



HCM Data Loader Process

Abstract

This document provides different phases of the data loading process using HCM Data Loader, including HDL configuration with sample data files.

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HCM Data Loader Process

1. Preparation Phase

- Configuration
 - Configure HCM Data Loader parameters that control the HDL and HSDL import and load processes.

These parameters can be changed as per business requirements, performance, loading methods, etc.

For example,

Performance Parameters -

Maximum Concurrent Threads for Import -> Default Value 8

Maximum Concurrent Threads for Load: Default Value 8

The default value can be increased to enhance loading performance.

Caution: Must be checked with Oracle before increasing threads, as it depends on system hardware configuration.

Setup and Maintenance -> Configure HCM Data Loader

The screenshot displays the 'HCM Data Loader' configuration page. On the left, under 'Functional Areas', 'HCM Data Loader' is selected. The main panel shows a list of tasks, with 'Configure HCM Data Loader' highlighted. Below this, a table lists performance parameters that can be configured.

Category	Parameter	Default	Override	Description
Performance	Days to Preserve Extended Retention Data Sets	60		Number of days since an extended retention data set was last updated before it is aut...
Performance	Days to Preserve Standard Data Sets Before ...	5		Number of days since a standard data set was last updated before it can be automatic...
Performance	Days to Preserve Standard Data Sets Before ...	30		Number of days since a standard data set was last updated before it is automatically a...
Performance	Days to Retain Processed Source Files Befor...	30		Number of days to retain a processed source file on the Oracle WebCenter Content se...
Performance	Load Group Size	100		Number of business objects processed as a single unit of work by a concurrent thread.
Performance	Maximum Concurrent Threads for Import	8		Maximum number of concurrent threads when importing.
Performance	Maximum Concurrent Threads for Load	8		Maximum number of concurrent threads when validating or loading.
Performance	Maximum Data Lines Before Archiving	10000000		Number of data lines that can be held in the stage tables before data sets are automat...

Performance Parameters -

Import and Load-> Valid object loaded automatically after completion of import process.

Import only-> Only Data import

Scheduling Default	Disable Post Process Tasks		Specify the name of the postprocessing task to disable for the bu
Scheduling Default	Enable Automatic Extended Data Set Retenti...	No	Determines whether data sets for business objects that support 1
Scheduling Default	File Action	Import and load	Default action for file processing.
Scheduling Default	Initiate Business Object Postprocessing	Yes	Determines whether post-processes registered with a business c
Scheduling Default	Maximum Percentage of Import Errors	100	Percentage of file lines in error that can occur in a business obje

- Setup Source System Owner

Source system owner is one of the attributes of source keys that needs to be defined in the lookup.

Setup and Maintenance-> Manage Common Lookups

Search lookup type -> **HRC_SOURCE_SYSTEM_OWNER**

Add new Lookup code "EBSHR"

Lookup Type: **HRC_SOURCE_SYSTEM_OWNER**

Meaning:

Description:

Module:

Search Results

Actions View Format + X Detach Wrap

Lookup Type	Meaning	Description	Module	Lookup Configuration Level	REST Access Secured
HRC_SOURCE_SYSTEM_OWNER	Source System Owner	Source System Owner name	Common Classes	Extension	Secure

HRC_SOURCE_SYSTEM_OWNER: Lookup Codes

Actions View Format + X Detach Wrap

Lookup Code	Display Sequence	Enabled	Start Date	End Date	Meaning	Description	Tag	Lookup values descriptive flexfield	Lookup_OFF
EBSHR	1	☒	1/1/51	mid/yy	EBS HR Data Load	EBS HR Data Load			

- View Business Objects

Once you identify the business object which needs to be loaded, get the template file of that business object. Change the template file as per the given business requirement.

My Client Groups -> Data Exchange -> View Business Objects.

HCM Data Loader



Recent File Loads



View Business Objects



Import and Load Data



Delete Stage Table Data

Schedule Request

Process: Refresh HCM Data Loader Object
 Description: Refresh the selected object and generate a file of METADATA lines for the selected object.
 Schedule: As soon as possible
 Business Object: Location

Buttons: Submit, Cancel

Product Area	Business Object	Description	File Name	Template File	Overview	Last Refreshed	Load Order	Spreadsheet Loading Support	Roll Back Supported	Bulk Loading Secured
Global HR - ...	Location	A location records the place, address, or other de...	Location.dat			9/19/24	2500	Available	No	No
Global HR - ...	Location Translation	Translation rec...					2510	Available	No	No

View Process Results

Refresh All Objects

Level	Object	File Name	File	Last Refreshed	Process ID	Status	Scheduled Time	Submission Time	Finish Time	Elapsed Time	Log
Business object	Location	Location.dat		12/22/24 2:31...	7541104	Succeeded	12/22/24 2:30...	12/22/24 2:30...	12/22/24 2:31...	00:01:37	

Download the latest template file and modify it according to the business requirements.

- Data and File Preparation
 - Data Preparation
 - Use Data migration methodology to migrate data from source system to target system
 - File Preparation

To prepare file, there are some rules that need to follow.

 - Create .dat data file

```
COMMENT Data for Business Object: Job Version: V1.0
METADATA[Job|SourceSystemOwner|SourceSystemId|ActiveStatus|BenchmarkJobFlag|SetCode|EffectiveStartDate|EffectiveEndDate|Name|ApprovalAuthority|JobCode|MedicalCheckupRequired|JobFamilyName
MERGE|Job|EBSHR|GAM_308|A|N|COMMON|1951/01/01|4712/12/31|Testing Executive|TEST_EXEC|N]
```

File Line Instructions

COMMENT -> Use for any Comment in file

METADATA -> Use to identify business object and its attributes

MERGE/DELETE – Transaction statement for create, Update and Delete data.
SET – An optional, that use to override default file processing for the file.

```
COMMENT Data for Business Object: Job Version: V1.0
METADATA |Job|SourceSystemOwner|SourceSystemId|ActiveStatus
|BenchmarkJobFlag|SetCode|EffectiveStartDate|EffectiveEndDate|
Name|ApprovalAuthority|JobCode|MedicalCheckupRequired|JobFamilyName
MERGE |Job|EBSHR|GAN_JOB|A|N|COMMON|1951/01/01|4712/1
2/31|Testing Executive||TEST_EXEC|N|
```

File discriminators

METADATA/MERGE/DELETE instructions must be including the file discriminator to identify the business object.
Example -> MERGE|**Job**, where Job is file discriminator.

In above example,
Source Keys : SourceSystemOwner and SourceSystemID
SourceSystemOwner : EBSHR
SourceSystemID: GAN_JOB

save as .dat file and create .zip file to import file.

Name	Date modified	Type	Size
Job	21-12-2024 23:16	DAT File	1 KB
Job	22-12-2024 20:21	Compressed (zipp...	1 KB

2. Import Phase

- Upload File to WebCenter Content Server
- My Client Groups -> Data Exchange -> Import and Load Data

HCM Data Loader

 Recent File Loads

 View Business Objects

 Import and Load Data

 Delete Stage Table Data

Import and Load Data

Update Oracle Search Indexes Review Scheduled Processes Import File

My Recent Data Sets

Show Filters

Data Sets

View Format Refresh Stop Submit Delete Review Progress Review Processes Freeze Detach Wrap

Data Set	Content ID	Import Status	Load Status	Messages	Import Success(%)	Total Lines	Failed Lines	Load Success(%)	Total Objects	Failed Objects	Review	Last Updated Date	Extended Retention
No data to display.													
Columns Hidden 13													

Name

Job

Job

Date modified

21-12-2024 23:16

22-12-2024 20:21

Type

DAT File

Compressed (zipp...

Size

1

1

ame:

All files

Upload from mobile

Open

Cancel

Import File

File Source

☒ Local File

Select File Job.zip

☐ Oracle WebCenter Content Files

		m/d/yy h <i>h</i> : <i>mm</i>	
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File Name

Content ID

Creation Date

Owner

No data to display.

Data Sets

View

Data Set	Content ID	Import Status	Load Status	Messages	Import Success(%)	Total Lines	Failed Lines	Load Success(%)	Total Objects	Failed Objects	Review	Last Updated Date	Extended Retention
Job.zip	UCMFA0608...				0	1	0	0	0	0		12/22/24 2:56...	

Columns Hidden: 13

Business Objects

View

Business Object	Load Order	Import Status	Load Status	Messages	Import Success(%)	Total Lines	Failed Lines	Load Success(%)	Total Objects	Failed Objects	Last Updated Date
Job	1				0	1	0	0	0	0	12/22/24

Columns Hidden: 10

Data Sets

View

Data Set	Content ID	Import Status	Load Status	Messages	Import Success(%)	Total Lines	Failed Lines	Load Success(%)	Total Objects	Failed Objects	Review	Last Updated Date	Extended Retention
Job.zip	UCMFA0608...				100	1	0	0	1	0		12/22/24 2:56...	

Columns Hidden: 13

Business Objects

View

Business Object	Load Order	Import Status	Load Status	Messages	Import Success(%)	Total Lines	Failed Lines	Load Success(%)	Total Objects	Failed Objects	Last Updated Date
Job	1				100	1	0	0	1	0	12/22/24

Columns Hidden: 10

In this phase, extract the business object data from .zip and validate the file name and METADATA definitions. Raise errors if any else imports data into HCM Data Loader Stage tables.

Loading will start automatically if data is imported successfully, but it depends on the HCM Loader Parameter "File Action". The parameter value is either "Import and Load" or "Import Only".

Here loading is not started automatically as the HCM Loader Parameter "File Action" is configured as "Import Only".

HCM Data Loader Parameters

Configure and enable HCM Data Loader, review and override its default run-time behavior.

View

Detail

Scheduling

File Action

Category

Parameter

Default

Override

Description

Scheduling Default

File Action

Import and load

Import only

Default action for file processing.

3. Load Phase

- Loading Data into Application

In this phase, Valid data passes to business object specific services that validate the data as business object validation, raise if any error and load valid data into application tables.

If HCM Loader Parameter **"File Action"** configured as **"Import Only"** then, need to initiate Load manually.

Business Objects

View

Format



 Refresh

 Review Progress

 Stop

 Submit

 Freeze

 Detach

 Wrap

Business Object	Load Order	Import Status	Load Status	Messages	Import Success(%)	Total Lines	Failed Lines	Load Success(%)	Total Objects	Failed Objects	Last Updated Date
Job	1				100	1	0	100	1	0	12/22/24

Columns Hidden 10

Import and Load Data

Schedule Request

Process Name Load Business Object

Description Processes data in the staging tables and validates, loads, rolls back, or extends the retention period of the staging table data.

Parameters

Business Object Job

*Maximum Percentage of Load Errors

*Maximum Concurrent Threads for Load

Action Load ▾

Schedule

Run ☒ As soon as possible
☐ Using a schedule

Business Objects

View

Format

Refresh

Review Progress

Stop

Submit

Freeze

Detach

Wrap

Business Object	Load Order	Import Status	Load Status	Messages	Import Success(%)	Total Lines	Failed Lines	Load Success(%)	Total Objects	Failed Objects	Last Updated Date
Job	1				100	1	0	100	1	0	12/23/24

Columns Hidden: 10

Job Data Created Successfully as there is no error.

Also get the Keys in

OBJECT_NAME	SOURCE_SYSTEM_ID	SOURCE_SYSTEM_OWNER	SURROGATE_ID	GUID
Job	GAN_JOB	EBSHR	300000295639276	29D57A26EA89BAE1E0638A64F00A3EAA

Job: Testing Executive - TEST_EXEC

Effective Start Date 1/1/51
Effective End Date

Job Set Common Set
Action Reason

Job Details Evaluation Criteria Profiles

Basic Details ⓘ

Effective Start Date 1/1/51
Effective End Date

Job Set Common Set

Job Description

Name Testing Executive
Code TEST_EXEC
Status Active

Full Time or Part Time
Regular or Temporary
Job Family
Job Function
Level

Context Value

Management Level
Medical Checkup Required No
Benchmark No
Benchmark Job
Progression Job
Attachments None
Grade Ladder

Edit View History

Note : Keys can be found in **HRC_INTEGRATION_KEY_MAP** table, use BIP to execute below SQL

select * from HRC_INTEGRATION_KEY_MAP WHERE SOURCE_SYSTEM_OWNER = 'EBSHR'

OBJECT_NAME	SOURCE_SYSTEM_ID	SOURCE_SYSTEM_OWNER	SURROGATE_ID	GUID
Job	GAN_JOB	EBSHR	300000295639276	29D57A26EA89BAE1E0638A64F00A3EAA

If HCM Loader Parameter "File Action" configured as "Import and Load" then, Load will start automatically for valid import data.

Test with Another example, Worker.dat

In below example, using source keys to identify records.

Worker

SourceSystemOwner : EBSHR

SourceSystemid : GANHDL001_, GANHDL002

PersonName

SourceSystemOwner : EBSHR

SourceSystemid : GANHDL001_NM, GANHDL002_NM

To Identify worker record for person name in this example, Source system id is supplied to the Parent surrogate id , Person Id attribute with the (SourceSystemid) hint.

PersonId(SourceSystemId) : GANHDL001, GANHDL002

PersonLegislativeData

SourceSystemOwner : EBSHR

SourceSystemId : GANHDL001_LEG, GANHDL002_LEG

PersonId(SourceSystemId) : GANHDL001_GANHDL002

WorkRelationship

SourceSystemOwner : EBSHR

SourceSystemId : GANHDL001_PS, GANHDL002_PS

PersonId(SourceSystemId) : GANHDL001_GANHDL002

WorkTerms

SourceSystemOwner : EBSHR

SourceSystemId : GANHDL001_TR, GANHDL001_TR

PeriodOfServiceId(SourceSystemId) : GANHDL001_PS, GANHDL002_PS

Assignment

SourceSystemOwner : EBSHR

SourceSystemId : GANHDL001_TR, GANHDL001_TR

WorkTermsAssignmentId(SourceSystemId): GANHDL001_TR, GANHDL002_TR

JobId(SourceSystemId): GAN_JOB - This Value come from job.dat , first example

JobId(SourceSystemOwner) : EBSHR

Worker.dat

COMMENT Data for Business Object: Worker Version: V1.0 Created on: 25-11-2024

SET CREATE_DEFAULT_WORKING_HOUR_PATTERN Y

METADATA|**Worker**|SourceSystemOwner|SourceSystemId|EffectiveStartDate|PersonNumber|Start
Date|DateOfBirth|ActionCode

MERGE|Worker|EBSHR|GANHDL001|2024/01/01|GAN1001|2024/01/01|1982/05/21|HIRE

MERGE|Worker|EBSHR|GANHDL002|2024/01/01|GAN1002|2024/01/01|1996/04/21|HIRE

METADATA|**PersonName**|SourceSystemOwner|SourceSystemId|EffectiveStartDate|PersonId(Source
SystemId)|NameType|LegislationCode|Title|LastName|FirstName

MERGE|PersonName|EBSHR|GANHDL001_NM|2024/01/01|GANHDL001|GLOBAL|US|MR.|Gan_te
st|HDL

MERGE|PersonName|EBSHR|GANHDL002_NM|2024/01/01|GANHDL002|GLOBAL|US|MRS.|New_est|HDL

METADATA|**PersonLegislativeData**|SourceSystemOwner|SourceSystemId|EffectiveStartDate|PersonId(SourceSystemId)|LegislationCode|Sex|MaritalStatus

MERGE|PersonLegislativeData|EBSHR|GANHDL001_LEG|2024/01/01|GANHDL001|US|M|M

MERGE|PersonLegislativeData|EBSHR|GANHDL002_LEG|2024/01/01|GANHDL002|US|F|S

METADATA|**WorkRelationship**|SourceSystemOwner|SourceSystemId|PersonId(SourceSystemId)|LegalEmployerName|DateStart|WorkerType|PrimaryFlag

MERGE|WorkRelationship|EBSHR|GANHDL001_PS|GANHDL001|US1 Legal Entity|2024/01/01|E|Y

MERGE|WorkRelationship|EBSHR|GANHDL002_PS|GANHDL002|US1 Legal Entity|2024/01/01|E|Y

METADATA|**WorkTerms**|SourceSystemOwner|SourceSystemId|PeriodOfServiceId(SourceSystemId)|ActionCode|EffectiveStartDate|EffectiveSequence|EffectiveLatestChange|AssignmentName|AssignmentNumber|PrimaryWorkTermsFlag

MERGE|WorkTerms|EBSHR|GANHDL001_TR|GANHDL001_PS|HIRE|2024/01/01|1|Y|ET-HDL001|ET-HDL001|Y

MERGE|WorkTerms|EBSHR|GANHDL002_TR|GANHDL002_PS|HIRE|2024/01/01|1|Y|ET-HDL002|ET-HDL002|Y

METADATA|**Assignment**|SourceSystemOwner|SourceSystemId|ActionCode|EffectiveStartDate|EffectiveSequence|EffectiveLatestChange|WorkTermsAssignmentId(SourceSystemId)|AssignmentName|AssignmentNumber|AssignmentStatusTypeCode|PersonTypeCode|BusinessUnitShortCode|PrimaryAssignmentFlag|JobId(SourceSystemId)|JobId(SourceSystemOwner)

MERGE|Assignment|EBSHR|GANHDL001_ASG|HIRE|2024/01/01|1|Y|**GANHDL001_TR**|GANHDL001|GANHDL001|ACTIVE_PROCESS|Employee|US1 Business Unit|Y|**GAN_JOB|EBSHR**

MERGE|Assignment|EBSHR|GANHDL002_ASG|HIRE|2024/01/01|1|Y|**GANHDL002_TR**|GANHDL002|GANHDL002|ACTIVE_PROCESS|Employee|US1 Business Unit|Y|**GAN_JOB|EBSHR**

 Worker	23-12-2024 19:53	DAT File	3 KB
 Worker	23-12-2024 19:53	Compressed (zipp...	1 KB

Import File

File Source

☒ Local File

Select File Worker.zip

☐ Oracle WebCenter Content Files

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File Name

Content ID

Creation Date

Owner

No data to display.

Automatically Load process started because HCM Loader Parameter "File Action" configured as "Import and Load"

Data Sets

View

Data Set	Content ID	Import Status	Load Status	Messages	Import Success(%)	Total Lines	Failed Lines	Load Success(%)	Total Objects	Failed Objects	Review	Last Updated Date	Extended Retention
Worker.zip	UCMFA0608...	🟢	🟢		100	12	0	0	2	0		12/23/24 2:24...	

Columns Hidden 13

Business Objects

View

Business Object	Load Order	Import Status	Load Status	Messages	Import Success(%)	Total Lines	Failed Lines	Load Success(%)	Total Objects	Failed Objects	Last Updated Date
Worker	1	🟢	🟢		100	12	0	0	2	0	12/23/24

Columns Hidden 10

Data Sets

View

Data Set	Content ID	Import Status	Load Status	Messages	Import Success(%)	Total Lines	Failed Lines	Load Success(%)	Total Objects	Failed Objects	Review	Last Updated Date	Extended Retention
Worker.zip	UCMFA0608...	🟢	🟢		100	12	0	100	2	0		12/23/24 2:26...	

Columns Hidden 13

Business Objects

View

Business Object	Load Order	Import Status	Load Status	Messages	Import Success(%)	Total Lines	Failed Lines	Load Success(%)	Total Objects	Failed Objects	Last Updated Date
Worker	1	🟢	🟢		100	12	0	100	2	0	12/23/24

Columns Hidden 10

Check data in Application

Employment

Employment

Done

Work Relationship ⓘ

Legal Employer

US1 Legal Entity

Worker Type

Employee

Hire Date

1/1/24

Country

United States

Assignment: GANHDL001 ⓘ

Edit

View History

Action

Hire 1

Effective Start Date

1/1/24 (1 of 1)

Action Reason

Effective End Date

Assignment Details

Assignment Number

GANHDL001

Business Unit

US1 Business Unit

Person Type

Employee

Assignment Status

Active - Payroll Eligible

Primary

Yes

Projected End Date