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Using Seeded Data Extract Services for Oracle ERP Financial Cloud

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Overview

The Financials Data Extract empowers business enterprises with the capability to extract financials data from the Oracle ERP Cloud and seamlessly integrate it with the on-premises systems, legacy systems, and other cloud systems. The seeded financial data extracts have been introduced from R12.

The data extracts are provided in a XML or CSV format for end-user review and direct automated integration with other systems. One very common business scenario in practice is to leverage the extract capabilities to directly import the data files extracted from the Oracle ERP Cloud to legacy or third-party partner systems. In turn, those legacy or third-party partner systems will perform very specialized niche business functions based on unique legal or industry requirements such as generating statutorily prescribed tax return forms for electronic filing with local country tax authorities.

Basic Seeded Data Extract includes the following features:

- Users can extract a snapshot of data as per original report.
- All parameters as per the original report are available for user to extract data.
- Basic extract includes Descriptive Flexfield (DFF) and Global Descriptive Flexfield (GDF) data where applicable.
- Supports CSV output format for efficient and seamless data integration with existing on-premise systems, legacy systems, or other cloud systems.
- Output data file is compressed (.ZIP) and stored in UCM for user to download.

List of Seeded Data Extracts

The following seeded extracts are supported starting R12:

Application	Seeded Extract Name	Original Report Name
Payables	Payables Transactions	Payable Invoice Register
Payables	Payments	Payment Audit by Voucher Number
Receivables	Receivables Transactions	Print Receivables Transactions
Receivables	Receivables Adjustments	Print Adjustments
Receivables	Receipt Analysis	Receipt Days Late Analysis
Receivables	Receivables Billing History	Billing History
General Ledger	Journals	Journals Batch Summary
General Ledger	Trial Balance	Trial Balance
Tax	Financial Tax	Financial Tax Register

The following business objects are included in preceding seeded extracts table:

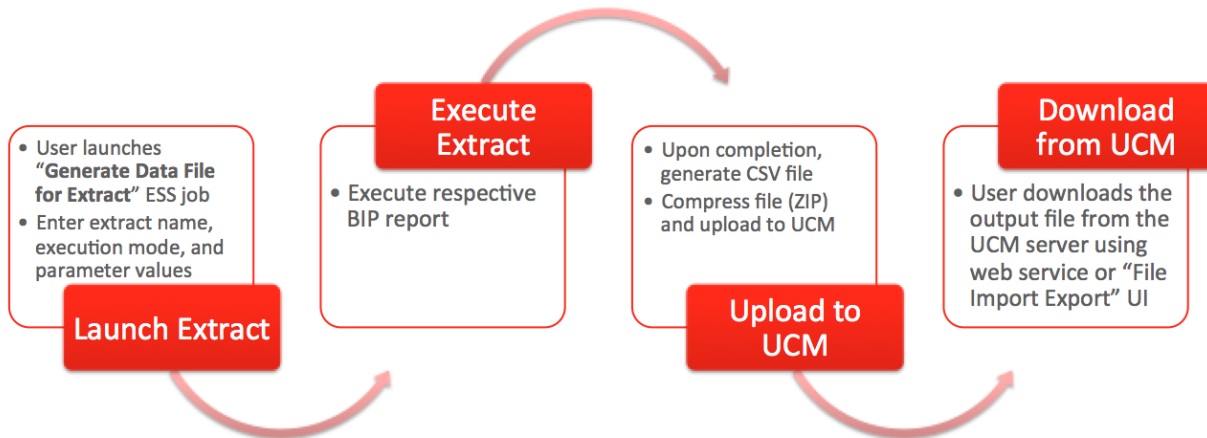| Application	Business Objects Covered

Payables	Payables Standard Invoice, Supplier, Payables Invoice Hold, Payables Prepayment, Payables 1099 Tax Reporting, Transaction Tax, Payables Withholding Tax, Payables Payment
Receivables	Receivables Invoice, Receivables Adjustment, Receivables Receipt, Receivables receipt method, Receivables Balance forward bill, Customer Account, Receivables Bills receivables, Receivables Transaction Balance summary
General Ledger	Journal, Journal Category, Journal Source, General Ledger Account, General Ledger Actual Balance, Chart of Accounts Mapping, Accounting Period
Tax	Payables Invoice Batch, Payables Tax Reporting Entity, Payables Standard Invoice, Transaction Tax, Receivables Invoice, General Ledger Account, Journal

High-level Data Extract Flow

The following high-level steps describe how to execute seeded extracts:

1. User launches "Generate Data File for Extract" job with respective parameter values and execution mode.

2. ERP Cloud executes the respective BIP report.

3. Upon completion, a CSV file is generated in a compressed format and uploaded to UCM.

4. User downloads the file using web services.

The following provides the functional overview of the flow:

Launch Extract
- User launches "**Generate Data File for Extract**" ESS job
- Enter extract name, execution mode, and parameter values

Execute Extract
- Execute respective BIP report

Upload to UCM
- Upon completion, generate CSV file
- Compress file (ZIP) and upload to UCM

Download from UCM
- User downloads the output file from the UCM server using web service or "File Import Export" UI

How to Invoke Financial Data Extracts

A new ESS job **Generate Data File for Extract** is introduced to trigger the data extract by extract name and execution mode. The execution can be automated through the ERP integration service or user can navigate through the UI.

High-level Flow Steps

- Flow automation through ERP Integration Service (Export Bulk Data)

    – Supports both seeded and customized seeded Extracts.

    – Supports the CSV format for system-to-system integration scenarios.

    – Supports pull and push integration patterns.

- UI - Oracle ERP Cloud Scheduled Processes page

    – Navigate to Scheduled Process > **Generate Data File for Extract.**

    – Select the Extract Name & Execution Mode and respective parameters.

    – Submit the Extract.

Flow Automation using the Oracle ERP Integration Web Service

The Oracle ERP Integration Service is an external web service that provides robust web service operations, such as supporting the bulk import of data into the Oracle ERP Cloud, the bulk export of data from the Oracle ERP Cloud, and key value-added operations to retrieve files, and purge interface and error data periodically. For data extract, bulk export operation can be implemented to automate end-to-end flow.

The following diagram depicts the high-level flow:
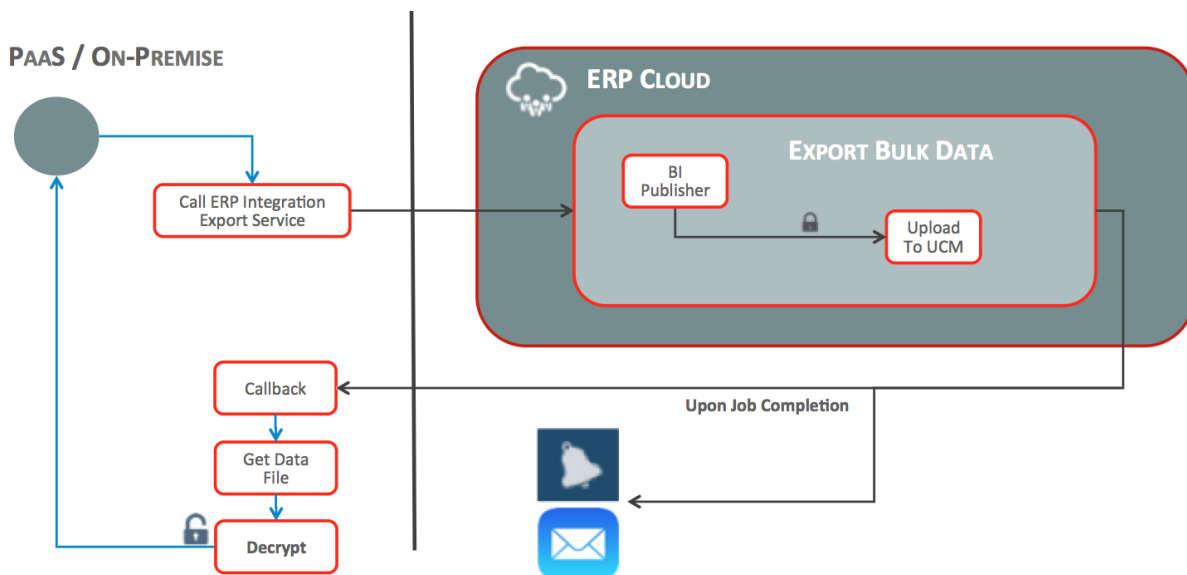
The Oracle ERP Integration Service includes the exportBulkData operation to automate the orchestration flow.

The following table lists the parameters for the exportBulkData operation:

Parameter Name	Description	Parameter (In/Out)	Mandatory
Job Name	It contains the job package name Job definition name (comma separated). For Financial Data Extract, use oracle/apps/ess/financials/commonModules/shared/common/outbound,FinOutboundProcess	IN	Yes
Parameter List	Parameters of the job – comma separated. Refer to table 3 for seeded extracts and table 4 for custom extracts.	IN	Yes

Notification Code	A two-digit number that determines how and when a notification is passed for the status of the export job. Refer to the Customer Connect post and How-To document for more details.	IN	No
Callback URL	The callback URL of the web service you implemented for receiving the status upon job completion.	IN	No
Job Options	Optional parameters, comma separated. To enable data file encryption, you must provide the following options: FileEncryption=PGPUNSIGNED or PGPSIGNED FA_ALIAS=<ERP Cloud Key Alias Name> CUSTOMER_ALIAS=<Customer Key Alias Name> **Example:**FileEncryption=PGPUNSIGNED,FA_ALIAS=ERP_CLOUD_KEY,CUSTOMER_ALIAS=CUSTOMER_ERP_KEY	IN	No
Response Code	The response code that returns the request identifier of the export job.	OUT	

Table 2 - exportBulkData Payload Details

Note: For detailed information on exportBulkData operation, refer to the Customer Connect post and How-To document.

Seeded Extract Parameter Details

The list of parameters for the seeded extracts is as follows:

Parameter Field	Details
1	Interface ID of the supported extract. Refer to table 1 for the interface ID.
2	Seeded extract job package and name separated by ";" Example: /oracle/apps/ess/financials/commonModules/shared/common/outbound;PayablesTransactionsExtract Note: Job package name is same for all Financial Data Extracts (/oracle/apps/ess/financials/commonModules/shared/common/outbound). Refer to table 1 for the job name.
3	It is always BIPREPORT

4	Extract Mode Type
	FULL_EXTRACT is only supported option
5	Respective report parameters start from here

Table 3 - Seeded Extracts Parameter Details

Sample Payload of Seeded Extract

The following illustration highlights a sample request payload of the exportBulkData operation for seeded extract:

```
<soap:Body>

<ns1:exportBulkData
xmlns:ns1="http://xmlns.oracle.com/apps/financials/commonModules/shared/model/erpIntegra
tionService/types/">

<ns1:jobName>oracle/apps/ess/financials/commonModules/shared/common/outbound,FinOutbound
Process</ns1:jobName>

<ns1:parameterList>92,/oracle/apps/ess/financials/commonModules/shared/common/outbound;P
ayablesTransactionsExtract,BIPREPORT,FULL_EXTRACT,#NULL,204,#NULL,#NULL,#NULL,2014-01-
02,2014-01-03,Jan-
14,N,N,1,STANDARD,#NULL,#NULL,FULL_EXTRACT,#NULL,#NULL,#NULL,PayablesTransactionsExtract
,#NULL</ns1:parameterList>

    <ns1:jobOptions></ns1:jobOptions>

    <ns1:callbackURL>#NULL</ns1:callbackURL>

    <ns1:notificationCode>#NULL</ns1:notificationCode>

</ns1:exportBulkData>

</soap:Body>
```

Note: For callback response, refer to the Customer Connect post.

Advanced Features

How to customize data extracts

To meet additional requirements, customize the seeded extracts by performing the following steps:

1. Select the seeded data extract from the execution mode. Register custom enterprise scheduler job to create a copy of seeded extract.
2. Create a copy of the original .xdo and .xdm files in the Business Intelligence (BI) server under the custom folder.
   Note: The custom created .xdo file must point to the custom created .xdm file.
3. Add or remove columns. You can also extend the model.

User can create a custom report in BI Publisher (BIP), or clone one of the seeded extracts and customize it based on their requirements.

The following are the prerequisites to run the custom extract:

1. Create a copy of original .xdo and .xdm files in BI server under Custom folder.
2. Provide the names of these custom created .xdo and .xdm file same as the name you gave for the custom extract on the UI.
   Note: Custom created .xdo file should be made to point to custom created .xdm file.

The parameter list of the custom extracts is as follows:

Parameter Field	Details
1	Is always #NULL
2	Name of the BIP report Example: /Financials/Transaction Tax/FinancialTaxRegister.xdo
3	Is always BIPONLY
4	Is always #NULL
5	Name of the report file Example: FinancialTaxRegister
6	The report parameters starts from here

Table 4 - Custom Extracts Details

The following illustration highlights a sample request payload of the exportBulkData operation for the custom BIP report:

```
<soap:Body>

 <ns1:exportBulkData
xmlns:ns1="http://xmlns.oracle.com/apps/financials/commonModules/shared/model/erpIntegra
tionService/types/">                             <ns1:jobName>oracle/apps/ess/financials
/commonModules/shared/common/outbound,FinOutboundProcess</ns1:jobName>
<ns1:parameterList>#NULL,/Financials/TransactionTax/FinancialTaxRegister.xdo,BIPONLY,#NU
LL,FinancialTaxRegisterBIPOnly,2000,204,#NULL,#NULL,TAX,TRANSACTION,ALL,2010-01-20,2010-
01-
26,#NULL,#NULL,#NULL,#NULL,#NULL,#NULL,#NULL,#NULL,#NULL,#NULL,#NULL,#NULL,#NULL,#NULL,#
NULL,#NULL,#NULL,TRANSFERRED,#NULL,#NULL,Y,Y,Y,Y,Y,Y,Y,Y,Y,Y,Y,Y,Y,Y,Y,Y,BOTH,#NULL,#NUL
L,#NULL,Y,RXZXPFTR,#NULL,#NULL,#NULL</ns1:parameterList>

       <ns1:jobOptions></ns1:jobOptions>

       <ns1:callbackURL>#NULL</ns1:callbackURL>

       <ns1:notificationCode>#NULL</ns1:notificationCode>

       </ns1:exportBulkData>

</soap:Body>

</soap:Envelope>
```

Incremental Extracts

The financial data extract supports extracting data incrementally after the based extract is completed. The incremental extracts are tracked in context of distinct combination of fixed dimensions such as Business Unit, Legal Entity, etc. These are the following dimensions for seeded extracts:

Application	Seeded Extract Name	Fixed Dimensions
Payables	Payables Transactions	BU, Invoice Type, Accounting Period
Payables	Payments	BU, Document Sequence
Receivables	Receivables Transactions	BU, Transaction Class
Receivables	Receivables Adjustments	BU

Receivables	Receipt Analysis	BU
Receivables	Receivables Billing History	BU
General Ledger	Journals	Ledger, Data Access Set, Currency Code
General Ledger	Trial Balance	Ledger, Data Access Set, Currency Code, Accounting Period
Tax	Financial Tax	Reporting context, Legal Entity, Tax type, Source

The following diagram depicts the parameters of payables transactions extract:

File prefix – user defines the name of the output file

Fixed Dimensions – These dimensions track incremental logic. In previous diagram, it is tracked by Business Unit, Invoice Type and Accounting period.

The following is the high-level flow for incremental extracts:
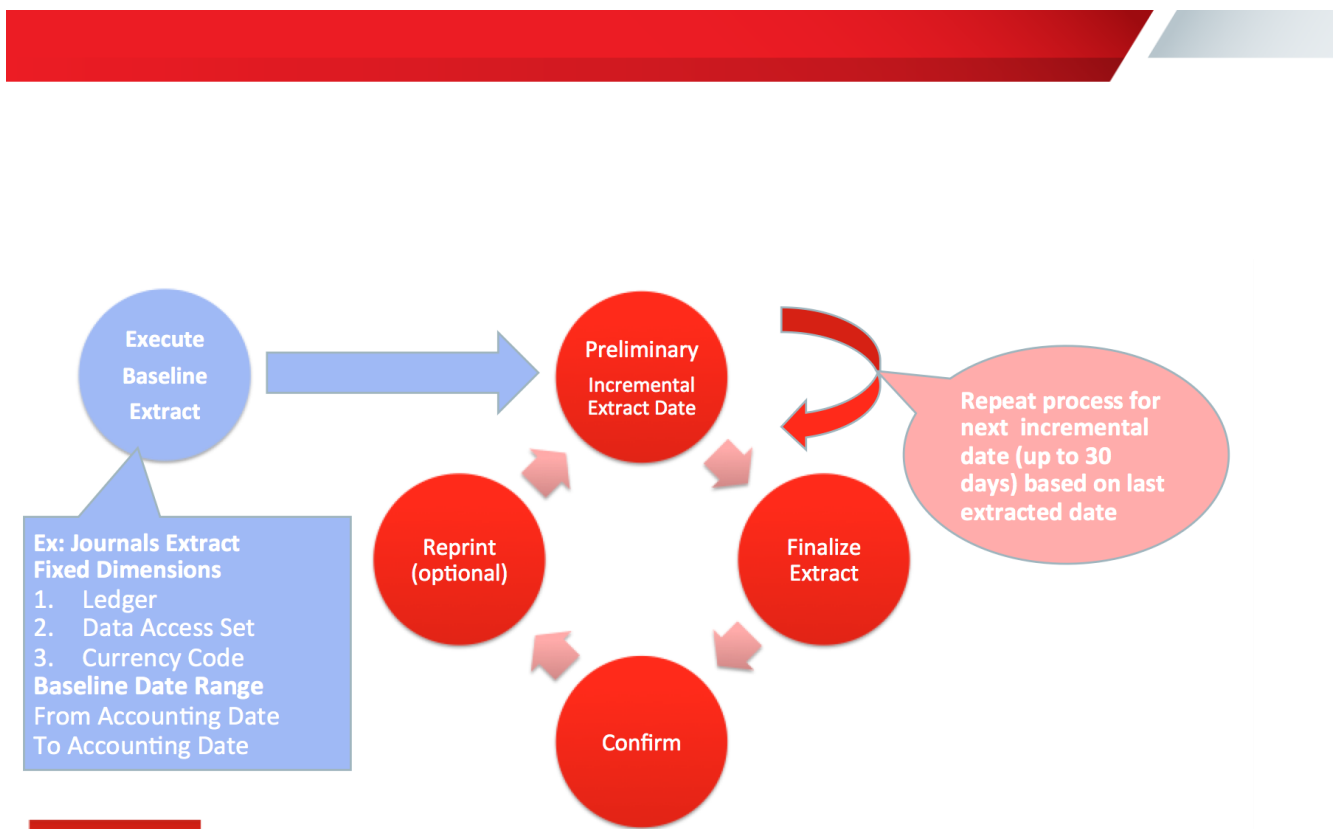
After based extract is completed successfully, incremental extract can be configured for up to next 30 days of data. You can execute it multiple times until the data is validated. Once the user validates the data and acknowledges the extracted data, the system updates the last extracted date. The next execution is based on the new last extracted date.

You can also rerun the last acknowledged incremental extract by using the "Reprint" option. The reprint is based on same fixed dimensions of the pervious extract.

Appendix 1: Execute from Fusion Applications UI

In addition to the automated approach, extract process can also be executed through the Oracle ERP Cloud user interface. Perform the following steps to execute the seeded extract process through the user interface:

1. From the Oracle ERP Cloud home page, navigate to the Navigator > select Tools > **Scheduled Processes**.

2. Click **Schedule New Process.**

3. Search for the **Generate Data File for Export** process name and select it.

4. Select Extract Name and mode.

5. Enter respective parameters value.

6. Click **Submit**.

7. After the job is completed, click on the report and export the data file.

The following image is the sample of executing base Payment extracts:

Hardware and Software, Engineered to Work Together