



User Manual

(Applicable for software version after 0.1.0)



Date	Version	Author	Reviewer	Description
22/6/14	V0.1.0.1	Barry Huang	Devan Liang	First Edition

Content

1	Introduction.....	3
2	Initialization	6
3	Functional Instructions	10

1 Introduction

1.1 Product Introduction

WISE-PaaS iFactory/DataFabric provides data integration services for the manufacturing sector. You can extract, transform, and load discrete data sources on one consolidated platform.

1.2 Product Advantages

1. User-friendly UI provides intuitive operation.
2. The software is web-based. Users can access DataFabric at anytime, anywhere.
3. The data connection process neither requires shutting down the original system nor modifying the source code and operating configurations to ensure system stability and data security.

1.3 Product Architecture

Figure 1-1 is the product architecture and Figure 1-2 is the data flow chart.

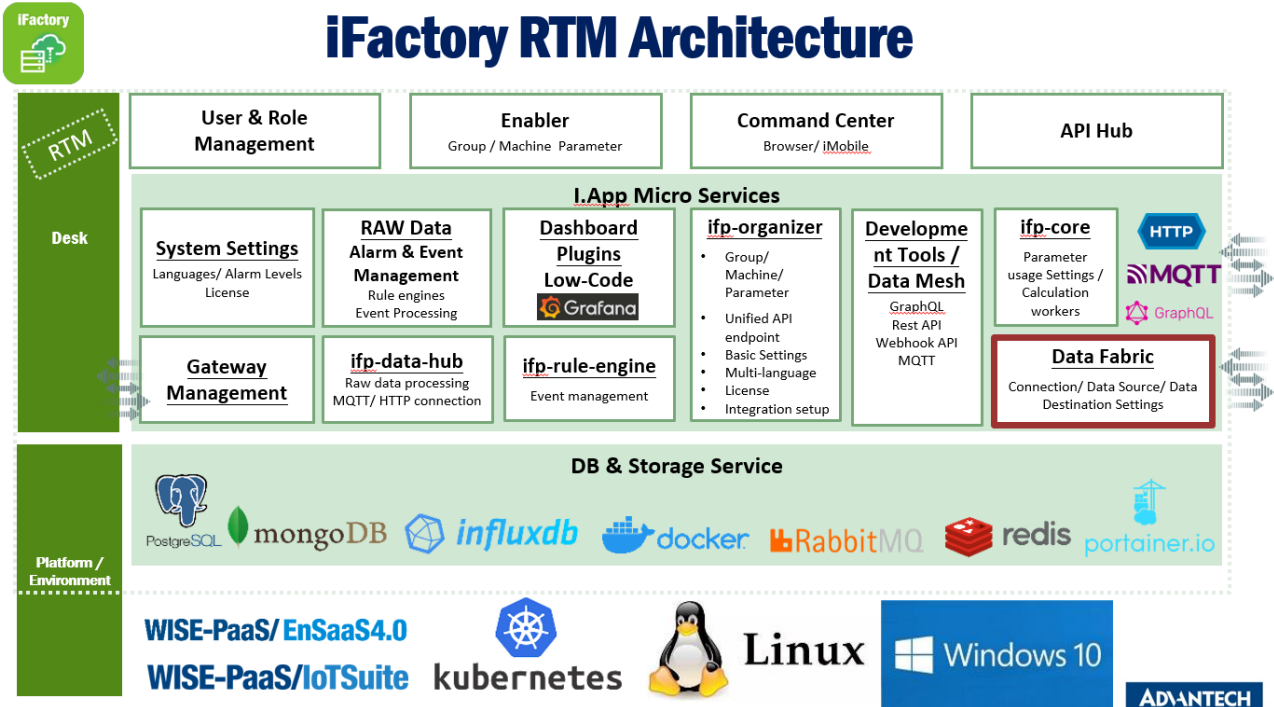


Figure 1-1 Product Architecture

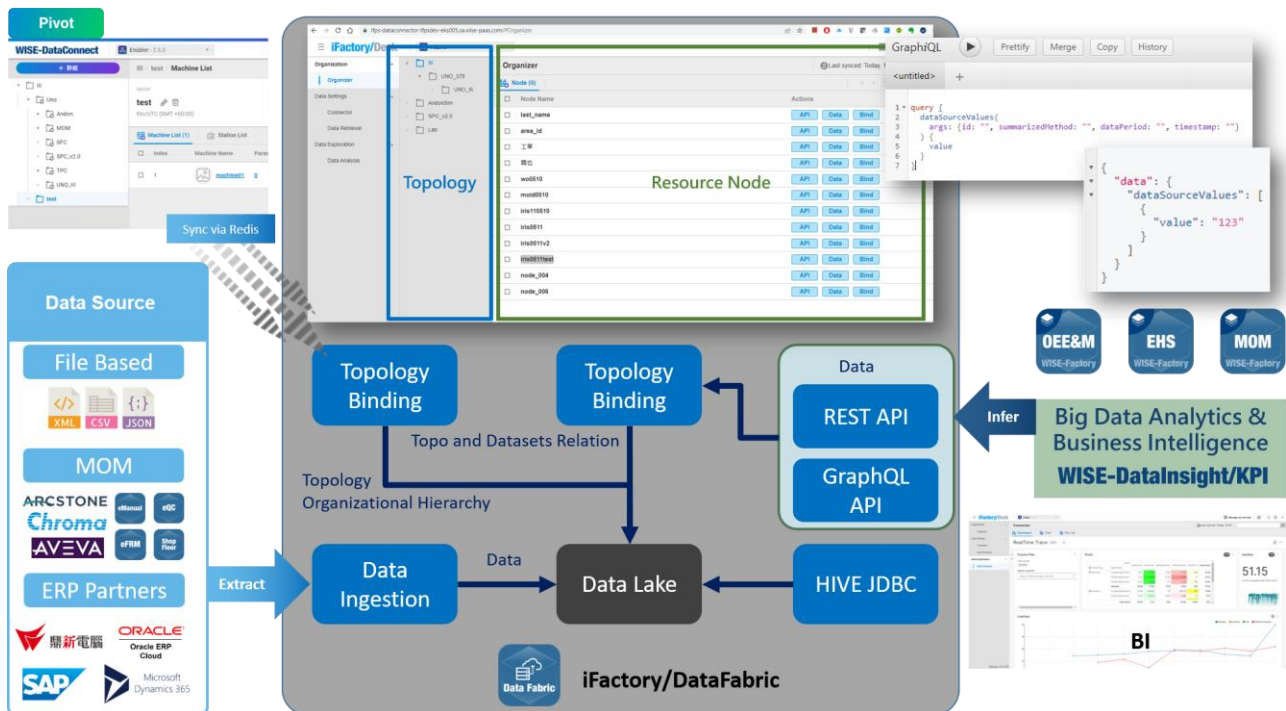


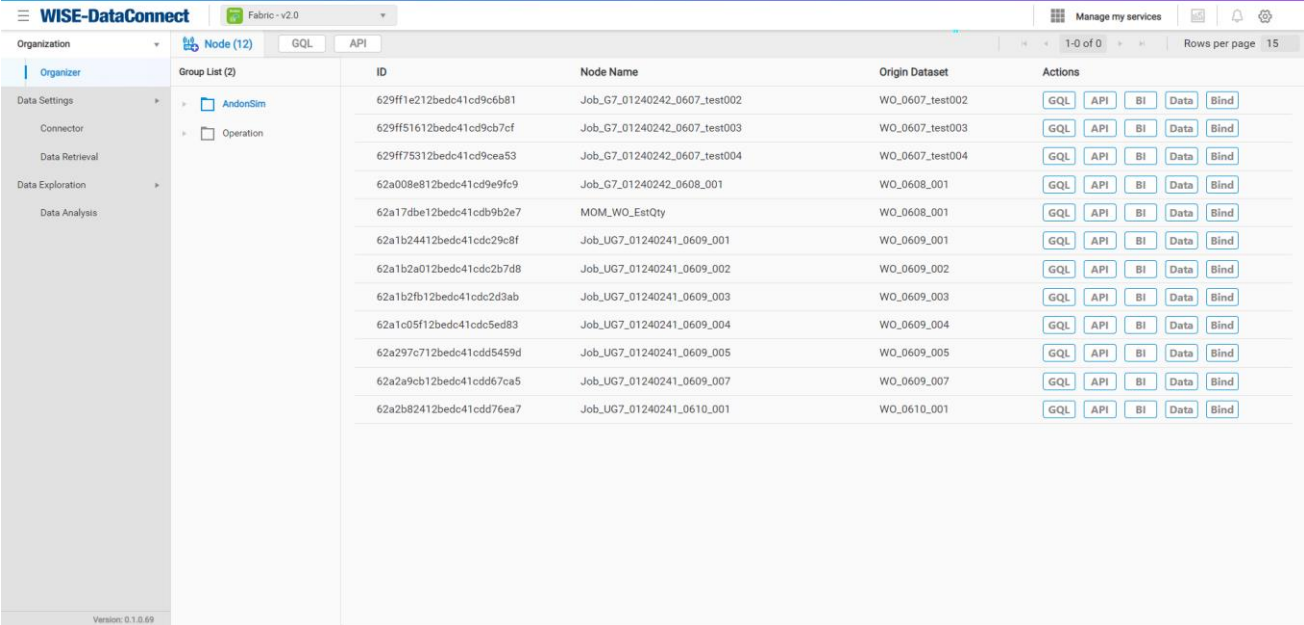
Figure 1-2 Data flow

1.4 Summary

This chapter provides users with an overview of this product. For software initialization and detailed instructions, please refer to the proceeding chapters.

1.4.1 Portal

The portal page provides a friendly UI for users to implement data ingestion, data loading, data labeling, and data binding easily.



The screenshot displays the WISE-DataConnect Portal interface. On the left is a sidebar with navigation options: Organizer, Data Settings, Connector, Data Retrieval, Data Exploration, and Data Analysis. The main area shows a table of nodes under the 'Node (12)' tab. The table has columns for ID, Node Name, Origin Dataset, and Actions. The Actions column contains buttons for GQL, API, BI, Data, and Bind. The table lists 12 nodes, each with a unique ID, a job name, and an origin dataset.

ID	Node Name	Origin Dataset	Actions
629ff1e212bedc41cd9c6b81	Job_G7_01240242_0607_test002	WO_0607_test002	GQL API BI Data Bind
629ff51612bedc41cd9cb7cf	Job_G7_01240242_0607_test003	WO_0607_test003	GQL API BI Data Bind
629ff75312bedc41cd9cea53	Job_G7_01240242_0607_test004	WO_0607_test004	GQL API BI Data Bind
62a008e812bedc41cd9e9fc9	Job_G7_01240242_0608_001	WO_0608_001	GQL API BI Data Bind
62a17dbe12bedc41cd9b9b2e7	MOM_WO_EstQty	WO_0608_001	GQL API BI Data Bind
62a1b24412bedc41cdc29c8f	Job_UG7_01240241_0609_001	WO_0609_001	GQL API BI Data Bind
62a1b2a012bedc41cdc2b7d8	Job_UG7_01240241_0609_002	WO_0609_002	GQL API BI Data Bind
62a1b2fb12bedc41cdc2d3ab	Job_UG7_01240241_0609_003	WO_0609_003	GQL API BI Data Bind
62a1c05f12bedc41cdc5ed83	Job_UG7_01240241_0609_004	WO_0609_004	GQL API BI Data Bind
62a297c712bedc41cdd5459d	Job_UG7_01240241_0609_005	WO_0609_005	GQL API BI Data Bind
62a2a9cb12bedc41cdd67ca5	Job_UG7_01240241_0609_007	WO_0609_007	GQL API BI Data Bind
62a2b82412bedc41cdd76ea7	Job_UG7_01240241_0610_001	WO_0610_001	GQL API BI Data Bind

Figure 1-3 Portal

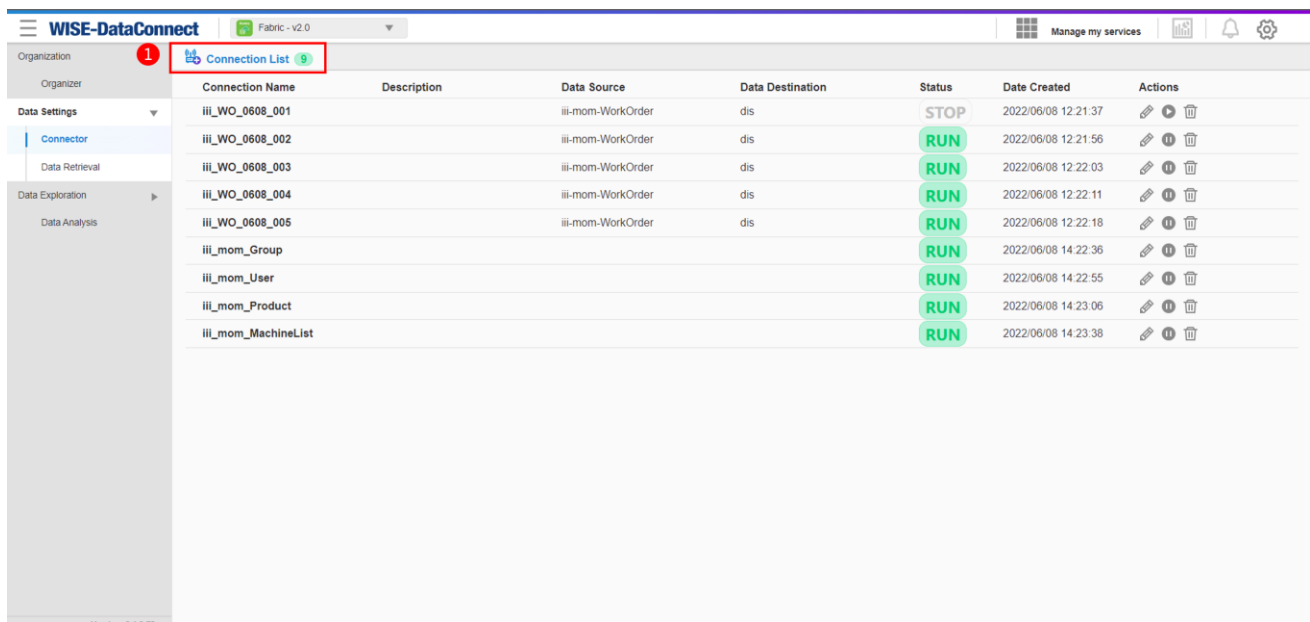
2 Initialization

Please follow below steps for product initialization. For detailed functional orientations please refer to chapter 3.

2.1 Data Settings – Connector

The connector helps consolidate various data sources into the iFactory data lake. Datafabric currently supports below databases:

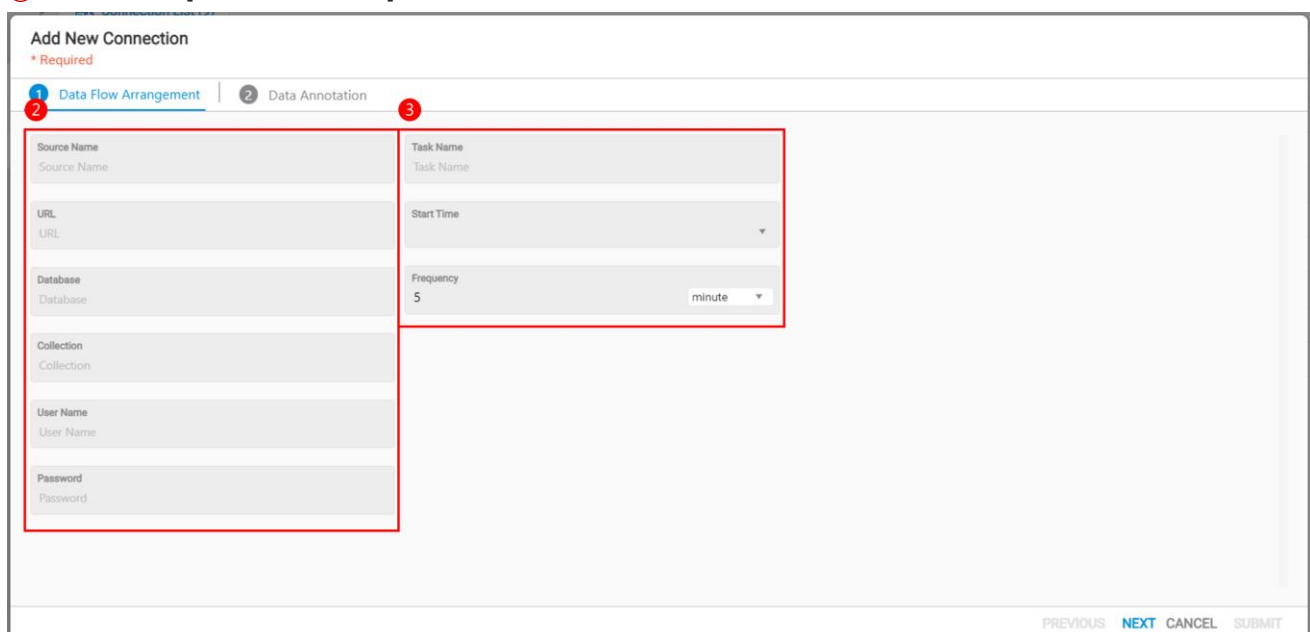
- MongoDB



Connection Name	Description	Data Source	Data Destination	Status	Date Created	Actions
iii_WO_0608_001		iii-mom-WorkOrder	dis	STOP	2022/06/08 12:21:37	
iii_WO_0608_002		iii-mom-WorkOrder	dis	RUN	2022/06/08 12:21:56	
iii_WO_0608_003		iii-mom-WorkOrder	dis	RUN	2022/06/08 12:22:03	
iii_WO_0608_004		iii-mom-WorkOrder	dis	RUN	2022/06/08 12:22:11	
iii_WO_0608_005		iii-mom-WorkOrder	dis	RUN	2022/06/08 12:22:18	
iii_mom_Group				RUN	2022/06/08 14:22:36	
iii_mom_User				RUN	2022/06/08 14:22:55	
iii_mom_Product				RUN	2022/06/08 14:23:06	
iii_mom_MachineList				RUN	2022/06/08 14:23:38	

Figure 2-1 Create new connector_1

- ① Click the [Connection List] button to create a new connector.



Add New Connection

* Required

1 Data Flow Arrangement | 2 Data Annotation

2

3

Source Name
Source Name

Task Name
Task Name

URL
URL

Start Time
Start Time

Database
Database

Frequency
5 minute

Collection
Collection

User Name
User Name

Password
Password

PREVIOUS NEXT CANCEL SUBMIT

Figure 2-2 Create new connector_2

- ② Type your database connection details here:
- Source Name: Defined by users
 - URL: database connection URL
 - Database: connection database
 - Collection: database collection
 - User Name: valid user name to access the database
 - Password: valid password to access the database
- ③ Task Name & Time
- Task Name: Defined by users
 - Start Time: the date to start extracting data
 - Frequency: database synchronization frequency

Please click [Next] to proceed.

Add New Connection
* Required

① Data Flow Arrangement | ② Data Annotation

Title: J_0614_008

Desc: Desc

Tags: Tags

Name	Type	Description	Tags
BeforeRouteStepIDs	STRING	desc	tags
CompleteAt	TIMESTAMP	desc	tags
CreatedAt	TIMESTAMP	desc	tags
CreatedMode	STRING	desc	tags
EquipmentID	STRING	desc	tags
EstCompleteAt	TIMESTAMP	desc	tags
EstQty	DOUBLE	desc	tags
EstQtyUnit	STRING	desc	tags
EstStartAt	TIMESTAMP	desc	tags
IsActive	BOOLEAN	desc	tags
IsLast	BOOLEAN	desc	tags
IsOnline	BOOLEAN	desc	tags

PREVIOUS NEXT CANCEL SUBMIT

Figure 2-3 Create new connector_3

- ④ You can give each connection and data field tags to retrieval data conveniently.
Please click [Submit] for completion, then follow the instructions of Ch 2.2.

2.2 Data Settings – Data Retrieval: Search & Binding

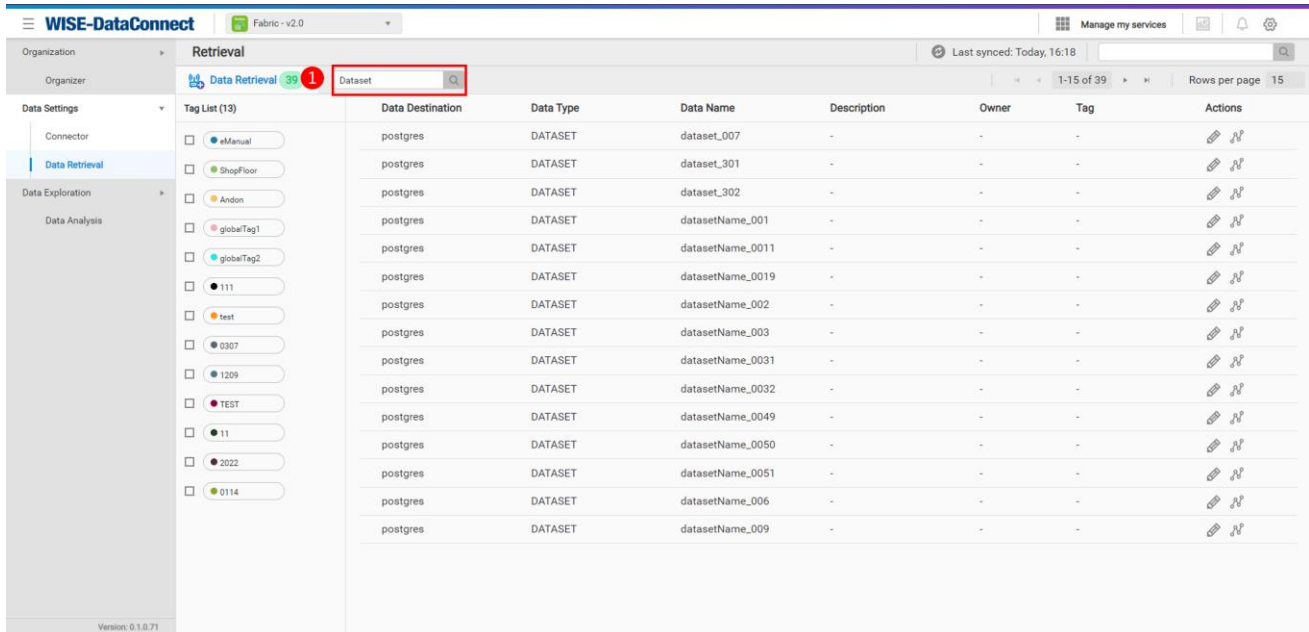


Figure 2-4 Data Settings – Data Retrieval: Search

① Access “data retrieval” tab within “data settings”, and type the name to search the connector.

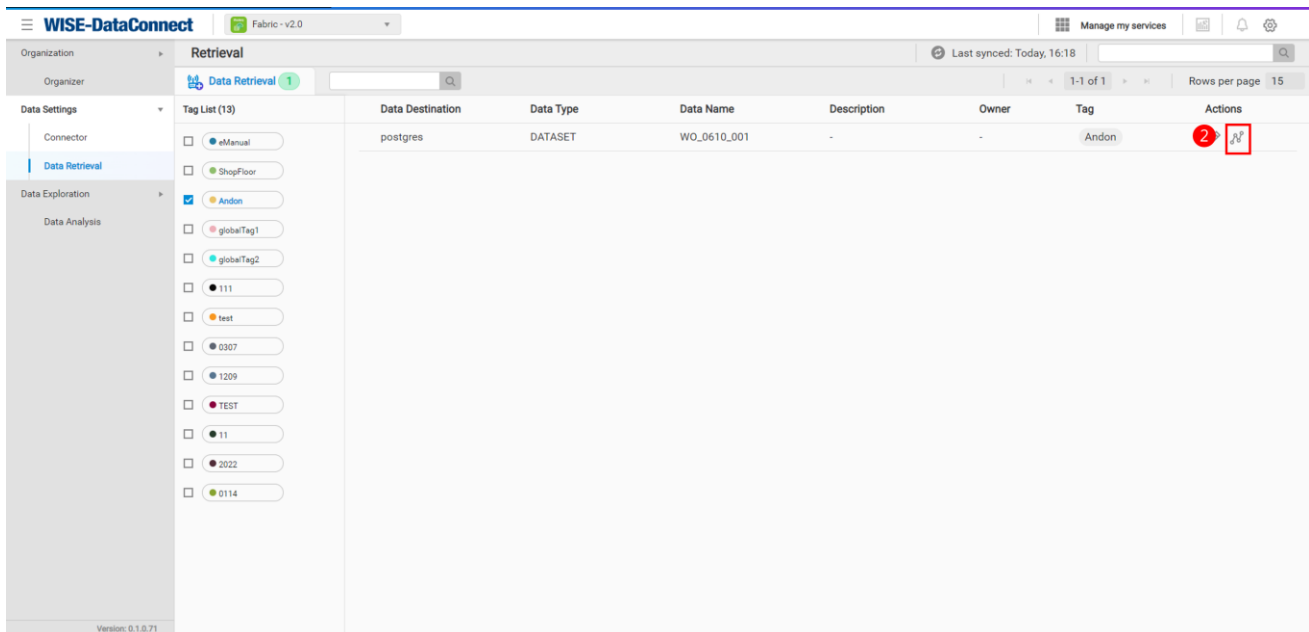


Figure 2-5 Data Settings – Data Retrieval: Binding

② Click the binding button to set up the topology.

Figure 2-6 Data Settings – Data Retrieval: Binding_2

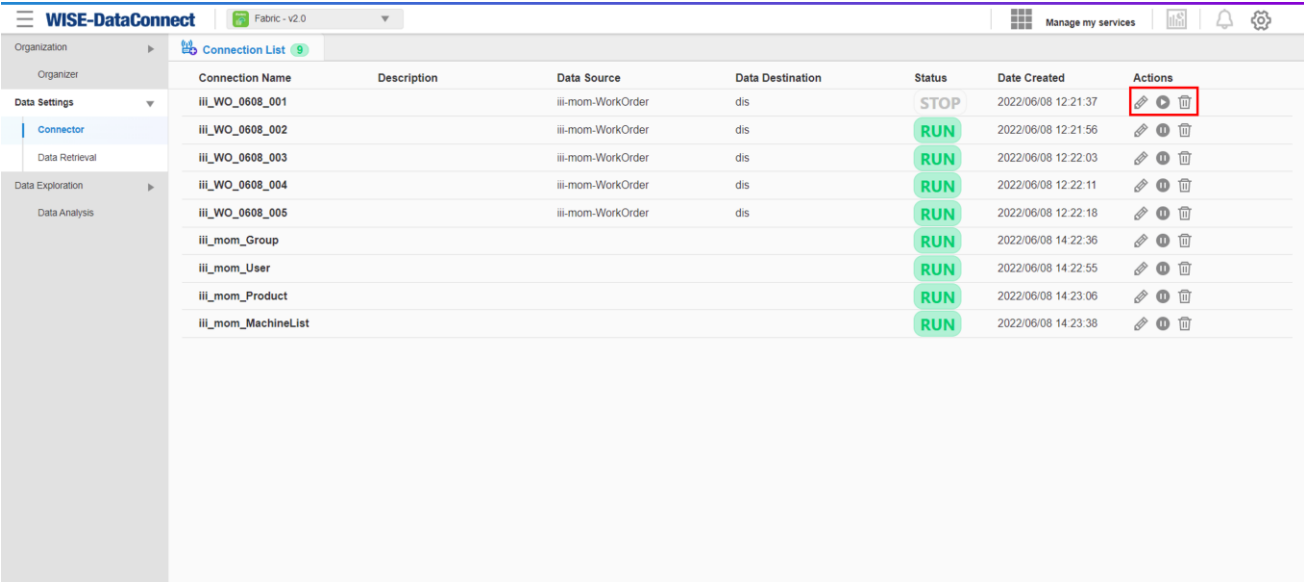
- ③ Please fill out below fields:
- Group: Choose the topology you want to bind the data destination
 - Create Node: Node Name
 - Title Name: Data Destination NAME
 - Select Column: Choose the fields to be shown. The default * means all fields are visible.
 - Key Field: The field utilized to filter records
 - Key Value: Only specific records fulfilling the key value will be shown in the organizer.
※ Further details about the key field and the key value please refer to ch 3.2.3.
 - KPI Field

Please click [Submit] for completion.

3 Functional Instructions

3.1 Data Settings – Connector: Edit, Stop, and Delete

- Click  to edit the connector
- Click to  stop/ run the connector
- Click  to delete the connector



Connection Name	Description	Data Source	Data Destination	Status	Date Created	Actions
iii_WO_0608_001		iii-mom-WorkOrder	dis	STOP	2022/06/08 12:21:37	  
iii_WO_0608_002		iii-mom-WorkOrder	dis	RUN	2022/06/08 12:21:56	  
iii_WO_0608_003		iii-mom-WorkOrder	dis	RUN	2022/06/08 12:22:03	  
iii_WO_0608_004		iii-mom-WorkOrder	dis	RUN	2022/06/08 12:22:11	  
iii_WO_0608_005		iii-mom-WorkOrder	dis	RUN	2022/06/08 12:22:18	  
iii_mom_Group				RUN	2022/06/08 14:22:36	  
iii_mom_User				RUN	2022/06/08 14:22:55	  
iii_mom_Product				RUN	2022/06/08 14:23:06	  
iii_mom_MachineList				RUN	2022/06/08 14:23:38	  

Figure 3-1 Connector: Edit , Stop, and Delete

3.2 Data Settings – Data Retrieval: Tag list, Edit, and Binding

Data Retrieval tab provides you an overview of data dependencies. You can also search, edit, or binding data here.

3.2.1 Tag List

- You can click the tag lists on the left-hand side to filter the data query shown as Figure 3-2.

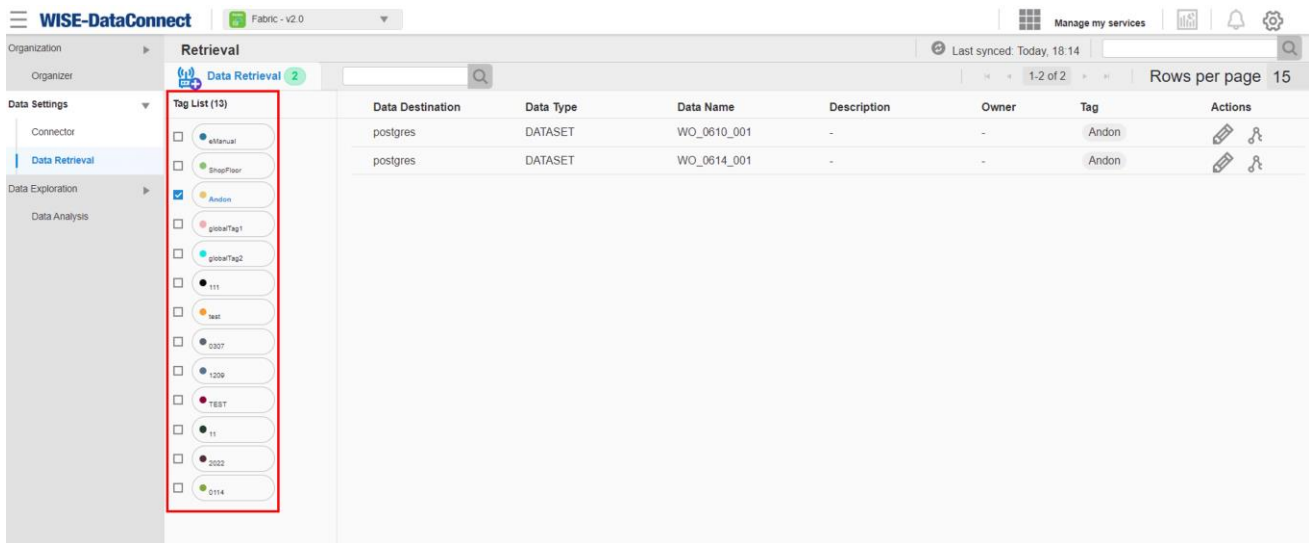


Figure 3-2 Tag list

3.2.2 Search

You can search data by key words here, and the search function is case insensitive.

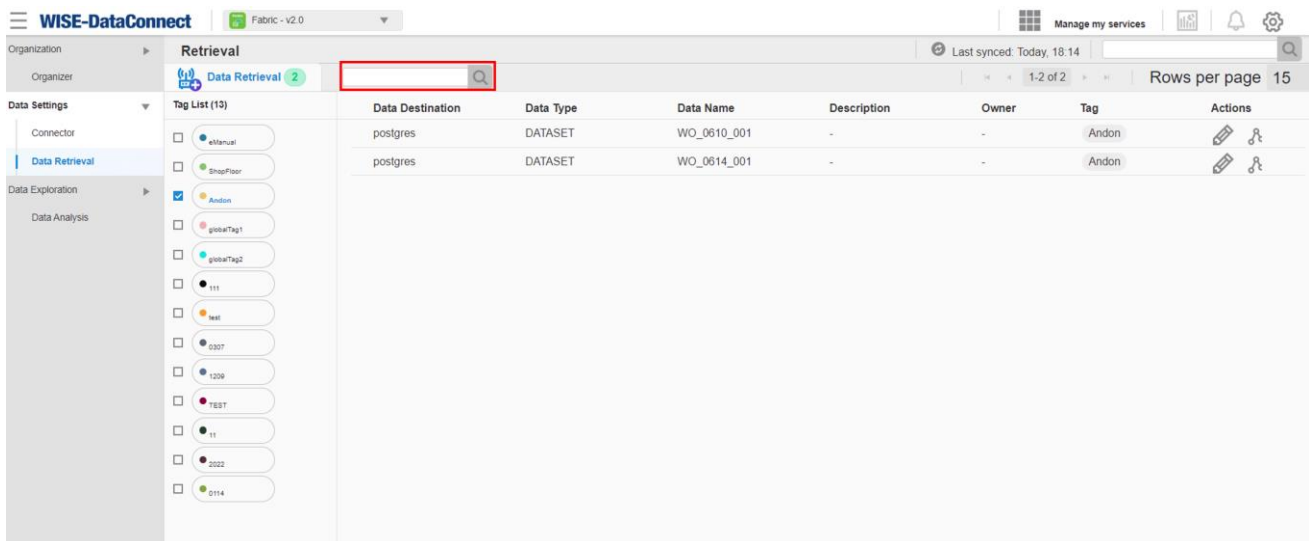


Figure 3-3 Data retrieval – search

3.2.3 Edit and Binding

- Click to edit the descriptions of selected data destination or add new documentation.

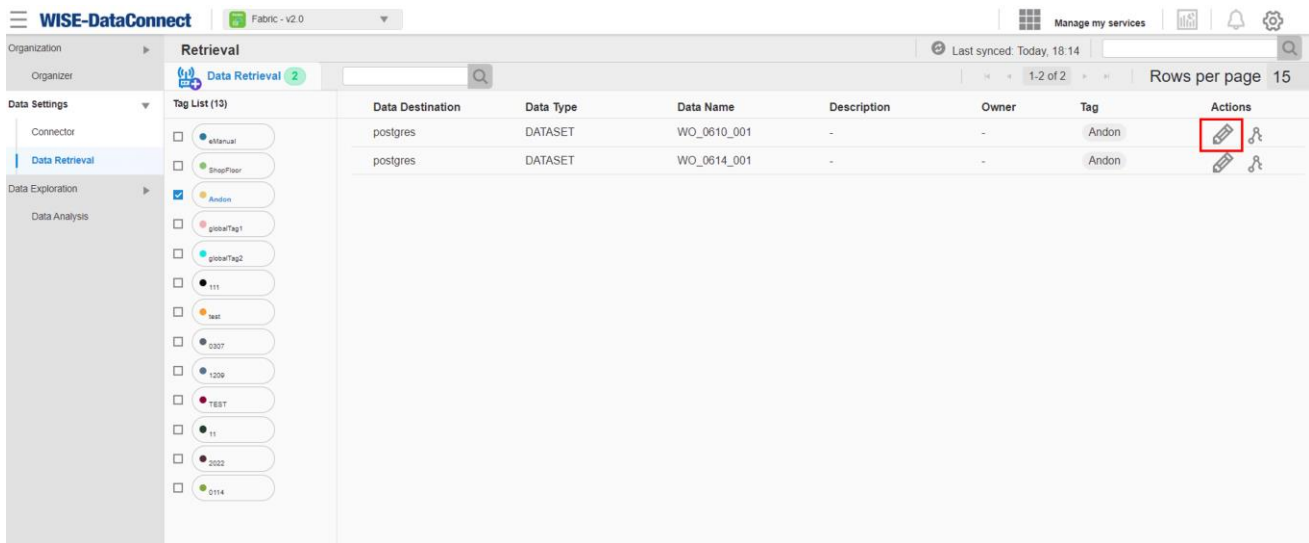


Figure 3-4 Data retrieval – Edit-1

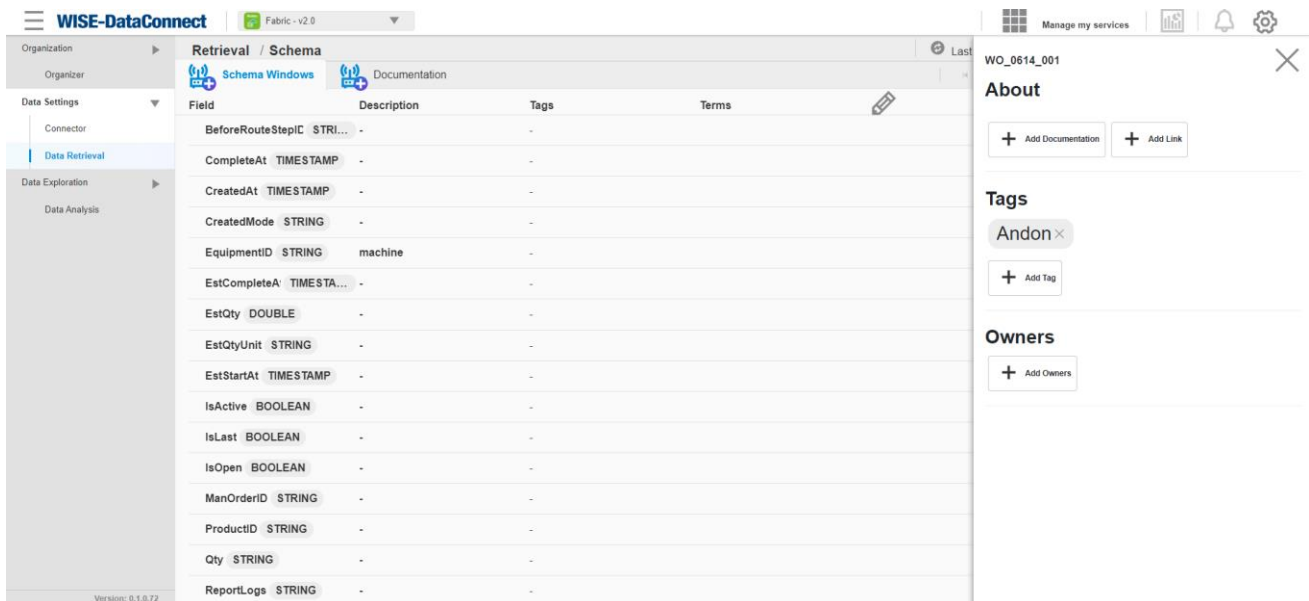


Figure 3-5 Data retrieval – Edit-2

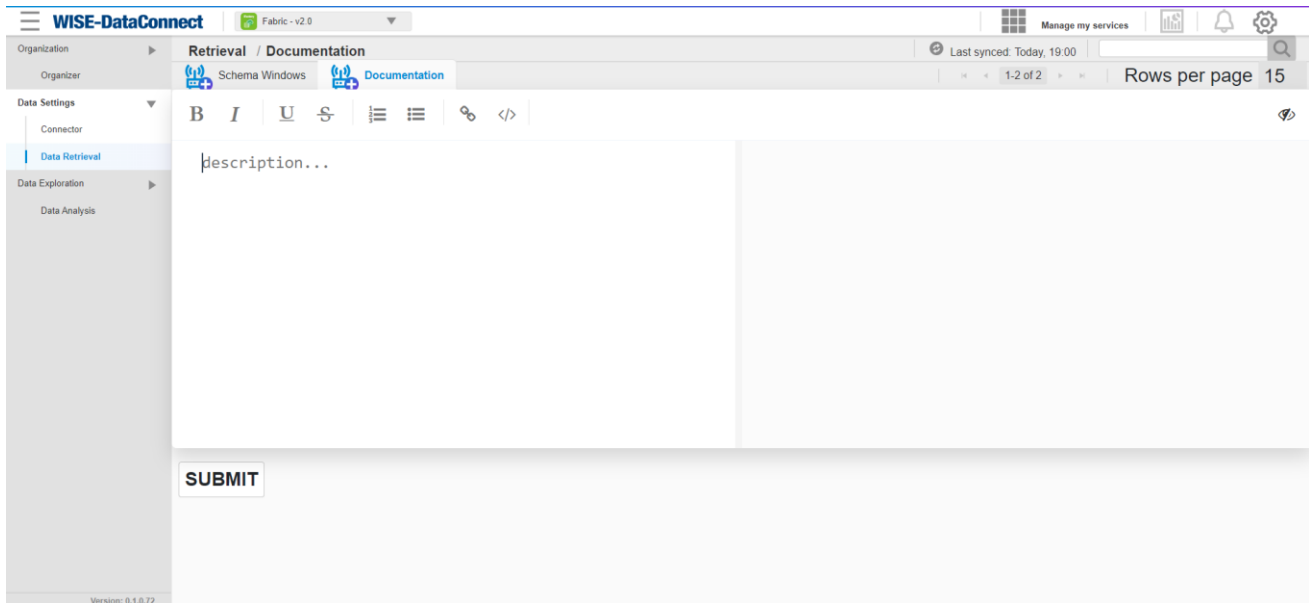


Figure 3-6 Data retrieval – Edit-3

- Click  to edit the binding settings of data destinations.
- Fields in Figure 3-8 are explained as below:
 - Group: Choose the topology you want to bind the data destination
 - Create Node: Node Name
 - Title Name: Data Destination Name
 - Select Column: Choose the fields to be shown. The default * means all fields are visible.
 - Key Field: The field utilized to filter records
 - Key Value: Only specific records fulfilling the key value will be shown in the organizer.
 ※For example, "key field: **EquipmentID**; key value: **62a8495512bedc41cd42dc9b**" will be auto compiled as a where clause, "**where EquipmentD = '62a8495512bedc41cd42dc9b'**".
 - KPI Field: (Under development)

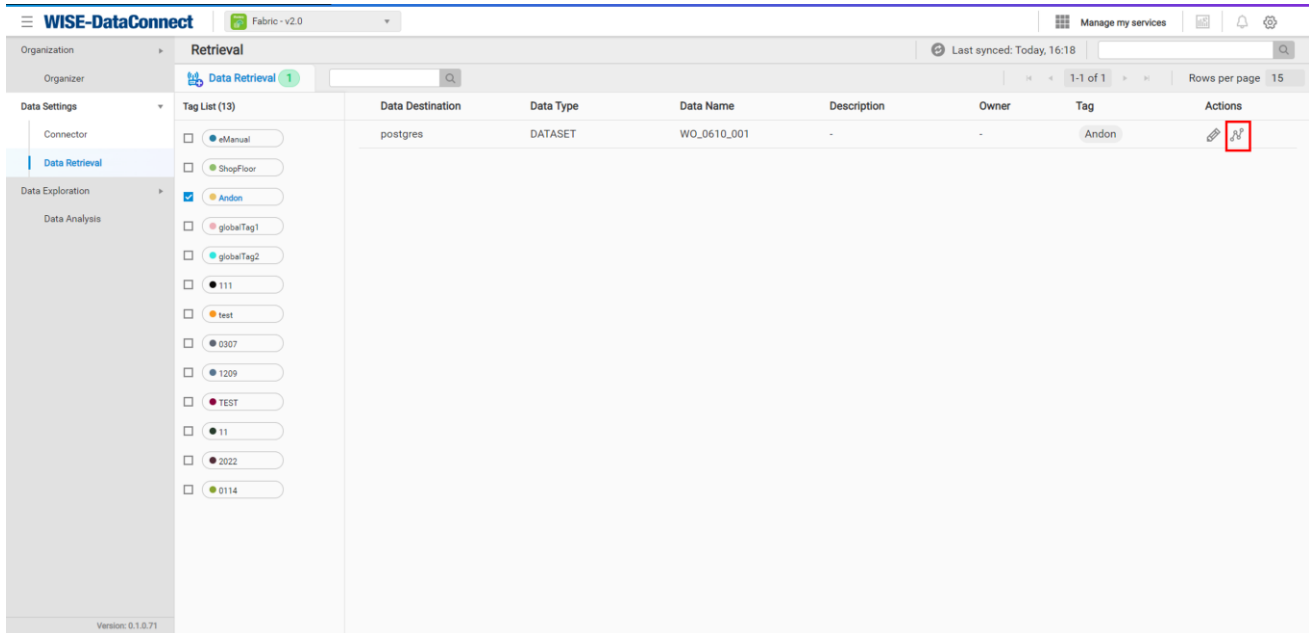


Figure 3-7 Data retrieval – Binding

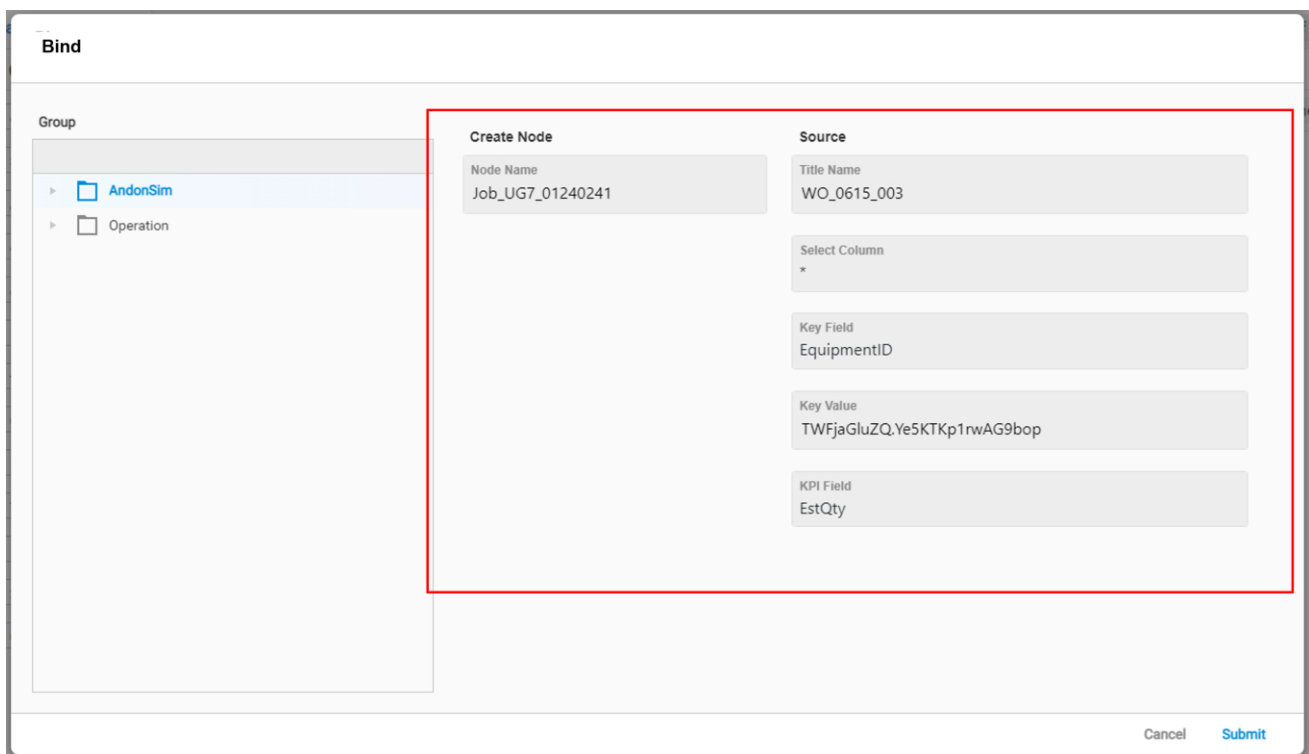


Figure 3-8 Data retrieval – Binding-2

3.3 Organization – Organizer

You can view and manage the topology of binded data nodes to align with the enterprise organizational structure. Organizer also provides functions as GQL, copy API, Business Intelligence, Data previewing and edit Binding.

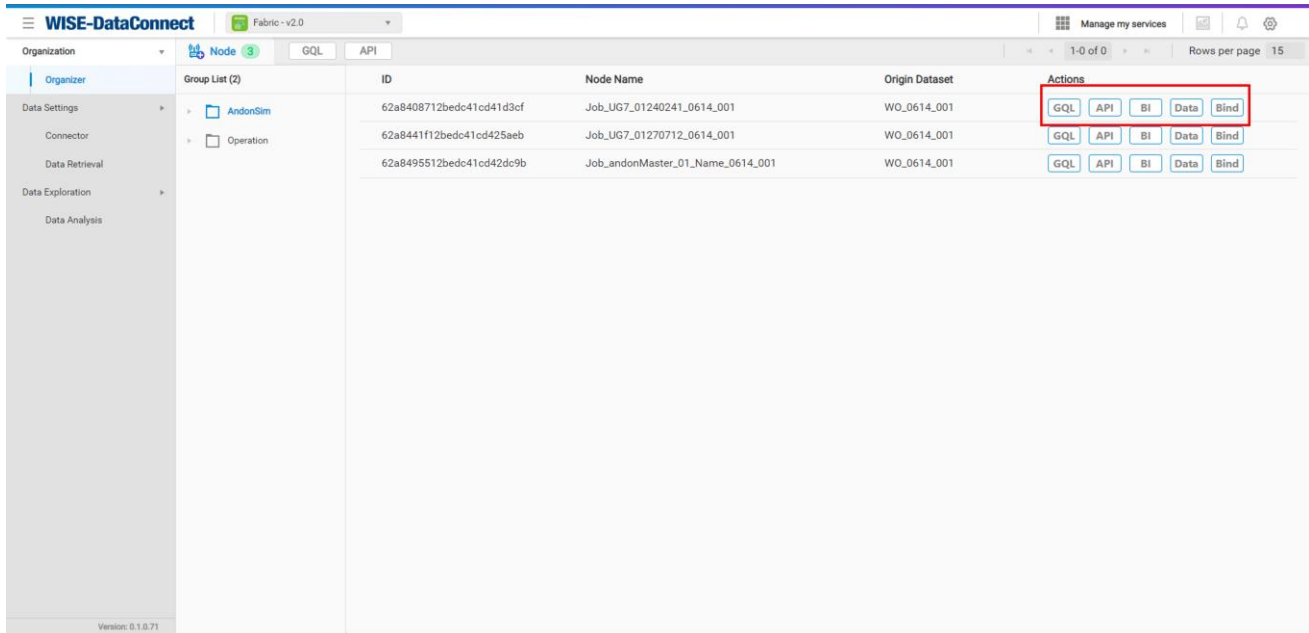


Figure 3-9 Organization-Organizer

3.3.1 GQL

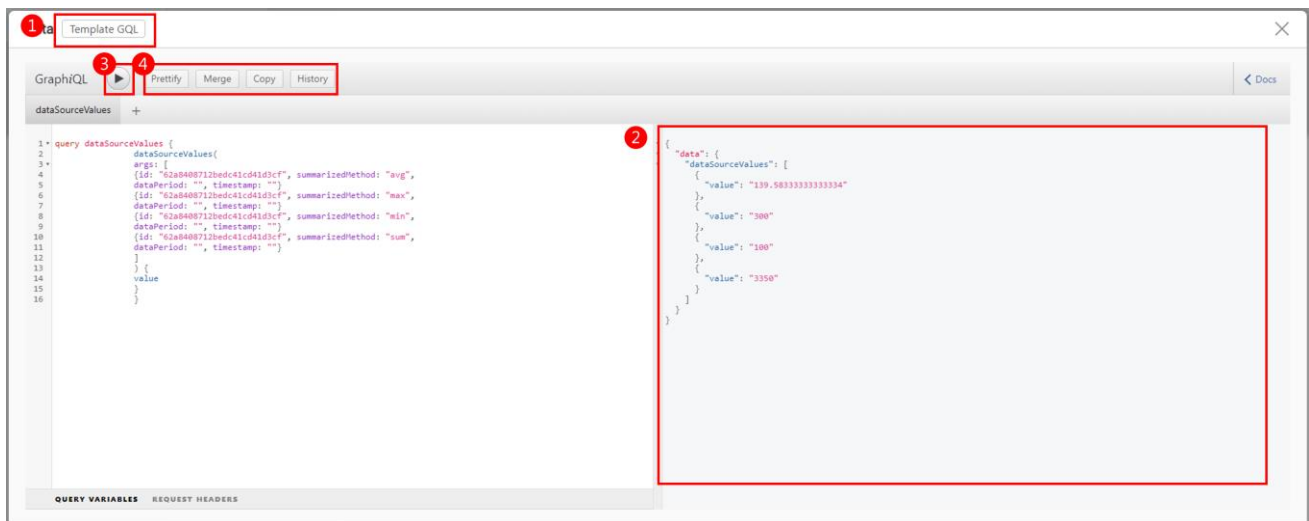


Figure 3-10 Organizer – GQL

- ① Click the [Template GQL] button to copy the default query template.
※Please note that the GQL query clauses are currently constricted and can't be modified by users.
- ② Paste the copied GQL clauses on the right-hand side.
- ③ Click the start button to query.
- ④ You can also utilize other default GQL functions here.

3.3.2 API

You can copy the API of selected data node.

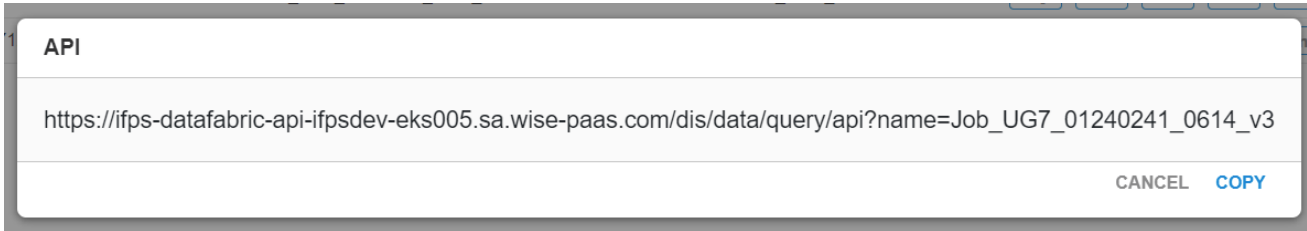


Figure 3-11 Organizer – API

3.3.3 BI

This button will redirect users to the WISE-DatInsight BI module.

3.3.4 Data

Users can preview records by this button.

Node

2

GQL

API

1-0 of 0

Rows per page

15

Group List (2)

AndonSim

Operation

ID	Node Name	Origin Dataset	Actions
62a83b1d12bedc41cd411761	Job_UG7_01240241_0614_104	WO_0614_104	GQLAPIBIDataBind
62a938c712bedc41cd550048	Job_UG7_01240241_0614_v3	WO_0614_v3	GQLAPIBIDataBind

CreatedAt	EquipmentID	EstCompleteAt	EstQty	EstQtyUnit	ManOrderID	RouteStepName
2022-05-31 05...	TWFJaGluZQ.Ye5...	1970-01-03 00:0...	100		TWFTuT3JkZXItM...	外包装
2022-06-07 12...	TWFJaGluZQ.Ye5...	2022-06-22 13:3...	100	pcs	TWFTuT3JkZXItM...	fabricate
2022-06-07 12...	TWFJaGluZQ.Ye5...	2022-06-22 13:3...	100	pcs	TWFTuT3JkZXItM...	process
2022-06-07 12...	TWFJaGluZQ.Ye5...	2022-06-22 13:3...	100	pcs	TWFTuT3JkZXItM...	test
2022-06-08 01...	TWFJaGluZQ.Ye5...	2022-06-30 02:0...	100	pcs	TWFTuT3JkZXItM...	fabricate
2022-06-08 06...	TWFJaGluZQ.Ye5...	2022-06-29 06:3...	100	pcs	TWFTuT3JkZXItM...	test
2022-06-09 03...	TWFJaGluZQ.Ye5...	2022-06-27 04:4...	100	pcs	TWFTuT3JkZXItM...	fabricate
2022-06-09 03...	TWFJaGluZQ.Ye5...	2022-06-27 04:4...	100	pcs	TWFTuT3JkZXItM...	heat treat

Figure 3-12 Organizer – Data Previewing