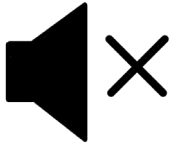# Configure EDC Metadex Scanner with Microsoft SSIS, SSRS and SQL Server Stored Procedures

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Housekeeping Tips

- Today's Webinar is scheduled for 1 hour

- The session will include a webcast and then your questions will be answered live at the end of the presentation

- All dial-in participants will be muted to enable the speakers to present without interruption

- Questions can be submitted to "All Panelists" via the Q&A option and we will respond at the end of the presentation

- The webinar is being recorded and will be available on our INFASupport YouTube channel and Success Portal - where you can download the slide deck for the presentation. The link to the recording will be emailed as well.

- Please take time to complete the post-webinar survey and provide your feedback and suggestions for upcoming topics.
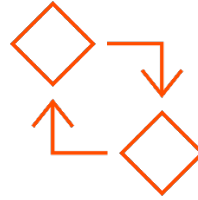
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Feature Rich Success Portal
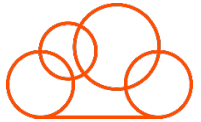
Bootstrap trial and POC Customers

Enriched Customer Onboarding experience
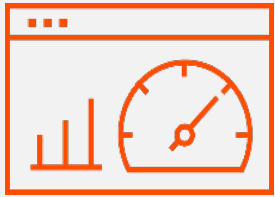
Product Learning Paths and Weekly Expert Sessions
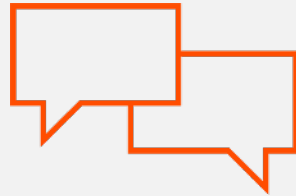
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Tailored training and content recommendations

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More Information
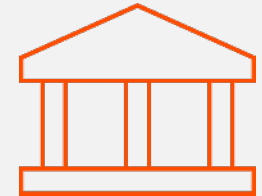
Success Portal

https://success.informatica.com

Communities & Support

https://network.informatica.com

Documentation

https://docs.informatica.com

University

https://www.informatica.com/in/services-and-training/informatica-university.html

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Agenda

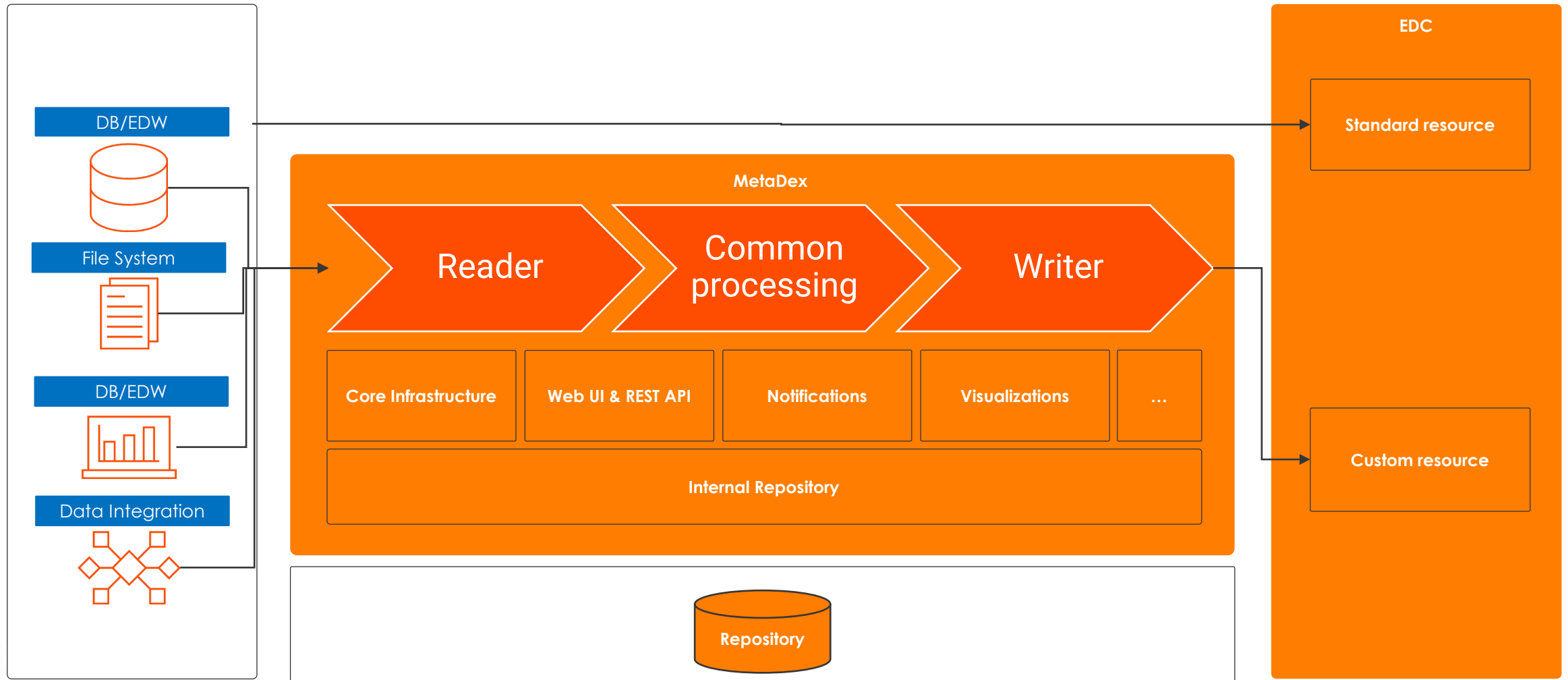|	
1	Overview of Adv Scanner/ Metadex
2	SQL Server Stored Procedure Config
3	SSIS Config
4	SSRS Config
5	Demo
6	Q&A

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Overview of Metadex
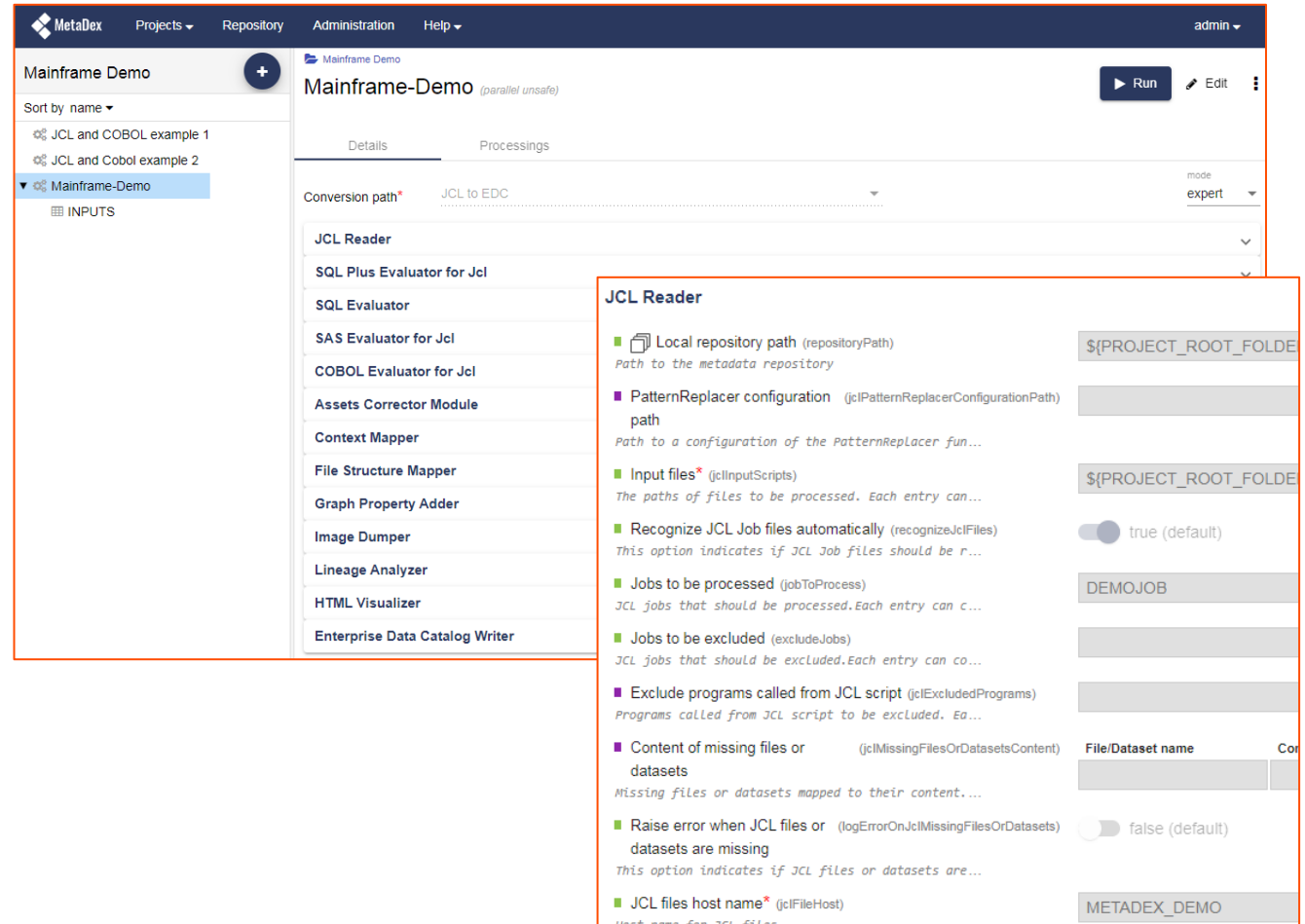
Components (EDC + Metadex)

Configuration

- Metadex Scanners configuration is an iterative process
  - Create configuration
  - Execute it
  - Enhance until satisfied with results

Successful	✔
Warnings	✔⚠
Errors	✔⚠

- Configuration parameters
  - Common modules
  - Technology specific modules
  - Required vs optional

Security

- Use the authentication mode in Informatica to authenticate users in MetaDex. The supported authentication modes are native, LDAP, and Active Directory (EDC 10.5.3 Onwards)

- Permission can be granted to the individual accounts or groups

- System-level privilidges ("Global roles")
  - Admin
    - Permission to create, edit and delete projects
    - Allows for projects roles assignment
    - Permission to upload, edit and delelte files in the allowed server location

  - Repository Viewer
    - Allows viewing Advanced Scanner repository content
    - Allows accessing built-in HTTP server

	Assigned	Effective
Admin	⬤	⬤
Repository Viewer	⬤	⬤

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Security

- Project-level privileges ("Project roles")
  - Viewer – reads only access
  - Operator – executes configurations and defines email notifications
  - Developer – manages and executes configurations
  - Owner – full permission including project level details

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SQL Server Stored Procedures

Pre-Requisites

- Split input into logical applications, and then create a configuration for each logical application. For example, if you split the input into 10 logical applications based on lines of business, create 10 configurations. If a line of business comprises different areas such as treasury or accounting, create separate configurations for those areas also
- *To connect to the Microsoft SQL database, use the Type 4 JDBC driver that comes with the installation.*
- *The installation package provided by the installer contains the Microsoft SQL Server JDBC driver. You don't need to download it.*
- *Establish network connectivity between any port on the machine where you install Enterprise Data Catalog and the listening port of the Microsoft SQL database. The default port is 1433.*
- *Grant the View Definition permissions and the permissions that you need to perform the following operations on the Microsoft SQL database:*
    - *SELECT ON sys.all_columns*
    - *SELECT ON sys.all_objects*
    - *SELECT ON sys.all_parameters*
    - *SELECT ON sys.database_principals*
    - *SELECT ON sys.databases*
    - *SELECT ON sys.foreign_key_columns*
    - *SELECT ON sys.indexes*
    - *SELECT ON sys.index_columns*
    - *SELECT ON sys.partitions*
    - *SELECT ON sys.schemas*
    - *SELECT ON sys.sql_modules*
    - *SELECT ON sys.synonyms*
    - *SELECT ON sys.tables*
    - *SELECT ON sys.types*
    - *SELECT ON sys.table_types, if your database uses table types.*
- *If you use the dynamic code that consists of solution building queries based on content of the database tables, grant read only access to all the tables that store queries or their components.*

Configuration

Name* : SQLServerSP - TT

Description : SQL Server - SP to EDC

Parallel Safe : ☐

Conversion path* : Advanced Database Objects to EDC ▼

mode : basic ▼

Conversion Path: Advanced Database Objects to EDC

Database object reader

- Read from *(ddlReadSource)*

  Select at least one of the following modes:...

- Object include filters *(objectFilter)*

  List of include filters for database objects (v...

- Object exclude filters *(objectExcludeFilter)*

  List of exclude filters for database objects(vi...

☐ External tables
☑ Stored procedures
☑ Views
☐ MaterializedViews
☐ Triggers
☐ Tasks
☐ Pipes
☑ Database Assets

...lbo.*   ✕

Read from: Select Stored Procedures For others, Refer to Best Practices page

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Administration – Connection Registry

HostName.DatabaseName

Informatica EDC MetaDex | Projects ▾ | Repository | Administration | Help ▾ | admin ▾

Permission Management

Connection Registry

File Management

Global Variables

External Tools

Notifications

Configuration

Database: MS_DEMO.AdventureWorks2019

/apps/infa/1051/AdvScannersWorkspace/MDREPO\MS_DEMO\AdventureWorks2019

↩ Back   ✏ Edit   ☑ Test entry   ⬆ Upload db.properties

```
#Wed Nov 23 16:20:15 UTC 2022
user=cst_user
url=jdbc\:informatica\:sqlserver\://SAPRSSIS\:1433;DataBaseName\=AdventureWorks2019
password={PBE0}ZvgiPFcGVB3nngnQo+UYQRylI1Vc3d1cZ31Dqrkxd7M\=
repoType=JDBC
vendor=MSSQL
```

Connection String: Database Name is mandatory

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Monitoring

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SSIS Config

Pre-Requisites

- Split input into logical applications, and then create a configuration for each logical application. For example, if you split the input into 10 logical applications based on lines of business, create 10 configurations. If a line of business comprises different areas such as treasury or accounting, create separate configurations for those areas also

- Choose one of the following options
  - ***SSIS Reader Module Mode:***

    - ***File****: If you store the packages in a database, export the input files together with the corresponding DTSCONFIG, CONMGR, and PARAMS files.*
      - *You export the input files to the server where you previously installed MetaDex with the **dtutil** utility. You get the utility during the Microsoft SQL Server installation.*
      - *If you store the packages as files in the DTSX format, export the input files from the files system*

    - ***SSISDB****: If SSISDB has the packages deployed, MetaDex scanners can connect to it to extract DTSX, CONMGR, and PARAMS files.*

Configuration – File Reader Module

Select Conversion Path:
Microsoft SSIS to EDC

SSIS Reader Module: **Files**

DEMO-ASSETS

SSIS to EDC - TT *(parallel unsafe)*

▶ Run   ✎ Edit

SSIS to EDC - TT

Details   Jobs

Conversion path* | Microsoft SSIS to EDC ▼

mode
basic ▼

SSIS Reader   ⌃

■ SSIS reader module mode (ssisReaderModuleMode) | Files ▼

Specify SSIS reader module mode...
Use mode F

■ 📑 Connection registry path (repositoryPath) | ${SCANNERS_WORKSPACE}/RUNTIME-MDREPO/MDREPO-MS

Path to the connection registry...

■ Input files* (ssisSourceFile) | ${MS_DEMO_ROOT_DIR}/ssis/input/Package.dtsx

List of .dtsx files exported from Microsoft...

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Configuration – SSISDB Reader Module

Configuration – SSISDB Reader Module

External Connection Manager Files (ssisConnectionManagers)

Paths of connection manager files used by the S...

Read SSIS Package
Configuration: **True**

Data source connections (connections)

Database Connection key

Resolved MDREPO entry

The Data source connections parameter consists...

DTSX Configuration file (ssisConfigFilePath)

DTSX package configuration file. It will be use...

Log warning about non-existing DTSX   (ssisDoWarnAboutNonExistingConfig   true (default)
Configuration file   File)

If DTSX package configuration file is missing a...

Read SSIS Package configurations (ssisReadPackageConfiguration)   true

Read SSIS Package configuration to override pac...

Use database from Connection Manager (ssisUseDbFromManagers)   false (default)

Take name of the database from Connection Manag...

Application host name* (ssisApplicationHostName)   MS_DEMO

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Administration – Connection Registry

Monitoring

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SSRS Config

Pre-Requisites

- Split input into logical applications, and then create a configuration for each logical application. For example, if you split the input into 10 logical applications based on lines of business, create 10 configurations. If a line of business comprises different areas such as treasury or accounting, create separate configurations for those areas also

- **SSRS Source -> Files**: Collect metadata using the **SSRS exporter tool** form the following location: *${INFA_HOME}/services/CatalogService/AdvancedScannersApplication/app/utils/ssrs/ssrs-exporter-<versionname>.exe*
NOTE: The tool works only with the Microsoft Windows operating system

- *SSRS Source -> WebService*: *SSRS WebService URL, User and Password need to be supplied*

- *Connection Assignment*: *Get database access or extract all necessary database data in one of the following ways*
  - *Get access to all required databases*
  - *Extract structures and definitions of all required database tables, views, and procedures referenced in Microsoft SQL Server Reporting Services. To prepare the extract, use the Metadata Extractor*

SSRS Server Config Manager

SSRS Exporter

Permissions:

Get a Report Server user with permission to view and download reports and shared data sources from the SSRS administrator. Depending on the scenario, you need to get the Report Builder Role and the Publisher Role or the System User Role

Connection Properties:

To connect SSRS exporter tool to the Reporting Server, enter the following parameters:

Reporting Server user name

Reporting Server user password

Reporting Server security domain

The following URL to the ReportService2010.asmx file: **https://<RS domain>/ReportServer/ReportService2010.asmx**

```
{
    "username": "Administrator",
    "password": "",
    "domain": "SAPRSSIS",
    "url": "http://SAPRRSSIS/ReportServer/ReportService2010.asmx",
    "includeFilters": [ "/*"],
    "excludeFilters": [ "" ],
    "targetDirectory": "D:/tmp"
}
```

SSRS Exporter to XML

ssrs-exporter export --jsonFile ssrs.json

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Configuration

Select Conversion Path:
Microsoft SSRS to EDC

📁 DEMO-ASSETS

SSRS to EDC - TT *(parallel unsafe)*

▶ Run   ✏ Edit

Details	Jobs

mode

Conversion path*   Microsoft SSRS to EDC ▾   basic ▾

SSRS Reader ⌃

Copy the XML files to Metadex SSRS workspace input folder

■ SSRS source (ssrsReadSource)   Files ▾

Choose files to read SSRS from existing xml fil...

■ 🗐 Connection registry path (repositoryPath)   /opt/app/infa_shared/adv-scanner/workspace/MDREPO_SSRS

Path to the connection registry...

■ Input files* (ssrsInputFiles)   /opt/app/infa_shared/adv-scanner/workspace/inputFiles/ssrs/TT/SSRS_Report_TT.xml

The paths of files to be processed. Each entry...

■ Default values for Report Parameters (ssrsDefaultValuesFilePath)

Path to the file with default variables values....

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EDC – Resource loaded by Metadex

Configuration

Select Conversion Path: **Microsoft SSRS to EDC**

Provide the values as per the SSRS Configuration Manager

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Best Practices

- **Enterprise Catalog Writer**: As a pre-check use "Generate Output Files" option to test the scanner configuration and execute the job and review the results, post verification, please switch to "REST API" to load the content into EDC

- Resource Name that is provided in the Metadex Config, should not be already existing in EDC

- Create directory in workspace for each Conversion Path

- *For the Conversion Path of "Advanced Database Objects to EDC", select the Views, Database Assets (Tables) and Stored Procedures if the UseCase is limited to Metadata Scan / Data Lineage only.*

- *However, if the Views, Tables need to have Data Discovery and Profiling as well, only Stored Procedure need to be selected in Metadex UI. Create separate Resource in EDC using regular MS SQL Server scanner.*

- *For SSIS Conversion Path, best approach is to use the SSISDB Reader Module, and for SSRS Conversion Path, leverage the Webservice Reader module.*

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Demo

References

[Metadex Scanner Config Guide](#)
[SSIS Reader](#)
[SSIS Processor](#)
[SSRS Reader](#)

Thank You!