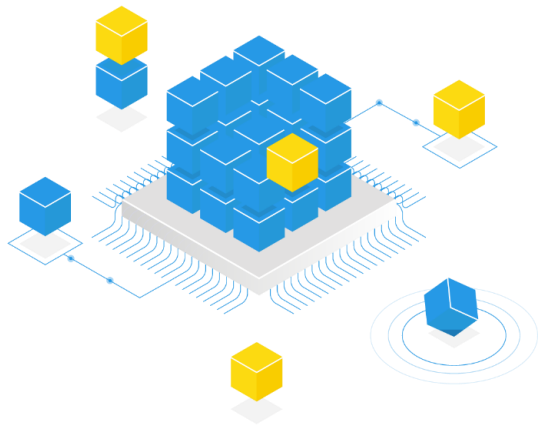


Environment, Support and Connectivity



meta analysis 

August 23, 2024

Meta Analysis Product – Direct Access

❑ The Meta Analysis product:

- COE – Certified Environment
- Connectivity
- APIs
- The CSV

❑ Support and SLA:

- Support

❑ Detailed basics:

- BigQuery
- Datalake GEN 2
Microsoft
- Dedicated SQL Pool
- MySQL
- Oracle
- Snowflake
- SQLServer

❑ Detailed ETL:

- SSIS
- Stambia
- Talend
- SAP BODS

❑ reporting and analysis:

- Power BI
- Qlik Sense
- SAP BO
- Painting

Certified Operating Environment



Introduction

❑ Why this Certified Operational Environment guide?

This guide aims to validate the environment

- At the time of subscription in Cloud or On Premise
- At the time of a version migration

❑ The COE (Certified Operating Environment) is described in our subscription contract and will be the basis of the support contract.

Versions

❑ Supported Meta Analysis versions :

Version number	Delivery date	End of support date
Version 7.4	July 2024	
Version 7.3.1	February 2024	June 2025
Version 7.3	December 2023	
Version 7.2.1	July 2023	December 2024
Version 7.2	June 2023	
Version 7.1.1	October 2022	March 2024
Version 7.1	May 2022	
Version 7.0	March 2020	October 2023
Version 6.5	January 2017	September 2022

V 7 in SaaS mode in the Azure Cloud

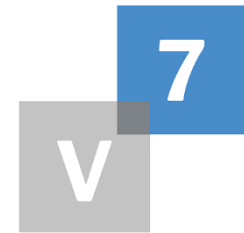
Meta Analysis V7 is available in SaaS mode in the Microsoft Azure Cloud ,
installed and administered by the Meta Analysis team

Simpler

- Accessible from anywhere with a browser
- Secure
- Always up to date (UPDATE provided by the Meta Analysis team)

Faster

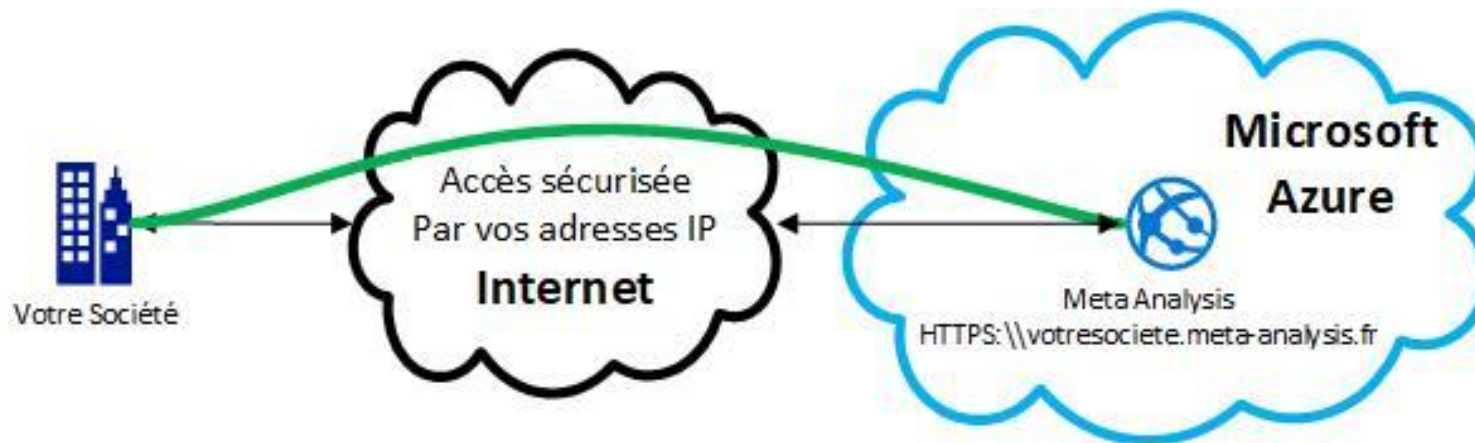
- Available in 24 hours
- No server to allocate
- No administration



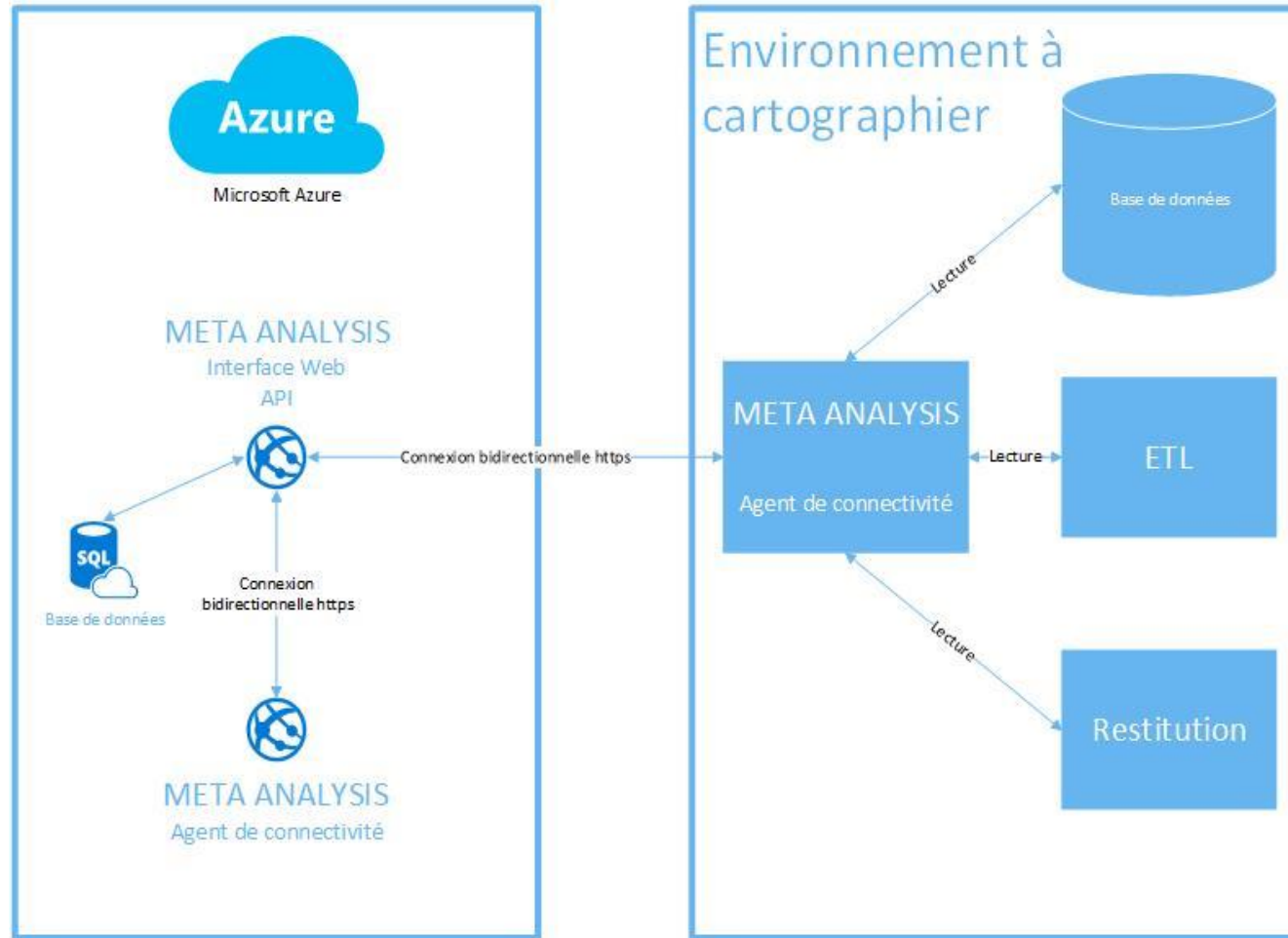
Your secure Cloud environment

Your Meta Analysis V7 environment in the Azure Cloud is fully dedicated, secure and backed up

The Meta Analysis team ensures version updates



Technical architecture V 7 – Cloud 1/2



Technical architecture V 7 – Cloud 2/2

□ Backup

- A backup of the database is performed every minute over a period of 7 rolling days.
- A backup of the application is performed once per hour over a period of 30 rolling days.

□ Option

- It is possible to set up replications on the same site or on remote sites.

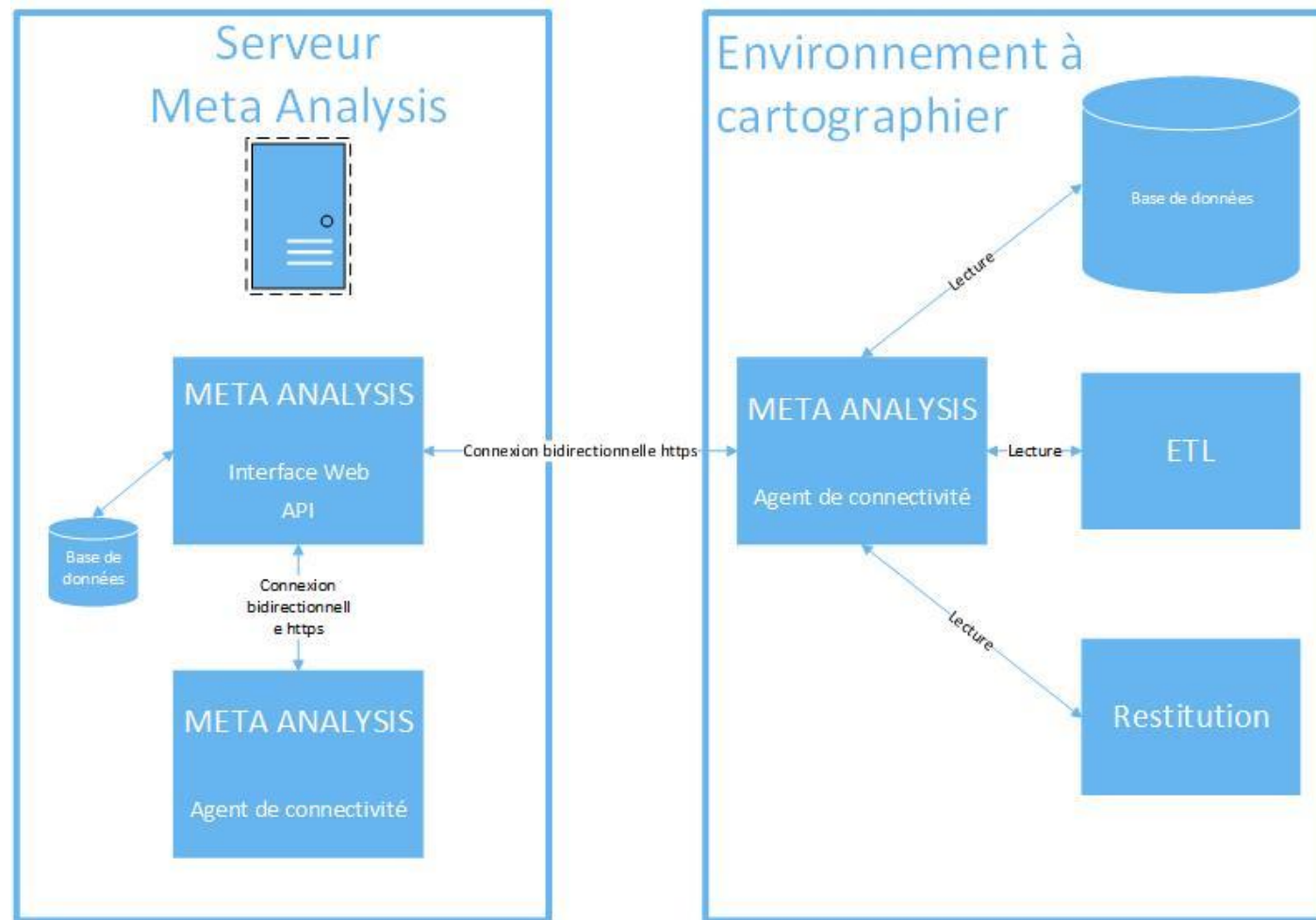
Cloud - Connectivity Agent - Software prerequisites

Prerequisites on the installation server	Remarks
Microsoft .NET Framework	The .NET 6 Framework
Public IP Address	A public address is required to publish the Connectivity Agent. By default, the Connectivity Agent works on port 5004. Flow openings will be required for communication between Meta Analysis and the Connectivity Agent.
Safety certificate	You need a certificate generated in PFX format generated by your certification authority to allow you to publish the application in https from one of your Public IPs, as well as the password.
Other customer tools	Depending on the connectivity used, additional client tools will need to be installed on the server. The publishing team will provide its expertise in the event of incorrect installation of these tools.
Service account	<p>You need an account in the domain or administrator of the machine, which will launch the Windows service.</p> <p>The domain account will allow access to network folders for certain connectivity such as scheduled CSV.</p>

Cloud - Connectivity Agent Hardware requirements

Prerequisites on the installation server	Minimum Configuration	Optimal Configuration
Server type	Windows server 2016	Windows Server 2019 or higher
	An “administrator” domain account on the server for installation	
Server disk space	50 GB	50 GB
Processor	4 CPUs	16 CPUs
Memory	8 GB of RAM	16 GB of RAM

Technical architecture V 7 – On Premise



On Premise - Software prerequisites V 7

Prerequisites on the installation server	Remarks
An IIS type web server	The server hosting Meta Analysis must support the IIS web server in version 7 minimum. The server must be Windows server 2016 or higher. This server can be virtual and hosted by a hypervisor (Hyper-V, VMWare)
Microsoft .NET framework	The .NET 6 Framework
Internet browsers	A web browser
Service account	You need an account in the domain or administrator of the machine, which will launch the IIS application pool as well as the Windows service. The domain account will allow access to network folders for certain connectivity such as scheduled CSV and to run analysis reports.
SQLServer	The SQL Server version must be SQL Server 2016 or higher. The database collation must be SQL_Latin1_General_CP1_CI_AS. Full text extraction and semantic search extraction " functionality (FullText) must be installed.

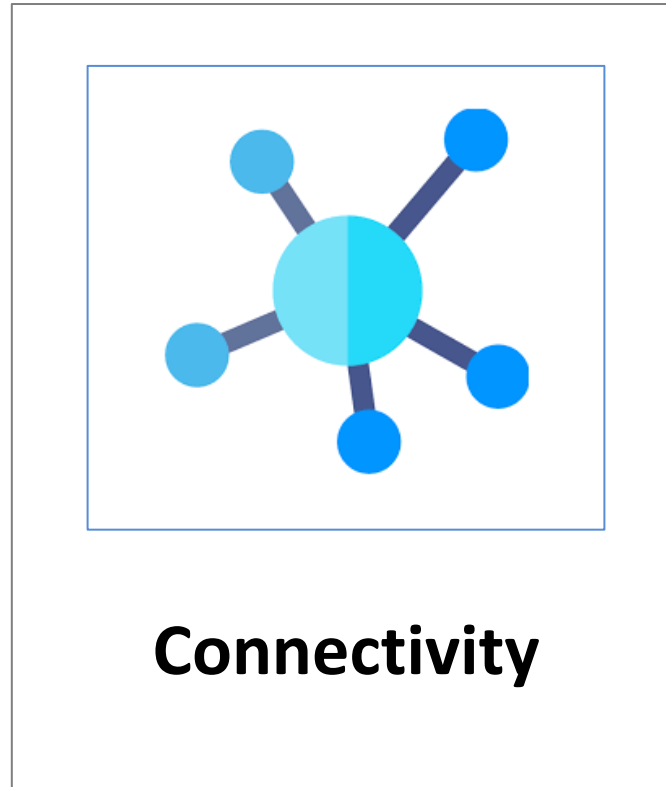
On Premise - V 7 hardware prerequisites

Prerequisites on the installation server	Minimum Configuration	Recommended Configuration
Server type	Windows server 2016	Windows Server 2019 or higher
	An “administrator” domain account on the server for installation	
Server disk space	50 GB	100 GB
Processor	8 CPUs	16 CPUs
Memory	16 GB of RAM	64 GB of RAM
Disk space for the database	10 GB	50 GB

The Recommended configuration is for a volume of approximately 1 million Metadata

- If the agent is installed on the server, you must provide an additional 8 GB.
- If using a dedicated database server, contact Meta Analysis

Connectivity Guide



Connectivity strategy

□ Provision of connectivity

- The availability of connectivity is not correlated to the launch of versions. This guide is updated every 2 months to meet the needs of our customers
- When setting up connectivity, changes may be necessary depending on your use.

□ Development of new connectivity

- We study the feasibility
- If it is validated, we will give you an availability date
- After development and acceptance, we guarantee support and developments

Legend of connectivity

□ Explanation of the legend in the connectivity table

Color and text	Indication
Validated Feasibility	Connectivity is validated, the availability date has not yet been defined.
Under development	Connectivity is validated, development is underway.
Automated	Connectivity is in production in the release.

Database connectivity – 1/2

□ **Databases:** For all databases, connectivity consists of recovering tables and columns.

Editor	Solution	Version	V 7	Doc. detailed
IBM	DB2 LUW	10.5	Validated Feasibility	
	DB2 ZOS	11 - 12		
Microsoft	SQLServer	2012 to 2019	Automated	X
		Azure		
Oracle	Oracle	10G -11G-12C	Automated	X
		18C-19C		
	MySql	8.0	Automated	X
PostgreSQL		9.1	Automated	
MongoDB	MongoDB		Validated Feasibility	

Database connectivity – 2/2

☐ Cloud native databases

Editor	Solution	Version	V 7	Doc. detailed
Snowflake	Snowflake	Cloud	Automated	X
Microsoft	Dedicated SQL pool (Azure Datawarehouse)	Cloud	Automated	X
	Azure Datalake		Automated	X
Google	BigQuery	Cloud	Automated	X
Amazon	Red shift	Cloud	Validated Feasibility	

ETL Connectivity

- **ETL (Extraction Transformation Loading):** Each connectivity to an ETL reports the transformations associated with the source and target tables. Some connectivity can also trace associations with columns.

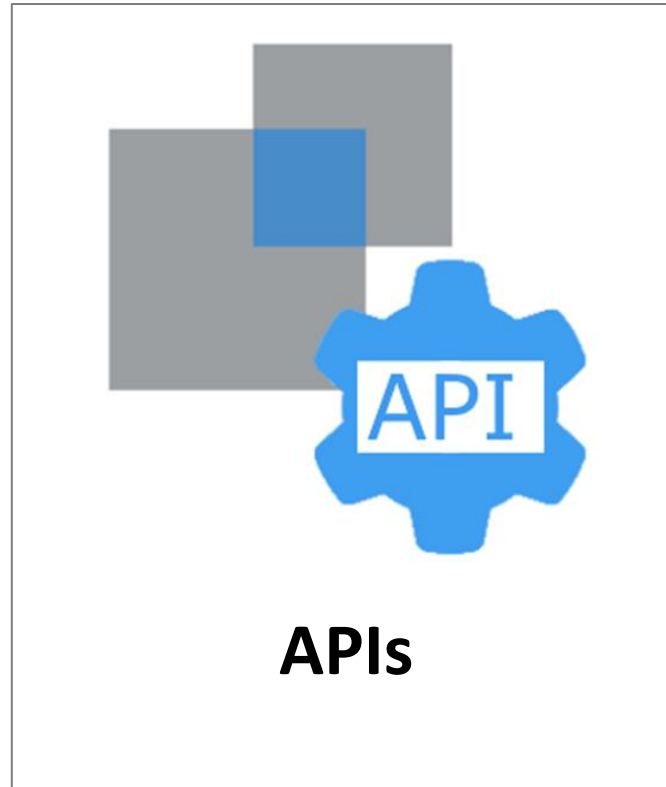
Editor	Solution	Version	Level of detail	V 7	Doc. detailed
DBT	DBT		Table	Validated Feasibility	
OpenText	Genio	V7-V8		Under development	
IBM	Datastage	8.5 – 8.7 – 11		Validated Feasibility	
Informatica	Power Center	9.1.0 - 11		Automated	
Microsoft	SSIS	2012 to 2019	Table	Automated	X
	TRANSACT-SQL	-	Table	Automated	
Oracle	ODI	XI - XII		Under development	X
SAP	BO Data Services	3.2	Table	Automated	X
Stambia	Stambia	17 - 19	Column	Automated	X
Talend	Talend	Cloud	Column	Automated	X

Reporting and Datavisualization connectivity

□ Reporting and Datavisualization tools

Editor	Solution	Version	V 7	Doc. detailed
SAP	Business Objects	BI 4	Automated	X
Qlik	Qlik Sense		Automated	X
Tableau Software	Painting	2020.1	Automated	X
Microsoft	SSRS	2012 to 2019	Automated	
	Power BI		Automated	X

API Connectivity



□ Provision of API on metadata

- REST API for reading and writing at the metadata level

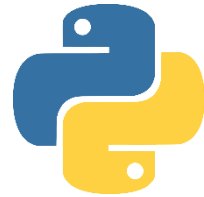
□ This API allows new integration scenarios

- Analysis elements in an external tool
- Automated integration of metadata from an external application
- Dynamic mapping and observability



APIs – Use cases

- Integration of business metadata from an external tool (MDM, BPM, etc.) with an API



- Updating technical metadata (Example: execution of a flow)



databricks



Dernière exécution

10/06/2024 11:12

Exécution réussie?



meta analysis 

API – Metadata and associations

- Meta Analysis provides APIs (complete documentation in Meta Analysis):

Elements	Function	Kind	V 7
Metadata	List of metadata	Reading (GET)	7.4
	Metadata detail	Reading (GET)	
	Creating metadata	Writing (POST)	
	Editing metadata	Write (PUT)	
Associations	List of associations	Reading (GET)	
	Details of an association	Reading (GET)	
	Creation of an association	Writing (POST)	
	Editing an association	Write (PUT)	

API – Connectivity and administration

- Meta Analysis provides APIs (complete documentation in Meta Analysis :

Elements	Function	Kind	V 7
Connectivity	Launch of connectivity	Execution(POST)	7.0
	Status of running connectivity	Read(GET)	
	Statuses of the last connectivity run	Read(GET)	
	Last connectivity execution date	Read(GET)	
Administration	Clearing the app cache	Execution(POST)	7.0

CSV Connectivity



THE CSV

Problem and solution

- ❑ **Certain elements of your IS may not be mapped by Meta Analysis connectivity agents, for several reasons**
 - Security constraints do not allow external tools to connect to a database
 - You are using a tool that is not in the Meta Analysis connectivity catalog
 - You use specific developments (e.g.: data flow in Python, web visualization, etc.)
- ❑ To address these issues, Meta Analysis offers CSV import which allows you to ingest metadata and associations, manually or automatically.
- ❑ The operation is transparent from the point of view of users who will find the cartography and data lineage in an identical manner regardless of the ingestion mode.

CSV Connectivity

❑ CSV import – the automatable toolbox for all your metadata

- Meta Analysis offers you the possibility of importing your entire existing system (functional and technical) through CSV imports, for software that does not have native connectivity (obsolete software, internal development, etc.)
- CSV imports are done manually or automated.

❑ You can import

- your metadata
- associations between your metadata
- translations of your metadata
- your data quality results (Data Quality Module)

Example – ETL

- ❑ An ETL process is coded in Python by Data Engineers to respond to specific issues, and executed via a scheduler. This code cannot be interpreted by Meta Analysis,
 - Python script that extracts products above average price

```
sqlalchemy_connection_string = f'mssql+pyodbc://{username}:{password}@{server}/{database}?driver=ODBC+Driver+17+for+SQL+Server'  
engine = create_engine(sqlalchemy_connection_string)  
  
query = "SELECT ProductName, UnitPrice FROM Products"  
df = pd.read_sql(query, engine)  
  
average_unit_price = df['UnitPrice'].mean()  
  
filtered_df = df[df['UnitPrice'] > average_unit_price]  
filtered_df.to_sql('dwh.ProductsAboveUnitPrice', engine, if_exists='replace', index=False)
```

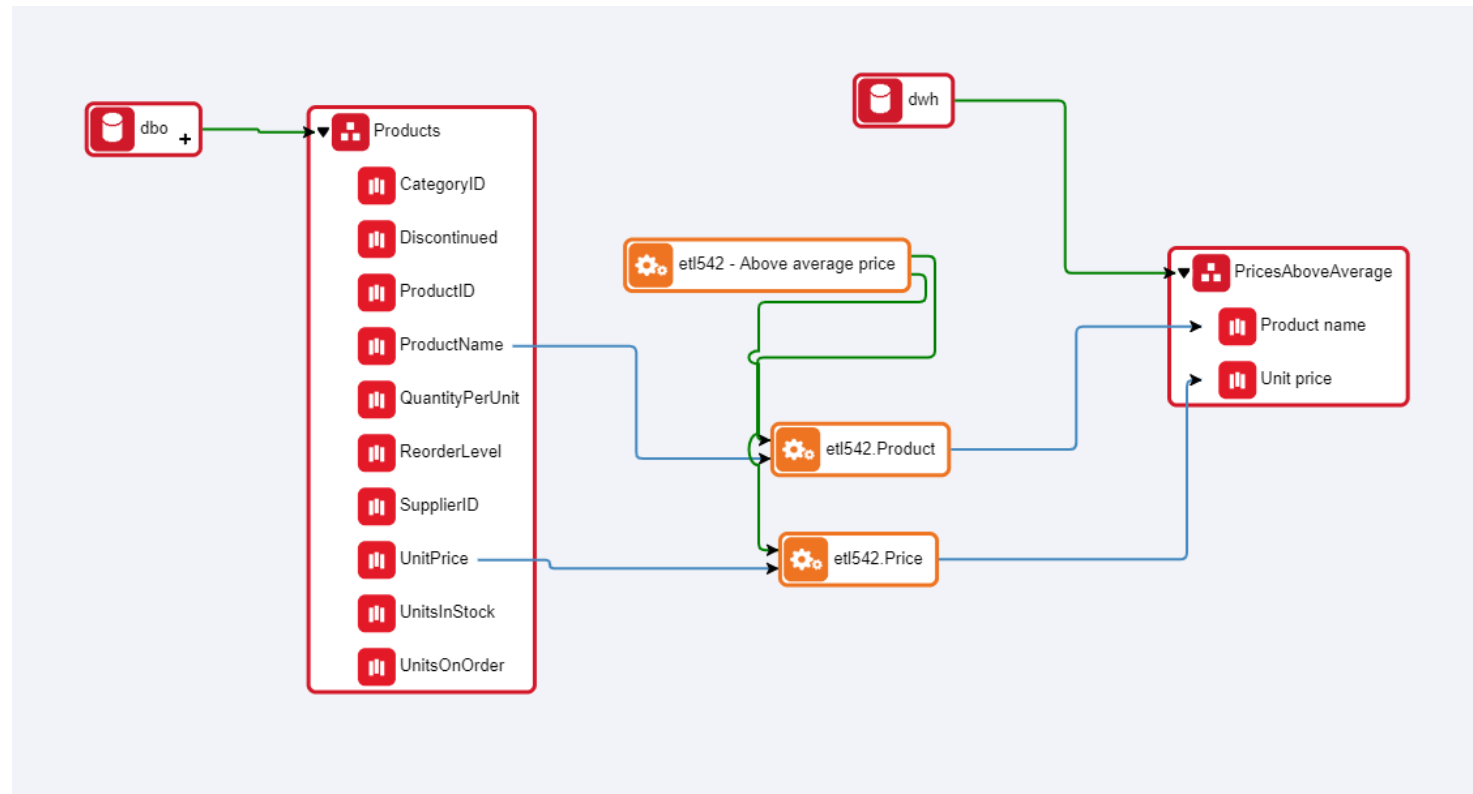
Example – ETL – Flow documentation

- Your Data Engineering teams complete a flow description document with input and output data. This table can even serve as specifications prior to development.

SourceDb	Source Schema	Source Table	Source Column	Transformation		Transformation	Transformation description	DestinationDb	Destination Schema	Destination Table	Destination Column
				Transformation group Name	group Name2						
Northwind	dbo	Products	ProductName	etl542 - Above average price	etl542.py	etl542.Product	Filtering	Northwind	dwh	PricesAboveAv	Product name
Northwind	dbo	Products	UnitPrice	etl542 - Above average price	etl542.py	etl542.Price	Filtering	Northwind	dwh	PricesAboveAv	Unit price

Example – ETL- result

- Importing the file into Meta Analysis allows you to model the flow and link it to existing metadata



Example – industrialized data ETL

- Your teams have implemented standardized flows, which are based on a generic configurable engine. These settings are stored in tables or files
- The generation of the CSV file can be automated based on the flow configuration data

```
mapping_data = [  
  {  
    'SourceDb': 'Northwind',  
    'SourceSchema': 'dbo',  
    'SourceTable': 'Products',  
    'SourceColumn': 'ProductName',  
    'TransformationName': 'Above average price',  
    'Table transformation file': 'etl542.py',  
    'Transformation': 'etl542.Product',  
    'Transformation description': 'Filtering',  
    'DestinationDb': 'Northwind',  
    'DestinationSchema': 'dwh',  
    'DestinationTable': 'PricesAboveAverage',  
    'DestinationColumn': 'Product name'  
  },  
  {  
    'SourceDb': 'Northwind',  
    'SourceSchema': 'dbo',  
    'SourceTable': 'Products',  
    'SourceColumn': 'UnitPrice',  
    'TransformationName': 'Above average price',  
    'Table transformation file': 'etl542.py',  
    'Transformation': 'etl542.Price',  
    'Transformation description': 'Filtering',  
    'DestinationDb': 'Northwind',  
    'DestinationSchema': 'dwh',  
    'DestinationTable': 'PricesAboveAverage',  
    'DestinationColumn': 'Unit price'  
  }  
]
```

Example – basic mapping

- ❑ Your company's security constraints do not allow the connection of an external tool to your databases
 - You can ask your Database Administrators to execute an SQL query to extract the architecture of your database (tables, columns) and make it available to Meta Analysis
 - This data is then imported into Meta Analysis

Support and Service Level Agreement (SLA)



The objective

❑ Optimal use of Meta Analysis

- We have implemented an intense testing policy for our Meta Analysis V7 solution.
- Despite this, you can have several types of malfunctions.
 - Bugs or anomalies!
 - Environmental problems
 - Blockages requiring changes

❑ This document aims to support you in these requests to meet your needs

Name of the type of anomaly

❑ Minor anomaly

- Problem causing a minor malfunction of a Software function that does not prevent production.

❑ Major anomaly

- Problem causing a major malfunction of the Software or total failure of a major function of the Software. The correction can be made by a workaround solution which cannot be definitive but allows production to be ensured again.

❑ Blocking anomaly

- Problem causing total malfunction of the Software. The level of intervention requested is the highest. The correction can be made by a workaround solution which cannot be definitive but allows production to be ensured again. A recipe environment is not affected by this level.

Taking anomalies into account

	GTI Time Guarantee Intervention	Frequency reporting by the support	GTR Time Guarantee of Resolution
Blocking anomaly	4 working hours	Real time by JIRA platform from taken into account by sending an email	4 working hours
Major anomaly	8 working hours		4 working days
Minor anomaly	4 working hours		4 working days

Versions and fixes

- Hot fixes are intermediate versions allowing the correction of a minor malfunction. (Example below)

Version	Format	Frequency
Major development	7.0.0	Every 2 to 3 years
Functional contribution	7.5.0	Every 6 to 12 months
Changes And Fixes	7.5.1.XXXXX.Y	Every 3 weeks These modifications incorporate the fixes and developments of the period.

Development request

Follow up	Detail	Estimated timing
Submission of a change request by the customer	Request on the support site If the function is complex, discuss specifications with the edition	
Feasibility study by the Edition team	Validation of technical feasibility, contribution to Meta Analysis and load	15 days
Validation by COFIL (Edition Steering Committee)	Study of any request having a contribution for all customers	1 per month
Integration into a version level based on the impact on the repository	Depending on the contributions and impacts on the repository, the evolution will be integrated into a major or minor version	2 to 12 months (see previous slide)

Support tools



Phases	Solution	Detail
1	Support site	The Meta Analysis support site based on the JIRA solution is always the entry point for a support request to ensure operational monitoring of your requests and validate our commitments
2	Visio by Teams	In case of a complex problem, Meta Analysis can organize a meeting with screen sharing to understand and analyze the origin of the problem.
3	VPN	If your security policy allows us, we can quickly take control in the event of a request with a VPN.

Azure DataLake Gen2 connectivity



**Azure Datalake
Gen2**

The Datalake Gen 2 product

- ❑ **Reminder of the solution**
 - File management system
- ❑ **Constraints**
 - Have a client application on Azure to be able to connect
- ❑ **Description of connectivity:**



Editor	Solution	Version	Meta Analysis V 7
Microsoft	Data Lake Gen 2	Azure	Automated

- ❑ **Connector last updated : January 2024**

Connectivity

❑ Prerequisites for using connectivity

- Have a main service
- This connection must have sufficient privileges to access the content:

▼ Storage Blob Data Reader (1)					
<input type="checkbox"/>	 Connectivity_Portal_20	App	Storage Blob Data Reader ⓘ	This resource	Add
▼ Storage File Data Privileged Reader (1)					
<input type="checkbox"/>	 Connectivity_Portal_20	App	Storage File Data Privileged Reader ⓘ	This resource	None

Ref: <https://learn.microsoft.com/fr-fr/azure/storage/blobs/assign-azure-role-data-access?tabs=portal>

Useful metadata

❑ What is recoverable

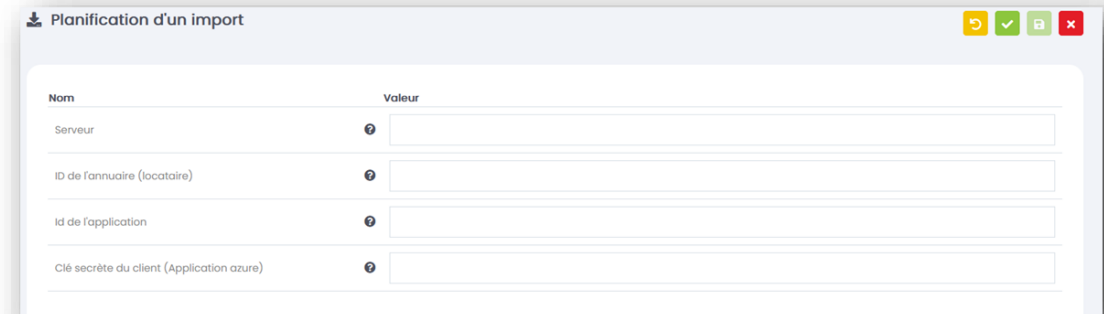
- The files
 - If the tree is year/month/day/file.extension, only the most recent file will be retrieved
 - If the file name is timestamped, the file name will be retrieved without a timestamp

❑ The limits

- If the tree is not in the format 20yy/mm/dd or 20yy/m/d or 20yy/m/dd or 20yy/mm/d, all files will be recovered .

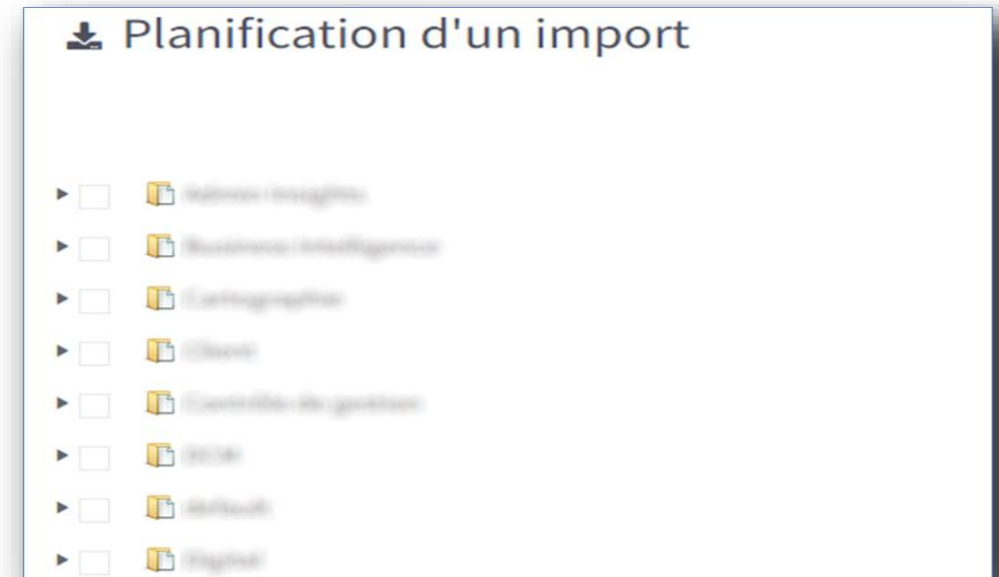
Description

- ❑ **The first step is to connect to Data Lake gen2**
 - Directory Id (tenant) or Tenant Id: It is provided to you by the administrator of your Azure tenant
 - Application ID: It is given to you by the creator of the main service
 - Secret key: It is given to you by the creator of the main service.
 - Please note: this information cannot be retrieved later.
- ❑ **The second step allows the selection of containers to analyze in Meta Analysis**



Planification d'un import

Nom	Valeur
Serveur	<input type="text"/>
ID de l'annuaire (locataire)	<input type="text"/>
Id de l'application	<input type="text"/>
Clé secrète du client (Application azure)	<input type="text"/>



Google Big Query Connectivity



Google Big Query

The Google Big Query product

- ❑ **Reminder of the solution**

- Database management system

- ❑ **Constraints**

- Have a service account on Google with a private key to be able to connect

- ❑ **Description of connectivity:**

Editor	Solution	Version	Meta Analysis V 7
Google	BigQuery	Cloud	Automated

- ❑ **Connector last updated : May 2024**

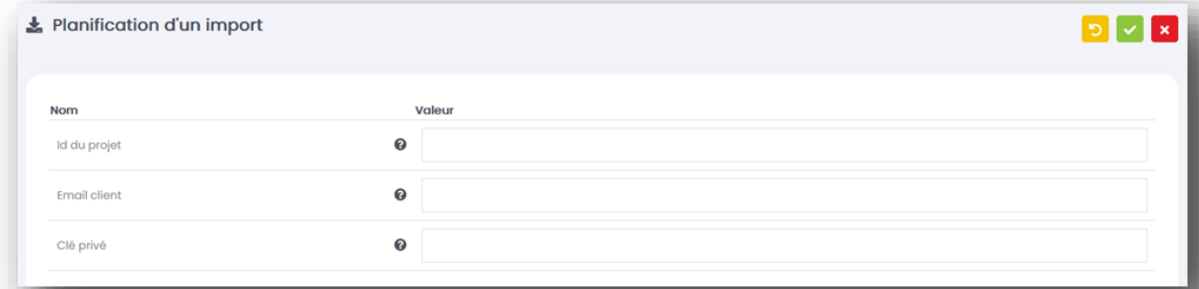
Useful metadata

□ What is recoverable

- Bases = google project name
- Schemas = dataset
- Tables
- Columns

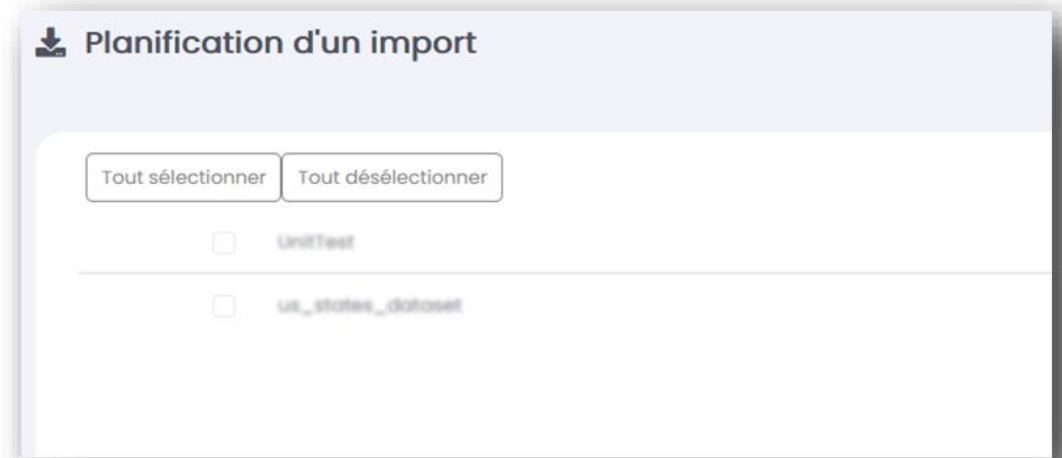
Description

- ❑ **The first step is to log in to BigQuery**
 - Project id: the id of the google project.
 - Customer Email: This is given to you by the creator of the service account.
 - Private key: It is given to you by the creator of the service account. It is found in the json file when it is created .
- ❑ **The second step allows the selection of datasets to analyze in Meta Analysis**



Planification d'un import

Nom	Valeur
Id du projet	<input type="text"/>
Email client	<input type="text"/>
Clé privé	<input type="text"/>



Planification d'un import

Tout sélectionner Tout désélectionner

- UnitTest
- us_states_dataset

Azure Dedicated SQL Pool connectivity



The Azure Dedicated SQL Pool product

- ❑ **Reminder of the solution**

- Database management system

- ❑ **Constraints**

- Have a SQL Native Client on the Meta Analysis Connectivity Agent installation server

- ❑ **Description of connectivity:**

Editor	Solution	Version	Meta Analysis V 7
Microsoft	Dedicated SQL pool (formerly SQL DW)	Azure	Automated

- ❑ **Connector last updated : January 2024**

Connectivity

□ Prerequisites for using connectivity

- Have a SQL Server connection accessing the database to be traced
- This connection must have sufficient privileges to access the contents of the following system views:
 - sys.columns
 - sys.systypes
 - sys.databases
 - sys.extended_properties
 - sys.schemas
 - sys.all_views
 - sys.sql_modules
 - sys.synonyms
 - sys.tables
 - sys.foreign_key_columns
 - sys.foreign_keys
 - sys.index_columns
 - sys.indexes

- sys.objects
- sys.types
- INFORMATION_SCHEMA.ROUTINES
- INFORMATION_SCHEMA.SCHEMATA

□ Rights to Azure sql server

- The user must have at least the following rights:

```
ALTER SERVER ROLE ##MS_DefinitionReader##  
ADD MEMBER UserMetaAnalysis ;
```

□ Recommendation for connectivity

- When the views are retrieved, their SQL script is analyzed. It allows associations to be made between views and the tables or views they reference.

Useful metadata

□ What is recoverable

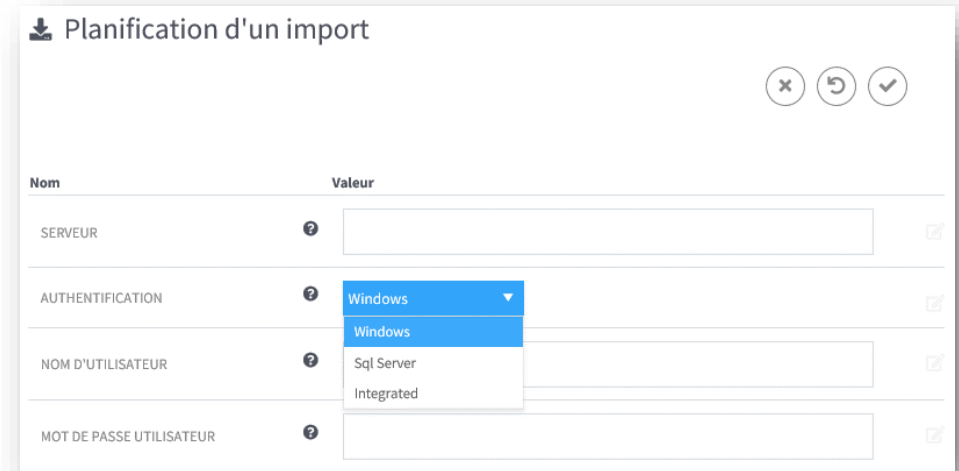
- Server
- Basics
- Schemes
- Tables
- Views
- Synonyms
- Columns

□ The limits

- The materialized views are reported in the Views metadata.

Description

❑ The first step is to connect to the desired SQL Server database

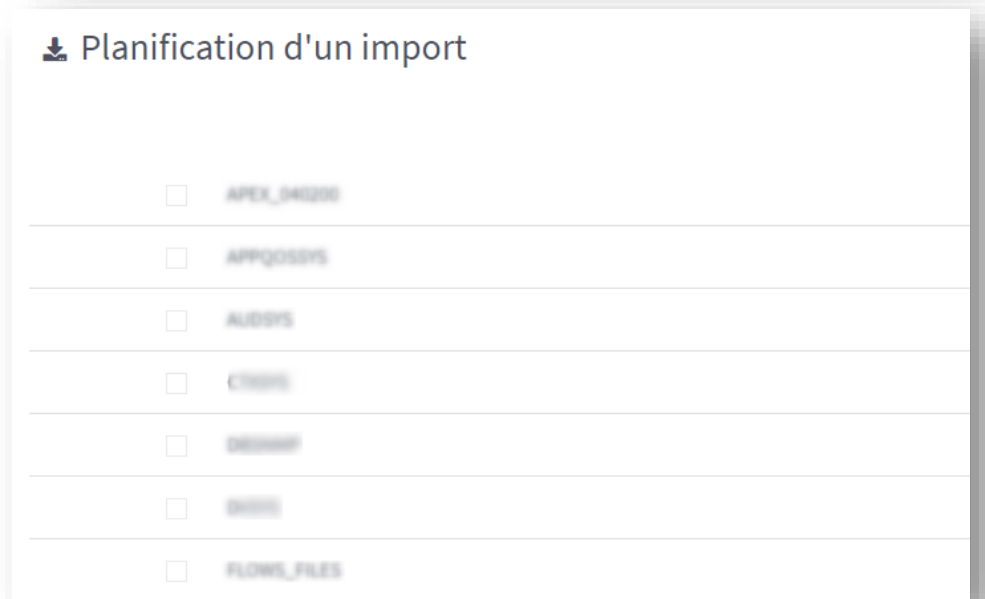


Planification d'un import

Nom	Valeur
SERVEUR	<input type="text"/>
AUTHENTIFICATION	<input type="text" value="Windows"/>
NOM D'UTILISATEUR	<input type="text"/>
MOT DE PASSE UTILISATEUR	<input type="text"/>

The screenshot shows a dialog box titled "Planification d'un import" with a close button (x), a refresh button (↺), and a checkmark button (✓). Below the title is a table with two columns: "Nom" and "Valeur". The rows are: "SERVEUR" with an empty text input; "AUTHENTIFICATION" with a dropdown menu showing "Windows" selected; "NOM D'UTILISATEUR" with an empty text input; and "MOT DE PASSE UTILISATEUR" with an empty text input. Each row has a help icon (?) and a copy icon (📄).

❑ The second step allows the selection of specific Dedicated SQL pool databases to plan in Meta Analysis



Planification d'un import

- APEX_04020
- APPQSYS
- AUDSYS
- CDSYS
- DEMO1
- DEMO2
- FLOWS_FILES

The screenshot shows a dialog box titled "Planification d'un import" with a close button (x), a refresh button (↺), and a checkmark button (✓). Below the title is a list of databases, each with a checkbox and the database name: APEX_04020, APPQSYS, AUDSYS, CDSYS, DEMO1, DEMO2, and FLOWS_FILES.

MySQL Connectivity



MySQL

MySQL

- ❑ **Reminder of the solution**
 - Database management system
- ❑ **Constraints**
 - No constraints known to date
- ❑ **Description of connectivity:**

Editor	Solution	Version	Meta Analysis V 7
Oracle	MySQL	8.0	Automated

- ❑ **Connector last updated : December 2020**

Connectivity

❑ Prerequisites for using connectivity

- Have a MySQL connection accessing the database to be traced
- This connection must have sufficient privileges to access the contents of the following system views:
 - INFORMATION_SCHEMA.COLUMNS
 - INFORMATION_SCHEMA.KEY_COLUMN_USAGE
 - INFORMATION_SCHEMA.SCHEMATA
 - INFORMATION_SCHEMA.ROUTINES
 - INFORMATION_SCHEMA.TABLES
 - INFORMATION_SCHEMA.VIEWS

Connectivity

□ Recommendation for connectivity

- When the views are retrieved, their SQL script is analyzed. It allows you to make associations between views and the tables or views they reference .

Useful metadata

□ What is recoverable

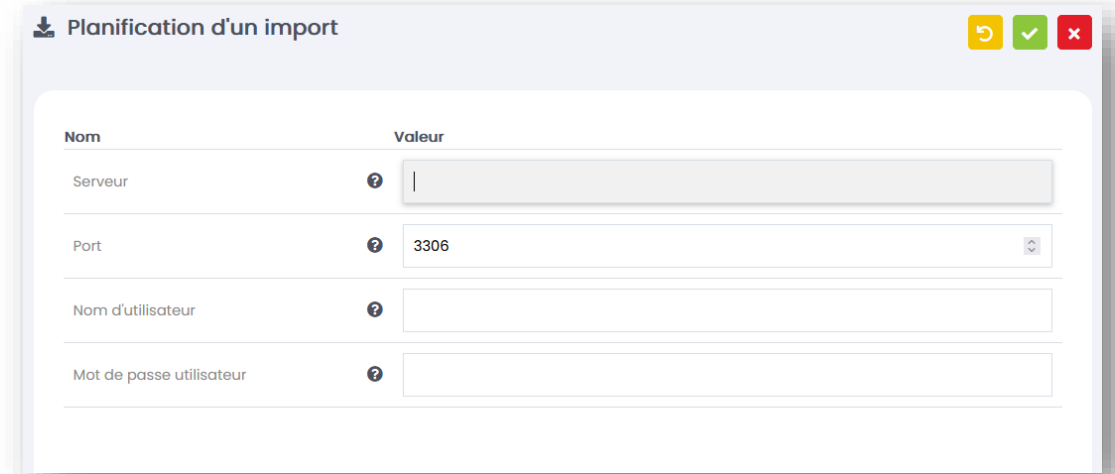
- Server
- Basics
- Tables
- Views
- Columns
- Stored procedures
- Functions

□ The limits

- The materialized views are reported in the Views metadata.

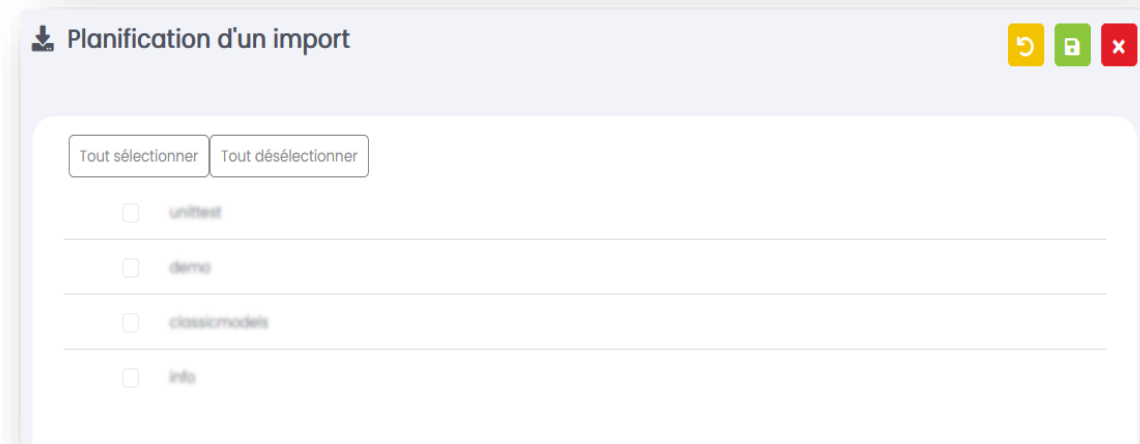
Description

- ❑ The first step is to connect to the desired MySQL database
- ❑ The second step allows the selection of schemas to plan in Meta Analysis



Planification d'un import

Nom	Valeur
Serveur	<input type="text"/>
Port	<input type="text" value="3306"/>
Nom d'utilisateur	<input type="text"/>
Mot de passe utilisateur	<input type="password"/>

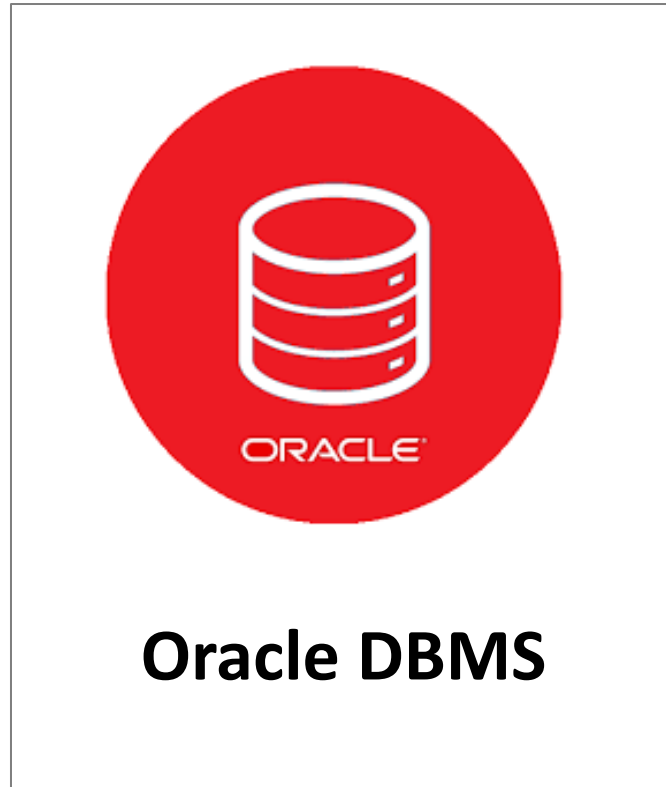


Planification d'un import

Tout sélectionner Tout désélectionner

- unittest
- demo
- classicmodels
- info

Oracle DBMS Connectivity



The Oracle product

- ❑ **Reminder of the solution**
 - Database management system
- ❑ **Constraints**
 - No constraints known to date
- ❑ **Description of connectivity:**

Editor	Solution	Version		Meta Analysis V 7
Oracle	Oracle	10G	R2	Automated
		11G		Automated
		12C		Automated
		18c		Automated
		19c		Automated

- ❑ **Connector last updated : December 2020**

Connectivity

❑ Prerequisites for using connectivity

- Have an Oracle USER on the databases to be retrieved as well as the SSID of the instance
- The Oracle user must be able to query the following tables:
 - XXX_TAB_COMMENTS
 - XXX_TAB_COLUMNS
 - XXX_SYNONYMS
 - XXX_OBJECTS
 - XXX_COL_COMMENTS
 - XXX_CONSTRAINTS
 - XXX_CONS_COLUMNS
 - XXX_MVIEWS
 - ALL_MVIEW_COMMENTS
 - ALL_VIEWS
 - ALL_XML_TABLES
 - ALL_TABLES
 - XXX_DB_LINKS

XXX corresponding to the “table type” used to retrieve the metadata, either ALL or DBA

Connectivity

❑ Recommendation for connectivity

- To use oracle connectivity, you must have access to your company's
The "Description" part will be used for connection in Meta Analysis (parentheses included)

```
My_Alias =
```

```
(DESCRIPTION =
```

```
(ADDRESS_LIST =
```

```
(ADDRESS = (PROTOCOL = TCP)(HOST = XXXX)(PORT = XXXX))
```

```
)
```

```
(CONNECT_DATA =
```

```
(SID = My_Alias )
```

```
)
```

```
)
```

Useful metadata

□ What is recoverable

- Server
- Basics
- Tables
- Views
- Synonyms
- Columns

□ The limits

- Public synonyms are only returned if the user name is equal to the schema name.
- The materialized views are reported in the Views metadata.

Description

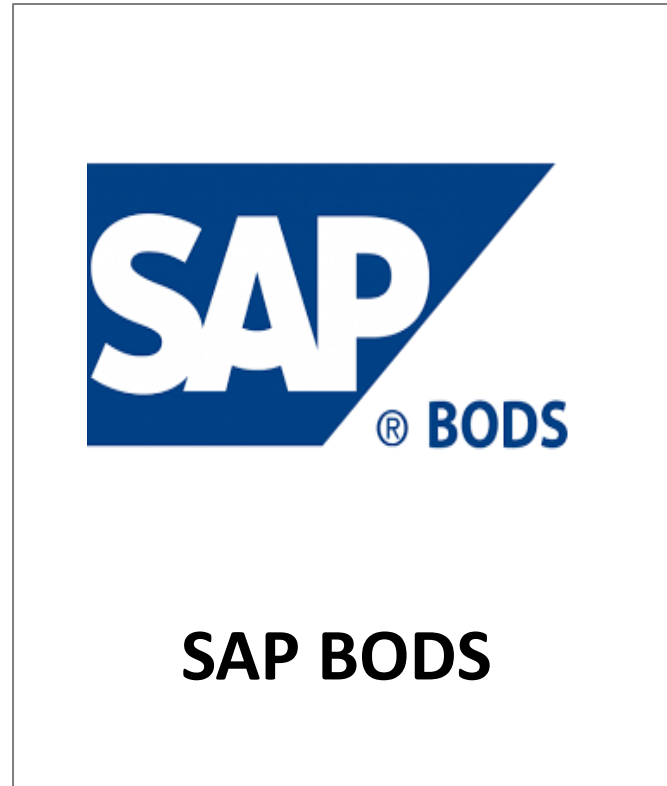
- ❑ The first step is to connect to the desired Oracle instance
 - Server instance matches the description entered in your TNSName.ora file used by the agent.
 - The username and password are those giving access to the diagrams you wish to retrieve.
 - The table type corresponds to the prefix of the tables containing the metadata. Contact your DBAs to find out which type you should use.
 - The Timeout in seconds used for each command sent to the oracle database.
- ❑ The second step allows the selection of schemas to plan in Meta Analysis

Nom	Valeur
Instance du serveur	<input type="text"/>
Schéma	<input type="text"/>
Nom d'utilisateur	<input type="text"/>
Mot de passe utilisateur	<input type="text"/>
Timeout en seconde	<input type="text" value="60"/>

📄 Planification d'un import

- APEX_04200
- APP05SYS
- AUDSYS
- CTXSYS
- DEQSYS
- MDSYS
- FLOWS_FILES

SAP BODS Connectivity



The SAP BODS product

❑ Reminder of the solution

- ETL (massive synchronizations from one data source to another)

❑ Constraints

- A 32-bit Oracle or SQL Server client must be installed on the Meta Analysis server, depending on the repository used by SAP BODS.

❑ Description of connectivity:

Editor	Solution	Version	Meta Analysis v7
SAP	BODS		Automated

❑ Connector last updated : March 2024

❑ Prerequisites for using connectivity

- Have planned the databases used by SAP BODS

Useful metadata

□ What is recoverable

- Project
- Processing (Job)
- Transformation (Job element)

□ The limits

- Recovery to the table

Description

- ❑ The first step is to fill in the connection information to the BODS repository (Oracle or SQL Server)

- ❑ The second step allows the selection of projects to be planned

The screenshot shows a dialog box titled "Planification d'un import" with a close button (X) and a refresh button (↺). The main area is a table with two columns: "Nom" and "Valeur".

Nom	Valeur
Type de la base	<input type="text" value="Oracle"/>
Instance du serveur	<input type="text"/>
Nom d'utilisateur	<input type="text"/>
Mot de passe utilisateur	<input type="text"/>
Schéma	<input type="text"/>

The screenshot shows the same dialog box "Planification d'un import". The main area is a list box containing a single item: TRUST.

Snowflake Connectivity



Snowflake

The Snowflake product and connectivity

Reminder of the solution

- Database management system

Constraints

- There are no known constraints to date

Description of connectivity:

Editor	Solution	Version	Meta Analysis v7
Snowflake	Snowflake	Azure	Automated

Connector last updated : May 2022

Prerequisites

❑ Prerequisites for using connectivity

- Have a Snowflake account
- This connection must have sufficient privileges to access the content of the following “system” views:
 - snowflake.account_usage.DATABASES
 - snowflake.account_usage.SCHEMATA
 - snowflake.account_usage.VIEWS
 - snowflake.account_usage.TABLES
 - snowflake.account_usage.COLUMNS
 - snowflake.account_usage.FUNCTIONS
- The account used must have the following rights on the database Snowflake:
 - CREATE OR REPLACE ROLE METAANALYSIS;
 - GRANT ROLE METAANALYSIS TO ROLE SYSADMIN;
 - GRANT IMPORTED PRIVILEGES ON DATABASE SNOWFLAKE TO ROLE METAANALYSIS;
 - GRANT IMPORTED PRIVILEGES ON DATABASE SNOWFLAKE TO ROLE SYSADMIN
 - GRANT USAGE ON WAREHOUSE WH_METAANALYSIS TO ROLE METAANALYSIS;

Recommendation

- ❑ **Warning:** Differences between Account Usage and Information Schema ¶. Account Usage views and corresponding views (or table functions) in Snowflake Information Schema use identical structures and naming conventions (see : <https://docs.snowflake.com/en/sql-reference/account-usage.html#account-usage-views>)
- ❑ **Recommendation for connectivity**
 - When the views are retrieved, their SQL script is analyzed. It allows associations to be made between views and the tables or views they reference.

Useful metadata

□ What is recoverable

- Server
- Basics
- Schemes
- Tables
- Views
- Columns

□ The limits

- Materialized views are not returned

Description

- ❑ **The first step** is to connect to the desired Snowflake database
- ❑ **The second step** allows the selection of schemas to plan in Meta Analysis

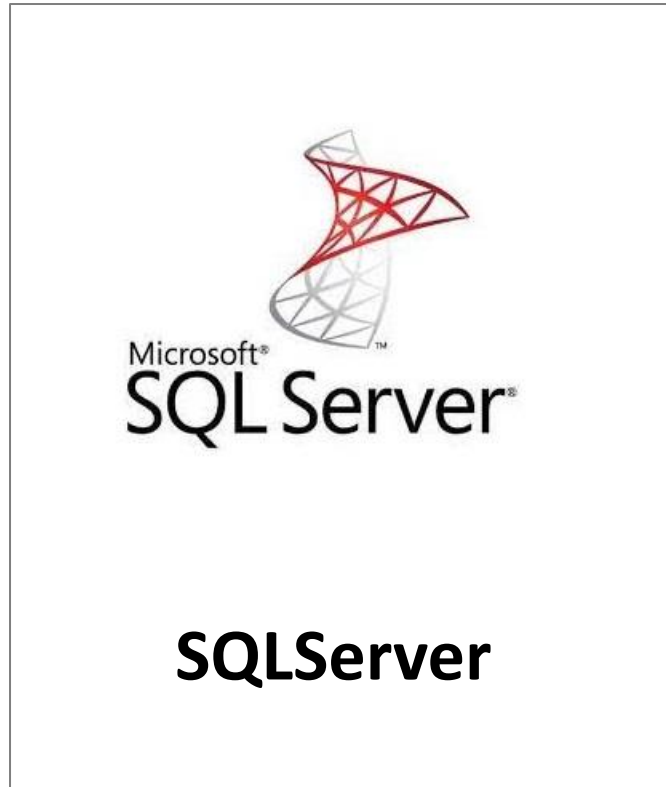
Planification d'un import

Nom	Valeur
SERVEUR	<input type="text"/>
ACCOUNT	<input type="text"/>
WAREHOUSE	<input type="text"/>
RÔLE	<input type="text"/>
NOM D'UTILISATEUR	<input type="text"/>
MOT DE PASSE UTILISATEUR	<input type="text"/>

Planification d'un import

- APEX_040200
- APPGOSYS
- AUDSYS

Microsoft SQL Server Connectivity



The SQL Server product

Reminder of the solution

- Database management system

Constraints

- Have a SQL Native Client on the Meta Analysis Connectivity Agent installation server

Description of connectivity:

Editor	Solution	Version	Meta Analysis v7
Microsoft	SQLServer	2008 -2019	Automated
		Azure	Automated

Connector last updated : July 2021

Connectivity

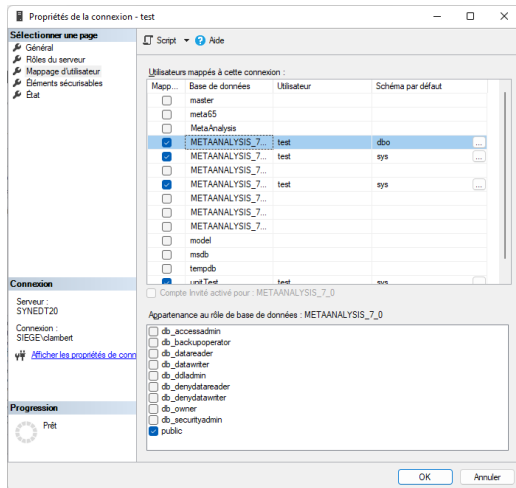
❑ Prerequisites for using connectivity

- Have a SQL Server connection accessing the database to be traced
- This connection must have sufficient privileges to access the contents of the following system views:
 - sys.columns
 - sys.systypes
 - sys.databases
 - sys.extended_properties
 - sys.schemas
 - sys.all_views
 - sys.sql_modules
 - sys.synonyms
 - sys.tables
 - sys.foreign_key_columns
 - sys.foreign_keys
 - sys.index_columns
 - sys.indexes
 - sys.objects
 - sys.types
 - INFORMATION_SCHEMA.ROUTINES
 - INFORMATION_SCHEMA.SCHEMATA

Connectivity

On-premises rights

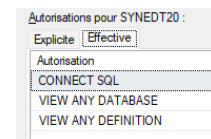
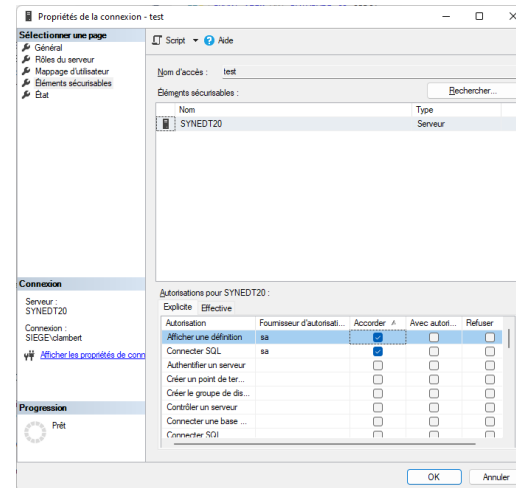
- The user must have at least the following rights:



Rights to Azure sql server

- The user must have at least the following rights:

```
ALTER SERVER ROLE ##MS_DefinitionReader##  
ADD MEMBER UserMetaAnalysis ;
```



Connectivity

□ Recommendation for connectivity

- When the views are retrieved, their SQL script is analyzed. It allows associations to be made between views and the tables or views they reference.

Useful metadata

□ What is recoverable

- Server
- Basics
- Schemes
- Tables
- Views
- Synonyms
- Columns

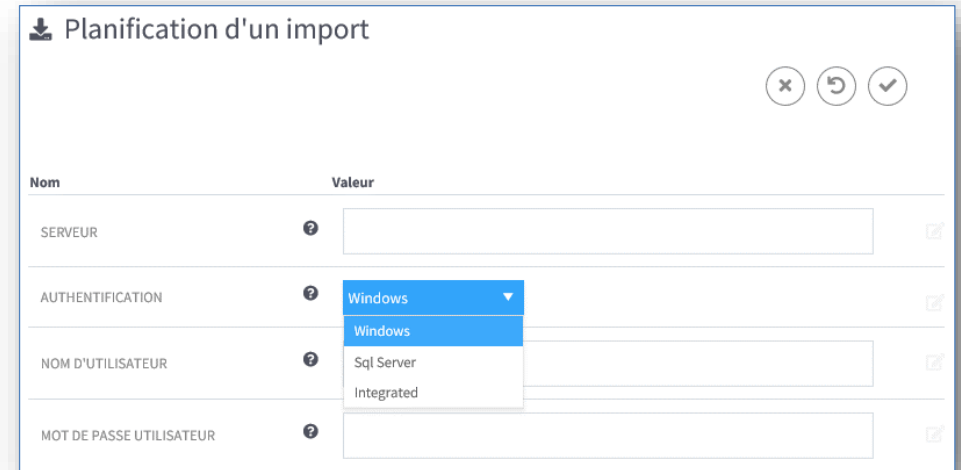
□ The limits

- The materialized views are reported in the Views metadata.

Description

❑ The first step is to connect to the desired SQL Server database

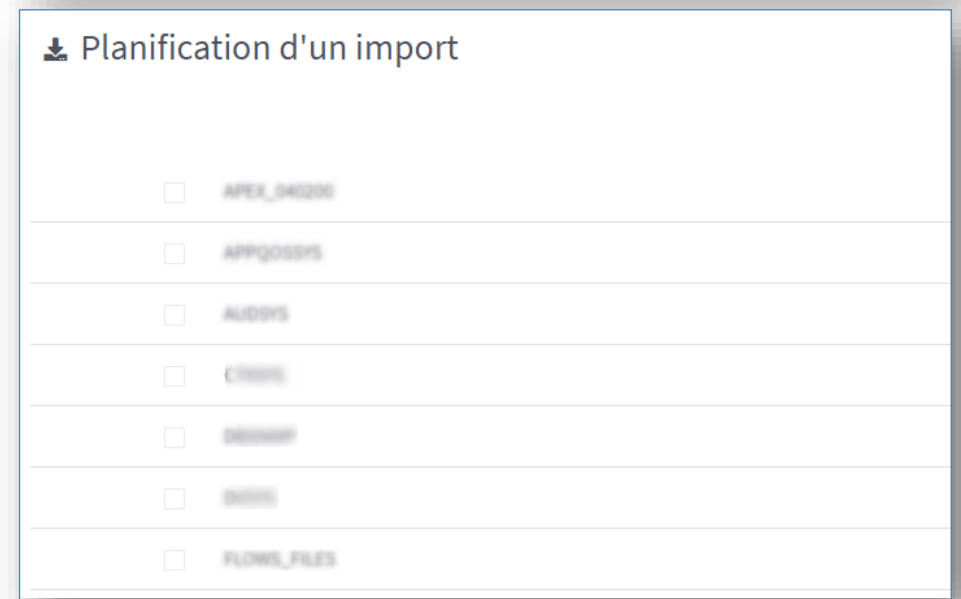
❑ The second step allows the selection of schemas to plan in Meta Analysis



Planification d'un import

Nom	Valeur
SERVEUR	<input type="text"/>
AUTHENTIFICATION	<input type="text" value="Windows"/>
NOM D'UTILISATEUR	<input type="text"/>
MOT DE PASSE UTILISATEUR	<input type="password"/>

The screenshot shows a dialog box titled "Planification d'un import" with a close button (x), a refresh button (↺), and a checkmark button (✓). It contains a table with four rows: "SERVEUR", "AUTHENTIFICATION", "NOM D'UTILISATEUR", and "MOT DE PASSE UTILISATEUR". Each row has a "Valeur" column with a text input field. The "AUTHENTIFICATION" field is open to a dropdown menu showing "Windows", "Sql Server", and "Integrated".



Planification d'un import

- APEX_INQ200
- APPQOSYS
- AUDSYS
- CTRSYS
- DEMAPP
- DMSYS
- FLOWS_FILES

The screenshot shows the same dialog box as above, but the "Valeur" column is empty, and a list of schemas is displayed below the table. Each schema name is preceded by an unchecked checkbox.

Description - Authentication

- ❑ There are 3 types of authentications to retrieve SQL Server metadata
 - SQL Server: This authentication uses a local SQL Server account with access rights to the database.
 - Windows: This authentication uses a named Active Directory account with access rights to the database.
 - Integrated: This authentication uses the account launching the connectivity agent. This account is configured during the installation of the Connectivity Agent and must have access rights to the database. There is no need to enter username and password.

Microsoft SQL Server Integration Services Connectivity



**Microsoft SQL
Server Integration
Services**

The SSIS product

❑ Reminder of the solution

- Microsoft ETL Tool

❑ Constraints

- Position them. dtsx (packages) in a user-accessible directory dedicated to Meta Analysis
- Have Integration Services installed on the Connectivity Agent server.

❑ Description of connectivity:

Editor	Solution	Version	Meta Analysis v7
Microsoft	SSIS	2016	Automated

❑ Connector last updated : April 2024

❑ Prerequisites for using connectivity

- Have planned the databases used by SSIS

Useful metadata

□ What is recoverable

- Treatments
- The transformations
- The files
- Associations between the metadata reported

□ Limits

- Recovery mode is based on scanning SSIS packages and not on scanning the SQL SERVER repository

Description

- ❑ The first step is to define the projects folder and database configuration
- ❑ The second step allows the selection of folders containing the treatments to be planned in Meta Analysis

The screenshot shows a dialog box titled "Planification d'un import" with a close button (X) and a checkmark button. It contains a table with two columns: "Nom" and "Valeur".

Nom	Valeur
Répertoire à analyser ou fichier dtsx	<input type="text"/>
Répertoire des fichiers de variable de contexte	<input type="text"/>

The screenshot shows the same dialog box "Planification d'un import" with a close button (X) and a checkmark button. It displays a list of folders with checkboxes for selection.

- Z:\SBS\AMMx_000\AMMx_000\FILE VERS SQL SERVER.dtsx
- Z:\SBS\AMMx_000\AMMx_000\ImportDatainCOE.dtsx
- Z:\SBS\AMMx_000\AMMx_000\COE VERS DMH.dtsx
- Z:\SBS\AMMx_000\AMMx_000\Packaget.dtsx
- Z:\SBS\AMMx_000\AMMx_000\obj\Development\FILE VERS SQL SERVER.dtsx
- Z:\SBS\AMMx_000\AMMx_000\obj\Development\ImportDatainCOE.dtsx
- Z:\SBS\AMMx_000\AMMx_000\obj\Development\COE VERS DMH.dtsx
- Z:\SBS\AMMx_000\AMMx_000\obj\Development\LANCIE_TOUT.dtsx
- Z:\SBS\AMMx_000\AMMx_000\obj\Development\COE VERS DMH.dtsx

Stambia Connectivity



Stambia

The Stambia product

❑ Reminder of the solution

- Data transformation tool.

❑ Description of connectivity:

Editor	Solution	Version	Meta Analysis v7
Stambia	Stambia	20.0	Automated

❑ Connector last updated : December 2023

❑ Prerequisites for using connectivity

- Have planned the databases used by Stambia

Useful metadata

□ What is recoverable

- Process (we recover all the processes but we only analyze those with an associated mapping) which will be projects
- mapping: treatments
- Transformation
- Power mode
- Filters
- Joins

Description

- ❑ The first step is to define the projects folder and database configuration
- ❑ The second step allows the selection of folders containing the treatments to be planned in Meta Analysis

The screenshot shows a dialog box titled "Planification d'un import" with a close button (X) and a refresh button (↺). It contains a table with two columns: "Nom" and "Valeur".

Nom	Valeur
Répertoire des projets	<input type="text"/>
Répertoire des fichiers de variable de contexte	<input type="text"/>
Configurations des bases de donnée	<input type="text"/>

The screenshot shows the same dialog box, now displaying a list of folders to be selected. Each folder name is preceded by a checkbox.

- global\templates\Structure_Queries.prc
- global\templates\In_Process_all.prc
- global\templates\In_Process_0K.prc
- global\templates\Section_folders_archives.prc
- global\templates\Section_folders_Rights.prc
- global\templates\Section_Rights.prc
- global\templates\Continuation_Process.prc
- global\templates\file\201206106\source\file\2\table\02.prc
- global\templates\table\table_lock_table.prc
- global\templates\table\table_unlock_table.prc
- global\templates\Software\201206106\Software\table.prc
- global\templates\Software\201206106\file\Software\table.prc
- global\templates\Software\201206106\Software\table.prc

Talend Connectivity

talend

Talend

The Talend product

- ❑ **Reminder of the solution**

- Data transformation tool.

- ❑ **Description of connectivity:**

Editor	Solution	Version	Meta Analysis v7
Talend	Talend	Cloud	Automated

- ❑ **Connector last updated : February 2024**

- ❑ **Prerequisites for using connectivity**

- Have planned the databases used by Talend

Useful metadata

□ What is recoverable

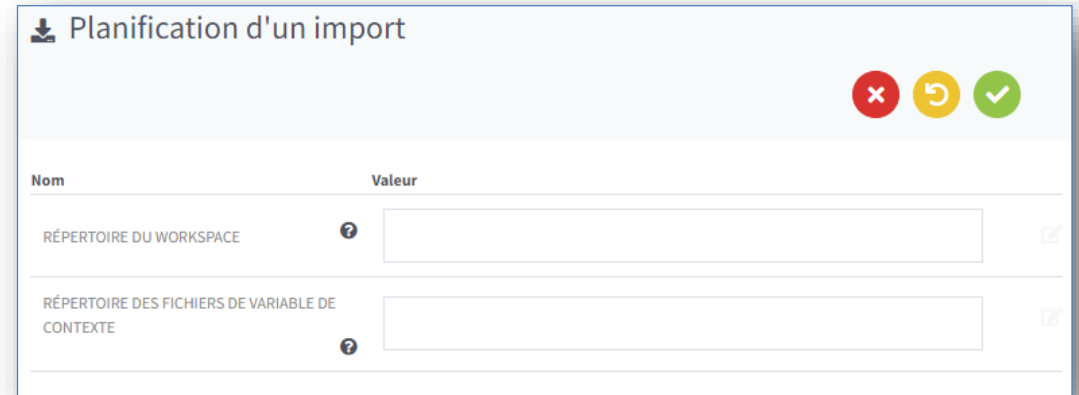
- Jobs (Processing)
- Flat files used as input in these jobs
- The source and target tables/columns linked to these jobs
- The contexts used

□ The limits

- processing files to the Meta Analysis server

Description

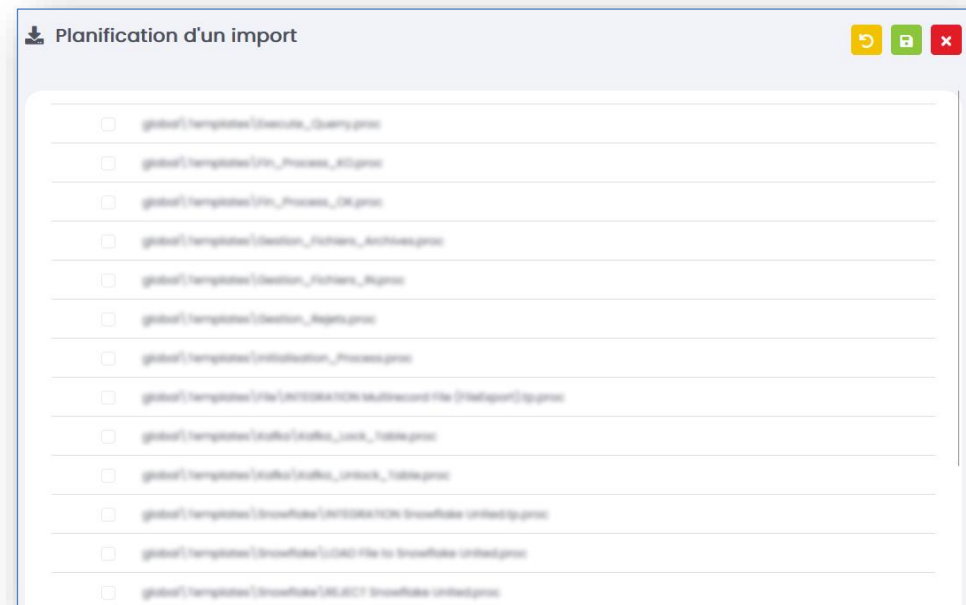
- ❑ The first step is to define the projects folder and context file path for variable replacement
- ❑ The second step allows the selection of folders containing the treatments to be planned in Meta Analysis



Planification d'un import

❌ ↺ ✅

Nom	Valeur
RÉPERTOIRE DU WORKSPACE	<input type="text"/>
RÉPERTOIRE DES FICHIERS DE VARIABLE DE CONTEXTE	<input type="text"/>

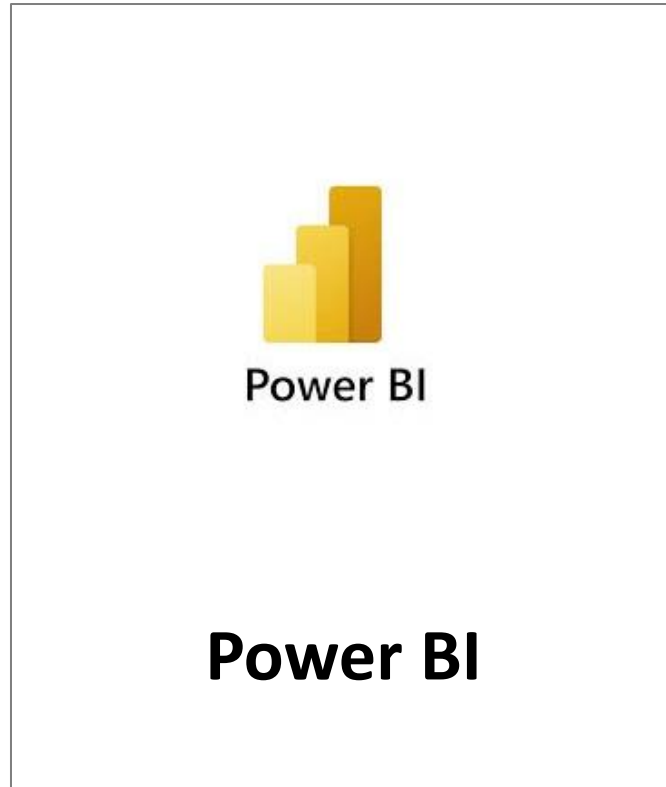


Planification d'un import

↺ 📁 ❌

- global\templates\Structure_Query.pptx
- global\templates\Trn_Process_40.pptx
- global\templates\Trn_Process_08.pptx
- global\templates\Decision_1chiers_Archive.pptx
- global\templates\Decision_1chiers_Rp.pptx
- global\templates\Decision_Rp.pptx
- global\templates\Continuation_Process.pptx
- global\templates\1he\2012081016\source\1he\2\1he\port\2.pptx
- global\templates\1he\2012081016\source\1he\2\1he\port\2.pptx
- global\templates\1he\2012081016\source\1he\2\1he\port\2.pptx
- global\templates\1he\2012081016\source\1he\2\1he\port\2.pptx
- global\templates\1he\2012081016\source\1he\2\1he\port\2.pptx
- global\templates\1he\2012081016\source\1he\2\1he\port\2.pptx
- global\templates\1he\2012081016\source\1he\2\1he\port\2.pptx

Power BI connectivity



Microsoft's Power BI product

- ❑ **Reminder of the solution**

- Restitution tool

- ❑ **Limitations**

- ❑ NativeQueryys are not taken into account.

- ❑ **Description of connectivity:**

Editor	Solution	Version	Meta Analysis V 7
Microsoft	Power BI	Cloud/On-Premise	Automated

- ❑ **Connector last updated : October 2023**

Prerequisites and limitations

❑ Prerequisites for using connectivity

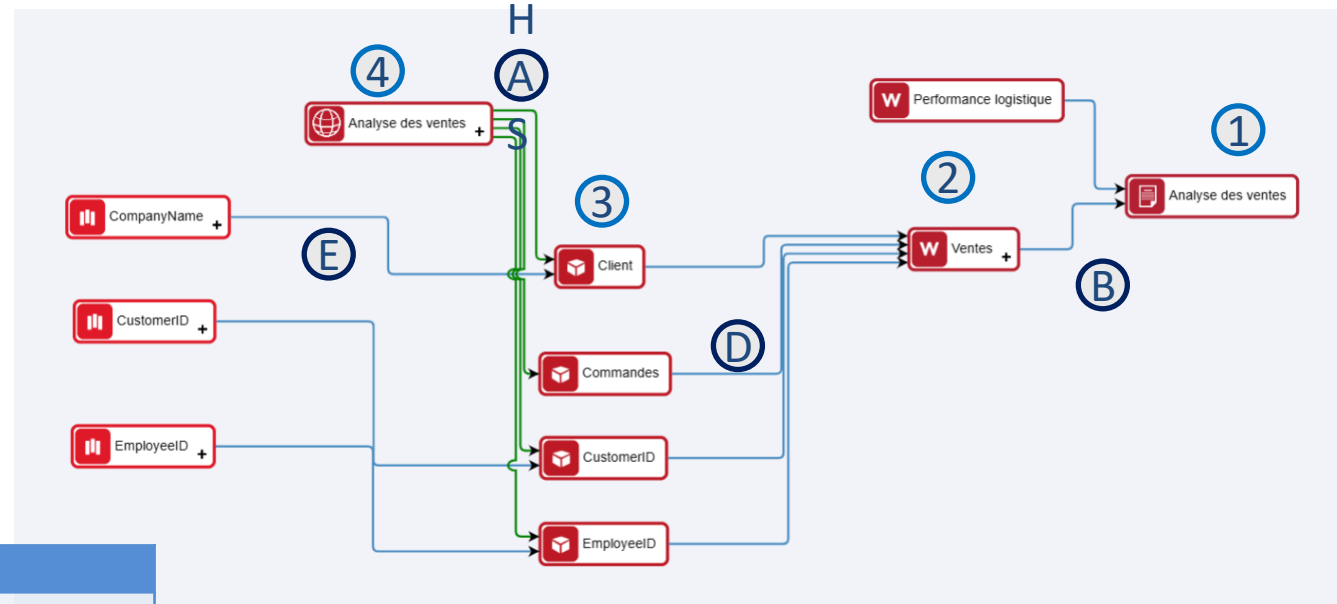
- Have a main service
- This connection must have the “Administrator” role on the workspaces to import.

❑ The limits

- The databases used must be traced beforehand to create the chaining up to the column

Metadata and associations

Element	Metadata
Workspace	N / A
① Report (pbix)	Document
② Page	Leaf
③ Field	Object
④ Semantic model (dataset)	Semantic layer



H	Association	Description
Ⓐ	Semantic layer (parent) - Objects (child)	Semantic model to contained fields
Ⓑ	Document (target) - Sheets (source)	Sheet to document
Ⓒ	Objects (source) - Objects (target)	Field to a dependent field
Ⓓ	Objects (source) - Leaves (target)	Object to sheets that use it
Ⓔ	Columns (source) - Objects (target)	Column from a storage already mapped to the field created from this column

Description

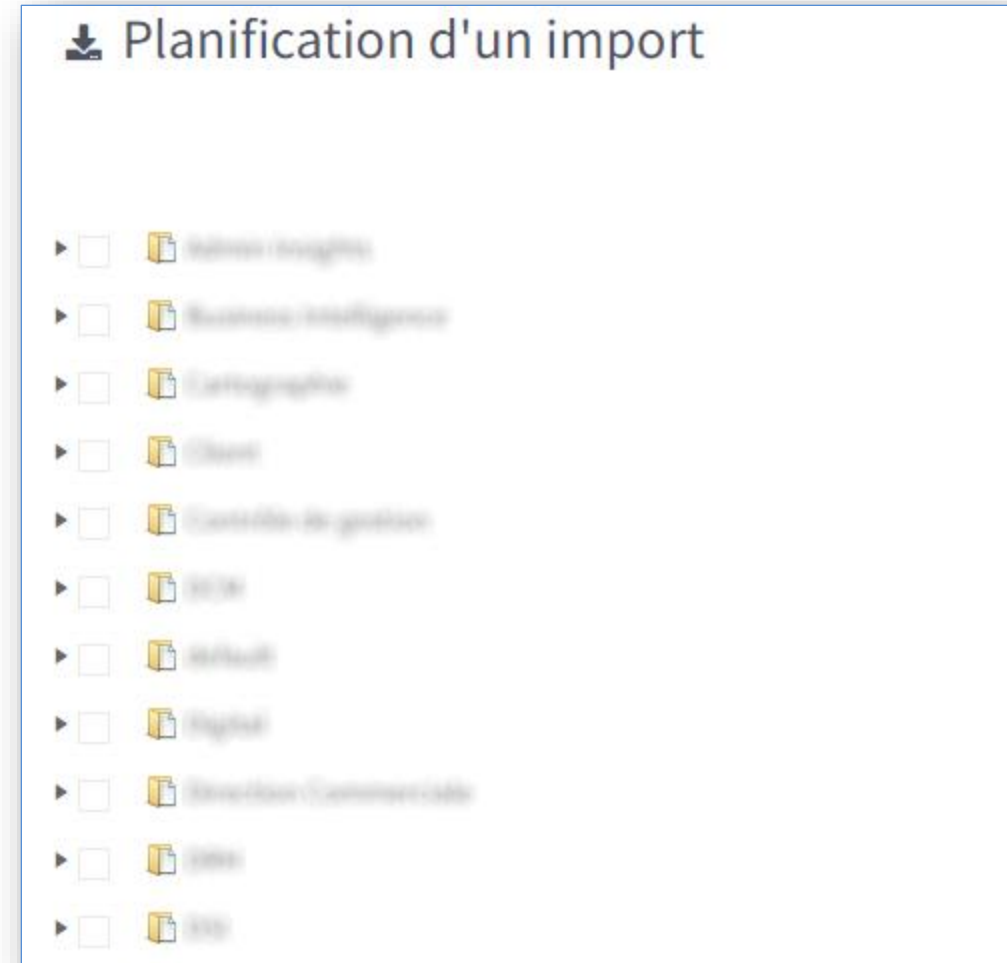
❑ The first step is to log in to Power BI

- Directory Id (tenant) or Tenant Id: It is provided to you by the administrator of your Azure tenant
- Secret key: It is given to you by the creator of the main service.
 - Please note: this information cannot be retrieved later.
- Application ID: It is given to you by the creator of the main service

Nom	Valeur
ID de l'annuaire (locataire) ?	<input type="text"/>
Clé secrète du client (Application azure) ?	<input type="text"/>
Id de l'application ?	<input type="text"/>

Description

- The second step allows the selection of workspaces to analyze in Meta Analysis





Qlik[®] Sense

Qlik Sense

Reminder of the solution

- Restitution tool

Limitations

- APPLYMAPs are not supported.

Description of connectivity:

Editor	Solution	Version	Meta Analysis V 7
Qlik	Qlik Sense	Cloud/On-Premise	Automated

Connector last updated : August 2024

Prerequisites and Limitations

❑ Prerequisites for using connectivity

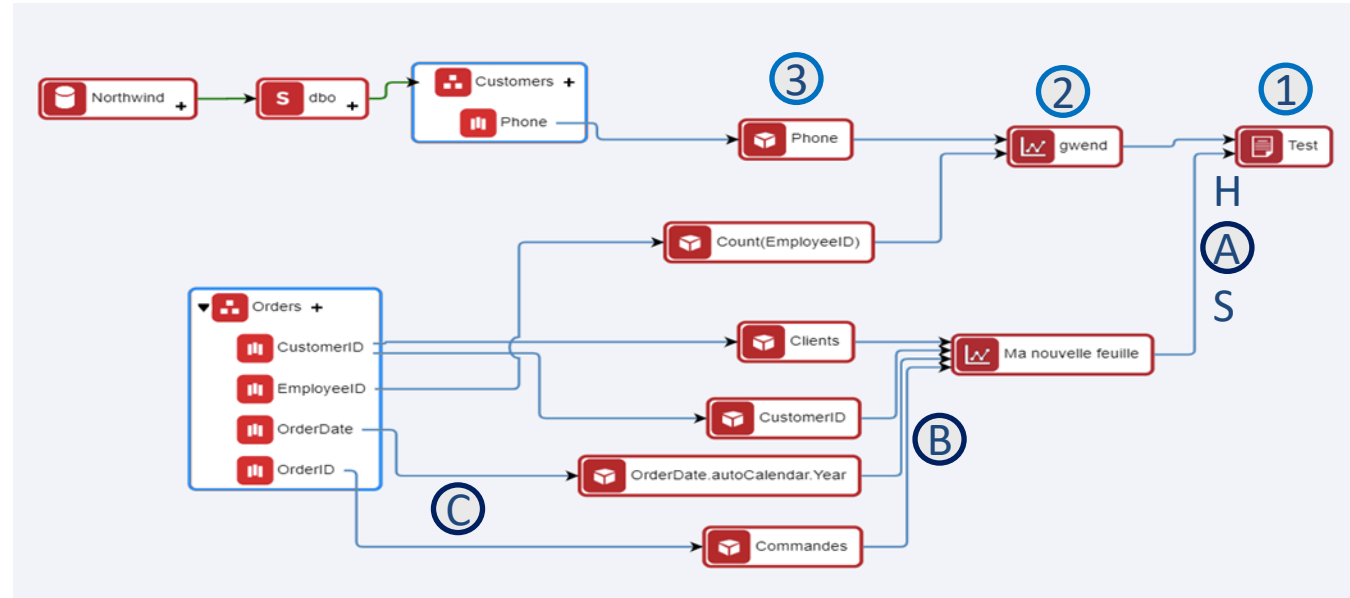
- Have created an API key

❑ The limits

- The databases used must be traced beforehand to create the chaining up to the column

Metadata and associations

	Element	Metadata
	Workspace	N / A
①	Application	Document
②	Leaf	Leaf
③	Field	Object



H	Association	Description
Ⓐ	Document (target) - Sheets (source)	Sheet to document
Ⓑ	Objects (source) - Leaves (target)	Object to sheets that use it
Ⓒ	Columns (source) - Objects (target)	Column from a storage already mapped to the field created from this column

Description

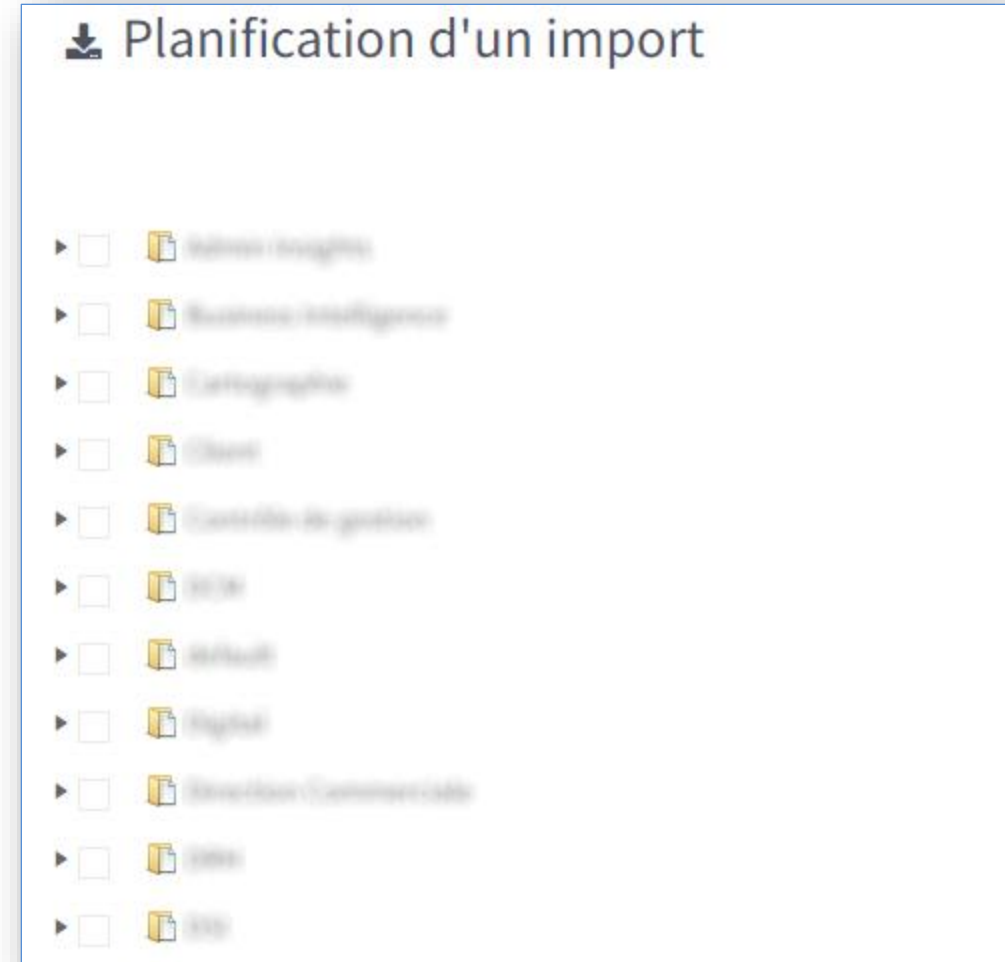
□ The first step is to log in to Qlik Sense

- Server: server name without http
- API key: generated by a user with rights in qlik Sense .
 - Please note: this information cannot be retrieved later.

Nom	Valeur
Serveur	?
Clé API	?

Description

- ❑ The second step allows the selection of spaces to analyze in Meta Analysis



SAP BO Connectivity



SAP BO

The SAP BO product and connectivity

❑ Reminder of the solution

- Restitution tool

❑ Constraints

- A Business Objects client must be installed on the connectivity agent server. It must include the “Designer” tool allowing the analysis of universes
- For UNIX files, they must be retrieved manually and put into the folder specified in the configuration file (appsetting.config “ ConnectivityDirectory ”/SAPBI)

❑ Description of connectivity:

Editor	Solution	Version	Meta Analysis V 7
SAP	Business Object	4.X	Automated

❑ Connector last updated: April 2024

Connectivity

❑ Prerequisites for using connectivity

- Have an account with access rights to the Rest full API, to launching Designer and to importing universes.
- A Business Objects client must be installed on the connectivity agent server. It must include “Designer” tools allowing analysis of the universes.

❑ Warning :

- For UNX import, you must place the files in a folder called SAPBI accessible by the connectivity agent, and specify the path in the appSettings file .
- Files must be unsecured upon extraction.
- The folder name must be that of the universe and all files. blx and dfx must be in the parent folder.
- For Universes, you must have defined the " SapBiUniversApplication " variable in the appsetting file with the path where the MetaAnalysis.Connectivity.SAPBIUniversApp.exe application is located.

Useful metadata

❑ What is recoverable

- Universe (Name, description, storage directory, CUID)
- Objects (Name, description, type, formula, where clause , class, visibility, predefined conditions)
- Documents (Name, description, storage directory, type, number of data providers)

❑ Limits on universe ascents

- For the analysis of derived tables, the columns must be prefixed in the SQL command (examples: Table.Column , AliasDeTable.col)
- The following case will not generate either association or warning:
Case of a join: “Select colA , colB from tableA , tableb where tableA.col1 = tableB.col2”. The colA and colB columns will not be analyzed.

Useful metadata

❑ Limits on document uploads

- Hidden Object/Document Association: Currently, if a class or an object is hidden in Designer, the association will be carried out only if the name of the object is unique in the universe.
- Document in the User Folders folder: It is not possible to analyze documents by directly analyzing the “User Folders” folder of the BO server.
- Webi Condition Type : Webi documents in version 3.1SP2 offer the possibility of using the result objects of a query in the conditions of another query. This limitation is due to BO.

Useful associations

□ What is recoverable

- Layer semantics (parent) - Objects (child)
- Columns (source) - Objects (target)
- Queries (source) - Documents (target)
- Objects (source) - Queries (target)

Connection SAP BO Document

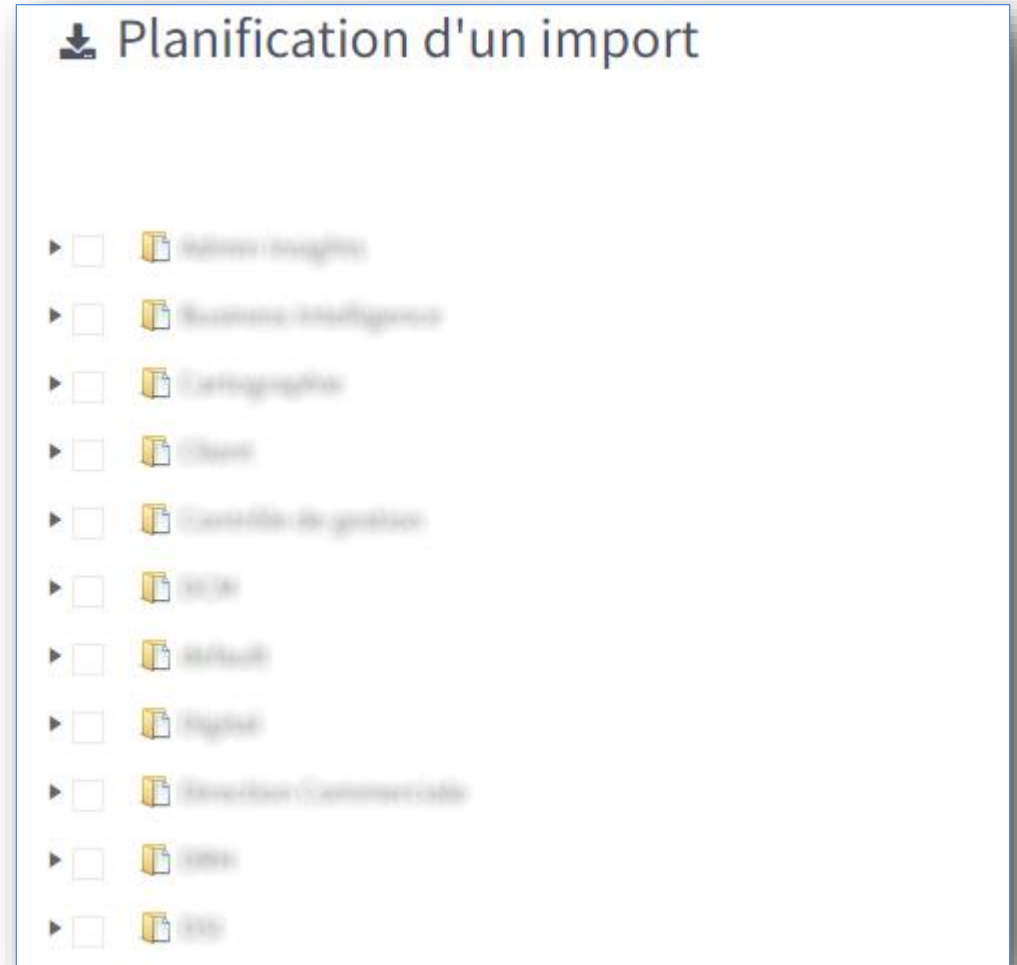
Planification d'un import

Nom		Valeur
Serveur	?	<input type="text"/>
Port RESTFull	?	6405
Authentification	?	secEnterprise
Nom d'utilisateur	?	<input type="text"/>
Mot de passe utilisateur	?	<input type="text"/>

- Inform the server
- Enter the RESTFull port (6405 by default)
- Select authentication type
- Enter the user ID
- Enter the user's password

Connection SAP BO Document

- The second step allows the selection of folders to be scheduled in Meta Analysis



Connection SAP BO Universe and Unx

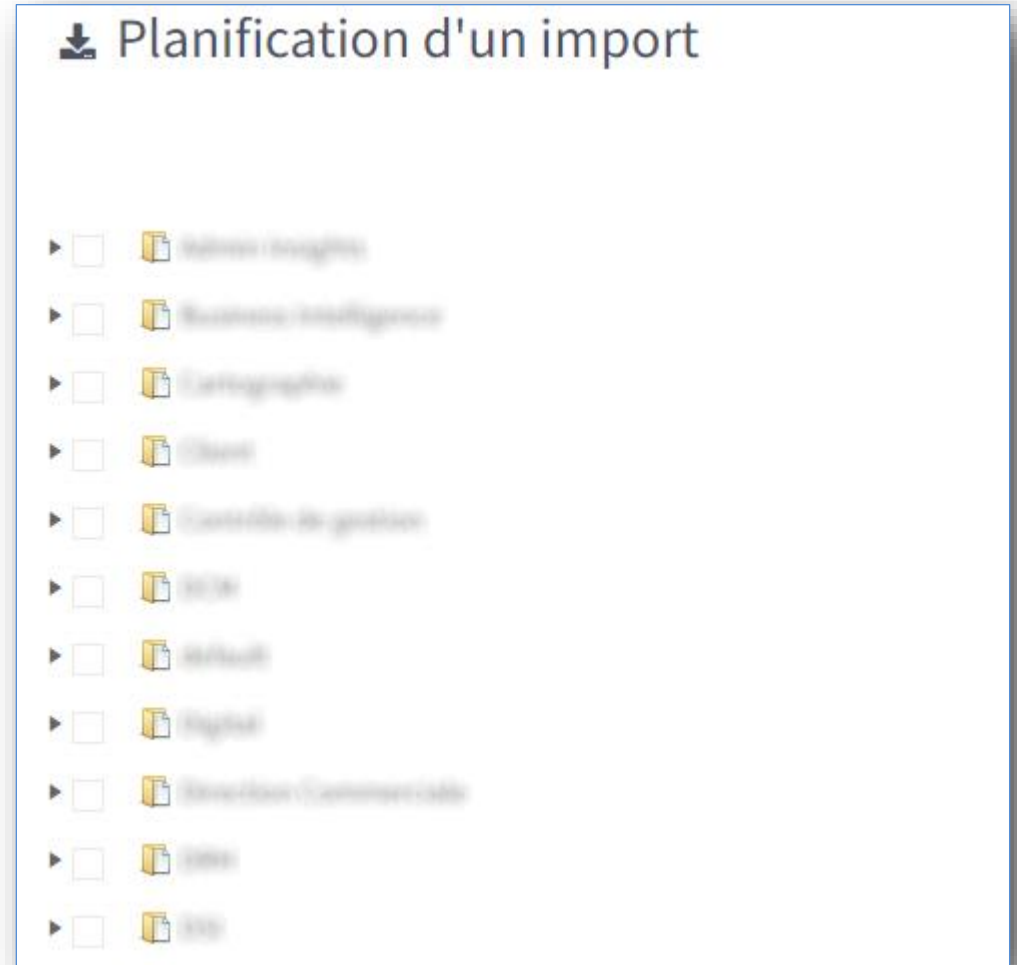
Planification d'un import

Nom	Valeur
Serveur	<input type="text"/>
Port CMS	<input type="text" value="6400"/>
Port RESTFull	<input type="text" value="6405"/>
Authentification	<input type="text" value="Enterprise"/>
Nom d'utilisateur	<input type="text"/>
Mot de passe utilisateur	<input type="text"/>

- Inform the server
- Enter the CMS port (6400 by default)
- Enter the RESTFull port (6405 by default)
- Select authentication type
- Enter the user ID
- Enter the user's password

Connection SAP BO Universe

- The second step allows the selection of universes to plan in Meta Analysis



SAP BO Unx connection

- The second step allows the selection of unx to plan in Meta Analysis
- When you check an unx , a new “databases concerned” field appears to select the databases to link with the universe.

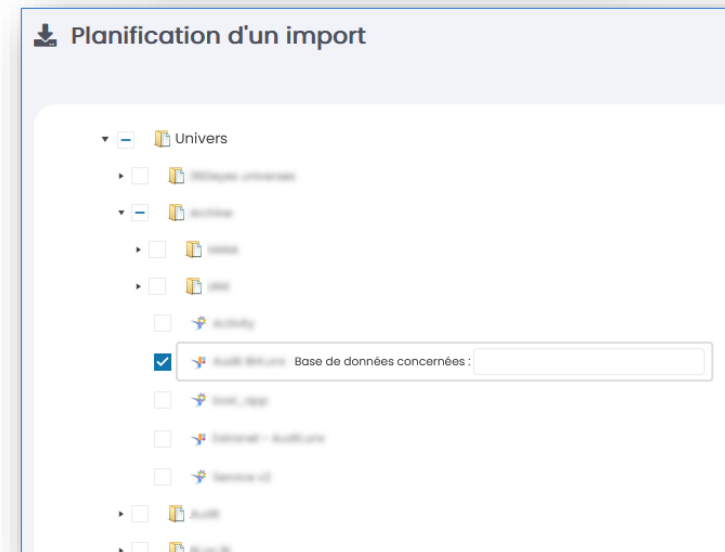
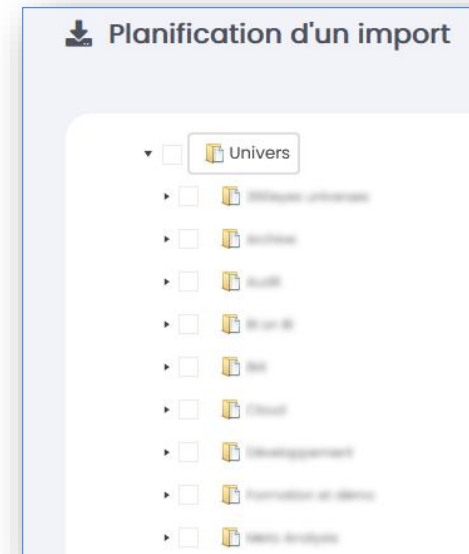
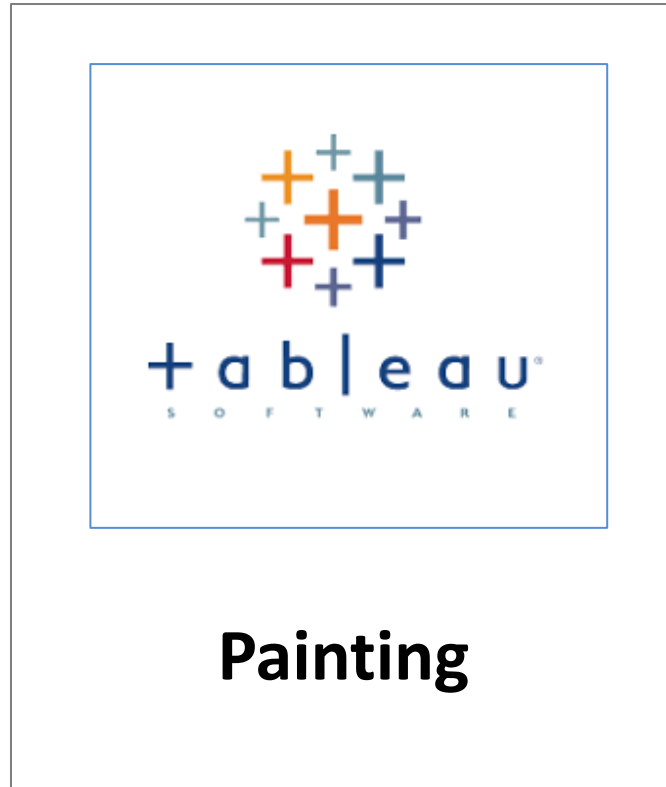


Tableau Connectivity



The Tableau product (Online/Server)

Reminder of the solution

- Restitution tool

Limitations

- Data prep is not taken into account. Only the final file and columns are remounted.

Description of connectivity:

Editor	Solution	Version	Meta Analysis V 7
Salesforce	Painting	Cloud	Automated
Salesforce	Painting	Server	Automated

Connector last updated : July 2021

Connectivity

❑ Prerequisites for using connectivity

- Have a Tableau account
- This connection must have the “Explorer” role on the projects to import.
- Warning:
 - To import published data sources, a user with the Explorer role on all projects is required.

❑ Recommendation for connectivity

- Tableau published data sources can be used from any workbook. (Regardless of their project) It is imperative to import all published data sources before importing the projects, this allows associations between objects to be created correctly.

Useful metadata

□ What is recoverable

- Semantic layers
- Documents
- Dashboards
- Queries
- Leaves
- Settings
- Objects
- Files
- Columns

□ The limits

- The databases used must be traced beforehand to create the chainage up to the column .

Useful associations

□ What is recoverable

- Layer semantics (parent) - Objects (child)
- Document (parent) - Settings (child)
- Dashboards (source) - Documents (target)
- Sheets (source) - Dashboards (target)
- Queries (source) - Documents (target)
- Document (source) - Sheets (target)
- Objects (source) - Objects (target)
- Objects (source) - Leaves (target)
- Objects (source) - Parameters (target)
- Objects (source) - Queries (target)
- Columns (source) - Objects (target)
- File (parent) - Columns (children)

Tableau Authentication

↓ Planification d'un import

Nom		Valeur
Serveur Tableau	?	<input type="text"/>
Type d'authentification	?	Tableau ▾
Identifiant ou nom du jeton	?	<input type="text"/>
Mot de passe ou jeton secret	?	<input type="text"/>
version	?	3.9 ▾
Site	?	<input type="text"/>
Import des sources de données publiées	?	<input type="checkbox"/>

- Select Tableau authentication type
- Enter the Tableau user ID
- Enter the password for the Tableau user

Multi-Factor Authentication

Planification d'un import

Nom	Valeur
Serveur Tableau	<input type="text"/>
Type d'authentification	<input type="text" value="MFA"/>
Identifiant ou nom du jeton	<input type="text"/>
Mot de passe ou jeton secret	<input type="text"/>
version	<input type="text" value="3.9"/>
Site	<input type="text"/>
Import des sources de données publiées	<input type="checkbox"/>

- Select MFA authentication type
- Enter the multi-factor authentication token
- Enter the multi-factor authentication secret token

Description (Tableau Server)

❑ The first step is to log in to Tableau

Planification d'un import

Nom	Valeur
INSTANCE DU SERVEUR	<input type="text"/>
NOM D'UTILISATEUR	<input type="text"/>
MOT DE PASSE UTILISATEUR	<input type="text"/>
VERSION	3.9
LIMITATION	0
SITE	<input type="text"/>
IMPORT DES SOURCES DE DONNÉES PUBLIÉES	<input type="checkbox"/>

❑ Find information in Tableau

Marketing

Marketing

Accueil

Explorer

Favoris

Récents

Partagé avec moi

Recommandations

Ressources externes

Utilisateurs

Groupes

Programmations

Travaux

Tâches

État du site

Paramètres

Général Extensions

Rétablir Enregistrer

Nom du site et ID

Nom : Marketing

ID (figurant dans l'URL) : Marketing

URL : <http://sf-vm-tableau-i/#/site/Marketing>

Instance du serveur site

Disponibilité

Déterminez si le site est disponible en ligne et accessible aux utilisateurs du site.

Actif : le site est disponible pour les utilisateurs.

Suspendu : le site est indisponible pour les utilisateurs.

Espace de stockage

Spécifiez la quantité d'espace à réserver au contenu publié par les utilisateurs :

Limite du serveur

Go

Historique des révisions

Les révisions sont des versions de contenu précédemment publiées sur le serveur.

Enregistrer l'historique des révisions

Illimité

25 révisions

Effacer l'historique des révisions...

Conclusion

www.meta-analysis.fr

Events, blog and documentary space

