to appear as the default output on the Process Request page. A message appears, informing you that the format type is disabled if you select a format type for which the Active check box is deselected.

Defining System Purge Options

To access the System Purge Options page, select PeopleTools > Process Scheduler > Process Scheduler Settings > System Purge Options.

Image: System Purge Setting page

This example illustrates the fields and controls on the System Purge Setting page. You can find definitions for the fields and controls later on this page.



Use the Purge Settings page to empty the PeopleSoft Process Scheduler tables and file system. This operation will schedule the Application Engine program PRCSYSPURGE.

The PRCSYSPURGE program:

- Updates statistics to all of the process request tables before deleting content.
- Purges all process requests with a last update date that is past the Days Before Purge value for the specified run statuses.

- Deletes all of the subdirectories in the Log_Output directory that are associated with the process requests that are purged from the process request table if the Purge Process Files option was selected.
- Purges the report repository tables with expired dates, based on the specified number of retention days.
- Deletes all directories from the report repository that are associated with processes that were purged from the report repository tables.
- Schedules the Application Engine PRCSRVCLN program if more than one active Process Scheduler server exists.

  PRCSRVCLN refreshes the Log/Output directory for all active servers.
- Schedules the Application Engine PSXPARCHATTR program for BI Publisher reports to archive report-related metadata and the URLs of the report files.

Next Purge Date	Enter the date on which the next file purge process is to run on the server. This is based on the recurrence schedule.
Next Purge Time	Enter the time when the next file purge process is to run on the server. This is based on the recurrence schedule.
Recurrence	Select a recurrence schedule for the purge process.

Purge Settings

Specify purge criteria for each process run status that is listed.

Days Before Purge	Enter the number of days before a process should be physically deleted from the request table.
Enabled	If this check box is cleared, process requests with this run status are not purged.

Related Links

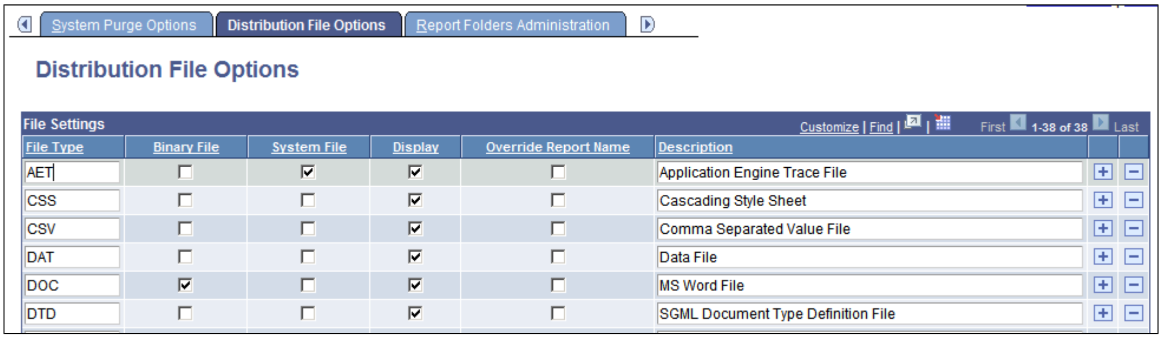
Defining Recurrence Definitions

Defining Distribution File Options

To access the Distribution File Options page, select PeopleTools > Process Scheduler > Process Scheduler Settings > Distribution File Options.

Image: Distribution File Options page

This example illustrates the fields and controls on the Distribution File Options page. You can find definitions for the fields and controls later on this page.



Use the Distribution File Options page to identify all the different types of files and the manner in which they are distributed throughout the system. File types are identified based on the file extensions. This is used by the Distribution Agent to determine how a specific file type will be transferred to the Report Repository using File Transfer Protocol (FTP) or HTTP. Also, this determines the description that is displayed in the Report Manager.

Use the Add and Delete buttons to add and remove available file types.

File Type

Identifies the type of file.

Binary File

Deselect for TXT and HTML files.

Note: When this check box is selected, the report distribution system will not perform a conversion on the file when moving it between operating systems.

System File

Select to mark this file type as a system file. The file will be available to be viewed in the Process Monitor regardless of output type.

Note: This feature requires that the Process Scheduler server definition has the attribute *Transfer System Files to the Report Repository* selected.

Display

Select to have the file shown on the report list page.

Description

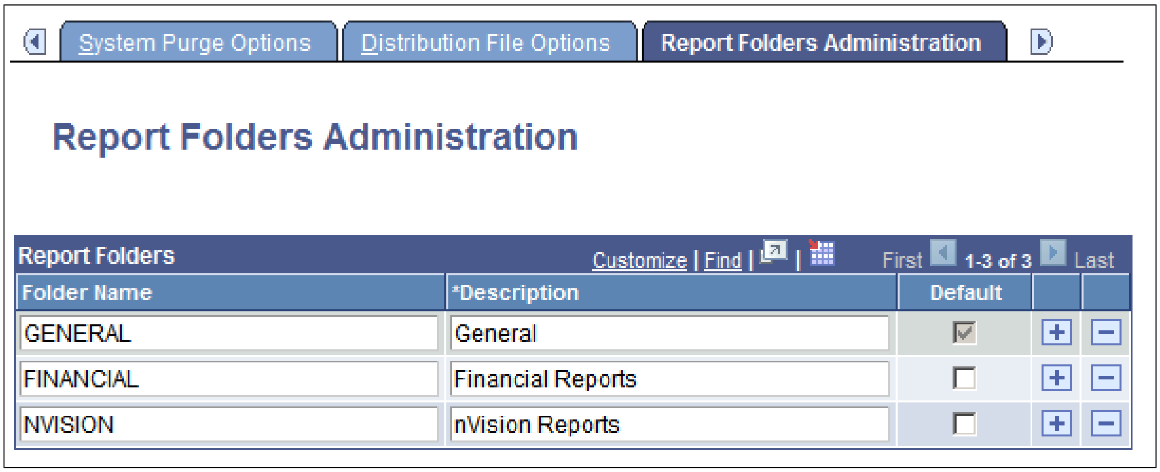
Enter a description to be used for this file when it is displayed for viewing. If a description is not specified, the name of the file is used.

Defining Report Folders

To access the Report Folders Administration page, select PeopleTools > Process Scheduler > Process Scheduler Settings > Report Folders Administration.

Image: Report Folders Administration page

This example illustrates the fields and controls on the Report Folders Administration page. You can find definitions for the fields and controls later on this page.



Use the Report Folders Administration page to create folders for organizing reports in Report Manager.

Folder Name	Use the Add and Delete buttons to add and remove folder names.
Description	Enter a more detailed description for the folder to identify its use.
Default	Select the check box next to the folder that you want to display as the default. The default folder is automatically selected on the Process Scheduler Request-Distribution Detail page. **Note:** A default folder is required.

Related Links

Understanding Report Folders

Defining Event Notifications and Configuring a REN Server

Event Notification is a feature that is associated with the PeopleTools Reporting process output type *Window.* It is also used by Multi-Channel Framework. A new Application Server process called PSRENSRV is required, which acts as a special web server to deliver report results to a new browser window.

Any Process Scheduler can use a REN server. The REN server is an optional component of the PeopleSoft Application Server. Four parameters are located in the PSRENSRV section of the Application Server configuration file that may have to be configured.

See "Understanding REN Servers" (PeopleTools 8.59: MultiChannel Framework).

Testing Event Notifications

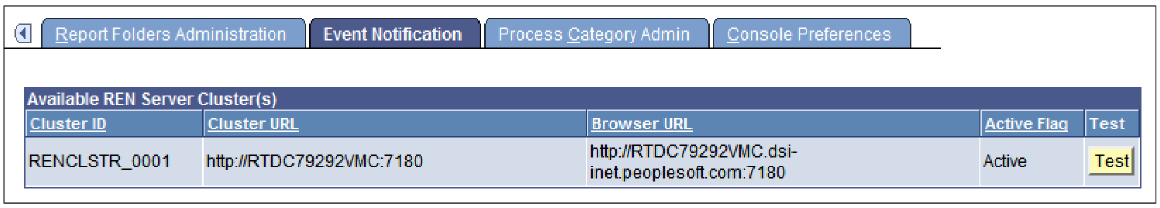
To access the Event Notification page, select PeopleTools > Process Scheduler > Process Scheduler Settings > Event Notification.

Note: A REN server must be configured before you can test Event Notification.

See Defining Event Notifications and Configuring a REN Server.

Image: Event Notification page

This example illustrates the fields and controls on the Event Notification page. You can find definitions for the fields and controls later on this page.



Multiple REN servers can be used by the system. However, only information for REN servers that have been configured with the REN server cluster owner as either *Reporting* or *ALL* (PeopleSoft Multi-Channel Framework, Optimization, and Reporting), are listed on this page.

To verify the REN server cluster owner, select PeopleTools > REN Server Configuration > REN Server Cluster - Select the desired REN Server > REN Server Cluster Owner.

Cluster ID

Displays the unique ID for the REN server.

Cluster URL

Displays the following URL:

http://<hostname>:7180

hostname: Application server machine name.

7180: Default REN server port number.

Note: If you change the default, then you must change the values for the Cluster and Browser URLs.

Browser URL

Displays the following URL:

http://<hostname>.<default_auth_token>:7180

hostname: Application server machine name.

default_auth_token: PIA Auth Token Domain name, specified as the default_auth_token when configuring the REN server.

Active Flag

Indicates whether the REN server is *Active* or *Inactive.*

An active REN server enables the *Window* output type. An inactive REN server does not accept the *Window* output type. However, pending reports will finish on current popup windows.

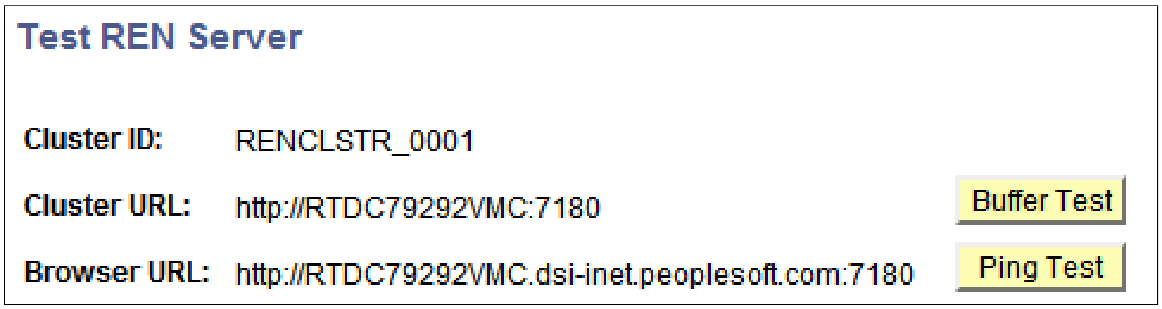
Test	Select to display the Test REN Server page. Use this page to verify that the URLs are valid.

Testing Cluster and Browser URLs

Access the Test REN Server page.

Image: Test REN Server page

This example illustrates the fields and controls on the Test REN Server page. You can find definitions for the fields and controls later on this page.



Two different tests can be performed:

- *Buffer:* This test is performed on the Cluster URL. It tests the ability of PSRENSRV to break up and send a large file (over 50,000 characters) using multiple internal buffers. The numbered blocks count visible characters, but invisible HTML markup commands are on every line, so the actual server reply content length is 55,902 characters.

  Note: The test is successful if all characters are shown and an End of file message appears at the bottom of the page.

- *Ping:* This test is performed on the Browser URL. It sends a sequence of ping events to the PSRENSRV, waiting for each to respond before sending the next.

  Note: The test is successful if Events Sent and Events Received both reach the same final value. The average latency depends on network configuration, machine load, and whether debugging is enabled.

To perform a Buffer test:

1. Select the Buffer Test button.

   The Buffer Test for PSRENSRV page appears in a new browser window.

2. Verify that all characters are shown and that an *End of File* message appears at the bottom of the page.

3. Close the browser window.

To perform a Ping test:

1. Select the Ping Test button.

   The Ping Test for PSRENSRV page appears in a new browser window.

2. Select the Run Ping Test button.

   The system performs a total of 10 pings.

3. Close the browser window.

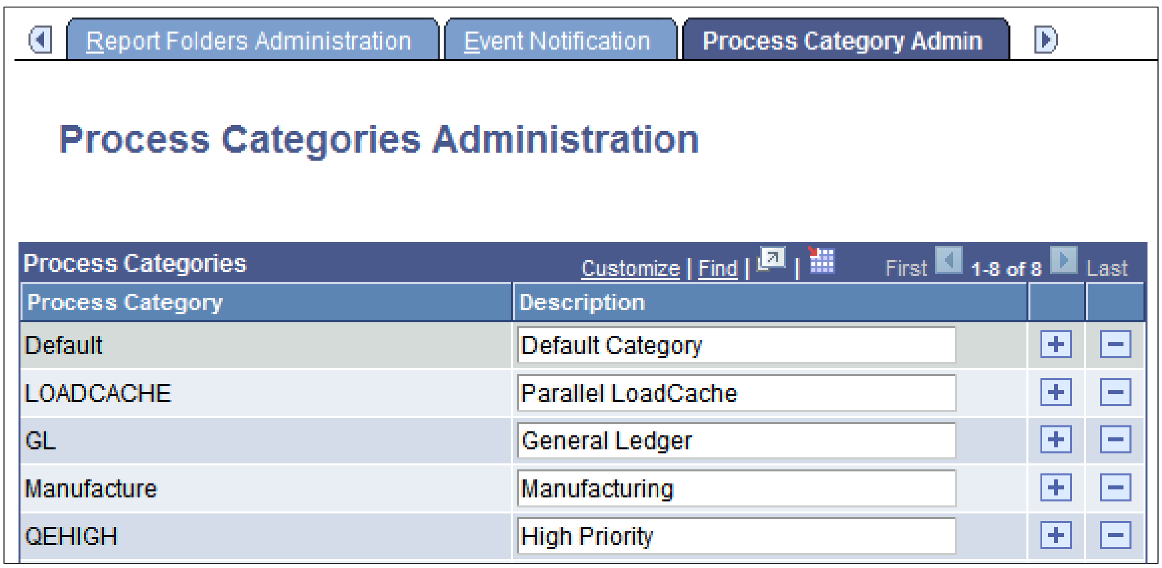
Select the Return button to return to the Event Notification page.

Defining Process Categories

To access the Process Categories Administration page, select PeopleTools > Process Scheduler > Process Scheduler Settings > Process Category Admin.

Image: Process Categories Administration page

This example illustrates the fields and controls on the Process Categories Administration page. You can find definitions for the fields and controls later on this page.



Use process categories to group processes together for the purpose of server load balancing and prioritization. You can select to run jobs or processes belonging to certain process categories on specific servers, and then you can set a priority of high, medium, or low for each category.

For example, you can group your manufacturing processes into one category and your General Ledger (GL) processes into another category. You can then set the priority for your GL category to high so that GL processes always run first.

Process Category and **Description**

Enter the name and description for each new process category.

Note: The categories *Default* and *LOADCACHE* are delivered with your system.

Note: The process category LOADCACHE is only used to run the Parallel LoadCache job.

Related Links

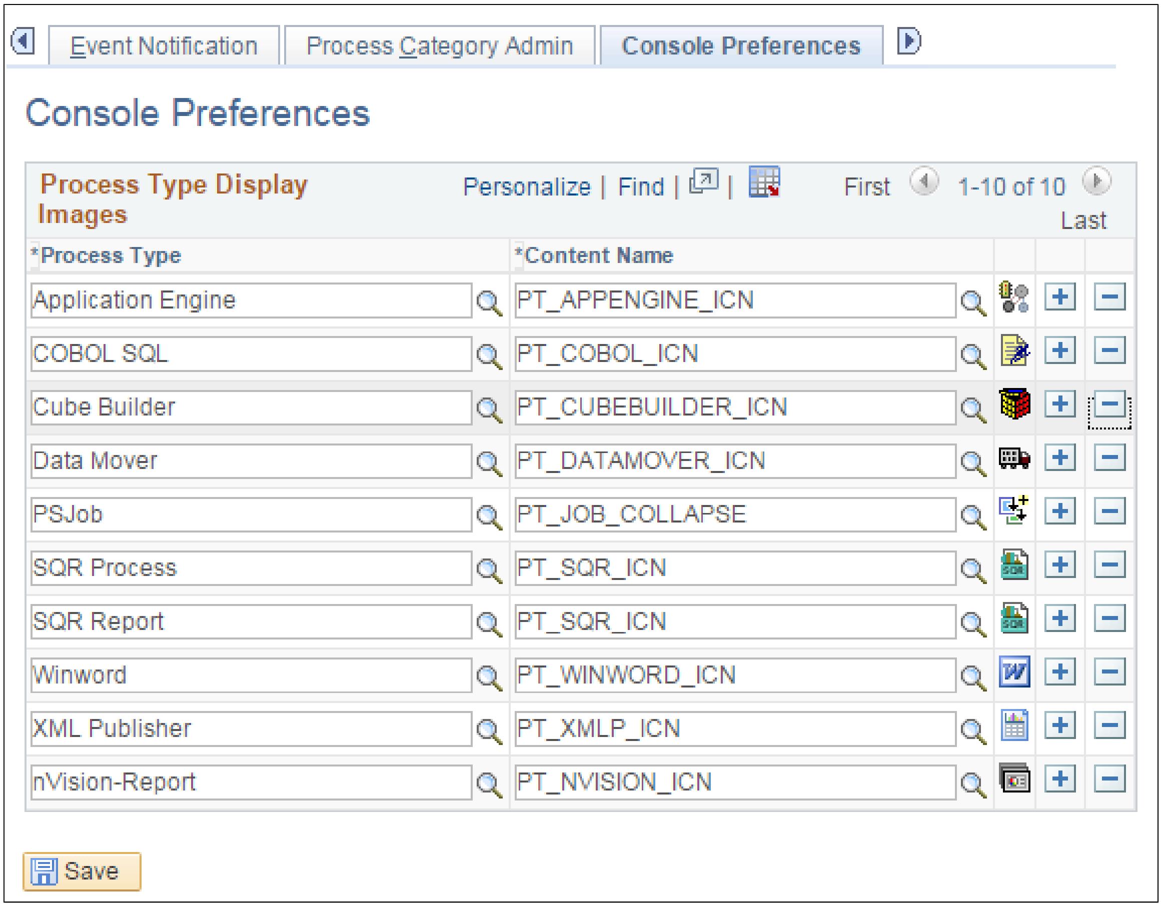
"Using Administration Utilities" (PeopleTools 8.59: System and Server Administration)

Defining Console Preferences

To access the Console Preference page, select PeopleTools > Process Scheduler > Process Scheduler Settings > Console Preferences.

Image: Console Preferences

This example illustrates the fields and controls on the Console Preferences. You can find definitions for the fields and controls later on this page.



This page is used to identify the icons that are displayed in the Reporting Console for each process type.

If you add any custom process types, you will need to add the custom process type to the Console Preferences.

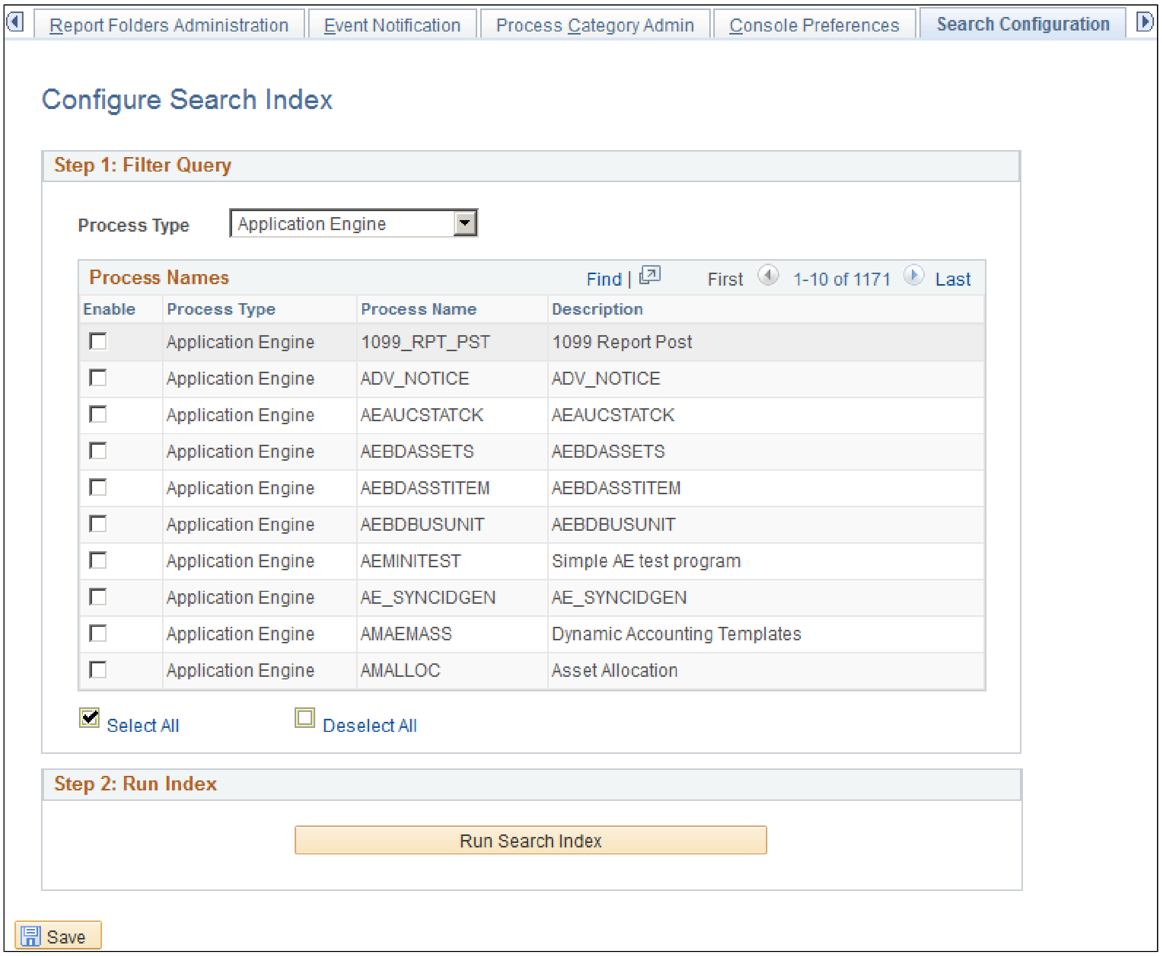
Defining Search Configuration

You can perform search indexing on **PTSEARCHREPORT** only after configuring the search index parameters after installing the PeopleTools version.

To access the Configure Search Index page, select PeopleTools > Process Scheduler > Process Scheduler Settings > Search Configuration.

Image: Configure Search Index page

This example illustrates the fields and controls on the Configure Search Index page. You can find definitions for the fields and controls later on this page.



1. From the Process Type list, select the process type that you want to edit.

   This list the process types in the Process Name grid.

2. From the Process Name section, enable the process names to enable search indexing.

3. Select the Run Search Index button to run the search index.

   See "Working with Search Indexes" (PeopleTools 8.59: Search Technology).

Defining Notification Configuration

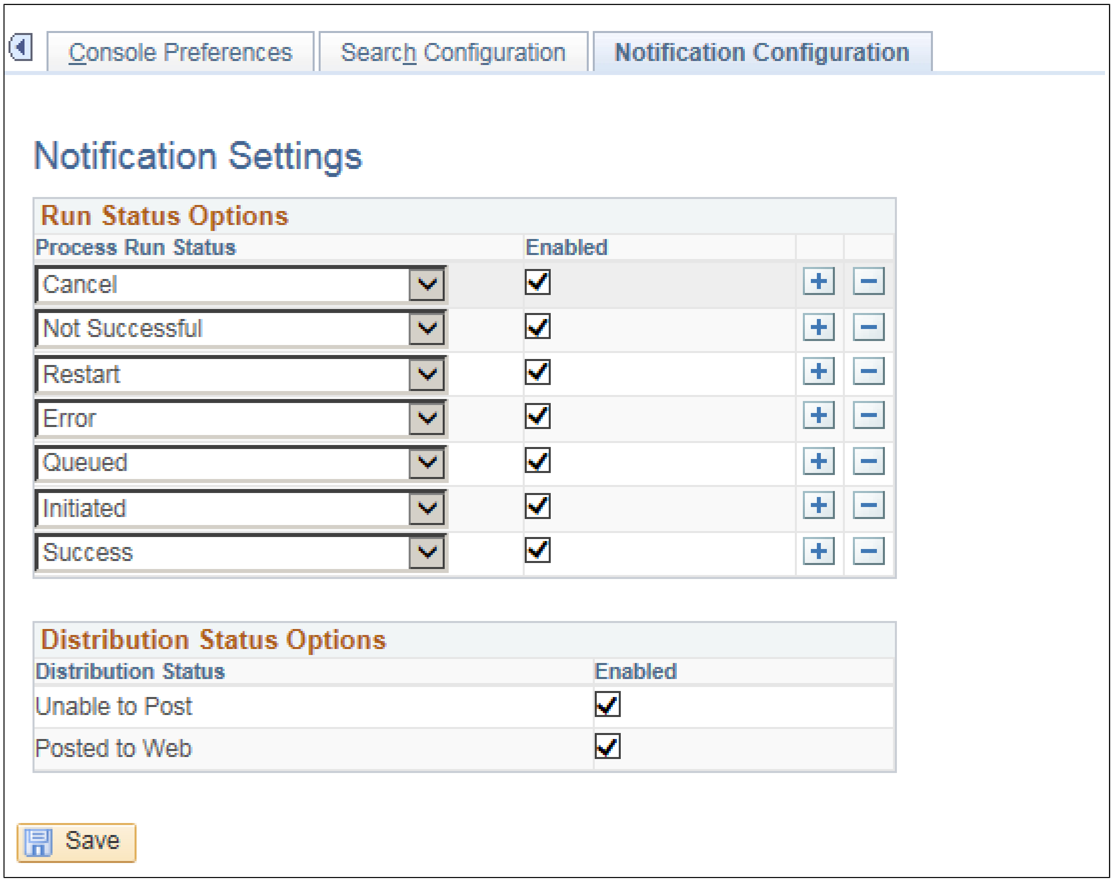
To enable Process Status Notifications, you must configure the Notification Settings page. You can enable some or all the states of a process to receive notification. These notification states are set for the notification channels — E-mail, Notification Window and Pop-up Notification.

Note: For pop-up notifications, if you configure settings under My Preferences >Pop-up Notification section, it will override the configurations set here. See "Defining User Preferences" (PeopleTools 8.59: Applications User's Guide).

Access the Notification Settings page (PeopleTools > Process Scheduler > Process Scheduler Settings > Notification Configuration).

Image: Notification Settings page

This example illustrates the fields and controls on the Notification Settings page. You can find definitions for the fields and controls later on this page.



Run Status Options

Enable the Run Status Options for which you wish to receive notifications. You can also add or delete states as per your requirement.

For more information about process request run status, see Viewing the Process List, “Process Request Run Status”.

Distribution Status Options

Select the Enabled check box for enabling notification for reports which may successfully post to the web or may not post to the web.

Defining Process Type Definitions

This section provides an overview of process type definitions and also touches upon defining type definitions, if you are using the OS/390 operating system for the database.

Understanding Process Type Definitions

The primary purpose of the process type definition is to globally define the command line, parameter list, working directory, and other general parameters for a specific process type. Consequently, the information doesn't need to be duplicated for each process definition of the same type, and you can vary these global parameters as needed, depending on the target operating system and database platform.

PeopleSoft Process Scheduler supports all operating systems and database environments that are supported by PeopleSoft. However, not every operating system and database environment combination supports every process type. For example, process types like PS/nVision are supported on Microsoft Windows operating systems only, but SQR, COBOL, and PeopleSoft Application Engine can run on other operating systems, as well.

PeopleSoft Process Scheduler uses the following variables during runtime:

- Meta-strings.

  Meta-strings provide runtime values to the definition and support the management of sensitive data, such as passwords, which are not written to the database.

- In-line bind variables.
- Client and server variables.

For each process request, all defined variables are evaluated and expanded, if possible. (For security reasons, %%OPRID%% is not expanded.) All variables that are not resolved through any of these sources might cause the process request to fail. You can detect unresolved variables easily by reviewing the Process Request Detail page for the failed request.

Meta-Strings

The predefined meta-strings must be enclosed in a set of double percent signs. When processing a request, if PeopleSoft Process Scheduler encounters a string that is enclosed inside a set of double percent signs, it compares the variable name with an internal list of predefined meta-strings. If the variable name is not one of these meta-strings, it is assumed to be a server-based environment variable.

The following table includes all predefined meta-strings and their associated runtime values.

Predefined Meta-String	***Runtime Value***
%%ACCESSID%%	Database Access ID.
%%ACCESSPSWD%%	Database Access Password.
%%DBNAME%%	Database Name.
%%INSTANCE%%	Process Instance.
%%OPRID%%	User's Signon ID.
%%OPRPSWD%%	User's Password (encrypted).

Predefined Meta-String	***Runtime Value***
%%OUTDEST%%	Output Destination. For example, C:\%TEMP%; \\PrintServer1\Printer1.
%%OUTDESTTYPE%%	Output Type. For example, File, Printer; Web, Window, Email.
%%OUTDESTFORMAT%%	Output Format. For example, SPF; HTM; PDF; TXT.
%%PRCSNAME%%	Process Name. For example, XRFAPFL, GLPJEDIT.
%%RUNCNTLID%%	Run Control ID. For example, NTClient.
%%SERVER%%	Reference the Database Server Name.
%%EMAILID%%	User's email address that is stored in the user profile.
%%CLIENTTIMEZONE%%	Time zone that is specified for the client initiating the request.
%%APPSERVER%%	Application Server (used for three-tier).
%%LOG/OUTPUTDIRECTORY%%	Directory in the PeopleSoft Process Scheduler Server Agent to which a file that is generated from a process request is written.
%%DEFAULTPRINTER%%	Default printer defined in the Process Scheduler Configuration file.

In-Line Bind Variables

The parameter list may contain in-line bind variables. In-line bind variables represent any field (record.field) that is used in the current page and they are defined like this:

```
:RECORD.FIELD
```

For example, specify the following code to pass the value of the User ID field from the RPT_RQST_WRK record as a parameter:

```
:RPT_RQST_WRK.OPRID
```

Variables must be enclosed in a set of *double* percent signs, as in %%OutputDirectory%%. At runtime, Process Scheduler first looks at all double-percent variables to determine whether these represent a predefined meta-string value, such as %%OPRID%%. Because the meta-string is predefined, it can resolve the variable at initiation of each request. If the variable is not defined as a meta-string, Process Scheduler tries to find it in the Process Scheduler configuration file. If none is found, it leaves the value unresolved.

Note: This documentation is not a substitute for the PeopleSoft Application Engine, COBOL, SQR reports documentation. If you need additional information about parameters that are discussed here, the documentation from the appropriate vendor is your best reference.

Parameter List Formatting

The parameter list consists of a series of tokens that make up the parameters to be used for the process. Tokens are separated by unquoted space characters. Single or double quote characters can be used for quoting. Both types of quotes are treated equivalently, but the starting and ending quotes for a quoted portion of a token must match. A quoted string may not contain quotes of the same type but a single quoted string can contain double quote characters and vice versa. A single token may consist of multiple adjacent quoted characters however no spaces are permitted between the quoted fragments. Unterminated quoted fragments will result in an error.

This table shows examples of parameter lists that require formatting:

Example Parameter Value	***Format***
A parameter that contains spaces. parameter value = 1 2 3	“1 2 3” or '1 2 3' **Note:** Use either single or double quotes.
A parameter that contains space and apostrophe (single quote) characters. parameter value = customer's update	“customer's update” **Note:** Use double quotes for the parameter so that the apostrophe (single quote) and space characters are passed correctly.
A parameter that contains space, apostrophe (single quote), and double quote characters. Parameter value = John's comments “Hello There”	“John's comments” '“Hello There”' **Note:** The first fragment is enclosed in double quotes so that the single quote and space characters are passed correctly and the second fragment is enclosed in single quotes so that the double quote and space characters are passed correctly. Note that there are no spaces between the quoted fragments.

Meta-variables can be used either quoted or unquoted and may contain quoted fragments themselves. Meta-variables are expanded before quotes are processed.

This table shows examples of parameter lists containing meta-variables that require formatting:

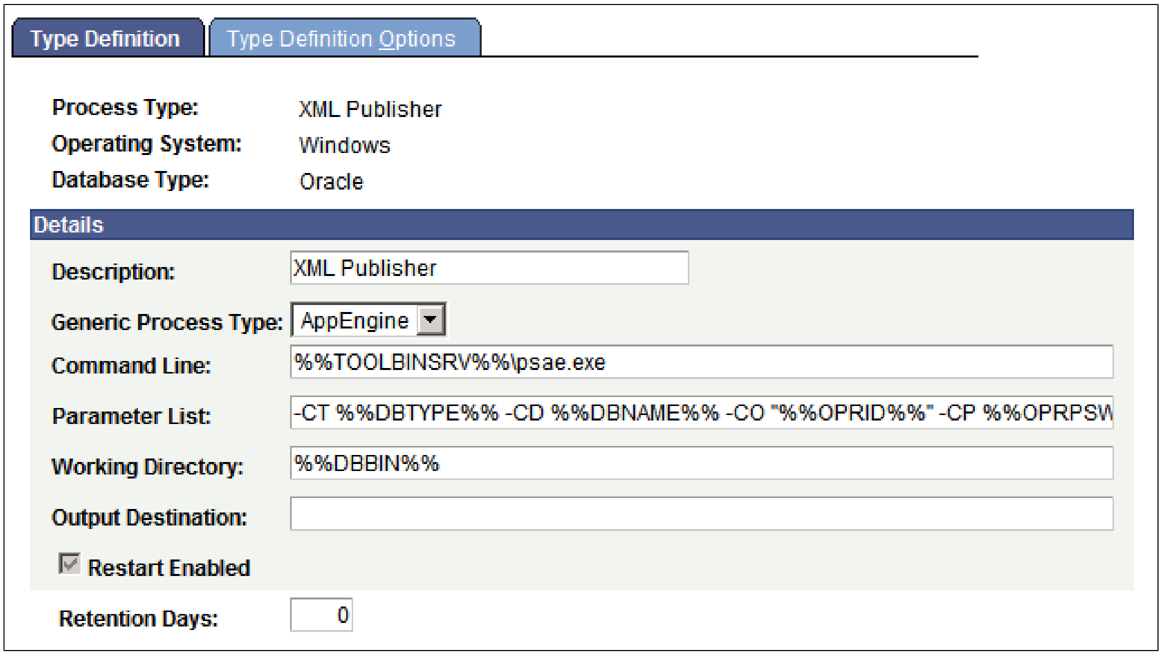
Example Parameter Values	***Parameter List Format***	***Explanation***
1st parameter = -p 2nd parameter = Param 2 3rd parameter = Param 3	-p %%METASTRING%%	METASTRING = ”Param 2” ‘Param 3’ This parameter list that uses a single meta-variable to pass multiple parameters containing spaces. **Note:** The meta-variable contains quotes so that the single meta-variable can be used to pass multiple parameters containing spaces.
1st parameter = -p 2nd parameter = Param 2	-p “%%METASTRING1%% %%METASTRING2%%”	METASTRING1 = Param METASTRING2 = 2 This parameter list uses two meta-variable to pass a single parameter containing spaces. **Note:** The meta-variables are enclosed in quotes in order to pass the expanded meta-variables as part of a single parameter.
1st Parameter = -p 2nd Parameter = Param 3rd Parameter = 1 4th Parameter = John’s comment	-p “%%METASTRING1%%” “%%METASTRING2%%”	METASTRING1 = “Param 1” METASTRING2 = John’s comment This parameter list demonstrates behavior that can occur when meta-variables are quoted and themselves contains quotes. Care must be taken when quoting meta-variables or using meta-variables containing space, single quote, or double quote characters to ensure parameters are passed as intended. **Note:** The double quotes around METASTRING1 and in its value cancel each other out resulting in the contents of METASTRING1 becoming two parameters. Additionally, note that if METASTRING2 were not quoted with double quotes, an error would occur as the single quote in METASTRING2 would be seen as the start of an unterminated quote

Entering Global Definitions for Processes

To access the Type Definition page, select PeopleTools > Process Scheduler > Process Scheduler Process Types.

Image: Type Definition page

This example illustrates the fields and controls on the Type Definition page. You can find definitions for the fields and controls later on this page.



Use the Type Definition page to enter or update global definitions for processes.

A process type must be defined for each database and operating system platform on which you want processes to run. PeopleSoft delivers process type definitions for many of the following types of processes, so if you are adding a new process definition, you may be able to associate it with an existing process type rather than having to add a new one.

- PeopleSoft Application Engine.
- SQR.
- COBOL.
- Data Mover.
- XML Publisher.

  Note: XML Publisher is the process type used for BI Publisher reports.

Note: Be sure to use unique names when defining new process types. This makes it easier to select a process based on the process type.

Important! Insert two colons (::) to define a colon in any variable string, as in *C::\PT80\<executable>,* if you are not using the %%<value>%% variable. The extra colon is required to distinguish these types of parameters from in-line bind variables, which use a single colon to prefix the record name.

Generic Process Type	Indicates the type of process that you are updating, for example, *AppEngine* (PeopleSoft Application Engine), *COBOL, Cube, Other, SQR, Winword* (Microsoft Word for Windows), or *nVision* (PS/nVision). **Note:** The Generic Process Type for XML Publisher is *AppEngine*.
Command Line	Indicates the executable program based on the generic process type that is selected. Enclose local (client) environment strings within a single pair of percent signs for example, %TOOLBIN%. Enclose all server environment strings within a double pair of percent signs, for example, %%TOOLBIN%%. **Note:** If the path contains spaces, you will need to add quotation marks around the entry, for example, " %%WINWORD%% \WINWORD.EXE".
Parameter List	Indicates the string of command line variables that are passed to the program. **Note:** If the parameter value will contain spaces, you will need to add quotation marks around the argument, for example -OP is entered as, " %%OUTDEST%%. See the Parameter List Formatting section earlier in this topic for more information..
Working Directory	The working directory is applicable only to the client and Microsoft Windows servers. If this field is blank, the process will use the server domain directory. **Note:** For Application Engine process type, the field is used to redirect the APPSRV.LOG file to a valid directory on process scheduler host machine
Output Destination	Indicates the output destination for this process type. This is used for any process definition with an output destination source of Process Type, meaning that the process uses the values in the process type definition to determine where to send the output.
Restart Enabled?	Select to enable a process request to be restarted from Process Monitor. Restarting is allowed only if the user or class of users can currently update a request (Cancel or Delete).

	The parameter list for the failed request is modified to append the current process instance before the request is assigned a new instance and reinserted with a status of Queued. All date and time stamps and runtime variables are reset, as appropriate. **Note:** If this check box is selected and the request fails, the status is No Success (not Error).
Retention Days	Set the retention days that are used to determine the expiration date. The expiration date is determined by adding the retention days from the date on which the report was generated. **Note:** The retention days value entered for a process type will be the default retention days for process definitions using the process type.

This section discusses the specific values for:

- PeopleSoft Application Engine process type definitions.
- SQR report process type definitions.
- COBOL SQL process type definitions.
- Data Mover process type definitions.
- Essbase Cube Builder process type definitions.
- XML Publisher process type definitions.

PeopleSoft Application Engine Process Type Definitions

When the generic process type is AppEngine, the Type Definition page contains these fields:

Command Line	Indicates the executable program PSAE.EXE, which is preceded by the directory name or environment string where the program resides.
Output Destination	Not required for PeopleSoft Application Engine processes.

PSAE.EXE requires the following arguments in the Parameter List field:

-CT %%DBTYPE%% -CD %%DBNAME%% -CO "%%OPRID%%" -CP %%OPRPSWD%% -R %%RUNCNTLID%% -I %%INSTANCE%% -AI %%PRCSNAME%% -OT %%OUTDESTTYPE%% -FP "%%OUTDEST%%" -OF %%OUTDESTFORMAT%%

To start an Application Engine program from the command line, you must specify the Application Engine executable (PSAE.EXE) followed by the required parameters, as shown in the following example:

```
psae -CT dbtype -CS server -CD database_name -CO oprid
-CP oprpswd -R run_control_id -AI program_id
-I process_instance -DEBUG (Y|N) -DR (Y|N) -TRACE tracevalue
-DBFLAGS flagsvalue -TOOLSTRACESQL value -TOOLSTRACEPC value
-OT outtype -OF outformat -FP filepath
```


Following these arguments, you can add additional arguments, as needed. This table contains details about the required and optional arguments that apply to all PeopleSoft Application Engine process requests.

Flag	***Value and Notes***
-CT	Connect database type.
-CS	Connect server name, if required on sign-in dialog page.
-CD	Database to which you are connected.
-CO	User ID with which you are signed in.
-CP	User password (encrypted).
-R	Process run control ID.
-I	Process instance.
-AI	Name of the PeopleSoft Application Engine program.
-FP	The full path of the directory where files will be generated through FileObject. To use the value that is assigned to this flag, use the PeopleCode system variable %FilePath
-DEBUG	Enables PeopleSoft Application Engine trace. This is equivalent to values that are assigned to TraceAE in the Process Scheduler Configuration file.
-DBFLAGS	Bit flag that enables or disables running statistics to a table when the meta-SQL %Update Stats% is coded in the PeopleSoft Application Engine program: *0:* Enable. *1:* Disable.
-TOOLSTRACESQL	Enables PeopleSoft SQL trace. This is equivalent to values that are assigned to TRACESQL in the Process Scheduler Configuration file.
-TOOLSTRACEPC	Enables PeopleCode trace. This is equivalent to values that are assigned to TracePC in the Process Scheduler Configuration file.
-FP	File path.

Flag	*Value and Notes*
-OT	Output type: *2:* File. *5:* Email. *6:* Web.
-OF	Output destination format, such as *HTML.*

SQR Report Process Type Definitions

When the generic process type is SQR, the Type Definition page contains this field:

Command Line Indicates the executable program PSSQR.EXE, a wrapper program to run SQR reports.

Important! PSSQR.EXE is not designed to run manually outside of Process Scheduler.

PSSQR.EXE requires the following arguments in the Parameter List field:

-CT -CT %%DBTYPE%% -CS %%SERVER%% -CD %%DBNAME%% -CA %%ACCESSID %% -CAP %%ACCESSPSWD%% -RP %%PRCSNAME%% -I %%INSTANCE%% -R % %RUNCNTLID%% -CO %%OPRID%% -OT %%OUTDESTTYPE%% -OP "%%OUTDEST%%" -OF %%OUTDESTFORMAT%% -LG %%LANGUAGECD%%

Note: If the path for the Log/Output Directory in the psprcs.cfg contains spaces, you will need to add quotation marks around the argument for -OP as shown in the preceding example, " %%OUTDEST%%".

Following these arguments, you can add additional arguments, as needed. This table contains details about the required and optional arguments that apply to all SQR process requests.

Flag	*Value and Notes*
-CT	Connect database type.
-CS	Connect server name, if required on the sign-in page.
-CD	Database to which you are connected.
-CA	Access ID with which you are signed on.
-CAP	Access password (encrypted).
-RP	Name of the report (SQR) file. No path is required. .
-I	Process instance.

Flag	***Value and Notes***
-R	Process run control ID.
-CO	User ID with which you are signed in.
-OT	Output type: *0:* Any. *1:* None. *2:* File. *3:* Printer. *5:* Email. *6:* Web. *7:* Default.
-OP	Output path. If the output type is 1 (printer), you can specify a logical printer name, such as *\\printserver1\printer1*. If the output type is 2 (file), you must specify a file path.
-OF	Output destination format, such as *HTML*.
-LG	Defines the requested language code for the specified SQR report.

Note: Determine the output format for the output file by specifying the output format on the Process Scheduler Request page.

COBOL SQL Process Type Definitions

When the generic process type is COBOL, the Type Definition page contains these fields:

Command Line	Indicates the command to start the Windows-based COBOL program, preceded by the directory name or environment string that indicates where the program resides.
Output Destination	Not required for COBOL.

Data Mover Process Type Definitions

When the generic process type is Data Mover, the Type Definition page contains this field:

Command Line Indicates the executable program PSDMTX.EXE, which is preceded by the directory name or environment string where the program resides.

PSDMTX.EXE requires the following arguments in the Parameter List field:

-CT %%DBTYPE%% -CD %%DBNAME%% -CO %%OPRID%% -CP %%OPRPSWD%% -I %%INSTANCE%%

Following these arguments, you can add additional arguments, as needed. This table contains details about the required and optional arguments that apply to all PeopleSoft Data Mover process requests.

Flag	***Value and Notes***
-CT	Connect database type
-CS	Connect server name, if required on logon dialog page.
-CD	Database to which you are connected.
-CO	User ID with which you are signed in.
-CP	User password (encrypted).
-I	Process instance.

Essbase Cube Builder

When the generic process type is Essbase Cube Builder, the Type Definition page contains these values:

Command Line Indicates the executable program PS2ESSBASE.EXE.

Output Destination Not required for Essbase Cube Builder.

PS2ESSBASE.EXE requires the following arguments in the Parameter List field:

-CT%%DBTYPE%% -CD%%DBNAME%% -CO%%OPRID%% -CP%%OPRPSWD%% -I%%INSTANCE%% -R%%RUNCNTLID%% -OP "%%OUTDEST%%"

This table contains details about the required flag that apply to Essbase Cube Builder process requests.

Flag	***Value and Notes***
-CT	Connect database type.
-CD	Database to which you are connected.
-CO	User ID with which you are signed in.
-CP	User password (encrypted).
-I	Process instance.

Flag	Value and Notes
-R	Process run control ID.
-OP	Log files output destination

XML Publisher Process Type Definitions

When the process type is XML Publisher, the generic process type is AppEngine and the Type Definition page contains these fields:

Note: XML Publisher is the process type used for BI Publisher.

Command Line Indicates the executable program PSAE.EXE, which is preceded by the directory name or environment string where the program resides.

Output Destination Not required for PeopleSoft XML Publisher processes.

PSAE.EXE requires the following arguments in the Parameter List field:

-CT %%DBTYPE%% -CD %%DBNAME%% -CO "%%OPRID%%" -CP %%OPRPSWD%% -R %%RUNCNTLID%% -I %%INSTANCE%% -AI %%PRCSNAME%% -OT %%OUTDESTTYPE%% -FP "%%OUTDEST%%" -OF %%OUTDESTFORMAT%%

Following these arguments, you can add additional arguments, as needed. This table contains details about the required and optional arguments that apply to all PeopleSoft XML Publisher process requests.

Flag	Value and Notes
-CT	Connect database type.
-CS	Connect server name, if required on sign-in dialog page.
-CD	Database to which you are connected.
-CO	User ID with which you are signed in.
-CP	User password (encrypted).
-R	Process run control ID.
-I	Process instance.
-AI	Name of the PeopleSoft Application Engine program.

Flag	***Value and Notes***
-OT	Output type: *2:* File. *3:* Printer. *5:* Email. *6:* Web.
-FP	The full path of the directory where files will be generated through FileObject. To use the value that is assigned to this flag, use the PeopleCode system variable %FilePath
-OF	Specifies the output destination format, such as HTML.
-DEBUG	Enables PeopleSoft Application Engine trace. This is equivalent to values that are assigned to TraceAE in the Process Scheduler Configuration file.
-DBFLAGS	Bit flag that enables or disables running statistics to a table when the meta-SQL %Update Stats% is coded in the PeopleSoft Application Engine program: *0:* Enable. *1:* Disable.
-TOOLSTRACESQL	Enables PeopleSoft SQL trace. This is equivalent to values that are assigned to TRACESQL in the Process Scheduler Configuration file.
-TOOLSTRACEPC	Enables PeopleCode trace. This is equivalent to values that are assigned to TracePC in the Process Scheduler Configuration file.

Note: For Process Type XML Publisher, available output options are based on the BI report definition template type.

See "Creating Report Definitions" (PeopleTools 8.59: BI Publisher for PeopleSoft).

Related Links

Modifying Values that are Passed to Processes

Setting OS/390 Options

To access the Type Definition Options page, select PeopleTools > Process Scheduler > Process Scheduler Process Types > Type Definition Options.

Note: This page is necessary only if you are using an OS/390 operating system for the database.

Job Shell ID	Enter the ID that relates the process type to the Job Control Language (JCL) shell that contains the replaceable parameters for the process.
Meta Parameter	Enter the meta-string parameter that is contained in the job shell.
Meta Parm Value (meta parameter value)	Enter the value that replaces the meta-string parameter.

Note: SQR for PeopleSoft now supports configurable space allocation for datasets on the z/OS platform. The space allocation can be defined at the process level. For example, you can enter a setting to allocate 1 track for a small report or 100 cylinders for a large one.

Defining Process Definitions

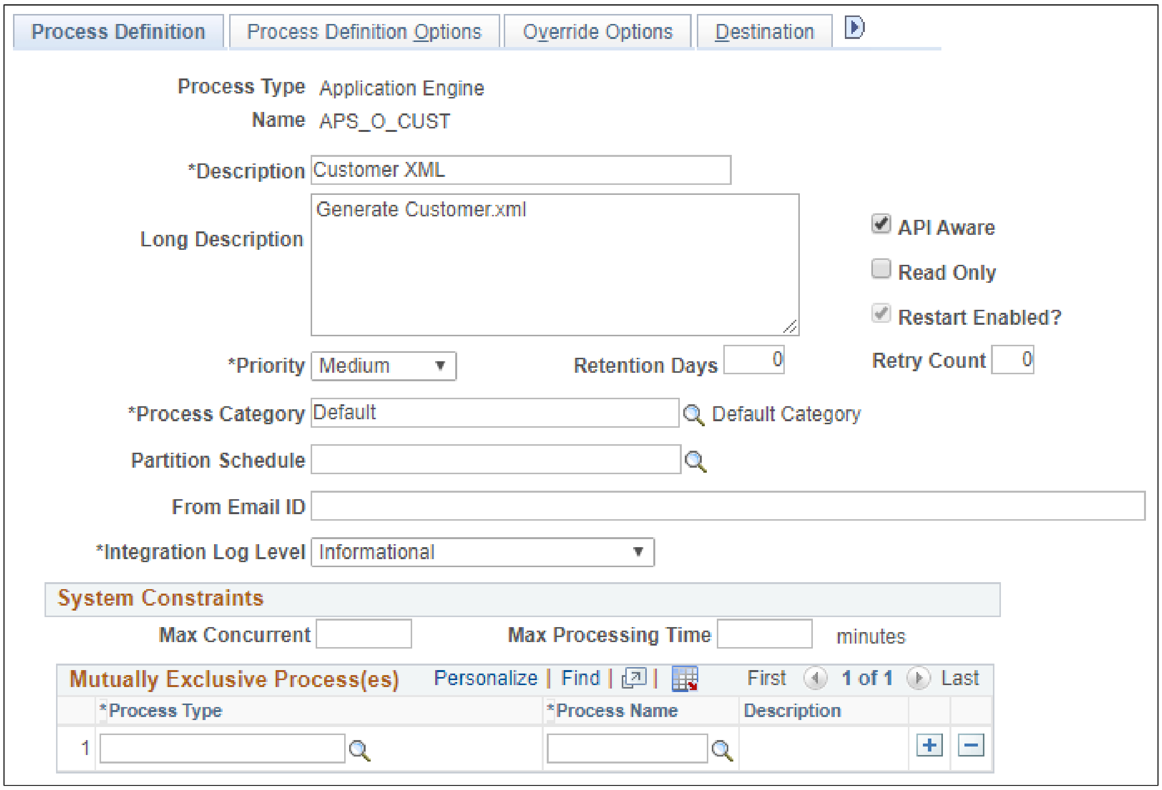
After you specify a process type, you must create a process definition, specify the available options, and set up associated page transfers that might apply.

Adding New Process Definitions

Access the Process Definition page (PeopleTools > Process Scheduler > Process Scheduler Processes.).

Image: Process Definition page

This example illustrates the fields and controls on the Process Definition page. You can find definitions for the fields and controls later on this page.



Process Type Indicates the Process Type selected.

Name This name must match the file name of the process that you are defining. For example, if you are defining a SQR report named MYSQR.SQR, you must define the process name as MYSQR.

Description Specifies a description for the Process definition.

Long Description This field is optional.

API Aware Select this check box if this process is an API-aware process. If this check box is selected for any process that is not API-aware, PeopleSoft Process Scheduler includes this process in the concurrent task count. This can result in improper server load balancing.

Selecting this option does not mean that the process becomes API-aware. You must still add API code to the process.

The PeopleSoft Application Engine, COBOL, SQR, Cube Builder, nVision, Data Mover, and XML Publisher process types should be API-aware. If API Aware is deselected for any of these process types, it is recorded on the SYSAUDIT report.

Read Only Used only on Oracle databases with Oracle Active Data Guard enabled and configured for use within your PeopleSoft implementation. The Read Only option enables a [component | process] to run against the read-only, standby database, rather than your production database.

See "Implementing Oracle Active Data Guard" (PeopleTools 8.59: Data Management).

Restart Enabled?

Select if the system should attempt to automatically restart this process if it is marked with a run status of *Error*.

Priority

Select *High, Medium,* or *Low* to define the relative priority that is used by the PeopleSoft Process Scheduler Agent to determine which process to initiate first if multiple processes are queued to run on a server.

Retention Days

Set the retention days that are used to determine the expiration date. The expiration date is determined by adding the retention days from the date on which the report was generated.

Note: The retention days value entered for a process definition will be the default retention days when the process is run.

Retry Count

Enter the number of times the system should attempt to automatically restart this process.

Note: This field becomes active only if the Restart Enabled? check box is selected.

Process Category

Select a process category for this process.

Note: The categories *Default* and *LOADCACHE* are delivered with your system.

Partition Schedule

Specify the name of the partition schedule. This field is optional.

From Email ID

Enter email ID to be used as the From Email ID when the output type is set to Email for the process request. If it is not defined, default value will be taken from psprcs.cfg. This field is optional.

Integration Log Level

Select to set the integration log level for process status change messages when SetNotifyAppMethod() or SetNotifyService() is used while scheduling the process.

Error: Select to log only error messages in IB transactions for process status changes for this process.

Informational: Select to log all messages in IB transactions for process status changes for this process.

None: Select to log no messages for process status changes for this process.

System Constraints

Important! For system constraints to be evaluated, you must configure the system with a master scheduler. In the absence of a master scheduler, the system ignores settings for the following options.

Max. Concurrent (maximum concurrent)	Enter the maximum number of occurrences of this process that can be active at one time across all process schedulers. If this field is left blank (default), the value becomes *Unlimited.* Processes exceeding the maximum appear in the Process Monitor with a run status of *Blocked.* As active occurrences finish, blocked processes are released and queued.
Max. Processing Time (maximum processing time)	Enter the maximum processing time for this process. If this field is left blank (default), the value becomes *Unlimited.* The system cancels the process if processing exceeds the time that is entered here. **Important!** This field is not supported for SQR and COBOL process types that are scheduled on an OS/390 operating system and run from UNIX System Services (USS).
Mutually Exclusive Process(es)	Enter the type and name all the processes that must not run at the same time as this process. Processes failing this constraint appear on the Process Monitor with a run status of *Blocked.* When mutually exclusive processes finish, blocked processes are released and queued.

Related Links

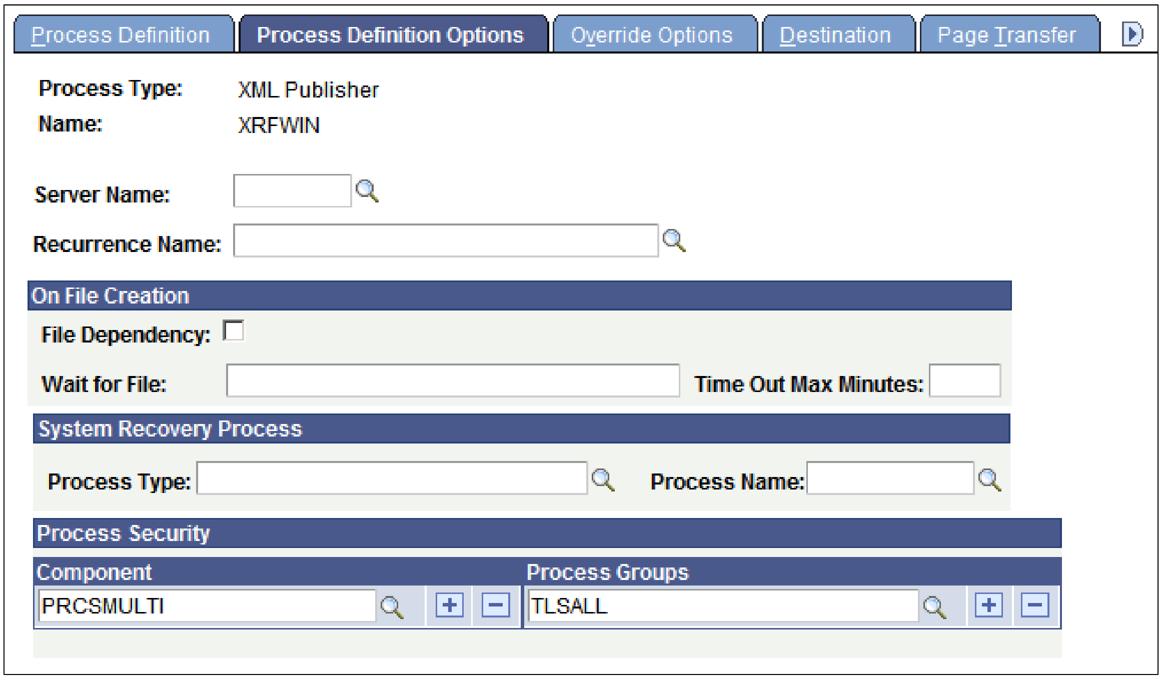
Understanding Process Request APIs

Setting Process Definition Options

Access the Process Definition Options page (PeopleTools > Process Scheduler > Process Scheduler Processes). Select the Process Definition Options tab.

Image: Process Definition Options page

This example illustrates the fields and controls on the Process Definition Options page. You can find definitions for the fields and controls later on this page.



Use the Process Definition Options page to specify a location, server, component, or process group from which to run a process.

(Optional) Server Name

Specify a server on which the process should run. Specify the server name only to restrict this particular process to this server definition (or if you have only one server platform to submit your requests).

Leave blank to have the process requested for the first server or default operating system that can process requests for the specified process class. This enables you to balance the load between multiple process servers because your request is initiated by the first available server on the default operating system.

Important! For the system to evaluate values that are entered for the On File Creation feature, you must provide a server name. This is validated when you save your process definition.

(Optional) Recurrence Name

Specify a predefined recurrence definition for this process.

On File Creation

File Dependency

Select to activate the On File Creation feature.

If this option is activated, Process Scheduler checks for the existence of the file. If the file is found and no other process is using it, the process will run.

If the file is not found or is in use, the process does not run but enters a *Blocked* state. Time counting starts at this point. Process Scheduler continues to check for the file. If the file is found and is not in use, then the process will run.

If the file is not found or it is in use even after the time interval specified in Time Out Max Minutes, the process will go to *Error* state.

If the Max Time Out Minutes field is left blank, the process scheduler does not schedule the process as long as the file is not found in the specified location.

Wait for File

Enter the location and name of the file that this process depends on. The process will not run until this file has been found if the file dependency option is activated.

Processes on hold due to dependent files not being found appear on the Process Monitor with a run status of *Blocked.* When the dependent files have been located, blocked processes are released and queued.

Note: This information can also be entered or changed at runtime if the File Dependency check box is selected.

Time Out Max. Minutes

Enter a time limit for the system to locate the dependent files.

The system compares the current date time to the timestamp of the time that the process was queued. If the time limit is exceeded, the process is marked as *Error* and the restart procedure is attempted.

See Specifying Process Variables.

System Recovery Process

Process Type and **Process Name**

Enter the type and name of an optional process that can be run if this process runs to an error. The original process will not restart until the system recovery optional process that is entered here has run.

Process Security

Component

Attach the process to components. Adding a component to a process definition causes that process definition to appear on the Process Scheduler Request page when you select File, Run in that component, if you have security to run the process.

Process Group

Make the process definition a member of the group. A process definition can be a member of multiple process groups.

Select an existing group, or add a new group by entering a unique process group name. To add new rows, click the Add button.

Process groups are then assigned to security profiles in PeopleSoft Security Administrator, which enables you to specify the process requests that classes of users can run.

Modifying Values that are Passed to Processes

Access the Override Options page (PeopleTools > Process Scheduler > Process Scheduler Processes > Process Definition). Select the Override Options page.

Use the Override Options page to modify values that are passed to the process.

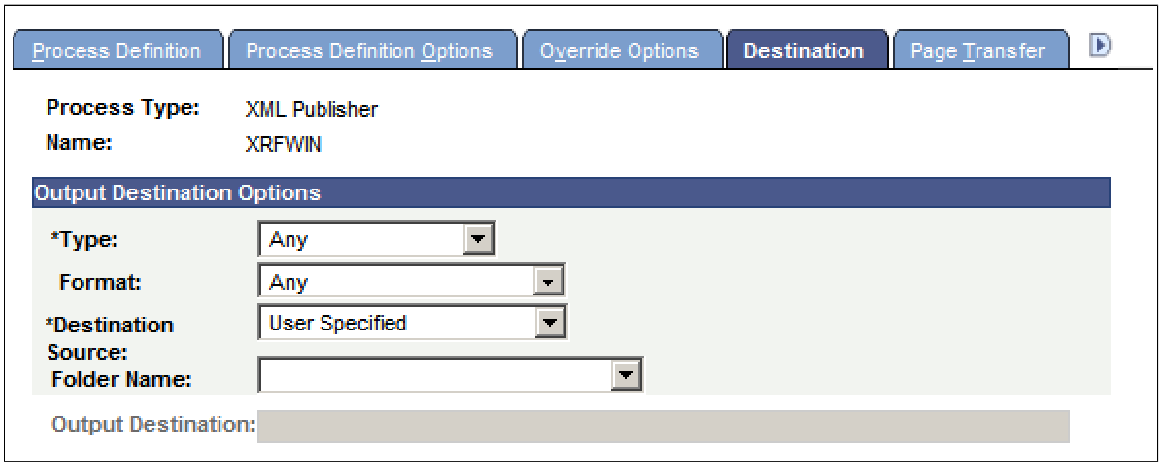
Override Options	Select a value if you have custom values to send through the parameter list, command line, or working directory: *Append:* Adds custom parameters to the end of the PeopleSoft string. *Override:* Sends custom parameters in place of the PeopleSoft defaults. *Prepend:* Adds custom parameters to the front of the PeopleSoft string.
Parameters	Enter the custom parameter values.

Setting Destination Options

Access the Destination page (PeopleTools > Process Scheduler > Process Scheduler Processes). Select the Destination tab.

Image: Destination page

This example illustrates the fields and controls on the Destination page. You can find definitions for the fields and controls later on this page.



Note: The output source destinations are enforced for users who are *not* allowed to override the output destination by their user process profiles. If a user is allowed to override it, the user-run control destination is used in the process request.

Type

Select the default destination type for this process:

None: Uses the user run control values.

Any: User can specify any valid option.

Default: Applicable to PS/nVision only.

Depending on the type of process, other selections include *Email, File, Printer, Window,* and *Web.*

The value that is specified here overrides the value that is specified in the System Settings - Process Output Type page. If the value that is specified here is deactivated, the value that is designated as the default will be used.

Format

Select the format for this process.

The value that is specified here overrides the value that is specified in the System Settings - Process Output Format page. If the value that is specified here is deactivated, the value that is designated as the default will be used.

Destination Source

Specify the output destination source for this process:

None: Use for processes that do not create output or for processes for which you do not want to produce an output file or report.

Process Definition: This request uses the output destination that is specified by the process definition.

	Process Type Definition: This request uses the output destination that is specified by the process type definition.
	User Specified: This is the default value.
	The SQR process will always use values as specified in a run control by the user. So, we need to specify the Destination Output as *User Specified*.
Folder Name	Select the folder in which the report will be displayed in the Explorer and List tables of the Report Manager.
Output Destination	Use to hard-code the output destination into the process definition. This option is enabled only when the source value is Process Definition.

Setting Page Transfer Options

To access the Page Transfer page, select PeopleTools > Process Scheduler > Process Scheduler Processes > and click the Page Transfer tab.

The Page Transfer or Log Transfer feature enables a user to go directly from the Process Monitor to a designated page in the PeopleSoft application to view the results from a successfully completed process.

To enable users to go directly from the Process Monitor to a page, specify the navigational route that an end user must follow through the PeopleSoft menu interface.

Note: If the search keys are not in the level 0 buffer of the current component, the Search page will appear.

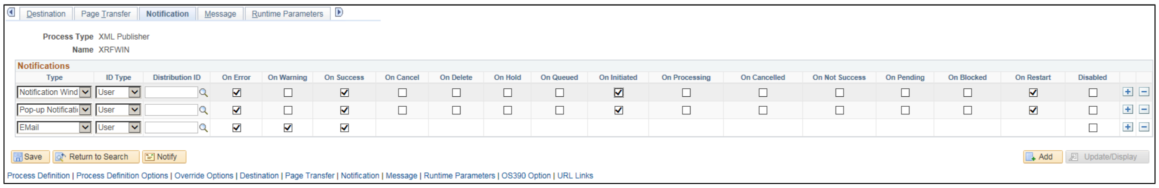
Page Transfer Code	Select the type of transfer for this process:
	None: Disables this feature for this process. The remaining fields become unavailable when this value is selected.
	Msg Log (message log): Enables the Log Transfer feature for this process.
	Next Page: Enables the Page Transfer feature for this process.
Menu Name, Menu Bar Name, Menu Item, and **Page Name**	Select the navigation path that the user follows through the PeopleSoft menu interface.
Menu Action	Select one of the following menu actions that the user can perform when the page is selected: *Add, Correction, Update,* or *Update All.*

Setting Notification Options

Access the Notification page (PeopleTools > Process Scheduler > Process Scheduler Processes) . Select the Notification tab.

Image: Notification page

This example illustrates the fields and controls on the Notification page. You can find definitions for the fields and controls later on this page.



Use the Notification page to send messages to a group (using a role ID) or individuals (using a user ID) when a specific activity occurs in the process, such as an error, warning, or successful completion of the process.

You can choose and add a notification channel to a process type and also opt to enable a notification state. When the process reaches the state, the system will generate a notification and inform you using the type of notification channel you have configured in the page. You can enable notifications for the following states of a process:

- On Error.
- On Warning.
- On Success.
- On Cancel.
- On Delete.
- On Hold.
- On Queued.
- On Initiated.
- On Processing.
- On Cancelled.
- On Not Success.
- On Pending.
- On Blocked.
- On Restart.

This table lists the names and definitions of the elements on the Notification page.

Type	Select the notification channel from the drop down with the options — *EMail*, *Notification Window*, *Pop-up Notification*.
ID Type	Select *User* or *Role*..
Distribution ID	Select the user ID of the user or group.

Disabled

Select if you do not want to send notifications to the user or group.

Related Links

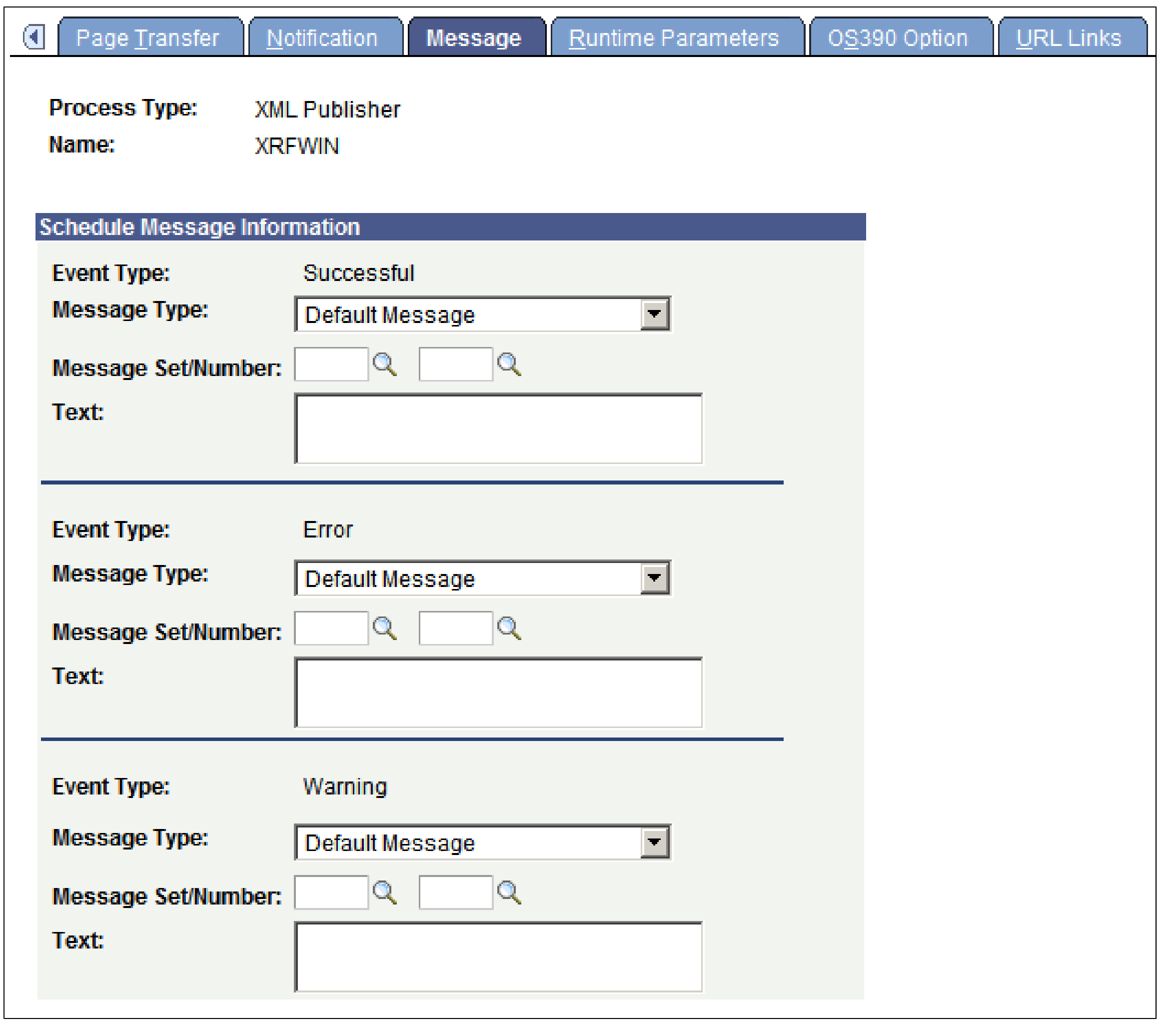
Defining Notification Configuration

Setting Notification Messages

Access the Message page(PeopleTools > Process Scheduler > Process Scheduler Processes). Select the Messages tab.

Image: Message page

This example illustrates the fields and controls on the Message page. You can find definitions for the fields and controls later on this page.



Use the Message page to specify the messages that are sent when the Notification feature is used. You can specify messages for successful completion and errors.

Message Type

Select the message type:

Default Message: Use the basic default message.

Customized Message: Create your own message.

Message Catalog: Select a message from the Message Catalog.

Message Set/Number Select the Message Catalog set and number of the message. Complete these fields when the message type is *Message Catalog.*

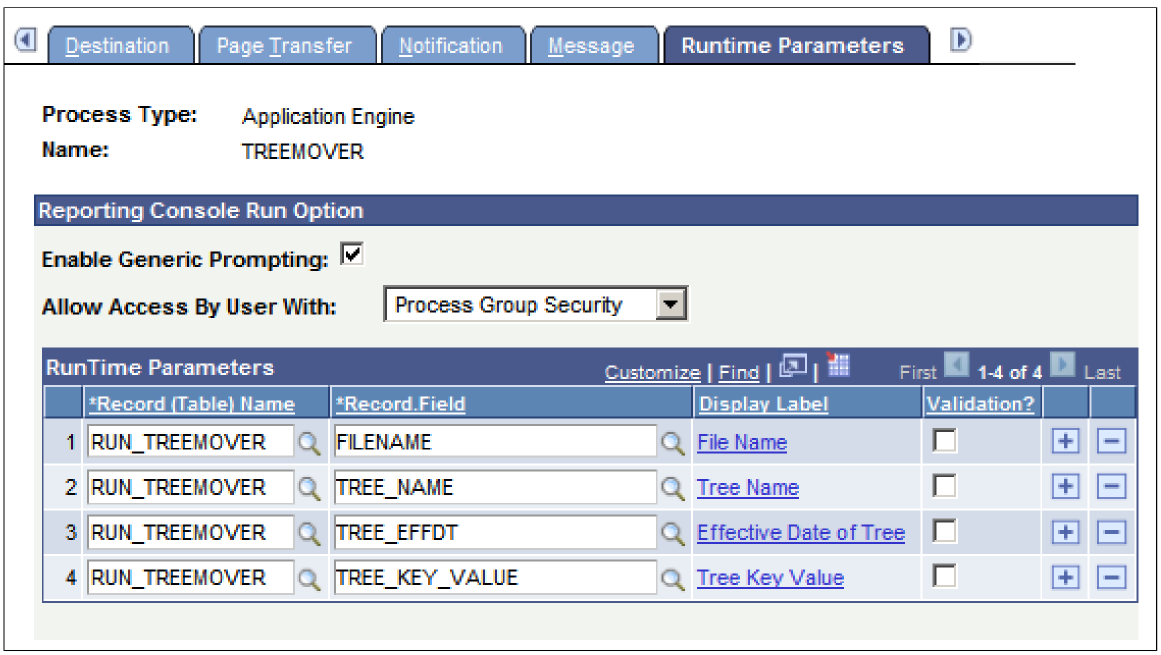
Text Enter the message text when the message type is *Customized Message.*

Setting Runtime Parameters

To access the Runtime Parameters page, select PeopleTools > Process Scheduler > Process Scheduler Processes > and click the Runtime Parameters tab.

Image: Runtime Parameters page

This example illustrates the fields and controls on the Runtime Parameters page. You can find definitions for the fields and controls later on this page.



Use this page to enable the Run option from the Reporting Console and register runtime parameters associated with the process.

Enable Generic Prompting Select this check box to allow users to schedule this process from the Reporting Console.

Note: The prompt button is disabled for the run time record field that do not have a matching prompt record.

Allow Access By User With Select the type of permission required to schedule the process from the Reporting Console. It specifies whether full process security or process group security should be applied when the process is run from the Reporting Console or a web service.

- *Full Process Security* indicates that the process security defined on the Process Definition Options page will be used to determine which users can schedule this process from the Reporting Console. The user must have permission to at least one of the Components, as well as be a member of at least one of the Process Groups listed on the Process Definition Options page.
- *Process Security Group* indicates that the user must be a member of at least one of the Process Groups listed on the Process Definition Options page to schedule this process from the Reporting Console.

Note: Users with the role PeopleSoft Administrator will always get the Run option on the Reporting Console if Generic Prompting is enabled.

Runtime Parameters

Application run control records are used to retrieve the parameter values at execution time. In order to run the process from the Reporting Console, the user must be able to enter the runtime parameters necessary for the process with the correct application run control record. This also allows the user to retrieve saved parameter values from an application run control record.

Record (Table) Name

Enter the application-specific run control record used in this process.

Field Name

Enter a row for each field used in the run control record.

Select Label

Use this link to select the field label that will display on the generic prompting page.

Select the Label Type:

- *Message Catalog*

  You will be prompted for the Message Set Number and Message Number.
- *RFT Long*

  You will be prompted for the Field Label ID.
- *RFT Short*

  You will be prompted for the Field Label ID.

Validation?

Select this check box to perform validation on parameter values entered using the Reporting Console.

A Validation link will appear when the check box is selected. Use this link to specify the validation function from the Application Class.

Runtime Parameter Restrictions

Not all application run control records can be used for generic prompting. Restrictions include:

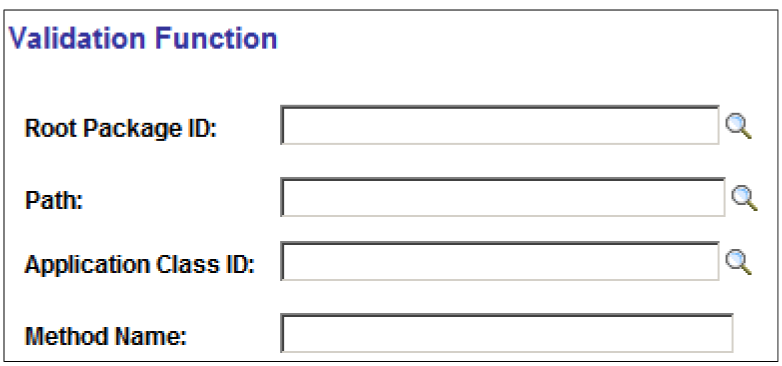
- Run control records having multiple rows at Level 1 for the same combination of Run Control Id and Operator Id are not supported in the generic prompting page. If a record has keys other than *Run Control Id* and *Operator Id* then it implies that it can have multiple rows at level 1 with the same values of Run Control Id and Operator Id. The generic prompting page cannot display multiple rows and can store only one Level 1 row at a time.
- Prompt values will be displayed for fields only if the field on the prompt table is the highest order key.

Setting Validation Function

When the user selects Validation for a field, the Validation Function link appears. Select the Validation Function link to enter the location of the validation program.

Image: Validation Function page

This example illustrates the fields and controls on the Validation Function page. You can find definitions for the fields and controls later on this page.



Root Package ID

Enter the package name that contains the class that you want to specify, or use the Lookup button to search for and select one.

Path

Enter the name or names of any subpackages that contain the application class that you want to specify, or use the Lookup button to search for and select one.

Application Class ID

Enter the name of the application class that contains the method that you want to specify, or use the Lookup button to search for and select one.

Method Name

From the Method drop down list box, select the method from the selected application class that you want to specify.

Setting OS/390 Options

To access the OS/390 Option page, select PeopleTools > Process Scheduler > Process Scheduler Processes > and click the OS/390 Option tab.

The JCL shell and meta-string parameters that are used for constructing JCL that relates the process type to the JCL shell containing the replaceable parameters for the process have already been determined. Use this page to enter additional meta-string parameters for this process definition.

Note: This page is necessary only if you are using an OS/390 operating system for the database.

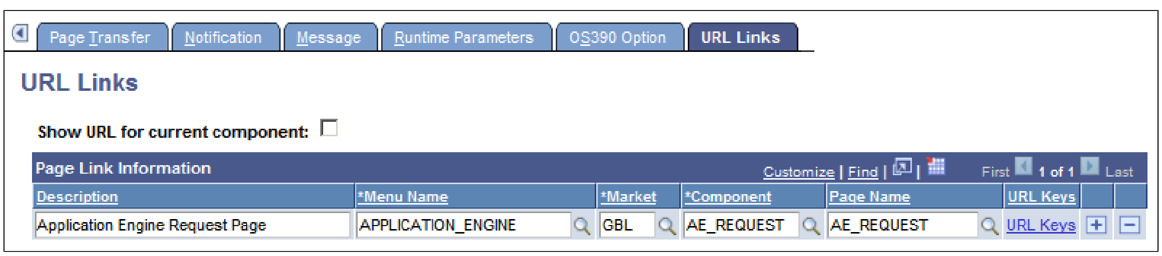
Meta Parameter	Enter the meta-string parameter that is contained in the Job Shell.
Meta Parm Value (meta parameter value)	Enter the value that replaces the meta-string parameter.

Associating URLs

To access the URL Links page, select PeopleTools > Process Scheduler > Process Scheduler Processes > and click the URL Links tab.

Image: URL Links page

This example illustrates the fields and controls on the URL Links page. You can find definitions for the fields and controls later on this page.



Use this page to associate multiple URLs with a process definition. The links appear on the Report Detail page, which is accessible from the Process Monitor and the Report Manager.

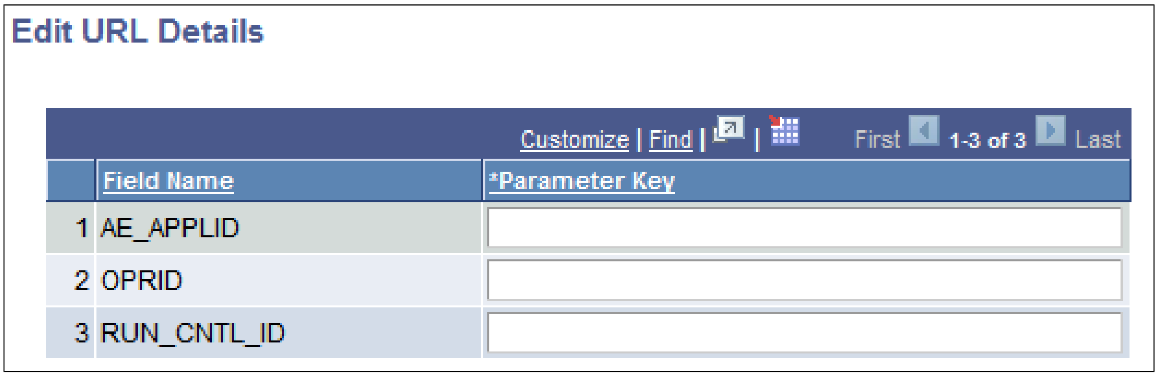
Show URL for current component	Select to create a link to the current component.
Description	Enter a description for the link.
Menu Name, Market, Component, and **Page Name**	Select to create the URL path and destination.
URL Keys	Click to access the Edit URL Detail page.

Editing URL Key Fields

Access the Edit URL Details page.

Image: Edit URL Details page

This example illustrates the fields and controls on the Edit URL Details page.



Use this page to view or edit the key fields of the selected URL.

Defining Recurrence Definitions

This section provides information on configuring definitions for processes and jobs that run on a regular basis.

Understanding Recurrence Definitions

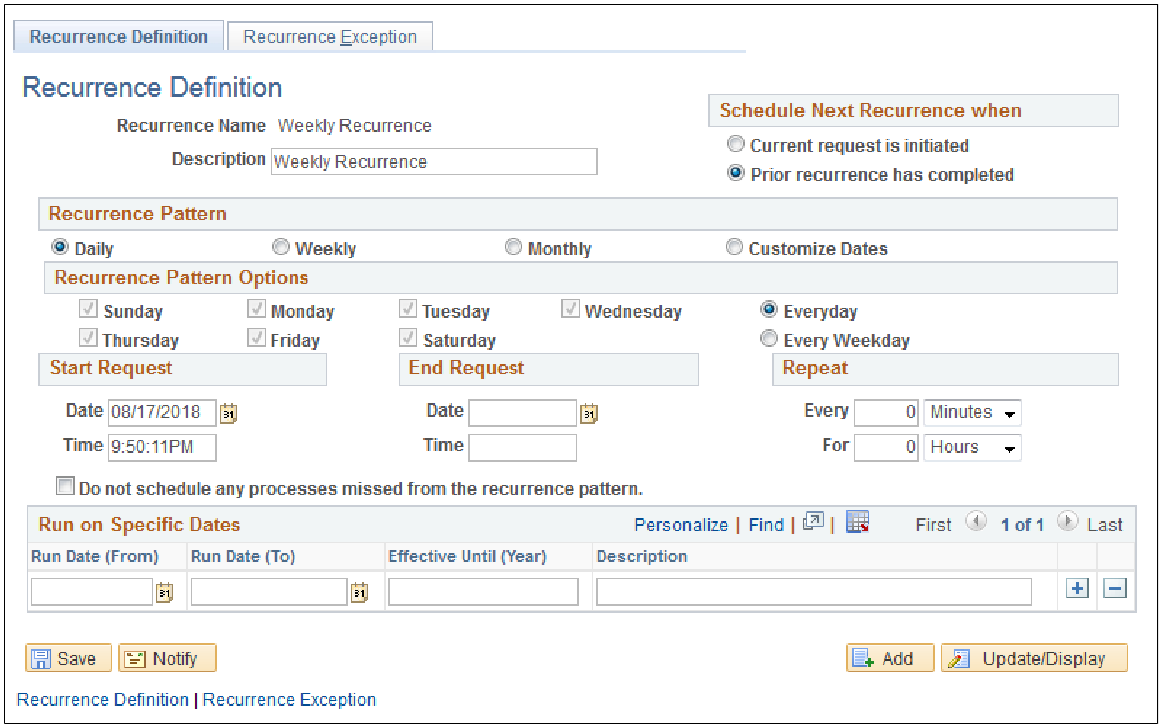
Recurrence definitions enable you to make sure that important process requests and jobs that you must run on a regular basis always run automatically in the background. This eliminates the possibility of anyone forgetting to submit a process request or submitting one incorrectly. When you specify a recurrence definition, the process request continues the cycle until you stop it manually.

Setting Up Recurrence Definitions

To access the Recurrence Definition page, select PeopleTools > Process Scheduler > Process Scheduler Recurrences > Recurrence Definition.

Image: Recurrence Definition page

This example illustrates the fields and controls on the Recurrence Definition page. You can find definitions for the fields and controls later on this page.



Recurrence Name

This value appears in process and job definitions, so it should be readily identifiable.

Description

Enter a description for this recurrence definition. The default is the recurrence name.

Schedule Next Recurrence when

Current request is initiated and **Prior recurrence has completed**

Specify when the next recurrence should start.

Note: When Prior recurrence has completed is selected, the definition is set to recur on success of the last instance. When the last instance runs to *Warning,* the scheduler treats the instance the same as *Success.*

Recurrence Pattern

The contents of this group box change, depending on the recurrence pattern that you select.

Note: When validating the next recurrence date on which a recurrence definition is set to run multiple times in a day, the system determines whether the calculated time for the day exceeds the maximum recurrence period for that day. For example, the definition is set up to run every hour for eight hours, beginning at 8:00 a.m. You select the definition for a process at 5:00 p.m. Due to the lateness of the day, the process cannot run every hour, eight times, so the process does not run until 8:00 a.m. the following day.

Daily

When you select this option, also select either *Everyday* or *Every Weekday.* The system automatically selects check boxes for the days Sunday through Saturday (every day) or Monday through Friday (every weekday). The check boxes are not available for entry to prevent changes.

Weekly

Select check boxes for the days on which the process should run. For example, every *Friday* or every *Monday, Wednesday,* and *Friday.*

Monthly

When you select this option, also select either *Day of Month* to enter a numeric date or *The* to enter a day of the month.

For example, select *Day of Month* and enter *15* to define the process to run on the 15th day of every month. Enter *31* to have the process run on the last day of every month. The system automatically adjusts for the varying number of days in each month.

Note: Typically, the value for the Day of Month field should match that of the Start Request Date field. For example, if you select *August 27, 2004* as the start request date, you must ensure that the value for the Day of Month field is *27* to define the process to run on the 27th day of every month. Otherwise, more than one recurrence run may occur.

If you select *The,* select either *1st, 2nd, 3rd, 4th,* or *Last.* Then select a specific day. For example, select *1st* and *Thursday* to have the process run on the first Thursday of every month.

Customized Dates

Use this option when processes must run automatically on:

- A schedule that is not daily, weekly, or monthly (for example, quarterly).
- Specific dates.

When you select this option, add the specific run dates in the Run on Specific Dates group box.

Start Request

Date and **Time**

Enter the effective date and time at which the recurrence definition should become active.

Do not schedule any processes missed from the recurrence pattern

Select to run recurring process only at the times specified. Leave blank to run recurring process in catch up mode.

Note: This option is used in situations such as when processes have been scheduled after the runtime, or when servers are down when the processes should have run.

Example 1: A process is scheduled to run daily at 10:00 a.m. but the recurrence is not set up until 2:00 p.m. If this option is selected, the process will not run until 10:00 a.m. the following day. If this option is not selected, the process will run immediately to catch up for the missed 10:00 a.m. run.

Example 2: A process is scheduled to run hourly every day from 9:00 a.m.– 3:00 p.m. The process runs successfully at 9:00 a.m., and then the server goes down. It is not recovered until 5:00 p.m. If this option is selected, the process will not run again until 9:00 a.m. the following day. If this option is not selected, the process will run six times to catch up for the missed runs scheduled for 10:00 a.m., 11:00 a.m., 12 noon, 1:00 p.m., 2:00 p.m., and 3:00 p.m.

End Request

Date and **Time**	Enter the date and time at which the recurrence definition should become inactive. Leave blank to keep the recurrence definition active indefinitely.

Repeat

Every and **For**	Indicate how many times the process repeats. For example, you might specify that the process runs every 10 minutes for an hour.

Run on Specific Dates

Use this group box when the recurrence pattern is *Customized Dates.*

Run Date (From)	Select the date on which you want this process to run.
Run Date (To)	To run the process every day for a specific period, select the last date of the period. Leave blank if the process is to run for only one day.
Effective Until (Year)	To end the schedule after a specific number of years, enter the four-digit year. Leave blank for the schedule to continue indefinitely.

Bi-Weekly (Every 14 Days) Recurrence Definitions

Use the following procedure to schedule a process to run bi-weekly (every 14 days) through a recurrence:

To set a recurrence definition for every 14 days (bi-weekly):

1. Select PeopleTools > Process Scheduler > Recurrences.
2. Select Add New Value and enter a recurrence name.

The Recurrence Definition page appears.

3. Select *Daily* as the recurrence pattern.

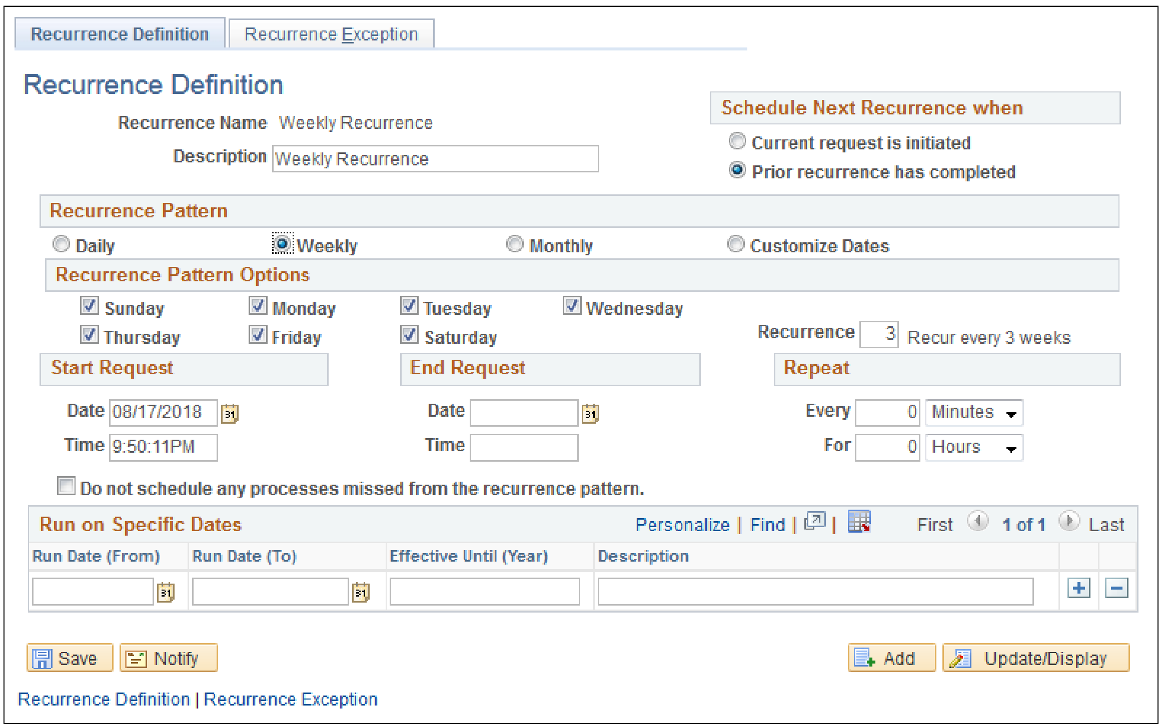
4. Go to the Repeat group box and set the Every value as *336 Hours* and the For value as *336 Hours* (number of hours in 14 days).

Setting Recurrence Schedule for Weekly and Monthly Recurrences

Selecting the Weekly or Monthly recurrence pattern activates an additional Recurrence field in the Recurrence Pattern grid on the Recurrence Definition page. Using this option, you can set a recurrence schedule for your weekly and monthly recurrence options.

Image: Recurrence Pattern - Recurrence Field

This example illustrates the Recurrence Definition page where the Recurrence field is activated with the selection of the Weekly recurrence pattern option.



The default value for the Recurrence field is set to 1.

Weekly

To set a recurrence schedule for weekly recurrences:

1. Select PeopleTools > Process Scheduler > Recurrences.

2. Select Add New Value and enter a recurrence name.

   The Recurrence Definition page appears.

3. Select the *Weekly* recurrence pattern.

4. Go to the Recurrence field and set the value according to your chosen recurrence schedule.

   If the value for the Recurrence field is set to 2, then it is a Bi-Weekly recurrence, and the scheduled recurrence will repeat every alternate week. For example, if the weekly recurrence is scheduled for Tuesday and the Recurrence field is set to 2, the pattern will repeat itself every alternate Tuesday till the recurrence ends.

Monthly

To set a recurrence schedule for monthly recurrences:

1. Select PeopleTools > Process Scheduler > Recurrences.
2. Select Add New Value and enter a recurrence name.

   The Recurrence Definition page appears.
3. Select the *Monthly* recurrence pattern.
4. Go to the Recurrence field and set the value according to your chosen recurrence schedule.

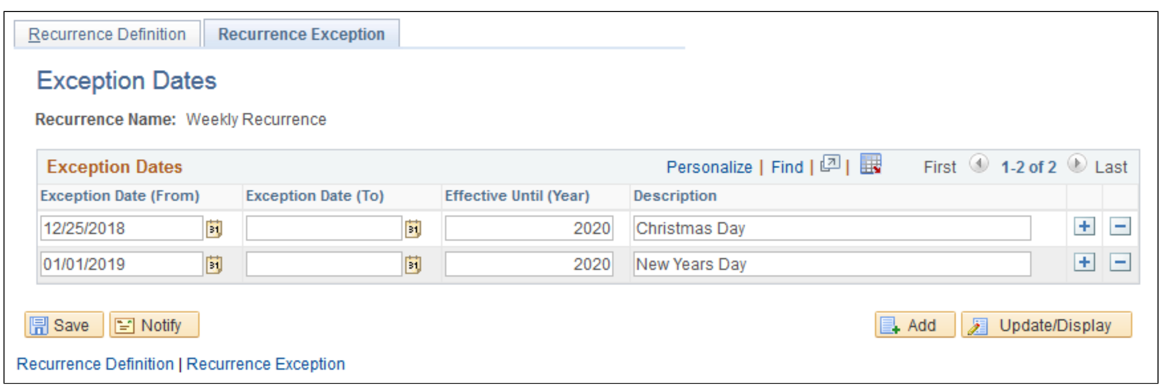
   If the value for the Recurrence field is set to 3, then it is a Quarterly recurrence, and the scheduled recurrence will repeat every three months. For example, if you select *January 23, 2019* as the start request date and the Recurrence field is set to 3, the further instances will be scheduled for *April 23, 2019*, *July 23, 2019*, *October 23, 2019* and so on till the recurrence ends.

Setting Recurrence Exceptions

To access the Recurrence Exception page, select PeopleTools > Process Scheduler > Recurrences > Recurrence Exception.

Image: Recurrence Exception page

This example illustrates the fields and controls on the Recurrence Exception page. You can find definitions for the fields and controls later on this page.



Use the Recurrence Exception page to enter specific days or dates to ignore. For example, your schedule is set up to run every Monday. However, you do not want the report to run on holidays. Therefore, when you enter the date as an exception, the system bypasses running the report on that day.

Exception Date (From) Select the date that you want this process to bypass.

Run Date (To)	If you want the process to bypass every day for a specific period, select the last date of the period. Leave blank to bypass only one day.
Effective Until (Year)	To end the exception after a specific number of years, enter the four-digit year. Leave blank for the schedule to continue indefinitely.

Chapter 8

Using Reporting Console

Understanding Reporting Console

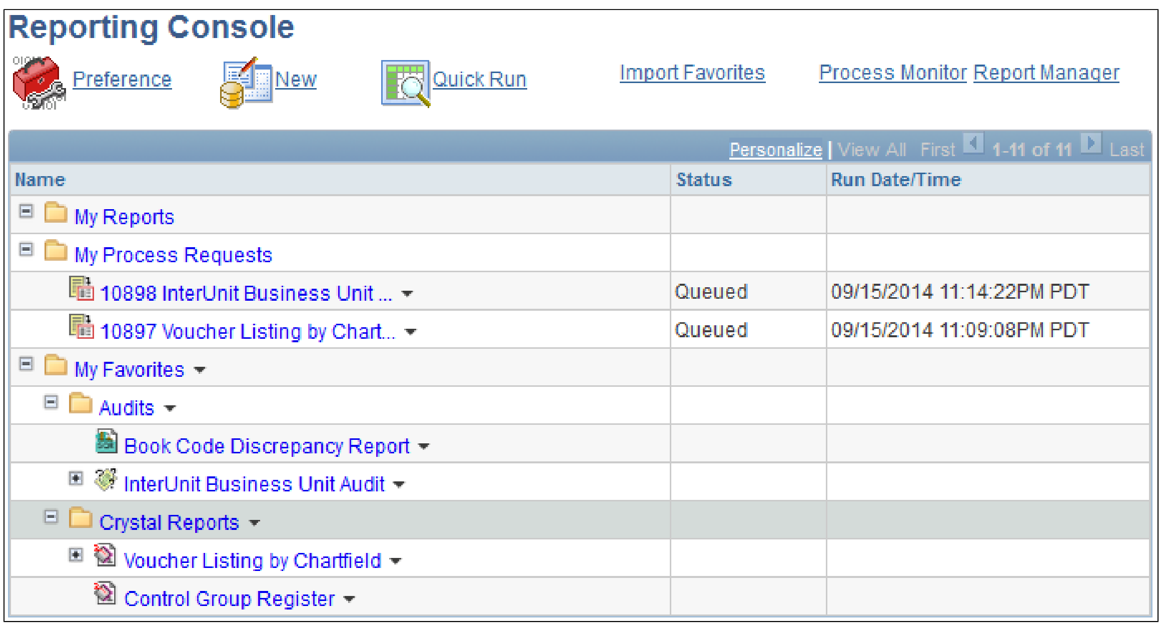
The Reporting Console provides a single interface for a user to manage and schedule reports. From the Reporting Console users can run a report, schedule a report, and organize reports.

Not all reports can be run from the Reporting Console, only reports that have Generic Prompting enabled will be available. Some reports require specific application run control pages for business logic and therefore should never be run from the Reporting Console.

Note: Reporting Console is not Accessibility-enabled.

Image: Reporting Console

This example illustrates the fields and controls on the Reporting Console. You can find definitions for the fields and controls later on this page.



The Reporting Console provides folders to organize and display requests and reports, as well as links to reporting tasks and functions.

Folders

The Reporting Console has 3 folders available:

My Reports — This folder has a link to all reports for the user. The reports displayed in this folder are based on the preferences for the user. This is the same list of reports as found in the Report Manager.

	From the Reporting Console, you can not filter reports, however there is a link to the Report Manager. This folder is intended to alert users to newly shared reports, similar to an Email inbox. Entries to this folder are always made by the system. The reports a user has access to will display in chronological order.
My Processes Requests	This folder displays all the process requests the user has access to monitor with the current status. This is the same list of processes the user would see in the Process Monitor for their user ID. From the Reporting Console, you can not edit the process request, however there is a link to the Process Monitor.
My Favorites	This folder is used to add process bookmarks. You can create folders to organize your processes. From the bookmarks, you can edit a process , run a process or delete the process bookmark. You can also import favorites from another user and rename a folder.

Links

The Reporting Console has links for the following:

Preference	This link allows the user to set the display preferences for the Reporting Console.
New	This link allows the user to create new process and report definitions.
Quick Run	This link allows the user to run a report or process.
Import Favorites	This link enables you to import processed bookmarks from an authorized user to pre-populate the My Favorites list. This link allows the user to import processed bookmarks from another user. You can import process bookmark only if permission is granted for the processes.
Process Monitor	This link will open the Process Monitor.
Report Manager	This link will open the Report Manager.

Security for Reporting Console

In the Reporting Console, the access rights are assigned to users with PeopleSoft security roles and user IDs.

This table lists the actions available based on object type.

Tasks	***Privileges***
Bookmark	The actions associated with the bookmark depend on the user's security for the process. • Edit: available if the user has access to the process definition. • Run: available if Enable Generic Prompting is enabled for the process. Permissions for the generic prompting page are defined on the Runtime Parameters page for the process definition. **Note:** If Enable Generic Prompting is not selected in the process definition, the Run option is not available in the Reporting Console even if the user has rights to run the process. See Setting Runtime Parameters. • Delete: always available.
My Process Requests	Displays the process requests the user has access to view.
My Reports	Displays the report instances the user has access to view, similar to Report Manager Administration page. **Note:** Report instances generated from a remote system are not included.

Setting Display Preferences

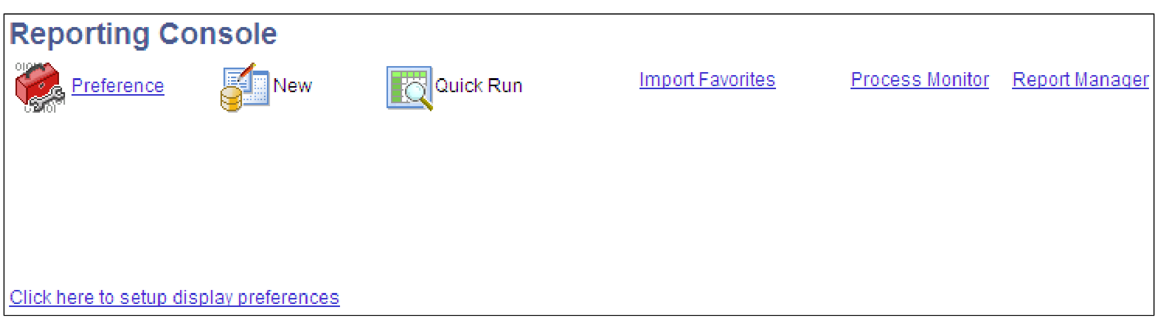
This section discusses how to set the display preference.

Setting Initial Display Preferences

To access the Reporting Console, select Reporting Tools > Reporting Console

Image: Initial Reporting Console page

This example illustrates the fields and controls on the Initial Reporting Console page.



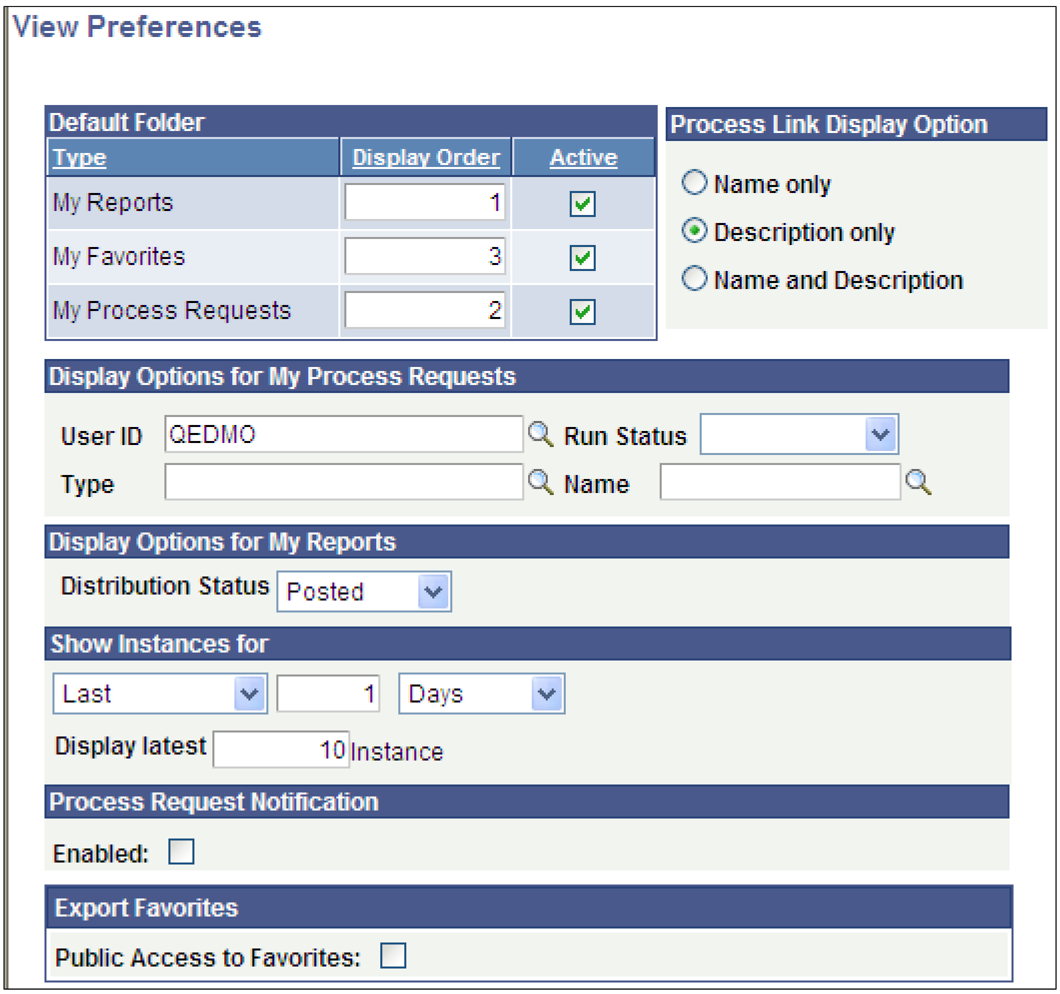
The Reporting Console is set up for each individual user. The first time a user accesses the Reporting Console, a link is displayed to set up reporting preferences. The user can also change preferences at any time using the Preference link.

Editing Display Preferences

To access the View Preferences page after the initial set up, select Reporting Tools > Reporting Console and click the Preference link.

Image: View Preferences page

This example illustrates the fields and controls on the View Preferences page. You can find definitions for the fields and controls later on this page.



Default Folder

The default folder section allows you to determine which folders to display and the order or the folders.

Display Order	Enter the numerical sequence for the folders.
Active Flag	Select this check box if you want the folder to appear in the Reporting Console.

Note: At least one folder must be marked as active.

Process Link Display Option

Use this section to customize the display for My Favorites.

Name Only	Select this radio button to display only the process name.
Description Only	Select this radio button to display only the process description.
Name and Description	Select this radio button to display both the process name and process description.

Display Options for My Process Requests

Use this section to customize the display for My Process Requests.

User ID	Select the user ID to display.
Run Status	Select the run status to display. Leave blank to display all statuses.
Type	Select the process type to display. Leave blank to display all process types.
Name	Select a specific process name to display. The process names available are based on the type selected. Leave blank to display all names.

Display Options for My Reports

Use this section to customize the display for My Reports.

Distribution Status	Select the distribution status to display. By default, report instances with distribution status *Posted* are displayed.

Show Instances for

These settings apply to folders where report or process instances are displayed.

Last or Date Range	Specify an interval of time by which to limit the process requests that appear in the list. Select *Last* to display only those reports that were created in the last number of days, hours, years, or minutes. Enter a custom numerical value in the field and then select a unit type: *Days*, *Hours*, *Years*, *Minutes*, or *All*. If you select *All*, the time interval fields will be grayed out and all process requests will appear.

	Select *Date Range* to display only those reports created between two specific dates. Enter a From date and a To date.
Display Latest	Enter the number of instances to display.

Process Request Notification

Enabled	Select this check box to receive a pop up confirmation message when a process is submitted. **Note:** This notification setting does not apply to nVision process requests submitted from the Reporting Console.

Export Favorites

Public Access to Favorites	Select this check box to allow other users to import bookmarks from their My Favorites folder

Using My Favorites

This section provides an overview of My Favorites folder.

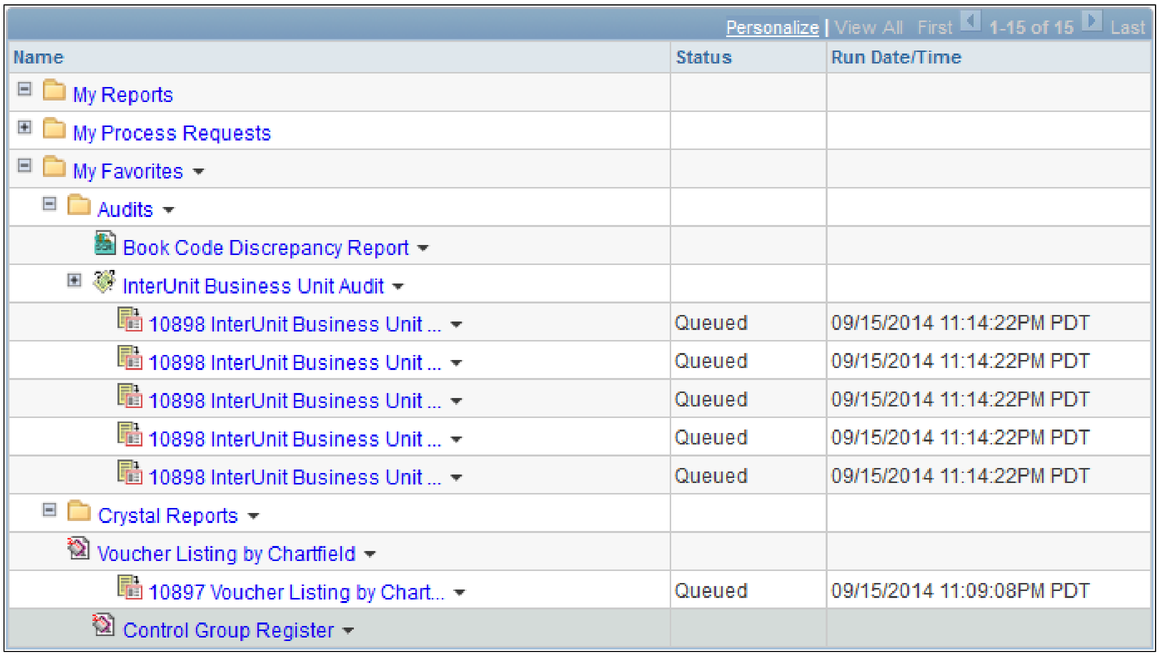
Understanding My Favorites Folder

Within the My Folders folder, users can build their own hierarchy of sub-folders to organize, access and monitor frequently accessed processes. Folders are used for organizing the processes and bookmarks are used to edit or run processes or jobs. When you add a process bookmark, the system will automatically add the appropriate links based on your permission to the process or job.

This is an example of My Favorites configured with some sub-folders and bookmarks.

Image: My Favorites folder

This example illustrates the fields and controls on the My Favorites folder. You can find definitions for the fields and controls later on this page.



Folders

Plus or minus icons will appear next to a folder if it contains any sub-folders or bookmarks, use these icons to expand and collapse the folder. Collapsing and expanding the folder will also refresh the contents.

For each sub-folder that is added, an Add and Delete link is available.

Add	Use the Add link to add sub-folders or process bookmarks within the folder.
Delete	Use the Delete link to remove the folder. Only empty folders can be removed.

Bookmarks

Plus or minus icons will appear next to a bookmark if it contains any process instances, use these icons to expand and collapse the bookmark folder. The bookmark will display process instances run by the logged on user.

For each process bookmark, the system will display a Delete link. The Edit or Run links depend on the users permissions.

Edit	The Edit link will be available next to the bookmark if user has permission to edit the process definition.

	Note: In PeopleTools 8.50, you can not create a private query and a public query with the same name in PeopleSoft Pure Internet Architecture, however if a query is created using the legacy window client PSQuery, this occurrence may still exist. If a public and private query exist with the same name, the Edit link for the query will open the private query.
Run	The Run link will be available next to the bookmark if user has permission to run this process. **Note:** For process definitions, the process definition must have generic prompting enabled in order to run the report from the Reporting Console.

Process Instance

After you run reports defined in My Favorites, the process instance is displayed in the bookmark folder, showing the current status.

View	For process instances, click this link to display the process instance details in the Process Monitor.

Note: The view link does not work for BIP reports, use Report Manager or BIP Report Search.

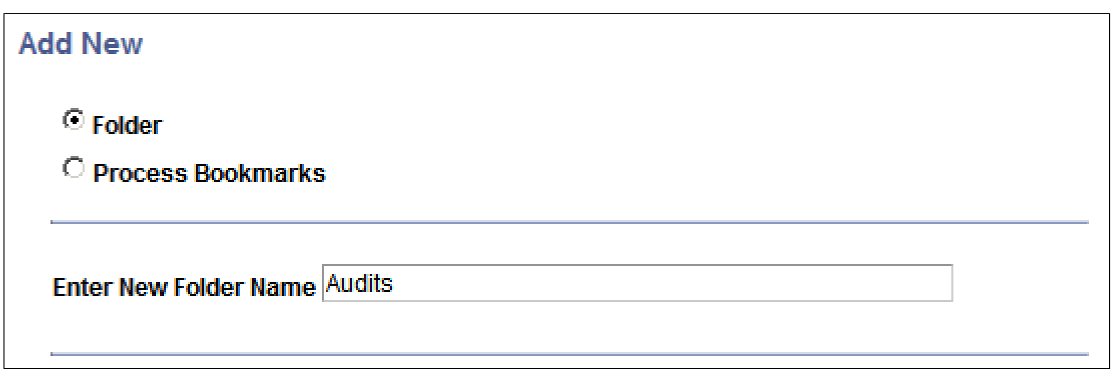
Adding Folders

To add a folder:

1. On the Reporting Console page, go to the My Favorites section and click the arrow. Select Add ..
2. In the Add Folder / Process Bookmark page, select the Folder radio button.

   Image: Add a new folder page

   This example illustrates the fields and controls on the Add a new folder page.

3. Enter the new folder name and click OK.

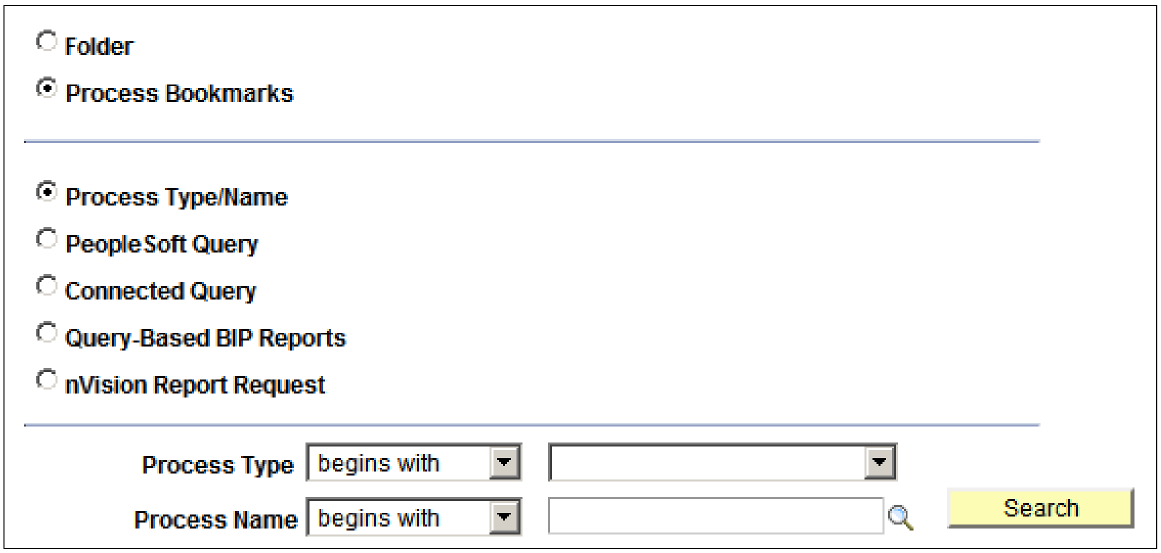
Adding Process Bookmarks for Processes

To add a process bookmark:

1. From the Reporting Console home click the Add link for next to the folder where you want to add the process bookmark.
2. Select the Process Bookmarks radio button.

   Image: Add New Process Bookmarks page

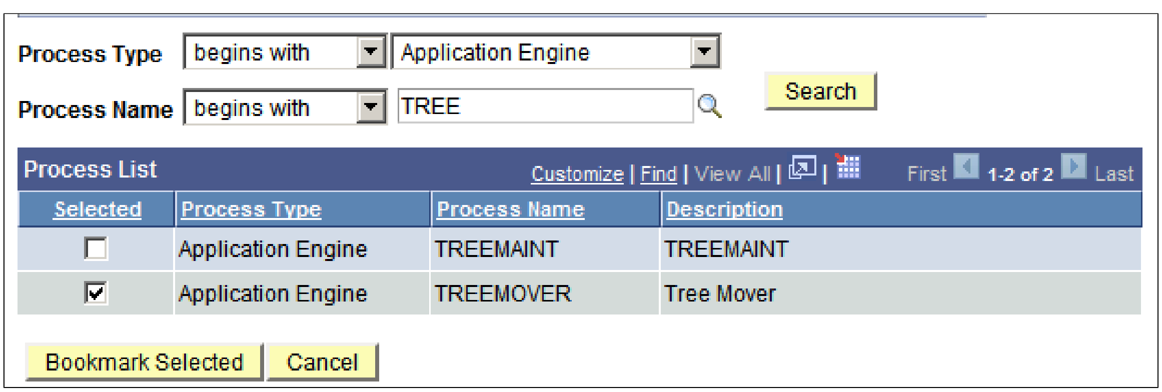
   This example illustrates the fields and controls on the Add New Process Bookmarks page.

3. Select the Process Type/Name radio button.
4. Select the Process Type.
5. Enter or select the Process Name.
6. Click the Search button and the Process List appears.
7. Select the check box for each process to bookmark.

   Image: Process List for selecting bookmarks

   This example illustrates the fields and controls on the Process List for selecting bookmarks.

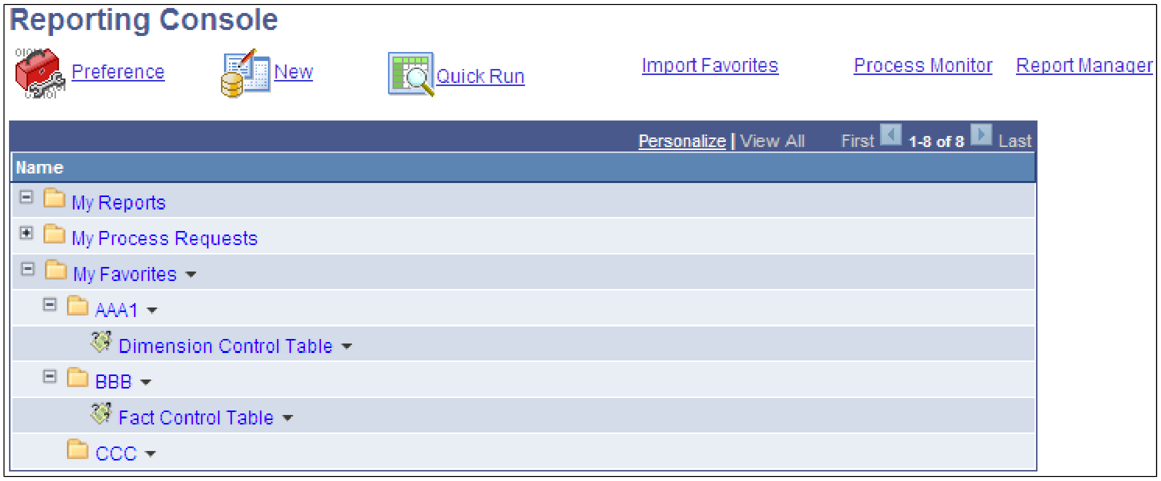
   

8. Click Bookmark Selected.

The process bookmarks appear in the My Favorites folder.

Image: My Favorites display showing Run link for Data Designer/database Audit

This example illustrates the fields and controls on the My Favorites display showing Run link for Data Designer/database Audit.



In order run a process from the Reporting Console, the process must have Enable Generic Prompting selected in the Process Definition Runtime Parameters page. If any runtime parameters are required for the process, they also need to be registered in the process definition.

In the preceding page shot, the Run link is displayed for Data Designer/database Audit because generic prompting is enabled. System Audit does not have a Run link because generic prompting was not enabled for that process or the current user does not have permission to run the report.

See Setting Runtime Parameters.

Adding Bookmarks for PSQuery, Connected Query, BIP Query-Based Reports or nVision Report Request

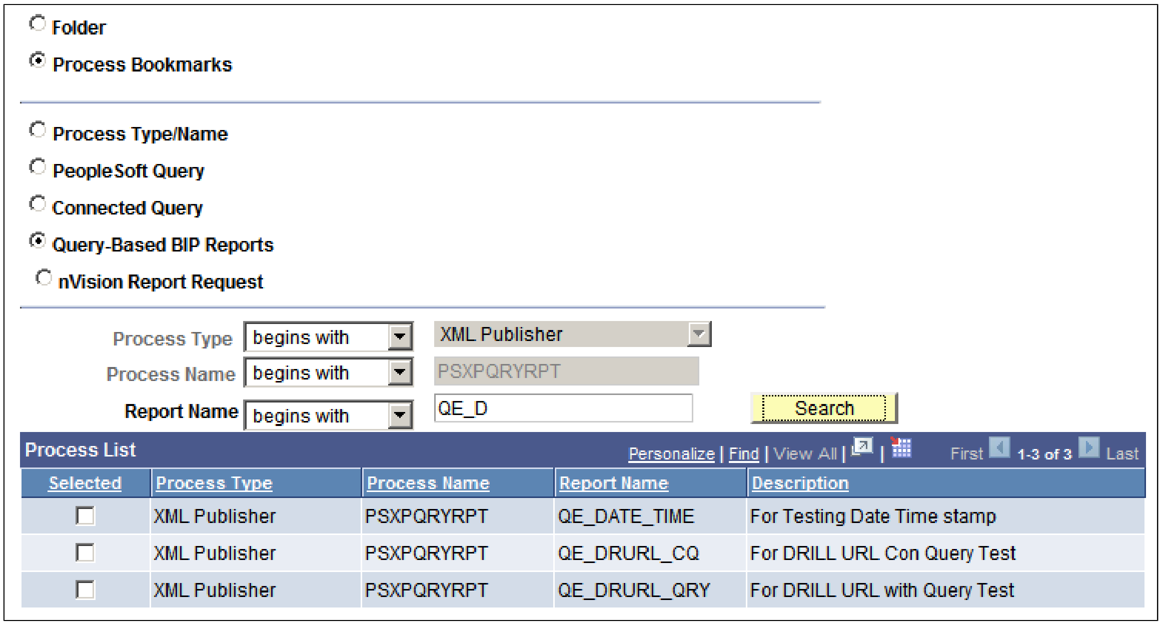
To add a process bookmark for a PSQuery, Connected Query, BIP Query-Based Reports or nVision Report Request:

1. From the Reporting Console home click the Add link for My Favorites.
2. Select the Process Bookmarks radio button.
3. Select the radio button for the type of report (PeopleSoft Query , Connected Query, Query-Based BIP Reports or nVision Report Request).

   The Process Type and Process name will be displayed in read-only format for the selected process type:

Image: Query-Based BIP Reports list

This example illustrates the fields and controls on the Query-Based BIP Reports list.



4. Depending on the non-unique process an additional edit box is available to refine your report search as listed in this table:

Process Name	***Additional Edit Box***
PeopleSoft Query	Query Name
Connected Query	Name
Query-Based BIP Report	Report Name
nVision Request	Report ID

Note: You could also use the Find link in the process list grid to further refine your search criteria.

5. Select the check box for each process to bookmark.

6. Click Bookmark Selected.

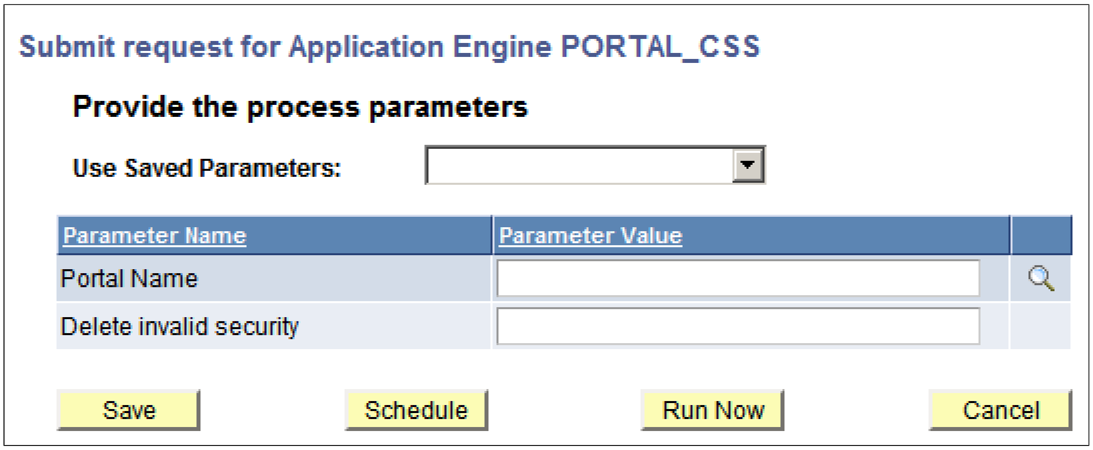
Running Requests

The Run link will be available next to the bookmarked process if the user has permission to run the process from the Reporting Console. The submit request page will differ based on the bookmark type and whether or not the process requires prompts. All of the submit pages will have the same buttons.

The submit request page appears. If the selected process has run control parameters defined, the parameters appear.

Image: Submit Request for application engine program PORTAL_CSS showing generic prompting parameters

This example illustrates the fields and controls on the Submit Request for application engine program PORTAL_CSS showing generic prompting parameters. You can find definitions for the fields and controls later on this page.



Use Saved Parameters

If you have previously run the process and saved parameters, you can select the saved parameters from the drop down list.

When a user selects one of the run control IDs from the drop down list, the system retrieves and populates the parameters values from the run control record and fields according to the parameters registered on the process definition.

Note: For non-unique prompting (PSQuery, Connected Query and BIP Query-based reports), keep in mind the saved run control may not apply to the report you are attempting to run and therefore will not display the appropriate prompts.

Parameter Value

Enter values for each parameter.

Save

Use this button to save the parameter values entered. You will be prompted to enter a name.

You can save the parameter values without submitting the process to run.

Note: All required parameter values must be completed in order to save the run control ID. Only values defined for run control records will be saved.

Schedule

Use this button to run the process through the Process Schedule. The Submit Process page will appear.

See Scheduling Process Requests.

Run Now

Use this button to submit the process to run using the default process output type and format (the Submit Process page will not be displayed)

	Note: A real-time event notification (REN) server must be configured and running for this option. See Defining Event Notifications and Configuring a REN Server. **Note:** This option is not currently supported by BIP Reports.
Cancel	Use this button to cancel the request.

Generic Prompting

The Reporting Console uses generic prompting to submit a process request. Users will enter parameters or retrieve saved parameters before submitting the request. The process or job must have Enable Generic Prompting enabled in the process or job definition for the Run link to be available from My Favorites.

Note: The prompt button is disabled for the run control record field that do not have a matching prompt record.

See Setting Runtime Parameters.

See Setting Job Runtime Parameters.

Non-Unique Prompting

Runtime prompts for PSQuery, Connected Query and BIP Query-based reports are not registered on a process definition. All of these are query based, therefore, the runtime prompts are determined by the prompts created for the query.

When any of these types of processes are run from the Reporting Console, the user will be prompted for query parameters if they exist. If there are no query parameters, the query prompting dialog is skipped. The query prompting page will mimic the prompting associated with the specific process type selected.

Process Type	***Prompting page***
PSQuery	similar to Schedule Query page
Connected Query	similar to Schedule Connected Query page
BIP Query-based Report	similar to BIP Query Report Scheduler page

nVision Reports

All nVision reports can only be scheduled from the nVision Report Request page. When an nVision report is run from the Reporting Console, the nVision Report Request page is opened to submit the report.

Editing a Bookmark

Click the down arrow and then click Edit for the appropriate bookmark in My Favorites.

The appropriate definition is displayed to edit based on the bookmark type as shown in this table:

Process Type	***Page Displayed***
Process	Process Definition Runtime Parameters (PRCS_RUNCNTL_PARAM)
PSJob	Job Runtime Parameters (JOB_RUNCNTL_PARAM)
Query Definition	Query Manager (QRY_FIELDS)
Connected Query	Connected Query Manager (PSCONQRSBUILDER)
BIP Report Definition	BI Publisher Report Definition (PSXPRPTDEFN)
nVision Report Request	NVision Report Request (NVS_REPORT_RQST)

Deleting a Bookmark

To delete a bookmark,

1. Click the down arrow and then click Delete.
2. Click OK to confirm deletion.

Organizing Favorites

You can organize your folders in the My Favorites list based on your requirements. You can reorganize folders in the following ways:

- Reorder the position of a folder in the My Favorites list.
- Move the folder to a different folder as child
- Reorder the position of the process bookmark as sibling
- Move process bookmark to another folder as child

Move folders and bookmarks

You can move a folder to another position in a particular level or folder. To re organize,

- Hover the mouse over the folder you want to move. The folder is highlighted.
- Drag and drop the folder to the level where you want it placed.

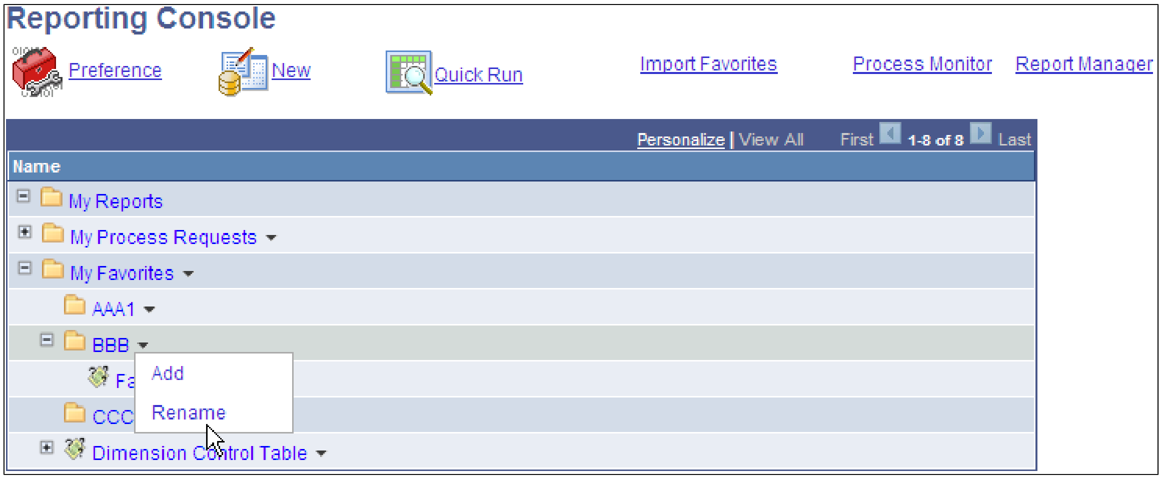
Note: The selected level is highlighted in yellow.

Renaming Folders

You can rename a folder in the My Favorites list.

Image: Rename Folder

This example illustrates the fields and controls on the Rename Folder.



1. Click the arrow and select Rename.

   The Add Folder / Process Bookmark page is displayed.

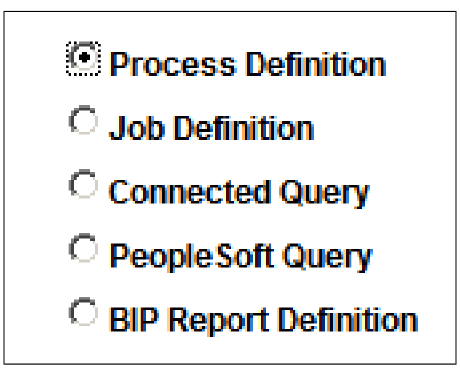
2. In the Enter New Folder Name box, enter the name of the new folder and click OK.

Creating New Definitions

Click the New link on the Reporting Console to create new report definitions.

Image: New page displaying options for creating new report definition type

This example illustrates the fields and controls on the New page displaying options for creating new report definition type.



Note: Theses actions are only available to users who have administrative rights to add the specified definitions.

You will be transferred to the appropriate page based on the radio button that is selected as shown in this table:

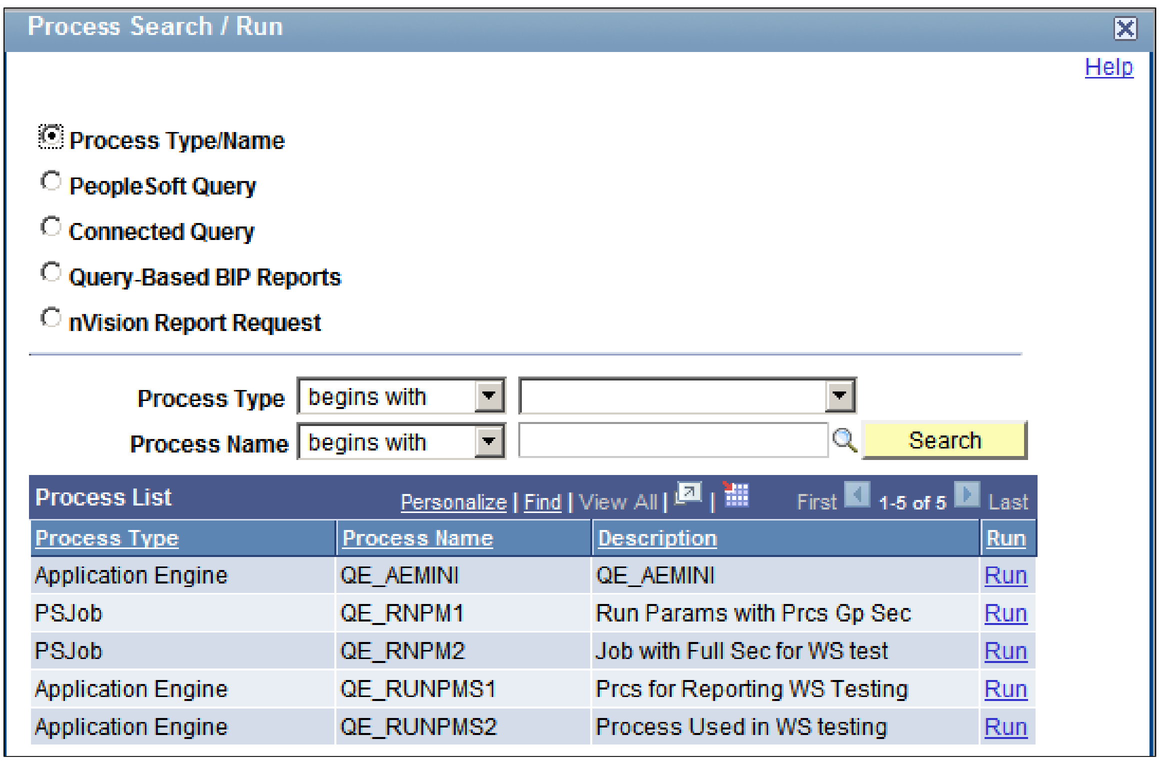
Process	*Page Displayed*
Process Definition	Process Definition Add page
Job Definition	Job Definition Add page
Connected Query	Connected Query Manager (PSCONQRSBUILDER)
Query Definition	Query Manager (QRY_SELECT)
BIP Report Definition	BI Publisher Report Definition Add page (PSXPRPTADD)

Running a Quick Report

Click the Quick Run link on the Reporting Console to run a report that does not have a bookmark.

Image: Process Search / Run page

This example illustrates the fields and controls on the Process Search / Run page.



The Quick Run link provides an option for a user to submit a process to run without having to bookmark it. Enter the search criteria and click Search. The search results will only display jobs and processes that:

- Have the generic prompting enabled.
- The user has permission to run in Reporting Console.

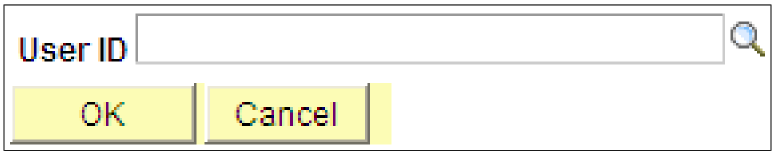
Importing Favorites

Click the Import Favorites link to transfer process bookmark from another user.

Note: You can import process bookmark only if permission is granted for the folder.

Image: Import Favorites

This example illustrates the fields and controls on the Import Favorites.



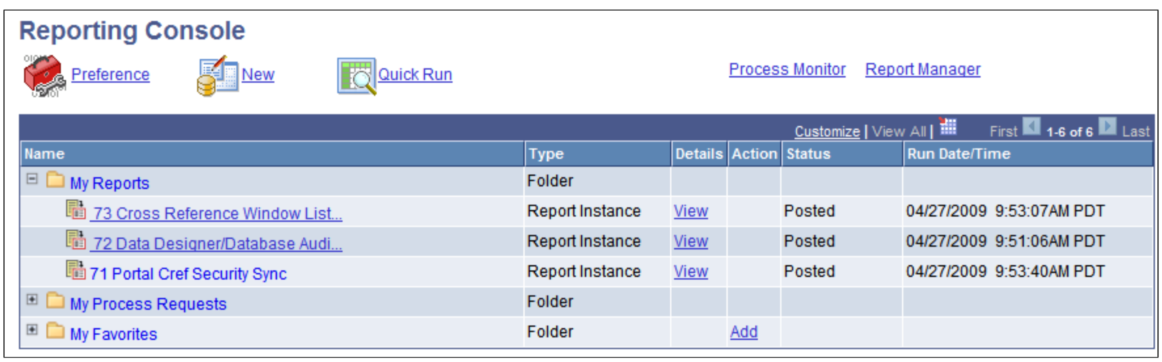
- Enter the user ID from where you intend to import the folder and process bookmarks.
- Users who have defined Process Bookmarks are displayed in the list. Select the user from the list and click OK to transfer the folder.

Using My Reports Folder

This folder is intended to alert users to newly shared reports, similar to an email inbox. Entries to this folder are always made by the system. The reports a user has access to will display in chronological order.

Image: My Reports folder

This example illustrates the fields and controls on the My Reports folder.



The View link next to the report will display the report instance details.

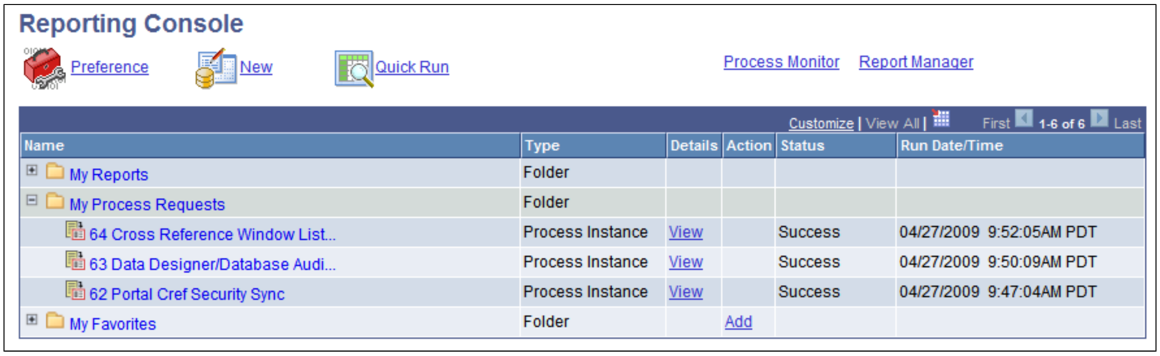
If a report is posted to the report repository, the report name will provide a link to open the report.

Using My Processes Folder

Based on the preferences selected, processes will be displayed in the My Processes folder in the Reporting Console.

Image: My Processes folder

This example illustrates the fields and controls on the My Processes folder.



To view process details, click the View link for the process.

Chapter 9

Setting Server Definitions

Understanding Server Definitions

Server definitions are created to help balance your workload on the system by identifying certain servers to perform processes. You determine which processes you want to schedule through PeopleSoft Process Scheduler and identify servers that you want slated to run specific types of processes. For example, you might want to have one server called RPTSRV to manage all reports and another to manage all journal posting.

To ensure that jobs continue processing without interruption and that they run on time after a hardware or software failure hosting a PeopleSoft Process Scheduler Server Agent, you can automatically reassign requests to an available agent based on the value that is selected for the Redistribute Workload option.

Creating Server Definitions

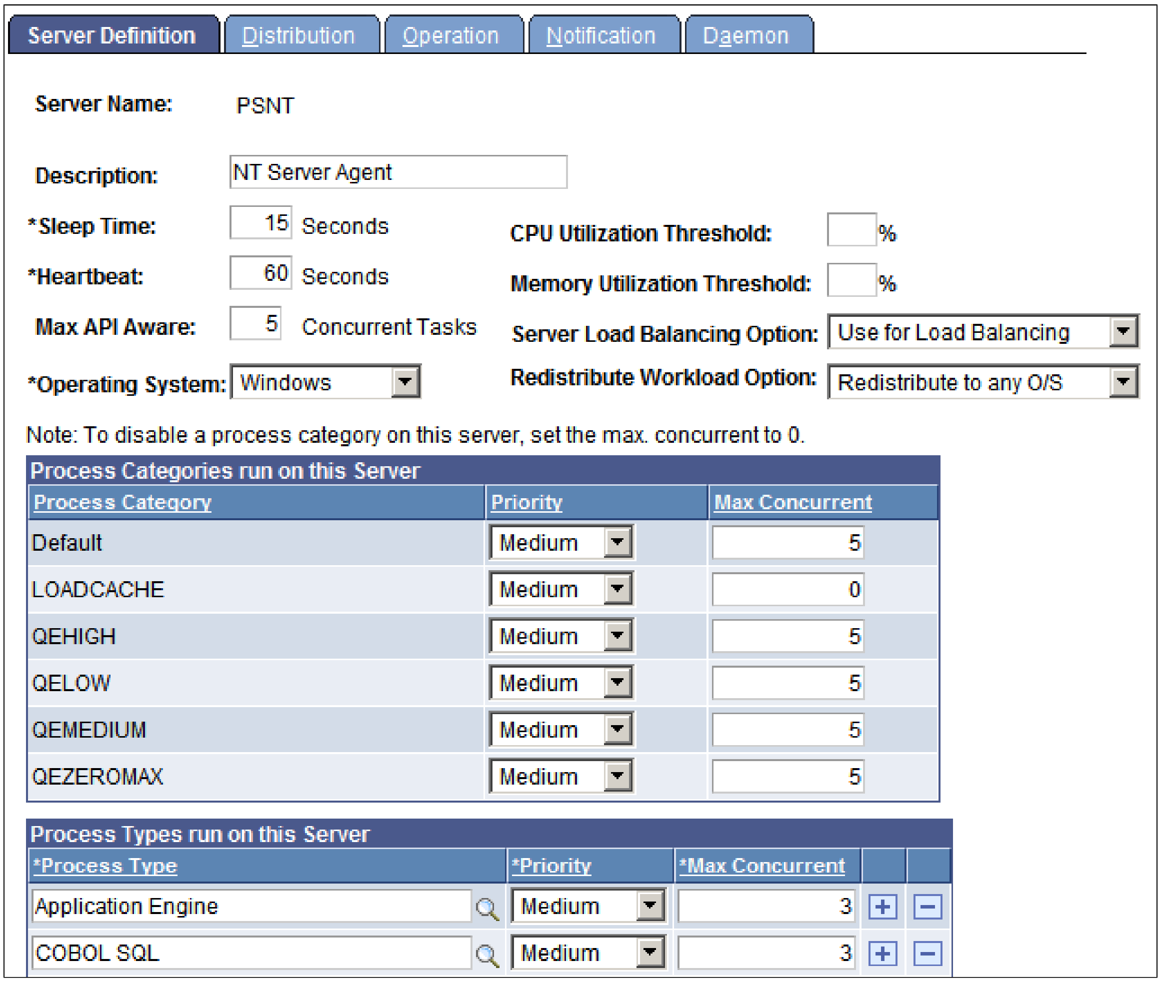
This section discusses determining and defining servers for performing specific processes.

Defining Servers

To access the Server Definition page, select PeopleTools > Process Scheduler > Process Scheduler Servers > Server Definition.

Image: Server Definition page

This example illustrates the fields and controls on the Server Definition page. You can find definitions for the fields and controls later on this page.



Sleep Time

Enter a sleep time, in seconds, for this server.

The PeopleSoft Process Scheduler Server Agent should not run continuously. To control its activity, you can schedule a sleep time, which refers to the number of seconds that you want the agent to wait, or sleep, before it checks for queued process requests in the Process Request table. When it *wakes*, it checks to see whether any processes have been queued in the Process Request table and need to be run on this process server.

For example, if you set the sleep time to *15* seconds and no process is queued, it wakes every 15 seconds and checks for queued processes. If it finds some, it processes as much as possible in 15 seconds and then goes back to sleep. If the work is not completed, it continues from the point at which it stopped for the next 15 seconds, and then goes back to sleep. The sleeping and polling process continues until a database or server administrator manually shuts down the agent.

Note: Depending on the server platform, you typically do not set the sleep time at fewer than 10 seconds. Between 15 and 30 seconds is generally recommended for most PeopleSoft applications. The maximum sleep time is 9,999 seconds (about 2 hours and 26 minutes).

Heartbeat	Enter a time interval, in seconds, for issuing a *heartbeat* message. The PeopleSoft Process Scheduler Server Agent uses this value to track server status—running, down, or suspended. Each time the server issues a heartbeat message, it updates the last date and time stamp in the Server Status table with the current date and time. This prevents the database from accepting more than one PeopleSoft Process Scheduler Server Agent with the same name.
Max API Aware (maximum application programming interface aware tasks)	Enter the maximum number of API-aware tasks that can run concurrently on this server. An API-aware task is a process that properly updates its process status through the type-specific API that is provided, such as SQR, and COBOL. It is the responsibility of the application process to update the Process Request table with status information. **Note:** PSJob is not a valid process type to be considered in Max Concurrency and Process Type priority. PSJob is a container of processes and other PSJobs.
Operating System	An error message appears if you attempt to start the server agent on an operating system that is different from the operating system specified here.
CPU Utilization Threshold (%)	Enter a percentage threshold. If the amount of CPU utilization exceeds this threshold, the scheduler's status will change to *Overload* and it will wait to launch any new processes. The Process Monitor - Server List page displays the current CPU utilization and the threshold value that is entered here.
Memory Utilization Threshold (%)	Enter a percentage threshold. If the amount of memory utilization exceeds this threshold, the scheduler's status will change to *Overload* and it will wait to launch any new processes. The Process Monitor - Server List page displays the current memory utilization and the threshold value that is entered here.
Server Load Balancing Option	Select *Use Option* or *Do Not Use Option.* When you select *Do Not Use Option,* the server takes a request only when the name of the server has been specified on the Process Request page or in any of the definition tables.

	The distributor does not assign a request to this server when the server name in the request is blank.
Redistribute Workload Option	Select *Do Not Redistribute, Redistribute to any O/S,* or *Redistribute to Same O/S.* When you select the option to redistribute, another active agent can take a request that is originally assigned to this server. When this agent detects that one of the other active agents is no longer active and the server is set up to allow work to be distributed, it takes any queued request that was assigned to the inactive agent and redistributes it, based on the available active agents.

Note: After creating the server definition, you must configure the PeopleSoft Process Scheduler Server using PSADMIN.

Process Categories run on this Server

Priority	Select *High, Medium* or *Low* to prioritize all processes belonging to the corresponding process category that are queued to run on a server.
Max Concurrent	Enter the maximum number of the processes belonging to the corresponding process category that can run concurrently on this server. Max Concurrent is similar to Max API Aware, except that it controls how many processes of a process class can run concurrently on the server.

Warning! The processes that are contained in the categories must be of a type that are listed to run on the server. If the process type of a process is not listed, the process will not run.

Note: To disable a process category on this server, set the Max Concurrent value to *0.*

Note: Parallel LoadCache has been assigned to the LOADCACHE process category. That means it will run only on servers that have a LOADCACHE process category whose MaxConcurrent value is greater than 0.

See Defining Process Categories.

Process Types Run on this Server

Process Types	Select the process types that the server should process. This selection enables server load balancing because you can direct particular processes to a specific server.
Priority	Select *High, Medium,* or *Low* to prioritize all processes that are queued to run on a server.
Max Concurrent	Enter the maximum number of the corresponding process class that can run concurrently on this server. Max Concurrent is

similar to Max API Aware, except that it controls how many processes of a process class can run concurrently on the server.

Note: Each *Winword* instance that is initiated shares the common Winword template NORMAL.DOT. Therefore, some instances may encounter an error message when multiple *Winword* instances are initiated. The Max Concurrent value for the process type *Winword* should be set to *1* as a precautionary step to prevent this problem.

Important! Do not use the Max Concurrent field on the Server Definition page to specify the maximum number of concurrent processes for a *PSJOB.* To configure the maximum concurrent parameter for any given job, use the Max Concurrent field on the Job Definition page.

See PeopleTools Installation Guide for your database platform.

Related Links

Understanding Process Request APIs

Setting Distribution Options

To access the Distribution page, select PeopleTools > Process Scheduler > Servers > Distribution.

Use the Distribution page to change the settings that the server uses to transfer output to Report Manager.

Distribution Node Name	Select the name of the report node.
Maximum Transfer Retries	Enter the number of times that the server can try to send a report to Report Manager before it quits.
Interval for Transfer Attempt	Enter the number of seconds that must pass before the server tries to transfer the report again.
Transfer System Files to Report Repository	Select to transfer system files to the Report Repository. For a non-Web output type, if this check box is cleared the link to system files on the report list page will be disabled.

Related Links

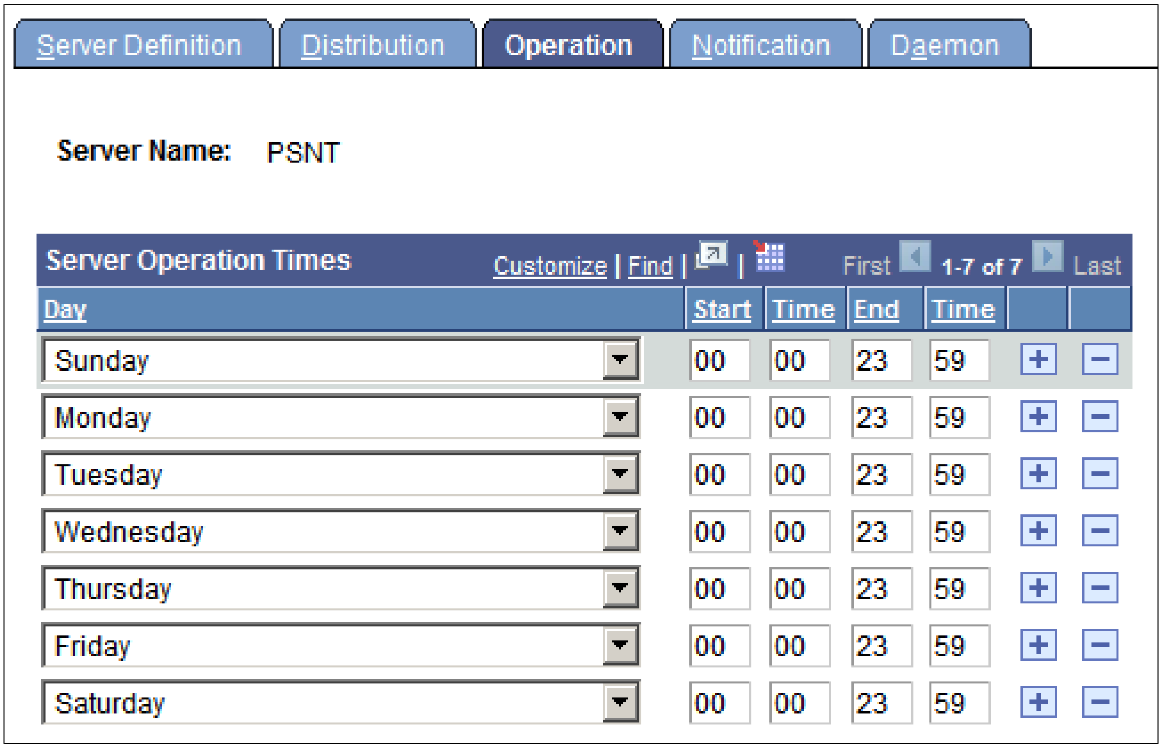
PeopleSoft Process Scheduler Architecture

Setting Operation Times

To access the Operation page, select PeopleTools > Process Scheduler > Servers > Operation.

Image: Operation page

This example illustrates the fields and controls on the Operation page.



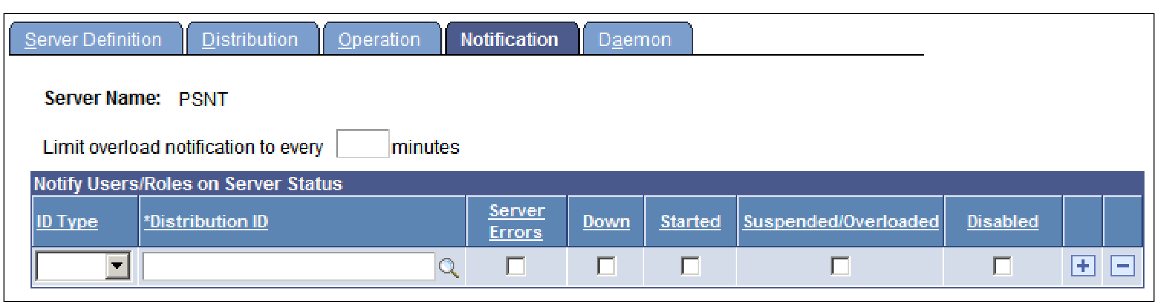
Specify the days and times during which the server is operational. The preceding sample page shows a server that is operational 24 hours a day and seven days a week.

Setting Notification Options

To access the Notification page, select PeopleTools > Process Scheduler > Process Scheduler Servers > Notification.

Image: Notification page

This example illustrates the fields and controls on the Notification page. You can find definitions for the fields and controls later on this page.



Use the Notification page to send messages to a group (role ID) or individuals (user ID) when an activity occurs with the server, such as an error or shutdown.

Limit overload notification to every *n* minutes	Enter the schedule for sending notification email when the server is overloaded.

ID Type	Select *User* or *Role.*
Distribution ID	Select the actual user ID or the group of users.
Server Errors	Select to notify the user or group when an error occurs. When this is selected, error notification for processes or jobs will be sent when a process or job goes to Error. This setting does not generate success or warning notifications. Success or warning notifications have to be individually configured in the process or job definition.
Down	Select to notify the user or group when the server shuts down.
Started	Select to notify the user or group when the server is started.
Suspended/Overloaded	Select to notify the user or group when activity on this server is suspended or overloaded. Notification is only sent when CPU utilization or the memory utilization is exceeded.
Disabled	Select if you do not want to send notifications to the user or group.

Server Notification Examples

If you enter an ID Type and Distribution ID, then—depending on the check boxes selected—notifications will be sent to the appropriate roles or users. Notifications are sent based on the Limit overload notification to every n minutes value. If this field is left blank, the process scheduler server sends a notification every cycle. If a value is entered, the notification is sent every *n* minutes. This table provides examples of the notifications sent based on the check boxes selected:

Check Box Selected	***Notification Sent When***	***Notification Message***
Server Errors	A process by the server goes to error.	Message example: The Process Instance (252 - Process (XRFWIN) failed to complete successfully)
Down	Process Scheduler is shut down.	The Process Scheduler Server Agent <process scheduler server name> for database <database name> was shut down in server <machine name>.
Started	Process Scheduler is started.	The Process Scheduler Server Agent <process scheduler server name> for database <database name> was started in server <machine name>.

Check Box Selected	Notification Sent When	Notification Message
Suspended/Overloaded	Either CPU Utilization Threshold or Memory Utilization (as specified in Server Definition page) is exceeded. **Note:** The only time the process scheduler is suspended is when it is suspended from the Process Monitor page. Suspending the process scheduler does not generate an email notification.	Process Scheduler Server Agent <process scheduler server name> has exceeded the CPU Threshold.
Disabled	No notification is sent to this Distribution ID.	Not applicable.

Setting Daemon Process Options

To access the Daemon page, select PeopleTools > Process Scheduler > Process Scheduler Servers > Daemon.

A daemon process is an Application Engine process that runs continuously when PeopleSoft Process Scheduler is operational. It triggers other application engine processes based on the daemon group that is entered.

Daemon Sleep Time

Schedule a sleep time to control the activity of the process. Because the daemon is a process that runs in the background, it should not run continuously. A sleep time is the number of minutes for which the daemon process sleeps, or waits, before it checks for work. When it *wakes,* it checks for processes that have been and need to be run on this process server.

Recycle Count

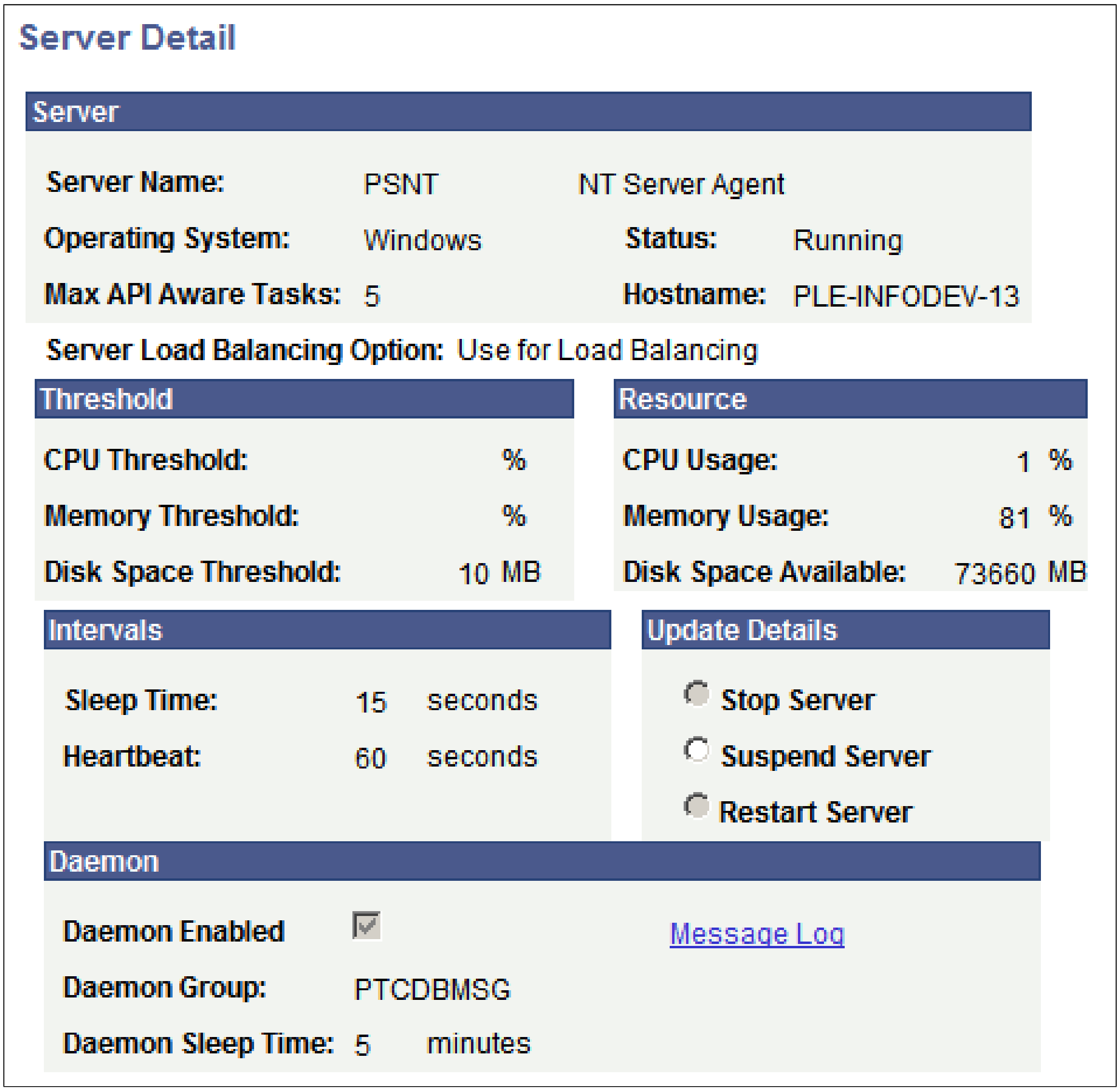
A cycle is the sequence of sleeping and working. The system automatically counts the number of times that it sleeps and works. When it reaches the recycle count value, the daemon process reboots itself.

Monitoring a Daemon Process

To access the Sever Details page, select PeopleTools > Process Scheduler > Process Monitor > Server List > Details.

Image: Server Detail page

This example illustrates the fields and controls on the Server Detail page. You can find definitions for the fields and controls later on this page.



Use the Process Monitor to monitor messages that are issued directly by the daemon and messages that are issued by the application engine programs that the daemon initiates.

To monitor a daemon process:

1. Select PeopleTools > Process Scheduler > Process Monitor.
2. Select the Server List page.
3. Click the Details link that is associated with the required process.

   The Server Detail page appears, displaying information about the server and daemon group.
4. Click the Message Log link, located in the Daemon group box.

The Message Log page appears. A Delete button is located on this page, but it remains hidden when the daemon is running. When the Delete button appears, click it to delete all of the messages in the log.

5. Click the Return button to return to the Server Detail page.

6. Click the Cancel button to return to the Server List page.

   Click the OK button if you have stopped, suspended, or restarted the server.

Related Links

Viewing Server Details

Defining Report Nodes

This section provides an overview of report distribution nodes and the transfer protocols available such as XCopy, FTP, FTPS, SFTP or HTTP and HTTPS.

Understanding Report Distribution Nodes

The report distribution node defines how your reports are moved to the Report Repository, where you can view them from Report Manager. Reports are moved using XCopy, FTP, FTPS, SFTP or HTTP and HTTPS, depending on the type of server that you are using.

Before transferring the files to the Report Repository, determine which transfer protocol to use.

Setup	***Transfer Protocol***
Both PeopleSoft Process and Web server on Microsoft Windows.	Use XCopy, FTP/FTPS, SFTP or HTTP/HTTPS. **Note:** For XCopy, the Report Repository directory must be a shared drive on the network.
PeopleSoft Process Scheduler on Microsoft Windows and a UNIX Web server.	Use FTP/FTPS,SFTP or HTTP/HTTPS.
PeopleSoft Process Scheduler on OS/390.	Use FTP/FTPS or HTTP/HTTPS.

Note: If you are using FTP/FTPS or SFTP, the corresponding daemon must be set up on the Web server.

Common Element Used to Define Report Nodes

Node Name Enter a name for the node. The node name must be unique and must begin with a character and may contain up to 30 characters.

Protocol Specify the mode of transfer.

Validate

Click the Validate button after you have entered all the required information for the report node definition to check if the report node configurations are correct.

Note: The report node validation is independent of the running status of the Process Scheduler. It validates using the report node definition details in the database.

Note: While validating, a sample file gets created by PeopleTools and gets transferred through Report Node Definition properties. If the sample file does not get posted successfully, the validation will fail.

URL ID

Enter the URL of the Web server with this format:

http://<machine name>:<port number>/psreports/<PeopleSoft site name>

Replace <machine name> with the name of the machine.

Description

Enter a description of the node.

Operating System

Choose the operating system.

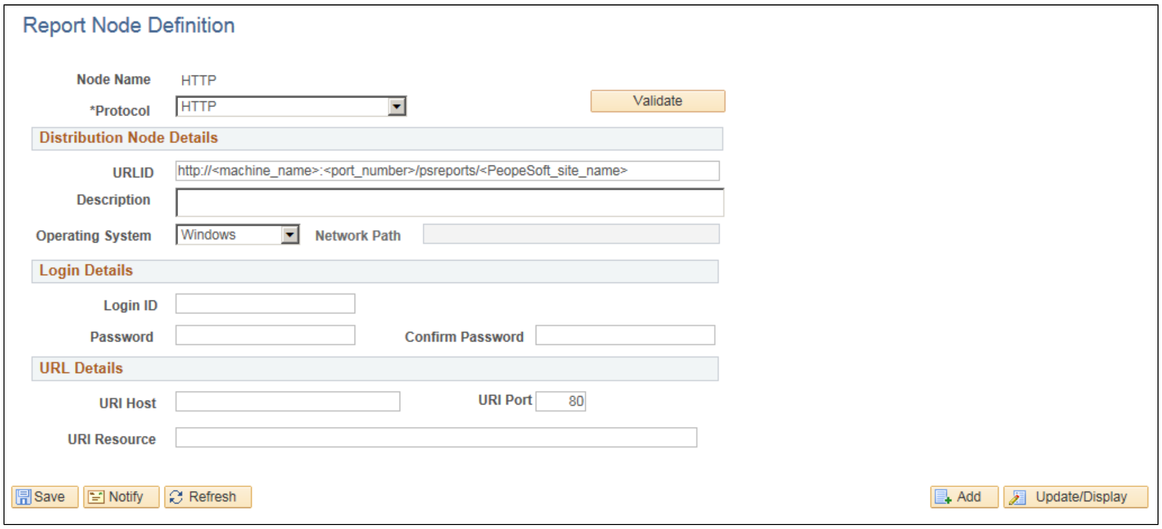
Defining HTTP Distribution Nodes

To access the Http Distribution Node page, select PeopleTools > Process Scheduler > Process Scheduler Report Nodes. From the Protocol list, select HTTP.

Note: You should use web server basic authentication when you configure the SchedulerTransfer servlet that is used by the report distribution system. Please see the install guide for details.

Image: Report Node Definition-HTTP page

This example illustrates the fields and controls on the Report Node Definition — HTTP page. You can find definitions for the fields and controls later on this page.



Login ID, Password, and **Confirm Password**

These are required only when the Web administrator has set up basic authentication on the Web server.

URI Host

Enter the machine name. If you are using PeopleSoft Process Scheduler for UNIX or OS/390, you must enter either the fully qualified name (for example, *ADHP04.example.com* or the IP address.

Warning! If you specify the Auth Token Domain name during the PeopleSoft Pure Internet Architecture installation, you must include a fully qualified domain name on the URL Host instead of the IP address. Otherwise, the Distribution Agent will not pass authentication.

URI Port

Enter the port number. This value must match the port number of the Web server. The default is *80*.

Note: If you change a port number, you lose the default value for the protocol.

URI Resource

Enter *SchedulerTransfer/<PeopleSoft site name>*.

Save

Click to save your entries. To add additional distribution nodes, click the Add button to return to the search page.

File Chunking

The Distribution Agent automatically breaks up a large file and sends it in multiple HTTP posts. For example, a 150 MB file can be sent in 10 × 15 MB, 15 × 10 MB, and so on.

To accommodate different hardware configurations (memory) and dissimilar Java Virtual Machine (JVM) tuning, two new parameters have been added to the PeopleSoft Process Scheduler section of the configuration file (prcs.cfg):

- Chunking Threshold
- File Chunk Size

These parameters enable clients to determine the most favorable configuration for their systems by trading off between the number of hits to the Web server when sending small chunks and memory usage due to sending large chunks.

Related Links

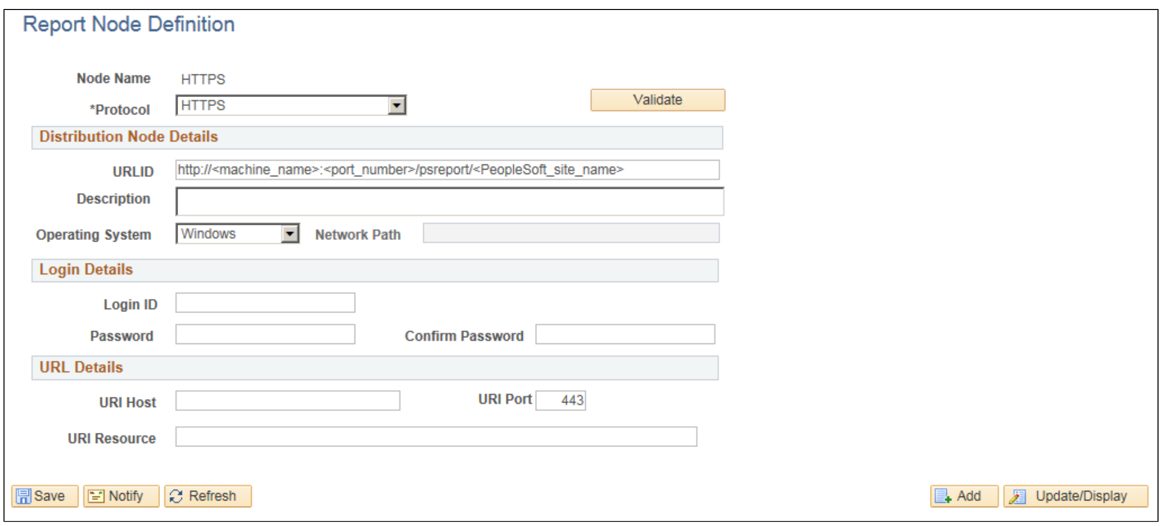
Understanding the Management of PeopleSoft Process Scheduler

Defining HTTPS Distribution Node

Access the HTTPS distribution node page. Select HTTPS from the Protocol list.

Image: Report Node Definition—HTTPS page

This example illustrates the fields and controls on the Report Node Definition — HTTPS page. You can find definitions for the fields and controls later on this page.



Login ID, Password, and **Confirm Password** — These are required only when the Web administrator has set up basic authentication on the Web server.

URI Host — Enter the machine name. If you are using PeopleSoft Process Scheduler for UNIX or OS/390, you must enter either the fully qualified name (for example, *ADHP04.example.com* or the IP address.

Warning! If you specify the Auth Token Domain name during the PeopleSoft Pure Internet Architecture installation, you must include a fully qualified domain name on the URL Host instead of the IP address. Otherwise, the Distribution Agent will not pass authentication.

URI Port

Enter the port number. This value must match the port number of the Web server. The defaults is *443*.

Note: If you change a port number, you lose the default value for the protocol.

URI Resource

Enter *SchedulerTransfer/<PeopleSoft site name>*.

Save

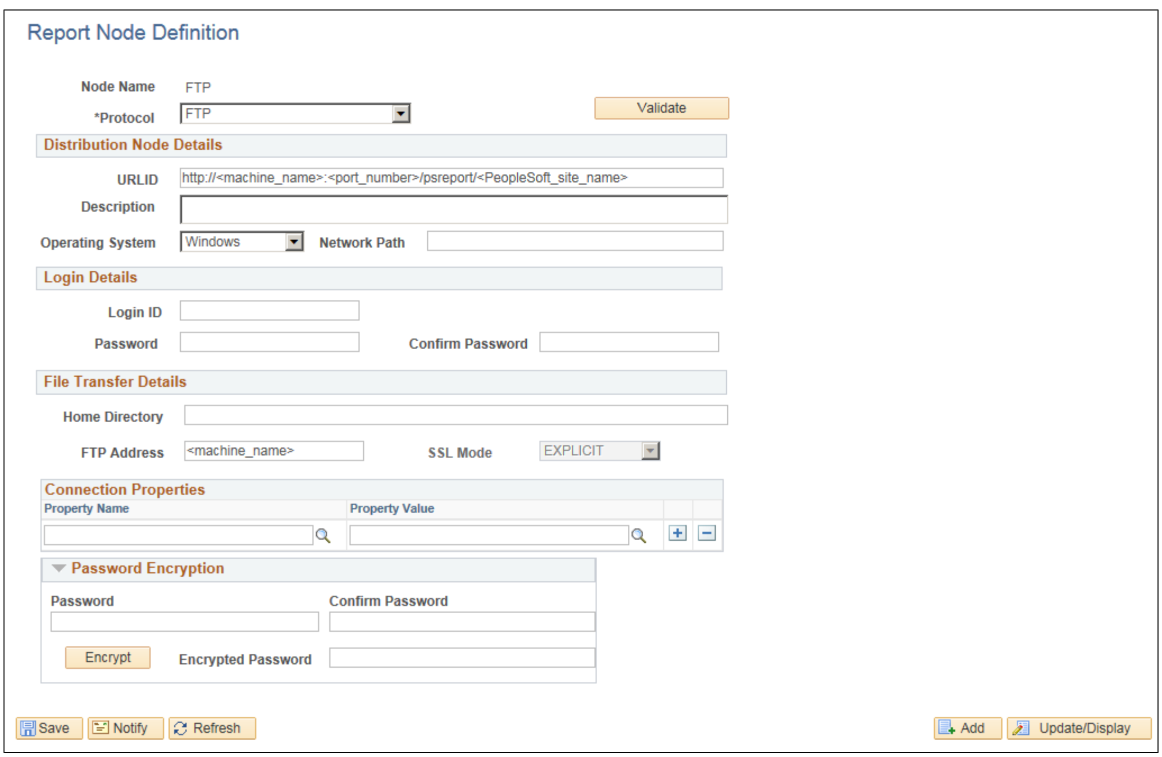
Click to save your entries. To add additional distribution nodes, click the Add button to return to the search page.

Defining FTP Distribution Nodes

To access the FTP distribution node page, select FTP from the Protocol List.

Image: Report Node Definition-FTP page

This example illustrates the fields and controls on the Report Node Definition—FTP page. You can find definitions for the fields and controls later on this page.



Home Directory

Enter the directory that is specified during the installation of PeopleSoft Pure Internet Architecture as the Report Repository.

Note: The FTP user ID must have write-access to this directory.

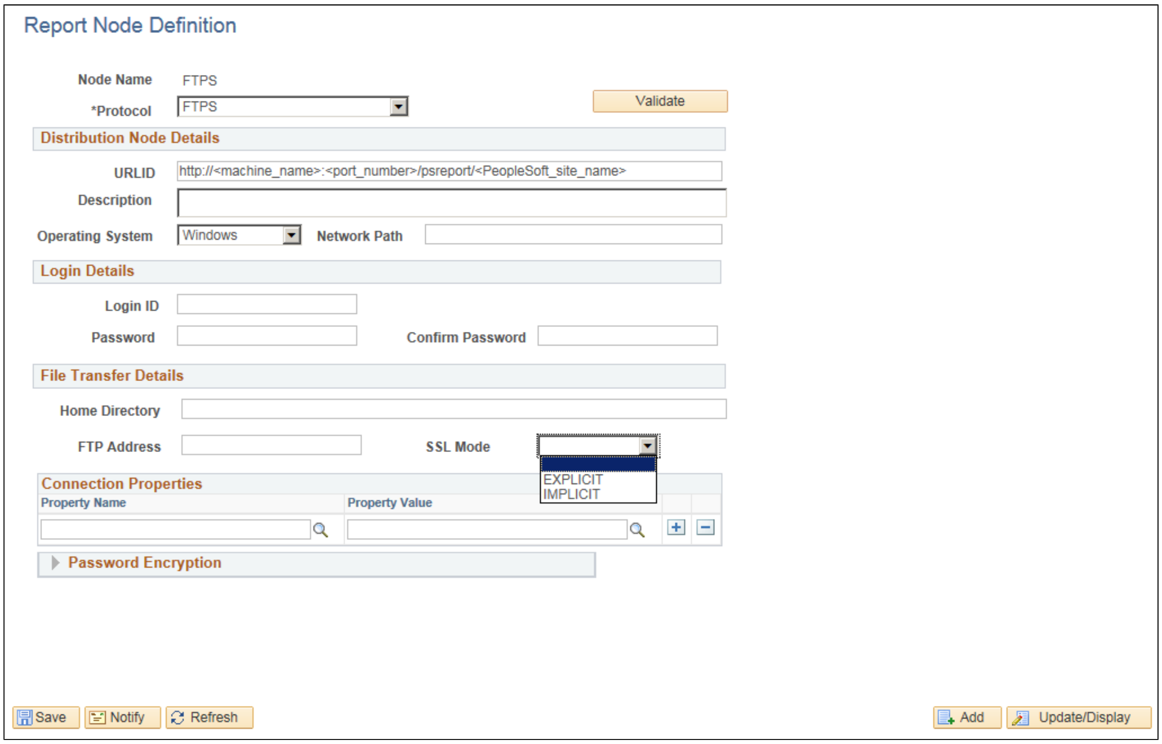
FTP Address	Enter the machine name or TCP/IP information for the Report Repository.
Login ID, and **Password**	Specify the FTP user ID and password.
SSL Mode	Specify the SSL mode. The SSL mode is Explicit for FTP mode of transfer and it cannot be changed. This can be changed for other modes like FTPS and SFTP.
(Optional) **Connection Properties**	Specify the connection property name and property value for FTP transfer. You must set the connection properties to configure the security modes such as, Active mode or Extended Passive mode of file transfer.
Password Encryption	Generate an encrypted password. 1. In the Password field, enter a password 2. In the Confirm Password field, enter the password again 3. Click the Encrypt button. The encrypted password displays in the Encrypted Password field. 4. From the Encrypted Password field, cut the encrypted password and paste it into the appropriate location.

Defining FTPS Distribution Node

To access the FTPS distribution node page, select FTPS from the Protocol List.

Image: Report Node Definition - FTPS page

This example illustrates the fields and controls on the Report Node Definition — FTPS page. You can find definitions for the fields and controls later on this page.



Home Directory

Enter the directory that is specified during the installation of PeopleSoft Pure Internet Architecture as the Report Repository.

FTP Address

Enter the machine name or TCP/IP information for the Report Repository.

Login ID, and **Password**

Specify the FTPS user ID and password.

SSL Mode

Specify the SSL mode.

(Optional) **Connection Properties**

Specify the connection property name and property value for FTPS transfer. You must set the connection properties to configure the security modes such as, Active mode or Extended Passive mode of file transfer.

Password Encryption

Generate an encrypted password.

1. In the Password field, enter a password
2. In the Confirm Password field, enter the password again
3. Click the Encrypt button.

   The encrypted password displays in the Encrypted Password field.

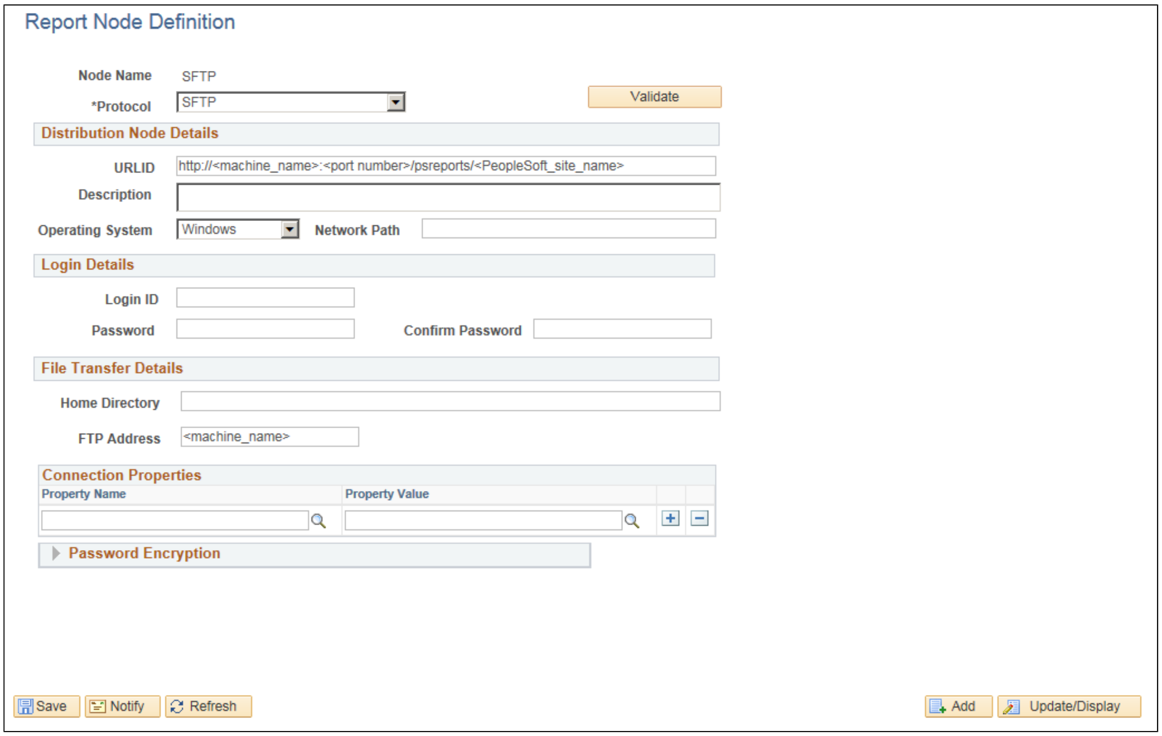
4. From the Encrypted Password field, cut the encrypted password and paste it into the appropriate location.

Defining SFTP Distribution Nodes

Access the SFTP distribution node page. Select SFTP from the Protocol list.

Image: Report Name Definition — SFTP page

This example illustrates the fields and controls on the Report Node Definition — SFTP page. You can find definitions for the fields and controls later on this page.



Login ID Password

Enter the SFTP log on credentials.

Home Directory

Enter the directory that is specified during the installation of PeopleSoft Pure Internet Architecture as the Report Repository.

Note: The FTP user ID must have write-access to this directory.

FTP Address

Enter the machine name.

(Optional) **Connection Properties**

Specify the connection property name and property value for SFTP transfer. You must set the connection properties to configure the security modes such as, Active mode or Extended Passive mode of file transfer.

You can also set the Certificate information,Keystore password, SSL usage level and Keystore path for this mode.

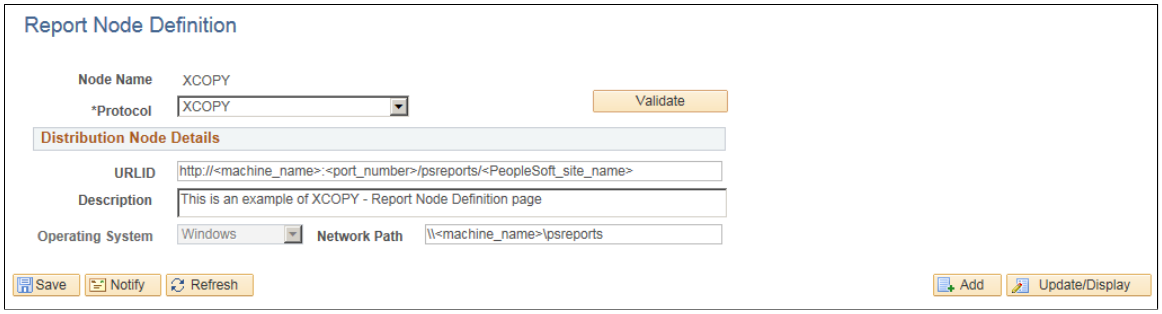
Defining XCopy Distribution Nodes

Access the XCOPY – Report Node Definition page. Select XCOPY from the Protocol list.

Select the XCOPY transfer mode when both the Process Scheduler and the Report Repository machines are on Windows.

Image: Report Node Definition - XCOPY page

This example illustrates the fields and controls on the Report Node Definition — XCOPY page. You can find definitions for the fields and controls later on this page.



Network Path

Enter the universal naming convention (UNC) path that points to the Report Repository, for example:

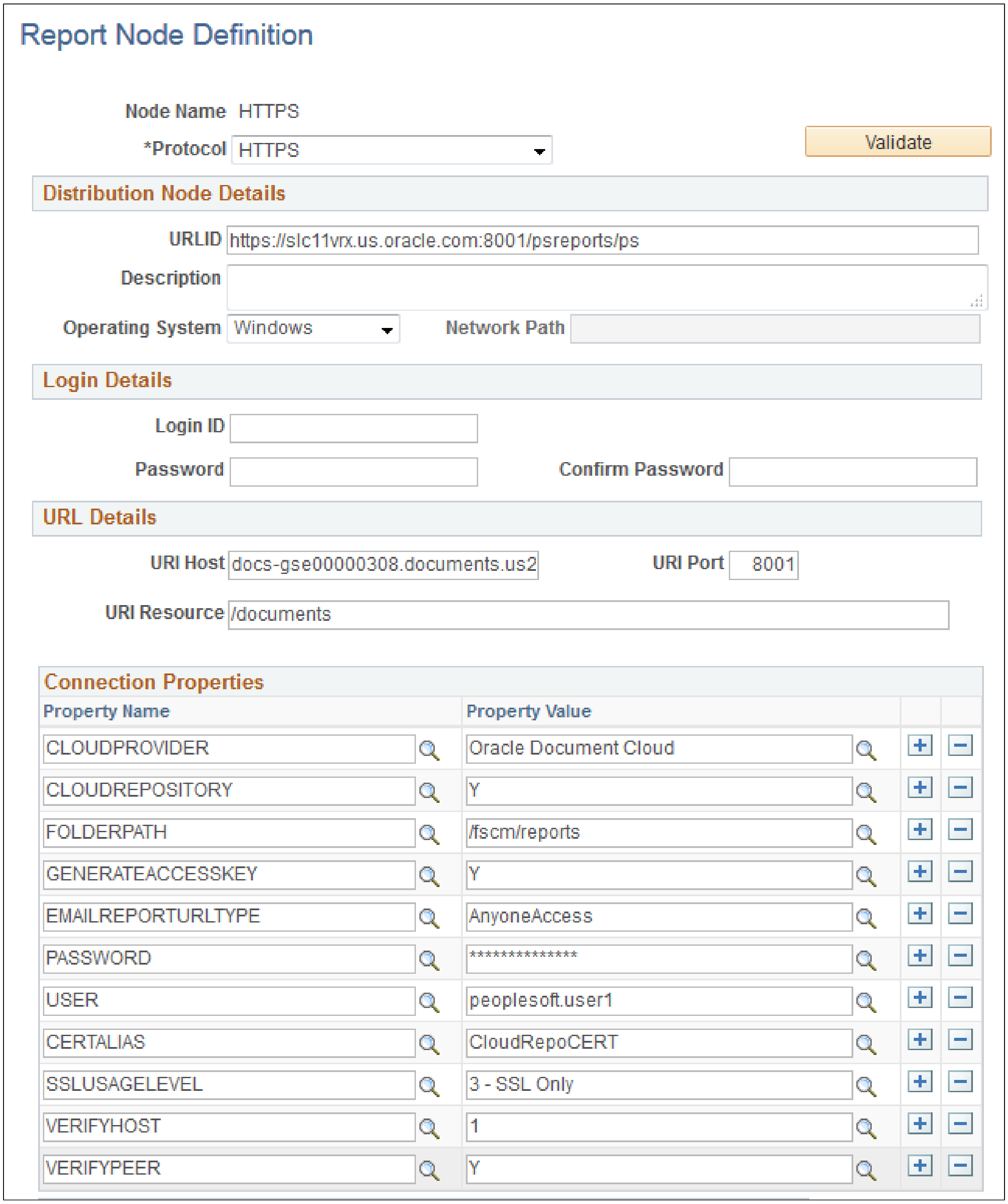
\\<machine name>\psreports

Defining Report Nodes for Oracle Content and Experience Cloud

Report Distribution currently supports moving reports to FTP, FTPS, SFTP, HTTP, HTTPS repositories & XCOPY to a network share. A Report Node can be defined to work with these protocols only. PeopleSoft does not currently support configuring Report Node to work with a Cloud repository. So a regular HTTP/HTTPS Report Node has to be configured pointing to Oracle Content and Experience Cloud.

Image: Report Node Definition page

This example illustrates the fields and controls on the Report Node Definition — HTTPS page.



To define a Report Node pointing to Oracle Content and Experience Cloud:

1. Create a new HTTP/HTTPS Report Node. See Defining HTTP Distribution Nodes and Defining HTTPS Distribution Node.
2. Populate the URLID field as you would do for any report node - <http(s)>://<hostname:port>/psreports/<sitename>.
3. Enter the hostname of Cloud storage instance in URI Host field.

4. Enter the port at which the Cloud storage server runs in the host machine.
5. Enter documents in URI Resource.
6. Set the following Cloud repository related properties:

CLOUDPROVIDER	Set to Oracle Document Cloud, if the CLOUDREPOSITORY is Y.
CLOUDREPOSITORY	Set to Y if this is Cloud repository, otherwise set to N.
FOLDERPATH	Set the path in Cloud storage account to which the reports needs to be stored.
GENERATEACCESSKEY	Set to Y if you want to generate & access key for the Report URL that would be included in the email report distribution, otherwise set to N.
EMAILREPORTURLTYPE	Anyone Access - if you want the report URL sent in email distribution to be accessible to anyone on the web. Registered User Access - if you want the report URL sent in the email distribution to be accessible to only who have a valid account with the Oracle Cloud storage instance. **Note:** This property can be overriden at process definition level via property EmailReportURLType.
PASSWORD	Encrypted password of the Cloud account.
USER	Set Cloud account username to which the reports needs to be stored.
CERTALIAS	(Certificate Alias) The Certificate Alias must be an alias name of a certificate stored in the database (using the PeopleTools Digital Certificates page). **Note:** Currently, only PEM certificates are supported for FTPS.
SSLUSAGELEVEL	0 - No SSL: No SSL will be used. 1 - Try SSL: Try using SSL, but proceed as normal otherwise. 2 - Control: Require SSL for the control connection. 3 - SSL Only: (Default) Require SSL for all communication.
VERIFYHOST	0: Do not verify the server for hostname. 1: (Default) Checks for a match with the hostname in the URL with the common name or Subject Alternate field in the server certificate.
VERIFYPEER	False: Do not verify the peer.

True: (Default) Verify the peer by authenticating the certificate sent by the server.

Related Links

"Using Administration Utilities" (PeopleTools 8.59: System and Server Administration)

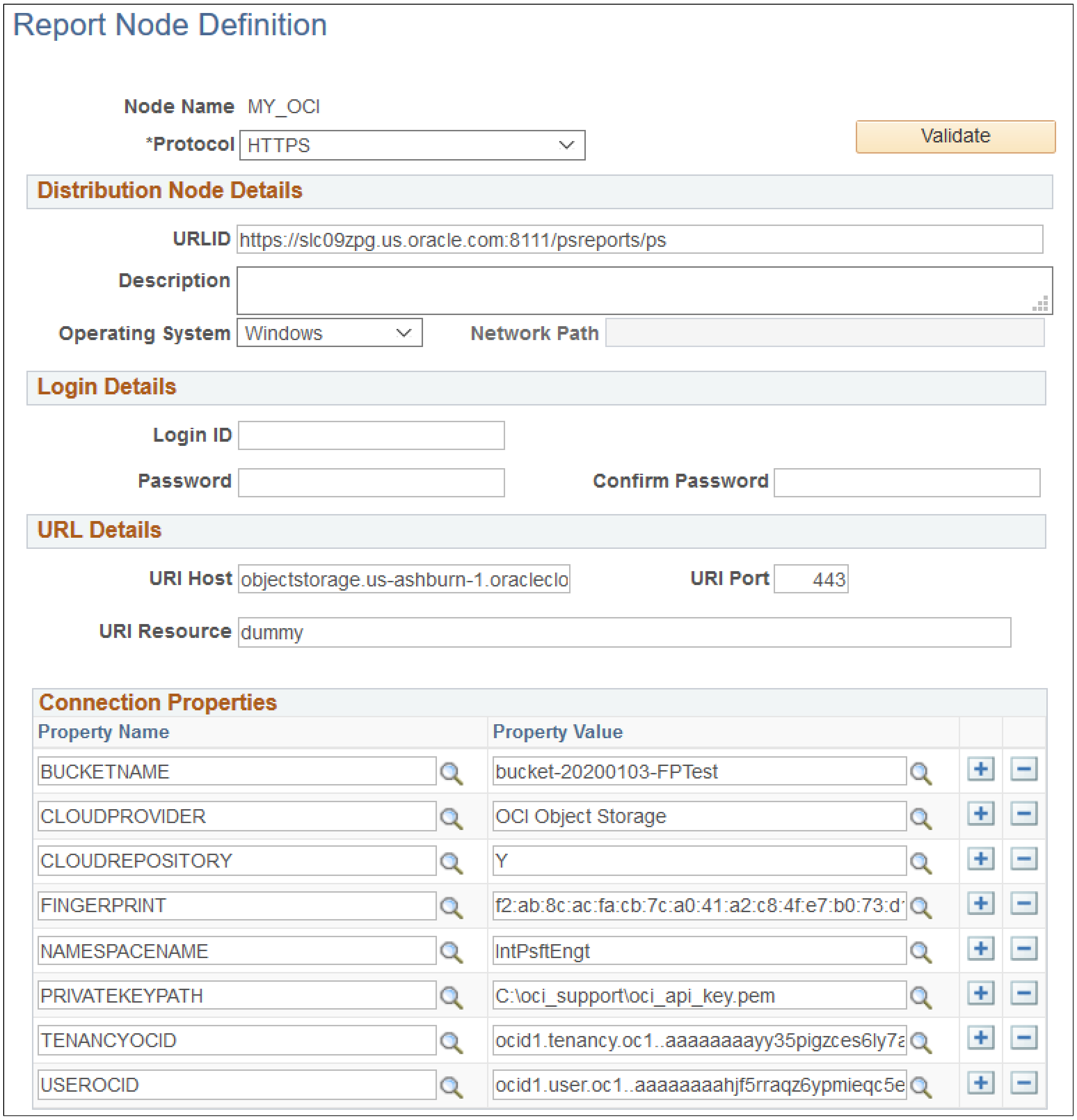
Defining Report Nodes for Oracle Cloud Infrastructure Object Storage

You can use Oracle Cloud Infrastructure Object Storage as a file repository for File Attachments and Process Scheduler Report Distribution. However, Report Distribution currently supports moving reports to FTP, FTPS, SFTP, HTTP, HTTPS repositories & XCOPY to a network share. A Report Node can be defined to work with these protocols only. To configure a Report Node to work with a Cloud repository, you must configure a regular HTTPS Report Node pointing to Oracle Cloud Infrastructure Object Storage service.

This process requires that you have an account for Oracle Cloud Infrastructure Object Storage service. You enter account details in specifying the URL.

Image: Report Node Definition page

This example illustrates the fields and controls on the Report Node Definition — HTTPS page.


Report Node Definition

Node Name MY_OCI

*Protocol HTTPS

Validate

Distribution Node Details

URLID https://slc09zpg.us.oracle.com:8111/psreports/ps

Description

Operating System Windows

Network Path

Login Details

Login ID

Password

Confirm Password

URL Details

URI Host objectstorage.us-ashburn-1.oraclecl

URI Port 443

URI Resource dummy

Connection Properties

Property Name	Property Value
BUCKETNAME	bucket-20200103-FPTest
CLOUDPROVIDER	OCI Object Storage
CLOUDREPOSITORY	Y
FINGERPRINT	f2:ab:8c:ac:fa:cb:7c:a0:41:a2:c8:4f:e7:b0:73:d
NAMESPACENAME	IntPsftEngt
PRIVATEKEYPATH	C:\oci_support\oci_api_key.pem
TENANCYOCID	ocid1.tenancy.oc1..aaaaaaaayy35pigzces6ly7a
USEROCID	ocid1.user.oc1..aaaaaaaahjf5rraqz6ypmieqc5e

To define a Report Node for Oracle Cloud Infrastructure Object Storage:

1. Create a new HTTPS Report Node. See Defining HTTPS Distribution Node.
2. Populate the URLID field as you would do for any report node - <http(s)>://<hostname:port>/psreports/<sitename>.
3. Enter the hostname of Cloud storage instance in URI Host field.
4. Enter the port at which the Cloud storage server runs in the host machine.
5. Set the following Cloud repository related properties:

BUCKETNAME	The name of the bucket. A logical container for storing objects. Users or systems create buckets as needed within a region. see Overview of Object Storage.
CLOUDPROVIDER	Set to OCI Object Storage, if the CLOUDREPOSITORY is Y.
CLOUDREPOSITORY	Set to Y if this is Cloud repository, otherwise set to N.
FINGERPRINT	Fingerprint for the key pair being used. To get the value, see Required Keys and OCIDs. Example: `20:3b:97:13:55:1c:5b:0d:d3:37:d8:50:4e:c5:3a:34`
NAMESPACENAME	The Object Storage namespace used for the request. A logical entity that serves as a top-level container for all buckets and objects, allowing you to control bucket naming within your tenancy. see Overview of Object Storage.
PRIVATEKEYPATH	The path to the private key file. The private key file must be in PEM format.
TENANCYOCID	OCID of your tenancy. To get the value, see Required Keys and OCIDs. Example: `ocid1.tenancy.oc1..aaaaaaaaba3pv6wuzr4h25vqstifsfdsq`
USEROCID	OCID of the user calling the API. To get the value, see Required Keys and OCIDs. Example: `ocid1.user.oc1..aaaaaaaa65vwl75tewwm32rgqvm6i34unq`

Related Links

"URL Maintenance" (PeopleTools 8.59: System and Server Administration)

Defining Daemon Groups

Use the Daemon Group page to enable a daemon process for the selected server.

To define a daemon group:

1. Select PeopleTools > Process Scheduler > Define Daemon Groups.
2. Select the Add New Value page.
3. Enter a new daemon procedure group name.
4. Click the Add button.

   The Daemon Group page appears.

5. Click the Load All Programs button to load all available application engine programs, or select a program to add.

   Programs must be marked as daemon in their properties to be available.

6. Click the Save button.

Defining Batch Timings

This section provides an overview of batch timings and discusses how to define batch timings.

Understanding Batch Timings

Batch Timings reports are provided so that you can monitor the performance of your application engine programs. The Process Scheduler - Batch Timings page applies to the Statement Timings data that is stored in the (table) option.

For the Batch Timings feature to record data, you must enable it using the Configuration Manager Trace tab. In the Application Engine group, select the Statement Timings (table) option.

Note: Whenever you run an application engine program and the Statement Timings trace options are enabled, you can always view the batch timings results using the Process Monitor.

Related Links

Understanding the PeopleSoft Process Scheduler Configuration File

Defining Batch Timings

To access the Batch Timings page, select PeopleTools > Process Scheduler > Define Batch Timings.

Image: Batch Timings page

This example illustrates the fields and controls on the Batch Timings page. You can find definitions for the fields and controls later on this page.

Run Control ID	Displays the run control ID that is used to run the Batch Timings report.
Report Type	Select the type of report that you want to generate, based on the data that is stored in the batch timings table. *Summary:* Provides a report of all of the runs that are initiated by a run control ID. The Process Instance field is unavailable when this option is selected. *Detail:* Provides a report of a specific run or process instance of an application engine program. The Run Control ID field is unavailable when this option is selected.

Batch Timings For

Based on the report type that you selected, enter the run control ID or process instance.

Chapter 10

Defining Jobs and JobSets

Understanding Jobs and JobSets

This section lists common elements and discusses jobs and JobSets.

Common Elements Used to Set Up Jobs and JobSets

Schedule Name	Displays the name of the JobSet definition schedule that is assigned when adding a new value.
Job Name	Displays the name of the job definition to be scheduled. The Job Name can have a maximum length of 8 characters. **Note:** Although you can create a job with a job name that exceeds 8 characters, you will encounter an error message when you attempt to run the job.
JobSet Report	Click to display a hierarchical view of the processes within the JobSet.
Report Manager	Click to access the Report Manager module to view report results.
Process Monitor	Click to access the Process Monitor to view the status of job requests.

Jobs and JobSets

PeopleSoft Process Scheduler enables you to schedule one or more processes as a group. In this context, *job* describes this type of process group.

A process is a single task, program, or routine, such as a Structured Query Report (SQR) report or COBOL program that runs either on the client or on a server. A job consists of one or more processes of the same or different types that are submitted as a unit and can run either in series or parallel. They require the scheduling support that only a server environment can offer and all processes must be API-aware.

Scheduled *JobSets* enable you to schedule a recurring job using a schedule JobSet definition. Each process within a job can be altered to set up its own output destination options or set the operating system where the process is to be scheduled.

Features that are available when scheduling JobSets that are not available with recurring jobs are:

- You can have different run control ID for each process within a job.

- Job items can be run from different operating systems or servers.
- Job items can run at specific times.
- You can change attributes to any job items.

Related Links

Defining Scheduled JobSets
Understanding Process Request APIs

Creating Job Definitions

This section elaborates on creating job definitions.

Common Elements Used to Set Up Job Definitions

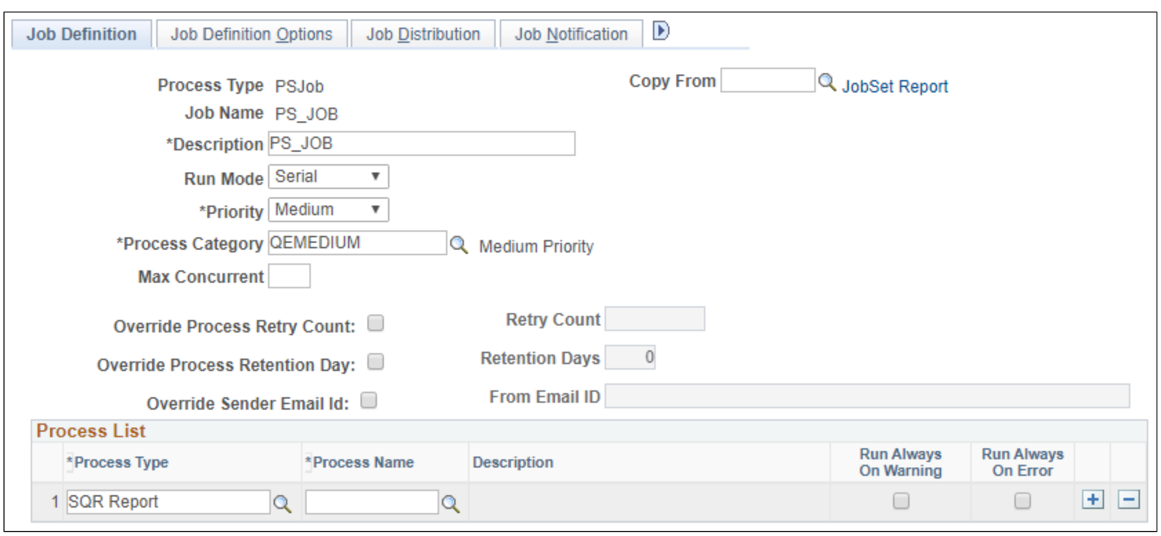
ID Type	Select a role or user ID.
Distribution ID	Enter the actual user ID or the name of the role.

Defining Jobs

To access the Job Definition page, select PeopleTools > Process Scheduler > Process Scheduler Jobs > Job Definition.

Image: Job Definition page

This example illustrates the fields and controls on the Job Definition page. You can find definitions for the fields and controls later on this page.



Before creating a job definition, define the individual processes that are included in the job.

Copy From	Copy data from an existing Job definition.

JobSet Report	Click to go to the JobSet Report page.
Description	Use this property to specify a description for the Job definition.
Run Mode	*Serial:* Select to run each process in the job sequentially. *Parallel:* Select if you don't have a requirement for the processes to run in a certain order. If you select this option, Run Always check boxes for *all* of the processes are selected.
Priority	Select *High, Medium,* or *Low.* PeopleSoft Process Scheduler initiates the job with the highest priority first.
Process Category	Select a process category for this job. **Note:** The categories *Default* and *LOADCACHE* are delivered with your system.
Max Concurrent	Enter the maximum number of occurrences of this job that can be active at one time across all process schedulers. The default value is unlimited (blank). Jobs exceeding the maximum will appear on the Process Monitor with a run status of *Blocked.* As active occurrences complete, blocked jobs are released and scheduled.
Override Process Retry Count	Select to override the process definition retry count for the individual processes contained in this job. Selecting the check box activates the Retry Count field.
Retry Count	Enter the number of times the system should attempt to restart this job.
Override Process Retention Day	Select to override the process definition retention days for the individual processes contained in this job.
Retention Days	Enter the number of days before the files that are on the report repository are deleted.
Override Sender Email ID	Select to override the process definition From Email ID value for the individual processes contained in this job.
From Email ID	Enter email ID to be used as the From Email ID when the output type is set to Email for the individual processes contained in this job. This value will be considered only when the Override Sender Email ID option is selected.

See Defining Process Categories, Displaying a Hierarchical View of Processes in a JobSet.

Process List

This group box lists all processes and jobs that are associated with this job. To add additional rows or processes, click the Insert Row button that precedes the location where you want the new row.

Process Type	Select the processes that you want in the order that you want them to run.
Run Always on Warning	Select to enable the next process in the queue to run, regardless of whether the process situated immediately before this process ran to warning.
Run Always on Error	Select to enable the next process in the queue to run, regardless of whether the process situated immediately before this process ran to error.

The Run Always feature only works if the process that is selected to run is always the next process in the queue after the process that ran to error or warning. For example:

A serial job contains three processes. The third process in the queue is selected to Run Always on Error. If the first process in the queue runs to error, the third process will not run because the system looks only to see if the next process in the queue is selected. Process #2 is not selected, so the job runs to *No Success.*

Note: After completing this page, select a server name and recurrence name on the Job Definition Options page.

Procedure for Run Always Settings

This table shows the procedure for the Run Always on Warning and Run Always on Error settings:

Run Always on Warning	*Run Always on Error*	*Process Status*	*Job Status*	*Next Process Scheduled*
0	0	Warning	Warning	No
0	0	Error	Error	No
1	0	Warning	Warning	Yes
1	0	Error	Error	No
1	1	Warning	Warning	Yes
1	1	Error	Error	Yes

Run Always - Functionality Rules

Process Scheduler uses the following rules when either of the Run Always check boxes are selected for a PSJob contained within another PSJob.

Note: The Run Always check box must be selected for individual items within a PSJob. The items do not automatically inherit the selection if the check box is selected for the PSJob.

If a serial job (JOB A) contains another job as an item (JOB B), the Run Always check box is selected for JOB B, and the item that precedes JOB B receives a status of either *Error* or *No Success.* Process Scheduler proceeds using the following rules:

- If JOB B is also a serial job, then the first item in this job is changed to *Queued.*

  If this first item encountered an error or warning during processing and received a status of either *Error, Warning,* or *No Success,* the next item in the list is changed from *Pending* to *Queued* if the Run Always check box is selected for that item. If no item in JOB B has the Run Always check box selected, then JOB B will receive an *Error* or *Warning* status when the first item did not run successfully.

- If JOB B is a parallel job, then the status for all items in JOB B is changed to *Queued* and will be run by Process Scheduler.

- If the status of JOB B is *Error* or *Warning,* the JOB A item listed after JOB B is only released by Process Scheduler if its Run Always check box is selected.

  If the check box is not selected, Process Scheduler will consider JOB A complete and no other items in JOB A will be run. Process Scheduler will update the status of JOB A to *Error* or *Warning.*

Copying Data From an Existing Job Definition

To copy data from an existing Job Definition:

1. Access the Job Definition page by selecting PeopleTools > Process Scheduler > Process Scheduler Jobs > Job Definition.

2. Click the Copy from look up button.

   The Look Up Copy From page appears.

3. Find an existing Job definition by typing all or part of the existing Job definition name in the Search by field.

4. Click the Job Definition that you want to copy from.

5. Click Yes.

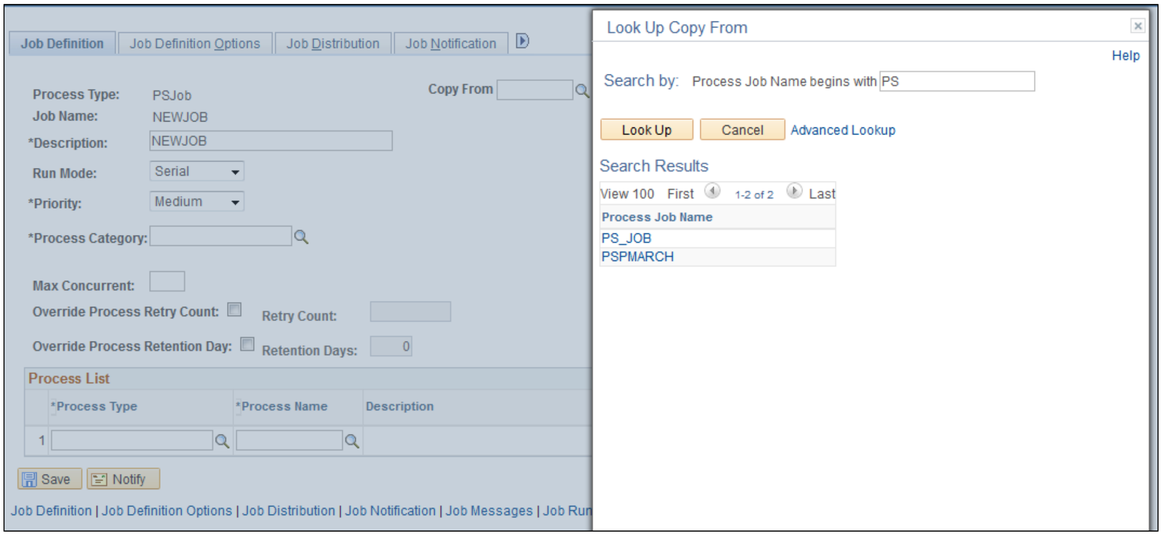
   The data from the existing Job definition is copied to the corresponding fields in the Job Definition page.

6. Update the fields that you want to edit with the correct data.

7. Click Save.

Image: Copy From Job Definition - Look Up Copy From page

The following example illustrates the Look Up Copy From page displaying search results with the prefix of *PS*.

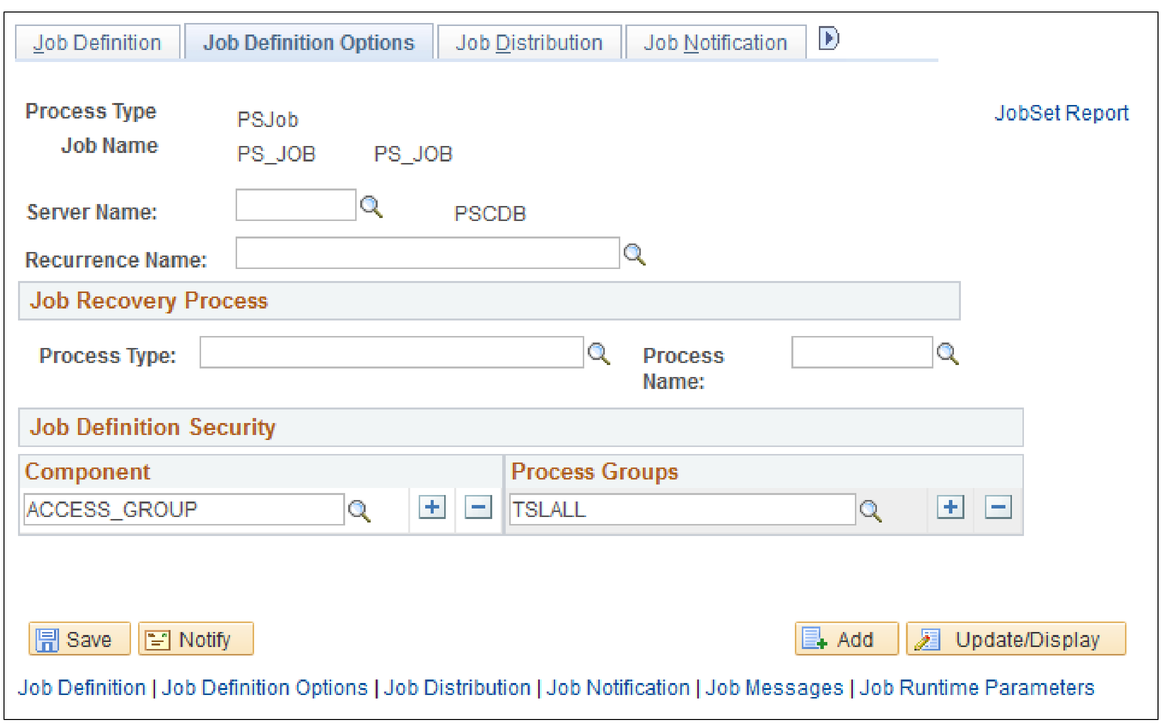


Setting Job Definition Options

To access the Job Definition Options page, select PeopleTools > Process Scheduler > Process Scheduler Jobs > Job Definition Options.

Image: Job Definition Options page

This example illustrates the fields and controls on the Job Definition Options page. You can find definitions for the fields and controls later on this page.



Use the Job Definition Options page to define options for jobs that you run on a regular basis.

Server Name	Enter a server name if you want to require this job to run on a specific server only. If you leave this field blank, the job finds an available server on which to run, based on the process class.
Recurrence Name	(Optional) Select a recurrence name for running at previously defined intervals. If a recurrence interval is assigned to a job, the distribution list for the job must be defined in the job definition and not at runtime.

Job Recovery Process

Process Type and **Process Name**	Enter the type and name of an optional process that can be run in case this job runs to an error. The job will not restart until the system recovery optional process entered here has run.

Job Definition Security

Component	To add new rows, click the Add button. This makes the job definition a member of that component. Adding a component to a job definition causes that job definition to appear on the Process Scheduler Request page when you select File, Run within that component group, if you have security to run the process.
Process Groups	Select an existing group, or add a new class by entering a unique process group. To add new rows, click the Add button. A job definition may be a member of multiple process groups. Process Groups are assigned in PeopleSoft Security Administrator. This enables you to specify the process requests that classes of users can run.

Defining Distribution Lists

To access the Job Distribution page, select PeopleTools > Process Scheduler > Process Scheduler Jobs > Job Distribution.

Use the Job Distribution page to set up a distribution list for jobs, based on role or user ID.

Note: You must specify an output type of *Web, Window,* or *Email* for the distribution list to be accepted when the PSJob is created

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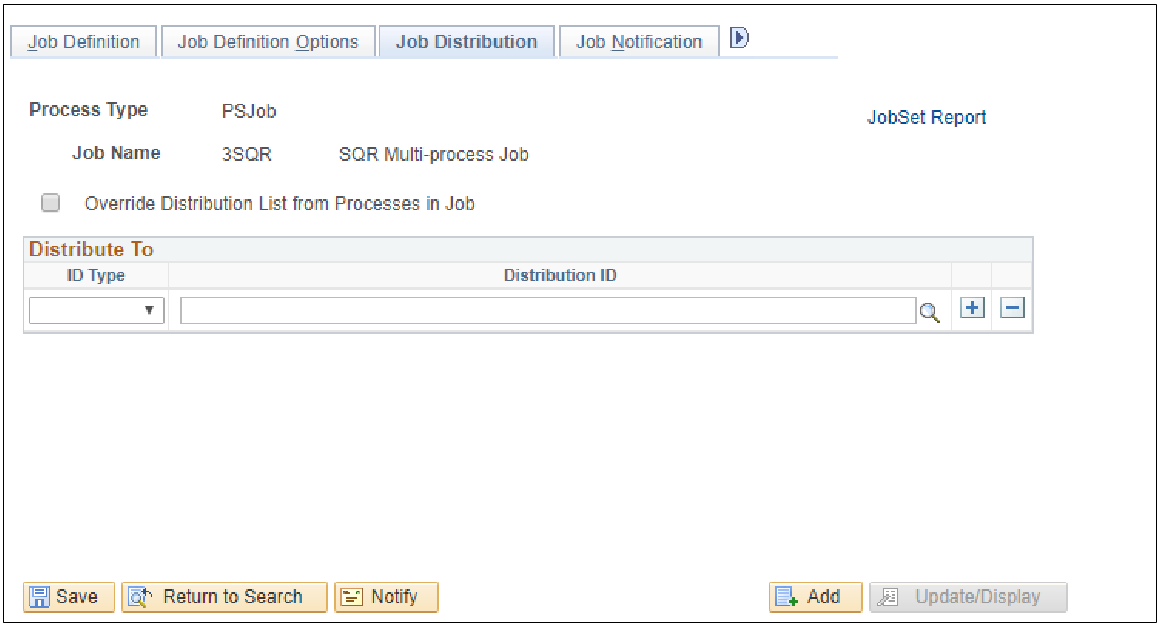
Image: Job Distribution page

This example illustrates the Job Distribution page. You can find definitions for the fields and controls later on this page.



Override Distribution List from Processes in Job	Select to use the distribution IDs from the job definition. If the check box is deselected, distribution IDs from both the job and process definitions are used. *Job Within Job:* The Override option for the main job is ignored. Process Scheduler uses the distribution IDs from the PSJob definition. If the check box is deselected, distribution IDs from both the PSJob and process definitions are used. **Note:** When the Override option is selected for the main job, Process Scheduler uses the distribution IDs from the main job definition and ignores only the distribution IDs from the individual process definitions within the main job.
Distribute To	Select the recipients of the process output. Select an ID type of *User* or *Role* and the corresponding distribution ID. Email recipients must be authorized to view the content of the email and their email addresses must be entered in their security user profiles.

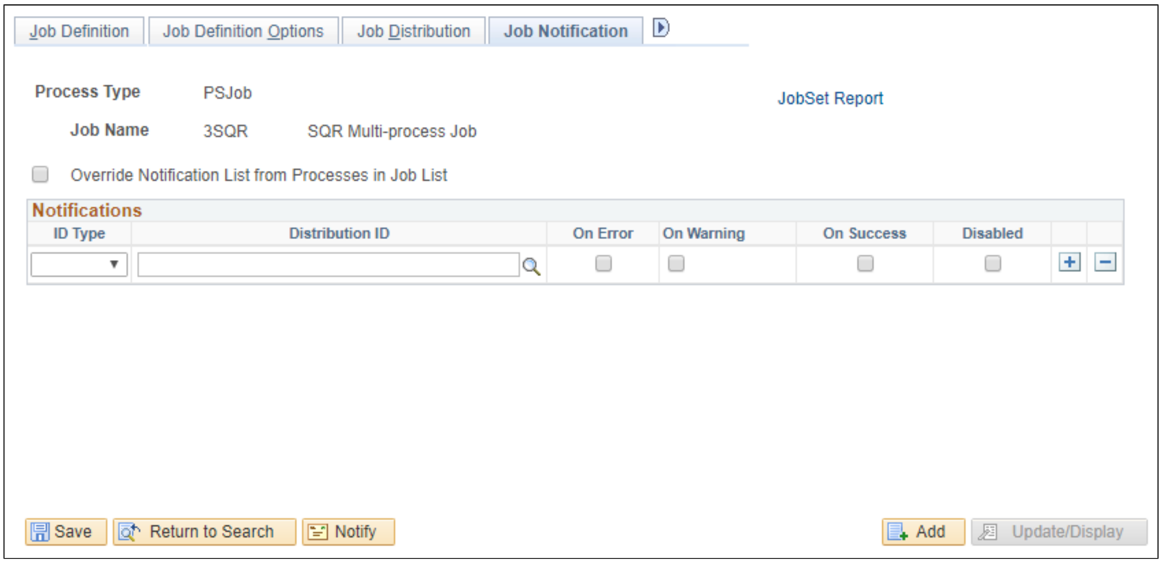
Defining Notifications

To access the Job Notification page, select PeopleTools > Process Scheduler > Process Scheduler Jobs > Job Notification.

Use the Job Notification page to set up a list of users to be notified if a process encounters an error, warning, successfully completes, or is disabled. Set up the list based on role or user ID.

Image: Job Notification page

This example illustrates the Job Distribution page. You can find definitions for the fields and controls later on this page.



Override Notification List from Processes in Job List

Select to notify only users that are specified in the job definition. If deselected, users specified in the job *and* process definitions are notified.

Job Within Job: Select to notify only users that are specified in the main job definition. If deselected, users specified in the main job, jobs within, and process definitions are notified.

Important! The Override option is ignored for any job listed within the main job.

On Error

Send notification to the Distribution ID if an error occurs in the process.

On Warning

Send notification to the Distribution ID if a warning occurs in the process.

On Success

Send notification to the Distribution ID when the process successfully completes.

Disabled

Select if you do not want to send notifications to users specified on this line.

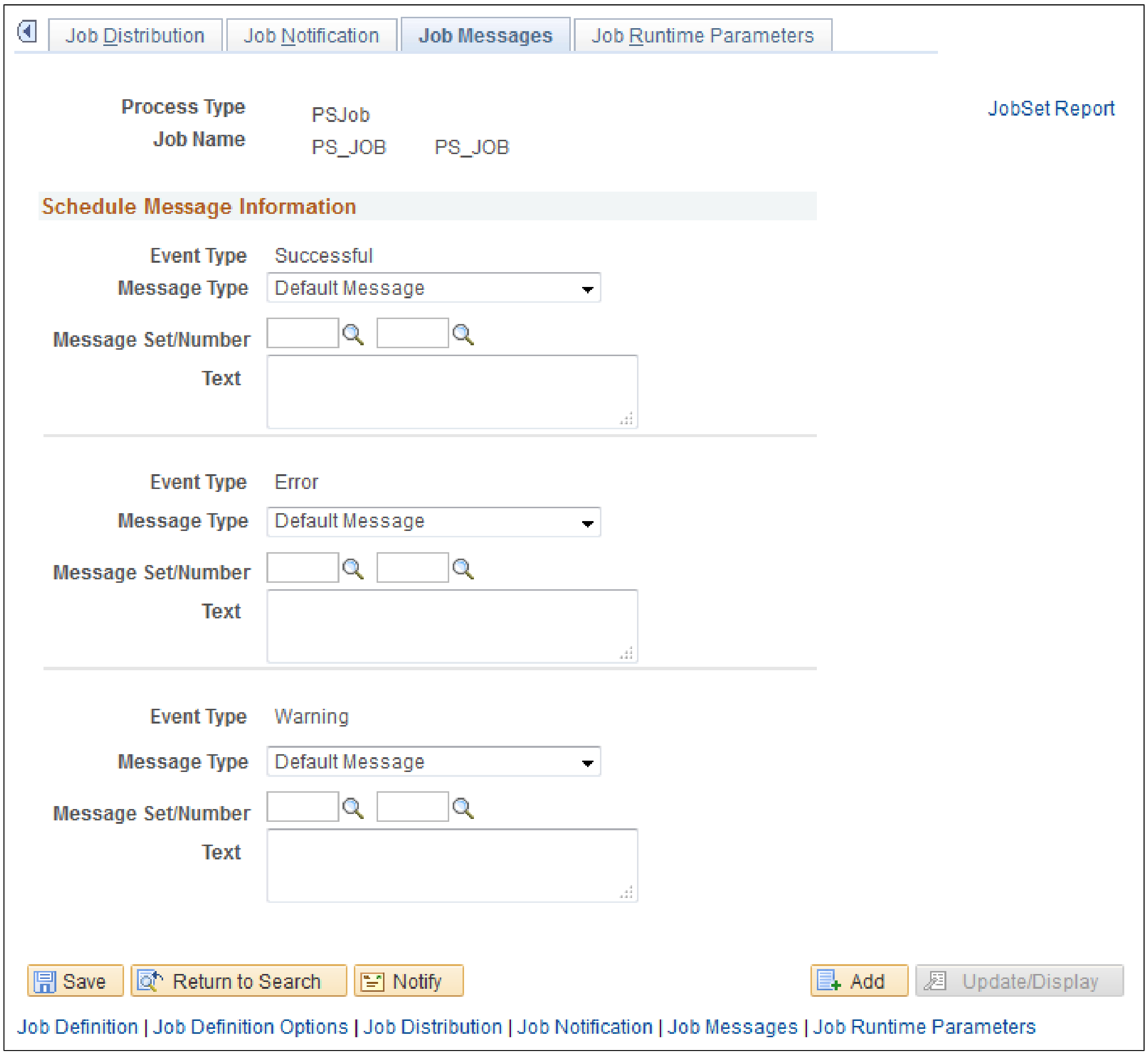
Specifying Job Notification Messages

To access the Job Messages page, select PeopleTools > Process Scheduler > Process Scheduler Jobs > Job Messages.

Use the Job Messages page to configure the messages that are sent when the Job Notification feature is used. You can specify messages for successful completions, errors, and warnings.

Image: Job Messages page

This example illustrates the fields and controls on the Job Messages page. You can find definitions for the fields and controls later on this page.



Message Type

Select the message type:

Default Message: Use the basic default message.

Customized Message: Create your own message.

Message Catalog: Select a message from the Message Catalog.

Message Set/Number

Select the Message Catalog set and number of the message. Complete these fields when the message type is *Message Catalog.*

Text

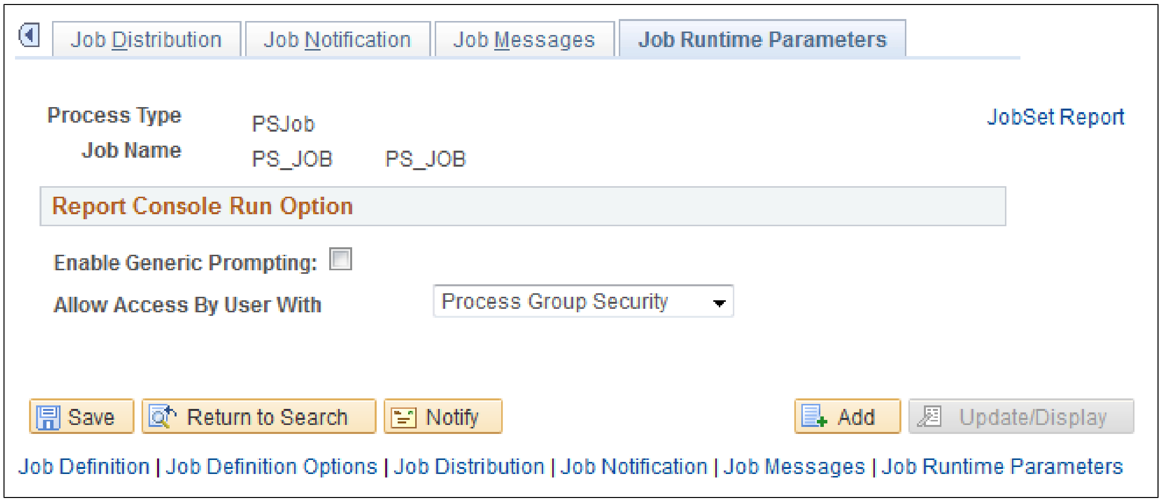
Enter the message text when the message type is *Customized Message.*

Setting Job Runtime Parameters

To access the Job time Parameters page, select PeopleTools > Process Scheduler >Process Scheduler Jobs and click the Job Runtime Parameters tab.

Image: Job Runtime Parameters page

This example illustrates the fields and controls on the Job Runtime Parameters page. You can find definitions for the fields and controls later on this page.



Use this page to enable the Run option from the Reporting Console.

Enable Generic Prompting	Select this check box to allow users to schedule this job from the Reporting Console.
Allow Access By User With	Select the type of permission required to schedule the job from the Reporting Console. It specifies whether full process security or process group security should be applied when the process is run from the Reporting Console or a web service.

- *Full Process Security* indicates that the process security defined on the Job Definition Options page will be used to determine which users can schedule this process from the Reporting Console. The user must have permission to at least one of the Components, as well as be a member of at least one of the Process Groups listed on the Job Definition Options page.
- *Process Group Security* indicates that the user must be a member of at least one of the Process Groups listed on the Job Definition Options page to schedule this process from the Reporting Console.

Note: Users with the role PeopleSoft Administrator will always get the Run option on the Reporting Console if Generic Prompting is enabled. Users with the role PeopleSoft Administrator have access to run all jobs regardless of process security settings.

Defining Scheduled JobSets

This section elaborates on creating scheduled JobSets.

- Create scheduled JobSet definitions.
- Display a hierarchical view of processes in a JobSet.
- Set options for JobSet items.
- View scheduled JobSet requests.

Understanding Scheduled JobSets

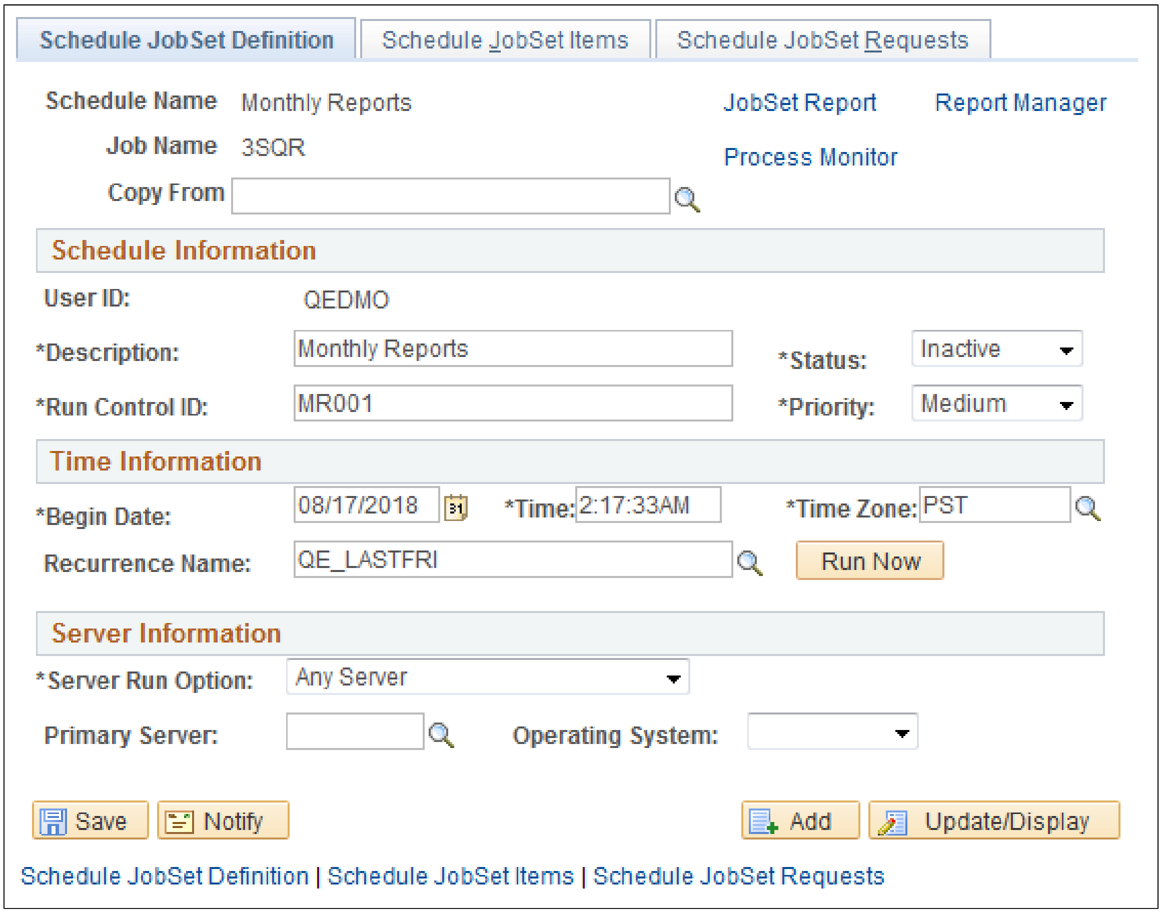
PeopleSoft Process Scheduler provides the ability to define and set up interdependencies among application jobs and processes, which enables the user to schedule jobs in accordance with the logical business model. For example, in PeopleSoft HRMS, all employees' time cards can be tabulated in PeopleSoft Time and Labor before running the human resources (HR) payroll jobs.

Creating Scheduled JobSet Definitions

To access the Schedule JobSet Definition page, select PeopleTools > Process Scheduler > Schedule JobSet Definitions > Schedule JobSet Definition.

Image: Schedule JobSet Definition page

This example illustrates the fields and controls on the Schedule JobSet Definition page. You can find definitions for the fields and controls later on this page.



Use the Schedule JobSet Definitions page to set JobSet scheduling options. You should use this page rather than the Process Scheduler Request page.

Copy From	Copy data from an existing JobSet definition.
User ID	Displays the user ID of the person entering the information.
Description	Enter a description for the JobSet schedule. The default is the schedule name.
Status	Select *Active, Completed,* or *Inactive* (default). To schedule the JobSet, you must enter and save changes, change the status to *Active,* and then save. Once scheduled, the status is *Completed.*
Run Control ID	Enter the run control ID.
Priority	Select *High, Medium* (default), or *Low.*
Begin Date	Enter the date on which the JobSet should begin to run. The default is today's date.

Time	Enter the time at which the JobSet should run. The default is the current time.
Time Zone	Select the time zone in which the job will run. For instance, you might be in Eastern Standard Time (EST) and schedule the job to run in Pacific Standard Time (PST). The default is the server time zone.
Recurrence Name	Select a recurrence name for running at previously defined intervals. **Note:** This name does not display on the Process Monitor - Process Detail page. Use the Schedule JobSet Requests page to view the next scheduled start date and time based on the recurrence definition. **Important!** To eliminate the possibility of duplicating JobSets, you must configure the system with a master scheduler. The task of scheduling JobSets has been removed from a standalone PSPRCSRV and is strictly the responsibility of the master scheduler. If a master scheduler is not configured, the recurrence setting will be ignored.
Run Now	Select this button to run the process immediately. **Important!** The Begin Date and Time fields are populated by default with the current date and time. To run the JobSet immediately, leave the default values in these fields, activate the JobSet, and select Save. Do not click the Run Now button, as this will also trigger a process request. The Run Now button should only be used if the Begin Date and Time values are changed to a future date and time and you want the process to run immediately then.
Server Run Option	Select the server on which this job should run. Select *Any Server* (default), *Primary Server*, *Specific OS,* or *Specific Server.*
Primary Server	Select the required server if the Server Run Option value is *Primary Server* or *Specific Server.*
Operating System	Select the required operating system if the Server Run Option value is *Any Server* or *Specific OS.* The default is *Any Server.*

Note: Once a jobset has been scheduled, if a user changes the Begin Date, Begin Time or Time Zone fields, the next start date time will be overwritten with the new date and time. If a Recurrence exists for this schedule, the Recurrence will be blanked out because changing the initial values will break the Recurrence. The user will need to re-enter the recurrence.

Copying Data From an Existing JobSet Definition

To copy data from an existing JobSet Definition:

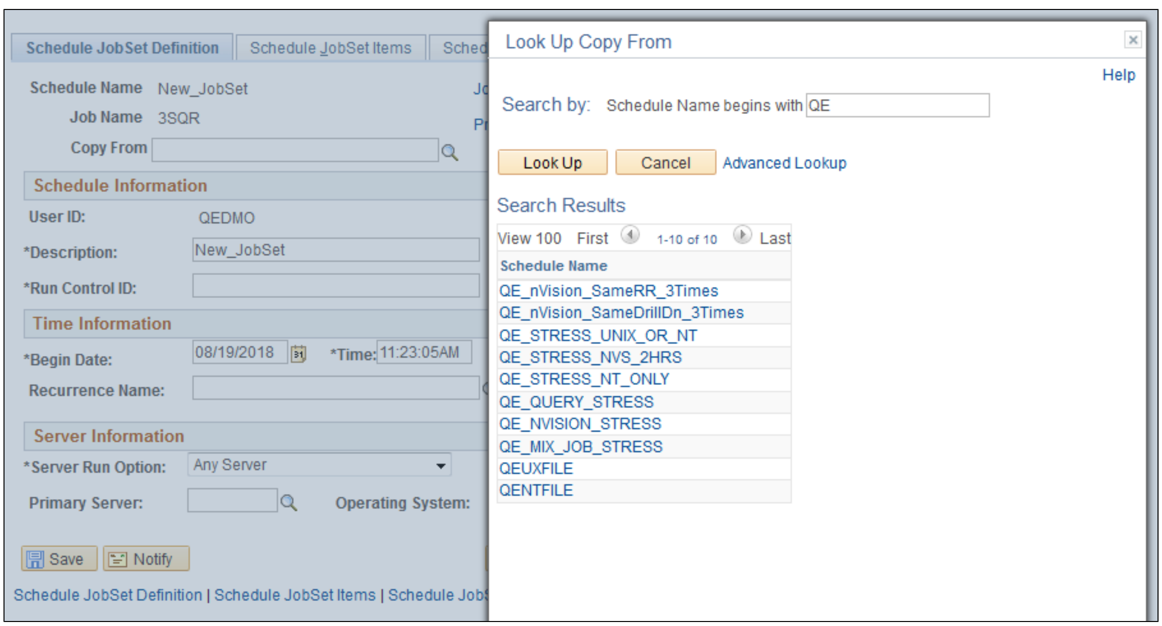
1. Access the Schedule JobSet Definition page by selecting PeopleTools > Process Scheduler > Schedule JobSet Definitions > Schedule JobSet Definition.
2. Click the Copy from look up button.

   The Look Up Copy From page appears.
3. Find an existing JobSet definition by typing all or part of the existing JobSet definition name in the Search by field.
4. Click the JobSet Definition that you want to copy from.
5. Click Yes.

   The data from the existing JobSet definition is copied to the corresponding fields in the Schedule JobSet Definition page.
6. Update the fields that you want to edit with the correct data.
7. Click Save.

Image: Copy From JobSet Definition - Look Up Copy From page

The following example illustrates the Look Up Copy From page displaying search results with the prefix of *QE*.



Displaying a Hierarchical View of Processes in a JobSet

Select the JobSet Report link to access the JobSet Report page.

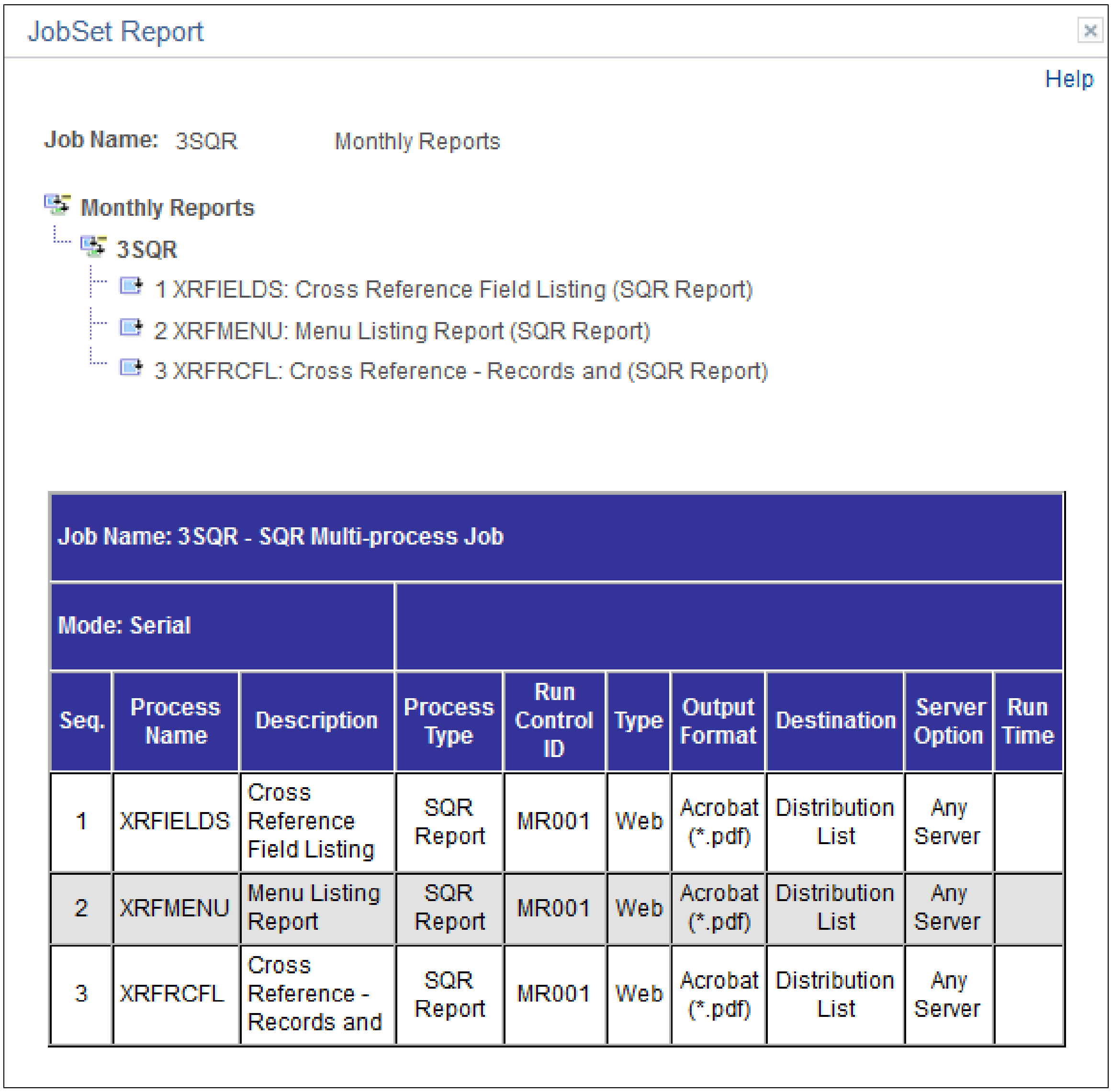
Select the check boxes for the items you want to display. Select from:

- Show Job Tree.
- Show Distribution List.

- Show Notification List.
- Show Message List.
- Show Parameters List.

Image: JobSet Report page with Show Job Tree check box selected

This example illustrates the fields and controls on the JobSet Report page with Show Job Tree check box selected.

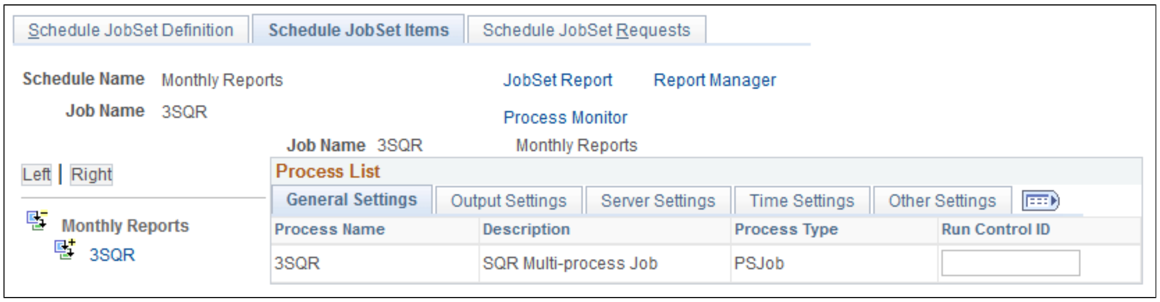


Setting Options for JobSet Items

To access the Schedule JobSet Items page, select PeopleTools > Process Scheduler > Schedule JobSet Definitions > Schedule JobSet Items.

Image: Schedule JobSet Items — General page with processes expanded

This example illustrates the fields and controls on the Schedule JobSet Items — General page with processes expanded. You can find definitions for the fields and controls later on this page.



If the output options were specified at the main JobSet level, then these options apply to all items of that job. You can specify options for individual jobs and processes on this page. These options override the output options that are specified for the parent job. You can also set up distribution details from this page.

This page lists each individual process that is contained in the jobs and JobSet and displays a hierarchical view of the processes.

This section discusses how to specify:

- General settings.
- Output settings.
- Server settings.
- Time settings.
- Other settings.

Specifying General Settings

To specify individual general settings:

1. Select the General Settings tab.
2. Enter run control IDs for the required jobs and processes.

Specifying Output Settings

To specify individual output settings:

1. Select the Output Settings tab.
2. Select the output type and format for the required jobs and processes.
3. Click the Distribution link for required processes to enter distribution detail information.

   You must specify an output type of *Web*, *Window,* or *Email* for the distribution list to be accepted when the PSJob is created.

Important! The distribution list is based solely on the information specified for individual processes within the JobSet. Do not enter distribution information in the job header. If the JobSet has no distribution lists, the requester will be the only recipient of the reports.

Specifying Server Settings

To specify individual server settings:

1. Select the Server Settings tab.
2. Select the server option for the required jobs and processes:
   - *Any Server*
   - *Primary Server*
   - *Specific OS*
   - *Specific Server*
3. Select the required server if the server option is *Primary Server* or *Specific Server.*
4. Select the required operating system if the server option is *Any Server* or *Specific OS.*

Note: A Master Scheduler is required to be up and running if you want to distribute the workload across multiple Process Schedulers.

See How to Use Multiple Master Schedulers.

Specifying Time Settings

To specify individual time settings:

1. Select the Time Settings tab.
2. Select the runtime option for the required jobs and processes:
   - *Job Rule Time*
   - *Specific Time*
3. Enter the run time and estimated CPU time if the runtime option is *Specific Time.*

Specifying Other Settings

To specify individual other settings:

1. Select the Other Settings tab.
2. Click the Notification link for required jobs and processes to enter notification detail information.

Note: Only notification information entered in the JobSet will be in effect. Once Process Scheduler detects notifications in any of the items of the JobSet, it will ignore any notification information found in the Job Definition and Process Definition.

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3. Click the Messages link for required jobs and processes to enter message detail information.

Note: Only message information entered in the JobSet will be in effect. Once Process Scheduler detects messages in any of the items of the JobSet, it will ignore any message information found in the Job Definition and Process Definition.

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4. Click the Parameters link for required jobs and processes to enter values for the process parameters.

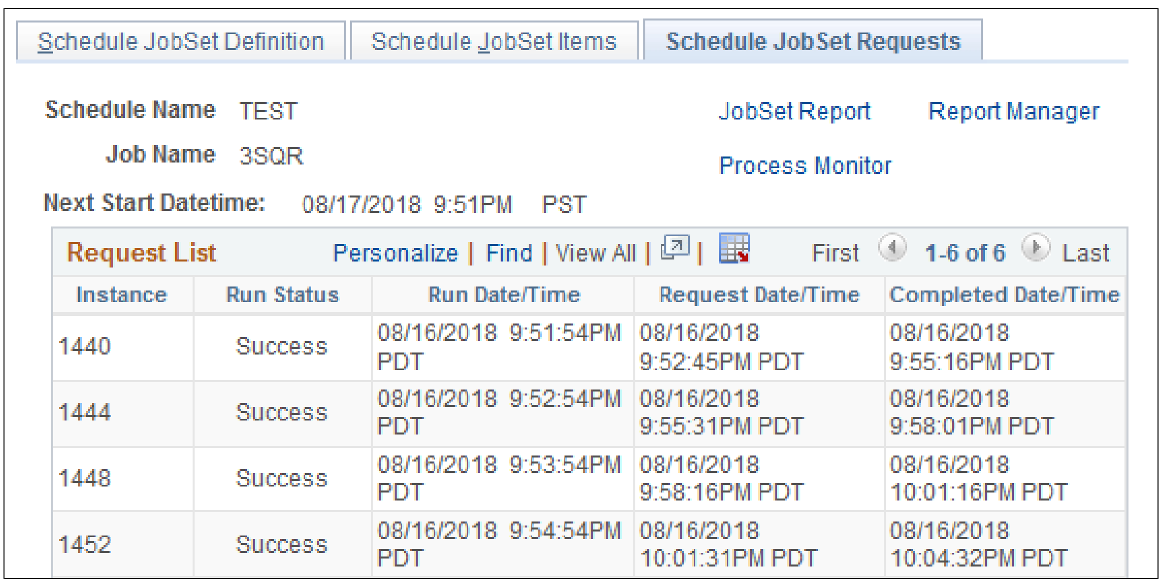
Note: Each process within the jobset has its parameters defined as part of either its Process Type Definition (Parameter list) or Process Definition Override Options.

Viewing Scheduled JobSet Requests

To access the Schedule JobSet Requests page, select PeopleTools > Process Scheduler > Schedule JobSet Definitions > Schedule JobSet Requests.

Image: Schedule JobSet Requests page

This example illustrates the fields and controls on the Schedule JobSet Requests page.



Use the Schedule JobSet Requests page to view the status of each process request contained in the selected JobSet without using Process Monitor.

Next Start Datetime	Displays the date and time at which the JobSet is scheduled to run.

Request List

This group box lists each individual process contained in the jobs and JobSet.

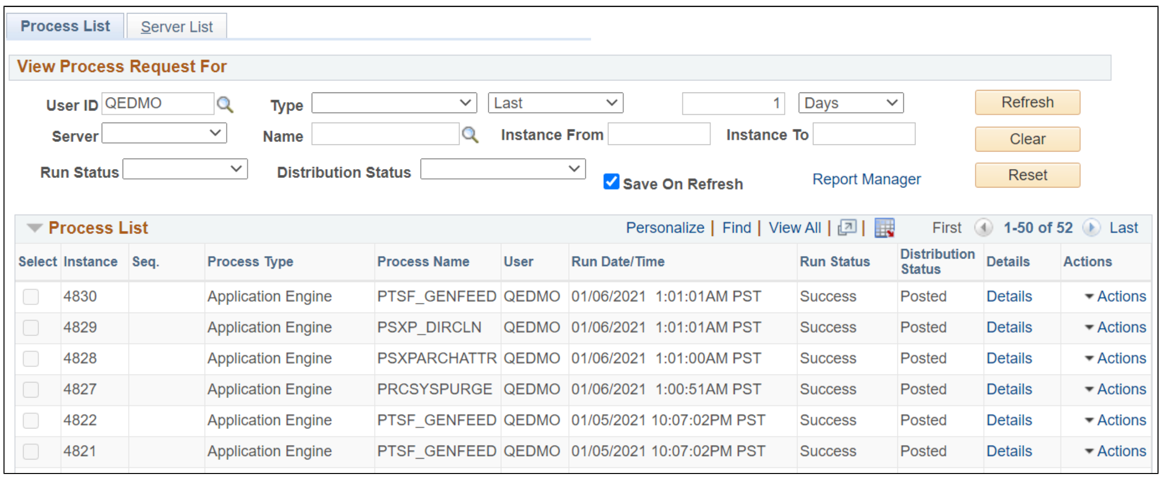
Monitoring Jobs and JobSets

Select PeopleTools > Process Scheduler > Process Monitor to access the Process Monitor - Process List page.

Note: You can also access this page by clicking the Process Monitor link on either the Schedule JobSet Definition page or the Process Request Dialog page.

Image: Process Monitor - Process List page

This example illustrates the fields and controls on the Process Monitor - Process List page.



After a job is submitted using the Process Scheduler Request page or your scheduled job is triggered, use Process Monitor to review the status of scheduled or running processes.

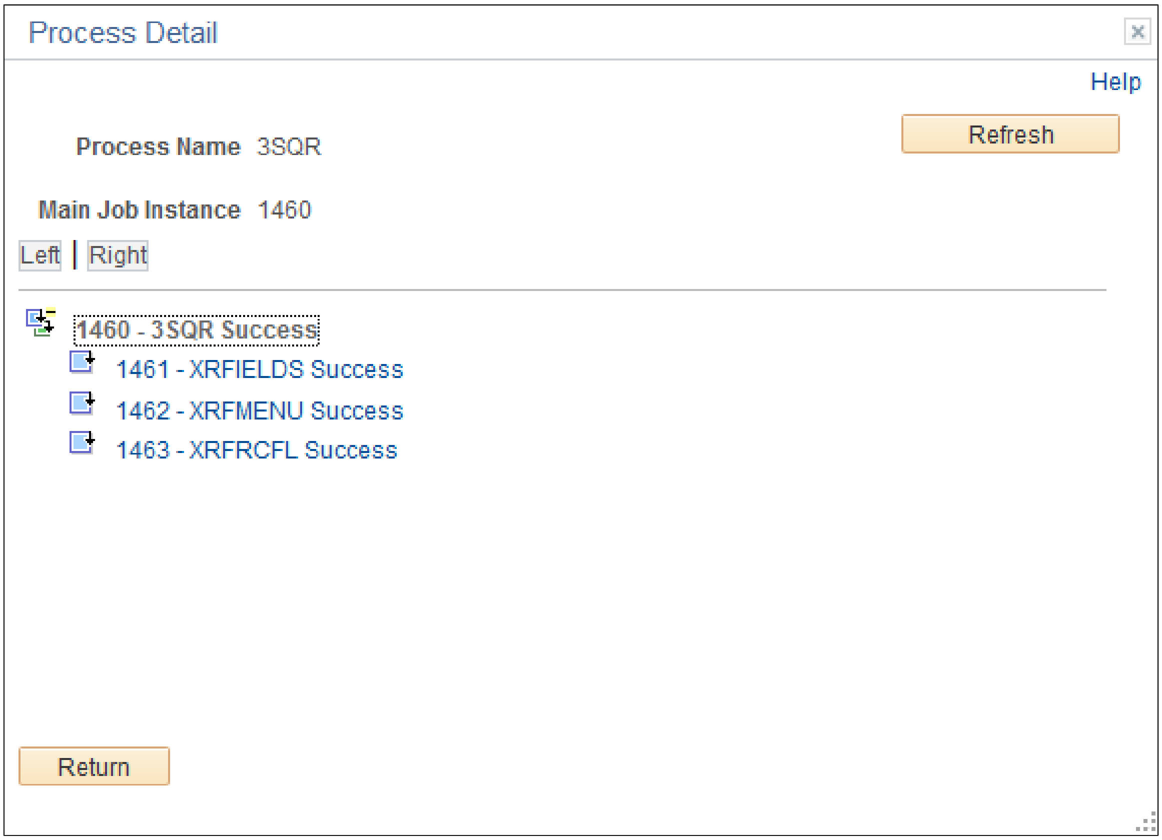
When a job or JobSet is listed, only the main job appears on the Process Monitor - Process List page. To see the status of all jobs and processes that are attached to the main job, click the *Job* link to display the Process Monitor - Process Detail page. This page consists of a collapsible tree whenever a job is referenced. To display the filtered processes after selecting filtering options, select the *Refresh* button.

Note: If the Inter-Domain Gateway connections are done as per Push Notification configurations, Run Status Changes will get automatically updated for the processes or jobs in the list.

Image: Process Monitor - Process Detail page

This example illustrates the fields and controls on the Process Monitor - Process Detail page.

Note: If the Inter-Domain Gateway connections are done as per Push Notification configurations, Run Status Changes will get automatically updated for the processes or jobs in the list.



Related Links

Understanding Process Monitor

Viewing the Status of Processes

Chapter 11

Managing PeopleSoft Process Scheduler

Understanding the Management of PeopleSoft Process Scheduler

PeopleSoft Process Scheduler with Microsoft Windows or UNIX operating system is always started by means of Oracle Tuxedo software.

The following table lists Oracle Tuxedo servers that are available with PeopleSoft Process Scheduler. Some servers are optional. Ones that are required are started using the PSADMIN utility's Quick-configure menu.

Server Name	***Description***	***Optional***	***Number of Instances***
PSPRCSRV	PeopleSoft Process Scheduler Server Agent.	No	1
PSDSTSRV	Distribution Agent.	No	1
PSAESRV	Application Engine Server.	Yes	3
PSANALYTICSRV	Analytic Server	Yes	1
PSMSTPRC	Master Scheduler Server.	Yes	1
PSMONITORSRV	Performance Monitor.	No	1

Note: OS/390 is the only platform on which PeopleSoft Process Scheduler servers are initiated outside of Oracle Tuxedo.

See Understanding the PeopleSoft Process Scheduler Configuration File.

Servers in OS/390

The servers that are listed as optional in the preceding table are not available in the OS/390 UNIX System Services (USS). These servers require specific functionality in the Oracle Tuxedo software, which is not ported in USS. For this operating system, the PeopleSoft Process Scheduler Server (PSPRCSRV) and Distribution Agent (PSDSTSRV) are the only servers that are booted when you start PeopleSoft Process Scheduler.

When the PeopleSoft Process Scheduler Server initiates an Application Engine program in OS/390, it initiates the program using the executable $PS_HOME/bin/psae.

Note: PSAE is the same executable that is used in PeopleSoft releases before 8.4.

Server Logging System

Each of the Process Scheduler Tuxedo servers generates a separate log file.

See Understanding the PeopleSoft Process Scheduler Configuration File.

Using Oracle Tuxedo Software

This section discusses using Oracle Tuxedo software.

Changing a Local System Account to a Network Account

When Oracle Tuxedo software is installed, the BEA ProcMGR Windows service is set up by default to be started by a local system account—a user account that does not have access to the Windows network. The service must be started by a network account if PeopleSoft Process Scheduler (or processes initiated through Process Scheduler):

- Uses a network printer.
- Accesses files from a network drive.
- Uses Microsoft Windows utilities, such as XCopy, that may access universal naming convention (UNC) paths.

To change an account to a network account:

1. Select Start, Settings, Control Panel.
2. Double-click Services.

   The Services dialog box appears.
3. Select *BEA ProcMGR* service.
4. Select *Stop* to stop the current BEA ProcMGR process.
5. Select *Yes* to change of status message.
6. Select Startup to modify settings.

   The BEA ProcMGR Service dialog box appears.
7. Select the Log On As This Account option.
8. Enter the domain and machine name in the This Account field.

   Note: When configuring the TUXEDO server, the user ID that is designated to be the Application Server Administrator must have read and write permissions to the PeopleSoft file directory and read permission to the %TUXDIR% directory, such as c:\tuxedo.
9. Enter the machine password in the Password and Confirm Password fields.
10. Click OK.

11. Click Start.

    A message in the Services dialog box indicates the Started status.

12. Click Close to return to the Control Panel.

See the product documentation for *PeopleSoft 9.2 Application Installation* for your database platform.

Creating the Tuxedo Configuration File (PSTUXCFG)

The Tuxedo configuration file (PSTUXCFG) is created in the PS_CFG_HOME\appserv\prcs\<Database Name> directory when you use the PSADMIN utility to:

- Perform a quick-configure and load the configuration by selecting option 4 in the Quick-Configure menu.
- Select the Configure Process Scheduler Server option from the Process Scheduler Administration menu of the PSADMIN utility.

See "Understanding PS_HOME and PS_CFG_HOME" (PeopleTools 8.59: System and Server Administration).

You can detect a new PSTUXCFG file when you see the message: *Configuration file successfully created. Loading new configuration.*

If changes were made to any of the following parameters in the PeopleSoft Process Scheduler configuration file, Oracle Tuxedo does not recognize the changes until a new Tuxedo configuration file is rebuilt. You can rebuild the PSTUXCFG file by selecting the Configure Process Scheduler Server option. The last task of this option is to rebuild the PSTUXCFG file.

- StartUp
- Process Scheduler
- Tuxedo Settings
- PSTools
- PSAESRV
- PSDSTSRV
- CacheSettings

To go directly to the last task after selecting the Configure Process Scheduler server option, enter *n* at the Do you want to change any config values (y/n) prompt. The following prompts appear to rebuild the PSTUXCFG file:

- Do you want to change any config values (y/n)? [n]:
- Do you want the Application Engines configured (y/n)? [y]:
- Do you want the Master Scheduler configured (y/n)? [n]:
- Configuration file successfully created.

Add To Path

The Add To Path parameter in the Tuxedo Settings section of the PeopleSoft Process Scheduler configuration file is set with all of the libraries that are needed to run the executables that are delivered with PeopleSoft. If you plan to run processes using software that is not supplied by PeopleSoft, include all of the directory paths that are needed to run the process through PeopleSoft Process Scheduler successfully. Recreate the Tuxedo configuration as noted previously.

You can verify the current library path that is included in the appropriate environment variable by browsing the contents of the PSPRCSRV.ENV file.

Note: If you experience any printing problem in the UNIX environment, be sure to enter a full path in the Add To Path parameter in the Process Scheduler configuration file. For example, you may enter `/bin:/usr/bin`

Using the PSADMIN Utility to Configure Process Scheduler Tuxedo Servers

All of the PeopleSoft Process Scheduler server configuration information for a specific database is contained in the PSPRCS.CFG configuration file, and the PSADMIN utility provides an interface for editing the PSPRCS.CFG file.

This section discusses how to set parameters for the:

- Distribution Agent (PSDSTSRV).
- Application Engine Server (PSAESRV).
- Master Scheduler Server (PSMSTPRCS).

The PeopleSoft system automatically archives the Process Scheduler configuration file whenever it is changed. The older version is archived as PSPRCS_<Time Stamp>.CFG and the current version becomes psprcs.cfg. The archive directory path is *<PS_CFG_HOME>\Appserv\<database>\Archive\,* for example, *C:\Documents and Settings\admin\psft\pt\8.50\Appserv\fin50\Archive*

Setting Parameters for the Distribution Agent

The Distribution Agent posts reports and system log files to the Report Repository. When the PSPRCSRV server detects that a process has finished, it sends the PostReport Oracle Tuxedo service request to the Distribution Agent to initiate the transfer of the report.

Parameter	***Description***
Max Instances (maximum instances)	Indicates the maximum number of Distribution Agents (PSDSTSRV) that can be started within Oracle Tuxedo. The default value is *2.*

Parameter	Description
Min Instances (minimum instances)	Indicates the minimum number of Distribution Agents (PSDSTSRV) that can be started within Oracle Tuxedo. The default value is *1*.
Recycle Count	Indicates the number of services after which PSDSTSRV automatically restarts. If this is set to *0* (default), PSDSTSRV is never recycled.
Allowed Consec Service Failures (allowed consecutive service failures)	Indicates the number of consecutive service failures after which PSDSTSRV automatically restarts. If this is set to *0* (default), PSDSTSRV is never recycled.

Setting Parameters for the Application Engine Server

This server is responsible for running requests with a process type of Application Engine.

Parameter	Description
Max Instances	Indicates the maximum concurrency set for process types with a generic process type of Application Engine, as defined on the Server Definition page in Process Scheduler Manager.
Recycle Count	Indicates the number of services after which PSAESRV automatically restarts. If this is set to *0* (default), PSAESRV is never recycled. See "Recycle Count" (PeopleTools 8.59: System and Server Administration).
Allowed Consec Service Failures	Indicates the number of consecutive service failures after which PSAESRV automatically restarts. Server processes must be intermittently recycled to clear buffer areas. If this is set to *0* (default), PSAESRV is never recycled.
ScheduledQuery - DirtyRead	This parameter only applies to DB2. Indicates if dirty reads are enabled. Setting this to *1* enables the application server to read uncommitted data from a table. If this is set to *0* (default), dirty reads are disabled.

PSAESRV Max Instance and Application Engine Max Concurrent

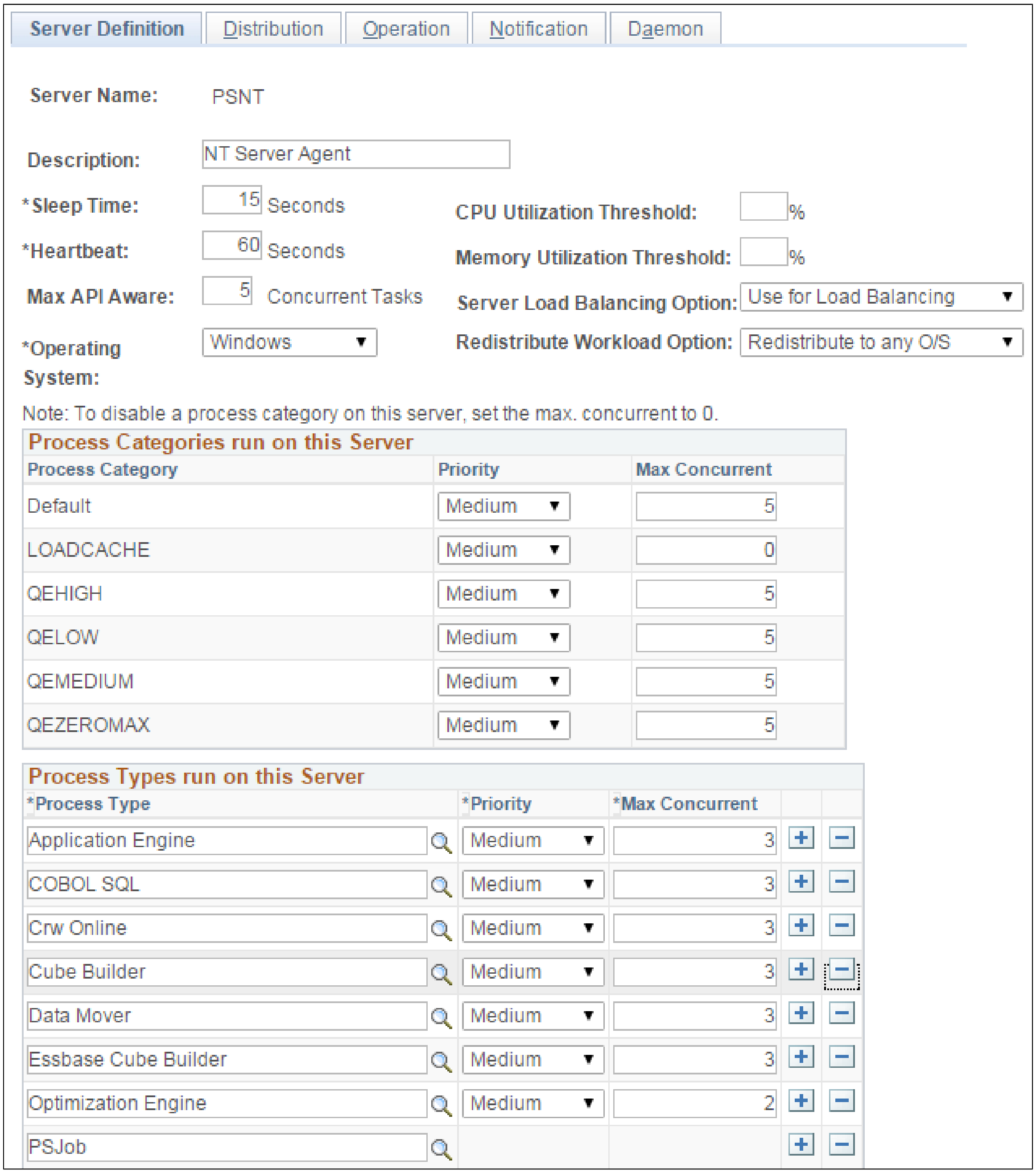
By default, three instances of the PSAESRV are booted in PeopleSoft Process Scheduler to allow the maximum concurrent processes, as specified in the server definition. If this server is intended to increase or decrease the maximum concurrent for PeopleSoft Application Engine, you must change Max Instances in the PSAESRV section of the process configuration file to match the Max Concurrent value for PeopleSoft Application Engine. PeopleSoft Process Scheduler schedules the maximum concurrent processes for PeopleSoft Application Engine based only on the minimum number from both values.

Note: Because PSAESRV runs both of the Application Engine and Optimization Engine processes, you must include the Max Concurrent for the Application Engine and Analytic Engine process type when you configure the number of PSAESRV tuxedo processes in the domain.

Select PeopleTools > Process Scheduler > Process Scheduler Servers to access the Server Definition page.

Image: Server Definition page

This example illustrates the fields and controls on the Server Definition page.



PSAE Versus PSAESRV

You should use PSAESRV because it delivers improved system performance.

If PeopleSoft Process Scheduler was set to not start any instance of PSAESRV in Microsoft Windows or UNIX, but the server definition corresponding to this server allows you to run PeopleSoft Application Engine, then Process Scheduler initiates an Application Engine program using the $PS_HOME\bin\psae executable.

Note: This functionality is similar to how PeopleSoft Process Scheduler initiates PeopleSoft Application Engine in OS/390.

Setting Parameters for the Master Scheduler Server

Master Scheduler is an optional server that enables you to distribute workload across multiple Process Schedulers. However, in certain conditions, a Master Scheduler is required.

Note: You should always use a Master Scheduler.

Related Links

Understanding PeopleSoft Master Scheduler Functions

Configuring the Analytic Calculation Engine and Analytic Engine in the Process Scheduler Domain

Unlike the Application Server domain that requires you to configure the Analytic Server, you do not need to configure the Analytic Server in the Process Scheduler domain. Because the Analytic Calculation Engine (ACE) and the Analytic Engine are built in the Analytic Server, all Application Engine jobs that are launched by Process Scheduler are run in PSAESRV or on the command line: psae. Consequently, PSAESRV and psae load the analytic instances directly into their own process rather than sending the analytic instances to the Analytic Engine.

See "Understanding the Analytic Server Framework" (PeopleTools 8.59: Analytic Calculation Engine).

Granting PeopleSoft Process Scheduler Administrative Rights

Personnel who are responsible for administering a PeopleSoft Process Scheduler Server require administrative rights that are granted through PeopleSoft Security.

Administrative Rights	***Description***
Update all PeopleSoft Process Scheduler definition tables, monitor all process requests on the Process Monitor page, and access any report that is generated by Process Scheduler via direct URL to the report instance.	Grant the *ProcessSchedulerAdmin* role. See Granting a PeopleSoft Process Scheduler System Administration Role.
Authorize users to view reports in the Report Manager.	Grant either the *ReportDistAdmin* or *ReportSuperUser* role. See Granting Report Manager Administrative Roles.

Administrative Rights	***Description***
Start the PeopleSoft Process Scheduler Server.	Authorize to have the *Can Start Application Server* rights in the permission list and grant the *ProcessSchedulerAdmin* role. See "Setting General Permissions" (PeopleTools 8.59: Security Administration). See Granting a PeopleSoft Process Scheduler System Administration Role.

Using PSADMIN with PeopleSoft Process Scheduler

This section discusses how to use PSADMIN from the command line.

Note: This section does not discuss how to configure, start, and stop PeopleSoft Process Scheduler.

See the product documentation for *PeopleSoft 9.2 Application Installation* for your database platform.

In addition to the instructions in the Installation and Administration manual about how to administer PeopleSoft Process Scheduler through PSADMIN in interactive mode, this table lists the options PSADMIN provides for the following tasks:

Task	***PSADMIN Parameter***
Start a PeopleSoft Process Scheduler.	-p start -d <database name>
Stop a PeopleSoft Process Scheduler.	-p stop -d <database name>
Configure a PeopleSoft Process Scheduler.	-p configure -d <database name>
Show the status of a PeopleSoft Process Scheduler.	-p status -d <database name>
Create a new PeopleSoft Process Scheduler.	-p create -d database -t <template> -ps <ps set>

<ps_set> specifies startup settings having the following format:

For Windows –

DBNAME/DBTYPE/PRCSSERVER/OPR_ID/OPR_PSWD/DB_CNCT_ID/DB_CNCT_PSWD/SERVER_NAME/LOGOUTDIR/SQRBIN/ADD_TO_PATH/DBBIN/CRYSTALBIN/DOM_CONN_PWD/ENABLE_REMOTE_ADMIN/REMADM_PORT/REMAD_UID/REMADM_PSWD/(NO)ENCRYPT

For example:

psadmin -p create -d PSHRDB1 -t windows -ps PSHRDB1/ORACLE/PSNT/PS/PS/people/peop1e/_____/"c:\psft app\log_output"/c:\psfthr\bin\sqr\MSS\binw/c:\WINNT\SYSTEM32/C:\pt858mt\pt\oracle-client\12.1.0.2\bin/<*domain password*>/_____/1/8888/remusr1/<*remote administrator password*>/ENCRYPT

For UNIX –

DBNAME,DBTYPE,PRCSSERVER,OPR_ID,OPR_PSWD,DB_CNCT_ID,DB_CNCT_PSWD,SERVER_NAME,LO
REMADM_USERID,REMOTE_ADMIN_PSWD,(NO)ENCRYPT

For example:

$ psadmin -p create -d PSHRDB1 -t unix -ps PSHRDB1,ORACLE,PSNT,PS,PS,people,peop1e,_____,"/path/to/joe/ps_cfg/psadm2/output",/path/to/sqrbin,_____,<*password*>,1,8888,remusr1,<*remote administrator password*>,ENCRYPT

Related Links

Understanding the PeopleSoft Process Scheduler Configuration File

Chapter 12

Managing PeopleSoft Master Scheduler Servers

Understanding PeopleSoft Master Scheduler Functions

A Master Scheduler enables load balancing of workload by automatically routing requests to available Process Scheduler servers, which ensures that you maintain optimal processing at all times. This feature also offers fault tolerance in your batch environment. In the event of a server failure, a Master Scheduler can redistribute queued requests among the remaining active Process Scheduler servers. In addition, an active Master Scheduler manages and controls all Process Scheduler server domains that are on the same PeopleSoft database. It enforces all of the rules that are specified in either the process or job definitions, and monitors the running of all processes. It becomes the centralized control as it checks the Process Request table looking for any queued requests to run, and then dispatches them to an appropriate available Process Scheduler server.

A Master Scheduler can be activated in any of the Process Scheduler servers in Microsoft Windows and UNIX. This option is enabled by default when you are configuring a new Process Scheduler server in Windows and UNIX. However, this option is not available in the IBM UNIX System Services (USS). For DB2 OS/390 customers who intend to start a Process Scheduler in USS and want to take advantage of this feature, a Process Scheduler server domain must be set up in either a Microsoft Windows or supported UNIX operating system other than USS.

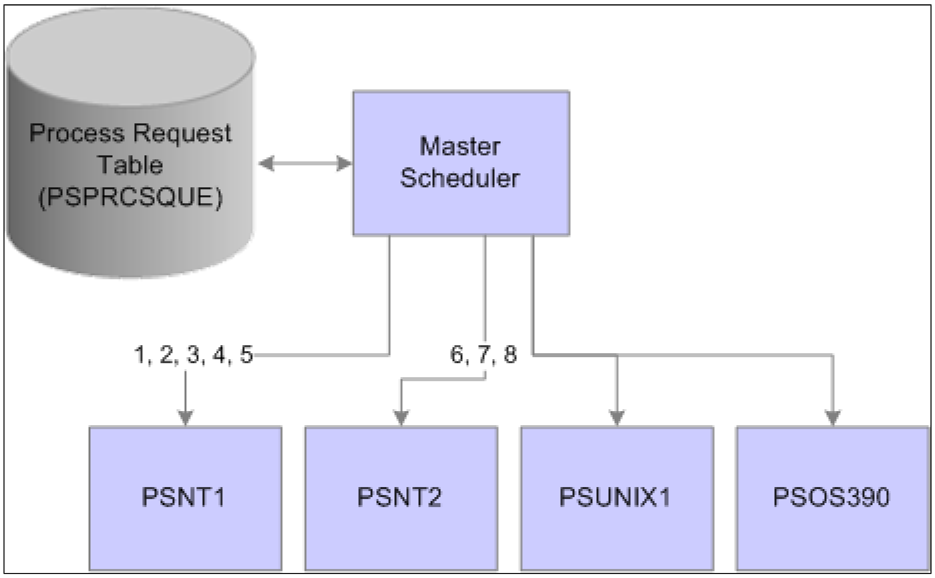
Disadvantages of Using Multiple Process Schedulers with No Master Scheduler

When a Master Scheduler is not used, each Process Scheduler server that is brought up is responsible for managing its own workload by querying the Process Request table. This can be problematic when multiple Process Scheduler servers are booted for the same database. Each server attempts to schedule requests that are specified to run either on this specific server or any server. If any request is set to run on any server, more than one server may attempt to schedule the same request. To resolve this, specify a specific server through the Process Request page. However, this becomes disadvantageous if the specified server goes down because the request remains queued until the Process Scheduler server is brought up again.

One other disadvantage of bringing up multiple Process Scheduler servers without using a Master Scheduler is the uneven balance of workload across all servers. PeopleSoft Process Scheduler is constrained to have new requests scheduled with no server name to be picked up only by servers that are running in the operating system that is specified as the *Primary Operating System* on the System Settings page.

Image: Example of Master Scheduler setup using the Primary Operating System option

This example illustrates a master scheduler setup using primary operating system option.



In this specific setup, multiple servers are brought up in Microsoft Windows (PSNT1 and PSNT2), UNIX(PSUNX), and OS/390 (PSOS/390), where Windows is the designated primary operating system. Assuming that all new requests were scheduled with a blank server name, then only PSNT1 and PSNT2 are qualified to pick up these requests. The PSUNX or PSOS/390 will be used only when requests are scheduled with the name of the intended Process Scheduler server. Also, you can see a scenario in which PSNT1 will pick up most of the requests, leaving PSNT2 under utilized.

The Master Scheduler resolves this problem by becoming the central point for querying the Process Request table. When a Master Scheduler is available, all active PeopleSoft Process Scheduler Servers switch into a remote server mode. Master Scheduler registers and monitors any active remote servers. After the active Master Scheduler prioritizes all new queued requests, it checks all available servers to decide which remote server is the most appropriate for running a particular request at run time. It attempts to evenly load balance workload across all available servers, enabling the most effective use of overall computing resources.

Circumstances in Which a Master Scheduler Is Required

The Master Scheduler is an optional server that enables you to distribute workload across multiple Process Schedulers. However, this table shows specific circumstances that mandate having an active Master Scheduler available:

Condition	***Reason***
Schedule PSJobs containing processes that need to run in different operating systems.	This instance is particular to database platforms that allow having Process Scheduler servers booted in multiple operating systems. When the Primary Operating System is set to UNIX or OS/390, Process Scheduler will attempt to assign all processes within a PSJob to Process Schedulers with this operating system. However, certain processes can run exclusively from Windows for example, any PS/nVision process. Master Scheduler is required to redirect the PSJob item to PeopleSoft Process Scheduler on Windows.
Active Schedule JobSets are defined.	Only a Master Scheduler can schedule any active Schedule JobSets. The Master Scheduler is also responsible for scheduling any recurring Schedule JobSets.
Impose *system constraints,* as defined in process or job definitions.	A process or job can now be defined with either Mutually Exclusive Processes or Max Concurrent values. These system constraints will be imposed only if a Master Scheduler is active.
The System Load Balancing Option is set to *Assign To Server In Any O/S.*	When a machine goes down, Master Scheduler can transfer queued requests that are assigned to the PeopleSoft Process Scheduler Server on a non-functioning machine to a PeopleSoft Process Scheduler Server that is started on another machine.
Purge process requests and reports.	A Master Scheduler must be running for the purge process to run.

Related Links

Creating Scheduled JobSet Definitions
Defining Jobs
Setting Process Definition Options

How to Use Multiple Master Schedulers

Each Process Scheduler domain on Windows or UNIX (except for USS) can be set up to have a Master Scheduler started. However, only one Master Scheduler is active to control the workload at any time. The other Master Schedulers remain in a state of idle. If the active Master Scheduler goes down, then one of the idle Master Scheduler servers take control. If a Master Scheduler is not available, then the PSPRCSRV servers, currently in remote server mode, switch back to standalone mode and query the Process Request table to find work.

The Process Monitor component identifies the Process Scheduler server where the Master Scheduler is active. From the Server List tab, where the list of active Process Scheduler servers are displayed, the Master column indicates whether a Master Scheduler is active in any of the servers.

Related Links

Viewing the Server List

Master Scheduler Request Prioritization

When Master Scheduler tallies all new queued requests, it attempts to prioritize all incoming requests before checking all registered active servers to find the appropriate server. A set of rules were implemented to help the Master Scheduler prioritize the accumulated queued requests that are found in the Process Request table. All requests are sorted based on these conditions:

1. Restartable or recovery process.

   Any process that is set in the process definition as restartable with a non-zero retry count that failed in previous attempts and currently has a run status of *Restart* is given a higher priority and will be on top of the priority list. Similarly, a process that is automatically scheduled by PeopleSoft Process Scheduler as a recovery process for a failed request is also placed on top of the priority list.

2. Processes contained in active PSJobs.

   The Master Scheduler monitors all active PSJobs that have processes that are currently initiated in one or more Process Scheduler (remote) servers. When the Master Scheduler detects that available slots are available to assign requests to a remote server and prepares to evaluate all queued requests, it initiates processes within these active PSJobs prior to querying the Process Request table for new queued requests.

3. Accumulated priority value.

   Each request is given an overall priority value based on the different priority options that are available in the system. Master Scheduler calculates the overall priority based on the order of importance of this priority, and ranks the request accordingly. However, each server definition may be configured with different priority options, and therefore may result in the same request ranking high in one server while it is positioned at the bottom of the list in another.

   For example, an SQR report has a process category of Financials. This category has a priority of *High* in the PSNT server definition, while the same category has a priority of *Low* in the PSNT2 server definition. In this situation, the SQR report will likely be assigned to the PSNT server.

   The overall priority will be calculated based on this order of importance of all these priority options that can be assigned to a request:

   a. *Process Category Priority:* The system will assign the priority value of the process category that is specified in the server definition to the request. If a process belongs in a PSJob, then all processes in this PSJob will be assigned the process category of the PSJob. In the case of a complex PSJob in which a PSJob is embedded within another PSJob, then all the processes will be assigned the process category of the main PSJob.

   b. *Process/Job Priority:* This is the priority as defined in either the process or job definition. Similar to the process category, all processes within a PSJob will have the priority of the main PSJob.

   c. *Process Type Priority:* This is the priority that is specified in the server definition for each process type it can process. In the case of PSJob, the process within a PSJob will have the priority based on its own process type.

4. Run date and time.

In the event of two or more requests having the same calculated priority based on all the criteria noted above, the request with an earlier run date and time will be scheduled first by the Master Scheduler.

How to Manage Workload Across Available Servers

This section lists the parameters that are used to control how workload is managed across available servers:

Parameter	***Modified In***	***Options***
Primary Operating System	System Settings	Windows (default). UNIX. OS/390.
Load Balancing Option	System Settings	Assign to Primary O/S Only (default). Assign to Server in Any O/S.
Server Load Balancing Option	Server Definition	Use for Load Balancing (default). Do Not Use for Load Balancing.
Redistribute Option	Server Definition	Redistribute to any O/S (default). Redistribute with same O/S. Do Not Redistribute.
Max API Aware	Server Definition	Numeric value (default = 5).
Process Category Max Concurrent	Server Definition	Numeric value not exceeding the Max API Aware.
Process Type Max Concurrent	Server Definition	Numeric value not exceeding the Max API Aware.
Server Status	NA	NA

Primary Operating System Option

The operating system that is specified in the Primary Operating System field in the System Settings component is the default operating system that is assigned to all new queued requests with a blank server name specified. If the system detects that the process in the request cannot be run in the default operating system based on the process type definition, then the system assigns the request with the operating system that is found in the process type definition.

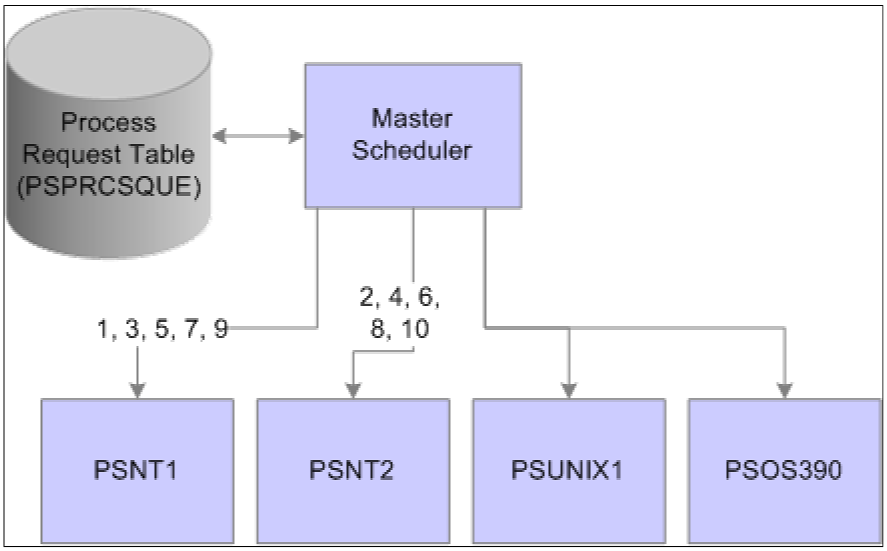
Load Balancing Options

The Load Balancing Option affects how Master Scheduler performs the round-robin assignment for all available remote servers in attempting to load balance the workload. When the option *Assign to Primary*

O/S Only is selected, Master Scheduler performs a round robin only to all remote servers that are booted in the primary O/S.

Image: Example of Master Scheduler setup using the Load Balancing - Assign to Primary O/S Only option

This diagram illustrates the setup of a master scheduler using load balancing option that is assigned to primary O/S.



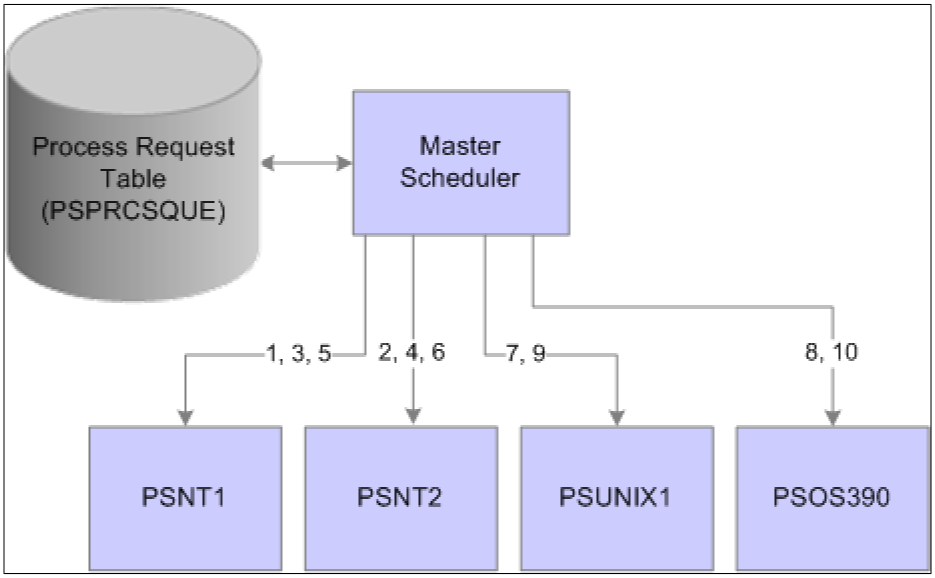
In this case, the Primary Operating System is Microsoft Windows. This is the operating system in which both PSNT1 and PSNT2 are initiated. When Master Scheduler finds new queued requests with blank server names, the workload is evenly distributed between the two Windows Process Scheduler servers only. Although PSUNIX1 and PSOS/390 are available, no requests are assigned to these servers. The remote servers PSUNIX1 and PSOS/390 are assigned only with new requests that are scheduled with this specific server name.

If the option is set to *Assign To Server In Any O/S,* Master Scheduler attempts to load balance workload to all active servers. At first, it tries to distribute work to servers residing in the primary operating systems. When it has reached the server definition limitations, it attempts to route work to the remaining active servers. For example, Master Scheduler will round robin the prioritized lists to both PSNT1 and PSNT2, as these servers are booted in the primary operating system. Assuming the Max API Aware for both PSNT1 and PSNT2 is three, then the first six process requests will be distributed between PSNT1 and PSNT2, and the reaming requests will be distributed to PSUNIX1 and PSOS/390.

The pattern for how Master Scheduler assigns requests to available servers with this option is illustrated in this diagram:

Image: Example of Master Scheduler setup using the Load Balancing - Assign To Server In Any O/S option

This diagram illustrates how Master Scheduler assigns requests to available servers



Server Load Balancing Options

The Server Load Balancing Options field of the server definition indicates whether the server can be used for routing new requests with blank server names. Select the *Use For Load Balancing* option if this server can be assigned requests with no specific server name specified. If this server is intended to be used only if new process requests are scheduled with this server's name, set this server with the *Do Not Use For Load Balancing* option.

Redistribute Option

The Redistribute Option field of the server definition directs the Master Scheduler to a course of action in the event that a server is shut down or encounters a software or hardware failure. If Master Scheduler finds new queued process requests with the server's name identifier and detects that the server is currently unable to process any requests, one of the following three options can be selected:

- *Redistribute to any O/S:* Master Scheduler attempts to redistribute requests with the server's name into any available active Process Scheduler server.
- *Redistribute with same O/S:* Master Scheduler attempts to reroute requests only to another Process Scheduler that is booted in the same operating system as this server.
- *Do Not Redistribute:* Master scheduler does not attempt to reroute any requests with the server's name identifier. In this case, requests remain queued until the server is booted up.

Max API Aware and Max Concurrent Options

Master Scheduler periodically monitors the current workload of all active Process Scheduler servers. It ensures that when you are performing a round robin assignment, it does not exceed any of the following limitations that are specified in the server definition:

- Max API Aware: Indicates the total number of tasks that a Process Scheduler can initiate concurrently.

- Process Category Max Concurrent: Indicates the upper limitation of how many processes with the same process category can be initiated concurrently.

  Note: The number that is assigned to this field cannot exceed the value that is specified in the Max API Aware field.

- Process Type Max Concurrent: Similar to the Process Category Max Concurrent field, this value indicates the limit based on the process type of the request.

Server Status

Master Scheduler routes work only to Process Scheduler servers with a server status of *Running.* If a server has a status of *Suspended, Overload,* or *Down,* Master Scheduler defers routing work to the server until the status is changed back to *Running.* Master Scheduler evaluates the appropriate action for process requests that are assigned to the server based on the Redistribute Option setting.

Related Links

Defining System Settings
Understanding Server Definitions

Enhancing Scalability with Master Scheduler

This topic describes the behavior of the Process Scheduler sever in various fail over situations to provide you with some reasonable expectations of scalability in comparable situations.

Scenario	***System Behavior***
No Master Scheduler configured or running.	• No load balancing will occur. • A process will be run by the designated Process Scheduler server only. • A process will remain queued until the designed server is up or it is capable of taking requests. • A process assigned to an overloaded server will not be transferred to other idle or free servers.
One or more Master Scheduler servers running.	• Load balancing will be available as per configuration. • If more than one Master Scheduler is configured, the system is guaranteed to have one Master Scheduler available.
Two or more Master Scheduler servers are configured.	If one Master Scheduler is down, the other will become master scheduler automatically
Master Scheduler available and one of the servers is overloaded.	Work load on overloaded server will be distributed to other servers as per configuration.

Scenario	***System Behavior***
Master Scheduler is available, and one Process Scheduler server is brought down, while processing a request.	• There will not be any impact to a running process as it will not be stopped abruptly. • In case of Application Engine, and AESRV is enabled, Process Scheduler shuts down gracefully, so, there is no impact on the running process. • Reports will not be posted on completion of the process if the Process Scheduler server is brought down while running a process. However, reports will be posted if the same Process Scheduler is booted. **Note:** The items above assume that the Process Scheduler severs is shut down using PSADMIN, using the normal shut down option, not the forced shut down option. If the forced shut down option is selected, the running process (running at the time of shutting down) will be killed.
Process Scheduler is brought down when it has a number of processes queued for processing.	Queued processes will be transferred to other available servers depending on configuration.

Note: The above items assume that web server is always up. If it is down, report distribution can be disrupted.

Note: Abrupt/forcible killing of servers using utilities like Task Manager of forced shut down using PSADMIN may lead to irrecoverable change of state of a running processes.

Note: All configured Master Scheduler servers should not shut down at the same time. The above statements assume that, at any given time, at least one Master Scheduler server is up and running.

Chapter 13

Developing and Managing Self-Service Schedules

Understanding Self-Service Scheduling

Self-service scheduling allows you to execute processes and generate reports using context specific information without breaching the data security. You can execute self-service schedules using API or from any transaction page where the self-service schedule is configured. This schedule then retrieves mapped application data from the transaction page and uses it for the process execution. The user receives a process status notification. Once the process is completed, the authorized user can access the reports from the dynamically generated notification window on any PeopleSoft page.

Creating and Configuring a Self Service Schedule

Procedure for Developing and Deploying Self-Service Schedule

This section gives a high-level overview about:

- Developing self-service schedules.
- Setting up self-service schedules.
- Deploying self-service schedules.

Procedure for Developing Self-Service Schedule

To develop self-service schedule, you must:

1. Determine the process that needs to be automated.
2. Identify the run control page for the process.
3. Determine the modifiable parameters.
4. Create a component interface on the run control page.
5. Create a self-service schedule by defining the process related parameters and the modifiable parameters.

Procedure for Setting Up Self-Service Schedule

After you develop the self-service schedule, you must setup the self-service schedule through:

1. Mapping the related content to a transaction page :

a. Identify the transaction pages from where the schedules could be executed.

b. Create related action link on the transaction page and map the newly created schedule.

c. Map the context specific fields from transaction page to the modifiable parameters in the Self-Service Schedule.

2. Using the **SchedulerEditor** application class to execute schedule using API.

Procedure for Deploying Self-Service Schedule

To deploy the self-service schedule in the customer environment, you must:

1. Set up the Distribution list.
2. Specify a template if required.
3. Authorize the self-service users to execute process from the transaction page.

Understanding Security Considerations for Executing Self-Service Schedules

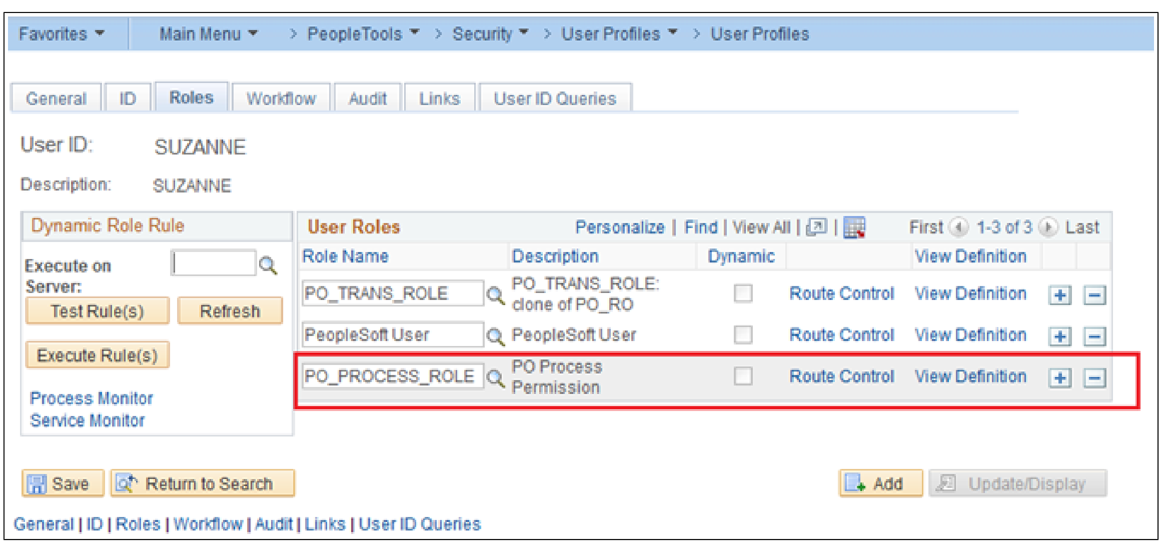
Self-service schedules have a built-in security mechanism that allows the end users to execute processes by taking the input application data that is available on the transaction page.

Self-service schedule when executed, automatically creates run control ID for the executing user.

Assigning PO Process Role to Generate a PO Report

Image: User Profiles - Roles page

This example illustrates the fields and controls on the Roles page.



In this example, the administrator assigns the transaction user, Suzanne, the role PO_PROCESS_ROLE that allows the transaction user to run the purchase order process.

Related Links

Granting Report Manager Administrative Roles

Administering Self-Service Schedules

PeopleSoft Applications administrator must create and setup the self-service schedules. This section discusses how to create and set-up self service schedule.

Creating Self-Service Schedule

To create a self-service schedule, the administrator must define the schedule parameters and the modifiable parameters. Use the Self-Service Schedule page (Search) to add a new self-service schedule.

Note: The Customer Setup section is defined only at deployment on the customer's environment and should not be filled in this phase.

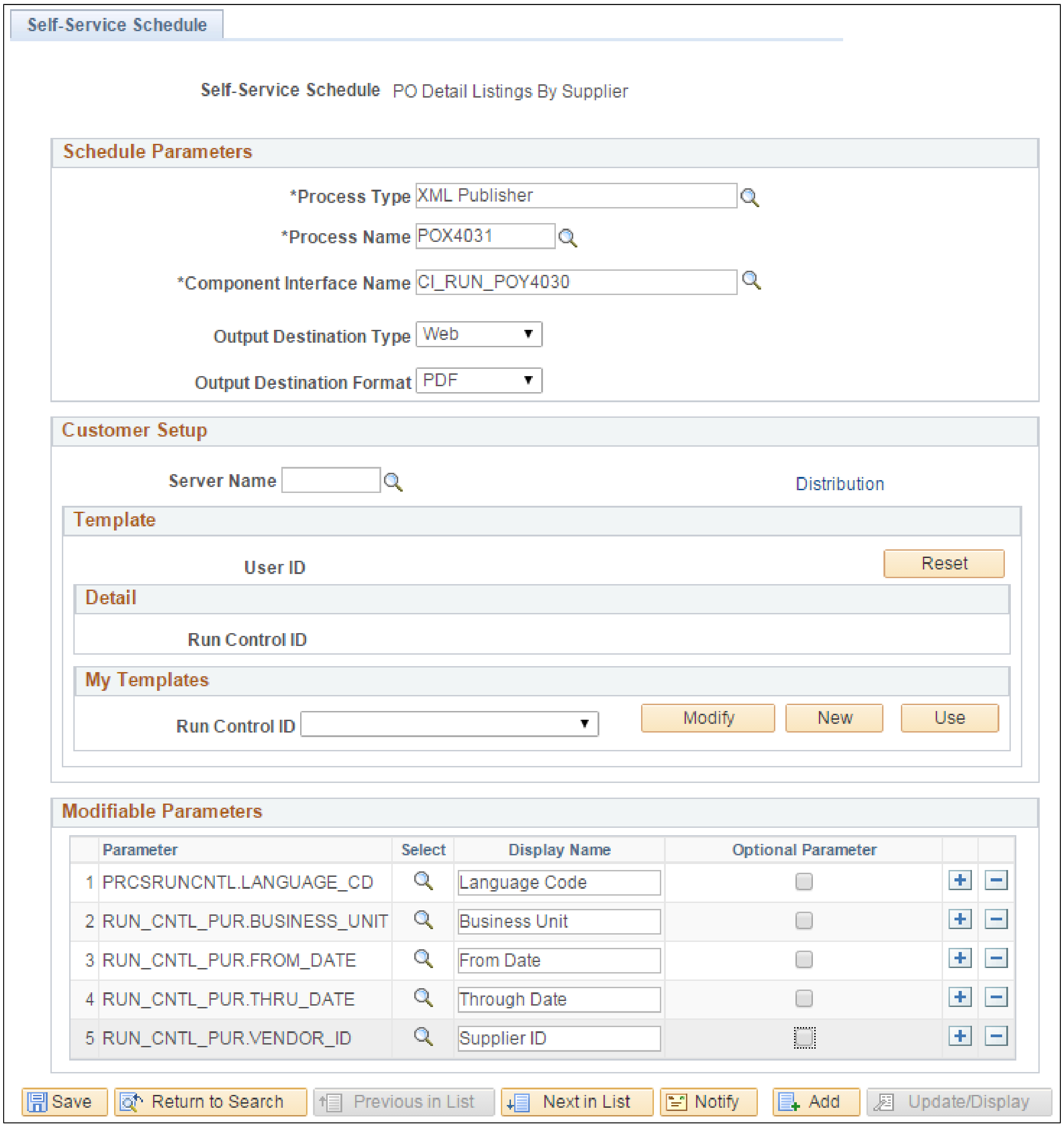
To add a new self-service schedule:

1. Select PeopleTools >Automated Scheduler >Self-Service Schedules.
2. Click the Add a New Value tab.
3. Enter a self-service schedule ID and click Add.
4. On the Self-Service Schedule page, define the schedule parameters and the modifiable parameters.

   Note: The Customer Setup section is updated on the end user's environment only.

Image: Self-Service Schedule page

This example illustrates the fields and controls on the Self-Service Schedule page. You can find definitions for the fields and controls later on this page.



Schedule Parameters

Process Type

Enter the process type for each database and operating system platform on which you want the processes to run.

Process Names

Enter a process name to display. The process names available are based on the type selected. Leave blank to display all names.

Component Interface Name

Enter the component interface on the run control for the process schedule. You must create a component interface in the Application Designer if it does not exist.

See, "Understanding Component Interfaces" (PeopleTools 8.59: Component Interfaces).

Output Destination Type: Select the output destination for this schedule that is applicable for this process type. The process uses the values in the process type definition to determine where to send the output.

Output Destination Format: Select the format of the output destination type.

Modifiable Parameters

For every self-service schedule, a set of parameters can be defined whose values can be over-ridden at run-time. You can select the values for the modifiable parameters at run-time either from the transaction pages, API, or run-time prompt.

Parameter: Enter the field name of the component.

Display Name: Enter the label that is displayed when the run-time prompt is displayed.

Optional Parameter: Select this option to indicate that there will be no run-time prompt if the parameter is not mapped to a transaction page.

Setting up Self-Service Schedule

You can setup a self-service schedule by:

- Mapping the related content to transaction pages.
- Using API

Mapping to Transaction Page

The administrator must configure the related information for the application users to run processes to generate reports.

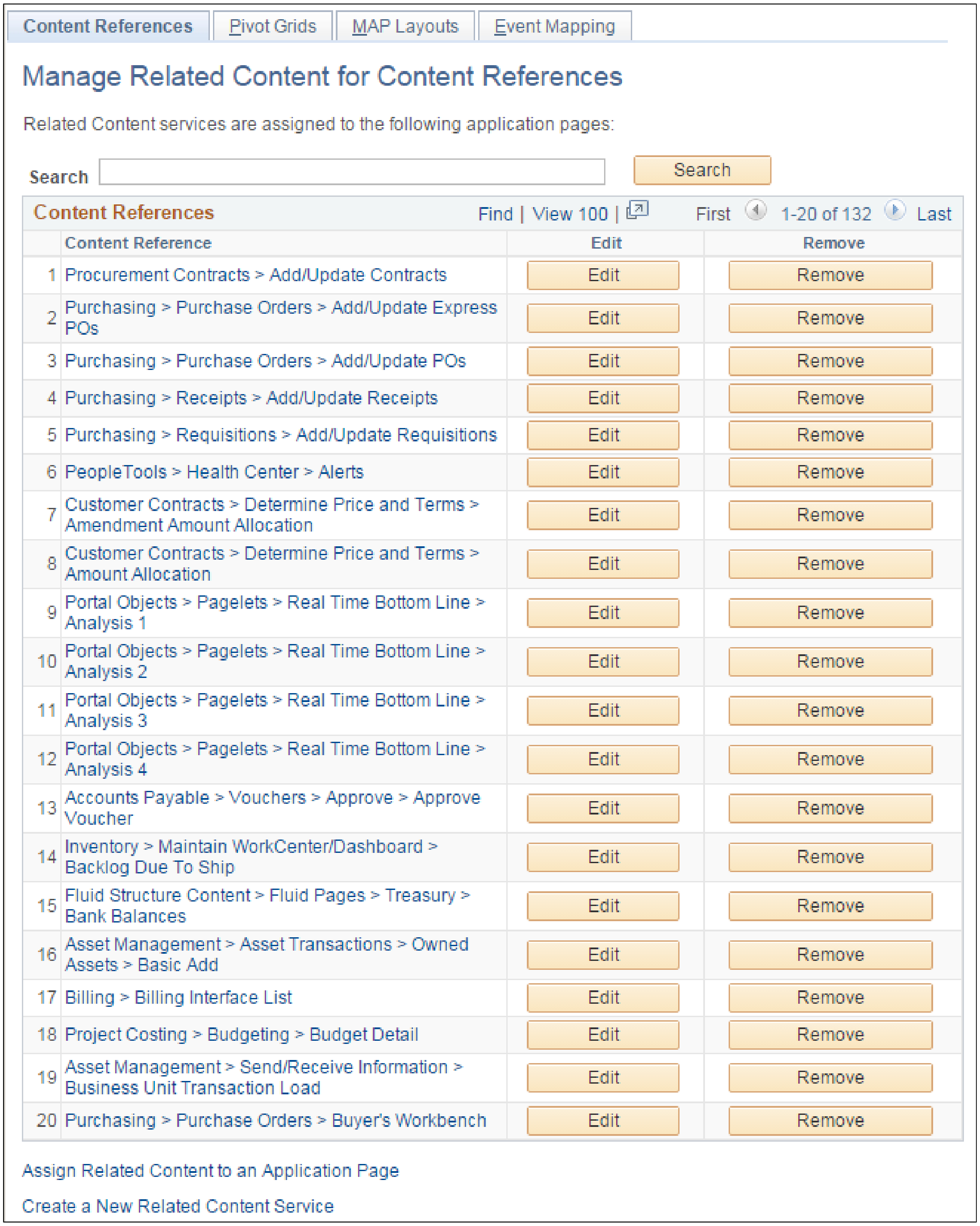
To map the related content to a transaction page, you must first identify the page from where the schedule would be executed. The end users execute the schedule from the transaction page. You can configure the data in the transaction page to the modifiable parameters.

To configure the related information :

1. Select PeopleTools >Portal >Related Content Service >Manage Related Content Service.
2. On the Manage Related Content for Content References page, select a content reference.

Image: Manage Related Content for Content Reference page

This example illustrates the fields and controls on the Manage Related Content for Content Reference page.



3. Click the Edit button.

4. Click the Configure Related Actions tab.

5. From the Page Level Related Actions section, select the transaction page on which you want the related action.

6. In the Service Type field, select *Service*.

7. Select the Service ID as **SCHEDULESERVICE**.

Note: Starting PeopleTools 8.54, **SCHEDULESERVICE** application class provides a new Related Content Framework service.

---

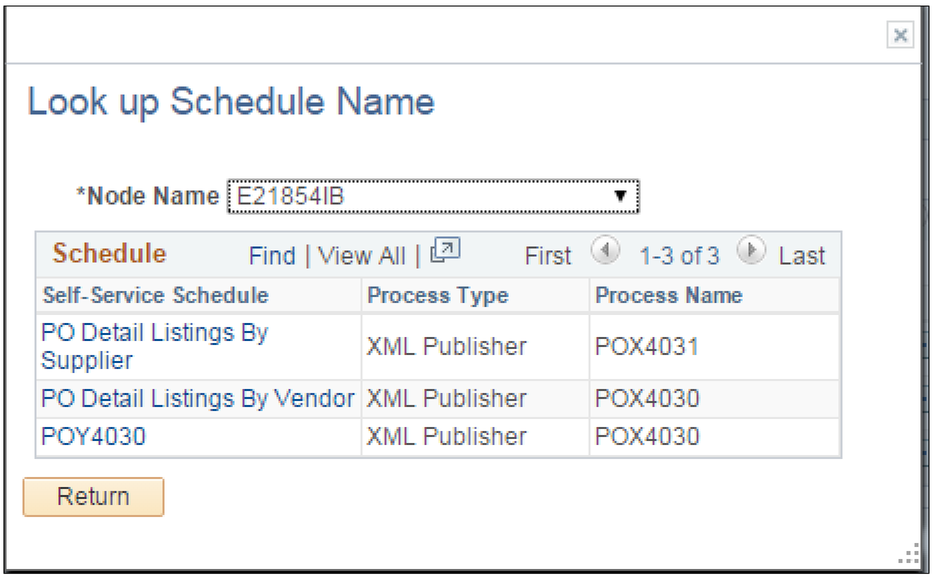
8. On the Look up Schedule Name page, select the node. You can select either the local or the remote node.

   The self-service schedules available in that node are displayed.

Note: To access and run schedules on remote node, you must configure the remote nodes. For configuring remote nodes, see “Configuring Remote Nodes”.

Image: Look up Schedule Name page

This example illustrates the fields and controls on the Look up Schedule Name page.

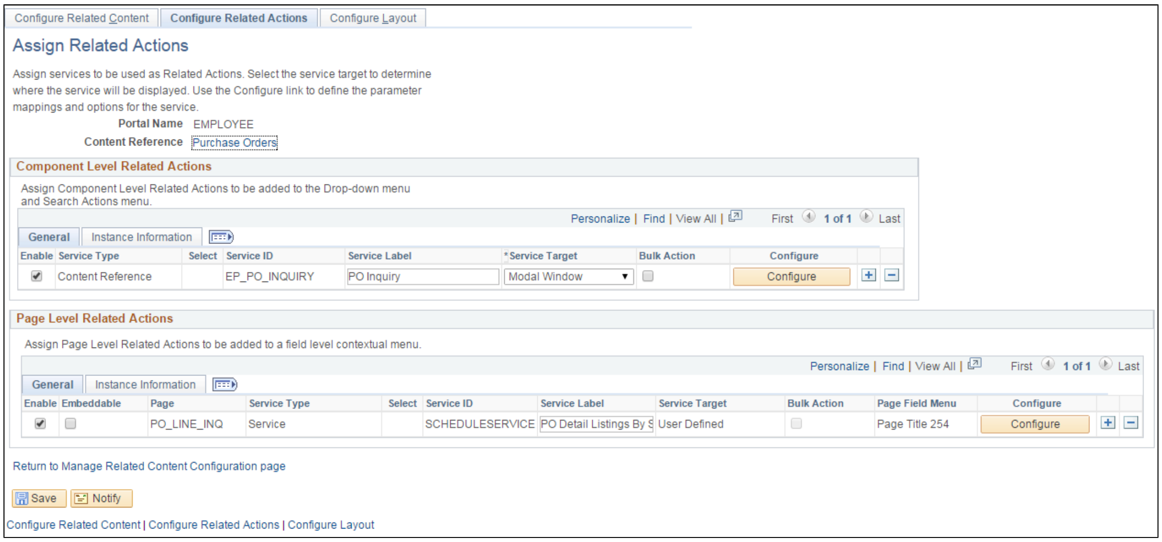


9. Choose the self-service schedule that you have created.

10. Click the Configure button.

Image: Assign Related Actions page

This example illustrates the fields and controls on the Assign Related Actions page.

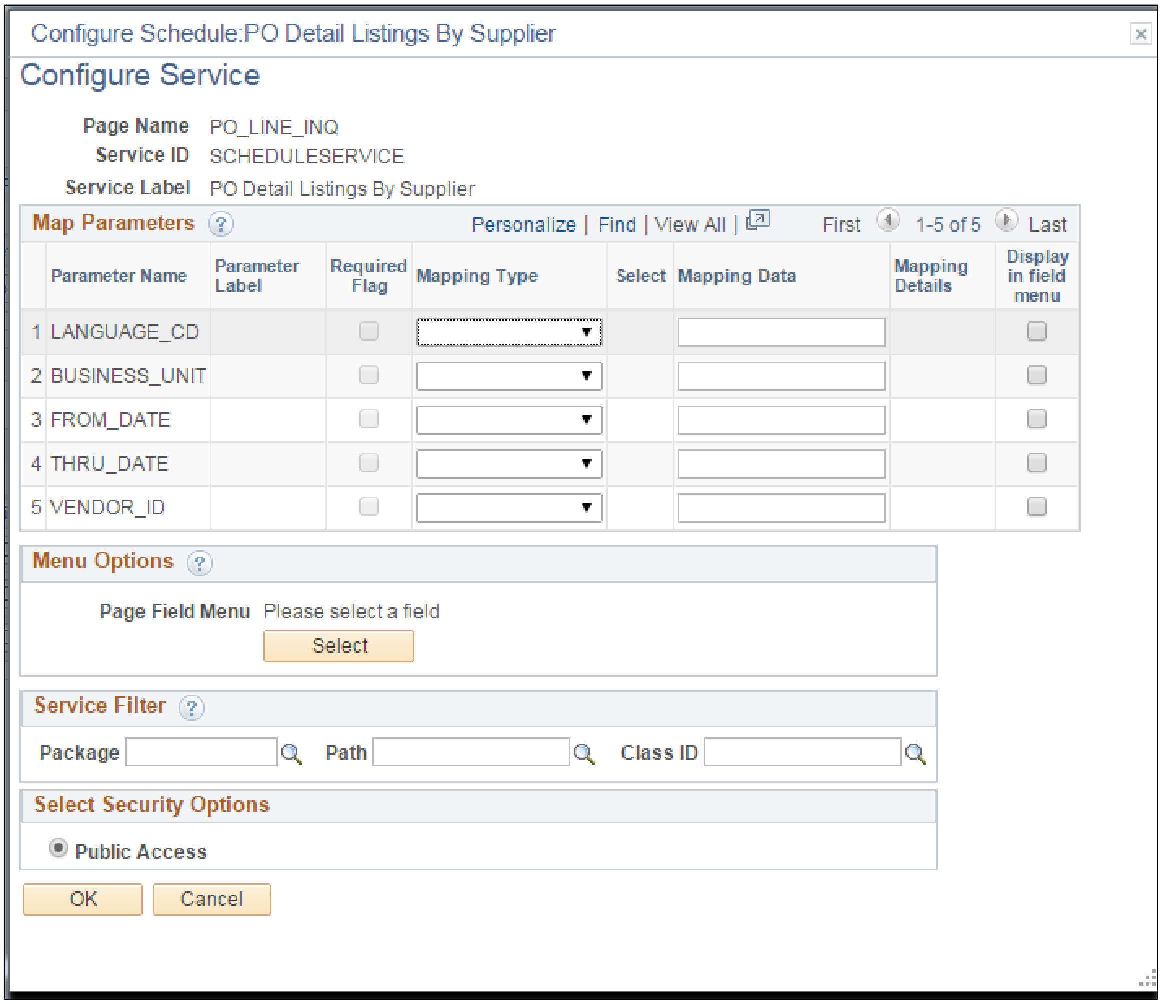


The Configure Service page displays the modifiable parameters specified in the self-service schedule.

11. On the Configure Service page, you can set the mapping type from the Mapping Type list.

Image: Configure Service page

This example illustrates the fields and controls on the Configure Service page.



12. Click OK to save the configuration.

For more information about managing related content, see "Configuring Related Content, Related Actions, and Menu and Frame Layouts" (PeopleTools 8.59: Portal Technology).

Configuring Remote Nodes

Set the routings for the following Service operations:

PTS_GETSCHEDULES	Obtains all schedules from remote node.
PTS_GETSCHEDULE_INFO	Obtains specific schedule information.
PTS_RUNSCHEDULE	Executes a schedule on remote node synchronously.
PTS_RUNSCHEDULE_ASYNC	Executes a schedule on remote node asynchronously.

Note: Enable the first routing for service operation **PTS_STATUS_NOTIFY** to receive and handle notifications for the scheduled processes.

Using API

You can also setup a self-service schedule by using the API. Use **SchedulerEditor** class to update the modifiable parameters.

1. Pass an empty string as parameter value to create **SchedulerEditor** class object.

   ```
   &editor = create PTSCHEDULESERVICE:SchedulerEditor("");
   ```

2. Pass the schedule name and the node name to Invoke the **SetSchedule()** method.

   ```
   &editor.SetSchedule(<Schedule_Name>, <Node_Name>);
   ```

3. Pass the CI parameter name and value to invoke the **&editor.SetCIParamValue()** method.

   ```
   &editor.SetCIParamValue(<Param_Name>, <Param_Value>);
   ```

4. Invoke **SetNotifyAppMethod** and **AddNotifyInfo** to get the notifications.

5. Invoke **Run()** to execute the process.

This is a code example of setting up self-service schedule using the **SchedulerEditor** class.

```
&itemProcRequest = create PTSCHEDULESERVICE:SchedulerEditor("");
&strErrorMessage = &itemProcRequest.SetSchedule
  (&ItemToBeScheduled.ProcessScheduleName,
     &ItemToBeScheduled.ProcessTargetNode);

Evaluate &strErrorMessage

/* Invalid schedule or schedule not available */
When = "PTS_SCHEDULE_NOT_FOUND"

/* Handle error */
Break;

When = "PTS_IB_ERROR" /* Any IB errors */
/* Handle error */
Break;

When = "PTS_SUCCESS"
&itemProcRequest.SetCIParamValue(&prcsCtxData.CIParamName,
  &prcsCtxData.paramValue);

&itemProcRequest.SetNotifyAppMethod("PTAI_ACTION_ITEMS:
  ProcessAutomation:ProcessNotification", "updateProcessStatus");
&itemProcRequest.AddNotifyInfo("PTAI_LIST_ID", &ItemToBeScheduled.ListId);
&itemProcRequest.RunCntlID = &ItemToBeScheduled.ProcessRunControlID;
&strErrorMessage = &itemProcRequest.Run();
break;
End-Evaluate;
```

Deploying Self-Service Schedules

To deploy self-service schedules on the customer environment, you must enter all the parameters in the Customer Setup section. To restrict unauthorized access to schedule processes and generate reports, you must define the distribution list.

You will receive a notification on process execution and report distribution. To receive such notifications, you must configure the server side push.

For more information about setting up notifications, see Defining Notification Configuration.

Related Links

"Understanding the Push Notification Framework" (PeopleTools 8.59: Fluid User Interface Developer's Guide)

Self-Service Schedule Page

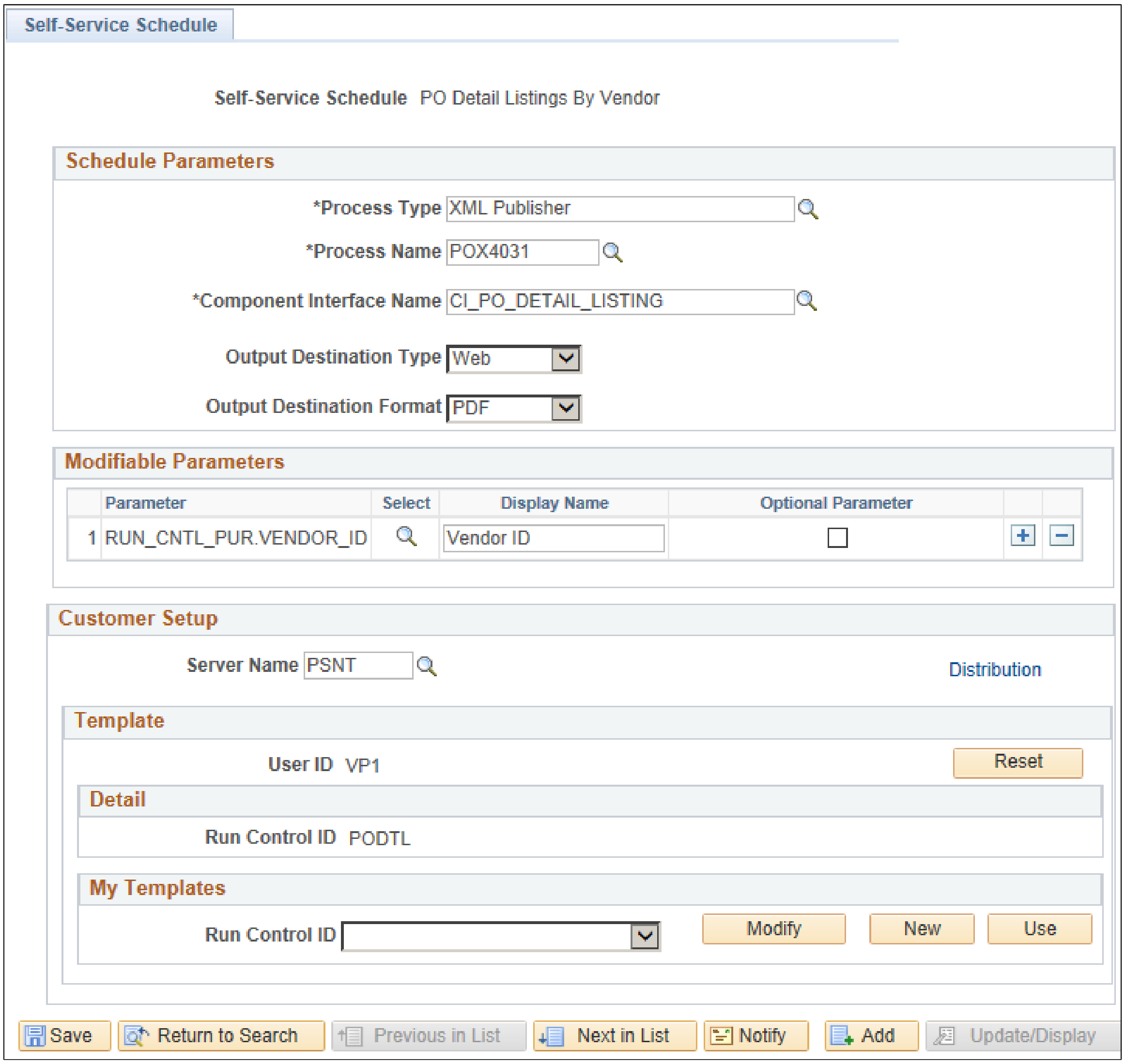
Use the Self-Service Schedule page to setup the environmental specific information like Server, Distribution List and Template.

Navigation

PeopleTools > Automated Scheduler > Self-Service Schedules

Image: Self-Service Schedule - PO Detail Listing By Vendor page

This example illustrates a Self-Service Schedule PO Detail Listing By Vendor page. You can find the definition for the fields and controls in the Customer Setup section later on this page.



Server Name

Enter the server name to execute the schedule on the specified Server.

Note: If this field is left blank, the default Process Scheduler Server assignment takes place.

Distribution

Click this link to specify the distribution details. Use the Distribution Detail page to specify the users who would receive the process status notification with link to generated reports and other status information.

See Defining Distribution Lists and Setting Report Distribution

User ID

Specify the user associated with the selected run control ID.

Reset
Click this to reset the parameters in the customers setup section. This removes the run control template that is associated to this self-service schedule.

Note: The run control is not deleted.

Detail
Displays the selected run control ID that is used as a template.

Run Control ID
Select an existing run control ID.

My Template
Allows users to set the run control.

Modify
Allows editing of the Run Control. It opens up the Run Control page for editing the Run Control.

New
Allows creation of a new run control.

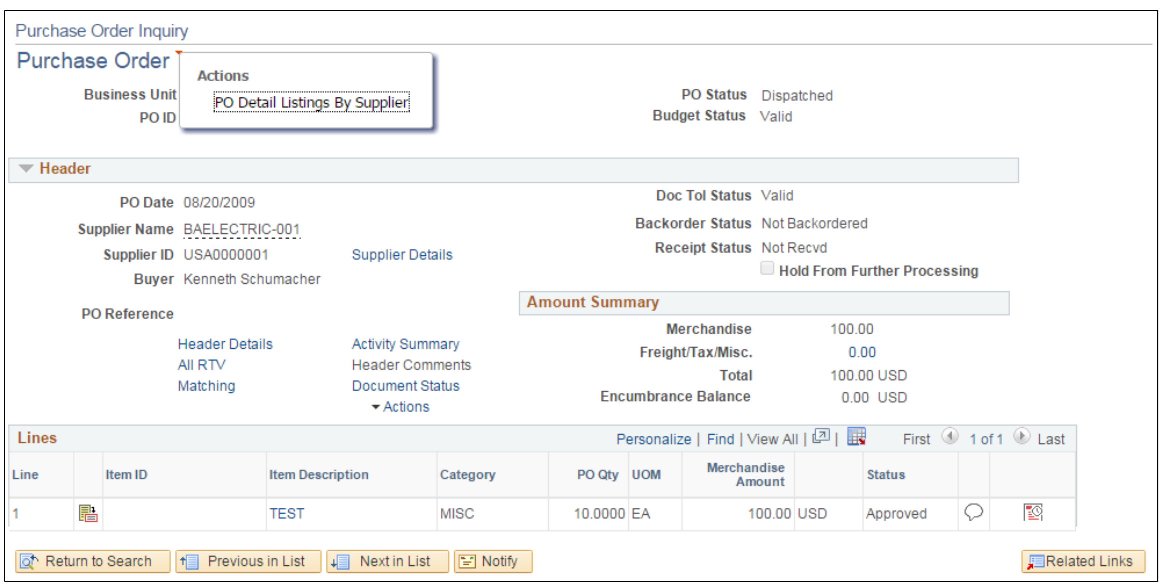
Use
Sets the Run Control Id selected in the Drop-down as the Current Active Template.

Using Self-Service Schedules

Users with permission to a process execution on a transaction page can execute the process to generate reports.

Image: Purchase Order Inquiry page

This example illustrate a self-service schedule on the Purchase Order page.



In this example, the PO Detail Listings By Supplier self-service schedule is mapped to the Purchase Order Inquiry page. The related action link is available on this page.

To schedule a process,

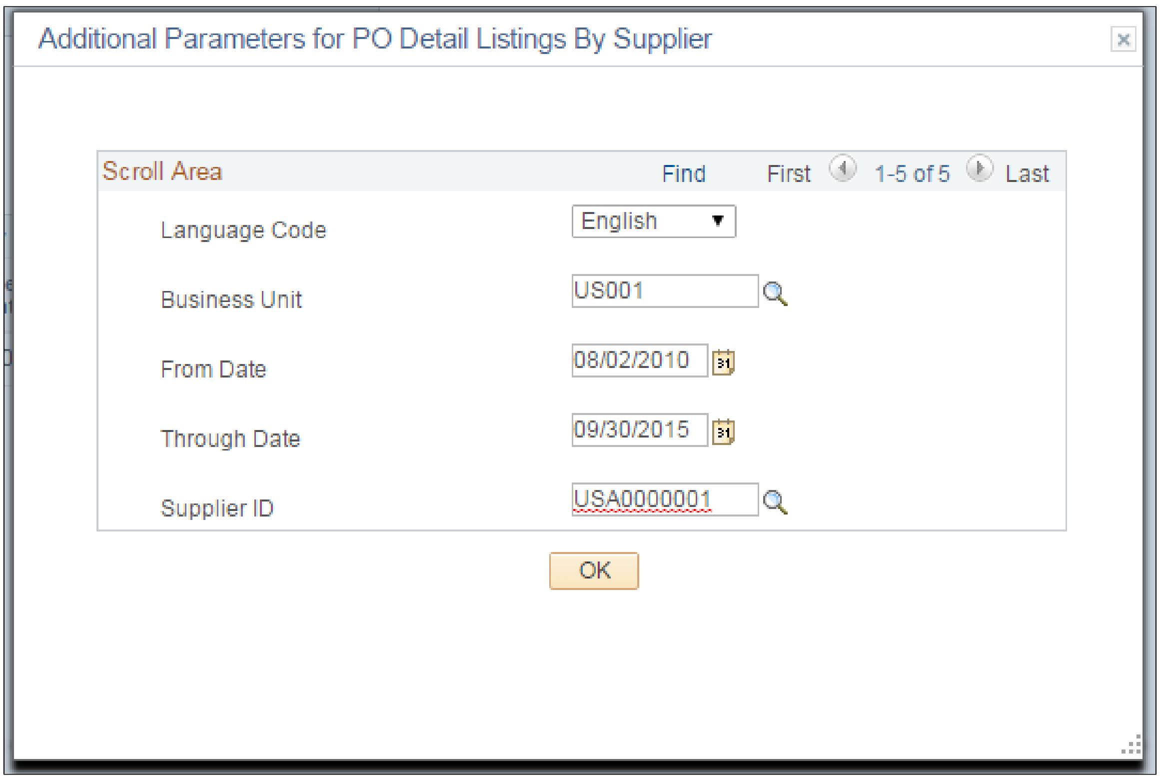
1. Select the related action link and then right-click the PO Detail Listings By Supplier link.

2. In the Additional Parameters for PO Detail Listings By Supplier dialog box, which contains the fields with modifiable parameters, enter the essential information and click the OK button.

   The additional parameters dialog box display the modifiable parameters which can be a drop-down list or a date field. A calendar-picker is provided with the date field for quick selection. The parameters may also be interdependent on each other for example selecting a parameter for a filed may define the options for another parameter.

   Image: Additional Parameters for PO Detail Listings By Supplier dialog box

   This example illustrates the fields and controls on the Additional Parameters for PO Detail Listings By Supplier page.

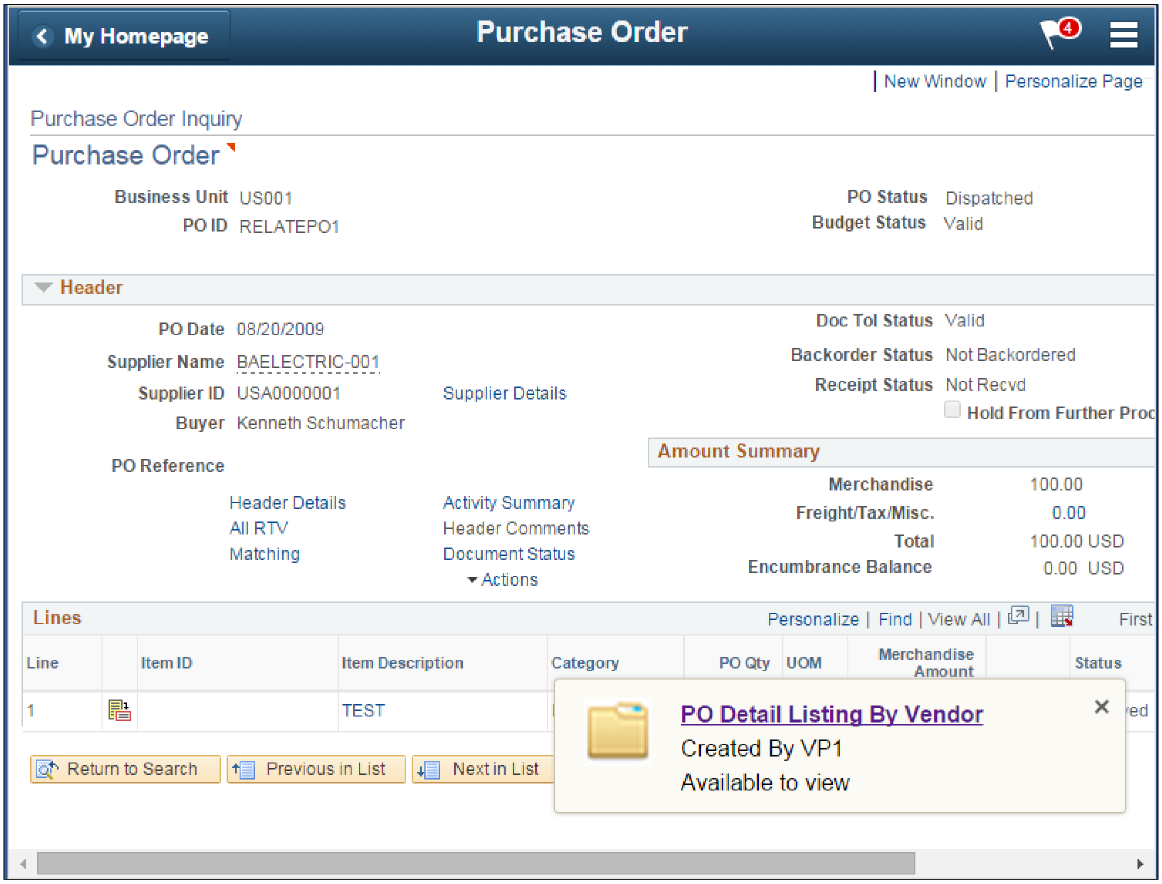
   Note: This dialog box appears only when the schedule contains a required modifiable parameter that is not mapped to the transaction page. See, Setting up Self-Service Schedule

   The application validates the credential of the user and accordingly executes the process. At every process execution, a new run control ID is automatically created for the user.

3. On successful authentication, a link to the report is generated if available. Click the link to access the report directly.

Image: Purchase Order Inquiry (Notification) page

This example illustrates the pop up notification window on the Purchase Order Inquiry page.



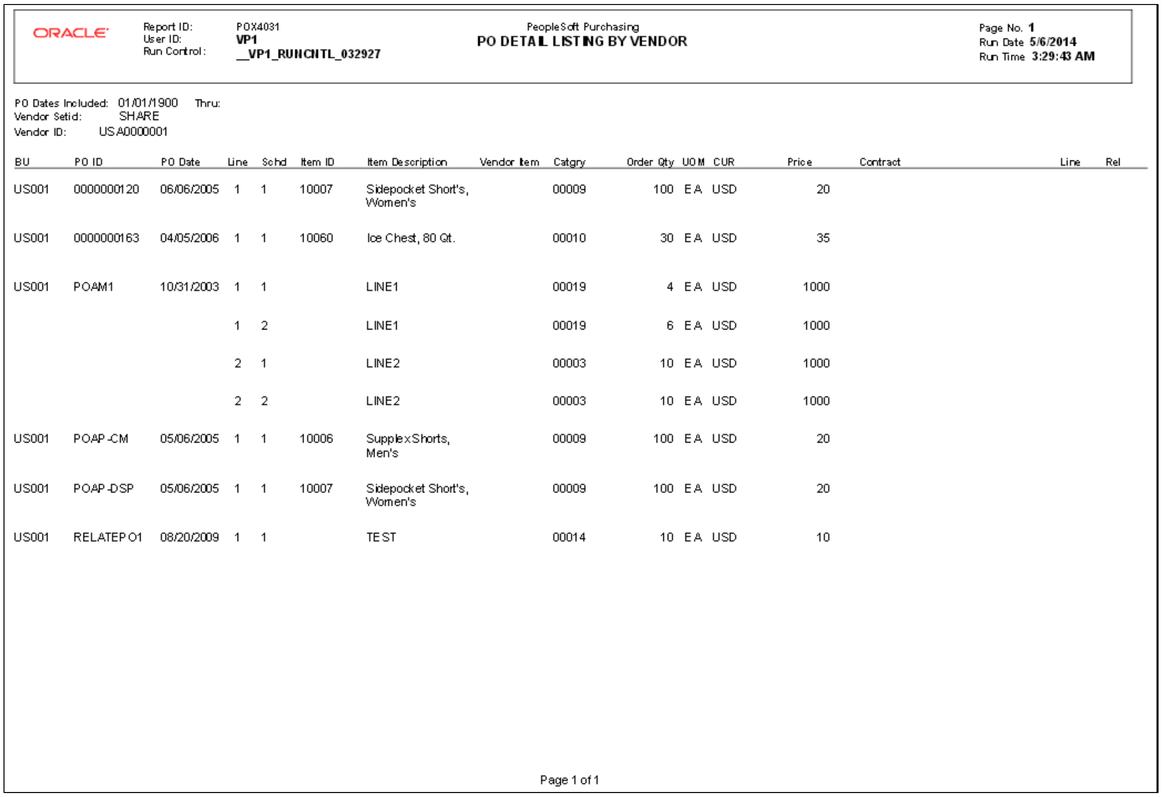
Note: To display notification messages, you must configure the Push Notification configuration. For more information about push notification configuration, see "Configuring the System for Push Notifications" (PeopleTools 8.59: Fluid User Interface Developer's Guide).

---

4. Click the PO Detail Listing By Vendor link on the pop-up window to view the report.

Image: PO Detail Listing By Supplier Report

This example illustrates the PO Detail Listings By Supplier report that is generated.



ORACLE

Report ID: POX4031
User ID: VP1
Run Control: __VP1_RUNCNTL_032927

PeopleSoft Purchasing
PO DETAIL LISTING BY VENDOR

Page No. **1**
Run Date **5/6/2014**
Run Time **3:29:43 AM**

PO Dates Included: 01/01/1900 Thru:
Vendor Setid: SHARE
Vendor ID: USA0000001

BU	PO ID	PO Date	Line	Schd	Item ID	Item Description	Vendor Item	Catgry	Order Qty	UOM	CUR	Price	Contract	Line	Rel
US001	0000000120	06/06/2005	1	1	10007	Sidepocket Short's, Women's		00009	100	EA	USD	20			
US001	0000000163	04/05/2006	1	1	10060	Ice Chest, 80 Qt.		00010	30	EA	USD	35			
US001	POAM1	10/31/2003	1	1		LINE1		00019	4	EA	USD	1000			
			1	2		LINE1		00019	6	EA	USD	1000			
			2	1		LINE2		00003	10	EA	USD	1000			
			2	2		LINE2		00003	10	EA	USD	1000			
US001	POAP-CM	05/06/2005	1	1	10006	SupplexShorts, Men's		00009	100	EA	USD	20			
US001	POAP-DSP	05/06/2005	1	1	10007	Sidepocket Short's, Women's		00009	100	EA	USD	20			
US001	RELATEPO1	08/20/2009	1	1		TEST		00014	10	EA	USD	10			

Page 1 of 1

[Creating and Configuring a Self Service Schedule](#)

Chapter 14

Developing and Managing Partition Schedule

Understanding Partition Schedule

Partition scheduling provides capability for performing parallel processing and also for automation of batch execution of multiple processes. It helps in faster performance by breaking down a process that works on a large data set, to multiple parallel processes that work in tandem on smaller datasets. You can also execute multiple processes that process different data.

You can execute a partition process either from the Partition Manager page or by using the Partition Schedule API in PeopleCode.

Partition schedules can be configured to read values either from existing prompt tables of the fields chosen as partition fields or by implementing Application Class in PeopleCode which return the set of partition data values.

Procedure for Developing and Deploying Partition Schedule

To develop a partition schedule, you must identify a process that could be partitioned.

For example, a payroll process that generates payroll data for different geographic regions, such as, India, US or Spain, could be considered for partition scheduling. These geographic regions are the partition field or field. You can schedule processes automatically for these geographic regions sourced through the following methods:

- Application class.
- Field.

The scheduling is done from the Partition Manager page. Partition manager page is used to:

- Schedule a partition process
- Monitor the progress of scheduled process

Partition Schedule Process

To develop partition schedule, you must:

1. Create a partition schedule.
    a. Identify the partition process and its partition fields
    b. Choose a partition method.

   c. Set the template Run Control ID.

2. (Optional) Set the partition field values in Sample Page.

Creating Partition Schedules

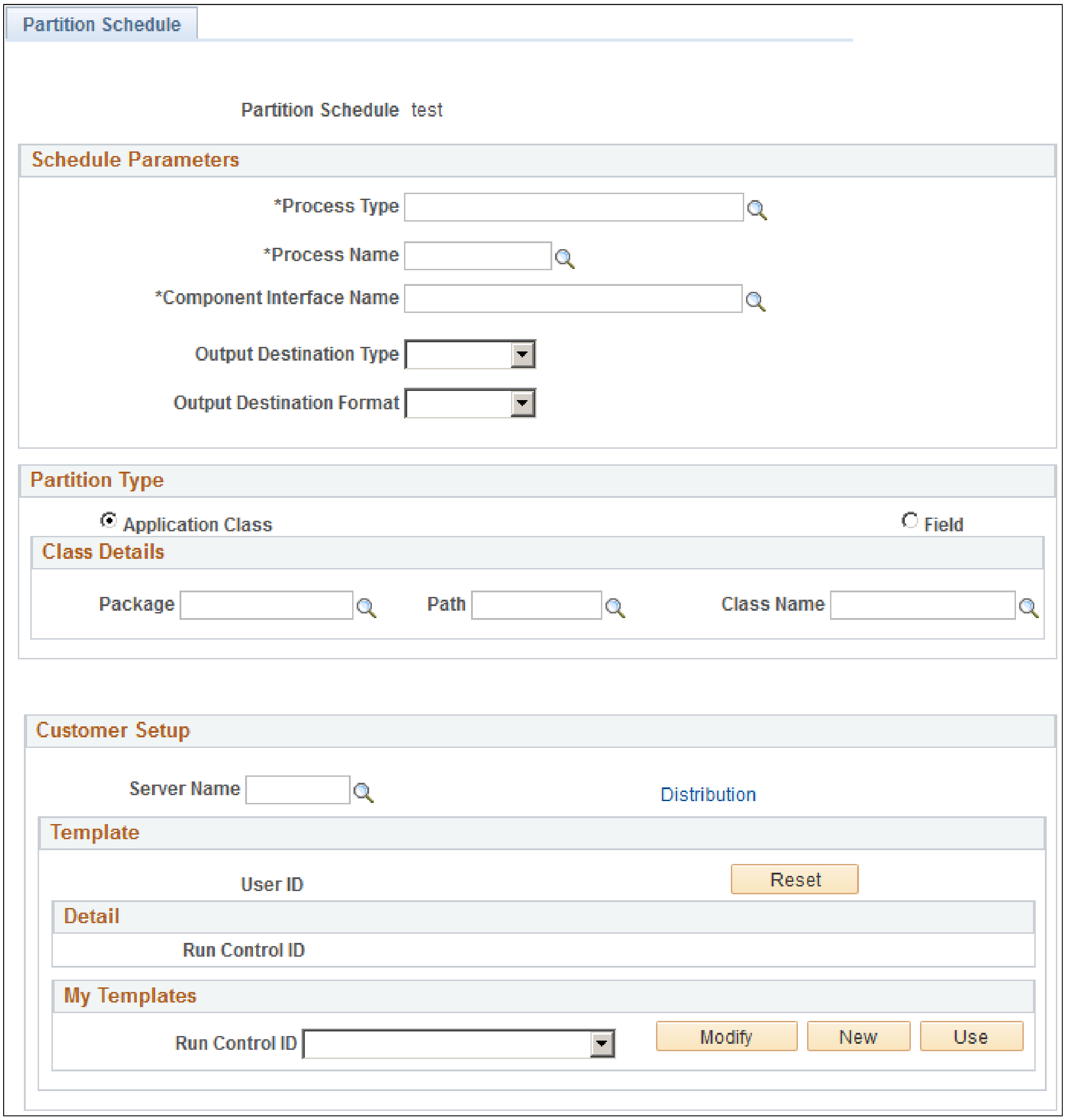
PeopleSoft Applications administrator must create and setup the partition schedules.

To create a partition schedule, the administrator must add the partition schedule ID and then define the schedule parameters and the partition type. Use the Partition Schedule page (Search) to add a new partition schedule.

1. Select PeopleTools >Automated Scheduler >Define Partitioned Processes.
2. Click the Add a New Value tab.
3. Enter a partition schedule ID and click Add.
4. On the Partition Schedule page, define the schedule parameters and the partition type.

Image: Partition Schedule page

This example illustrates the fields and controls on the Partition Schedule page. You can find definitions for the fields and controls later on this page.



Schedule Parameters

Process Type — Enter the process type for each database and operating system platform on which you want processes to run.

Process Name — Enter a process name to display. The process names available are based on the type selected. Leave blank to display all names.

Component Interface Name	Enter the component interface on the run control for the process schedule. You must create a component interface in the Application Designer if it does not exist.
Output Destination Type	Select the output destination for this schedule that is applicable for this process type. The process uses the values in the process type definition to determine where to send the output.

Partition Type

Application Class	Specify the application class. Application class based partition is an advanced partition mechanism that returns the list of partition values.
Field	Select this to specify that the partitioning needs to be done on a field that has a pre-defined prompt table with the required values for the processes. For example, a business unit, such as, US001, US002, and so on.

Customer Setup

Server Name	Enter the server name to execute the schedule on the specified Server. **Note:** If this field is left blank, the default Process Scheduler Server assignment takes place.
Distribution	Click this link to specify the distribution details. Use the Distribution Detail page to specify the users who would receive the process status notification with link to generated reports and other status information. See Defining Distribution Lists and Setting Report Distribution
User ID	Specify the user associated with the selected run control ID.
Reset	Click this to reset the parameters in the customers setup section. This removes the run control template that is associated to this self-service schedule. **Note:** The run control is not deleted.
Detail	Displays the selected run control ID that is used as a template.
Run Control ID	Select an existing run control ID.
My Template	Allows users to set the run control.
Modify	Allows editing of the Run Control. It opens up the Run Control page for editing the Run Control.
New	Allows creation of a new run control.

Use	Sets the Run Control Id selected in the Drop-down as the Current Active Template.

Managing Partitions

Partition Manager page allows end-users to schedule a partitioned process and monitor its progress. It also provides the following functionalities via context menus:

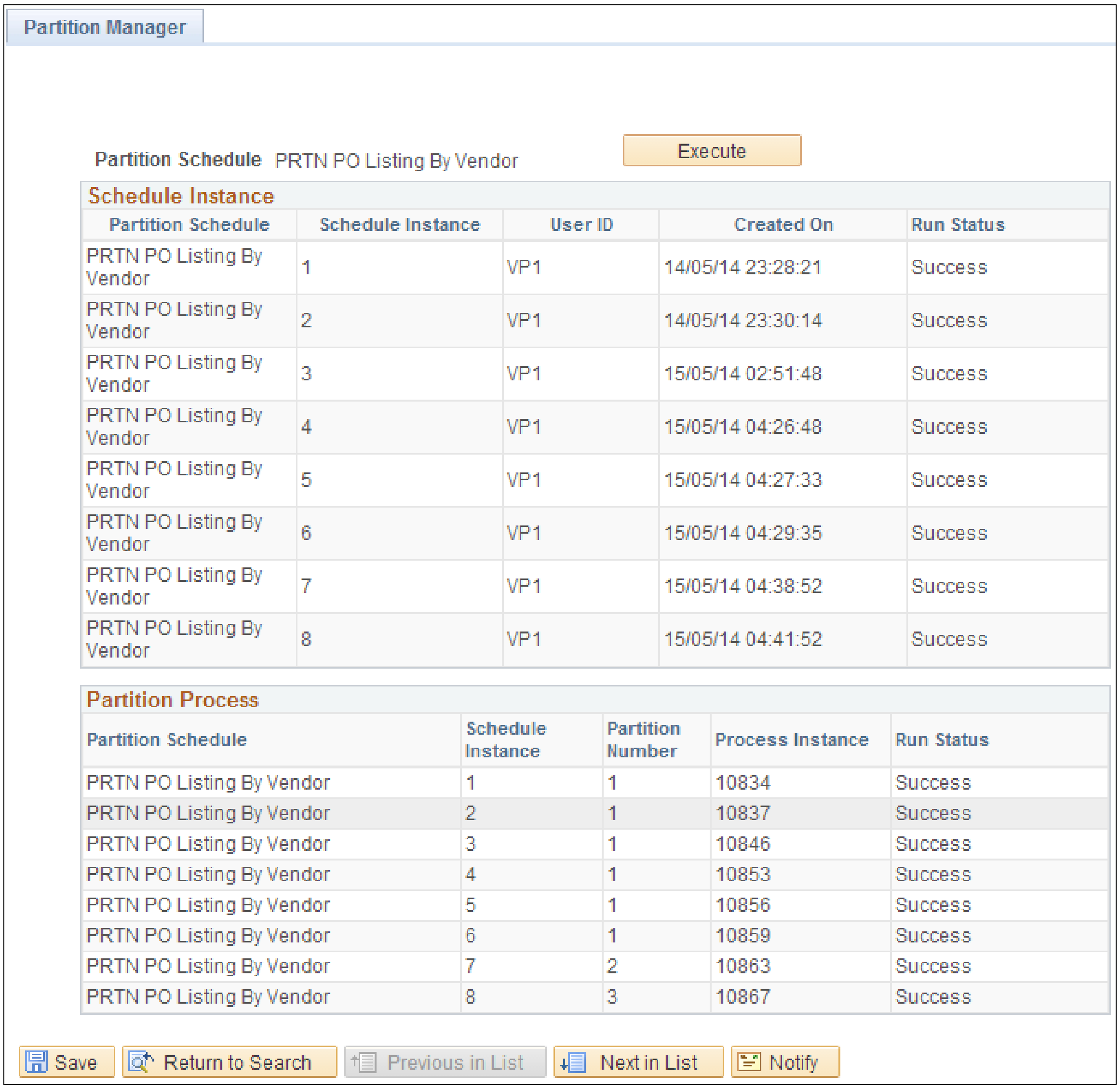
- Execute partition.
- View partitions.
- Archive Partition.
- Re-run process.
- Update process.
- Delete process.

To access the Partition Manager page, select PeopleTools >Automated Scheduler >Manage Partitioned Processes.

From the Partition Manager page, search for a partition scheduled process. See, Searching for a Partition Schedule.

Image: Partition Manager page

This example illustrates the fields and controls on the Partition Manager page. You can find definitions for the fields and controls later on this page.



Partition Schedule	Schedule Instance	User ID	Created On	Run Status
PRTN PO Listing By Vendor	1	VP1	14/05/14 23:28:21	Success
PRTN PO Listing By Vendor	2	VP1	14/05/14 23:30:14	Success
PRTN PO Listing By Vendor	3	VP1	15/05/14 02:51:48	Success
PRTN PO Listing By Vendor	4	VP1	15/05/14 04:26:48	Success
PRTN PO Listing By Vendor	5	VP1	15/05/14 04:27:33	Success
PRTN PO Listing By Vendor	6	VP1	15/05/14 04:29:35	Success
PRTN PO Listing By Vendor	7	VP1	15/05/14 04:38:52	Success
PRTN PO Listing By Vendor	8	VP1	15/05/14 04:41:52	Success

Partition Schedule	Schedule Instance	Partition Number	Process Instance	Run Status
PRTN PO Listing By Vendor	1	1	10834	Success
PRTN PO Listing By Vendor	2	1	10837	Success
PRTN PO Listing By Vendor	3	1	10846	Success
PRTN PO Listing By Vendor	4	1	10853	Success
PRTN PO Listing By Vendor	5	1	10856	Success
PRTN PO Listing By Vendor	6	1	10859	Success
PRTN PO Listing By Vendor	7	2	10863	Success
PRTN PO Listing By Vendor	8	3	10867	Success

Execute Click this to run the partition schedule.

Schedule Instance

Partition Schedule Specify the name of the partition schedule.

Schedule Instance Specify the instance number of the partition schedule.

User ID Specify the user who executed the schedule.

Created ON Displays the date and time at which the process request was created.

Run Status	Displays the current state of a process. Knowing the status of a job helps you determine where it is in the queue or identify a problem if the process has an error.

Partition Process

Partition Schedule	Specify the name of the partition schedule.
Schedule Instance	Specify the instance number of the partition schedule.
Partition Number	Specify the number of the partition schedule.
Process Instance	Displays the process instance number that was automatically assigned when the report was run.
Run Status	Displays the current state of a process. Knowing the status of a job helps you determine where it is in the queue or identify a problem if the process has an error.

Searching for a Partition Schedule

1. Select PeopleTools >Automated Scheduler >Manage Partitioned Processes
2. In the Partition Schedule begins with field, enter the search parameter.

   Note: You can do an advanced search or a basic search.

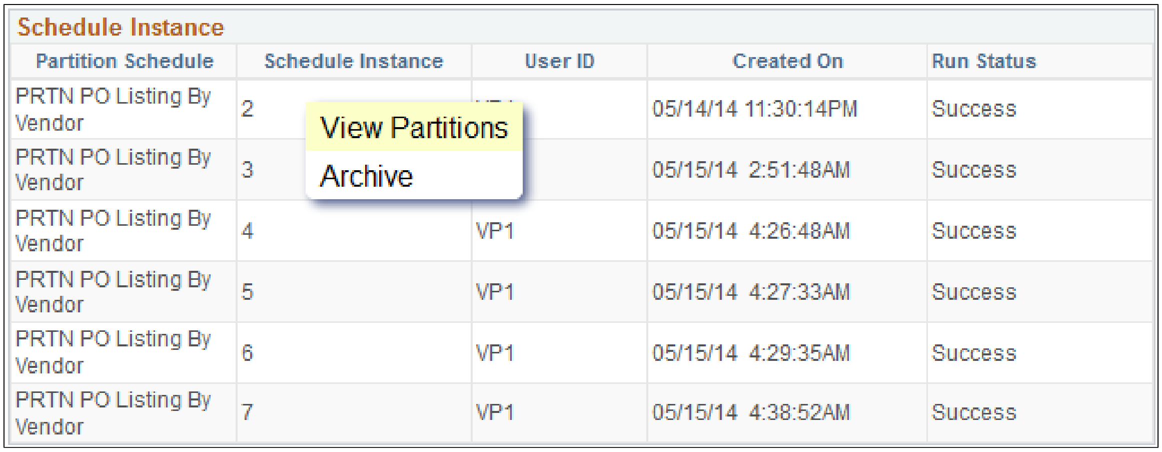
3. (Optional) Select Case Sensitive if you want the search to return the exact.
4. Click Search.

Viewing Partition

Access the Partition Manager page (PeopleTools >Automated Scheduler >Manage Partitioned Processes) to display the partitions of the schedule instance.

Image: Partition Manager - View Partitions page

This example illustrates how to view partitions on the Partition Manager page.



Schedule Instance

Partition Schedule	Schedule Instance	User ID	Created On	Run Status
PRTN PO Listing By Vendor	2		05/14/14 11:30:14PM	Success
PRTN PO Listing By Vendor	3		05/15/14 2:51:48AM	Success
PRTN PO Listing By Vendor	4	VP1	05/15/14 4:26:48AM	Success
PRTN PO Listing By Vendor	5	VP1	05/15/14 4:27:33AM	Success
PRTN PO Listing By Vendor	6	VP1	05/15/14 4:29:35AM	Success
PRTN PO Listing By Vendor	7	VP1	05/15/14 4:38:52AM	Success

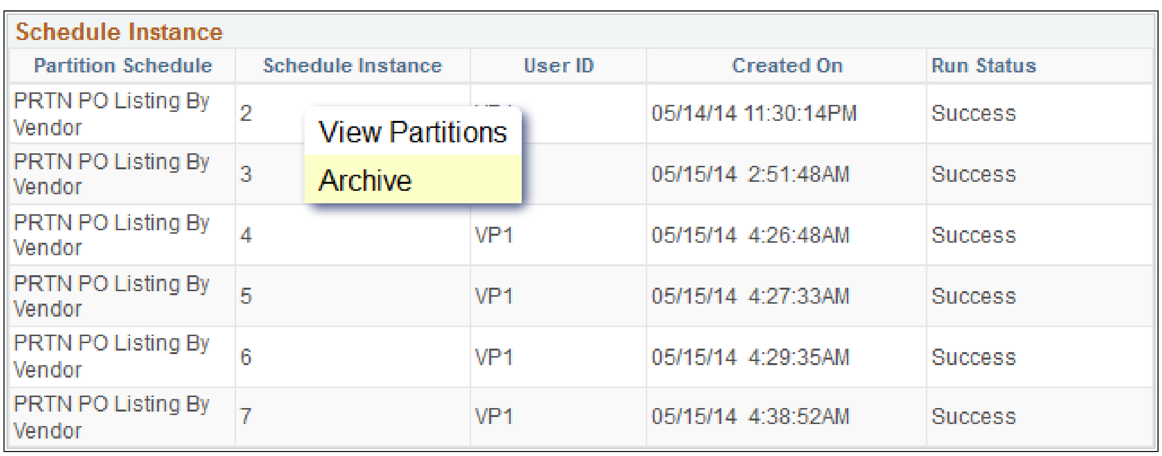
1. From the Partition Process section, click the partition process row that you want to view.
2. Click View Partitions on the list.

Archiving Partition

Access the Partition Manager page (PeopleTools >Automated Scheduler >Manage Partitioned Processes).

Image: Partition Manager - Archive page

This example illustrates how to archive partitions on the Partition Manager page.



Schedule Instance

Partition Schedule	Schedule Instance	User ID	Created On	Run Status
PRTN PO Listing By Vendor	2		05/14/14 11:30:14PM	Success
PRTN PO Listing By Vendor	3		05/15/14 2:51:48AM	Success
PRTN PO Listing By Vendor	4	VP1	05/15/14 4:26:48AM	Success
PRTN PO Listing By Vendor	5	VP1	05/15/14 4:27:33AM	Success
PRTN PO Listing By Vendor	6	VP1	05/15/14 4:29:35AM	Success
PRTN PO Listing By Vendor	7	VP1	05/15/14 4:38:52AM	Success

1. From the Partition Process section, click the partition process row that you want to archive.
2. Click Archive on the list to archive the partition process.

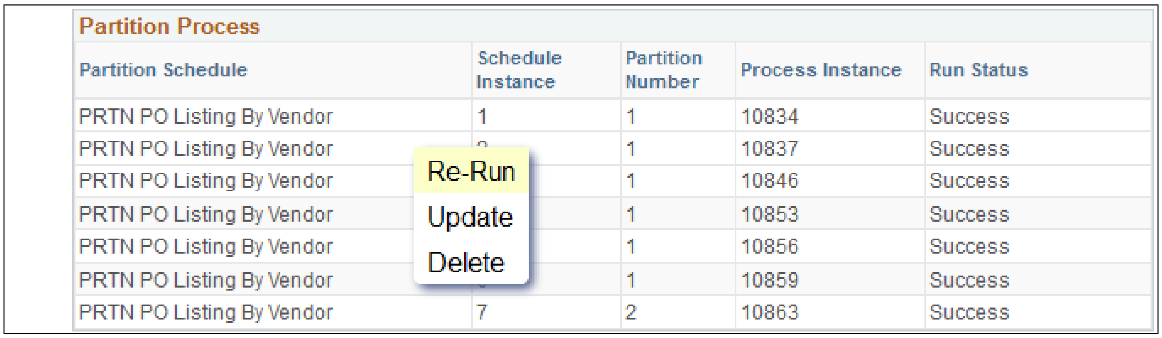
   The partition schedule instance and all its processes are changed to inactive state in the database and cannot be viewed in the Partition Manager page.

Rerunning Partition

Access the Partition Manager page (PeopleTools >Automated Scheduler >Manage Partitioned Processes).

Image: Partition Manager - Re-Run Partition Process page

This example illustrates how you can re-run a partition process on the Partition Manager page.



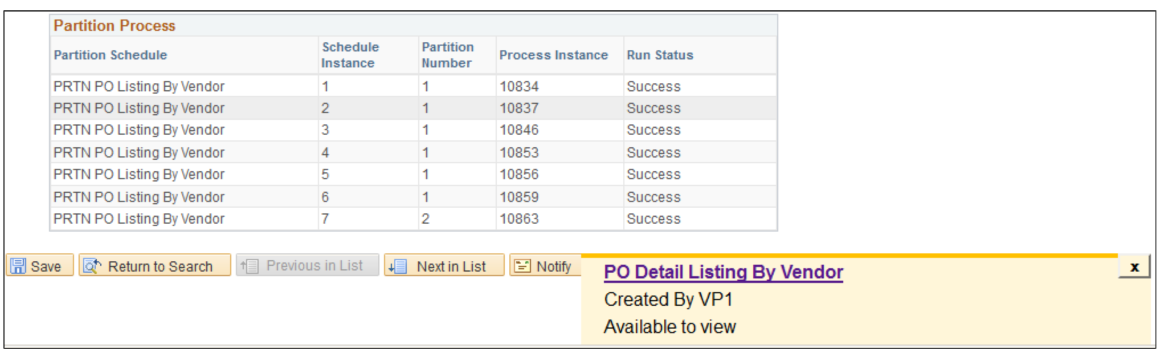
1. From the Partition Process section, select the partition process row that you want to re-run.

2. Click Re-Run.

   Notification messages appears when the partition process is initiated. On successful process run, the notification message displays a link to the report.

   Image: Partition Manager - Notification page

   This example illustrates the link to the report that appears as a notification message on the Partition Manager page.



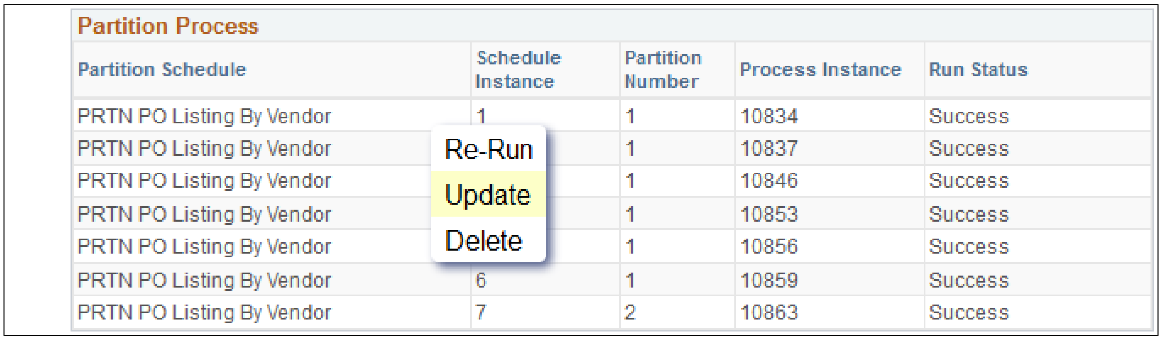
3. Click the PO Detail Listing By Vendor link to view the report.

Updating Partition

Access the Partition Manager page (PeopleTools >Automated Scheduler >Manage Partitioned Processes) to modify the parameters for process scheduling.

Image: Partition Manager - Update Partition Process page

This example illustrates how you can update a partition process on the Partition Manager page.



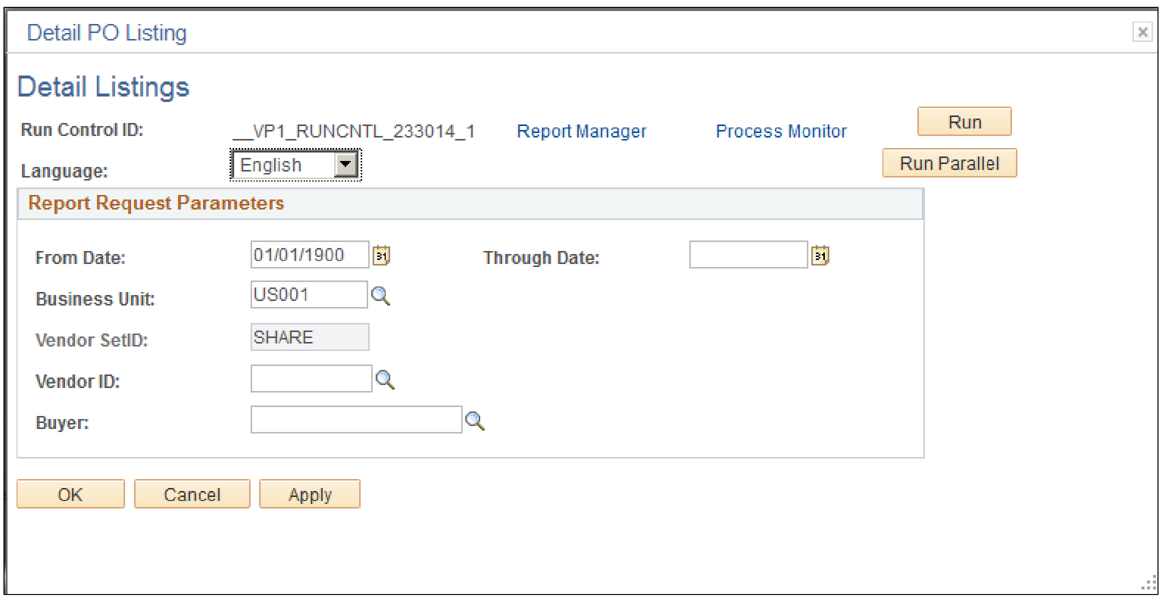
1. From the Partition Process section, select the partition process row that you want to update.

2. Click Update from the list to access the Detail PO Listing page.

3. On the Detail PO Listing page, enter the relevant details.

   Image: Detail PO Listing page

   This example illustrates the fields and controls on the Detail PO Listing page.



Run Control ID

Specify the run control ID that is used as a key (with a user ID) for records that contain the parameters that a process needs at runtime.

See, Understanding Run Control IDs.

Report Manager

Click this to access the Report Manager page to view all the reports that you are authorized to view.

See Viewing Reports.

Process Monitor

Click this to view the run status of a scheduled request.

	See, Understanding Process Monitor
Run	Executes the schedule.
Run Parallel	Executes parallel processing.
Language	Select a language for the report.
From Date	Specify the from date.
Through Date	Specify the end date of the report.
Business Unit	Select a business unit. You can choose run a report for multiple business units.
Vendor SetID	Specify the vendor set identifier.
Vendor ID	Specify the vendor ID.
Buyer	Specify the buyer.

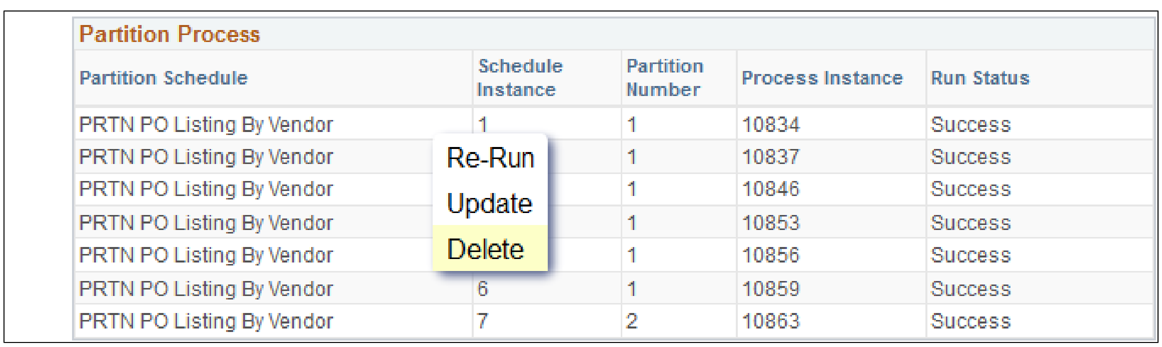
4. Click Save.

Deleting Partition

Access the Partition Manager page (PeopleTools >Automated Scheduler >Manage Partitioned Processes).

Image: Partition Manager - Delete Partition Process page

This example illustrates how you can delete a partition process on the Partition Manager page.


Partition Process

Partition Schedule	Schedule Instance	Partition Number	Process Instance	Run Status
PRTN PO Listing By Vendor	1	1	10834	Success
PRTN PO Listing By Vendor		1	10837	Success
PRTN PO Listing By Vendor		1	10846	Success
PRTN PO Listing By Vendor		1	10853	Success
PRTN PO Listing By Vendor		1	10856	Success
PRTN PO Listing By Vendor	6	1	10859	Success
PRTN PO Listing By Vendor	7	2	10863	Success

1. From the Partition Process section, select the partition process row that you want to delete.
2. Click Delete.

Executing Sample Partitions

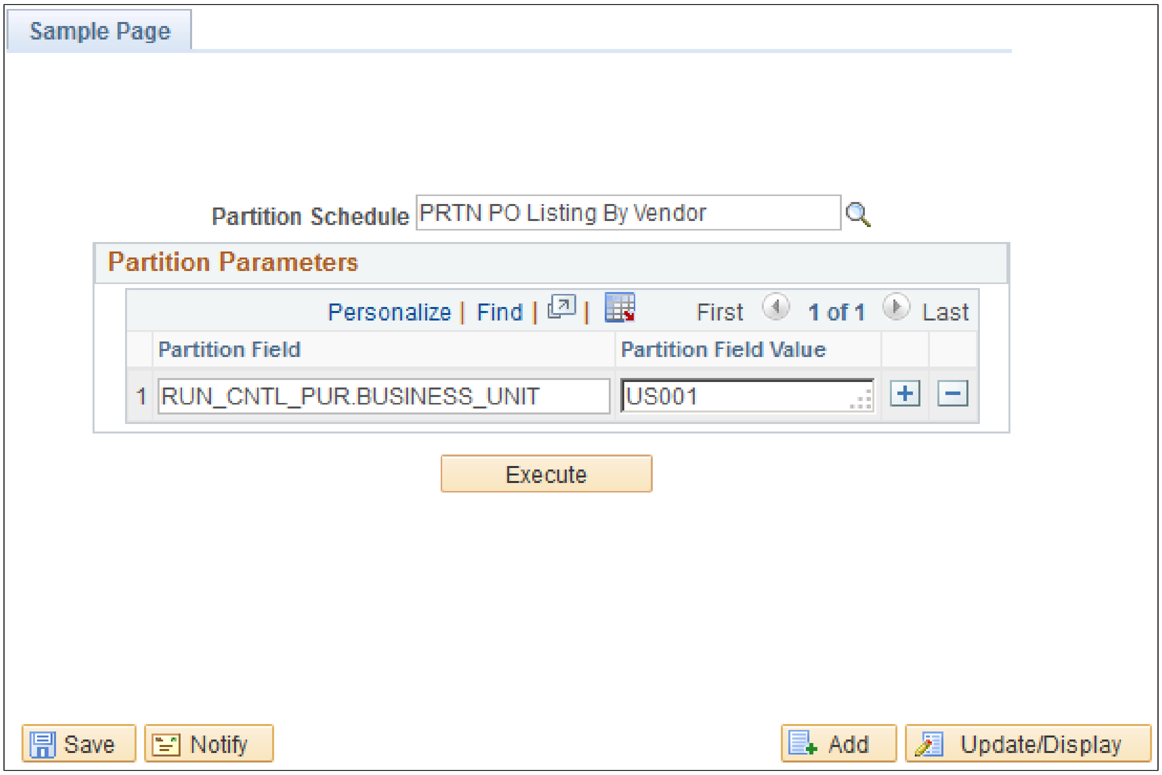
Use the Sample Page to test the partition schedule.

Note: You can test a partition schedule only if you have selected the Application Class partition type when creating partition schedule.

To access the Sample Page, select PeopleTools >Automated Scheduler >Test Partitioned Processes.

Image: Sample Page

This example illustrates the fields and controls on the Sample Page. You can find definitions for the fields and controls later on this page.



Partition Schedule	Specify the partition schedule name.
Partition Field	Specify the field name. The format of this name is, *record name*. *field name*.
Partition Field Value	Specify the possible values for the field. Use comma (,) without spaces as delimiter.
Execute	Click this to run the partition schedule.

Note: To monitor the progress, navigate to the partition manager page.

Appendix A

Using Process Request APIs

Understanding Process Request APIs

PeopleSoft Process Scheduler requires that all API-aware process requests (such as COBOL programs, and SQR reports) communicate with Process Scheduler and Process Monitor by properly integrating calls to the provided API modules. This informs Process Monitor about the current status of a request when the PeopleSoft Process Scheduler client or PeopleSoft Process Scheduler Server Agent initiates it.

Process Request APIs

PeopleTools provides two standard APIs for PeopleSoft Process Scheduler:

- COBOL API to support COBOL processes.
- Structured Query Report (SQR) API to support SQR processes.

The API interfaces for COBOL and SQR enable the process request to update:

- Run status
- Completion code
- Message set
- Message number

These API interfaces also enable you to pass up to five free-form parameters, which you can use with MsgGet (Message Get) and MsgGetText (Message Get Text) PeopleCode to display messages while the process is running.

To ensure that the request is physically updated, the API-aware process must perform the API call just before it commits processing.

Note: Because Application Engine, and nVision requests are managed through an internal API, they are already API-aware and do not require API interface calls.

The following table shows the PeopleTools-based APIs that are provided, including the module name for referencing how to implement the API.

Generic Process Type	***API module***	***Reference***
COBOL	PTPUSTAT.CBL	PTPTEDIT.CBL
SQR	PRCSAPI.SQC	XRFWIN.SQR
Workflow	PSDBA.CPP	NA

Generic Process Type	*API module*	*Reference*
Application Engine	PSAE.CPP	NA

Application development teams that are working with PeopleSoft applications should ensure that:

- The preceding APIs are properly included in the batch program code.
- Normal program exits are coded to manage API run status updates, for example, *Success*.
- Program exceptions are trapped and the run status is updated correctly before program termination, for example, *No Success* or *Error*.

Run Status Updates

If a process that updates the database reaches an exception that requires abnormal termination and rollback of prior updates, your code should:

1. Perform the rollback.
2. Use the API to update the run status to *No Success*.
3. Commit this update, and then terminate.

Note: Indicate that a process is API-aware when you create the process definition.

PeopleSoft Process Scheduler Server Agent updates all requested tasks that are selected from Queued status to Initiated status before submitting the request to run. If the requested task fails before loading successfully—as can be the case with SQR, which must compile successfully before running—the run status remains Initiated and must be reset to Cancel through Process Monitor.

Tasks that terminate for any reason, leaving the run status of Initiated or Processing, automatically have their status reset by the PeopleSoft Process Scheduler Server Agent to Error. Because the PeopleSoft Process Scheduler Server Agent performs this function, it must be actively polling for requests.

API-Aware Versus API-Unaware Tasks

You need to understand the differences between API-aware and API-unaware processes.

API-Aware

An API-aware process is a process that properly updates its process status through the type-specific API that is provided, such as COBOL. The application process has the responsibility of updating the Process Request table (PSPRCSRQST) with status information.

As the processes within a job must notify the server of the run status when they finish, the processes in the job definitions must be API-aware. This is how the system decides to continue with the next job process.

API-Unaware

API-unaware processes are programs that have no defined program interface to PeopleSoft Process Scheduler, such as CLOCK.EXE or WINWORD.EXE. Because API-unaware processes do not have the program interface to update the Process Request table in PeopleSoft Process Scheduler, the PeopleSoft system cannot determine whether the process finished successfully. Consequently, all API-unaware processes have a run status of Success to indicate that they were started successfully.

Note: A status of Success with an API-unaware process does not necessarily indicate that the process finished successfully.

API-unaware processes that are logged or monitored require manual clean up. That is, you must manually cancel or delete initiated requests that have failed.

If the API-aware option is selected for any process that is not API-aware, PeopleSoft Process Scheduler includes this process in the concurrent task count. This can result in improper server load balancing.

Setting this field for custom processes is not sufficient. You must include the code in your process to update the Process Request table to the appropriate run status.

Using the COBOL API (PTPUSTAT)

This section contains the information that you need in order to incorporate the COBOL API into your PeopleSoft Process Scheduler development.

Using COBOL Requests

All variables in the copy member PTCUSTAT.CBL should be set (or to be supplied by default, if appropriate) by the application COBOL program before any call to PTPUSTAT. The only exception is PRUNSTATUS-RC, which is set by PTPUSTAT to reflect the success of your call.

Set CONTINUE-JOB-YES to TRUE if a process is part of a job definition and you want the next process request to run despite the run status that is set by the current request. Normally, subsequent job requests are selected to run only if the prior request finishes with a status of Successful.

Note: All Workflow processes have internal APIs that do not require specific hooks from application modules. See the PeopleTools-based source member PTPTEDIT.CBL for an example of how to enable COBOL-based members to interact with PTPUSTAT.

Using the Process Scheduler Update COBOL API (PTPUSTAT)

Application programs that are written in COBOL can update selected process request fields at runtime using an API that is provided by PeopleSoft. This API includes the following fields.

COBOL Field Name	***COBOL Picture***	***Description***
PROCESS-INSTANCE	9(8) COMP	Key of the process request record to update.
RUN-STATUS	X(1)	Values are: *7:* Processing. *9:* Successful. *10:* Unsuccessful.

COBOL Field Name	COBOL Picture	Description
RUN-STATUS-MSGSET	9(4) COMP	Message set number.
RUN-STATUS-MSGID	9(4) COMP	Message number.
RC	9(4) COMP	Application level return code.
MESSAGE-PARM1	X(30)	First message log parameter that can be used with the PeopleCode MsgGet and MsgText functions.
MESSAGE-PARM2	X(30)	Second parameter that can be used with the PeopleCode MsgGet and MsgText functions.
MESSAGE-PARM3	X(30)	Third parameter that can be used with the PeopleCode MsgGet and MsgText functions.
MESSAGE-PARM4	X(30)	Fourth parameter that can be used with the PeopleCode MsgGet and MsgText functions.
MESSAGE-PARM5	X(30)	Fifth parameter that can be used with the PeopleCode MsgGet and MsgText functions.
CONTINUE-JOB	9(4) COMP	*1:* Continue job. *0:* Terminate job.

The name of the copy member that contains the COBOL API table description is PTCUSTAT.CBL. The API call to use to call the PTPUSTAT subroutine is similar to this code:

```
IF  PROCESS-INSTANCE OF SQLRT  > ZERO
    IF  STATUS-OK OF SQLRT
        SET  RUN-STATUS-SUCCESSFUL OF PRUNSTATUS  TO  TRUE
    ELSE
        SET  RUN-STATUS-UNSUCCESSFUL OF PRUNSTATUS  TO  TRUE
    END-IF
    IF  PROCESS-INSTANCE OF PRUNSTATUS  > ZERO
        CALL  'PTPUSTAT'  USING  SQLRT
                                 PRUNSTATUS
    END-IF
    PERFORM  ZC000-COMMIT-WORK
END-IF
```

An API-aware COBOL program in PeopleSoft Process Scheduler must update the run status of a request to:

- Processing upon a successful connect.
- Successful or Error upon completion.

If this process runs as part of a multiprocess job, then the CONTINUE-JOB field can be set to *0* to prevent the next process from being initiated or *1* to initiate the next job process, regardless of the status of this request. If one process fails, you don't jeopardize the entire job. If you set CONTINUE-JOB to *1,* make sure that none of the jobs rely on a previous job's successful completion.

To determine whether a process is running as defined within a job, use:

IF JOB-INSTANCE OF SQLRT > 0

A value that is greater than zero is part of a multiprocess job. You must do a COMMIT immediately following this call so that you are not holding locks.

All PeopleSoft COBOL application programs that use SQL should be defined in the Process Definition table with the following parameters:

DbType/%%DBNAME%%/%%OPRID%%/%%OPRPSWD%%/%%RUNCNTLID%%/%%INSTANCE%%

Note: A forward slash (/) is between each of the preceding parameters. The slash is easy to overlook between the pairs of percent signs. The batch run control ID is the only data item that must be supplied by the application. A field that is named PROCESS—INSTANCE in the SQLRT data structure contains the current process instance (key to the Process Request table).

Each API-aware COBOL process must include copy member PTCUSTAT, and all variables that are used to initialize column data in the update to table PSPRCSRQST must be properly set before this update request.

Using the SQR API (PRCSAPI)

This section contains the information that you need to incorporate the SQR API into your PeopleSoft Process Scheduler development.

Using SQR Requests

All variables that are defined in PRCSDEF.SQC should be set (or left as the default) by the application SQR program before you call Update-Process-Status (PRCSAPI.SQC).

Set #prcs_continuejob to *1* if this process is part of a job definition and you want the next process request to run despite the run status that is set by the current request. Normally, subsequent job requests are selected to run only if the prior request finishes with a status of Successful.

Note: All Workflow processes have internal APIs that do not require specific hooks from application modules. For SQR-based members, see XRFWIN.SQR.

Each API-aware SQR must include member PRCSDEF.SQC, and all PSPRCSRQST column-based variables must be properly set by application SQR code. Failure to manage these variables properly in the API can result in SQL update errors based on invalid data for the definition type.

Using the Process Scheduler SQR API

Application programs that are written in SQR can update selected process request fields at runtime using a PeopleSoft-provided API. This is to be used for SQR reports.

Include Files

Include File	***Description***
PRCSDEF.SQC	Contains the procedure Define-Prcs-Vars. Initializes the fields that are used in the API.
PRCSAPI.SQC	Contains the procedure Get-Run-Control-Parms: • Retrieves the three parameters that are described in the following table. • Updates the run status of the process request to Processing. Contains the procedure Prsc-Run-Status. Performs the process request table update.

SQRs should be defined to accept the following parameters from the command line.

Parameter	***Description***
Process Instance	Required so that the SQR knows which process request to update.
User ID	Indicates the user ID key to the Run Control table.
Run Control ID	Indicates run control ID key to the Run Control table.

All SQRs use the procedure Get-Run-Control-Parms, which is defined in PRCSAPI.SQC. For example:

```
Begin-Procedure Get-Run-Control-Parms
    input $prcs_process_instance
      'Please press ENTER (Do not input a value)'
    if not isnull($prcs_process_instance)
        let #prcs_process_instance = to_number
    ($prcs_process_instance)
        input $prcs_oprid
       'Please press ENTER (Do not input a value)'
        let $prcs_oprid = upper($prcs_oprid)
        input $prcs_run_cntl_id
       'Please press ENTER (Do not input a value)'
    else
        let #prcs_process_instance = 0
    end-if
    if #prcs_process_instance > 0
        let #prcs_run_status = #prcs_run_status_processing
        do Update-Prcs-Run-Status
        let #prcs_run_status = #prcs_run_status_successful
    end-if
end-procedure
```

The three input commands correspond to the three values in the command line:

%%INSTANCE%% %%OPRID%% %%RUNCNTLID%%

When you run the SQR through SQR Windows (SQRW) and don't enter any input values, the SQR interprets this as having been run outside PeopleSoft Process Scheduler. Therefore, it prompts for other input parameters that otherwise come from Run Control tables.

An API-aware SQR program in PeopleSoft Process Scheduler must update the run status of the request to:

- *Processing* upon receiving control.
- *Success* or *No Success* upon completion.

Note: All other SQR runtime parameters should reside in a run control record that is keyed by user ID and run control ID.

Scheduling Processes from Outside the PeopleSoft System

The PROCESSREQUEST component interface provides an API to create or update a process request from outside the PeopleSoft system. It returns the process instance of the process request that is created.

Successfully developing the functionality to schedule a process or job to run from outside PeopleSoft requires expertise in:

- PeopleSoft Process Scheduler definitions.
- PeopleCode.
- Component interfaces.

This section provides an overview of the component interface details and discusses how to schedule a process using a component interface in Visual Basic.

Related Links

"Understanding PeopleCode Programs and Events" (PeopleTools 8.59: PeopleCode Developer's Guide)
"Component Interface Architecture" (PeopleTools 8.59: Component Interfaces)
Securing Passwords When Scheduling from Outside the PeopleSoft System

Understanding Component Interface Details

The following topics provide the properties and methods that are associated with the component interface that is used to schedule processes from outside of PeopleSoft.

Component Interface Name

ProcessRequest

Properties

The following properties are associated with the component interface:

- RUNCONTROLID
- PROCESSTYPE

- PROCESSNAME
- JOBNAME
- RUNLOCATION
- RUNDATE
- RUNTIME
- RUNRECURRANCE
- OUTDESTTYPE
- OUTDESTFORMAT
- OUTDEST
- RUNSTATUS
- PROCESSINSTANCE
- REQUESTTYPE

Methods

The following methods are associated with the component interface:

- Standard:
    - Cancel
    - Find
    - Get
    - Save
    - Update
    - GetPropertyByName
    - SetPropertyByName
    - GetPropertyInfoByName
- User-Defined:
    - Create
    - Update

Scheduling a Process Using a Component Interface in Visual Basic

The following example shows how you might schedule a process from outside of PeopleSoft using Visual Basic.

Initializing the component interface:

```
Dim oSession As New PeopleSoft_PeopleSoft.Session
Dim oBC As ProcessRequest
oSession.Connect(1, "TCHURY072198:7000", "PTDMO", "PTDMO", 0)
'get component from server
Set oBC = oSession.GetComponent("PROCESSREQUEST")
Status = oBC.Get()
```

Creating a process request:

- Properties:

  ```
  oBC.REQUESTTYPE = "Create"
  oBC.RUNCONTROLID = "Test"
  oBC.PROCESSTYPE = "SQR Report"
  oBC.PROCESSNAME = "XRFWIN"
  oBC.RUNLOCATION = "PSNT"
  oBC.RUNDATE = "01/01/2000"
  oBC.RUNTIME = "09:00:00"
  oBC.OUTDESTTYPE = "FILE"
  oBC.OUTDESTFORMAT = "SPF"
  oBC.OUTDEST = "C:\temp\"
  ```

- Method:

  ```
  ProcessInstance = oBC.Create
  ```

Updating a process request:

- Properties:

  ```
  oBC.REQUESTTYPE = "Update"
  oBC.PROCESSINSTANCE = 10
  oBC.RUNSTATUS = "2"
  ```

- Method:

  ```
  oBC.Update
  ```

Scheduling Requests from an Application Engine Program

A known limitation exists when you schedule requests from an Application Engine program in which the process that is associated with the request contains in-line bind variables in the parameter list. An in-line bind variable is a field that is characterized in a parameter field like this:

```
:<Record>.<Field>
```

For example:

```
-ORIENTP :PYCYCL_STAT_VW2.PAY_CYCLE :PYCYCL_RPT_VW.BANK_CD
```

The ProcessRequest PeopleCode class resolves in-line variables in a parameter list by searching the values for these fields in the component buffer of a PeopleSoft Pure Internet Architecture page. However, this becomes a problem when ProcessRequest class is used within an Application Engine program.
In an Application Engine program, concept of component buffer doesn’t exist. As a repercussion, the ProcessRequest class cannot resolve any in-line bind variables that are found in a parameter list.

Using a Component Interface to Schedule a Request

The instructions in this section describe how you can code a component interface in an Application Engine program to schedule a request using the ProcessRequest class.

Creating Definitions to Submit Requests That Contain In-line Bind Variables

To create the Component Interface to submit requests with in-line bind variables, you need to copy or reference the following Process Scheduler definitions:

Definition Name	***Type***	***Description***
PROCESSREQUEST	Component Interface	The Component Interface that is used to schedule a request using the ProcessRequest class.
PRCSRQSTBC	Page	The page that is associated with the component interface PROCESSREQUEST, including all the fields that are used for scheduling a request.
PRCSRQSTBC	Component	The component that is associated with the PRCSRQSTBC page.
PRCSMULTI	Component	The component that contains the sample PeopleCode that is used to schedule a request using the PROCESSREQUEST component interface.

The following steps use the definitions that are delivered with PeopleTools. Any definitions requiring modification are copied into a new definition to eliminate any problems with future PeopleTools upgrades.

1. Create a new page based on the PRCSRQSTBC page.

   a. Copy the page PRCSRQSTBC into a new definition.

      When Application Designer prompts you to copy the associated PeopleCode, reply *yes*.

   b. Insert a new edit box for the field that is referenced in the Parameter List.

      Select Insert, Edit box. When the cursor icon changes, click the mouse where you want to position the new field in the page. Double-click the new field to open the box to select the field for this new box. Perform this step for each field that is found in the parameter list.

   c. Save the new definition.

2. Create a new component based on the PRCSRQSTBC component.

   a. Make a copy of the component PRCSRQSTBC.

      When Application Designer prompts you to copy the associated PeopleCode, reply *Yes*.

b. Insert the new page that you created from the previous step by selecting Insert, Page Into Component from the menu.

c. Remove the page PRCSRQSTBC from the component so that the only page that is referenced in this component is the new page.

d. Save the component.

3. Create a new Component Interface from the Application Designer by selecting File, New.

   When prompted for the new component, provide the component that was created from the previous step. Save the new component interface.

   Do not close the definition of the new component interface because additional edits will be done in subsequent steps.

4. Copy the existing PeopleCode that is found in the component interface PROCESSREQUEST.

   a. From the Application Designer, open the definition for the component interface PROCESSREQUEST.

   b. In the METHODS section of the component interface, move your mouse cursor to the Create method and right-click to select the View PeopleCode option.

   c. Highlight the PeopleCode, and then right-click to select the Copy option.

   d. In the new component interface, highlight the method Create and right-click your mouse to select the View PeopleCode.

   e. Paste the PeopleCode by right-clicking your mouse and select the Paste option.

   f. Save the component interface.

      After saving, you should see two additional methods, Schedule() and Update(), inserted in the METHODS section.

5. In the new component interface, add the new fields that were added in the new page from step 1.

   a. Click the Scroll – Level 0 folder to display all the records.

   b. Expand the record folder for the field that was added in the new page.

      Highlight the field with your mouse and drag the field to the PROPERTIES section of the component interface.

   c. Perform this step for any additional fields that were added to the page.

   d. Save the component interface definition.

6. Modify the Application Engine program to include the PeopleCode to schedule the request using the new component interface.

   The PeopleCode will be copied from the sample PRCSMULTI component.

a. Open the Component PRCSMULTI from Application Designer.

b. View the PeopleCode that is found in RUNCNTLCOMPINTF.FieldChange.

c. Copy the entire PeopleCode that is found in FieldChange by highlighting the PeopleCode and right-clicking your mouse to select Copy.

d. Open the Application Engine program where the request will be scheduled.

   In the step where the request will be copied, paste the PeopleCode that was copied from the PRCSMULTI component.

e. In the pasted PeopleCode, perform the following edits:

   1. Remove the DoSave() function.

   This function is not allowed within an Application Engine program.

   2. In the function GetCompIntfc(), replace the component interface PROCESSREQUEST with the new component interface that was created in step 2.

   3. In all attributes of ProcessRequest class, modify these fields for the process request that you will schedule.

   For additional information pertaining to these attributes, please refer to the discussion of ProcessRequest class found in the PeopleCode manual.

   4. For the new fields that were added to the Properties of the component interface, modify the code to assign values to these fields.

   This is the value that will be assigned to the parameter list.

   5. Save your changes.

Using the PeopleCode ProcessRequest Class

The ProcessRequest class is the primary PeopleCode construct that you use for invoking processes through PeopleSoft Process Scheduler using PeopleCode. The ProcessRequest PeopleCode can be called from a:

- Push button.
- Save page.
- Field change event.

The ProcessRequest class provides properties and a method for scheduling a process or job that you have already defined using Process Scheduler Manager.

The properties of this class contain the same values as those that appear in Process Scheduler Manager for scheduling a process or job. Values that you provide for these properties may override the equivalent values set in Process Scheduler Manager, depending on the override settings that you make in PeopleSoft Process Scheduler pages.

Developers of PeopleSoft applications can simplify certain tasks for users by scheduling processes using PeopleCode. How you use the ProcessRequest construct depends on the nature of the task. You might want to segregate processes into specific categories, for example:

- Processes that are initiated by an action, such as calculations.

  Selecting a check box or clicking a button might call this PeopleCode.

- Reports that are associated with a function or set of tasks.

  A Print button might call this PeopleCode.

The ProcessRequest PeopleCode validates user input and writes a row to the Process Request table, providing the system with the information to run the process automatically, without user interaction. The Process Request table acts as the queue that the PeopleSoft Process Scheduler Server Agent uses to determine what jobs must be run and when.

Note: The PeopleSoft-delivered ProcessRequest PeopleCode can be used only for processes that do not pass in extra parameters. This means that reports that require extra parameters can be run only from the Run Control page.

You can schedule processes or jobs (groups of one or more processes) to run immediately or in the future. Recurring processes and jobs can be scheduled to run automatically at specific, user-defined intervals.

Note: The *Window* output type is not available if the user does not have REN server *Report Window* permission or if no active REN server cluster is available for reporting. The process would run using the *Web* output type and the following message would appear:
You do not have the permission required to run window option.

Appendix B

Understanding Logging Systems

Log and Output Directory

Specify the Log/Output Directory variable in the configuration file to set a common log and output directory. The default is:

Log/Output Directory=%PS_SERVDIR%\log_output

For each process request, a subdirectory is created in the log and output directory. The naming convention that is used for the subdirectory is:

<Process ID>_<Program Name>_<Process Instance>

The assigned process ID is based on the process request's process type.

Process Type	***Process ID***
COBOL	CBL
Application Engine	AE
SQR	SQR
nVision	NVS
Cube Manager	CUBE
WinWord	WRD
XML Publisher	AE
Other	OTH

For example:

- In psprcs.cfg, set Log/Output Directory=%PS_SERVDIR%\log_output.
- Set PS_SERVDIR=c:\pt800\appserv\prcs\ptdmo.

  c: represents the drive on the PeopleSoft Process Scheduler server, *not* the client workstation.
- User runs the SQR report XRFWIN.SQR.
- Process instance is *23*.

Using the preceding information, the system writes the output to the following location:

c:\pt800\appserv\prcs\ptdmo\log_output\SQR_XRFWIN_23

Usually, the log files and reports are written to the subdirectory in the log and output directory. Reports and log files are not written to this directory when:

- A user specifies a directory on the Process Request Dialog page.

  This option is available only for the output destination type of File.

- The process definition is set for a process to restrict the output destination type of File, and a specific directory is specified, other than the meta-string *%%OutputDirectory%%.*

- A process profile that is assigned for the user who submitted the request indicates an output directory other than *%%OutputDirectory%%.*

- A program hard-codes the directory to which the log or report should be written.

To control this location and prevent users from sending output to another location, use the process profile for a permission list in PeopleSoft Security Administrator by:

- Specifying a file and printer destination in the Server Destinations group box.

- Disabling the Override Output Destination parameter in the Allow Requester To group box.

Deleting the Log and Output Subdirectory

The subdirectory, which is created by the Process Scheduler server to store all the logs and reports that are generated by the initiated process, will be deleted when the output destination type is *Web* and the files are successfully posted to the report repository.

For output destination types of anything other than *Web,* the subdirectory will be deleted during the purging process when the process request that is associated with the subdirectory is deleted from the process request table.

Related Links

Setting Up PeopleSoft Process Scheduler Privileges and Profiles

Log Space Threshold

If the Process Scheduler Server detects that the space capacity of the log/output directory is below the threshold, it will stop processing any queued requests. This threshold is the bottom line minimum before the Process Scheduler considers the log to be full. By default, the threshold is set to 10 MB.

During the maintenance check, based on the HeartBeat, if the space capacity threshold drops below the threshold:

- A *disk full* message gets logged in SCHDLR.LOG.

- The status of Process Scheduler server in the Process Monitor will reflect LOG DISK FULL.

- An email notification is sent to the administrator.

Logging System for PeopleSoft Process Scheduler Server

This section provides an overview on logging system for PeopleSoft Process Scheduler server.

Logging System

The log directory stores the PeopleSoft Process Scheduler server logs and SQL trace files. Each server that is started in the PeopleSoft Process Scheduler server has its own set of log and trace files. The user does not normally need to review these files unless a problem occurs while running a process or some reason exists to verify that a process ran as expected.

Location of the Log and SQL Trace Files

The location and name of the PeopleSoft Process Scheduler log files depend on the operating system on which the PeopleSoft Process Scheduler Server is started.

Operating System	***Log Directory***
Windows	PS_CFG_HOME\appserv\prcs\<Database Name>\LOGS
UNIX	PS_CFG_HOME/appserv/prcs/<Database Name>/LOGS
OS/390 UNIX System Services	PeopleSoft Process Scheduler Server: $PS_HOME/appserv/prcs/<Database Name>/<Log Directory>/_PSPRCSRVLOG Distribution Agent Server: $PS_HOME/appserv/prcs/<Database Name>/<Log Directory>/_PSDSTSRVLOG

The <Log Directory> corresponds to the directory that is specified in the Log/Output Directory variable in the PeopleSoft Process Scheduler configuration file (psprcs.cfg).

For each server that is started, two files are generated in the log directory:

- The server log contains messages that are written by the server to the log file.

  These messages are translated to the languages that are supported by the PeopleSoft system. The language of the messages is based on the language that is designated in the user profile.

  The LogFence parameter, which is set in the PeopleSoft Process Scheduler configuration file, controls the detail of the message that is written to this log file.

- The SQL trace file contains the traces of all SQL that is issued by the server.

  This file is generated when the TraceSQL parameter in the PeopleSoft Process Scheduler configuration file has a value other than zero.

If a PeopleSoft Application Engine or Analytic Engine request is initiated by PSAESRV or PSAEOSRV respectively, the SQL traces that are generated from that process are stored in the process subdirectory that is located in the log and output directory.

Log and SQL Trace File Name in Windows and UNIX

The following table lists all the server names, log files, and SQL trace files in Windows and UNIX.

Server Name	***Description***	***Log File***	***SQL Trace File***
PSPRCSR V	PeopleSoft Process Scheduler Server	SCHDLR_<mmdd>.LOG	<User ID>_PSPRCSRV. tracesql
PSDSTSRV	Distribution Agent	DSTAGNT_<mmdd>.LOG	<User ID>_PSDSTSRV. tracesql
PSAESRV	PeopleSoft Application Engine Server	AESRV_<mmdd>.LOG	<User ID>_PSAESRV. tracesql
PSAEOSRV	PeopleSoft Application Engine Server to run Analytic Engine	APPSRV_<mmdd>.LOG	<User_ID>_PSAEOSRV. tracesql
PSANALYTICSRV	Analytic Engine Server	OPTENGS<server number>. LOG	<User_ID>_ PSANALYTICSRV <server number>.tracesql
PSMSTPRCS	Master Scheduler Server	MSTRSCHDLR_<mmdd>. LOG	<User ID>_PSMSTPRC. tracesql

<User_ID> is the user ID that is specified in the PeopleSoft Process Scheduler configuration file that is set to boot PeopleSoft Process Scheduler.

Log and SQL Trace File Name in OS/390 USS

The following table lists all the server names, log files, and SQL trace files in OS/390 USS

Server Name	***Description***	***Log File***	***SQL Trace File***
PSPRCSRV	PeopleSoft Process Scheduler Server	PSPRCSRV_<Process Scheduler Server>_<mmdd>. log	psprcsrv.trc
PSDSTSRV	Distribution Agent	PSDSTSRV_<Process Scheduler Server>_<mmdd>. log	psdstsrv.trc

<Process Scheduler Server> is the name of the server that is defined in the server definition (that is, PSOS/390).

At midnight, a new log file is created to contain information for the current MMDD value.

SQL Trace File

The SQL trace file is created when the TraceSQL variable in the PeopleSoft Process Scheduler configuration file has a value other than zero. This file contains the SQL traces that are issued by the Distribution Agent program PSDSTSRV.

Use the TraceSQL variable to set the level of SQL trace by selecting the numerical value representing each degree of tracing as described. The list of trace levels from which you can choose appears in the configuration file as shown:

```
1=SQL Statements
2=SQL statment variables
4=SQL connect, disconnect, commit and rollback
8=Row Fetch (indicates that it occurred, not data)
16=All other API calls except ssb
32=Set Select Buffers (identifies that attributes of columns
  to be selected)
64=Database API specific calls
128=COBOL statement timings
1024=SQL Informational Trace
4096=Manager information
8192=Mapcore information
```

If you want SQL Statements, SQL statement variables, and SQL connect, disconnect, commit, and rollback information, specify TraceSql=7 (1+ 2 + 4).

Note: The SQL trace file doesn’t delete existing traces that are written from prior runs of the PSPRCSRV program, and it appends new SQL activity to the end of the file. Because the file can grow quite large and might fill up your file server, you should reset the TraceSQL to zero after you finish debugging the PeopleSoft Process Scheduler Server Agent.

Logging Levels

The logging system enables you to change the level of detail that is written to the log files. The mechanism that is chosen here uses the concept of a detail level and a fence. Messages are assigned a numeric detail-level value that reflects the importance of the event that triggers the message in the operation of the program. This ranges from simple progress messages (very detailed) to error messages when the program is about to terminate (not detailed).

The fence is used to filter out messages that reflect more detail than necessary in a particular installation. For example, a message must be able to *leap the fence* to be shown (with a lower number indicating a higher fence). With the fence set to *2,* only messages with a detail level that is less than 2 (that is, 0 or 1) appear. The only exception to this is that level 0 messages and messages that are unable to be displayed in the standard message format cannot be filtered out.

The meaning of a level is completely arbitrary, although a consistent convention should be followed. The server uses the following convention:

Fence Level	***Description***
0	Errors, critical messages, and connection header only.
1	Critical events. For PeopleSoft Process Scheduler, this includes process start attempts.

Fence Level	*Description*
2	Warnings.
3	Informational. This is the default fence value.
4	Trace level 1 detail.
5	Trace level 2 detail. This shows all messages that are available.

The fence is determined by an entry in the server configuration file in the [Process Scheduler] section named LOGFENCE. Normal values are in the range of *0−5,* with the default being *3* (informational). A setting of *5* is recommended for installation and troubleshooting. A setting of *0* is good for an installed system that is working smoothly.

The log fence of a message can be seen in the PeopleSoft Process Scheduler log file.

Image: Example of log file

This example shows the numeric values enclosed in parentheses following the date and time

```
[08/04/00 14:28:27](0)    Server: PSNT sleeping for 15 seconds
[08/04/00 14:28:41](0)    Server: PSNT looking for work
[08/04/00 14:28:41](5)    Server: PSNT checking status...
[08/04/00 14:28:41](5)    Server action mode: Ok (looking for requests)
[08/04/00 14:28:41](5)    Checking Process cancels...
[08/04/00 14:28:41](4)    Checking status of active processes...
[08/04/00 14:28:41](5)    Process 9836 is still running as Session ID 711
[08/04/00 14:28:41](5)    Process 9837 is still running as Session ID 634
[08/04/00 14:28:41](5)    Process 9838 is still running as Session ID 703
[08/04/00 14:28:41](5)    Info for array of Request(s) associated with a Job slated to be submitted
[08/04/00 14:28:41](5)       Size of array: 1
[08/04/00 14:28:41](5)    Info for array of Active Processes
[08/04/00 14:28:41](5)       Size of array: 3
[08/04/00 14:28:41](5)       Crystal                  :  Active: 3   Max: 3
[08/04/00 14:28:41](5)    Server: PSNT checking status...
[08/04/00 14:28:41](5)    Server action mode: Submitting request
[08/04/00 14:28:41](5)    Number of New Process Request(s) To Start: 1
[08/04/00 14:28:41](1)    Process Instance: 9843 started (PID: 645)
[08/04/00 14:28:41](4)    Starting process:: 9843
[08/04/00 14:28:41](4)        Command Line: Y:\BIN\CLIENT\WINX86\PSSQR.EXE
[08/04/00 14:28:41](4)        Parm List: -CT ORACLE -CS  -CD E800R21B -CA %ACCESSID% -CAP %ACCESSPSWD%
[08/04/00 14:28:41](4)        Working Dir: c:\apps\db\oracle8i\bin
[08/04/00 14:28:41](4)         Session Id: 645
[08/04/00 14:28:41](0)    Server: PSNT sleeping for 14 seconds
[08/04/00 14:28:55](0)    Server: PSNT looking for work
[08/04/00 14:28:55](5)    Server: PSNT checking status...
[08/04/00 14:28:55](5)    Server action mode: Ok (looking for requests)
[08/04/00 14:28:55](5)    Checking Process cancels...
[08/04/00 14:28:55](4)    Checking status of active processes...
[08/04/00 14:28:55](5)    Process 9836 is still running as Session ID 711
[08/04/00 14:28:55](5)    Process 9837 is still running as Session ID 634
[08/04/00 14:28:55](5)    Process 9838 is still running as Session ID 703
[08/04/00 14:28:55](5)    Info for array of Request(s) associated with a Job slated to be submitted
[08/04/00 14:28:55](5)       Size of array: 0
[08/04/00 14:28:55](5)    Info for array of Active Processes
[08/04/00 14:28:55](5)       Size of array: 3
[08/04/00 14:28:55](5)       Crystal                  :  Active: 3   Max: 3
[08/04/00 14:28:55](5)    Info for array of Queued Request(s) found in Process Request table
[08/04/00 14:28:55](5)       Size of array: 16
```

If you receive error messages, complete the following tasks to enable debugging and tracing:

1. Set LOGFENCE=5 in the psprcs.cfg file.
2. Set TraceSQL to the appropriate value to generate the SQL trace.

Related Links

Understanding the Sections in PSPRCS.CFG File Based on Operating Systems

Logging System for Distribution Agent

The Distribution Agent detects that files are ready to transfer by querying the Report List table (PS_CDM_LIST).

Transfer Log for FTP and XCopy

When the Distribution Agent transfers files using the File Transfer Protocol (FTP) or XCopy protocol, it tables the information for all of the process requests and assigns a transfer log to this transfer attempt. Any activity from transferring the files for these process requests is recorded in a log file with the following format:

<Log Directory>_PSDSTSRVLOG\transfer_<Transfer Instance Number>.log

Image: Example of transfer log using the FTP command

This example illustrates the of transfer log files for FTP protocols

```
user ftpuser
verbose on

mkdir /data6/psreports/080913335408BAB393ED0F47F64A78BAC3ADB6867D14CFF6FB4871E9847296
257 MKD command successful.
cd /data6/psreports/080913335408BAB393ED0F47F64A78BAC3ADB6867D14CFF6FB4871E98472966EF
250 CWD command successful.
ascii
200 Type set to A.
put "d:\21A\SQR_INS9051_6028\index.html" "index.html"
200 PORT command successful.
150 ASCII data connection for index.html (216.131.201.168,2324).
226 Transfer complete.
4610 bytes sent in 0.00 seconds (4610000.00 Kbytes/sec)

bin
200 Type set to I.
put "d:\21A\SQR_INS9051_6028\INS9051_6028.PDF" "INS9051_6028.PDF"
200 PORT command successful.
150 Binary data connection for INS9051_6028.PDF (216.131.201.168,2326).
226 Transfer complete.
1730 bytes sent in 0.00 seconds (1730000.00 Kbytes/sec)

ascii
200 Type set to A.
put "d:\21A\SQR_INS9051_6028\SQR_INS9051_6028.log" "SQR_INS9051_6028.log"
200 PORT command successful.
150 ASCII data connection for SQR_INS9051_6028.log (216.131.201.168,2327).
226 Transfer complete.
1080 bytes sent in 0.00 seconds (1080000.00 Kbytes/sec)

quit
221 Goodbye.
```

Image: Example of transfer log using the XCopy command

This example illustrates the of transfer log files for XCopy transfer protocol

```
Copying d:\PTDMO\output\SQR_XRFWIN2_24 into the repository...
d:\PTDMO\output\SQR_XRFWIN2_24\SQR_XRFWIN2_24.log -> \\RALCANTA020100\psreports\08121410
d:\PTDMO\output\SQR_XRFWIN2_24\XRFWIN2_24.out -> \\RALCANTA020100\psreports\081214105445
d:\PTDMO\output\SQR_XRFWIN2_24\XRFWIN2_24_1.PDF -> \\RALCANTA020100\psreports\0812141054
d:\PTDMO\output\SQR_XRFWIN2_24\XRFWIN2_24_2.PDF -> \\RALCANTA020100\psreports\0812141054
d:\PTDMO\output\SQR_XRFWIN2_24\index.html -> \\RALCANTA020100\psreports\081214105445DE9
5 File(s) copied
Successful copy of d:\PTDMO\output\SQR_XRFWIN2_24 to Repository
End of Transfer script
```

Transfer Log for HTTP

When HTTP is used to transfer files to the Report Repository, it doesn't generate a transfer log like FTP and XCopy. All logs relating to the HTTP activities are logged in the Process Message Log table and you can view them by clicking the Message Log link on the Process Monitor Detail page in PeopleSoft Process Scheduler.

Image: Example of HTTP messages displayed on the Message Log page

This example illustrates the display of HTTP messages

10	1:21:10PM	Report Repository URL is: http ://rt-ibm08.peoplesoft.com:7001/SchedulerTransfer/e840r20bnt (63,68)	Explain
10	1:21:10PM	Unable to open file to be transfered. /ds1/ps/dssgrp/easb/output/E840R20B/AE_AP_PSTVCHR_1636/AE_AP_PSTVCHR_1636.stdout (63,62)	Explain
	1:21:10PM	PSUNX failed to post files to the report respository. Server scheduled to try again on 2002-01-15-14.24.09.854000. See log %	Explain

Appendix C

Setting Up PeopleSoft Process Scheduler Security

Setting Up PeopleSoft Process Scheduler Privileges and Profiles

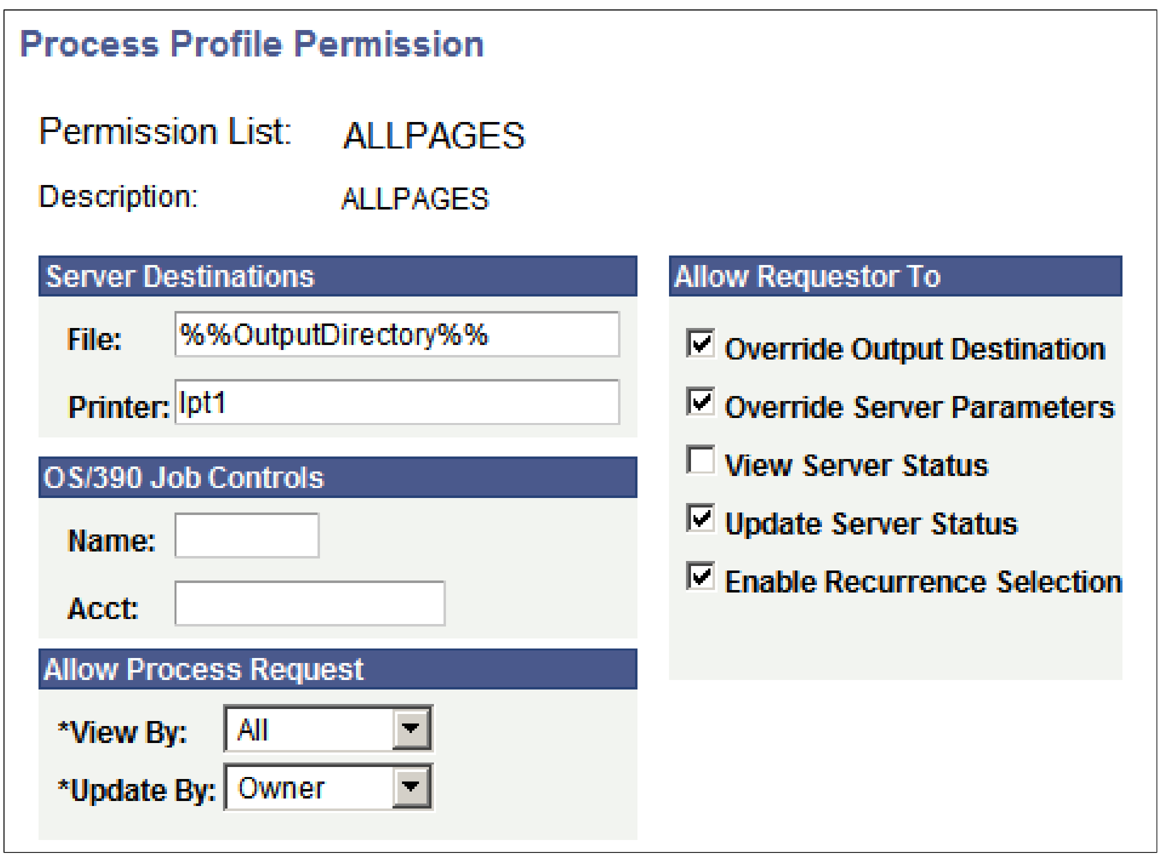
For a user to submit process requests, his or her user ID must have a process profile, which defines the user's privileges in PeopleSoft Process Scheduler. For example, a user can override an output destination for a request and be limited to what can be viewed on the Process Monitor page.

Updating a Process Profile

Use the process profile page to set up the user's access in PeopleSoft Process Scheduler and define a process profile with the proper authorizations and default settings.

Image: Security - Process Profile Permission page

This example illustrates the fields and controls on the Security - Process Profile Permission page. You can find definitions for the fields and controls later on this page.



To update a process profile:

1. Select PeopleTools > Security > Permissions and Roles > Permission Lists to open the permission list definition.

2. Select the Process page.

3. Click the Process Profile Permissions link.

4. In the Workstation Destinations and Server Destinations group boxes, enter a default file and printer destination for the client and server.

   The following list shows sample values for the server destination file.

Operating System	***Sample Server Destination Value***
Windows	%%OutputDirectory%%
UNIX	%%OutputDirectory%%
OS/390	HLQ.PSVV

5. Select the appropriate options in the Allow Process Request group box.

   This section enables you to adjust the level of access rights that all other users have for viewing and updating process requests that are initiated by the users under a particular profile. Both view and update rights can be changed to *Owner, All,* or *None.* The default enables the process request to be viewed by all and updated only by the owner. If you view by owner, no one else can view the status of the process in Process Monitor. Make any necessary adjustments to the user rights.

Override Output Destination	Select to allow the user to override the output destination from the Process Scheduler Request dialog box. If this option is cleared, the File/Printer field in the Process Scheduler Request page becomes unavailable and the user cannot modify it. Use this setting to restrict users to redirecting their output to the default destinations only.
Override Server Parameters	Select to allow the user to override the server name and run date and time.
View Server Status	Select to allow a user to access the server view in the Process Monitor.
Update Server Status	Select to allow a user to suspend, restart, or shut down a server if needed through the Process Monitor. This also allows a user to refresh the Process Monitor - Server List page with the Refresh button.
Enable Recurrence Selection	Select to allow a user to select a run recurrence definition in the Process Scheduler Request dialog box. If this is cleared, the user cannot select a process to recur.

6. Click the OK button to save your changes.

Assigning a Process Profile to a User ID

The user profile must be updated to assign the process profile.

To assign a process profile to a user ID:

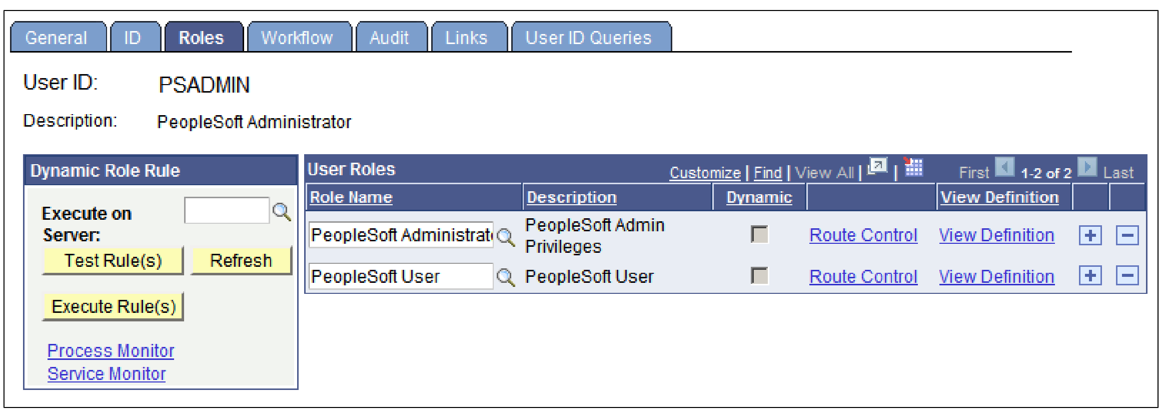
1. Select PeopleTools > Security > User Profiles > User Profiles to open the profile for a user ID.
2. Select the user ID.
3. Select the General page.
4. Enter the process profile for this user ID.
5. Click the Save button to save your changes.

Granting a PeopleSoft Process Scheduler System Administration Role

You can set up a user ID in PeopleSoft Security as a PeopleSoft Process Scheduler system administrator. A user with this privilege can update definitions in Process Scheduler Manager and view all process requests in Process Monitor. This role is equivalent to granting all of the privileges in the Allow Requestor To group box on the Process Profile Permission page.

Image: Security - User Profiles - Roles page

This example illustrates the fields and controls on the Security - User Profiles - Roles page.



To assign a PeopleSoft Process Scheduler system administration role to a user ID:

1. Select PeopleTools > Security > User Profiles > User Profiles to open the profile for a user ID.
2. Select the Roles page.
3. Select the role name *ProcessSchedulerAdmin.*
4. Click Save to save your changes.

Related Links

"Security Basics" (PeopleTools 8.59: Security Administration)

Securing Passwords When Scheduling from Outside the PeopleSoft System

As a PeopleSoft customer, you can create an interface to insert entries into the Process Request table to be scheduled by the Process Scheduler. However, keep in mind that the values that you insert into the PARMLIST (Parameter List) field in the PRCSPARMS table are displayed in the Process Monitor Detail page. These values can also be seen in the notifications that are sent out by Process Scheduler.

To ensure that any user passwords or access IDs and passwords are not displayed in any pages, notifications, or logs, you can replace the actual values with the following meta-strings:

User password: *%%OPRPSWD%%*

Access ID: *%%ACCESSID%%*

Access password: *%%ACCESSPSWD%%*

Note: Process Scheduler has a mechanism to replace the meta-strings with the actual values when initiating these requests and to ensure that the actual values are not displayed in any pages or log files.

Appendix D

Using the PSADMIN Utility

Understanding the PeopleSoft Process Scheduler Configuration File

Use the PSADMIN utility to configure and administer the PeopleSoft Process Scheduler Server Agent. PSADMIN is supported on only Windows and UNIX. However, in some cases, you can run the PSADMIN utility on operating systems that are not supported application servers.

Configuring a PeopleSoft Process Scheduler server is similar to configuring application servers and web servers. From the PeopleSoft Process Scheduler Administration menu, you invoke a text-driven interface that prompts you for parameter values. All of the PeopleSoft Process Scheduler server configuration information for a specific database is contained in the PSPRCS.CFG configuration file, and the PSADMIN provides an interface to edit this file.

PeopleSoft automatically archives the Process Scheduler configuration file whenever it is changed. The older version is archived as PSPRCS_<Time Stamp>.CFG, and the current version becomes psprcs.cfg. The archive directory path is *<PS_Home>\Appserv\prcs\<database>\Archive*. (for example, c:\pt844\Appserv\prcs\fin844\Archive\).

Note: The PSPRCS.CFG file supports environment variables. For example, the TEMP setting in the [Process Scheduler] section can look like this: TEMP=%TEMP%.

Note: This topic does not discuss how to install and configure a PeopleSoft Process Scheduler Server.

Using the PSADMIN for the Process Scheduler Configuration File

The section discusses the steps to create and configure the Process Scheduler Configuration File (PSPRCS.CFG) using the PSADMIN utility.

Creating a PeopleSoft Process Scheduler Configuration File Through PSADMIN

Although you typically edit the PSPRCS.CFG file through PSADMIN, you can find the PSPRCS.CFG file in the following directory:

- Windows: *PS_CFG_HOME*\APPSERV\PRCS*domain_name*
- UNIX: *PS_CFG_HOME*/appserv/prcs/*domain_name*

To create a PeopleSoft Process Scheduler configuration:

1. Select Start, Command Prompt.

2. Change the directory to <PS_HOME>\appserv\.

3. Enter *psadmin.*

4. Press ENTER.

   The PeopleSoft Server Administration menu appears.

5. Select option 2 (Process Scheduler).

6. Press ENTER.

   The PeopleSoft Process Scheduler Administration menu appears.

7. Select option 2 (Create a Domain) from the Process Scheduler Administration menu.

8. Enter the name of the desired database.

9. Press ENTER.

   The Quick-configure menu appears.

Note: To edit a PeopleSoft Process Scheduler configuration file, follow the previously listed steps 1 through 6, then select option 1 (Administer a domain). Select the number corresponding to the domain you want to edit, then select option 4 (Configure this domain).

Using the PSADMIN Quick-Configure Menu

The Quick-configure menu enables you to create a process scheduler configuration by entering basic information. If you must change a parameter that does not appear, select Custom configuration.

The menu is divided into the following three sections:

- Features: Each item in this list is a feature that uses one or more server processes.

  If set to *Yes,* the feature becomes active for users of the server. Select the number that corresponds to the desired option to toggle between yes and no.

- Settings: Commonly changed parameters are listed in this section.

  Select the number that corresponds to the desired parameter to change its setting.

- Actions: Select to load the scheduler with the server and settings displayed, run a complete custom scheduler configuration, display help information, or return to the previous menu.

The Quick-configure menu consists of the following features:

Master Schdlr (master scheduler)	Flag that enables the Master Scheduler Server (PSMSTPRC). The default is to disable the server.
App Eng Server (application engine server)	Flag that initiates Application Engine programs through the AE Tuxedo Server (PSAESRV). The default is set to run PeopleSoft Application Engine using PSAESRV.

Domains Gateway	Enables communication between the Process Scheduler domain and an application server domain for configuring inter-domain events for the push framework. For more information on configuring the push notification framework, see "Configuring the System for Push Notifications" (PeopleTools 8.59: Fluid User Interface Developer's Guide).
Push Notifications	Enables the Process Scheduler domain for use within the push notification framework. For more information on configuring the push notification framework, see "Configuring the System for Push Notifications" (PeopleTools 8.59: Fluid User Interface Developer's Guide).

The Quick-configure menu consists of the following settings:

DBNAME (database name)	Enter the database name that is associated with a PeopleSoft Process Scheduler Server Agent, such as HRDMO, FSDMO, SADMO, and so on.
DBTYPE (database type)	Enter the database type: DB2UNIX, DB2ODBC (for DB2/OS/390), MICROSFT, or ORACLE
PrcsServer (process server)	Enter the process server name. This must match the name defined in the Server Definition table (for example, PSNT).
UserID	Enter the user ID. Typically, this value is *VP1* for Enterprise Resource Planning and *PS* for Human Resources.
UserPswd (user password)	Enter the user password. Typically, this value is *VP1* for Enterprise Resource Planning and *PS* for Human Resources.
ConnectID	Enter the connect ID. This value is required for all platforms.
ConnectPswd (connect password)	Enter the connect password. This value is required for all platforms.
Log/Output Dir (log/output directory)	Enter the directory in which files that are generated by the program are written. When PeopleSoft Process Scheduler initiates a process request, it creates a subdirectory in the format <Process Type ID>_<Program Name>_<Process Instance> that contains the generated files. For instance, the SQR program has all reports, trace, and log files in the subdirectory SQR_XRFWIN_20. It is also the optional directory used with the Output Destination field when scheduling a request. You can use this variable (%%OutputDirectory%%) in the File/Printer field of the Process Scheduler Request dialog box. **Note:** The output directory has an extra slash attached at the end.
SQRBIN	Enter the path to the SQR executables.

AddToPATH (Optional for Tuxedo) Enter an additional directory that is appended to the PATH environment variable.

DBBIN Enter the path to the database drivers (that is, your connectivity software).

DomainConnectPswd If adding the additional security layer of the domain connection password, enter that password value.

For more information on the domain connection password option, see "DomainConnectionPwd" (PeopleTools 8.59: System and Server Administration).

Related Links

Understanding PeopleSoft Master Scheduler Functions

Setting Parameters for the Application Engine Server

Editing the PeopleSoft Process Scheduler Configuration File

This section discusses the parameters in the Process Scheduler Configuration (PSPRCS.CFG) file.

Understanding the Sections in PSPRCS.CFG File Based on Operating Systems

The sections in the PeopleSoft Process Scheduler configuration file vary, depending on the operating system from which the PeopleSoft Process Scheduler Server is started. For instance, servers that run only in Oracle Tuxedo (that is, PSAESRV, PSANALYTICSRV) are not available in OS/390. However, the OS/390 section applies when the PeopleSoft Process Scheduler Server is started in the OS/390 UNIX System Services (USS).

The following table lists which sections can be found in the PeopleSoft Process Scheduler configuration file based on the operating system:

Section	***Windows***	***UNIX***	***OS/390***
Startup	X	X	X
Database Options	X	X	
Trace	X	X	X
OS/390			X
Process Scheduler	*	*	*
Tuxedo Settings	X	X	
Interface Driver	X	X	X

Section	***Windows***	***UNIX***	***OS/390***
PSTools	*	*	*
PSAESRV	X	X	
PSAEOSRV	X	X	
PSDSTSRV	X	X	
PSANALYTICSRV	X	X	
Application Engine			X
SQR	*	*	*
Remote Call	X	X	X
nVision	X		
SMTP Settings	X	X	X
Cache Settings	X	X	X
Integration Broker	X	X	

* Denotes where parameters found in this section differ, based on the operating system in which the PeopleSoft Process Scheduler configuration file is located.

The *PeopleSoft 9.2 Application Installation* documentation provides the procedure for configuring a PeopleSoft Process Scheduler Server using the basic default values. This section discusses each value that is available in each section.

Startup Section

This is the first section that you encounter when using PSADMIN to configure a PeopleSoft Process Scheduler Server Agent:

Parameter	***Description***
DBName	Specify the database name that is associated with a PeopleSoft Process Scheduler Server Agent, such as *HRDMO, FSDMO, SADMO,* and so on.
DBType	Specify the database type: *DB2UNIX, MICROSFT,* or *ORACLE*.
UserId	Enter the user ID. For Enterprise Resource Planning, this is typically *VP1,* and for Human Resources, it's *PS.*
UserPswd	Enter the user password. For Enterprise Resource Planning, this is typically *VP1,* and for Human Resources, it's *PS.*
ConnectId	Enter the connect ID. This value is required for all platforms.

Parameter	Description
ConnectPswd	Enter the connect password. This value is required for all platforms.
ServerName	**Note:** Keep the parameter blank because Informix and Sybase are no longer supported.
StandbyDBName	Specify a standby database for use with Oracle Data Guard.
StandbyDBType	Specify a standby database type for use with Oracle Data Guard.
StandbyUserId	Specify a standby user ID for use with Oracle Data Guard.
StandbyUserPswd	Specify the password for the standby user ID.
InMemoryDBName	**Note:** This parameter is reserved for Oracle internal use only.
InMemoryDBType	**Note:** This parameter is reserved for Oracle internal use only.

See "Implementing Oracle Active Data Guard" (PeopleTools 8.59: Data Management).

When you change the UserPswd or ConnectPswd field, you are prompted for an option to encrypt the value entered for the password field. The default is to encrypt the password.

Security Section

The domain connection password adds an extra layer of security between the application server domain and any connections made to it. This password enables you to further prevent unauthorized clients from establishing connections to an application server domain. It is recommended to use PSADMIN to update this value. The value can be up to 30 characters.

See "Configuring Domain Connection Password" (PeopleTools 8.59: System and Server Administration).

Inter-Domain Events Section

Parameter	Description
Process Scheduler Port	Specify the port on which the Process Scheduler will listen for events sent by the application server domain.

Parameter	Description
Application Server Credentials	Specify the credentials for the Application Server from which notifications will be received in the format: `<domain name>|<host>:<port>` • *domain name*: A logical domain name • *host:* The hostname of the machine where the Process Scheduler domain is running. • *port*: How the Process Scheduler domain communicates with other domains (in this case the Application Server domain).

For more information on this section in psprcs.cfg, see "(Optional) Configuring Process Scheduler System Settings for Push Notifications" (PeopleTools 8.59: Fluid User Interface Developer’s Guide).

Database Options Section

Use this section for database-specific configuration options:

Parameter	Description
UseLocalOracleDB	Indicate whether the PeopleSoft database to which you are connecting is in a local Oracle System Identifier (SID). The default is *0,* which indicates that the PS database to which you are connecting is remote. **Note:** For the Windows operating system, the parameter "UseLocalOracleDB" is not supported when using a 32 bit client connecting to a 64 bit database. See "UseLocalOracleDB" (PeopleTools 8.59: System and Server Administration)
EnableDBMonitoring	Add to the configuration file for database-level auditing. It is a required parameter. Use this option to view more information regarding the clients that are connected to a database server through the process scheduler server. For instance, with this enabled, you can view the client machine name or user ID that is associated with a particular connection. See "EnableDBMonitoring" (PeopleTools 8.59: System and Server Administration).
EnableAEMonitoring	You must set the EnableAEMonitoring configuration setting to 1 to populate the MODULE and ACTION fields in V$SESSION and V$SQL views. By default, EnableAEMonitoring is set to 0 (disabled). To change the EnableAEMonitoring setting for an Application Server domain or a Process Scheduler domain, use the PSADMIN utility or manually modify the PSPRCS.CFG configuration file or the PSAPPSRV.CFG configuration file, then restart the respective servers.

Trace Section

Use this section to set trace values for performance monitoring and troubleshooting:

Parameter	***Description***
TraceFile	This applies to Windows only and indicates the file to which SQL traces are written when TraceSQL has a value greater than zero. SQL traces for the following programs are written to this file: nVision, and Cube Manager. Other processes—such as Application Engine, SQR, and COBOL—have the SQL traces written to a separate subdirectory under the directory specified for the Log/Output Directory parameter. See the Log/ Output Directory parameter.
TraceSQL	Specify a SQL trace value for troubleshooting. It is implemented as a bit field. Possible values for TraceSQL are listed later in this section.
TracePC	Specify a trace value for troubleshooting PeopleCode. This is used by PeopleSoft Application Engine when it runs PeopleCode. Possible values for TracePC are listed later in this section.
TraceAE	Specify the trace options that are specific to PeopleSoft Application Engine. Trace information based on this option is written to a file with the following format: <Application Engine program name>_<Process Instance>. AET Possible values for TraceAE are listed later in this section.
AETFileSize	This parameter is used to specify the maximum file size (in MB) of the AE trace file. The minimum value is taken to be 20 MB by default and the maximum value limit is set to be 1500 MB.
TraceAECombineOutput	Set this parameter to Y to merge People Code and SQL trace output into AET file. Default is N.
TraceAEEnableSection	Set this parameter to Y to enable section level trace. Default is N i.e. section level trace will be disabled and AE traces will be controlled by TraceAE setting only.
TracePPM	The Performance Monitor agent is a thread that reports performance metrics for each instrumented server if monitoring is enabled for the database. Select 1 to enable and 0 to disable. See Performance Monitor.

The following table lists the possible values for TraceSQL:

Bit	***Constant***	***Type of Tracing***
0	%TraceSQL_None	No output.

Bit	Constant	Type of Tracing
1	%TraceSQL_Statements	SQL statements.
2	%TraceSQL_Variables	SQL statement variables.
4	%TraceSQL_Connect	SQL connect, disconnect, commit, and rollback.
8	%TraceSQL_Fetch	Row fetch (indicates that it occurred and the return code, not data).
16	%TraceSQL_MostOthers	All other application-programming interface (API) calls, except Set Select Buffers (ssb).
32	%TraceSQL_SSB	Set Select Buffers (identifies the attributes of columns to be selected).
64	%TraceSQL_DBSpecific	Database API-specific calls.
128	%TraceSQL_Cobol	COBOL statement timings.
1024	%TraceSQL_DB2390Server	Turn on the tracing of diagnostic messages returned by the DB2/390 %UpdateStats() command.

The following table lists the possible values for TracePC. Use these by adding the numbers together, or by specifying more than one constant:

Bit	Constant	Type of Tracing
1	%TracePC_Functions	Provide a trace of the program as it is run. This implies options 64, 128, and 256.
2	%TracePC_List	Provide a listing of the entire program.
4	%TracePC_Assigns	Show the results of all assignments made to variables.
8	%TracePC_Fetches	Show the values fetched for all variables.
16	%TracePC_Stack	Show the contents of the internal machine stack. This option is normally used for debugging the PeopleCode language, not PeopleCode programs.
64	%TracePC_Starts	Provide a trace showing when each program starts.
128	%TracePC_ExtFuncs	Provide a trace showing the calls made to each external PeopleCode routine.
256	%TracePC_IntFuncs	Provide a trace showing the calls made to each internal PeopleCode routine.

Bit	**Constant**	**Type of Tracing**
512	%TracePC_ParamsIn	Show the values of the parameters to a function.
1024	%TracePC_ParamsOut	Show the values of the parameters as they exist at the return from a function.

The following table lists the possible values for TraceAE:

Bit	**Type of Tracing**
1	Trace STEP execution sequence to AET file.
2	Trace Application SQL statements to AET file.
4	Trace dedicated temporary table allocation.
8	Trace temporary table data.
128	Timings report to AET file.
256	Method/BuiltIn detail, instead of summary in AET Timings report.
1024	Timings report to tables.
2048	DB optimizer trace to file.
4096	DB optimizer trace to tables.
8192	Trace Integration Broker transform programs.

Process Scheduler Section

After you set trace values, use the Process Scheduler section to set the environment variables that are associated with PeopleSoft Process Scheduler.

Warning! The default values for PS_HOME here and in future sections assume that you set up SQR, and nVision locally on the batch server. You can point to those items on the file server, but, if so, you must use a full path. You *cannot* use a PS_HOME environment variable because PSADMIN employs the PS_HOME environment variable to point to a local directory on the batch server.

Parameter	**Description**
PrcsServerName	Specify the process server name. This must match the name defined in the Server Definition table, such as *PSNT.*
DBBIN	Enter the path to the database drivers (that is, your connectivity software).

Parameter	***Description***
Max Reconnect Attempt	Specify the maximum number of attempts that the PeopleSoft Process Scheduler Server Agent tries reconnecting to the database when the connection is lost. When the maximum number of attempts is reached, and the agent hasn't successfully connected to the database, the agent shuts down.
Reconnection Interval	Specify the interval, in seconds, between attempts to reconnect to the database when the connection is lost.
Authentication Timeout	Specify the duration, in minutes, allotted before PeopleTools security module times-out authenticating a process released by Process Scheduler. The timer starts from the time Process Scheduler initiates the request
Allow Dynamic Changes	Specify dynamic changes to certain settings without having to reboot the domain. The settings that can be dynamically changed are Recycle Count, Consecutive Service failures, Trace SQL, Trace Mask SQL, TracePC, TracePCMask, TracePpr, TracePprMask, Log Fence, Enable DB Monitoring, and Enable Debugging.
Log/Output Directory	Specify the directory in which files that are generated by the program are written. When PeopleSoft Process Scheduler initiates a process request, it creates a subdirectory in the format <Process Type ID>_<Program Name>_<Process Instance> that contains the generated files. For instance, the SQR program has all the reports, trace, and log files in the subdirectory SQR_XRFWIN_20. It is also the optional directory used with the Output Destination field when scheduling a request. This variable (%%OutputDirectory%%) can be used in the File/Printer field of the Process Scheduler Request dialog box. **Note:** The output directory has an extra slash attached at the end.

Parameter	***Description***
Output Directory Optional Extension	Specify the optional subdirectory structure that can be appended to the designated Log/Output Directory. Additional meta-string that can be used include: • Userid—%OPRID% • Contentid—%REPORTID% • Process Instance—%PRCSINSTANCE% • Database Name— %DBNAME% • Process Name—%PRCSNAME% • Process Type—%PRCSTYPE% • Scheduler Server Name— %SERVER% • Current Date— %CURRDATE% • Current Hour—%CURRHOUR% • Job Name— %JOBNAME% • Job Instance— %JOBINSTANCE% For example, *%CURRDATE%\%CURRHOUR%*.
LogFence	Enter the PeopleSoft Process Scheduler tracing levels, such as *3*. **Note:** By default, the LogFence value is set to *3*. Set the value to *5* to generate a more detailed log file.
LogFieldSeparator	See "LogFieldSeparator" (PeopleTools 8.59: System and Server Administration).
Trace-Log File Character Set	See "Trace-Log File Character Set" (PeopleTools 8.59: System and Server Administration).
Log Directory	See "Log Directory" (PeopleTools 8.59: System and Server Administration).
Log Space Threshold	Specify the space threshold, in megabytes (MB), for the log/output directory. Once the space goes below this threshold, the PeopleSoft Process Scheduler stops processing until more disk space becomes available. The Server Monitor shows a status of *Suspended — Disk Low.*
File Chunk Size	Specify the size of memory in KB, allocated to store the value read from a file when transferring files to the Report Repository via HTTP. The default is *4096 KB (4 MB)*.
CBLBIN	Enter the path to COBOL executables, such as *%PS_HOME%\CBLBIN*.

Parameter	***Description***
TEMP	Enter the local temporary directory, such as *%TEMP%*.
TOOLBIN	Enter the location of the PeopleTools executables, such as *%PS_HOME%\bin\client\winx86*.
TOOLBINSRV	Enter the location of the server version of PeopleTools executables, such as *%PS_HOME%\bin\server\winx86*.
WINWORD	Enter the path to Microsoft Word executables, such as *c:\apps \office97\winword*. **Note:** If spaces exist in the path, you must modify the Process Type Definition and add quotes around the entry in the Command Line field, for example *" %%WINWORD%% \WINWORD.EXE"*. These must be in the batch server environment.
DEFAULTPRINTER	Enter the universal naming convention (UNC) path of the printer where reports are printed when the *%DefaultPrinter%* was specified as the output destination.
Update Table Stats on Purge	Set to run statistics for the Process Request and Report Manager tables during the Process Scheduler server purge process. *0:* Disable. *1:* Enable. **Note:** This flag is ignored if the DBFlags bitfield parameter is disabled.

The following table lists the possible values for LogFence:

Level	***Type of Tracing***
0	Status information.
1	General errors.
2	Warnings.
3	Informational.
4	Tracing Level 1.
5	Tracing Level 2 (detail).

See Log and Output Directory.

Oracle Tuxedo Settings Section

The following table describes each parameter in the Tuxedo Settings section:

Parameter	**Description**
Restartable	Specify *Y* or *N* to instruct Tuxedo to restart a PeopleSoft Process Scheduler Server Agent or Distribution Agent if it is terminated abruptly.
Grace Period	Specify the period time in seconds in which Tuxedo will attempt to restart the Process Scheduler Server. For example, Grace Period = 600, Max Restart Attempt = 5. Tuxedo attempts to restart the PeopleSoft Process Scheduler server five times within 30 minutes of when the server comes down.
Max Restart Attempt	Specify the maximum number of restarts in the grace period.
Add to PATH	(Optional) Specify an additional directory that is appended to the PATH environment variable.
Spawn Threshold	Enter a parameter that's supplied to Tuxedo for control of process spawning by using the -p command-line option for all server processes. The default setting (*1,600:1,1*) rarely needs to be changed. For more information see "Spawn Threshold" (PeopleTools 8.59: System and Server Administration).

Cognos/Cube Manager Installs: Make sure to specify the proper path for Cognos in the Add to Path parameter. By default, that path is `C:\Program Files\Cognos\cer2\bin;C:\ODI\OStore\bin.`

Note: Cognos and ODI are the important top-level directories and can change, depending on the install.

Interface Driver Section

The following table describes the parameter in the Interface Driver section:

Parameter	**Description**
SCP_LOCALE	Defines the RPS_LOCALE string that is sent to the PeopleSoft Supply Chain Planning server.

PSTools Section

Use this section to specify a character set. The default value is *UTF-8*.

Parameter	**Description**
Enable Remote Administration	Set the value to 1 to enable embedded JMX agents, 0 to disable embedded JMX agents. JMX agents must be enabled to use the PeopleSoft Health Center.

Parameter	***Description***
Remote Administration Port	Specify the port number to use for remote administration of domain processes. All embedded JMX agents will use the port in the JMX service URL.
Remote Administration UserId	Specify the username for remote administration connections.
Remote Administration Password	Specify the pscipher encrypted password for remote administration connections. See "Encrypting Passwords" (PeopleTools 8.59: Integration Broker Administration).
Remote Administration SSL Enabled	Set this parameter to 1 to enable SSL for JMX Agents and to 0 to disable SSL for JMX Agents. Default is 0 i.e. SSL for JMX Agents will be disabled. Other settings are optional if SSL for JMX Agents is disabled.
Remote Administration SSL Keystore	Specify the location of the Keystore file for remote administration connections.
Remote Administration SSL Keystore Password	Specify the pscipher encrypted Keystore password for remote administration connections.
Remote Administration SSL Keystore Type	Specify the Keystore type for the keystore you had created for enabling SSL. Options are PKCS12 or JKS. See the documentation for Java Security Standard Algorithm Names in Oracle Help Center.
Remote Administration SSL Truststore	Specify the location of the Truststore file for remote administration connections.
Remote Administration SSL Truststore Password	Specify the pscipher encrypted Remote Administration SSL Truststore Password.
Remote Administration SSL Truststore Type	Specify the Truststore's Keystore type for the truststore you had created for enabling SSL. Options are PKCS12 or JKS. See the documentation for Java Security Standard Algorithm Names in Oracle Help Center.
EnablePPM Agent	Controls whether the Performance Monitor agent runs and collects performance monitor data. Enter *1* to enable the Performance Monitor agent, and *0* to disable the Performance Monitor agent. This setting overrides the value for this parameter that is set in the database.
JavaVM Shared Library	Indicate which Java Virtual Machine (JVM) library to use. **Note:** You must manually update the psprc.cfg file, as this option is not available using the PSADMIN utility.

Parameter	***Description***
Add to CLASSPATH	The Add to CLASSPATH parameter tells the Java Virtual Machine (JVM) where to find the Java class libraries, including user-defined class libraries. Because PeopleTools automatically generates CLASSPATH entries for core delivered class libraries, use this field to specify any custom or additional class libraries that must be accessed by PeopleTools or PeopleCode. The PeopleCode API Reference provides details on where you can place custom and third-party Java classes. See "Java Packages and Classes Delivered with PeopleTools" (PeopleTools 8.59: PeopleCode API Reference).
JavaVM Options	Set options to the list of parameters required. Use a space to separate parameters (for example, -Xmx256m -Xms128m). The following setting is used to enable communication with the REN server using SSL protocols that adhere to corporate security standards: -Dhttps.protocols=TLSv1.1,TLSv1.2 If this option is not already set, either add it manually to the JavaVM Options section in psprcs.cfg and then restart the process scheduler domain or take the latest patch, then drop and recreate the process scheduler domain. Set option -Xrs if you have PeopleSoft Process Scheduler set up as a Windows service on Windows. Options must be set if you are using HTTP transfer protocol and receiving Java exception thrown: java.lang. OutOfMemoryError. AIX customers should set this option to -Xrs -Djava.awt. headless=true -Xcheck:jni **Note:** You must manually update the psprc.cfg file, as this option is not available using the PSADMIN utility.
Character Set	Specify the default character set for non-Unicode processing performed by this process server. The default value is *UTF-8.* This is the character set that PeopleSoft supports for use with all Western European languages, including English. If the process server will be used only to process Western European data, accept the default. Otherwise, select one of the valid character set choices listed later in this section. **Note:** The character set selected for the process server should be the same as the character set specified for the application sever.

Parameter	***Description***
Proxy Host	This setting is used by the distribution agent if your architecture includes a firewall between the process scheduler server and the report repository (webserver). **Note:** If your architecture includes a firewall between the process scheduler server and the report repository (webserver), the distribution agent must tunnel through this firewall via a proxy server in order to transfer reports successfully. Set this value to the domain name of the proxy server only if your architecture includes a firewall between the process scheduler and the report repository (web server). Configure the firewall to allow outgoing HTTP or TCP connections to originate only from the proxy server host. You can configure the proxy server to restrict access to only PeopleSoft and perform tasks, such as logging HTTP activity.
Proxy Port	If PeopleSoft Process Scheduler is behind a proxy server, set this value to the port of the proxy server.
Non Proxy Hosts	Enter a list of the hosts that should be connected to directly, not through a proxy server. Separate the host names with a pipe symbol (|). You can use an asterisk (*) as a wildcard character to specify a pattern of similar host names. For example, `localhost|*.example.com` indicates that the local host and all hosts with names ending in .example.com will be accessed directly.
DbFlags	Enter *0* to issue the command to update table statistics to the database. Programs like PeopleSoft Application Engine and COBOL use the metaSQL %UpdateStats to run the command that runs statistics to a specific table. Otherwise, select one of the valid choices listed later in this section. **Note:** The Update Table Stats on Purge parameter is ignored if this parameter is disabled.
Suppress App Error Box	Use to suppress the console's Application Error dialog box after an application error occurs. *Y* suppresses the dialog box.
Process exit grace period	When a PeopleSoft Application Engine job completes, it has a specified number of seconds to exit. If the process has not exited when the grace period expires, it is terminated through a psreaper process. A grace period of *0* disables the psreaper process.

The following table lists valid character set choices:

Character Set	***Description***
latin1	Latin–1- ISO 8859-P1 - Microsoft codepage 1252
sjis	Japanese Shift-JIS - Microsoft codepage 932
big5	Traditional Chinese - Microsoft codepage 950

Character Set	*Description*
gb	Simplified Chinese - Microsoft codepage 936
ks-c-5601-1987	Korean Wansung - Microsoft codepage 949
ks-c-5601-1992	Korean Johab - Microsoft codepage 1361

See Global Technology.

The following table lists possible values for DBFlags bitfield:

Bit	*Description*
0	(Default) Issue the command to update table statistics to the database.
1	Ignore metaSQL to update database statistics (shared with COBOL).
2	Not yet allocated.
4	Disable second database connection.
8	Disable persistent secondary database connection.
16	Not yet allocated.
32	Not yet allocated.
64	Not yet allocated.
128	Not yet allocated.
256	Not yet allocated.

Note: The JavaVM Options parameter specified in the [PSTOOLS] section specifies global JavaVM options used by every server process in a domain. To override this global value for a particular server process, you can apply custom JavaVM options to individual server processes by adding the JavaVM Options parameter manually to the configuration section for that server process.
JavaVM Options can appear multiple times in a single PSAPPSRV.CFG or PSPRCS.CFG file. While the JavaVM Options value in the [PSTOOLS] section applies to all server processes governed by a particular configuration file, the system only uses the JavaVM Options value in the [PSTOOLS] section for server processes that do not have the JavaVM Options parameter added to its configuration settings section.
For example, if the JavaVM Options parameter has been added to the [PSAPPSRV] section of the PSAPPSRV.CFG file and has been assigned a value, then that value will be used when loading the JVM as a thread of that PSAPPSRV process. If the JavaVM Options parameter does not appear, or has no value, in the [PSAPPSRV] section, then the system uses the value specified in the [PSTOOLS] section when loading the JVM as a thread of the PSAPPSRV process. This applies to any server process: PSAPPSRV, PSQRYSRV, PSAESRV, and so on.

PSAESRV Section

The following table describes each parameter in the PSAESRV (Application Engine Tuxedo Server) section:

Parameter	***Description***
Max Instances (maximum instances)	Specify the maximum concurrency set for process types with a generic process type of Application Engine, as defined on the Server Definition page in Process Scheduler Manager.
Recycle Count	Specify the number of services after which PSAESRV automatically restarts. If this is set to *0* (default), PSAESRV is never recycled.
Allowed Consec Service Failures (allowed consecutive failures)	Specify the number of consecutive service failures after which PSAESRV automatically restarts. If this is set to *2* (default), PSAESRV is never recycled.
ProcessRestartMemoryLimit	See "ProcessRestartMemoryLimit" (PeopleTools 8.59: System and Server Administration).
ScheduledQuery-DirtyRead	This parameter only applies to DB2. Indicates if dirty reads are enabled. Setting this to *1* enables the application server to read uncommitted data from a table.

PSDSTSRV Section

The following table describes each parameter in the PSDSTSRV (Distribution Agent Tuxedo Server) section:

Parameter	***Description***
Max Instances	Specify the maximum number of PSDSTSRVs that can be started within Oracle Tuxedo. Default is *1*.
Min Instances	Specify the minimum number of PSDSTSRVs that can be started within Oracle Tuxedo. Default is *1*. Tuxedo will initially start count specified in the minimum instance setting.
Recycle Count	Specify the number of services after which PSDSTSRV automatically restarts. If this is set to *0* (default), PSDSTSRV is never recycled.
ProcessRestartMemoryLimit	See "ProcessRestartMemoryLimit" (PeopleTools 8.59: System and Server Administration).
Allowed Consec Service Failures	Specify the number of consecutive service failures after which PSAEOSRV automatically restarts. If this is set to *0* (default), PSDSTSRV is never recycled.
Max Fetch Size	See, "Max Fetch Size" (PeopleTools 8.59: System and Server Administration).

PSAEOSRV Section

The following table describes each parameter in the PSAEOSRV (Analytic Engine Tuxedo Server) section:

Parameter	***Description***
Max Instances	Specify the maximum concurrency set for process types with a generic process type of Analytic Engine, as defined on the Server Definition page in Process Scheduler Manager. This should equal the number of Analytic Engines if synchronous Tux service calls are used.
Recycle Count	Specify the number of services after which PSAEOSRV automatically restarts. If this is set to *0* (default), PSAEOSRV is never recycled.
Allowed Consec Service Failures	Specify the number of consecutive service failures after which PSAEOSRV automatically restarts. If this is set to *0* (default), PSAEOSRV is never recycled.
Max Fetch Size	Specify the maximum result set size, in KB, for a SELECT query. The default is 5000 KB. Use *0* for no limit.

PSANALYTICSRV Section

The following table describes each parameter in the PSANALYTICSRV (Analytic Engine Tuxedo Server) section:

Parameter	***Description***
Max Instances	Specify the total number of OptEngines = number of single queues + number in the MSSQ (read by ubbgen.cpp to calculate MAXSERVERS and MAXSERVICES in psprcsrv.ubb). Only MSSQ allows spawning.
Service Timeout	Limit the period that PSANALYTICSRV might block PSPRCSRV.
Opt Max General Services	Specify the number of each service declared in the corresponding .ubx file.
Opt MSSQ Instances	Specify the number of OptEngines in the MSSQ.

PSRTISRV Section

The following table describes each parameter in the PSRTISRV (Real Time Indexing Server) section:

Parameter	***Description***
Min Instances	Specify the minimum number of RTI server processes to run when the Process Scheduler domain is booted up. The default is *1*.

Parameter	Description
Max Instances	Specify the maximum number of RTI server processes to run when the Process Scheduler domain is booted up. The default is *1*.

Related Links

"Using Real Time Indexing" (PeopleTools 8.59: Search Technology)

SQR Section

The following table describes each parameter in the SQR section:

Parameter	Description
SQRBIN	Enter the path to the SQR executables.
PSSQRFLAGS	Specify the SQR report arguments required for launching SQR.
Print Log	Indicate whether the SQR log files are also be printed when the output destination is *Printer.*
Enhanced HTML	Indicate whether reports are in enhanced HTML format when the output destination is *HTM.*
PSSQR	Stores multiple paths to SQR report file. You can also separate these paths by using the appropriate delimiter for UNIX and WINDOWS platform. **Note:** Settings for Windows platform, `PSSQR=%PS_APP_HOME%\sqr;%PS_HOME%\sqr`. Settings for UNIX platform, `PSSQR=%PS_APP_HOME%/sqr:%PS_HOME%/sqr`

Note: In some cases, Application Engine programs require Java Runtime Engine (JRE) to be installed on the batch server.

See *PeopleSoft 9.2 Application Installation* for your database platform.

Data Mover Section

The following table describes each parameter in the Data Mover section.

Note: The values entered here should be the same as the values specified in the Configuration Manager.

Parameter	Description
InputDir	Specify the path for the Data Mover input directory (for example, %PS_HOME%/data).

Parameter	Description
OutputDir	Specify the path for the Data Mover output directory (for example, %PS_HOME%/data).
LogDir	Specify the path for the Data Mover log directory (for example, %PS_SERVDIR%/log_output).
LastScriptsDir	Specify the path for Data Mover to search the DMS script if the script specified in the command line cannot be found in the current directory or the absolute path.

RemoteCall Section

The following table describes each parameter in the RemoteCall section:

Parameter	Description
RCCBL Timeout	Specify the maximum allotted time, in seconds, to run Remote Call with PeopleSoft Application Engine.
RCCBL Redirect	If this parameter is set to *0,* log files that are generated from Remote Call are not retained. If this parameter is set to *1,* log files are redirected to the directory specified in the Log/Output Directory parameter.
RCCBL PRDBIN	Specify the location of the COBOL executable. In Windows, the default location of the COBOL executable is `%PS_HOME%\cblbin%PS_COBOLTYPE%`. In UNIX, the default location is`$PS_HOME/cblbin`.

COBOL Platform	Specify the CBLBIN path based upon the COBOL platform:
	• For COBOL Platform=MF
	`CBLBIN=%PS_HOME%\CBLBIN%PS_COBOLTYP⇒`
	`E%`
	• COBOL Platform=IBM
	`CBLBIN=%PS_HOME%\CBLBIN_IBM%PS_COBO⇒`
	`LTYPE%`
	For further information on CBLBIN path see *PeopleSoft 9.2 Application Installation*.

PS/nVision Section

If you plan to have PeopleSoft Process Scheduler invoke PS/nVision jobs, specify the appropriate parameters in this section.

Parameter	***Description***
DrillDownDir	Specify the location of PS/nVision DrillDown files, such as *%PS_HOME%\NVSION\LAYOUT\DRILLDN.* **Note:** If this directory is in %PS_HOME% it will be read-only. Only an Administrator can add new layout or modify existing layouts. If all users need write access to this directory use a directory outside PSHOME . **Note:** For Windows 2008 , if a mapped drive path is used, it must be in UNC (universal naming convention) path format.
ExcelDir	Leave blank.
InstanceDir	Enter the location where PS/nVision places report instances, such as *%PS_SERV%\NVSION\INSTANCE.* **Note:** When the PS/nvision instance directory is set to a mapped network drive and the output format used is HTML, PS/nVision hangs. The workaround is to use the UNC path.
LayoutDir	Specify the location of the PS/nVision layout, such as *%PS_HOME%\NVISION\LAYOUT.* **Note:** If this directory is in %PS_HOME% it will be read-only. Only an Administrator can add new layout or modify existing layouts. If all users need write access to this directory use a directory outside PSHOME . **Note:** For Windows 2008 , if a mapped drive path is used, it must be in UNC (universal naming convention) path format.
MacroDir	Enter the directory containing macros for PS/ nVision and Query Link, such as *%PS_HOME%\EXCEL.*
StyleDir	Enter the default location where PS/nVision keeps nPlosion Styles (these are usually inherited by the layout that the user is designing).
TemplateDir	Enter the location of the QUERY.XLT file, which defines the Microsoft Excel styles for formatting output. The default is the \MacroDir, such as *%PS_HOME%\EXCEL.*
EnableDrillDownForFile	Use PS/nVision on the web. Indicate whether you want to enable drilldown on a report with the output type of *file.* *1* = Enable drilldown. *0* = Disable drilldown (default).

<table>
<tr><th>Parameter</th><th>Description</th></tr>
<tr><td>EnablePollDialogs</td><td>Use PS/nVision on the web.

Indicate whether you want the system to poll and automatically kill unattended dialogs generated from PS/nVision in batch mode (for example, dialog messages from Excel displaying on the webserver).

1 = Enable poll dialogs.

0 = Disable poll dialogs (default).</td></tr>
<tr><td>PollDialogSeconds</td><td>Enter the time, in seconds, used to cycle polling for the dialog.</td></tr>
<tr><td>TraceLevel</td><td>Use PS/nVision on the web.

Indicate whether you want the system to generate independent trace/log files, and at what level, for each nVision process. Trace files can be viewed from the Process Monitor Details - View Log/Trace page.

0 = Disable trace files (default).

1 = Generate basic high level information.

2 = Generate level 1 tracing plus high level code flow.

3 = Generate level 2 tracing plus SQL statements.

4 = Generate level 3 tracing plus most function calls and output values.

Note: Extensive tracing will impact performance.</td></tr>
<tr><td>SaveTempFile</td><td>Indicate whether you want PS/nVision to save or delete the temporary reports created when running them to email, printer, or web output.

0 = Temporary reports will be deleted. (Default).

1 = Temporary reports will be saved.

Note: Reports that are run to email or printer will be saved to the folder specified in the Directory Name Template field of the report request. Reports that are run to web will be saved to the PS/nVision instance directory.</td></tr>
<tr><td>UseExcelAutomation</td><td>Use this parameter to enable or disable Excel automation mode.

The default value is 0.

Do not change this value as this is currently the only mode under which nVision can run.</td></tr>
<tr><td>AsofDateForLabels</td><td>See "Specifying the AsofDateForLabels Option" (PeopleTools 8.59: PS/nVision)</td></tr>
</table>

Parameter	*Description*
RetrieveActiveTreeLabels	*RetrieveActiveTreeLabels* is used to specify whether only active tree node label descriptions are retrieved for nVision reports and drilldowns. The default setting *RetrieveActiveTreeLabels=0* enables PS/nVision to disregard the activeness of the tree node label descriptions. When *RetrieveActiveTreeLabels=1*, nVision strictly use the activeness of the tree node label descriptions.

SMTP Section

If you plan to use Simple Mail Transfer Protocol (SMTP) mail server gateways, specify the appropriate parameters in this section.

When changes are made to any of the parameters in the SMTP section of the process scheduler configuration file (psprcs.cfg), the effect is immediate (even before the updated configuration file has been loaded by PSADMIN).

Note: The Allow Dynamic Changes flag, located in the General Settings section of the configuration file, has no effect on the SMTP parameters. Changes to the SMTP parameters are always dynamic.

Parameter	*Description*
SMTPServer	Specify the name of the corporate mail server gateway machine. Leave blank for an initial installation.
SMTPPort	Specify the port used by SMTP mail server gateways.
SMTPServer1	Specify the failover corporate mail server gateway machine. Leave blank for an initial installation.
SMTPPort1	Specify the port used by failover SMTP mail server gateways.
SMTPSender	Specify the sender’s internet address. This must be a valid internet address, such as USER1@XYZCORP.COM. Leave blank for an initial installation.
SMTPSourceMachine	Specify the sender’s source machine name and internet address in the form of MACHINE.XYZCORP.COM. Leave blank for an initial installation.
SMTPCharacterSet	Specify the character set used on the sender’s machine.
SMTPEncodingDLL	Specifies the name of a DLL used to translate the mail message to a non-Unicode character set. By default, all outgoing SMTP mail is sent in Unicode UTF-8.
SMTPTrace	See "SMTPTrace" (PeopleTools 8.59: System and Server Administration)
SMTPSendtime	Enter *1* to have messages contain a send time that is populated by the application server. Enter *0* to leave the send time blank and have it populated by the receiving gateway (depending on the gateway).

Parameter	*Description*
SMTPUseSSL	See "SMTPUseSSL" (PeopleTools 8.59: System and Server Administration).
SMTPSSLPort	See "SMTPSSLPort" (PeopleTools 8.59: System and Server Administration).
SMTPClientCertAlias	See "SMTPClientCertAlias" (PeopleTools 8.59: System and Server Administration).
SMTPUseSSL1	See "SMTPUseSSL1" (PeopleTools 8.59: System and Server Administration).
SMTPSSLPort1	See "SMTPSSLPort1" (PeopleTools 8.59: System and Server Administration).
SMTPClientCertAlias1	See "SMTPClientCertAlias1" (PeopleTools 8.59: System and Server Administration).

Implementing NT LAN Manager

PeopleTools supports NT LAN Manager (NTLM) as a primary authentication mechanism. NTLM is a suite of authentication and session security protocols used in various Microsoft network protocol implementations. To use NTML with PeopleTools, you need to add these parameters manually to the PSAPPSRV.CFG file and PSPRCS.CFG file in the SMTP settings section.

Parameter	*Description*
SMTPNTLMEnable	Specify whether NTLM is enabled. Add *true* or *false.*
SMTPNTLMDomain	Specify the NTLM domain.
SMTPNTLMEnable1	Specify whether NTLM is enabled for the backup server.
SMTPNTLMDomain1	Specify the NTLM domain for the backup server.

Cache Settings Section

PeopleSoft Application Engine and Process Scheduler require a cache directory, which you specify in this section:

Parameter	*Description*
MaxCacheMemory	See, "MaxCacheMemory" (PeopleTools 8.59: System and Server Administration).
EnableCacheRepair	See, "EnableCacheRepair" (PeopleTools 8.59: System and Server Administration).
AdjustMaxCacheMem	See, "AdjustMaxCacheMem" (PeopleTools 8.59: System and Server Administration).

Parameter	***Description***
ExcessivePruningThreshold	See, "ExcessivePruningThreshold" (PeopleTools 8.59: System and Server Administration).
CacheMissThreshold	See, "CacheMissThreshold" (PeopleTools 8.59: System and Server Administration).
MaxRepairCollection	See, "MaxRepairCollection" (PeopleTools 8.59: System and Server Administration).
CacheBaseDir	Enter the location of the cache directory. Leave the default selected, unless you have a compelling reason to change it.
EnableServerCaching	Specify a bit flag instructing how file caching is set up. The default value is *2*. **Note:** This option is not included in the delivered psprcs.cfg file. However, if you must override the default setting, you can manually enter the option into the psprcs.cfg file.
ServerCacheMode	Set to *0* for one cache directory per process or *1* for a shared cache. The default value is *0*. **Note:** This option is not included in the delivered psprcs.cfg file. However, if you must override the default setting you can manually enter the option into the psprcs.cfg file.
EnableDBCache	If enabled, the metadata (cache) is accessed from database, rather than the file-system. **Note:** To enable database caching for Process Scheduler domains, you may need to manually add EnableDBCache=Y.

See "Cache Settings" (PeopleTools 8.59: System and Server Administration).

The following table lists the possible values for EnableServerCaching:

Bit	***Type of Caching***
0	Server file caching disabled.
1	Server file caching is limited to most used classes.
2	Server file caching for all types.

Integration Broker Section

The following table describes each parameter in the Integration Broker section:

Parameter	Description
Min Message Size For Compression	Specify the minimum size of message data for synchronous handler to enable compression.

Note: If you decide to edit the configuration file directly, make sure that there are no spaces between the equal sign and the entries and no trailing spaces. After making the necessary changes, save this file.

Search Section

The following table describes each parameter in the Search section:

Parameter	Description
Deployment Type	Specify the deployment type. If no option is provided, the application server automatically selects the preferred mechanism for the deployment platform. The deployment types are: • 1 - Search module bound to an application server. • 2 - Search module in same machine as the application server. • 3 - Search module bound to remote search domain.

Search Indexes Section

The following table describes each parameter in the Search Indexes section:

Parameter	Description
Search Indexes	Use this option to specify the location of all the files pertaining to the search index. Index name is same as the location.

LDAP Section

You can access and set the parameters in the LDAP section of the psprcs.cfg file.

For detailed information on the parameter and their settings please see, "Configuring LDAP Connection Parameters" (PeopleTools 8.59: Security Administration).

Parameter Exceptions Section

These parameters trap unwanted security parameters in the meta-strings passed as input to a process. The system throws an error message if it finds any of these parameters. For example; `PARAMETER_EXCEPT01=%OPRID%`

In case you have included this setting in the psprcs.cfg file, the system will log appropriate error message on seeing this `%OPRID%` in the parameter list passed to the process.

Editing the PeopleSoft Process Scheduler Configuration File for UNIX and OS/390

This section discusses the differences in parameter descriptions for UNIX and OS/390 operating system.

Note: The EnableDBMonitoring feature requires Tuxedo and thus it is not supported for the OS/390 Process Scheduler.

OS/390-Config Section

This is an additional section located after the Trace section:

Parameter	***Description***
ODBC Initialization File	Specify the file containing the Open Database Connectivity (ODBC) setting to connect to the DB2 subsystem where the PS database is created.
Shell JCL Library	Specify the directory location where the JCL shell templates are stored.
High Level Qualifier for System Datasets	Specify the datasets to which PeopleSoft installation are copied during batch transfer (for example, *PT.PT840TA*).
High Level Qualifier for Log Datasets	Specify the datasets that represent the high-level qualifier for all logs and reports generated from processes submitted through PeopleSoft Process Scheduler.
Plan name for PTPSQLRT with CAF	Specify the DB2 plan used to run COBOL called within an Application Engine program through Remote Call.
Plan name for PTPSQLRT with TSO	Specify the DB2 plan used to run COBOL from TSO through JCL that is created from the COBOL shell JCL template (SHECBL.JCT).
DB2 Sub-System=	Specify the DB2 subsystem name where the database resides (for example, *DSND*).
VIO eligible unit group	Specify the DASD volume group used by Remote COBOL when triggered from PeopleSoft Application Engine.
Enable Parallel Processing	Specify *Y* or *N* to set the Parallel processing parameter in the COBOL shell JCL template (SHECBL.JCT).
DECIMAL	This value should reflect the setting of the DECIMAL parameter found in the ZPARM of the DB2 subsystem where the database resides. The valid values are *PERIOD* (default) and *COMMA*.

Parameter	***Description***
TSO Character Set	Specifies the codepage for the TSO environment. The default value is *CP037* (IBM037: Latin1 code page). **Note:** For example, in Japanese setting, the recommended TSO Character Set is *CCSID939*. See "Character Sets Across the Tiers of the PeopleSoft Architecture" (PeopleTools 8.59: Global Technology).

Process Scheduler Section

The following table lists the Process Scheduler section parameters for UNIX (rather than Windows):

Parameter	***Description***
ProgramName	Specify the name of the PeopleSoft Process Scheduler program, *PSPRCSRV.*
PrcsServerName	Specify the process server name. This must match the name defined in the server definition, such as *PSUNX.*
Max Reconnect Attempt	Specify the maximum number of times that the PeopleSoft Process Scheduler Server Agent will try to reconnect to the database when the connection is lost. When the maximum number of attempts is reached and the agent hasn't successfully connected to the database, the agent shuts down.
Reconnection Interval	Specify the interval, in seconds, between attempts to reconnect to the database when a connection is lost.
Log/Output Directory	Specify the directory in which files that are generated by the program are written. When PeopleSoft Process Scheduler initiates a process request, it creates a subdirectory in the format <Process Type ID>_<Program Name>_<Process Instance> that contains the generated files. For example, the SQR program has all reports, trace, and log files in the subdirectory SQR_XRFWIN_20. It is also the optional directory used with the Output Destination field when scheduling a request. This variable (%%OutputDirectory%%) can be used in the File/Printer field of the Process Scheduler Request dialog box. **Note:** The output directory has an extra slash attached at the end.
LogFence	Enter the PeopleSoft Process Scheduler tracing levels.

Parameter	Description
DEFAULTPRINTER	Specify the UNC path of the printer where reports are printed when the %DefaultPrinter% was specified as the output destination.

The following table lists the Process Scheduler section parameters for OS/390 (rather than Windows):

Parameter	Description
Prcs Job Name	Specify the job name that is assigned to the Process Scheduler program. This is set in USS using the __BPX_JOBNAME environment variable setting.
Prcs Job Account=	Specify the job account that is assigned to the Process Scheduler program. This is in USS using the __BPX_ACCT_DATA environment variable setting.
ProgramName	Specify the name of the Process Scheduler program, PSPRCSRV.
PrcsServerName	Specify the process server name. This must match the name defined in the database, such as *PSOS/390.*
Max Reconnect Attempt	Specify the maximum number of times that the PeopleSoft Process Scheduler Server Agent will try to reconnect to the database when the connection is lost. When the maximum number of attempts is reached and the agent hasn't successfully connected to the database, the agent shuts down.
Reconnection Interval	Specify the interval, in seconds, between attempts to reconnect to the database when the connection is lost.
TOOLBIN	Specify where executables reside (for example, *%PS_HOME%/bin*).
DEFAULTPRINTER	Specify the UNC path of the printer where reports are printed when the %DefaultPrinter% was specified as the output destination.
Log/Output Directory	Specify the directory in which files that are generated by the program are written. When PeopleSoft Process Scheduler initiates a process request, it creates a subdirectory in the format <Process Type ID>_<Program Name>_<Process Instance> that contains the generated files.
LogFence	Enter the PeopleSoft Process Scheduler tracing levels.

PSTools Section

For UNIX and OS/390, the Character Set parameter is at the beginning of the table.

The first description is for OS/390, and the second description is for UNIX.

Parameter	***Description***
USS (UNIX System Services) Character Set	Specifies the character set based on the UNIX System Services locale's code page. The default value is *CCSID1047*(Latin1 code page). **Note:** For example, in Japanese setting, the recommended USS Character Set is *CCSID939*. See "Character Sets Across the Tiers of the PeopleSoft Architecture" (PeopleTools 8.59: Global Technology).
Report Repository Character Set	Specifies the code page used by the Distribution Agent when migrating text files from USS into the Report Repository. The default value is *CP1252*. **Note:** For example, in Japanese setting, the recommended Report Repository Character Set is *Shift_JIS* See "Character Sets Across the Tiers of the PeopleSoft Architecture" (PeopleTools 8.59: Global Technology).

Application Engine Section

This is an additional OS/390 section located after the SQR section:

Parameter	***Description***
AE Job Name	Specify the job name assigned to an Application Engine program. This is set in USS using the __BPX_JOBNAME environment variable setting.
AE Job Account	Specify the account assigned to an Application Engine program. This is set in USS using the __BPX_ACCT_DATA environment variable setting.

Appendix E

Using PSDAEMON to Post Files to the Report Repository

Understanding How to Post Non-Process Scheduler Reports to the Report Repository

The process of posting reports and files to the Report Repository is performed by the Distribution Agent server. When using PeopleSoft Process Scheduler, the transfer is triggered by the Process Scheduler server when it detects that a process request, such as SQR has generated a report and is ready to be posted.

Reports that were generated outside of the PeopleSoft Process Scheduler either by being run manually or by a third-party scheduler, can be posted to the Report Repository using the *PostReport* PeopleCode class object. The *PostReport* PeopleCode class updates the Report Manager with the information for the new report, including the list of users and roles authorized to view the report. The request is sent to the Distribution Agent that is identified by the ServerName of the process scheduler server specified in the request.

The following is an example of the code:

```
Local PostReport  &RPTINFO;
/*****************************************************
* Construct a PostReport Object.                     *
*****************************************************
&RPTINFO = SetPostReport();
&RPTINFO.ProcessInstance = 0;

/*****************************************************
* Information to be displayed in the Report Manager     *
*****************************************************
&RPTINFO.ProcessName = "XRFWIN"
&RPTINFO.ProcessType = "SQR Report"
&RPTINFO.SourceReportPath = "\\server9000\report\sqr_xrfwin"
&RPTINFO.OutDestFormat = "PDF"
&RPTINFO.ReportFolder = "SQR Reports"

/*****************************************************
* Description to be displayed in the Report Manager     *
*****************************************************
&RPTINFO.ReportDescr = "New SQR Report"

/*****************************************************
* The server name of the Process Scheduler where the
* Distribution Agent assigned to post the request
* resides.*
*****************************************************
&RPTINFO.ServerName = "PSNT"

/*****************************************************
* List of users/roles authorized to view the report.    *
*****************************************************
&RPTINFO.AddDistributionOption("ROLE", "Managers");
&RPTINFO.AddDistributionOption("USER", "VP1");
```



```
&RPTINFO.Put();
&RPTINSTANCE =&RPTINFO.ReportId;
```

Related Links

"PostReport Class Built-in Function" (PeopleTools 8.59: PeopleCode API Reference)

Using the POSTRPT_DMN Application Engine Daemon Program

Using the PostReport PeopleCode class object implies that a PeopleCode function has been written using this class and is invoked either from an Application Engine or an Application Server.

Sending a single request through an Application Engine can incur a large overhead; therefore, we recommend running the program from PSDAEMON using the POSTRPT_DMN Application Engine program.

The POSTRPT_DMN program monitors for any requests to post by searching for new XML files in a designated directory. The XML file contains all the parameters required by the PostReport PeopleCode class object to post the request to the Report Repository. The program reads the parameters using the POST_REPORT_XML file layout. The following table shows a listing of these parameters:

XML Attribute Tag	***Corresponding PostReport Attribute***	***Description***	***Data Type***	***Required***	***Notes***
PRCSINSTANCE	ProcessInstance	Process instance	Integer	No	If no process instance is specified, the system assigns a new instance.
CONTENTID	ReportId	Content ID	Integer	No	A unique content ID is assigned for each valid request.
PRCSNAME	PrcsName	Process name	Character (12)	Yes	The process name must be defined in the Process Definition table.
PRCSTYPE	PrcsType	Process type	Character (30)	Yes	The process type must be defined in the Process Type Definition table.

XML Attribute Tag	***Corresponding PostReport Attribute***	***Description***	***Data Type***	***Required***	***Notes***
REPORTPATH	SourceReportPath	Report directory	Character (254)	Yes	The full absolute path where files and reports are retrieved. **Note:** After the Distribution Agent has transferred the files to the Report Repository, this directory is deleted.
CONTENT_ DESCR	ReportDescr	Report description	Character (254)	Yes	The description that appears in Report Manager.
EXPIRATION_ DATE	ExpirationDate	Expiration date	Date	No	In YYYYMMDD format. If not specified, the system uses the Retention Days value from System Settings.
FOLDER	ReportFolder	Folder name	Character (18)	No	If not specified, the system uses the default from the Report Folder Administration.
SERVER	ServerName	Process Scheduler server name	Character (8)	Yes	You must define the server name specified in the Server Definition table.
OUTDESTFORMAT	OutDestFormat	Output destination format	Character (3)	No	See the following tablefor valid values.
DISTIDTYPE	Passed as the first parameter of the AddDistributionOption method of the PostReport class	Identifier specified if the DISTID value is either User or Role.	Character (30)	Yes	The value is either USER, which indicates a user ID, or ROLE, which indicates a role ID.
DISTID	Passed as the second parameter of the AddDistributionOption method of the PostReport class	User or Role authorized to view the report	Character (30)	Yes	

For the POSTRPT_DMN program to process a request using the PostReport PeopleCode class example above, you must create an XML file using the following content:

```
<?xml version="1.0"?>
<CONTENTINFO>
   <PRCSNAME>XRFWIN</PRCSNAME>
   <PRCSTYPE>SQR REPORT</PRCSTYPE>
   <CONTENT_DESCR>New SQR Report</CONTENT_DESCR>
   <REPORTPATH>\\server9000\report\sqr_xrfwin</REPORTPATH>
   <OUTDESTFORMAT>PDF</OUTDESTFORMAT>
   <FOLDER>SQR Reports</FOLDER>
   <SERVER>PSNT</SERVER>
   <AUTHORIZED_LIST>
       <DISTID>VP1</DISTID>
       <DISTIDTYPE>USER</DISTIDTYPE>
  </AUTHORIZED_LIST>
  <AUTHORIZED_LIST>
       <DISTID>Managers</DISTID>
       <DISTIDTYPE>ROLE</DISTIDTYPE>
   </AUTHORIZED_LIST>
</CONTENTINFO>
```

Output Destination Format Values

The OUTDESTFORMAT attribute can contain either the value of the file extension or the numeric value of the format, as shown in the following table:

Format	***Format Extension***	***Numeric Value***
Acrobat PDF	PDF	2
Delimited Files	CSV	3
HP Format	HP	4
HTML	HTM	5
Line Printer	LP	6
MS Excel Spreadsheet	XLS	8
MS WinWord Document	DOC	9
PostScript	PS	10
Rich Text Format	RTF	12
SQR Format	SPF	13
Text	TXT	14
XML	XML	17
DataMover Data File	DAT	18
Other	OTHER	14

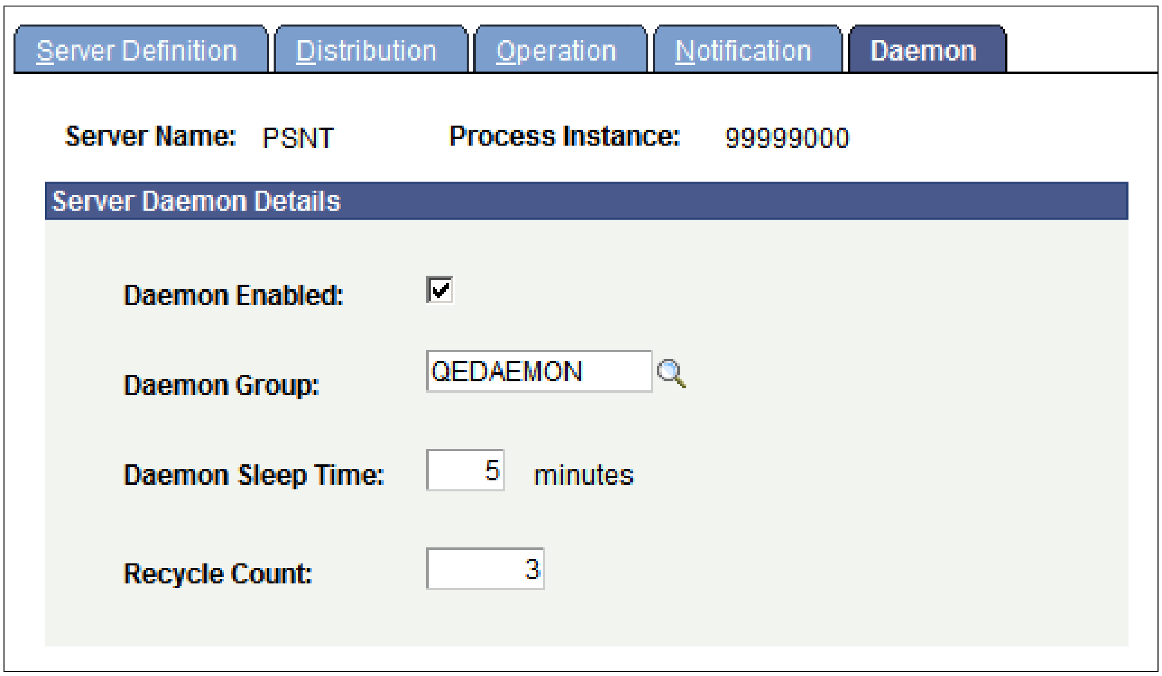
Setting Up Process Scheduler to Run the POSTRPT_DMN Program

This section discusses the steps required to activate the POSTRPT_DMN program from any Process Scheduler server. When a Process Scheduler server is activated to have the POSTRPT_DMN program run through PSDAEMON, the program checks for any new XML files in the <PS_HOME>\appserv\prcs \<Database Name>\files\reports directory.

Note: For the changes to take effect, you must reboot the Process Scheduler server.

Image: Process Scheduler - Servers - Daemon page

This example illustrates the fields and controls on the Process Scheduler - Servers - Daemon page.



To set up a Process Scheduler server to run the POSTRPT_DMN program in PSDAEMON:

1. Go to PeopleTools >Process Scheduler >Define Daemon Groups.
2. Add a new Daemon Group.

   For example, add QEDAEMON. The Daemon Group page appears.
3. Use the drop-down list to add the *POSTRPT_DMN* program, and click Save.
4. Select PeopleTools, Process Scheduler, Servers.
5. Select the server definition for the Process Scheduler server on which you intend to run the POSTRPT_DMN program.
6. Go to the Daemon page and complete the information as shown in the example that precedes these instructions.

7. Click Save.

Related Links

Understanding Server Definitions

Appendix F

Editing JCL Templates in OS390 for COBOL and SQR

Understanding JCL Templates

The PeopleSoft Server Transfer program creates a directory $PS_HOME/appserv/prcs/shelljcl in the OS/390 UNIX Services to store a master copy of the shell JCL templates. When you create a PeopleSoft Process Scheduler Server configuration, it copies the shell JCL templates into the $PS_HOME/appserv/prcs/<database name>/shelljcl directory. This includes all of the JCLs used for running COBOL and SQR through PeopleSoft Process Scheduler.

The following table lists the shell JCL templates used in PeopleSoft Process Scheduler:

JCL	***Description***
SHELCBL.JCT	Invoked by PeopleSoft Process Scheduler when a user requests to run a COBOL program.
SHELSQRF.JCT	Invoked by PeopleSoft Process Scheduler when a user requests to run an SQR program and indicates on the Process Scheduler page to route the output to a file, the web, or an email message.
SHELSQRP.JCT	Invoked by PeopleSoft Process Scheduler when a user requests to run an SQR program and indicates on the Process Scheduler page to route the output to a printer.
SHELSQROUTP.JCT	Used in conjunction with SHELSQRP.JCT or SHELSQRF.JCT. This template contains the file definition for creating a partitioned dataset for SQR report files. PeopleSoft Process Scheduler uses this template when the SQR output format is: • Acrobat Reader (PDF). • PostScript (PS). • Line Printer (LP). • HP format.
SHELSQROUTS.JCT	Used in conjunction with SHELSQRP.JCT or SHELSQRF.JCT. This template contains the file definition for creating a sequential dataset for SQR report files. PeopleSoft Process Scheduler uses this template when the SQR output format is HTM or SPF.

You must modify these shell JCL templates to comply with your site standards.

PSADMIN has an Edit a Shell JCL template to enable you to edit a JCL using the VI editor. If you are not familiar with the VI editor and prefer to edit the JCLs using the ISPF editor, you can use the TSO oedit command in the TSO session. The IBM TSO oedit command enables you to modify any files residing in USS from a TSO session. You can edit any of the shell JCL templates found in $PS_HOME/appserv/prcs/<database name>/shelljcl directory as shown in the following example. Please consult your OS/390 system administrator for using the oedit command at your site.

Image: Example of editing shell JCL templates

This is an illustration of the edit a shell JCL template in VI editor

Customizing the PeopleSoft Process Scheduler Shell JCL Template

All of the PeopleSoft Process Scheduler shell JCLs use meta-strings to pass data stored in the database or PeopleSoft Process Scheduler configuration files. PeopleSoft Process Scheduler uses meta-strings to generate the JCL based on one of these sources:

- The profile of the user who initiated the request.
- Parameters defined in the PeopleSoft Process Scheduler configuration file.
- Parameters defined on the Process Type Definition page or the Process Definition page.

A good example of data that can be passed includes job account and job name. Enter the values of some of these variables by selecting PeopleTools, Security, Permissions and Roles, Permission Lists.

The shell JCL templates are tunable and should be changed according to your site-specific standards. The following table identifies the meta-strings that you can use in a shell JCL template.

If you create a new JCL template, be aware that:

- The Shell ID is restricted to three characters.
- The Shell ID is associated with the process type definition.

Meta-String	***Description***
%JOBNAME%	Specifies the value entered in the OS/390 Job Controls Name field on the Process Profile Permission page for the permission lists specified as the user ID's process profile. The process profile for a user ID can be set using the User Profiles page in the Security component.
%JOBACCT%	Specifies the value entered in the OS/390 Job Controls Account field on the Process Profile Permission page.
%OUTDEST%	Specifies the output destination based on the value entered in the Server Destinations File or Printer field on the Process Profile Permission page.
%SFX%	Identifies a one-character code issued by PeopleSoft Process Scheduler. The system randomly assigns a value from *A* to *Z*.
%OPRID%	Identifies the user ID used to submit the request from PeopleSoft Process Scheduler.
%PRCSLOGFILE%	Identifies the name of the log file that PeopleSoft Process Scheduler used to redirect all data written to output for PeopleSoft Application Engine or SYSOUT in COBOL or SQR
%PRCSLOGDIR%	Identifies the directory to which all log files or reports are written in USS for a process.
%ACCESSID%	Identifies the access ID that is assigned for a user ID defined in PSOPRDEFN.
%INSTANCE%	Identifies the process instance number that is assigned to a process request.
%RUNID%	Identifies the run control ID used to submit the process request.
%OWNERID%	Identifies the owner ID for the PeopleSoft database.
%PRCSNAME%	Identifies the program name, as defined on the Process Definition page.
%DB2SUB%	Identifies the name of the DB2 subsystem specified in the DB2 Sub-System parameter in the OS/390 section in the PeopleSoft Process Scheduler configuration file.
%PERFSTAT%	Sets the Performance Statistic option in the COBOL shell JCL. This is set to *Y* when the bit value of 128 is assigned to the TraceSQL parameter in the Trace section in the PeopleSoft Process Scheduler configuration file.

Meta-String	**Description**
%DYNEXPLN%	Sets the Dynamic Explain option in the COBOL shell JCL. This is set to *Y* when the bit value of 256 is assigned to the TraceSQL parameter in the Trace section in the PeopleSoft Process Scheduler configuration file. Bit value 256 will also turn on Performance Statistics in the COBOL shell JCL (%PERFSTAT% will be set to Y) as is required to run the Dynamic Explain.
%PARALLEL%	Sets the Dynamic Explain option in the COBOL shell JCL. This is based on the Enable Parallel Processing parameter in the OS/390 section in the PeopleSoft Process Scheduler configuration file.
"%TSOPLAN%	Indicates the DB2 plan name subsystem specified in the Plan name for PTPSQLRT with TSO parameter in the OS/390 section in the PeopleSoft Process Scheduler configuration file.
%PSHLQ%	Indicates the high-level qualifier of the PeopleSoft dataset specified in the High Level Qualifier for Datasets parameter in the OS/390 section of the PeopleSoft Process Scheduler configuration file.
%SQRINI%	Identifies the initialization file used by the SQR process. This meta-string is used exclusively for SQR.

Following is a sample job control card in one of the shell JCLs:

//%JOBNAME%%SFX% JOB %JOBACCT% >'PS-PRCS ' >CLASS=E >MSGCLASS=X >

// NOTIFY=%OPRID%

If you do not use meta-strings, you can also update the job cards to remove these variables and replace them with actual values.

In the SHELL JCL for SQR, OUTNODE denotes either an OS/390 partitioned dataset (PDS) or a sequential dataset. The PDS is a requirement for SQR output. If the SQR report XRFPANEL is directed to file output, the following substitution occurs:

In SHELSQRF.JCT, change// OUTNODE='%OUTDEST%' to // OUTNODE='HR.H800RAB' > .

If an SQR process is directed to print, the following substitutions occur:

// OUTNODE='DEST=U3' > OPTIONAL:USER-DEF OUTPUT . .

//***

//* Main portion of JCL Shell *

//***

..

//SQROUTP DD SYSOUT=* >DEST=U3

OS/390 Job Controls

OS/390 job controls specify the OS/390 job name to assign to each process that is submitted. This value can be up to seven characters. Do not use lowercase letters or quotation marks. If you included the %SFX % meta-string as part of the job name, PeopleSoft Process Scheduler appends a one-character alphabetical suffix to this name (*A* through *Z,* chosen randomly) before the job submission.

For example, if you entered USRMVS1, the assigned job name becomes USRMVS1A through USRMVS1Z. After you enter the OS/390 job name, enter the job account number that you used in the installation. Specify an account code to be inserted as the JCL accounting code.

Running PeopleSoft Process Scheduler or Application Engine From a JCL in OS/390

PeopleSoft Process Scheduler is customarily started and stopped from a JCL sample. JCLs are provided to accomplish this task. An Application Engine program must also be run from a JCL in some business cases. Any PeopleSoft executable residing in the UNIX System Services (USS) can be invoked from a JCL using the IBM BPXBATCH utility.

In the high-level qualifier where PeopleSoft is installed in OS/390, a partitioned dataset (HLQ.JCLLIB) contains the following JCL:

- PRCSSTRT,JCL: JCL to start PeopleSoft Process Scheduler.
- PRCSSTOP.JCL: JCL to stop PeopleSoft Process Scheduler.
- AESAMP.JCL: Sample JCL to run an Application Engine program.

The following table identifies the meta-strings to use, in the order specified in a shell JCL template, for USS scheduler to pass COBOL parameters so that it can, in turn, call Application Engine:

Meta-String	***Description***
%PS_HOME%	Path of PeopleSoft home directory
%PS_SERVDIR%	Full path of the server directory, for example, *$PS_HOME/ appserv/prcs/PT840GA.*
%PS_SERVERCFG%	Full path of the psprcs configuration file, for example, *$PS_ SERVDIR/psprcs.cfg.*
%PS_CONFIG%	Full path of the psprcs.sh file, for example, *$PS_HOME/ psconfig.sh.*
%HFS_USERID%	Login ID (user ID). Same authorities as the user ID used for installation, or the user ID that started Process Scheduler.
%JOBNAME%	Specifies the value entered in the OS/390 Job Controls Name field on the Process Profile Permission page for the permission lists specified as the user ID’s process profile. The process profile for a user ID can be set using the User Profiles page in the Security component.

Meta-String	Description
%REGION_SIZE%	Region size. The Default is −1.
%CPU_TIME%	Maximum CPU time this Application Engine process is allowed to use. The default is 1000. This matches the default value for MAXCPUTIME variable of BPXPRMxx member of the SYS1.PARMLIB.

Limitations of Process Scheduler Server

In the USS environment, Process Scheduler submits COBOL and SQR by means of a JCL. Although Process Scheduler can capture the job name of a JCL, it is incapable of capturing the job ID assigned by TSO. Consequently, Process Scheduler does not have the ability to query or manage a JCL that has been submitted to the TSO environment.

As a result, Process Scheduler does not have the ability to cancel a JCL job when a user requests to cancel an SQR or COBOL process using the Process Monitor page. While Process Scheduler does not kill the JCL associated with the process, it does make the slot available for any other queued SQR or COBOL processes. Therefore, you must manually cancel the JCL from a TSO session.

Note: This limitation does not apply to Application Engine requests initiated from z/OS. The executable of an Application Engine is terminated when a user cancels the submitted request from the Process Monitor page.

Appendix G

Process Scheduler Table Maintenance

Renaming a Database in Process Request Data Tables

When you copy a database or rename a database during an upgrade, if processes are *Queued, Pending,* or *On Hold,* they will cause data corruption. These processes will be listed in the SYSAUDIT in section (PRCSSCHED-18) Queued processes in PSPRCSPARMS and PSPRCSRQST, which contains a DBNAME different than that of the current database name.

After copying your database or renaming a database, bring down all process schedulers and run the application engine program MGRPRCSTBL .

This application engine program will:

- Update the PSPRCSPARMS table with the new database name.
- Update the PSPRCSRQST table with the new database name.

Using Data Mover Scripts to Delete Reports

When PeopleSoft Process Scheduler is set to perform a periodic purge on the System Purge page in System Settings, it triggers the Application Engine program PRCSYSPURGE. This program purges both the Process Request and Report Manager tables. As part of the Report Manager cleanup, it also purges the reports from the Report Repository and archives the data into the Report Archive table.

Data Mover Scripts are provided to delete the entries in Process Request tables, Report Manger tables, and report entries. Theses scripts should only be run if the customer wants to delete all of the data in the associated tables. The scripts are located in $PS_HOME/scripts. This table lists and describes the scripts:

Data Mover Script	***Description***
PSCSCLR.DMS	Purges all entries in the Process Request tables.
RPTCLR.DMS	Purges all entries in the Report Manager tables.
PSRFCLR.DMS	Purges all report entries registered for a report folder. **Note:** This script only deletes the report entries on the database where it is run. If you have multiple databases that populate the report folder, you will need to run the script on each database to clean up all report folder entries.

Note: All three scripts should be run to ensure that all of the data is deleted.

Configuring the Purge Process

This section provides an overview of the purge process.

Understanding the Purge Process

When PeopleSoft Process Scheduler is set to perform a periodic purge it triggers the application engine program PRCSYSPURGE. This purge process is used to empty the PeopleSoft Process Scheduler tables and file system. This includes deleting data from Process Request and Report Manager tables, purging reports from the Report Repository and archiving data into the Report Archive table. You can also enable or disable statistics.

See Understanding the Purge Reports Process.

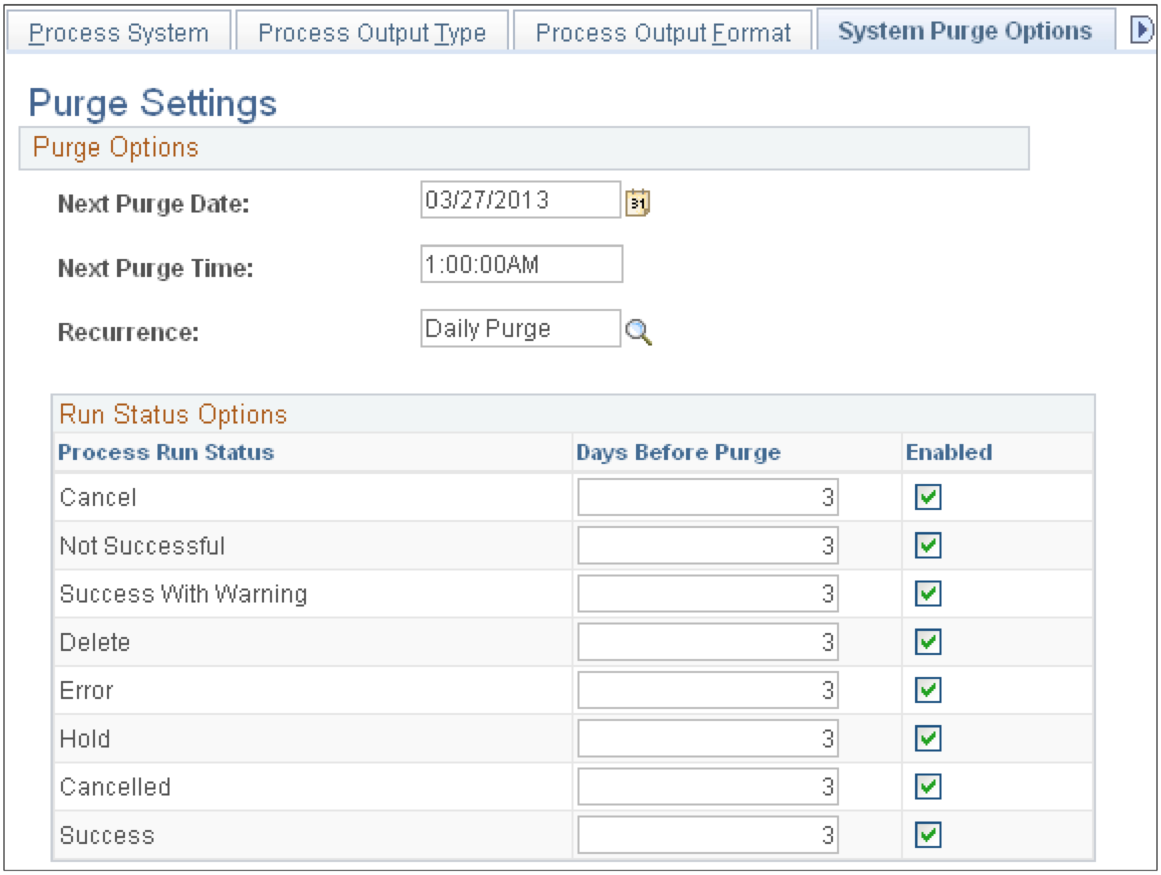
System Purge Options

The PRCSYSPURGE program is scheduled to run based on the settings maintained on the System Purge Options page. Once the settings are saved, the PRCSYSPURGE application engine program will be scheduled to run at the selected interval.

Select PeopleTools > Process Scheduler > Process Scheduler Settings and select the System Purge Options tab.

Image: System Purge Options page

This example illustrates the fields and controls on the System Purge Options page.



The purge schedule is defined by entering a Next Purge Date, Next Purge Time and selecting a Recurrence schedule.

The Run Status Options list contains a list of process request run statuses that are eligible to be purged. Only completed processes or jobs are eligible for purge. The Days Before Purge entry is used to specify how long requests that complete with the corresponding run status should remain in the Process Request tables. All process requests with an Enabled run status and last update date past the Days Before Purge value specified for that run status will be purged.

Note: The purge process will not run unless the user ID that starts the Process Scheduler has TLSALL listed as a process group within the primary process profile. The PRCSYSPURGE program is delivered with the TLSALL process group.

Report Retention Days

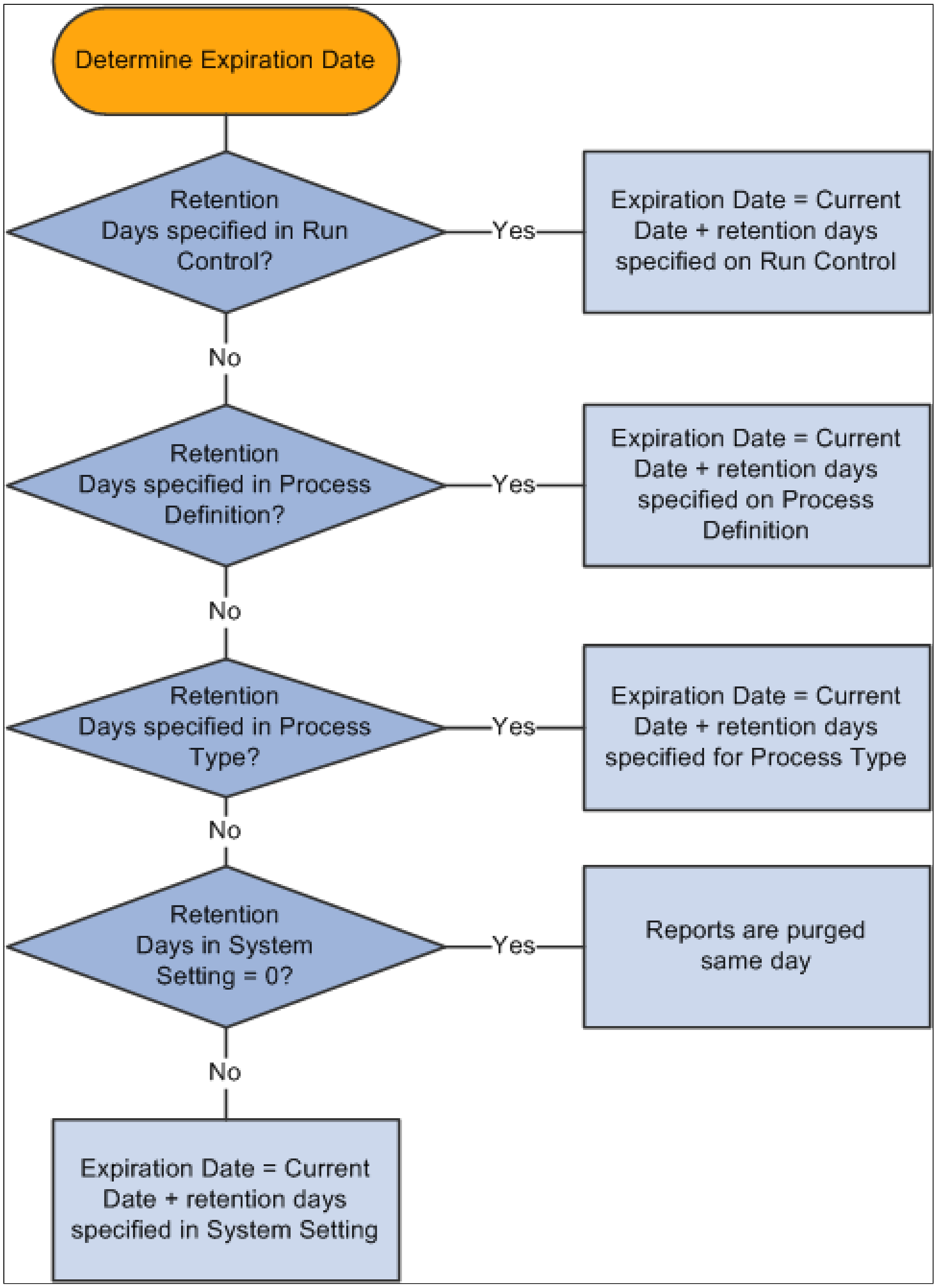
The expiration date for a report is determined by adding the reports retention days to the date the report was run. Retention days for a report can be set at various levels. The system determines the retention days for the report at runtime in the order:

1. Run Control record
2. Process definition
3. Process Type definition

4. System Setting

Image: Expiration date determination

This diagram illustrates the precedence for determining the number of retention days for the report



Scheduling Purge Process

To configure the system to run purge program PRCSYSPURGE, you perform the following steps:

Step	**Reference**
1. Define report nodes for all active process schedulers.	See Defining Report Nodes.
2. Configure Master Scheduler. **Note:** A Master Scheduler must be running for the purge process to run.	See Using the PSADMIN Quick-Configure Menu.
3. Ensure that the user ID that starts the process scheduler is included in a process group for PRCSYSPURGE. The PRCSYSPURGE program is delivered with the process group TLSALL.	See Setting Process Definition Options.
4. Configure the System Purge Options page. Purge must be enabled.	See Defining System Purge Options.

Enabling and Disabling Statistics

The purge process updates the statistics of the following tables before deleting entries from them:

- PSPRCSRQST
- PSPRCSQUE
- PSPRCSPARMS
- PS_MESSAGE_LOG
- PS_MESSAGE_LOGPARM
- PS_PRCSRQSTDIST

  Note: Not applicable to DB2.

- PS_CDM_LIST
- PS_CDM_AUTH
- PS_CDM_FILE_LIST

The option to enable or disable updating statistics is set in the process scheduler configuration file (psprcs.cfg). Access the process scheduler configuration file using PSADMIN.

See Understanding the Sections in PSPRCS.CFG File Based on Operating Systems.

To enable or disable statistics:

1. In the section [Process Scheduler], check the value for Update Table Stats on Purge. Enter *1* to enable updating of statistics.

```
; Set to run statistics for the Process Request and Report Manager
; tables when the Process Scheduler Server purge
;  0        Disable updating of the table statistics
;  1        Enable updating of the table statistics
```

```
Update Table Stats on Purge=1
```

2. In the section [PSTOOLS], check the value for DbFlags. Enter *0* (Default) to issue the command to update table statistics to the database.

```
; ;-----------------------------------------------------------------
; DbFlags Bitfield
;
; Bit       Flag
; ---       ----
; 1         - Ignore metaSQL to update database statistics(shared with COBOL)
; 2         - not yet allocated
; 4         - Disable Second DB Connection
; 8         - Disable Persistent Secondary DB Connection
; 16        - not yet allocated
; 32        - not yet allocated
; 64        - not yet allocated
; 128       - not yet allocated
; 256       - not yet allocated
DbFlags=0
```

Note: If DBFlags = 1 the purge process will not update statistics regardless of the Update Table Stats on Purge setting.

Examining the PRCSYSPURGE Application Engine Program

The PRCSYSPURGE application engine program is run on the master Process Schedule server. The following steps are executed by the program:

1. Step TrigPrg: This step updates statistics and purges process request tables.

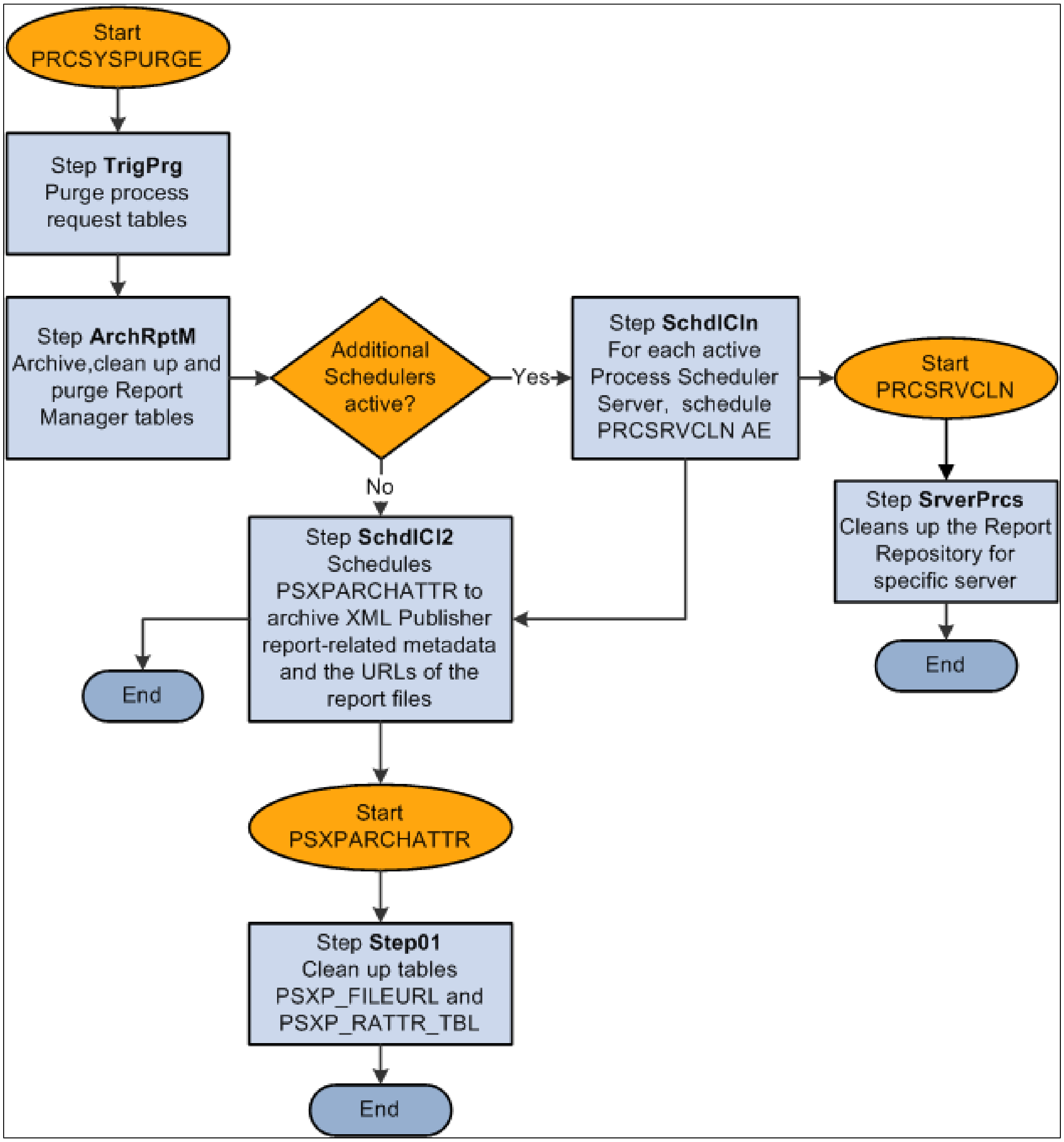
2. Step ArchRptM: This step cleans up Report Manager Repository and purges Report Repository tables.

3. If more than one Process Scheduler server exists, the application engine program PRCSRVCLN is scheduled to run. This program cleans up the Report Repository for a specific server.

4. Step SchdlCl2: This step schedules the application engine program PSXPARCHATTR to run. This program archives BI Publisher report-related metadata and the URLs of the report files.

Image: Program flow for PRCSYSPURGE application engine program

This diagram shows the flow for the PRCSYSPURGE application engine program



Step TrigPrg: Purge Process Request Tables

In this step, statistics are updated for the process request tables and then expired processes and jobs are removed from process request tables. Expired items are archived in the PSPRCSRQSTARCH table.

The expiration of a process or job is determined by the field LASTUPDDTTM on the PSPRCSRQST table and the purge settings configured for each process request status. For each of the run statuses listed in this table, you will determine if the purge should be enabled and indicate the number of days before a process request is purged.

Run Status Code	***Value***
Cancel	1
Delete	2
Error	3
Hold	4
Cancelled	8
Successful	9
Not Successful	10
Successful with Warning	17

See Defining System Purge Options.

This step runs the following steps to remove and archive expired processes or jobs from process request tables.

1. Run Statistics

   This step updates database statistics of process request tables to insure that the optimizer has updated information.

   Note: This step is enabled or disabled, based on the setting in psprcs.cfg.

   See Enabling and Disabling Statistics.

2. Gather information on the run statuses to be purged

   This step gathers information about the run statuses which are enabled for purging. This information is later used to remove items from process request tables. It is obtained by querying the table PS_PRCSPURGELIST. The value *DAYSBEFOREPURGE* and current date are used to determine if a process or job entry has expired.

3. Remove existing entries from PSPRCSRQSTARCH

   The table PSPRCSRQSTARCH is used to store expired items. It has a column *DELETE_FLAG* to identify the items for deletion. This step deletes all items marked for deletion (DELETE_FLAG=1) between runs of the PRCSYSPURGE program from PSPTCSRQSTARCH table before attempting to add newly expired entries.

4. Remove duplicates from PSPRCSRQSTARCH

   This step removes any remaining expired processes or job items from the PSPRCSRQSTARCH table which also exist in PSPRCSRQST table. This is done to avoid inserting duplicate entries into this table when newly expired jobs or processes are added.

5. Archive single expired processes to PSPRCSRQSTARCH

This step moves all expired single processes, with run status enabled for purge, from the PSPRCSRQST table to the PSPRCSRQSTARCH table. The process expiration date is determined by calculating:

PSPRCSRQST. LASTUPDDTTM< = Current Date – number of days before purge (from the System Purge Options page)

For example, if the current date is May 12, 2009 and the number of days before purge for the run status Success is 7, all successful processes run on or before May 5, 2009 are eligible for deletion.

Each process moved into the PSPRCSRQSTARCH table has a DELETE_FLAG = 0.

6. Archive expired job header to PSPRCSRQSTARCH

   This step performs the same function as the previous step for job headers.

7. Archive expired job items to PSPRCSRQSTARCH

   For each main job that was moved into PSPRCSRQST table in the previous step, this step will locate and move the corresponding job items.

8. Mark items in PSPRCSRQSTARCH for removal

   On successful completion of steps 1 through 7, all of the transactions are committed and all rows in PSPRCSRQSTARCH are marked for deletion. This is done by updating the PSPRCSRQSTARCH table with DELETE_FLAG=1. If any of the data modification steps 1 through 7 were not successful, then all transactions are rolled back and the tables are restored to their original state.

9. Remove expired processes and jobs from process request tables

   This step removes all expired entries from the process request tables. These tables include:

   - PSPRCSRQST
   - PSPRCSQUE
   - PSPRCSCHLDINFO
   - PSPRCSPARMS
   - PSPRCSRQSTXFER
   - PS_PRCSRQSTDIST
   - PSPRCSRQSTTEXT
   - PSPRCSRQSTFILE
   - PSPRCSRQSTMETA
   - PSPRCSRQSTSTRNG
   - PSPRCSRQSTTIME
   - PS_PRCSRQSTNOTIFY
   - PS_PRCSRQSTURL

- PS_PRCSFILE
- PSPRCSJOBSTATUS
- PSNVSBATCHRSTRT

10. Remove expired entries from message log tables

    This step removes the messages that are logged by the expired processes from message log tables PS_MESSAGE_LOG and PS_MESSAGE_LOGPARM.

    All the entries which are at least one day old are deleted from the PSBATAUTH table to avoid an accumulation of messages.

Step ArchRptM: Archive Report Manager Tables

In this step, all expired reports are archived to the PS_CDM_LIST_PURGE and PS_CDM_LIST_ARCH tables, their associated report output is removed from the Report Repository and finally, all of the expired report entries are removed from the Report Distribution tables.

The following steps are followed to archive Report Manager tables.

1. Select expired reports

   All the expired reports are obtained from PS_CDM_LIST table. A report's expiration is determined using the EXPIRATION_DATE field in the PS_CDM_LIST table and the current date. Reports with distribution status 6 (DELETE) are also considered expired.

   See the Report Retention Days section earlier in this topic for additional information.

2. Remove output from Report Repository

   For each of the expired reports, the corresponding output files and folders are removed from the Report Repository. Removal of output files and folders is performed by a script which is auto-generated based on the transfer protocol (Ftp/Xcopy or Http) and Operating System selections found in the Report Node definition.

   This is sample script generated for an Ftp/XCopy node on Windows:

   ```
   @ECHO off
   set DELETELOG=LOGOUTPUTDIR\%\delete_0520.log
   if exist %DELETELOG% del %DELETELOG%
   echo Deleting "\\ple70009qtas\psreports\t850u71nt/20090513/656" ...
   >>%DELETELOG%
   if exist "\\ ple70009qtas \psreports\ t850u71nt /20090513/656\" rd
   "\\ple70009\psreports\ t850u71nt /20090513/656\" /q /s
   echo End of Transfer script >> %DELETELOG%
   @ECHO on
   ```

   See Defining Report Nodes.

3. Archive expired reports to PS_CDM_LIST_ARCH

   Move all the expired reports with known distribution nodes except for the *Deleted* reports (Distribution Status = 6) from the PS_CDM_LIST table to the PS_CDM_LIST_ARCH table.

4. Archive expired reports in PS_CDM_LIST_PURGE

This step is almost the same as the previous step. However, in this case all the expired and deleted reports where the report distribution node does not match the distribution node of the server are archived. The purge process can only cleanup data for the report node designated for the server it is running on. Data for all the other active Process Scheduler Servers will be deleted as part of the PRCSRVCLN process (Step SchdlCln).

5. Remove expired reports from the report distribution tables

   After all of the expired report entries have been successfully moved to the PS_CDM_LIST_ARCH and PS_CDM_LIST_PURGE archive tables, they are removed from the Report Distribution tables. This step deletes all expired report items from the following report distribution tables:

   - PS_CDM_AUTH
   - PS_CDM_LIST
   - PS_CDM_FILE_LIST
   - PS_CDM_TRANSFER
   - PSRF_RATTR_TBL
   - PSRF_RSCRTY_TBL
   - PSRF_RDESC_TBL
   - PSRF_RDESC_LANG
   - PSRF_RINFO_TBL

Step SchdlCln: Schedule PRCSSRVCLN Application Engine Program

If PRCSYSPURGE detects that more than one Process Scheduler is active, it schedules the application engine program PRCSSRVCLN to run on each of the active Process Scheduler servers to clean up the expired process, job, and report data for that server. For example, if there are two process scheduler servers PSNT and PSNT1. The purge program runs on PSNT which archives the expired process, job, and report data that ran on server PSNT. The program PRCSSRVCLN archives the expired process, job, and report data that ran on server PSNT1. If there is application engine (AE) program data to be purged, then all the related temporary tables and state records used by the expired AE program will also be removed.

This application engine program is launched if there are more active process scheduler servers. The following steps are executed.

1. Select all expired processes from PSPRCSRQSTARCH run by a specific server

   This step creates a list of all expired single processes for a specific server.

2. Select all expired job items from PSPRCSRQSTARCH run by a specific server

   This step appends the list created in step 1 with all job items that are expired and run by the server referenced in step 1.

3. Purge application engine related tables

This step removes all temporary tables or state records for any expired AE programs in the list created in step 2 . Related information tables include temporary tables or records used by the program. First, the PS_AETEMPTBLMGR is queried to find the records used by the expired AE program. Then, the table SQLTABLENAME is queried to find table names of corresponding records used by the AE program. Lastly, DELETE statements are issued to clean up the tables used by AE.

- TBLNAME
- RNAME
- PS_AETEMPTBLMGR
- PS_AERUNCONTROL
- PS_AERUNCONTROLPC

4. Remove expired entries run by the specified Process Scheduler server from the archive table PSPRCSRQSTARCH

   This step deletes all the processes or jobs run by server from the archive table PSPRCSRQSTARCH.

5. Clean the archive table PS_CDM_LIST_PURGE of all the expired reports run by a specific server

   This step deletes all the expired reports run by specified server from the PS_CDM_LIST_PURGE table. All the corresponding output files will also be deleted from the report repository.

Step SchdlCl2: Schedule PSXPARCHATTR AE Program

This is the last step in the purge process. This step schedules the application engine program PSXPARCHAATTR to archive metadata related to expired BI Publisher reports. The URLs of the report files are archived along with the process information to the PSXP_FLURL_ARCH table. Search data related to BI Publisher reports is stored along with the process information in the PSXP_RATTR_ARCH table.

