
ODTUG
Kscope25
dallas - ft worth
june 15 - 19
Welcome

OLYMPUS CONSULTING

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0-60 Data Exchange...The Pretty Data Management

More than a pretty face

OLYMPUS
CONSULTING

AGENDA

- Introductions
- Data Management vs Data Exchange
- Data Integrations
- Data Maps
- Orchestration with Pipelines
- The EPM Integration Agent
- Putting It All Together

About the Speaker

Brian Marshall
EPM Cloud Architect

- 20+ years of Oracle EPM experience
- Oracle ACE Alumni
- Internationally recognized speaker
- Kscope Speaker 2010-2018, 2022-2025
- Kscope 2022 Best Overall Speaker, Kscope 2015 Best Speaker Award
- Over 250 projects
- Architected over 100 projects
- Experienced in FCC, Planning, ARCS, EDMCS, Cloud Data Exchange, Essbase (ASO, BSO and Hybrid), and HFM, Essbase Analytics, and replication of Consolidation functionality in both Essbase and Free Form Planning in PBCS)
- Extensive experience with Groovy and the REST APIs

About Olympus Consulting

Strategy

Collaborate with executive leadership to implement strategic initiatives using Oracle Cloud EPM, aligning goals, optimizing processes while driving efficiency.

Assessments

Evaluate the functionality and performance of an implementation to ensure it meets organizational needs, efficiency goals, and strategic initiatives.

Cloud Readiness

Assess the current implementation to determine its suitability, readiness, and potential challenges for a seamless migration to the cloud environment.

Reporting and Analysis

Excel, web-based forms, dashboards, and pixel-perfect reporting with full e-mail bursting capabilities provide enterprise-wide reporting.

Budgeting and Forecasting

Integrates financial, operational, and strategic planning, enhancing collaboration and decision-making across the organization with real-time data and predictive analytics.

Consolidations

Streamlines financial processes, ensuring accurate, timely reporting and compliance, enhancing efficiency, and providing real-time insights for better decision-making.

Account Reconciliations

Provides insights into cost and profitability drivers, optimizing resource allocation and financial performance through detailed analysis across various dimensions.

Integrations

Integrates data from various sources, supports file-based and direct integrations, and automates data mapping and loading for efficient financial and operational processes across all EPM business processes.

Proactive Support

Monitor daily data loads, update meta-data and data mappings, support Smart View users, and execute ad-hoc automated processes like data loads.

Reactive Support

Handle client requests per SLA, investigate automated process errors, and perform root cause analysis to identify and resolve issues efficiently.

Report Services

Create new reports based on user requests, update existing reports per new requirements, and manage report security access for all users.

What Makes Us Different?

- As thought Leaders in EPM, Olympus has presented over 30 times at Kscope in the last 10 conferences including multiple *Best Speaker* awards.
- Oracle Cloud Beta program member, pre-release experience with new features along with a direct line of communication to the Oracle development team.
- For Planning Magic Quadrant, Gartner interviewed 8 Olympus clients out of the 30 or so Oracle clients.
- Olympus has a 100% success rate on EPM implementations.
- Every consultant is Architect level with at least 17 years of experience.

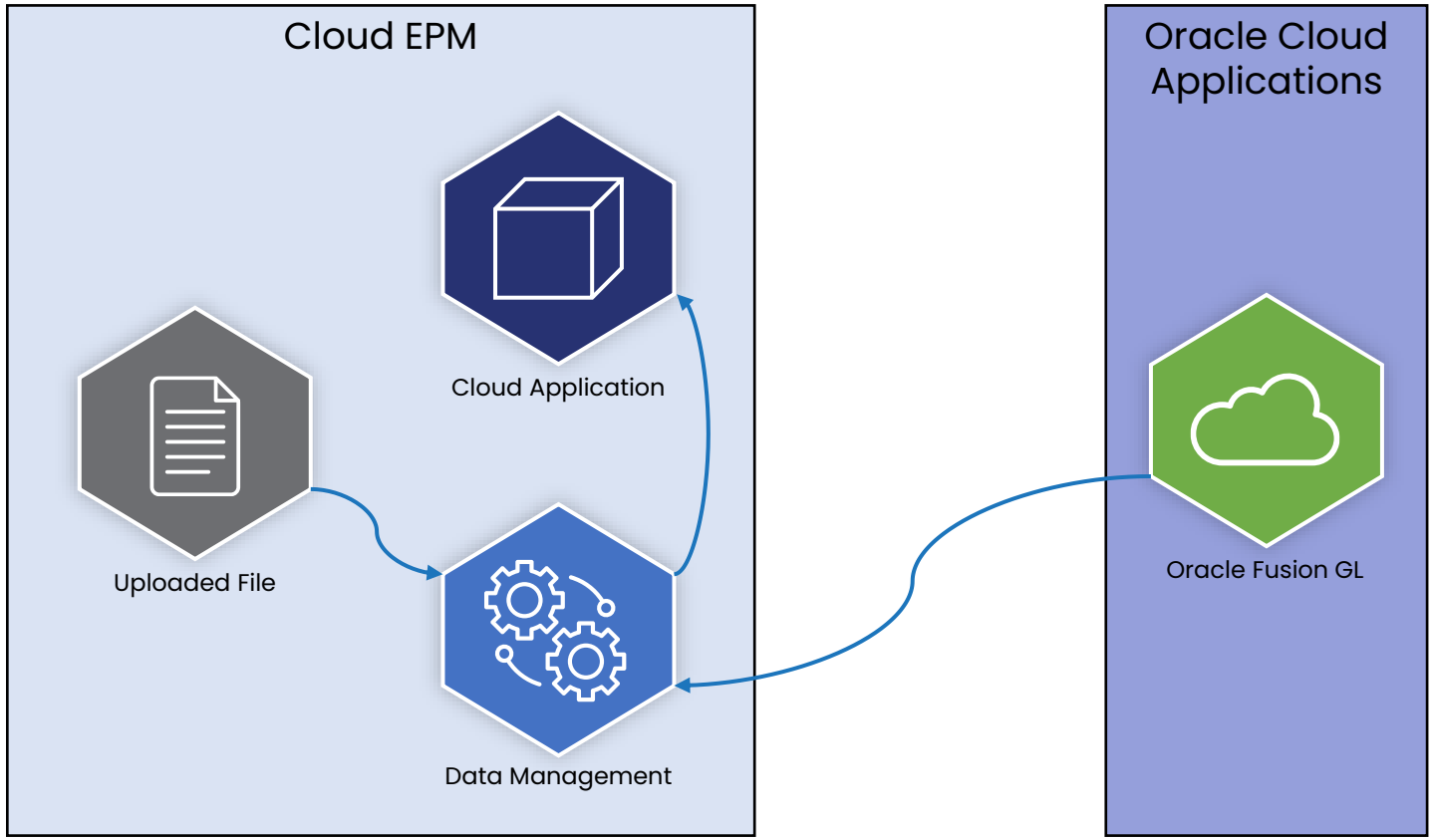
Data Management vs. Data Exchange

Overview

- Data Management
  - Traditional ETL tool used for loading and transforming data
  - Based on the on-premises tool Financial Data Quality Management Enterprise Edition (FDMEE) without the scripting engine
  - Supports file-based and direct-source integrations
  - Uses mapping rules for data transformation
  - Provides drill-through capabilities to source systems
  - Opens as a new window from the Oracle Cloud EPM application
- Data Exchange
  - Foundationally based on FDMEE
  - Still provides all baseline functionality of traditional Cloud Data Management (minus batches)
  - More than just a data integration tool
  - Data map functionality to transfer data between cubes and applications
  - Provides pipelines enabling true orchestration of automated processes
  - Inclusion of the missing link to on-premise systems while providing a full scripting engine that exceeds even FDMEE in terms of capabilities
  - Modernized and streamlined user interface accessed directly inside of each Oracle Cloud EPM application

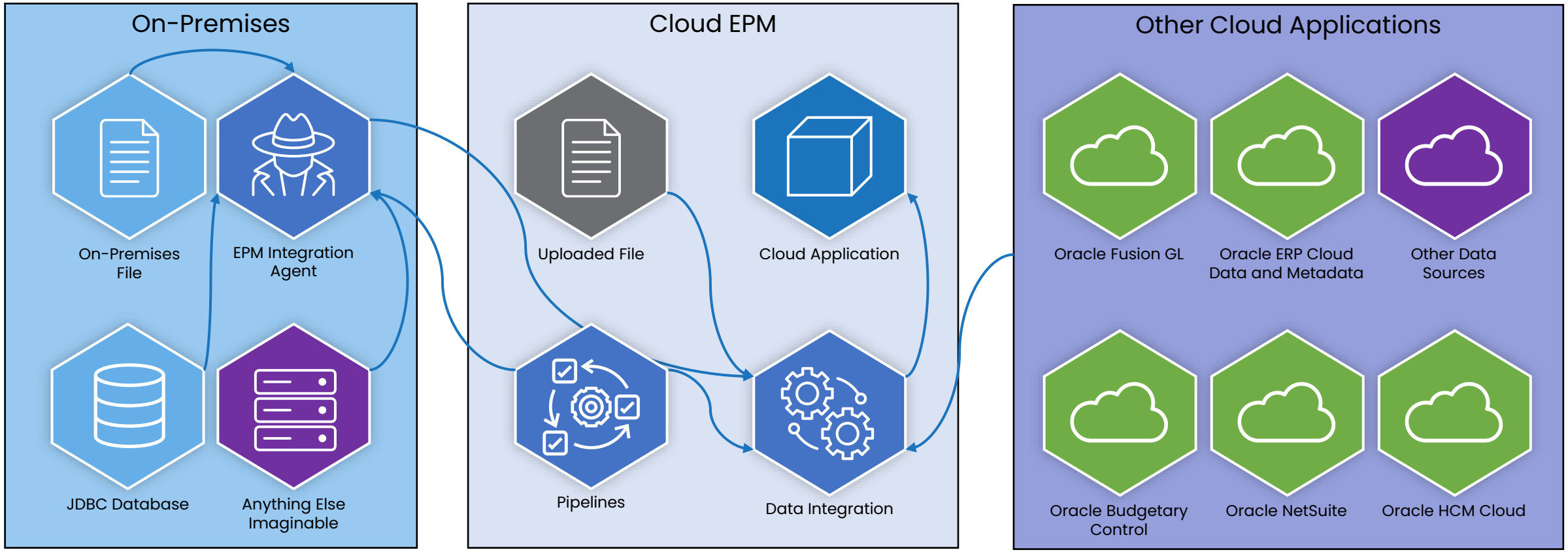
Data Management vs. Data Exchange

Data Management Architecture



Data Management vs. Data Exchange

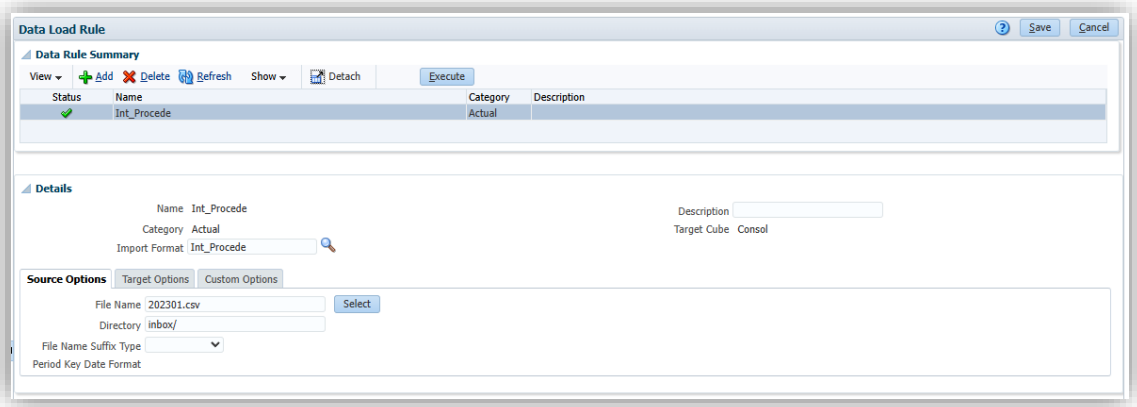
Data Exchange Architecture



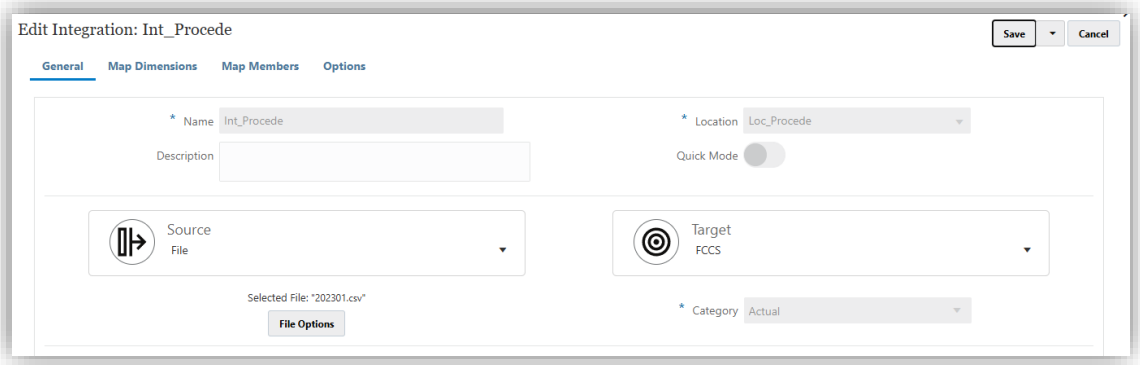
Data Management vs. Data Exchange

Data Load Rule

Data Management



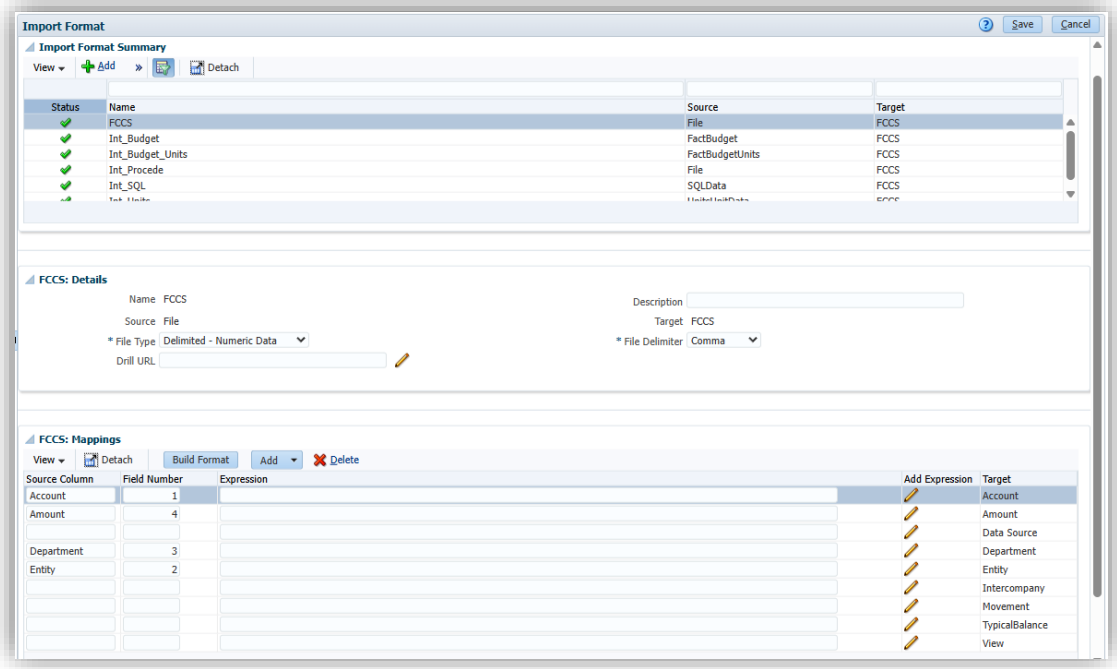
Data Exchange



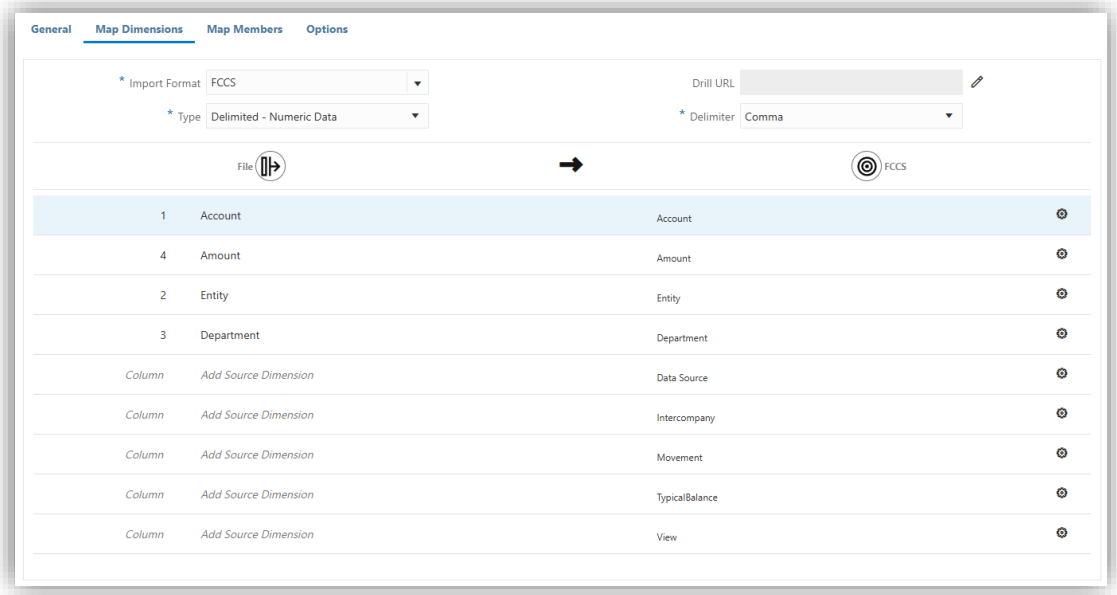
Data Management vs. Data Exchange

Import Format

Data Management



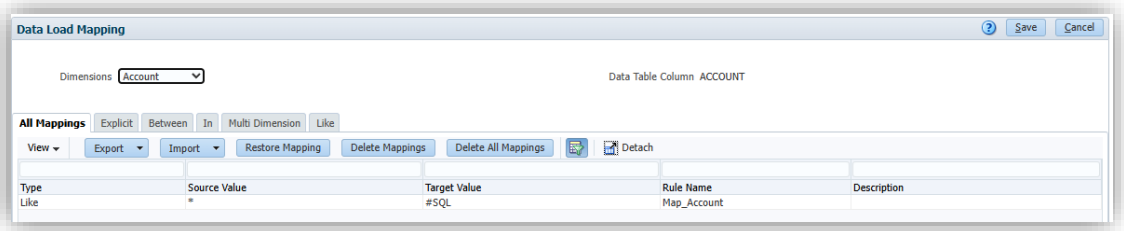
Data Exchange



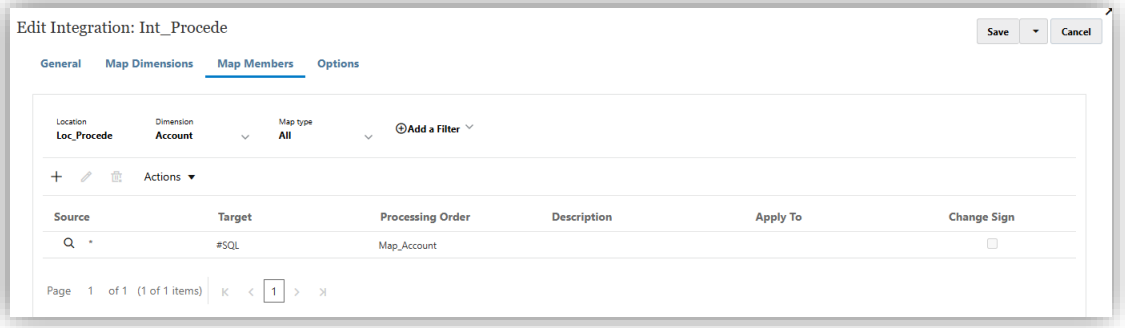
Data Management vs. Data Exchange

Data Mappings

Data Management



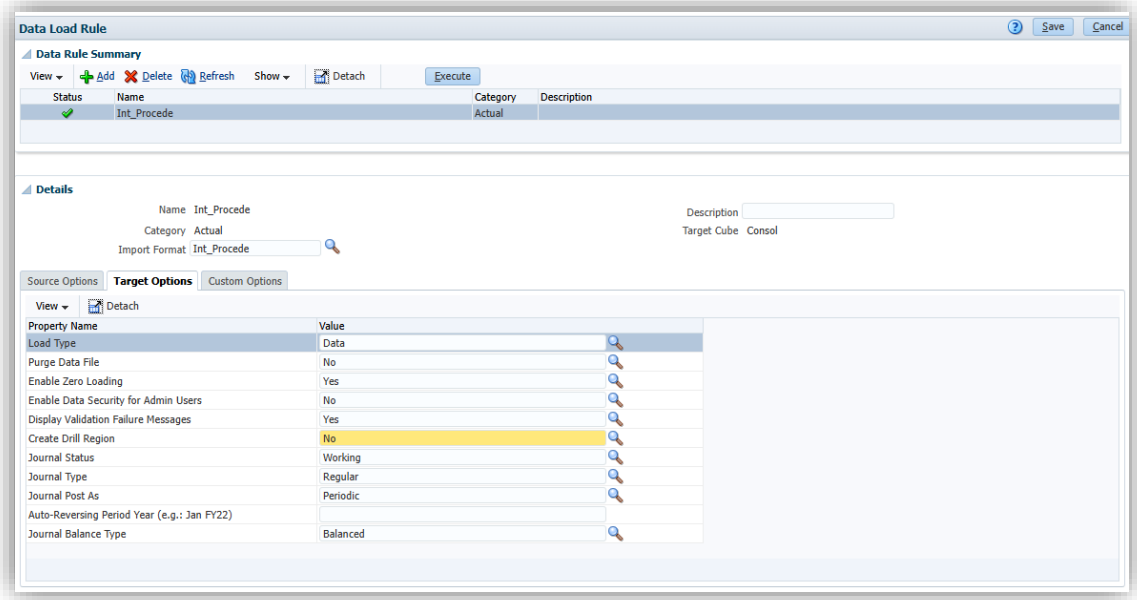
Data Exchange



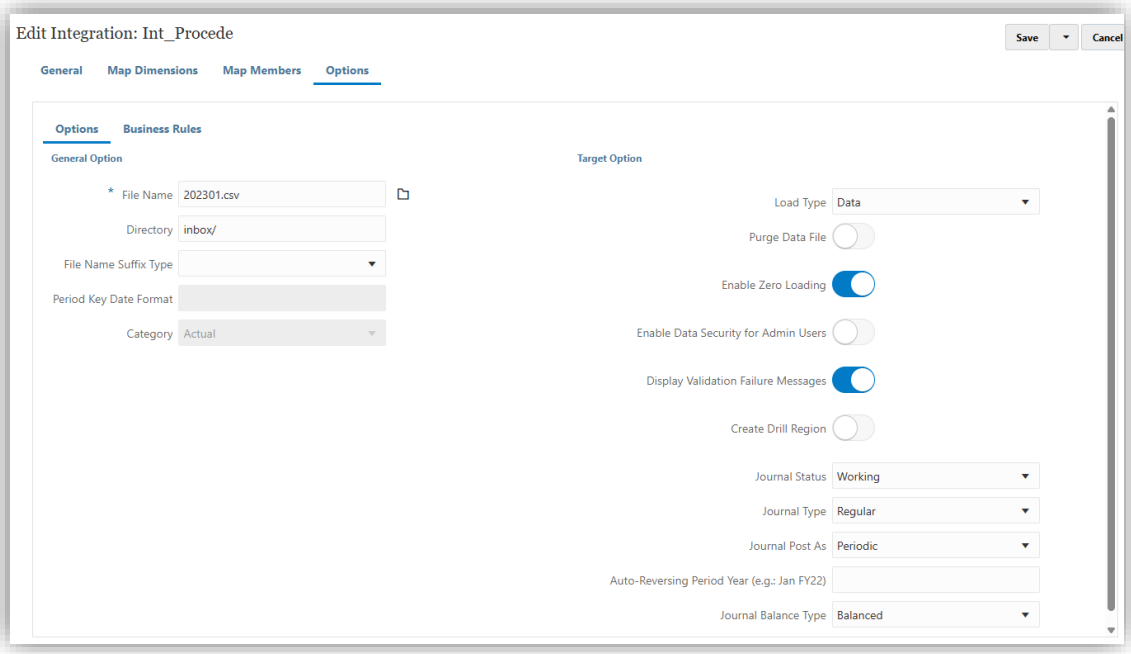
Data Management vs. Data Exchange

Load Rule Options

Data Management



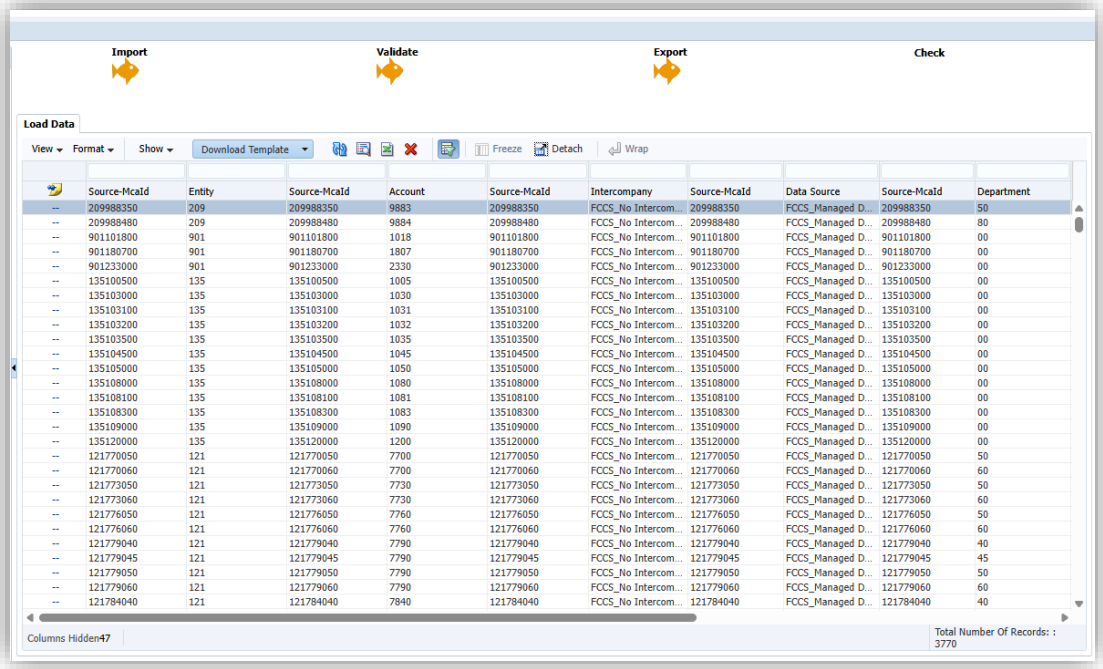
Data Exchange



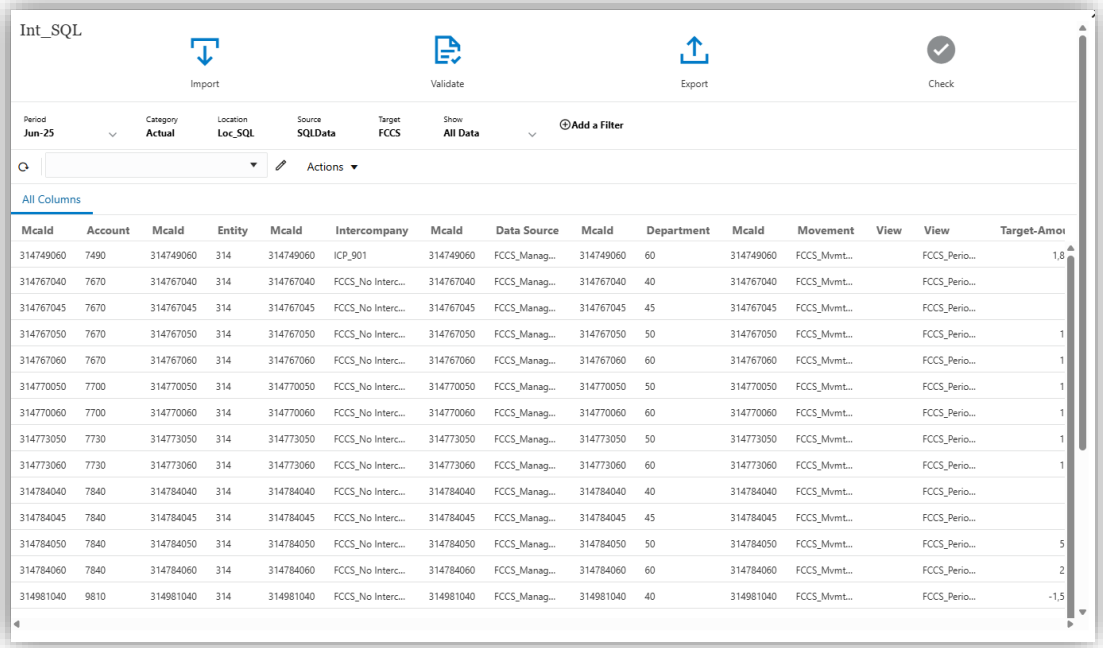
Data Management vs. Data Exchange

Workbench

Data Management



Data Exchange



Data Management vs. Data Exchange

Data Management

- Integration Types
  - Uploaded file-based integrations
  - Oracle Fusion GL integrations (from Essbase)
- Familiar (circa 2002) external interface
- Old-school Batch Operations (now deprecated)

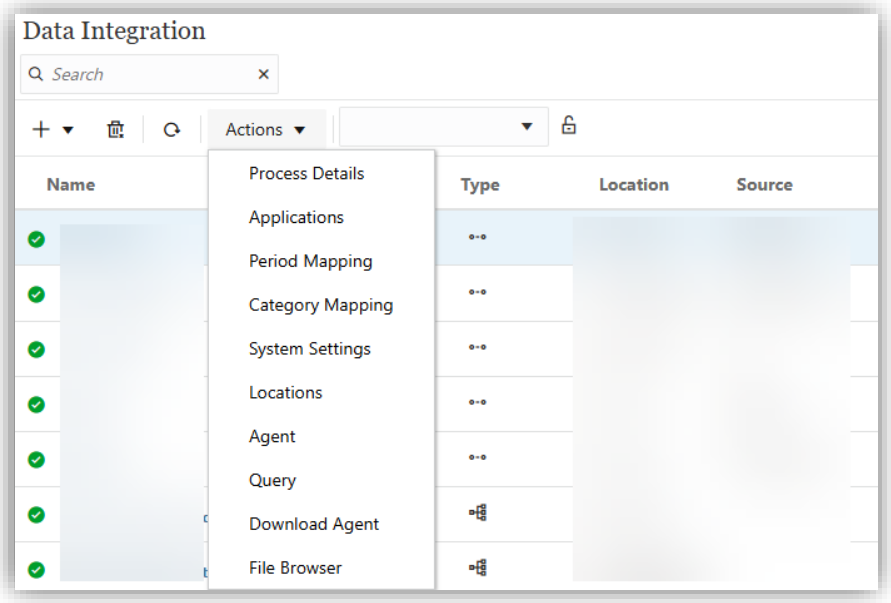
Data Exchange

- Integration Types
  - Uploaded file-based integrations
  - On-premises file-based integrations
  - On-premises databases
  - Oracle Fusion GL integrations (from Essbase)
  - Oracle ERP Cloud Metadata
  - Oracle ERP Cloud (not from Essbase)
  - Budgetary Control
  - Oracle NetSuite (using Saved Searches)
  - Oracle HCM Cloud
  - Quick Mode (for large data volumes)
  - And many more…
- Modernized interface built directly into the application (no new window)
- Pipeline process orchestration
- Data Maps
- EPM Integration Agent with full Groovy and Jython language support…including importing any class available

Data Integrations

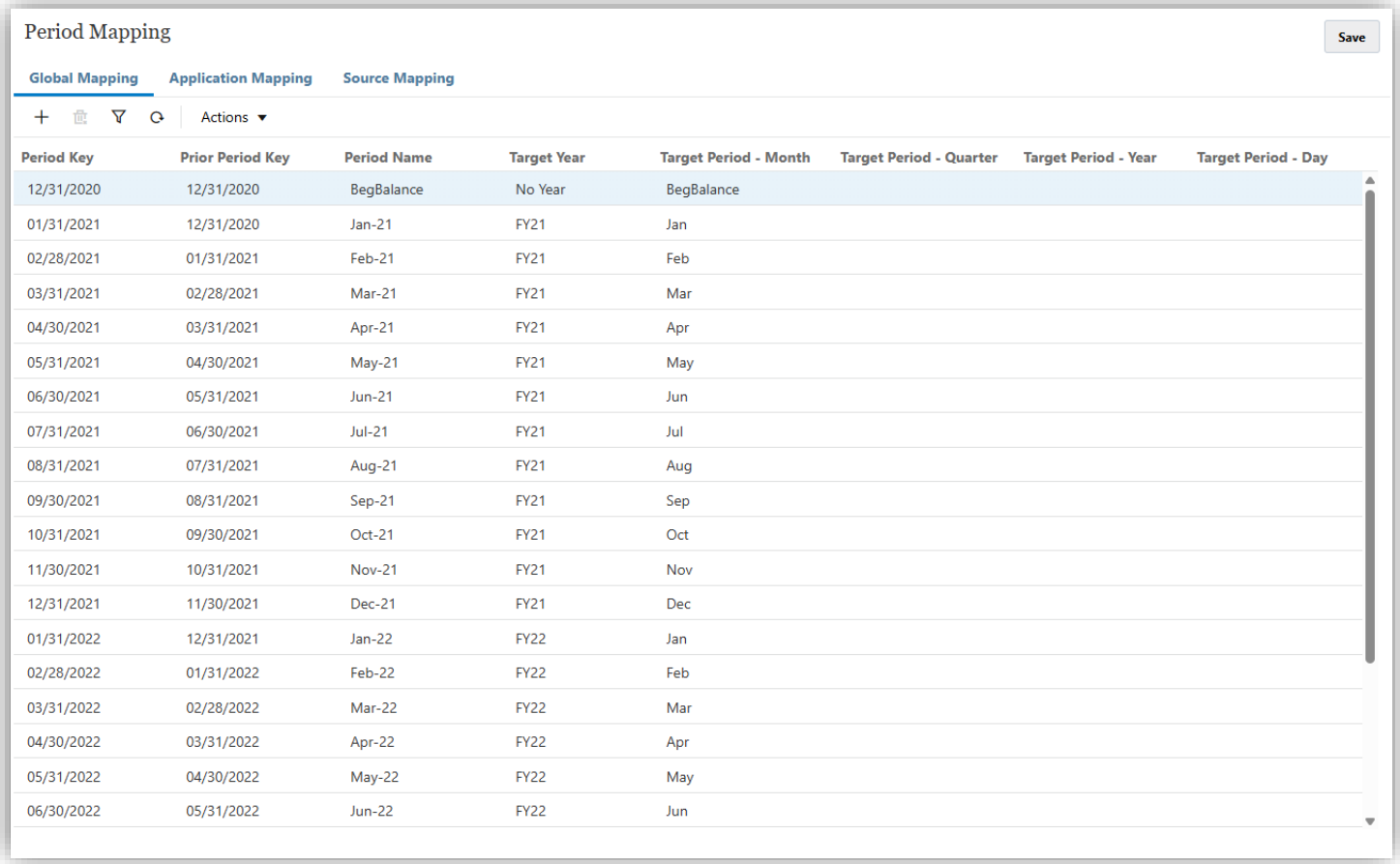
Overview

- Data integrations reorganize the disparate concepts found in data management of the data load rule, import format, data mappings, and options into a more streamlined interface
- Upon creation of a new data integration, the system builds out new objects throughout a more “wizard-like” organization
- While you can select already existing objects (import formats and locations), by default these objects are created for you along the way
- The concepts from FDMEE and Data Management are still present (given that the back-end hasn’t really changed), but the new interface makes for a better overall user experience
- New interfaces for everything that support data integrations:
  - Period Mappings
  - Category Mappings
  - Locations
  - Applications (and Connections)



Data Integrations

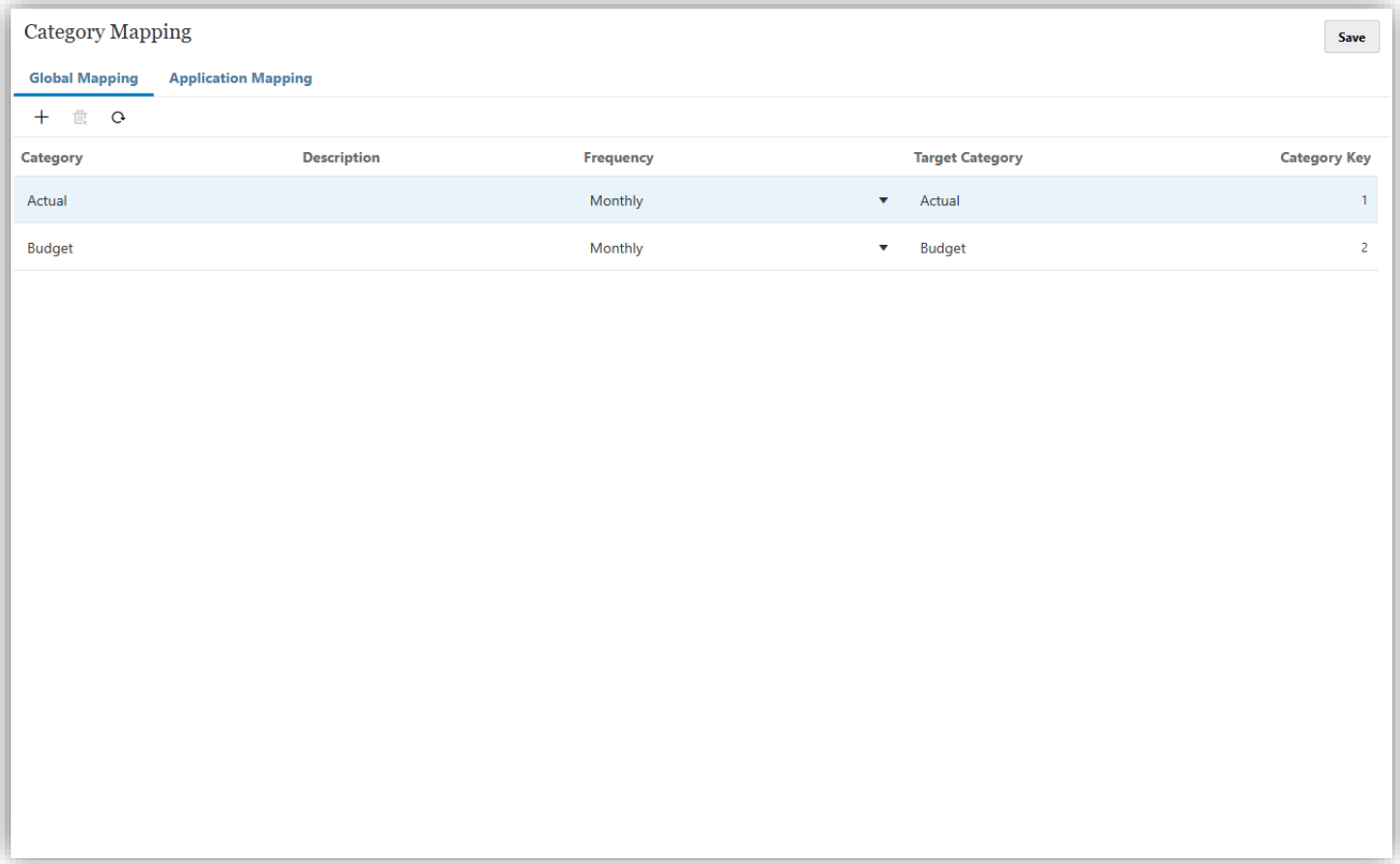
Period Mappings



Period Key	Prior Period Key	Period Name	Target Year	Target Period - Month	Target Period - Quarter	Target Period - Year	Target Period - Day
12/31/2020	12/31/2020	BegBalance	No Year	BegBalance			
01/31/2021	12/31/2020	Jan-21	FY21	Jan			
02/28/2021	01/31/2021	Feb-21	FY21	Feb			
03/31/2021	02/28/2021	Mar-21	FY21	Mar			
04/30/2021	03/31/2021	Apr-21	FY21	Apr			
05/31/2021	04/30/2021	May-21	FY21	May			
06/30/2021	05/31/2021	Jun-21	FY21	Jun			
07/31/2021	06/30/2021	Jul-21	FY21	Jul			
08/31/2021	07/31/2021	Aug-21	FY21	Aug			
09/30/2021	08/31/2021	Sep-21	FY21	Sep			
10/31/2021	09/30/2021	Oct-21	FY21	Oct			
11/30/2021	10/31/2021	Nov-21	FY21	Nov			
12/31/2021	11/30/2021	Dec-21	FY21	Dec			
01/31/2022	12/31/2021	Jan-22	FY22	Jan			
02/28/2022	01/31/2022	Feb-22	FY22	Feb			
03/31/2022	02/28/2022	Mar-22	FY22	Mar			
04/30/2022	03/31/2022	Apr-22	FY22	Apr			
05/31/2022	04/30/2022	May-22	FY22	May			
06/30/2022	05/31/2022	Jun-22	FY22	Jun			

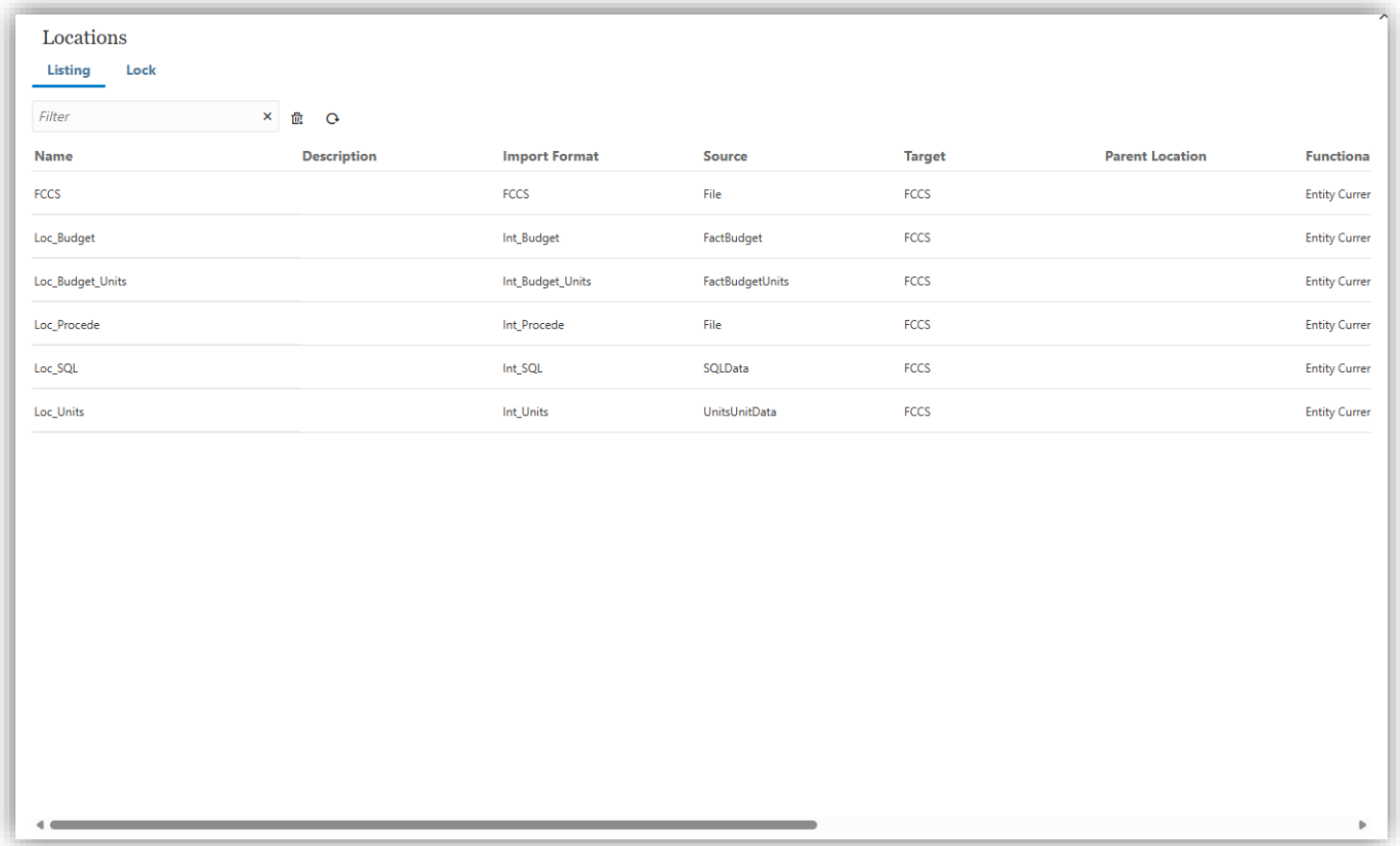
Data Integrations

Category Mappings



Data Integrations

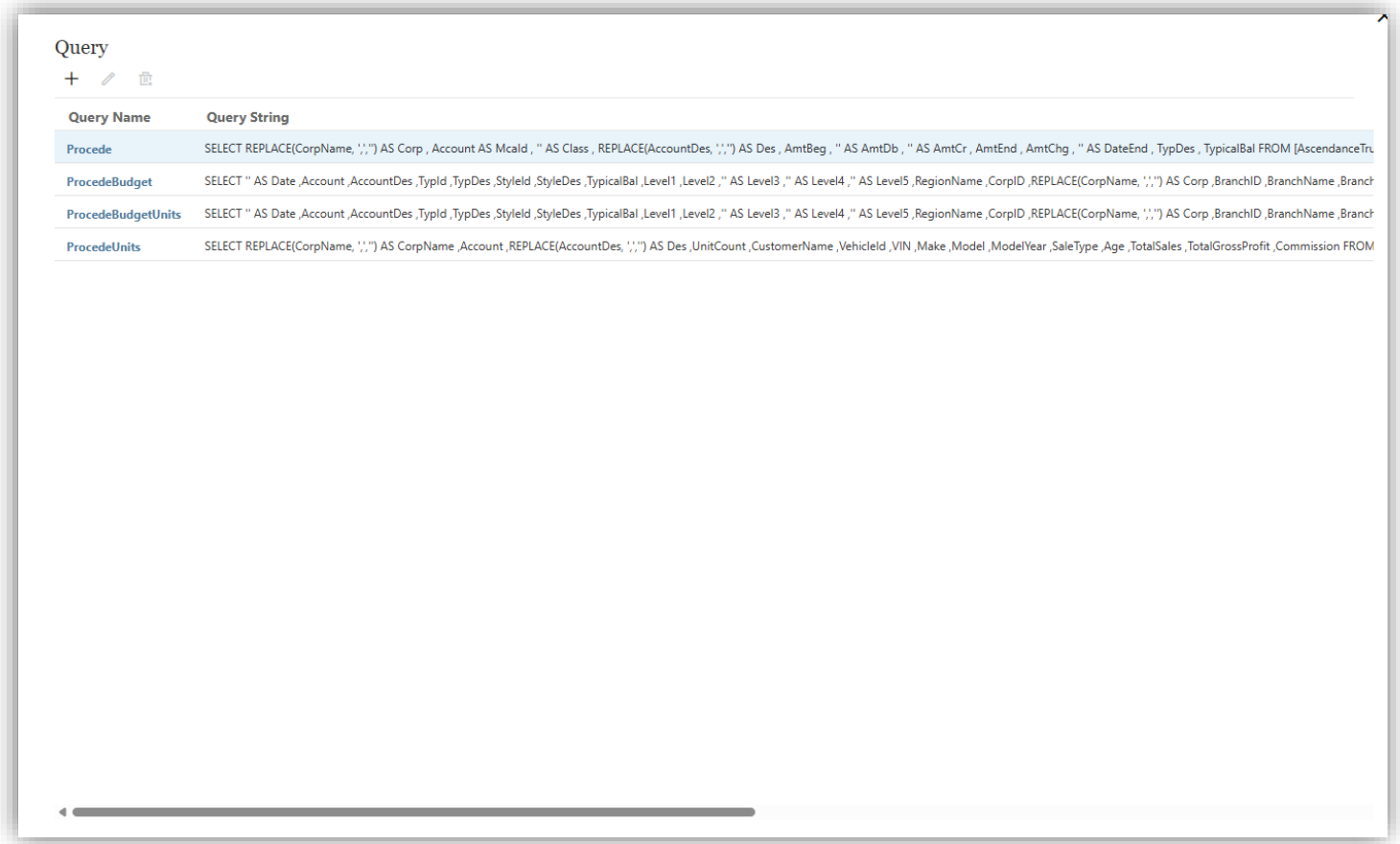
Locations



Name	Description	Import Format	Source	Target	Parent Location	Functiona
FCCS		FCCS	File	FCCS		Entity Currer
Loc_Budget		Int_Budget	FactBudget	FCCS		Entity Currer
Loc_Budget_Units		Int_Budget_Units	FactBudgetUnits	FCCS		Entity Currer
Loc_Procede		Int_Procede	File	FCCS		Entity Currer
Loc_SQL		Int_SQL	SQLData	FCCS		Entity Currer
Loc_Units		Int_Units	UnitsUnitData	FCCS		Entity Currer

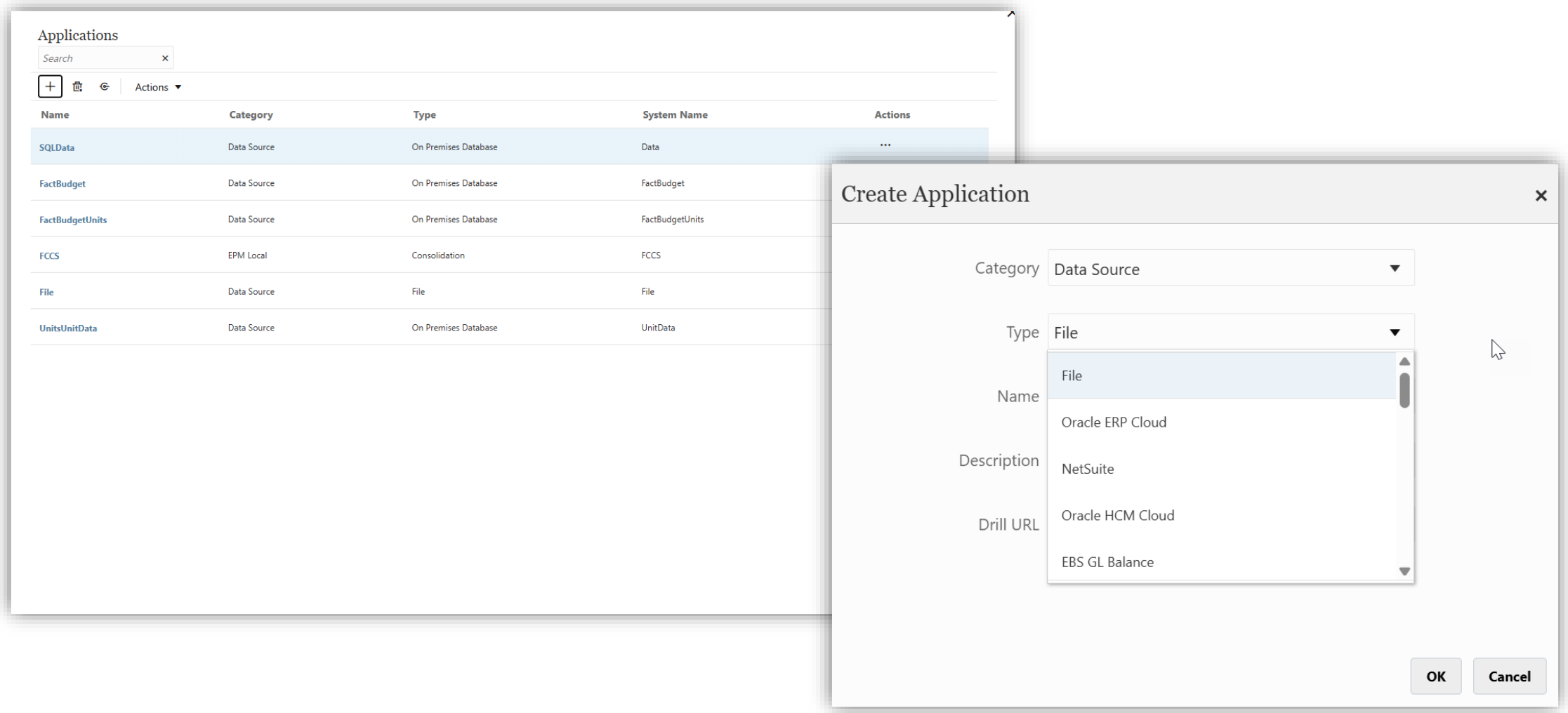
Data Integrations

Query (more on this later)



Data Integrations

Applications (and Connections)



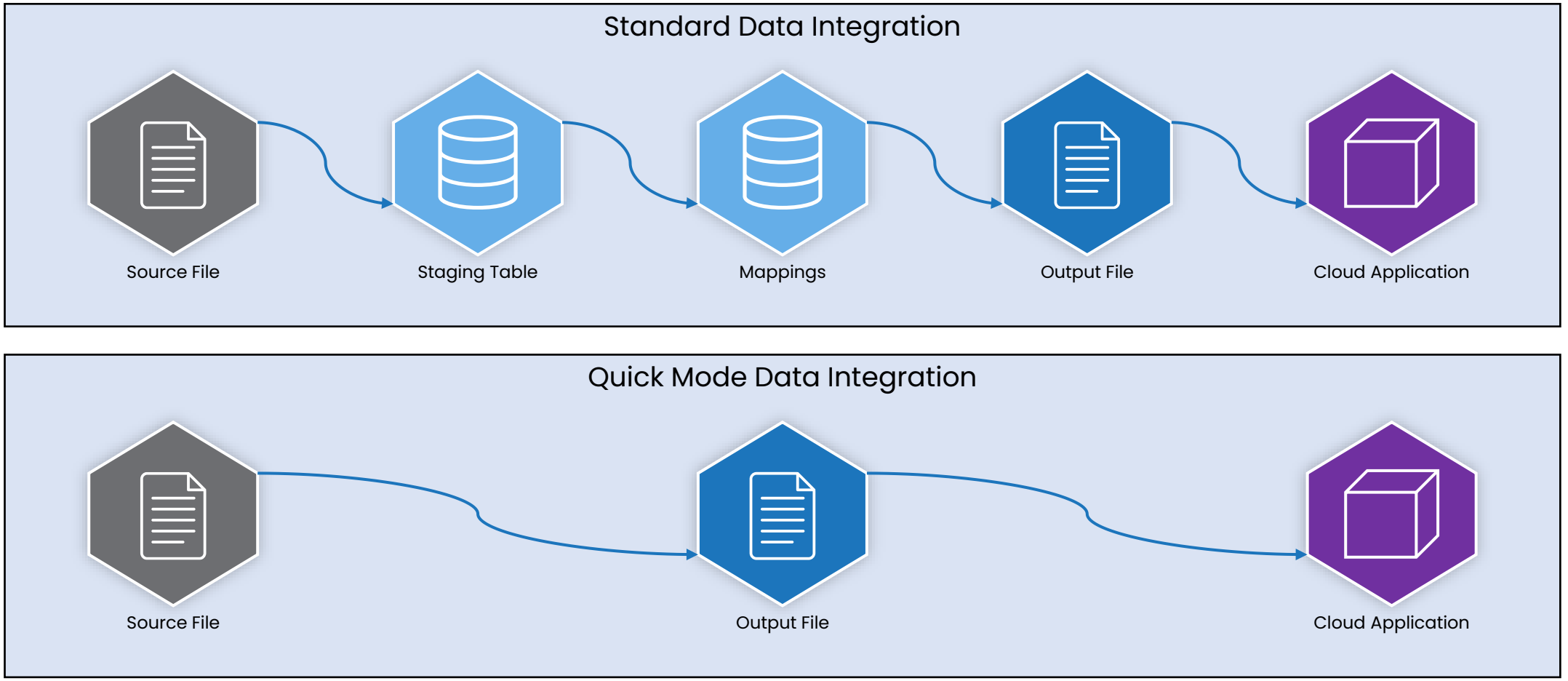
Quick Mode

Overview

- In a traditional data integration, data loads from a source to a staging table, has mappings applied, and eventually gets exports to an output file that is loaded into the EPM application
- While this works great and offers the greatest mapping functionality and auditing capabilities…the more data you have, the slower the process can be
- In many instances where we need hundreds of thousands of rows of data or even millions of rows of data…a traditional data integration isn't going to cut it
- Enter Quick Mode
- Quick mode takes the database components out of the process leaving operations done in memory and directly on the file system
- This limits our options for data mappings to very basic expressions for mappings and creates a native Essbase file
- A native Essbase file means that we also can't use this type of integration on non-Essbase applications…like Account Reconciliation
- Even better…there is a method to create a connection to an on-premises database specifically with Quick Mode, enabling giant queries to load rapidly with the EPM Integration Agent (more on this later)

Quick Mode

Data Integration vs. Quick Mode



Data Maps

Overview

- While Data Maps have been available since nearly the beginning of the Oracle Cloud EPM platform, they have evolved and extended their functionality over time
- Data Maps provide a way to move data from cube to cube inside of a single application or from one cube in one application to another cube in a remote application
- To top it off, Data Maps work in concert with Smart Push to provide near real-time replication of data between applications
- Data Maps offer actual mapping functionality, though somewhat limited
- There are still limitations including dynamic member support and data volume limits
- If Data Maps can't facilitate the functional need…we can always use Groovy as a get of jail free card for things like dynamic members

Data Maps

Supported Sources and Targets

Sources

- BSO Plan Types
- ASO Plan Types
- Free Form applications
- Profitability and Cost
- Strategic Modeling

Targets

- BSO Plan Types
- ASO Plan Types
- Free Form applications
- Profitability and Cost
- Strategic Modeling
- FCCS
- TRCS

Pipelines

Overview

- Created as a replacement for the batch functionality built into Data Management…so that Oracle can retire Data Management
- Far more graphically pleasing and sophisticated than the original batch functionality in Data Management
- Makes use of the REST API for Oracle EPM in conjunction with the back-end repository of Data Exchange (which is really the original FDMEE)
- Provides excellent, albeit un-customizable email notifications including log attachments
- When paired with the Oracle EPM Integration Agent, Pipelines provide a full orchestration component that Cloud EPM has needed for years

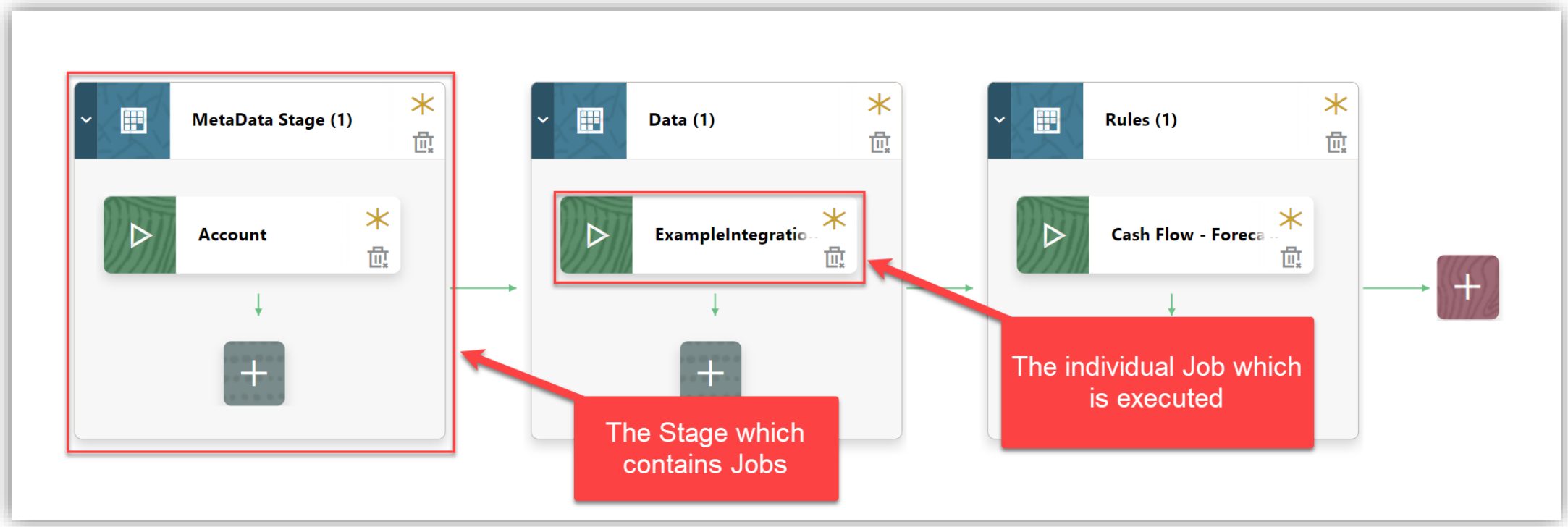
Pipelines

What makes up a pipeline?

- Pipeline
  - Contains the settings specific to the pipeline through variables
  - There are built-in variables like start and end date that are specific to integrations
  - There are other built-in variables: email settings, log attachment settings, etc
  - Pipelines contain stages
- Stages
  - Each pipeline is made up of stages
  - Stages contain jobs and can be set to execute in parallel with one another
  - Stages control the flow through the pipeline, for instance if a stage has a failed job, it can be set to continue to the next stage or stop altogether
- Jobs
  - Each stage is made up of jobs
  - Job have a variety and ever-expanding set of job types that perform various activities in the Oracle Cloud EPM Platform
  - Once a pipeline has been executed, you can see the status of the jobs for the latest run in the GUI

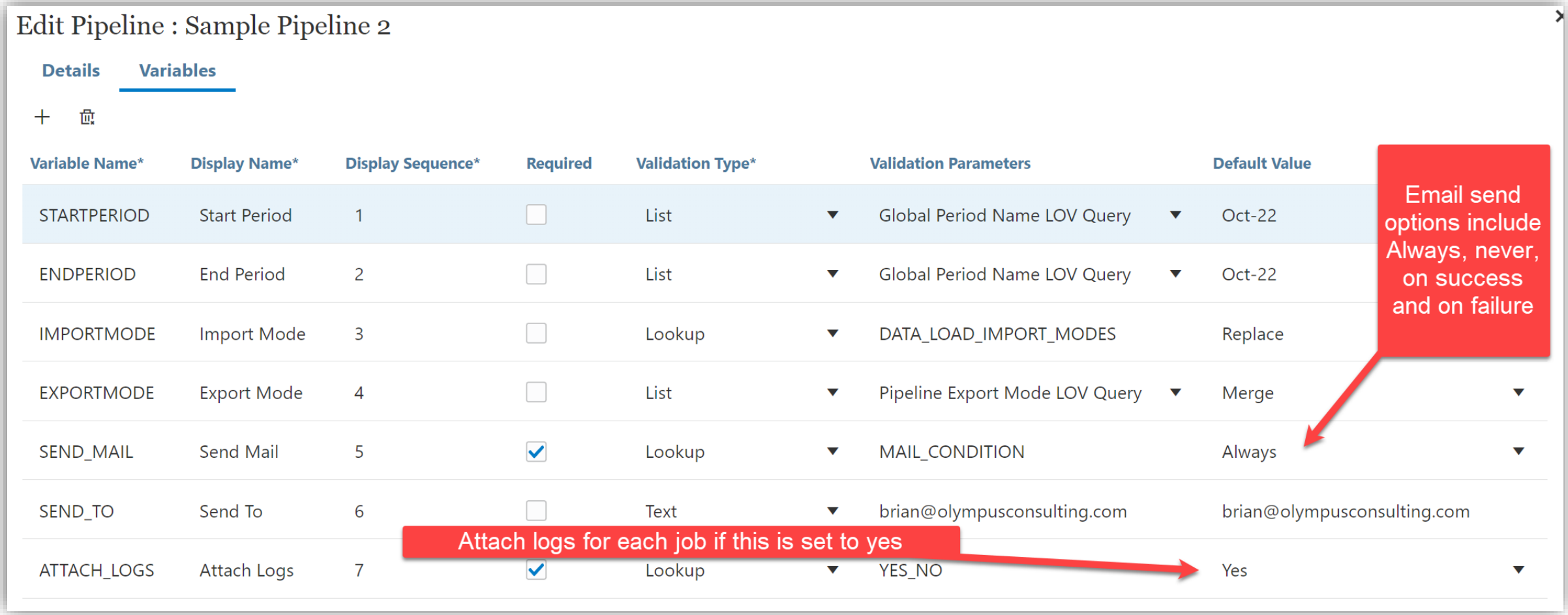
Pipelines

Stages and Jobs



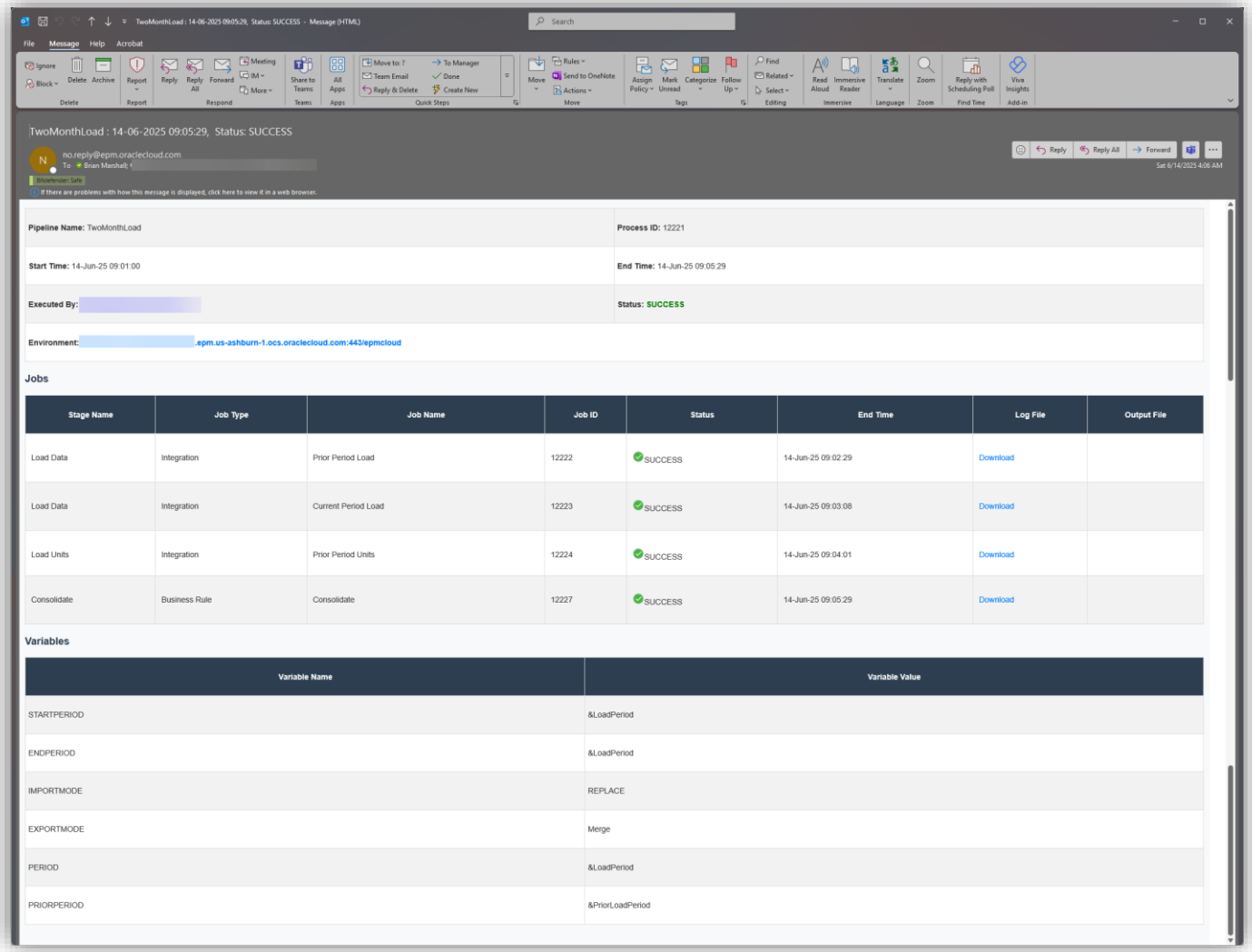
Pipelines

Settings



Pipelines

Sample Email Notification



TwoMonthLoad : 14-06-2025 09:05:29, Status: SUCCESS

no.reply@epm.oraclecloud.com

Pipeline Name: TwoMonthLoad | **Process ID:** 12221

Start Time: 14-Jun-25 09:01:00 | **End Time:** 14-Jun-25 09:05:29

Executed By: [redacted] | **Status:** SUCCESS

Environment: [redacted].epm.us-ashburn-1.ocs.oraclecloud.com:443/epmcloud

Jobs

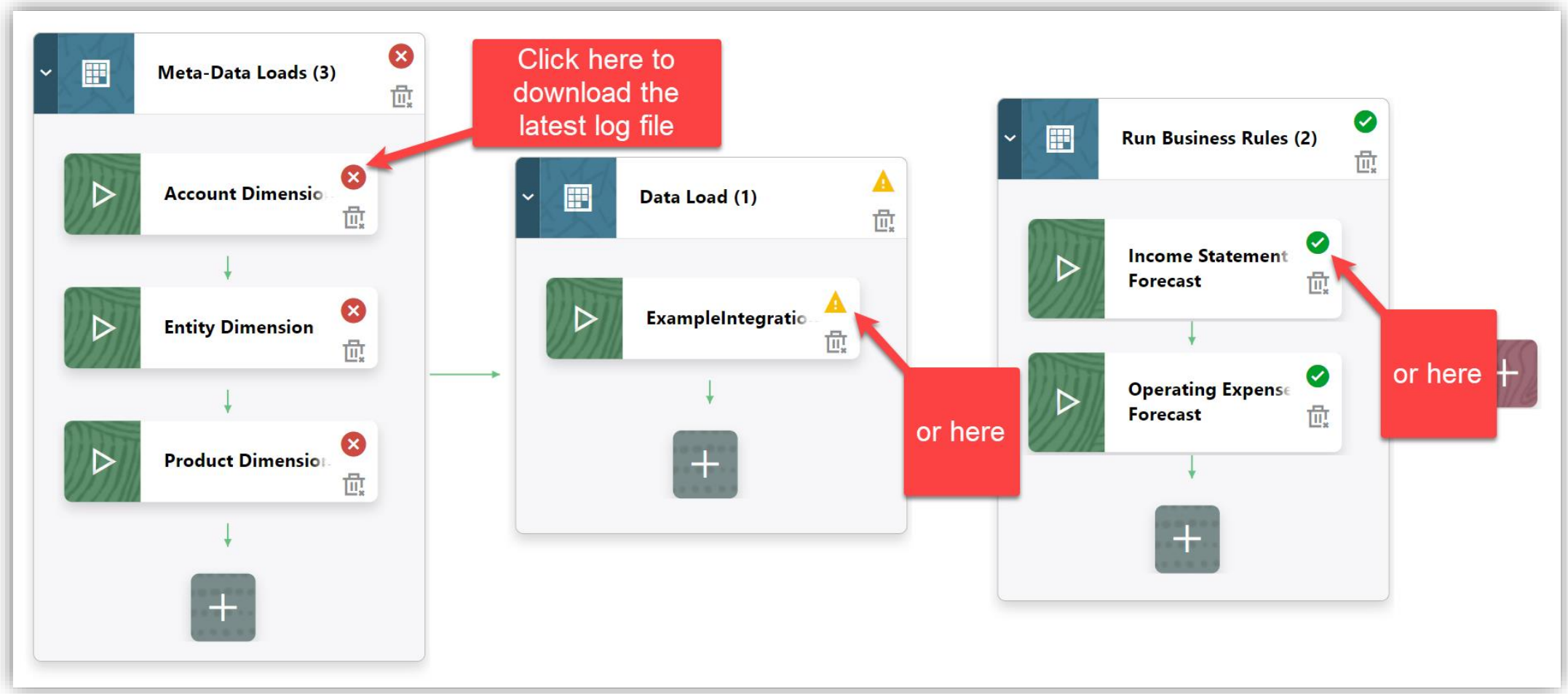
Stage Name	Job Type	Job Name	Job ID	Status	End Time	Log File	Output File
Load Data	Integration	Prior Period Load	12222	SUCCESS	14-Jun-25 09:02:29	Download	
Load Data	Integration	Current Period Load	12223	SUCCESS	14-Jun-25 09:03:08	Download	
Load Units	Integration	Prior Period Units	12224	SUCCESS	14-Jun-25 09:04:01	Download	
Consolidate	Business Rule	Consolidate	12227	SUCCESS	14-Jun-25 09:05:29	Download	

Variables

Variable Name	Variable Value
STARTPERIOD	&LoadPeriod
ENDPERIOD	&LoadPeriod
IMPORTMODE	REPLACE
EXPORTMODE	Merge
PERIOD	&LoadPeriod
PRIORPERIOD	&PriorLoadPeriod

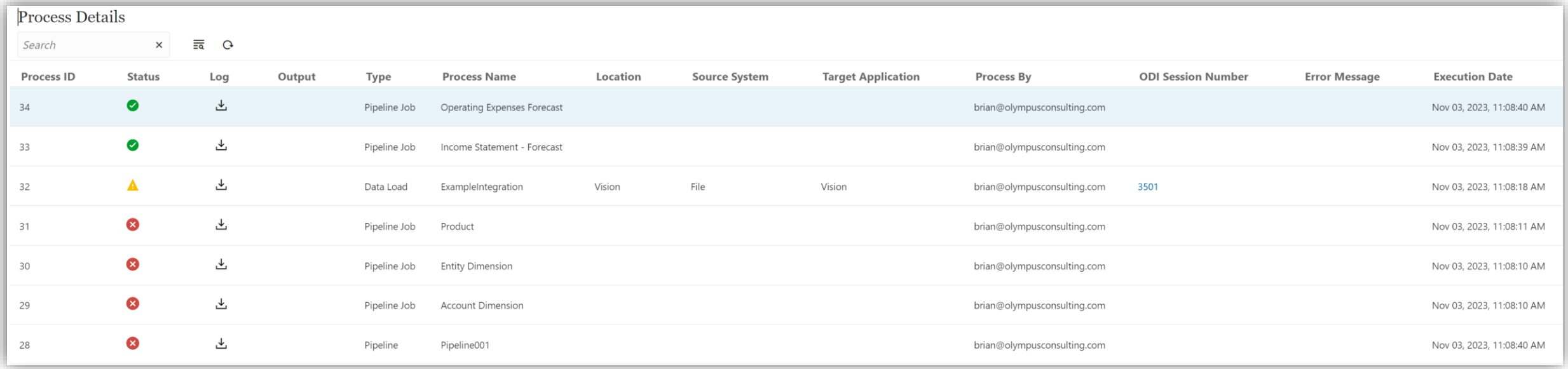
Pipelines

Logs in the GUI



Pipelines

Process Details…now with Pipelines



Process ID	Status	Log	Output	Type	Process Name	Location	Source System	Target Application	Process By	ODI Session Number	Error Message	Execution Date
34	✓	↓		Pipeline Job	Operating Expenses Forecast				brian@olympusconsulting.com			Nov 03, 2023, 11:08:40 AM
33	✓	↓		Pipeline Job	Income Statement - Forecast				brian@olympusconsulting.com			Nov 03, 2023, 11:08:39 AM
32	⚠	↓		Data Load	ExampleIntegration	Vision	File	Vision	brian@olympusconsulting.com	3501		Nov 03, 2023, 11:08:18 AM
31	✗	↓		Pipeline Job	Product				brian@olympusconsulting.com			Nov 03, 2023, 11:08:11 AM
30	✗	↓		Pipeline Job	Entity Dimension				brian@olympusconsulting.com			Nov 03, 2023, 11:08:10 AM
29	✗	↓		Pipeline Job	Account Dimension				brian@olympusconsulting.com			Nov 03, 2023, 11:08:10 AM
28	✗	↓		Pipeline	Pipeline001				brian@olympusconsulting.com			Nov 03, 2023, 11:08:40 AM

EPM Integration Agent

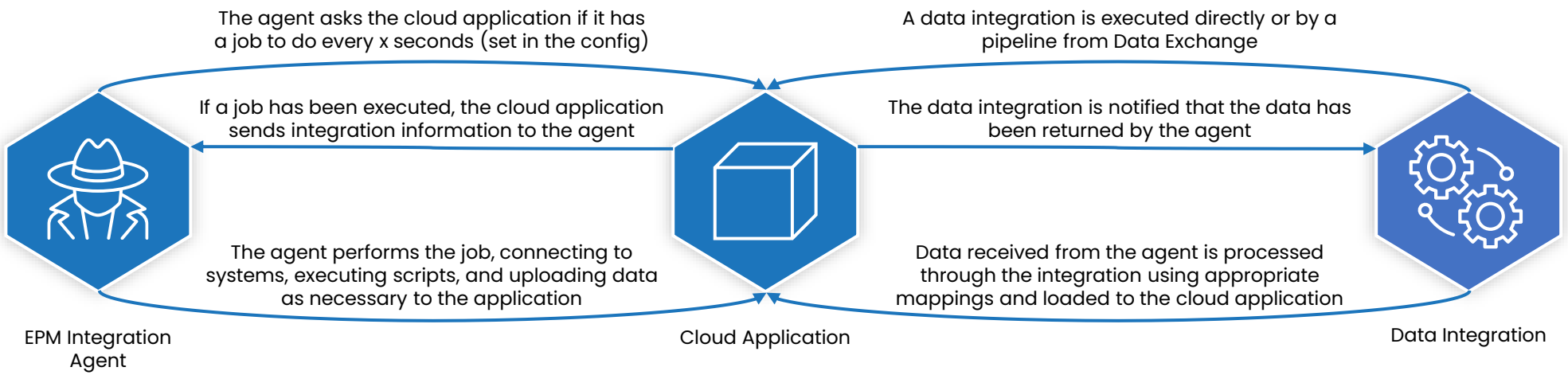
Overview

- Created to allow the Oracle Cloud EPM platform to connect to local on-premises data sources with both synchronous and asynchronous modes of execution
- Enables Cloud EPM applications to execute integrations locally giving access to a variable of options:
  - On-premises Flat Files
  - On-premises Databases (Oracle, SQL Server, other databases that provide a JDBC driver)
  - Pre-seeded EBS Queries
  - Pre-seeded PeopleSoft GL Queries
  - Writeback to SQL databases
- SQL code that is executed on the local server by the agent is still maintained via the web interface in the Oracle Cloud EPM application
- Provides a full scripting engine with Groovy and Jython language options and a host of features:
  - Four events to execute scripting
  - API Methods
  - Context Functions
- The final link to create a world-class automated application

EPM Integration Agent

How Does it Work…Asynchronous

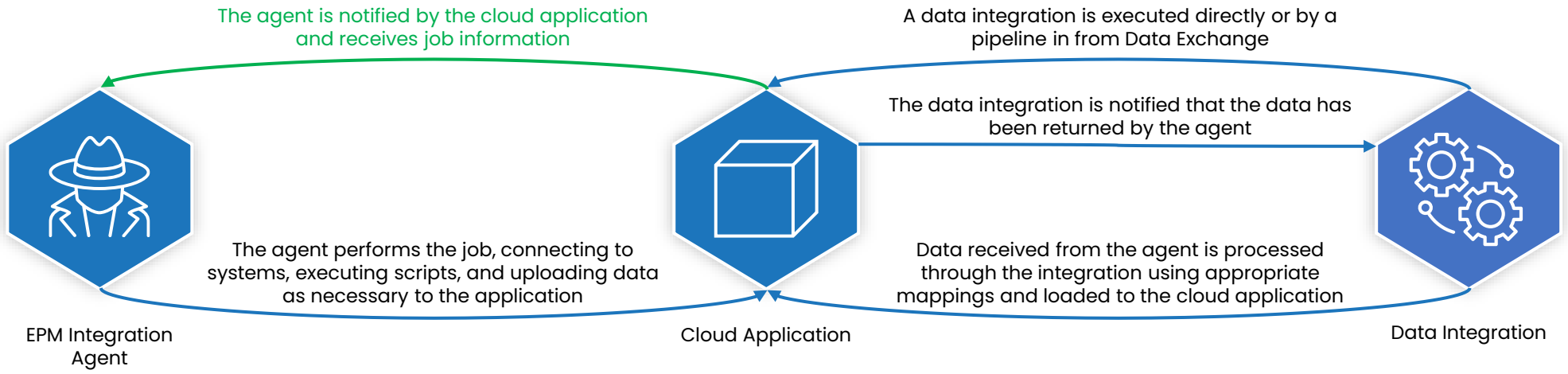
- The most common implementation of the EPM Integration Agent is asynchronous mode as it requires the least amount of overall configuration
- This implementation requires the same level of access to the cloud application as EPM automate…so not much



EPM Integration Agent

How Does it Work…Synchronous

- Far less common than an asynchronous configuration, the synchronous configuration takes the waiting out of job execution
- No x seconds to wait to see if a job is process
- Requires that the cloud application has an open line of communication to the agent
- Requires significant effort by IT to configure and ensure security for such a connection



EPM Integration Agent

Event Scripting

- When Data Management first made an appearance in the cloud, one of the biggest and most used features that couldn't be migrated was Event Scripting
- While unfortunate, it made sense that Oracle didn't want to support custom code and classes on their tightly managed infrastructure
- With the EPM Integration Agent, we finally get that functionality back…and better than ever
- The agent supports more than just Jython this time with the addition of Groovy
- API methods are available, much like those that were available in FDMEE with Event Scripting…but now include Groovy as well
- Context functions have also been included to ensure that event scripts can be fine-tuned for the functional process at hand

EPM Integration Agent

Events

- Much like the FDMEE Event Script of yesteryear, each script is maintained for the entire agent, regardless of integration
- This means that we have specific files that must be updated and maintained for reach event
- If we use Groovy, we have to ensure that we actually have Groovy installed on the server and the path for the bin directory properly set in the config
- Events
  - Before Extract
    - Script executed before the agent extract processing. If you want to perform any processing prior to the SQL processing, that code should be included in this script.
    - BefExtract.groovy
  - After Extract
    - Script executed after the agent extract processing. After the extract a file is prepared, which includes the job id with the .dat suffix in the agent/MyData/data local folder
    - AftExtract.groovy
  - Before Upload
    - Script executed before the data file is uploaded to the Cloud EPM. The file uploaded to the Cloud EPM is the <jobID>.dat file from the agent/MyData/data folder.
    - BefUpload.groovy
  - After Upload
    - Script executed after the data file is uploaded to the Cloud EPM.
    - AftUpload.groovy

EPM Integration Agent

API Methods

- In continuing with the trend of the similarity to the classic FDMEE Event Scripting, there are various API methods that allow us to perform actions during the execution of scripts
  - logInfo() – Write out information to the log file
  - logError() – Write out an error to the log file
  - setBindVariables() – Update variables
  - getBindVariables() – Get the value of variables
  - getQuery() – Fetch the query that is being executed
  - updateQuery() – Modify the query that is being executed
  - skipAction() – Probably the most commonly used API method…essentially stop the step in the script action and move to the next
  - getConnectionDetails() – Fetch the connection details (username, URL, etc)
  - setCustomConnectio(conn) – Change the connection from SQL Server or Oracle (the only two options on the web) to a custom JDBC driver and connection URL

EPM Integration Agent

Context Functions

- Why stop now when we can continue with the trend of the similarity to the classic FDMEE Event Scripting, this time with Context
- Context Functions are available by simply referencing agentContext[“VARIABLENAME”] in the event script
- These functions are essential for ensuring that code is only executed for appropriate integrations or locations, as an example
- Context Functions:
  - JOBTYPE
  - EPM_APP_DATA_HOME
  - DELIMITER
  - DATAFILENAME
  - JOBID
  - INTEGRATION
  - WRITEBACK_DATA_FILE
  - LOCATION
  - SOURCE_APPLICATION
  - TARGET_APPLICATION

Complex…Yet Elegant

To provide context for what Data Exchange as a full automation and orchestration tool can provide, here is a sample flow from a client using just about everything…and the kitchen sink:

- Data Integration to execute SQL scripts from an on-premises database to create and upload data mappings and meta-data files using full Groovy event scripts with the EPM Integration Agent
- Import meta-data previously uploaded using Groovy and the EPM Integration Agent to ensure that all dimensions have been updated and the Essbase cube has be refreshed
- Import data mappings previously uploaded using Groovy and the EPM Integration Agent to prepare for data loads
- Import data from the on-premises database using a query managed from the cloud and Quick Mode to ensure maximum performance with the EPM Integration Agent
- Import data from NetSuite directly using a saved search and the mappings uploaded previous from the on-premises database
- The entire process which loads significant data (hundreds of thousands of records into a cube with hundreds of thousands of members) takes less than 15 minutes to run each night and less than 5 minutes during the day-time processes

The Next Olympus Session

Unlocking the Potential of Oracle EPM Reports: From Zero to Sixty

Wednesday @ 2:40 in Grapevine 3

The ability to create insightful and impactful reports is key to harnessing the full potential of Oracle EPM, delivering value to users, management, and executives alike. This session will walk attendees who are new to Oracle's EPM Reports platform through the process of building data-driven, well-formatted reports from the ground up, breaking down the complexities of report creation into manageable, easy-to-follow steps. By demystifying report creation, attendees will gain the confidence to design essential reports, such as Income Statements and Balance Sheets, tailored to their organization's unique needs. Armed with this knowledge, users can go on to explore and utilize the full power of the EPM Reports platform.

North Texas Oracle EPM User Group Meeting

When: September 18, 2025, 3:00 – 6:30

Where: Pinstack @ 6205 Dallas Pkwy, Plano, TX 75024

What: Presentations by Oracle, Olympus, and Customers followed by Bowling, Beverages, and Appetizers

Full Agenda:

2:45	**Arrival and Check In**
3:00	**Oracle Presentation**, Al Marciante, Vice President, Product Management at Oracle
3:30	**More Than Just Data Management…Data Exchange**, Brian Marshall, Partner at Olympus Consulting
4:15	**Client Success Story**, How Oracle Cloud EPM reduced costs and time to close
5:00	**Bowling, Beverages, and Bites**

Registration

THANK YOU

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