

# **Ascential Batch Execution within PS**

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## Introduction

This PeopleSoft Toolbox paper describes the steps required to allow the execution of Ascential ETL jobs from the PeopleSoft PIA via Process Schedule.

As standard ETL jobs are executed via the DataStage Director which is not ideal due to the increased security risk and requirement for in depth DataStage knowledge. By introducing a few tweaks it is possible to control all execution from PeopleSoft alleviating these problems.

The following sections describe the setup steps, batch syntax and also provide a demonstration of a job being executed.

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## Summary of Tasks

To execute Ascential ETL jobs there is a certain amount of setup. The following list details the tasks that are need to be undertaken:

- Create batch files on the process scheduler to execute ETL Jobs.
- Create a new Ascential process type.
- Create an Ascential process.
- Update the Process Scheduler System Settings to allow for log posting to the report repository.
- Create a page to execute the batch file and pass an ETL job as a parameter.

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## Batch File Creation

Two batch files need creating for the purposes of etl execution. 1) etl\_exec.bat – this is the driving batch file that initiates the ETL execution and logs output details 2) dsparms.bat – this batch file holds Ascential specific login details.

The etl\_exec.bat file is executed via the command: **CMD <drive><directory>\etl\_exec.bat /C {mode} {jobname}**<sup>1</sup>. The /C argument causes the batch file to execute and then terminate i.e. killing the cmd window. The job parameters are the type of execution and the name of the definition that should be executed (this can be seen as %2 and %3 in the batch file)<sup>2</sup>.

### etl\_exec.bat

```
@echo off
@echo ETL Job Execution Started %date% %time%
@echo.
@echo ETL Execution Started for job %3
@echo.
@echo Setting Parameters
call dsparm.bat
@echo Parameters Set
@echo.
@echo Parameters
@echo =====
@echo.
@echo Server: %DS_SERVER%
@echo Project: %DS_PROJECT%
@echo Job: %3
@echo Mode: %2
@echo.
@echo Executing job ...
%DS_JOB% -server %DS_SERVER% -user %DS_USER% -password %DS_PASSWORD% -run -mode %2 -wait
%DS_PROJECT% %3
@echo.
@echo ETL Job Execution Completed %date% %time%
@echo.
@echo.
@echo Summary
@echo =====
@echo.
@echo Job Info
@echo =====
%DS_JOB% -server %DS_SERVER% -user %DS_USER% -password %DS_PASSWORD% -jobinfo %DS_PROJECT% %3
@echo.
@echo Log Details
@echo =====
%DS_JOB% -logsum -max 20 %DS_PROJECT% %3
@echo on
```

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<sup>1</sup> MODE and JOBNAME are parameters appended via the run request in PeopleSoft.

The dsparam.bat file is executed via the etl\_exec.bat batch file. This holds the datastage server, user, password, project and location of dsjob client program. The server is where the datastage server is located, the user and password are the login details for the datastage server. The dsjob client program is used to execute job runs.

### **dsparam.bat**

```
SET DS_SERVER=<server>"  
SET DS_USER=<user>"  
SET DS_PASSWORD=<password>"  
SET DS_PROJECT=<ds project>"  
SET DS_JOB=<location of dsjob>"
```

The parameters surrounded by '<>' must be populated with the correct details. Location of dsjob is normally: C:\Program Files\Ascential\DataStage7.5.1\dsjob if installed on windows.

## Process Type

An Ascential process type should be created for the database platform being used. This will list the command line for executing the etl\_exec.bat batch file and the working directory.

Command line: **CMD <drive><directory>\etl\_exec.bat /C.**

Working Direc: **<drive><directory>**

The screenshot shows a web-based form titled "Type Definition Options". At the top, there are two tabs: "Type Definition" and "Type Definition Options", with the latter being selected. Below the tabs, the following information is displayed:

- Process Type:** Ascential
- Operating System:** NTWin2000
- Database Type:** Oracle

A section titled "Details" is highlighted with a gold background. It contains the following fields:

- Description:** A text input field containing "Ascential".
- Generic Process Type:** A dropdown menu set to "Other".
- Command Line:** A text input field containing "c:\etl\_exec.bat /C".
- Parameter List:** An empty text input field.
- Working Directory:** A text input field containing "C:\".
- Output Destination:** An empty text input field.

Below these fields is a checkbox labeled "Restart Enabled", which is currently unchecked.

At the bottom of the form, there are four buttons: "Save", "Notify", "Add", and "Update/Display".

At the very bottom of the form, there are two links: "Type Definition" and "Type Definition Options".

## Process Definition

A process definition is created for the Ascential process type. This links the run control page to the process type batch command line. In addition, the run control record “etl run mode” and “job definition” to be executed are passed as parameters to the command line. This is achieved by adding the run control record.field reference to the parameter list on the override options page.

The screenshot shows the 'Process Definition' form with the following details:

- Process Type:** Ascential
- Name:** ETL
- Description:** ETL Execution
- Long Description:** (Empty text area)
- Priority:** Medium
- Process Category:** Default
- System Constraints:** Max Concurrent: (empty), Max Processing Time: (empty) minutes
- Mutually Exclusive Process(es):** Table with 1 entry:
 

Process Type	Process Name	Description
1		

The screenshot shows the 'Override Options' section of the form:

- Parameter List:** Append
- Command Line:** None
- Working Directory:** None
- Parameters:** :ETL\_RUNCTL ETL\_RUNMODE :ETL\_RUNCTL ETL\_JOBNAME



## Process Scheduler System Settings

After creating the Ascential Process Type and process the process system settings are updated to allow log files to be posted to the report repository. The following is performed:

- Check Web / Other process output type settings to Active
- Set Web / Other and text files for Process Output Format Settings to Active.

Process System | **Process Output Type** | Process Output Format | System Purge Options

### Process Output Type Settings

Process Type:

Output Type Options			
Process Type	Type	Active	Default Output
Other	(None)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Other	File	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other	Printer	<input type="checkbox"/>	<input type="checkbox"/>
Other	Window	<input type="checkbox"/>	<input type="checkbox"/>
Other	Email	<input type="checkbox"/>	<input type="checkbox"/>
Other	Web	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SQR	File	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SQR	Printer	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SQR	Window	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SQR	Email	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Process System | Process Output Type | **Process Output Format** | System Purge Options

### Process Output Format Settings

Process Type:

Output Destination Type:

Output Format Options				
Process Type	Type	Format	Active	Default
Other	Web	(None)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other	Web	Postscript (*.lis)	<input type="checkbox"/>	<input type="checkbox"/>
Other	Web	Crystal Report (*.rpt)	<input type="checkbox"/>	<input type="checkbox"/>
Other	Web	Rich Text File (*.rtf)	<input type="checkbox"/>	<input type="checkbox"/>
Other	Web	SQR Portable Format (*.spf)	<input type="checkbox"/>	<input type="checkbox"/>
Other	Web	Text Files (*.txt)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other	Web	Other	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Process Run Control Page

The run control page is used for the selection of the ETL job to execute and the request for execution. Choose execution type to control whether the job is to be reset (required when a job fails) or run normally.

The page, underlying run control record, component and menu will need to be created in application designer. The record should hold OPRID, RUN\_CNTL\_ID, ETL\_RUNMODE (new field), ETL\_JOBNAME (new field). The ETL\_JOBNAME can be a free text field or you may want to have a prompt to a table which holds the names of every job in your Ascential ETL project.

The screenshot displays the 'Execute ETL' page. At the top, it shows 'Run Control ID: TEST' and navigation links for 'Report Manager', 'Process Monitor', and a 'Run' button. The main content area is titled 'DSTL pay data interface' and features a search field for 'Job Name' containing the text 'SEQ\_J\_Stage\_PS\_S\_RT\_RATE\_TBL\_FSCM\_FSCM89\_EPM89'. Below this is an 'Execution Type' section with two radio buttons: 'Normal' (which is selected) and 'Reset'. At the bottom of the page, there are several action buttons: 'Save', 'Return to Search', 'Notify', 'Add', and 'Update/Display'.

## Job Execution

The following section shows the execution of the newly created batch setup for Ascential.

1. Navigate to the run control page for ETL execution
2. Enter a run control or open an existing run control
3. Enter the sequence or job name
4. Select the type of execution

**Execute ETL**

Run Control ID: TEST [Report Manager](#) [Process Monitor](#) [Run](#)

**DSTL pay data interface**

\*Job Name: SEQ\_J\_Stage\_PS\_S\_RT\_RATE\_TBL\_FSCM\_FSCM89\_EPM89

Execution Type

Normal  Reset

[Save](#) [Return to Search](#) [Notify](#) [Add](#) [Update/Display](#)

5. Press the run button
6. Choose the server, set the run date and time
7. Select the ETL Execution Process
8. Press OK

**Process Scheduler Request**

User ID: JBLOGGS Run Control ID: ETLRUN

Server Name: PSNT2 Run Date: 01/01/2020

Recurrence: Run Time: 12:12:40 [Reset to Current Date/Time](#)

Time Zone:

Select	Description	Process Name	Process Type	Type	Format	Distribution
<input checked="" type="checkbox"/>	ETL Execution	ETL	Ascential	Web	TXT	<a href="#">Distribution</a>

[OK](#) [Cancel](#)

- 9. Navigate to Process Monitor
- 10. Identify the job

Process List [Server List](#)

View Process Request For

User ID:  Type:  Last:  Days

Server:  Name:  Instance:  to

Run Status:  Distribution Status:   Save On Refresh

Select	Instance	Seq.	Process Type	Process Name	User	Run Date/Time	Run Status	Distribution Status	Details
<input type="checkbox"/>	4124		Ascential	ETL	JBLOGGS	01/01/2020 12:12:40 PST	Success	Posted	<a href="#">Details</a>

- 11. Select details from the Ascential job execution entry

**Process Detail**

**Process**

Instance: 4124      Type: Ascential  
 Name: ETL      Description: ETL Execution  
 Run Status: Success      Distribution Status: Posted

**Run**      **Update Process**

Run Control ID: Headcount       Hold Request  
 Location: Server       Queue Request  
 Server: PSNT2       Cancel Request  
 Recurrence:       Delete Request  
     Restart Request

**Date/Time**      **Actions**

Request Created On: 01/01/2020 12:12:47 PST      [Parameters](#)      Transfer  
 Run Anytime After: 01/01/2020 12:12:40 PST      [Message Log](#)  
 Began Process At: 01/01/2020 12:13:00 PST      Batch Timings  
 Ended Process At: 01/01/2020 12:13:45 PST      [View Log/Trace](#)

## 12. Click the View Log/Trace hyperlink

**View Log/Trace**

Report

**Report ID:** 765      **Process Instance:** 4124      [Message Log](#)  
**Name:** ETL      **Process Type:** Ascential  
**Run Status:** Success

ETL Execution

**Distribution Details**

**Distribution Node:**      Expiration Date: 01/01/2020

**File List**

Name	File Size (bytes)	Datetime Created
<a href="#">OTH_ETL_4124.log</a>	3,647	01/01/2020 12:13:45.000000 PST

**Distribute To**

Distribution ID Type	Distribution ID
User	JBLOGGS

[Return](#)

## 13. Choose the output .log file to view the details of the job.

Although the job runs to success there may be problems with individual parts of the process such as data inserts, lookups etc. These must be investigated.

The following text is a typical excerpt from the log file:

```

ETL Job Execution Started 21/03/2020 12:14:49.84

ETL Execution Started for job SEQ_J_Stage_PS_S_RT_RATE_TBL_FSCM_FSCM89_EPM89

Setting Parameters
Parameters Set

Parameters
=====

Server: "servername"
Project: "FSCM89_EPM89"
Job: SEQ_J_Stage_PS_S_RT_RATE_TBL_FSCM_FSCM89_EPM89
Mode: NORMAL

Executing job ...
Waiting for job...

Finished waiting for job

Status code = 0

ETL Job Execution Completed 21/03/2020 12:15:28.46

Summary
=====

Job Info
=====
Job Status : RUN OK (1)

Job Controller : not available

Job Start Time : Wed Mar 21 12:14:50 2020
Job Wave Number : 1
    
```

User Status : not available  
Job Control : 0  
Interim Status : NOT RUNNING (99)  
Invocation ID : not available  
Last Run Time : Wed Mar 21 12:15:28 2020  
Job Process ID : 0  
Invocation List : SEQ\_J\_Stage\_PS\_S\_RT\_RATE\_TBL\_FSCM\_FSCM89\_EPM89

Status code = 0

Log Details

=====

0 STARTED Wed Mar 21 12:14:50 2020  
Starting Job SEQ\_J\_Stage\_PS\_S\_RT\_RATE\_TBL\_FSCM\_FSCM89\_EPM89. (...)  
1 INFO Wed Mar 21 12:14:50 2020  
Environment variable settings: (...)  
2 BATCH Wed Mar 21 12:14:50 2020  
SEQ\_J\_Stage\_PS\_S\_RT\_RATE\_TBL\_FSCM\_FSCM89\_EPM89 -> (J\_Load\_BATCH\_INFO): Job run requested (...)  
3 INFO Wed Mar 21 12:14:50 2020  
SEQ\_J\_Stage\_PS\_S\_RT\_RATE\_TBL\_FSCM\_FSCM89\_EPM89..JobControl (DSRunJob): Waiting for job  
J\_Load\_BATCH\_INFO to start  
4 INFO Wed Mar 21 12:14:51 2020  
SEQ\_J\_Stage\_PS\_S\_RT\_RATE\_TBL\_FSCM\_FSCM89\_EPM89..JobControl (DSWaitForJob): Waiting for job  
J\_Load\_BATCH\_INFO to finish  
5 INFO Wed Mar 21 12:14:54 2020  
SEQ\_J\_Stage\_PS\_S\_RT\_RATE\_TBL\_FSCM\_FSCM89\_EPM89..JobControl (DSWaitForJob): Job  
J\_Load\_BATCH\_INFO has finished, status = 1 (Finished OK)

Status code = 0