Performance Diagnostic Plugin (Batch Processing)
User Guide

Oracle FLEXCUBE Universal Banking

Release 14.8.3.0.0

Part No. G61377-01

October 2026

ORACLE

Performance Diagnostic Plugin (Batch Processing) User Guide
Oracle Financial Services Software Limited
Oracle Park

Off Western Express Highway
Goregaon (East)
Mumbai, Maharashtra 400 063
India
Worldwide Inquiries:
Phone: +91 22 6718 3000
Fax: +91 22 6718 3001
https://www.oracle.com/industries/financial-services/index.html

Copyright © 2007, 2026, Oracle and/or its affiliates. All rights reserved.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are “commercial computer software” pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate failsafe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.
The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

This software or hardware and documentation may provide access to or information on content, products and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.

Contents

Contents 1
1. Preface 1-1
1.1 Introduction 1-1
1.2 Audience 1-1
1.3 Documentation Accessibility 1-1
1.4 Critical Patches 1-1
1.5 Organization 1-1
1.6 Abbreviations 1-2
1.7 Glossary of Icons 1-2
1.8 Related Documents 1-2
2. PDP (Batch) Functionality 2-1
2.1 Introduction 2-1
2.2 PDP (Batch) Maintenance 2-1
2.2.1 Invoking PDP Maintenance Screen – Batch Processing 2-1
2.2.1.1 Viewing PDP Summary Screen – Batch 2
2.3 EOC Run 2-2
2.4 Results 2-3
2.4.1 TKPROF 2-4
2.4.2 HPROF 2-4
3. Error Code and Messages 3-1
3.1 Error Codes 3-1
4. FAQ's 4-1
5. Function ID Glossary 5-1

1. Preface

1.1 Introduction

This manual is been designed to help you quickly get acquainted with the Performance Diagnostic Plugin (Batch Processing) of Oracle FLEXCUBE Universal Banking.

1.2 Audience

This manual is intended for the following User/User Roles:

Role	Function
Database Administrator	To provide the necessary Execute grants for TKPROF & HPROF file generation.
End of Day operators	Processing during End of Day/ Beginning of Day
System Technical Analyst	To analyze the Performance lag issue faced by bank user.
Oracle FLEXCUBE user	Any user of Oracle FLEXCUBE facing performance issues in the system

1.3 Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

1.4 Critical Patches

Oracle advices customers to get all their security and vulnerability information from the Oracle Critical Patch Update Advisory, which is available at Critical Patches, Security Alerts and Bulletins. All critical patches should be applied in a timely manner to ensure effective security, as strongly recommended by Oracle Software Security Assurance.

1.5 Organization

This manual is organized as follows:

Chapter	Description
Chapter 1	Preface gives information on the intended audience. It also lists the various chapters covered in this User Manual.
Chapter 2	Functionality and Maintenance of various parameters for Performance Diagnostic Plugin - Batch Processing
Chapter 3	Error Code and Message
Chapter 4	Frequently Asked Question's (FAQ's)

Chapter 5	Function ID Glossary

1.6 Abbreviations

Abbreviation	Description
DBA	Database Administrator
EOC	End of Cycle
EOD	End of Day
HPROF	Hierarchical Profiler
PDP	Performance Diagnostic Plugin
PLSQL	Procedural Language for SQL
SQL	Structured Query Language
TKPROF	Transient Kernel Profiler

1.7 Glossary of Icons

This User Manual refers to the following icons.

Icons	Function
	Add Row
	Delete Row
	Exit
	Option List

1.8 Related Documents

For further information on procedures discussed in the manual, refer to the Oracle Database manuals on:

- Enabling SQL Tracing and Using TKPROF
- Using the PL/SQL Hierarchical Profiler
- Common Core - Automated End of Day User Guide

2. PDP (Batch) Functionality

2.1 Introduction

Performance Diagnostic Plugin (PDP-Batch) is a tool to capture the performance lag reports like TKPROF and Hierarchical profiling (HPROF) during batch processing in FCUBS.

Existing methods of capturing these reports at a very high level causing difficulties in analyzing the precise point of issue and involves DBA's. PDP helps to get the report precisely at the issue level i.e., for a particular batch configured. This tool is applicable only for batch configured in EOC under POST stages.

2.2 PDP (Batch) Maintenance

Performance Diagnostic Plugin tool depends on the initial maintenance of the performance issue faced by the user to generate the performance bottleneck reports for analysis.

This section contains the following topics:

- Section 2.2.1, "Invoking PDP Maintenance Screen – Batch Processing"
- Section 2.2.1.1, "Viewing PDP Summary Screen – Batch"

2.2.1 Invoking PDP Maintenance Screen – Batch Processing

You can invoke the 'Performance Diagnostic Plugin (Batch) Maintenance' screen by typing 'STDEDPDP' in the field at the top right corner of the Application tool bar and clicking on the adjoining arrow button.

You specify the following fields:

Branch Code

Specify the Branch code details for branch facing the performance issue.

Branch Name

This displays the name of the Branch selected.

EOC Batch

Specify the EOC Batch that is causing the performance issue.

Batch Description

This displays the name of the Batch selected.

EOC Stage

Based on the Batch selected, the stage will be auto-populated.

Trace Value

Provides the options for users to choose the type of reports required for analysis. Below are the options to choose from:

UI Option Name	Description
Hierarchical Profiling (HPROF) File	Hierarchical profiling (HPROF) file generation
Trace (TKPROF) File	Trace file generation

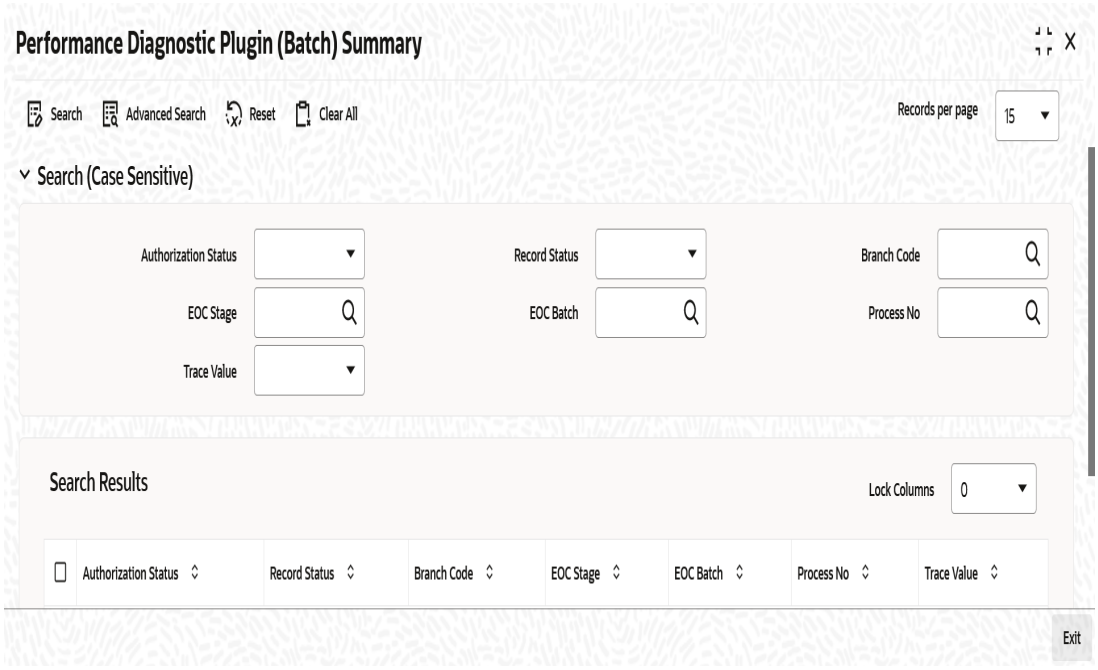
Process No.

Specify the number of parallel processes maintained for the selected batch.

> **Note**
>
> This field is applicable only if the EOC Batch is selected as “CLBATCH” and hence is disabled by default. Field value is auto-populated as ‘0’ for all other batch’s except “CLBATCH”.

2.2.1.1 Viewing PDP Summary Screen – Batch

You can view the summary details of PDP in the ‘Performance Diagnostics Plugin (Batch) Summary’ screen. You can invoke this screen by typing ‘STSEDPDP’ in the field at the top right corner of the application tool bar and clicking on the adjoining arrow button.



In the Performance Diagnostics Plugin (Batch) Summary screen, you can base your queries on any or all of the following parameters and fetch the records:

- Authorization Status
- Record Status
- Branch Code
- EOC Stage
- EOC Batch
- Process No
- Trace Value

Click on the ‘Search’ button. The system identifies all records satisfying the specified criteria and displays the same.

2.3 EOC Run

After the maintenance in STDEDPDP, run EOC to capture the performance lag reports. Below sections, depict a sample performance issue faced during EOC process.

Problem Description:

Assume “ACCREVAL” is taking more time during its execution at Post End of Transaction Input (sub-stage 1) stage. In-order to analyze the issue, support team has requested user to share the HPROF.

Problem Simulation:

1. In order to capture the performance lag reports, user needs to maintain these details in system under STDEDPDP as specified under Section 2.2.1, "Invoking PDP Maintenance Screen – Batch Processing".

Branch Code: **PD1**

EOC Stage: **Post End of Transaction Input 1**

EOC Batch: **ACCREVAL**

Process No: **0**

As per the requirement, user needs to capture HPROF; the trace value to select would be “**Hierarchical Profiler (HPROF) File**“.

2. Once the above maintenance is completed, launch End Of Cycle Operations screen (AEDSTART), preform the EOC for branch “PD1”.



3. Due to the performance issue, batch execution might take some time and required performance lag report are captured into their respective folders as configured.

Results Captured:

- **HPROF**: During EOC, the system captures the HPROF file under database servers – WORK_AREA directory as configured under CSTB_PARAM. Below is the HPROF file captured that can be converted into human readable html file.



More details on the configuration of output directories are provides under Section 2.4, "Results"

2.4 Results

Results captured by the system are subjected to the maintenance of Trace value. All files captured are placed under configured directories.

This section contains the following topics:

- Section 2.4.1, "TKPROF"
- Section 2.4.2, "HPROF"

2.4.1 TKPROF

A Trace file is a file containing a trace of certain events that happen (or will happen) during the process. SQL trace files are more concentrated towards SQL queries taking more time during execution in database. Examining a raw trace file can be overwhelming. To gather useful information from it quickly, trace files are converted into a readable format that can be can easily interpreted.

Oracle Database provides a tool called tkprof for conversion of trace file into a more readable format file also referred as TKPROF file. PDP (Batch) functionality capture the trace file into the destination folder configured in init.ora file. Trace file path can also be obtained by value returned from query - SELECT VALUE FROM V$DIAG_INFO WHERE NAME = 'Default Trace File'. It is the responsibility of user/analyst to convert this trace file to TKPROF file for further analysis. Trace file generated by system is of below format.

```
<ORACLE_SID>_ora_<SERVER_PROCESSID>_<BRANCH_CODE>_<EOC_STAGE>_<EOC_
BATCH>_<PROCESS_NO>.trc
```

Initial parts of the file name until server process id is Oracle defined naming convention based on the Database setup and later is PDP (Batch) defined naming convention. Conversion of trace file to TKPROF is achieved via below generic command. Please run the command in command prompt window.

Syntax:

```
TKPROF
<PDP_GENERATED_TRACE_FILE><SPACE><USER_DEFINED_FILE_NAME>EXPLAIN=SC
HEMA_USER/
PASSWORD@HOST_NAME:PORT<SPACE>SORT=FCHELA,EXEELA,PRSELA<SPACE>WAITS
=YES
```

Example

PDP generated trace file: **DEV1900_ora_12349_PD1_POSTEOTI_1_ACCREVAL_0.trc**

User desired TKPROF file: **TKP_ PD1_POSTEOTI_1_ACCREVAL_0**

```
TKPROF DEV1900_ora_12349_PD1_POSTEOTI_1_ACCREVAL_0.trc
TKP_PD1_POSTEOTI_1_ACCREVAL_0 EXPLAIN=UBS141WLY/
UBS141WLY@WHF00GJK.IN.ORACLE.COM:1521 SORT=FCHELA,EXEELA,PRSELA
WAITS=YES
```

2.4.2 HPROF

Hierarchical profiler (HPROF) is used to identify bottlenecks and performance-tuning opportunities in PL/SQL applications. HPROF is similar to trace files but is more concentrated towards PLSQL blocks to capture the timings during execution. This file reports the dynamic execution profile of your PL/SQL program, organized by sub program calls.

Similar to trace file, HPROF provides *plshprof* command-line utility to convert HPROF file into human-readable html format. HPROF generated by the system is of the below format, matching the PDP (Batch) naming convention standards. The generated file are under WORK_AREA path defined under CSTB_PARAM.

```
hprof_<BRANCH_CODE>_<EOC_STAGE>_<EOC_BATCH>_<PROCESS_NO>
```

Conversion of HPROF file to human readable html format achieved via below generic command. Please run in command prompt window.

Syntax:

```
PLSHPROF<SPACE> -
OUTPUT<SPACE><USER_DEFINED_FILE_NAME><SPACE><PDP_GENERATED_HPROF_FI
LE>
```

Example:

PDP Generated HPROF file: **hprof_PD1_POSTEOTI_1_ACCREVAL_0**

User desired HPROF html file: **hp_PD1_POSTEOTI_1_ACCREVAL_0.html**

```
PLSHPROF -OUTPUT hp_PD1_POSTEOTI_1_ACCREVAL_0
hprof_PD1_POSTEOTI_1_ACCREVAL_0
```

Note

Below are some of the sample files attached for reference.

TKPROF	TKP_AK1_POSTEOTI_1_CLBATCH_0.prf
HPROF	hp_PD1_POSTEOTI_1_ACCREVAL_0.html

---

3. Error Code and Messages

This chapter contains the following section:

- Section 3.1, "Error Codes"

3.1 Error Codes

Function ID	Error Code	Message
STDEDPDP	ST-PDP-002	Process Number can be greater than 0 only for CLBATCH
STDEDPDP	ST-PDP-003	Process Number for CLBATCH cannot be greater than $1 for Branch $2

4. FAQ's

1. **What is SMTM_EOC_BATCH_TRACE Table? How are values inserted into it?**

   SMTM_EOC_BATCH_TRACE is a data store for capturing the EOC batch related maintenance for Performance Diagnostic Plugin (Batch) functionality i.e. it will store, Branch Code, EOC Stage, EOC Batch, Process No and Trace Value. Based on these parameters- Time Lag Report will be generated. The data can be captured using the newly designed function id STDEDPDP.

2. **What is the use of the CSTB_PARAM flag? When will the CSTB_PARAM be set to 'Y' (Enabled)**

   CSTB_PARAM table will have a Performance Diagnostic Plugin (PDP-Batch) specific flag called **TIME_LOG_BATCH**, which is used to enable or disable the functionality of PDP (Batch) i.e. capturing of any performance lag reports in the system. By default, the value is set as 'N'.

3. **Who is expected to convert the generated Trace / Hierarchical Profiling files to readable format?**

   Bank IT team or Support Teams or any particular analyst who might be working on that issue as it is a generic command.

4. **Is this PDP (Batch) functionality specific to any product?**

   PDP functionality related to Batch processing is specific to FCUBS as of now.

5. **What are all Batches under EOC applicable for this functionality?**

   All batches maintained under Mandatory Batch Program Maintenance (EIDMANPE) i.e. POST Stages are applicable for PDP (Batch) functionality.

6. **Provide details on destination folder for the performance lag reports generated?**

   Both the Trace file and HPROF file are generated into different folder as explained in Section 2.4, "Results".

   Below table, provides quick access to the destination path:

Result File	Destination
Trace File	Path returned by below Query - SELECT VALUE FROM V$DIAG_INFO WHERE NAME = 'Default Trace File'
HPROF File	WORK_AREA path as configured under CSTB_PARAM

5. Function ID Glossary

A

AEDSTART 2-3

S

STDEDPDP 2-1
STSEDPDP 2-2