

SAP Manufacturing
Intelligence and Integration
How-To Guide – HANA SDA
integrated with SAP MII



How To Set Up and Use the HANA SDA integrated with SAP MII

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SAP MII How-To-Guide for HANA SDA Connection

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Document Version	Description	Author
1.0	Initial version	Sindhu Hariharan

The value of y will be incremented by 1 for a new version of the How-To-Guide for a new version of MII.

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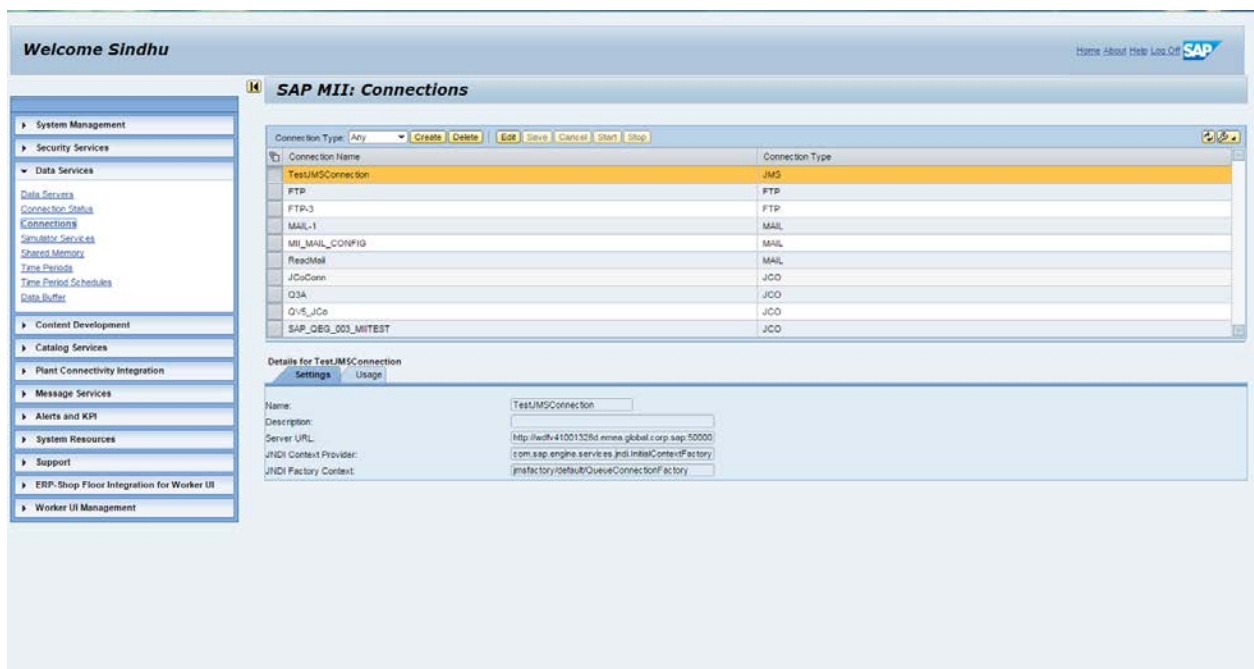
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1.1 HANA SDA Connection

HANA SDA is a type of connection, which MII supports. Using this connection, Query template such as PCo Query and Xacute Query results retrieved in HANA studio.

2.1 Configure HANA SDA Connection in MII

1. In MII Menu screen, navigate to Data Services -> Connections



The screenshot shows the SAP MII Connections configuration interface. The left sidebar contains a navigation menu with categories like System Management, Security Services, Data Services, Content Development, Catalog Services, Plant Connectivity Integration, Message Services, Alerts and KPI, System Resources, Support, ERP-Shop Floor Integration for Worker UI, and Worker UI Management. The main area is titled 'SAP MII: Connections' and features a table of existing connections. The table has columns for 'Connection Name' and 'Connection Type'. Below the table, there are tabs for 'Settings' and 'Usage', and a form for configuring a connection. The form fields include Name, Description, Server URL, JNDI Context Provider, and JNDI Factory Context.

Connection Name	Connection Type
TestJMSConnection	JMS
FTP	FTP
FTP-3	FTP
MAIL-1	MAIL
MI_MAIL_CONFIG	MAIL
ReadMail	MAIL
JCoConn	JCO
QSA	JCO
QUS_JCo	JCO
SAP_OBG_001_MIITEST	JCO

Details for TestJMSConnection

Settings Usage

Name: TestJMSConnection

Description:

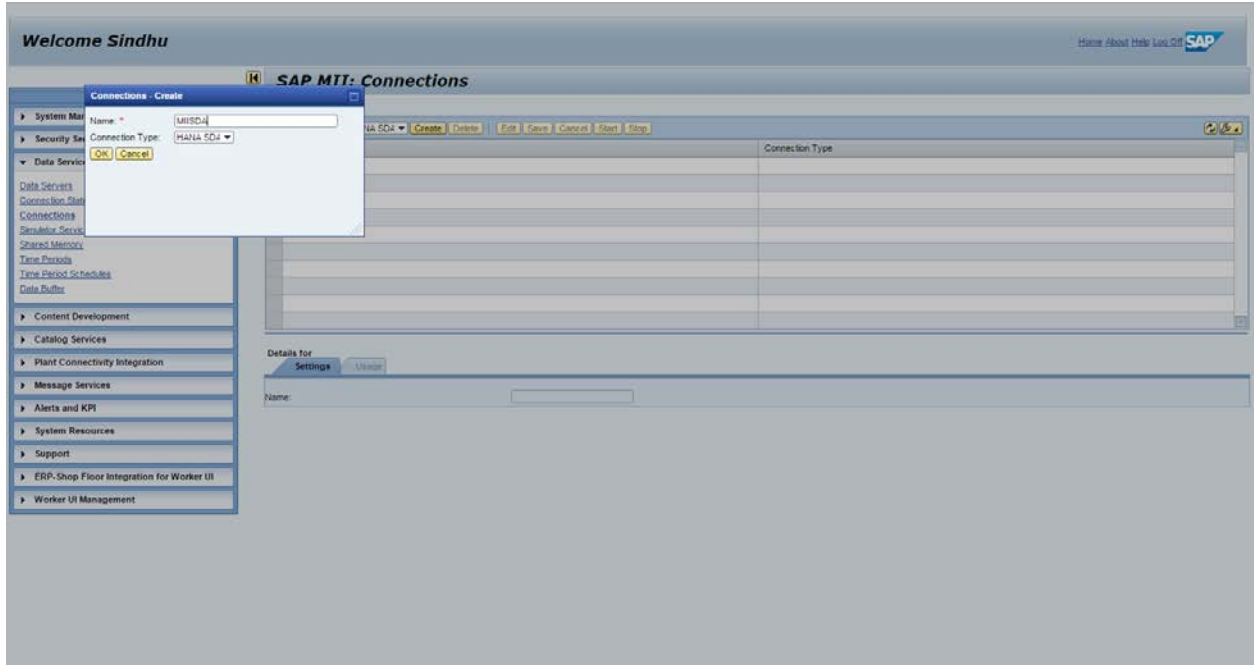
Server URL: http://wlv4100132fd.nema.global.corp.sap:50000

JNDI Context Provider: com.sap.engine.services.jndi.InitialContextFactory

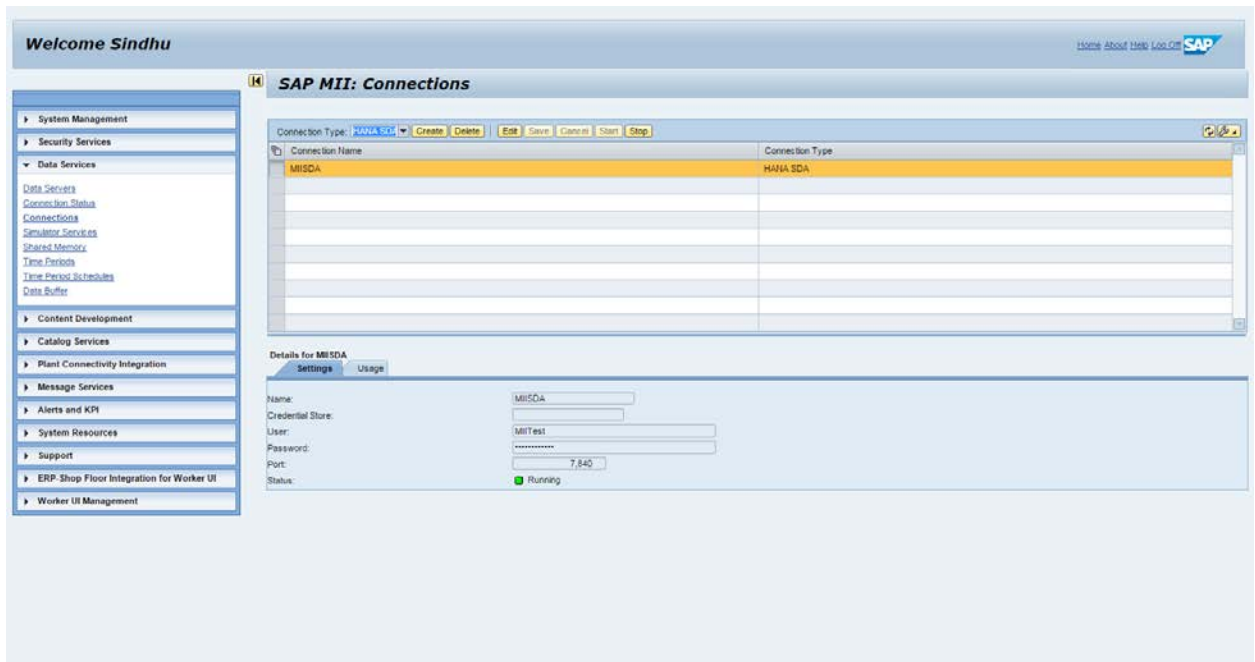
JNDI Factory Context: jmsfactory/detail/QueueConnectionFactory

2. Select the Connection Type as HANA SDA. Click on Create
3. Enter the Connector name as MIISDA. Click OK

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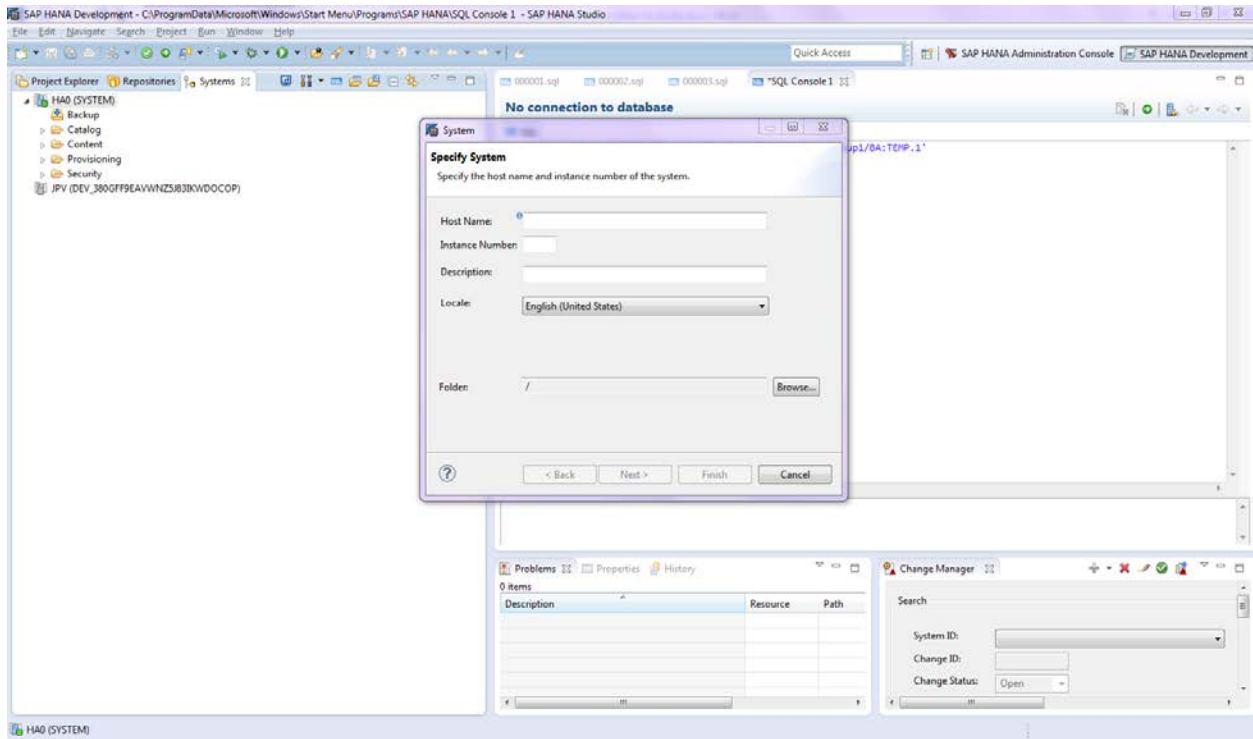


4. Enter the following details:
Credential Store: <Optional>
UserName: MIITest <UME user>
Password: abcd1234<default password>
Port Number: 7840
5. Save the Connection
6. Start the connection



2.2 Configure HANA SDA in HANA Studio

1. Launch the SAP HANA Studio
2. Go to System tab; Right Click Add System



3. Provide Host Name and Instance Number
4. Click Next and Provide the Username and Password to connect to HANA DB
5. Click Finish

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System

Specify System

Specify the host name and instance number of the system.

Host Name:

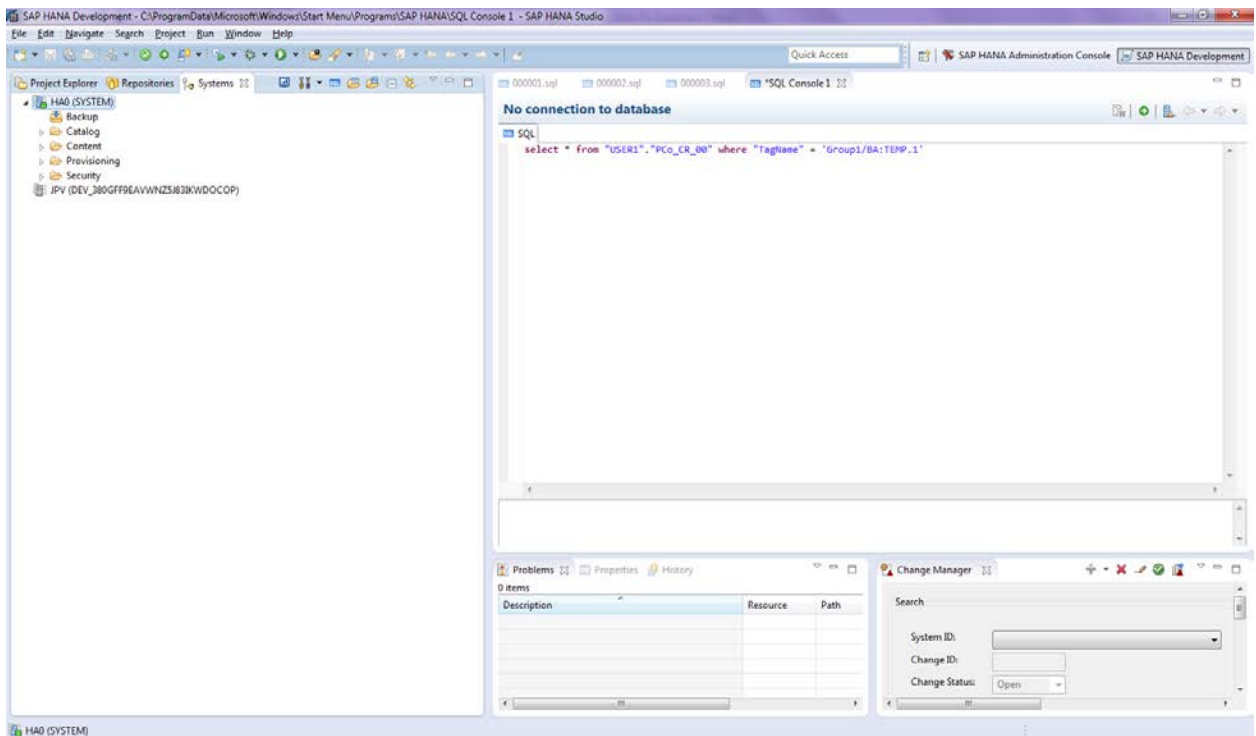
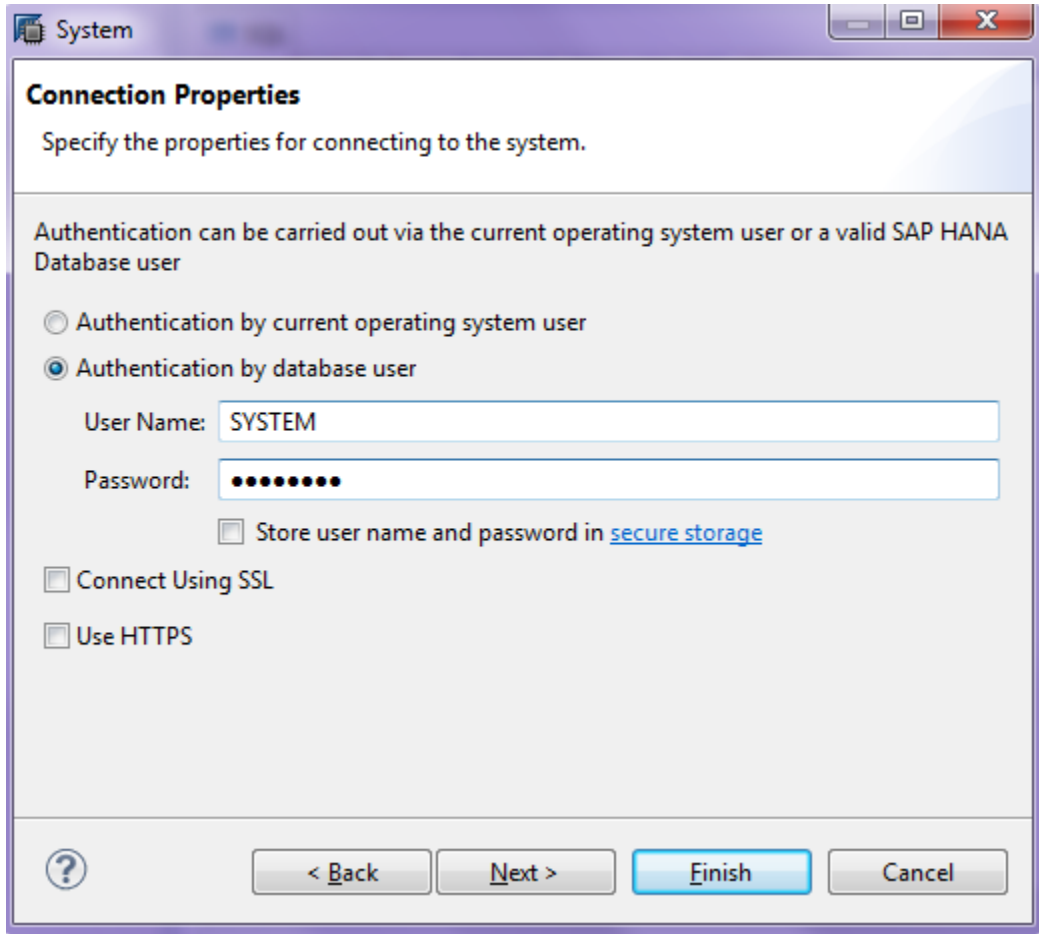
Instance Number:

Description:

Locale:

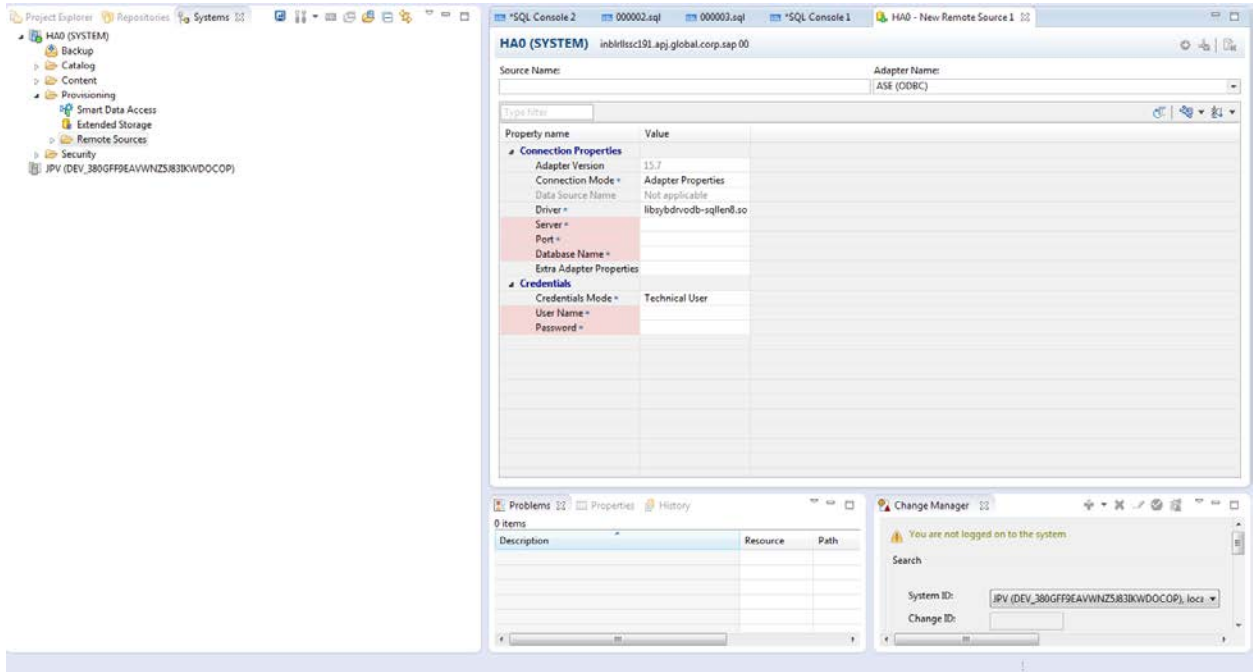
Folder:


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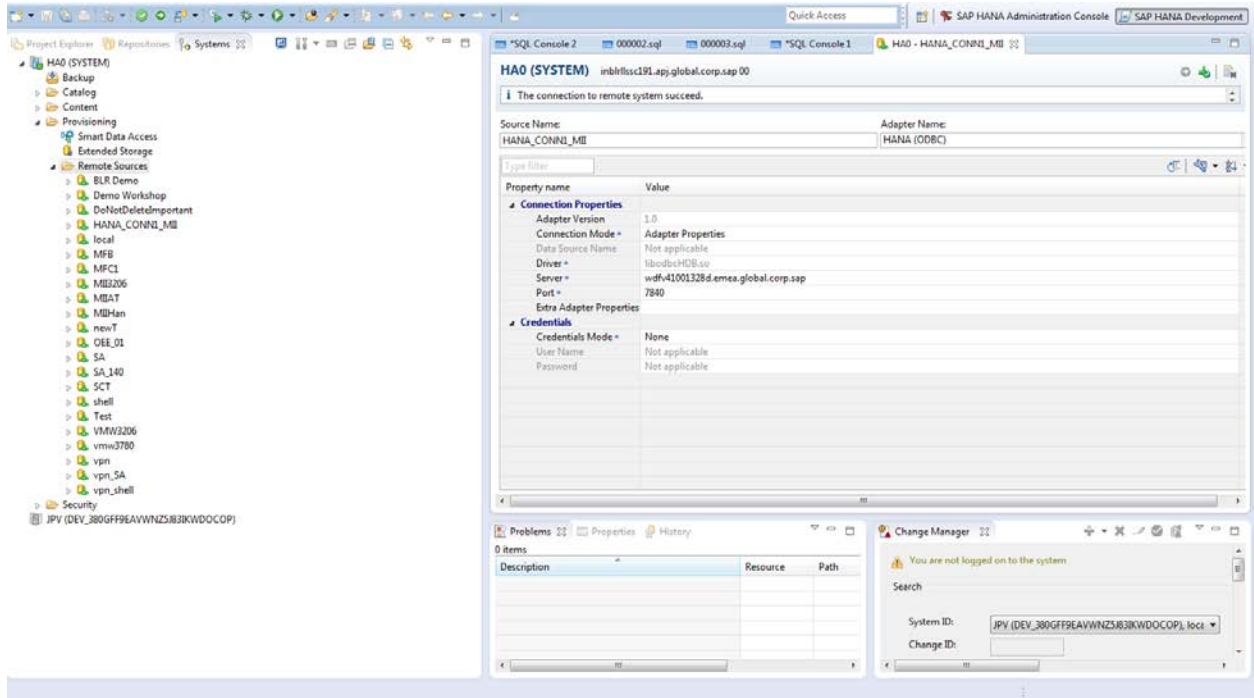
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- Expand Server HA0 and Select Provisioning -> Remote Services
- Right Click and Create New Remote Source



- Enter the following details:
 - Source Name: HANA_CONN1_MII
 - Adapter Name: HANA (ODBC) <choose from dropdown>
 - Connection Properties:
 - Server: MII server name <ex: wdfv41001328d.emea.global.corp.sap>
 - Port: 7840 <which was configure in MII Menu -> Connections -> MIISDA>
 - Credentials:
 - UserName: MIITest <UME user>
 - Password: abcd1234<default password>
- Click on Save button
- Perform Connection test by clicking on  available on right most corner

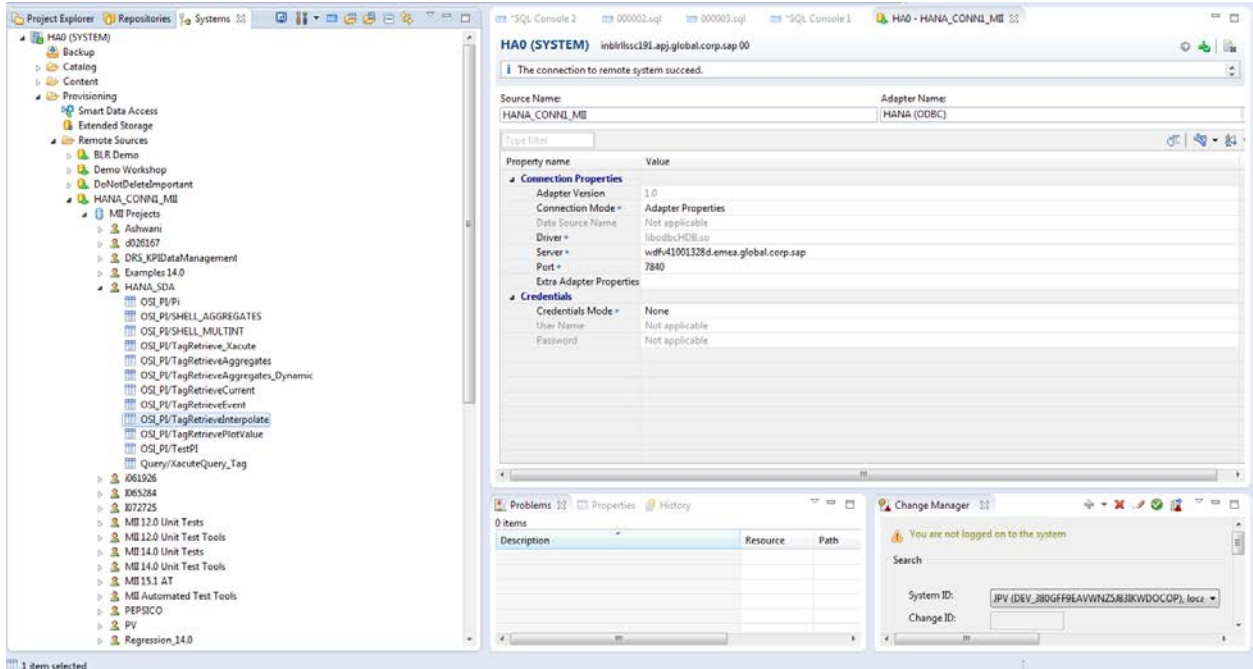
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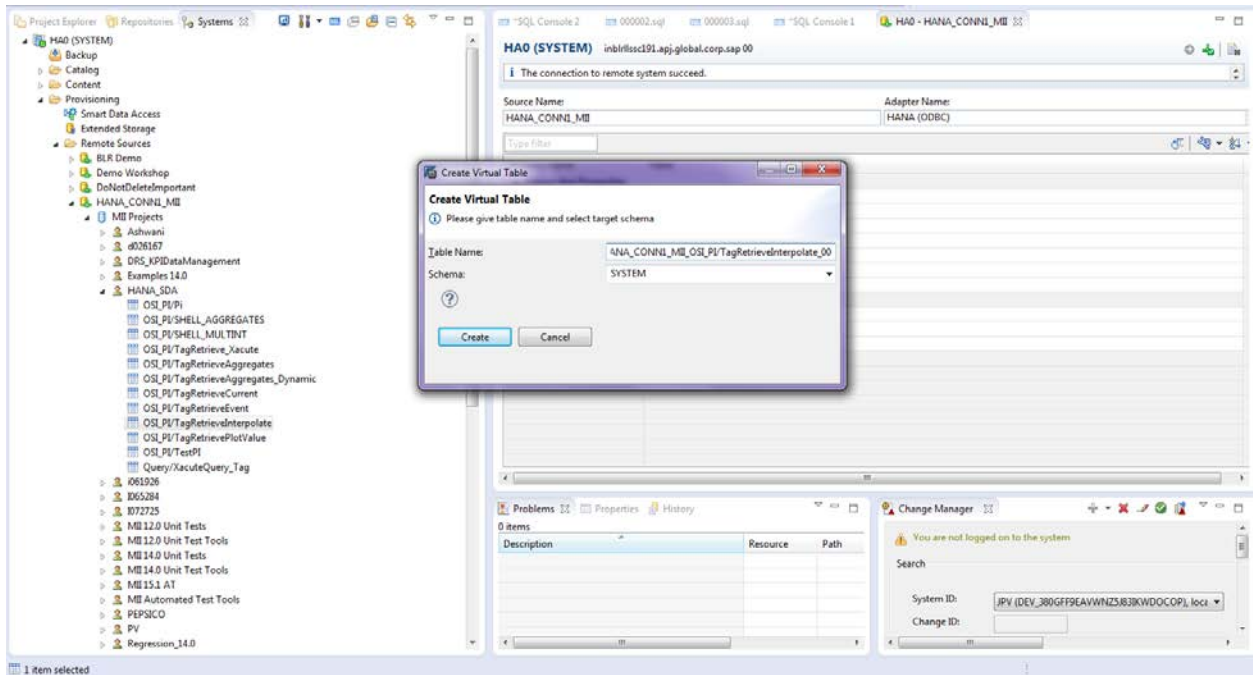
3.1 Virtual table creation on MII Query Template

1. Once the Remote Source is configured
2. Expand the Remote Source HANA_CONN1_MII -> MII Projects
3. Expand MII Projects. Select the Query Template <ex: OSI_PI/TagRetrieveInterpolate>

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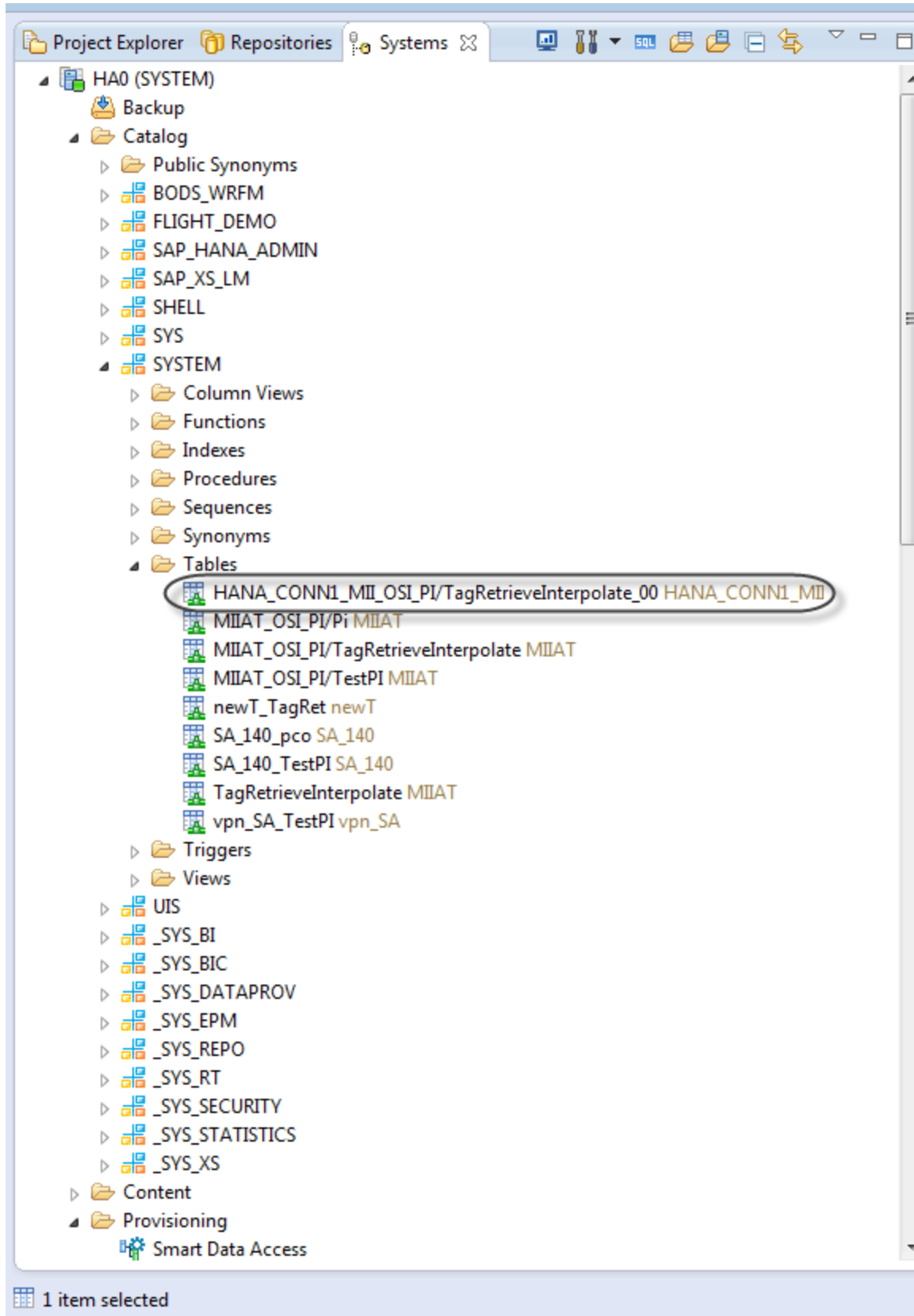


4. Right click and Add as Virtual Table
5. Enter the Table Name as HANA_CONN1_MII_OSI_PI/TagRetrieveInterpolate_00
6. Click on Create



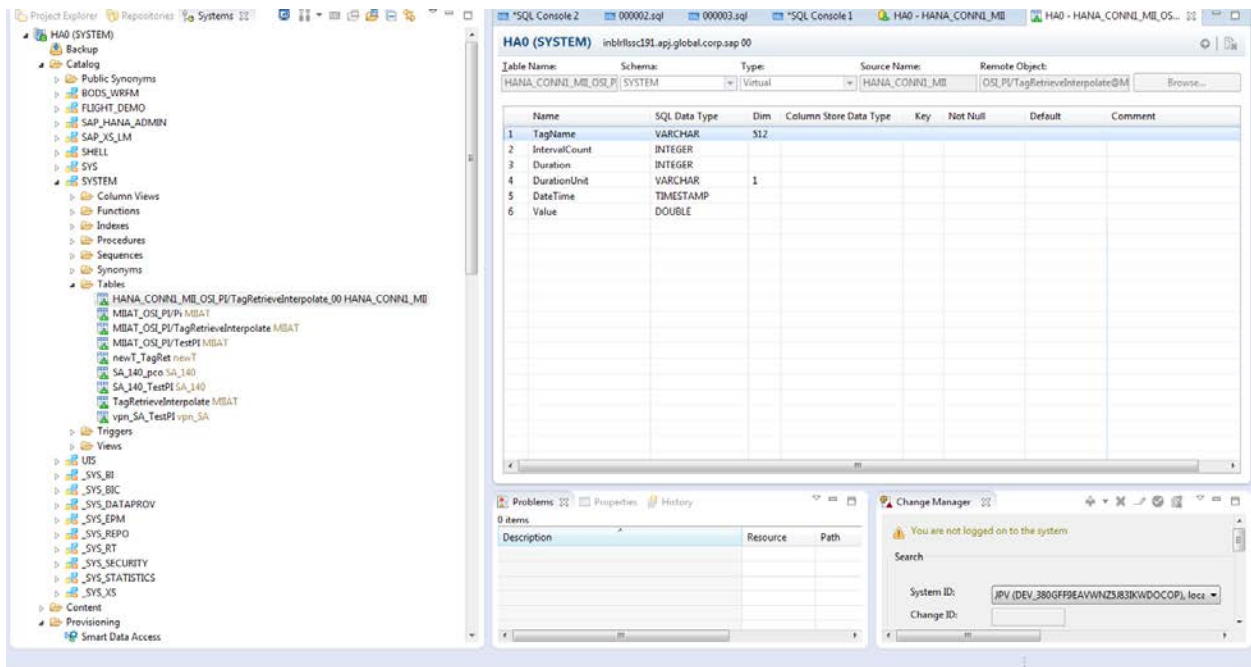
7. Virtual table created for selected PCo Query and added under catalog.
8. Expand Catalog -> System -> Tables
9. Table Name as HANA_CONN1_MII_OSI_PI/TagRetrieveInterpolate_00 appears

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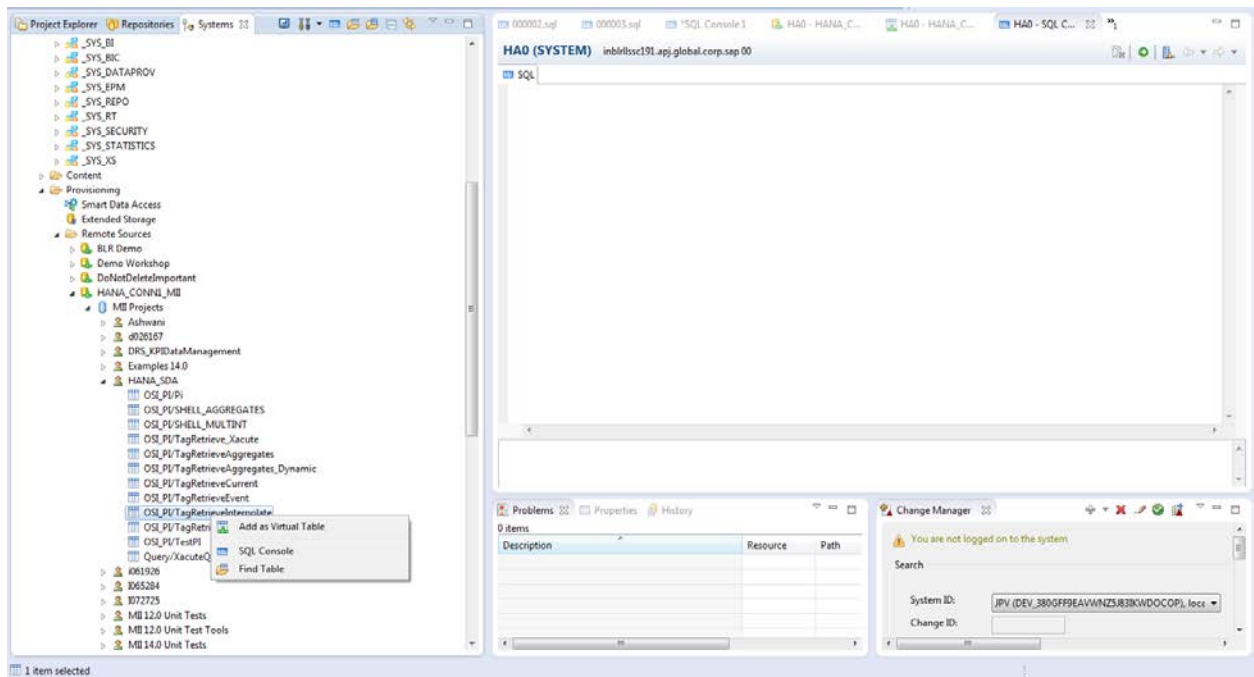
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10. Double Click on selected Table name. Virtual table column details displayed.



3.2 Retrieve query results on Virtual Table


1. Expand and Select HANA_CONN1_MII -> MII Projects -> OSI_PI/TagRetrieveInterpolate
2. Right Click and Click on SQL Console

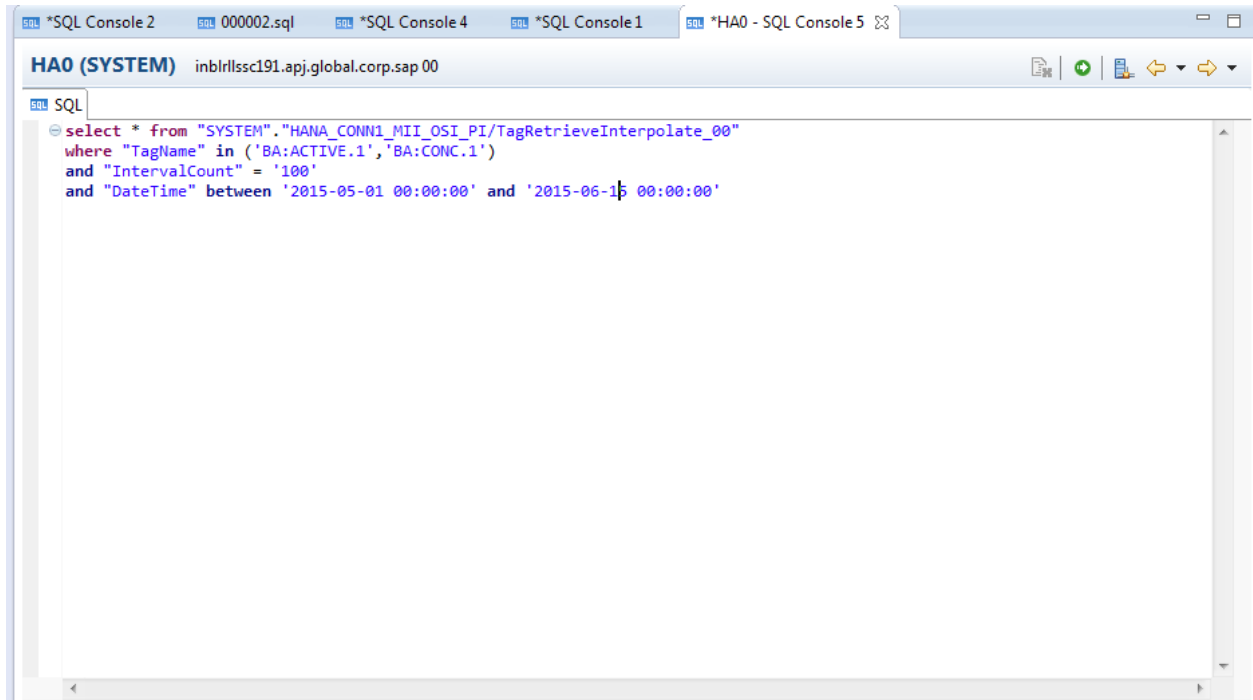


3. Write the SQL Syntax to retrieve query results on selected Query template
4. Sample SQL syntax :

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```
select * from "SYSTEM"."HANA_CONN1_MII_OSI_PI/TagRetrieveInterpolate_00"  
where "TagName" in ('BA:ACTIVE.1','BA:CONC.1')  
and "IntervalCount" = '100'  
and "DateTime" between '2015-05-01 00:00:00' and '2015-06-15 00:00:00'
```

5. Click on execute or F8  button available on right most corner
6. Query execution succeeds with results retrieved for selected Tag Names in Virtual Table names



7. Result appears as below:

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HAO (SYSTEM) inbirdlssc191.apj.global.corp.sap 00

```
SQL Result
select * from "SYSTEM"."HANA_CONN1_MII_OSI_PI/TagRetrieveInterpolate_00" where "TagName" in ('BA:CONC.1', 'BA:LEVEL.1')
and "IntervalCount" = '100'
and "DateTime" between '2015-05-01 00:00:00' and '2015-06-15 00:00:00'
```

	TagName	IntervalCount	Duration	DurationUnit	DateTime	Value
1	BA:CONC.1	100	?	?	May 1, 2015 12:00:00.0 AM	44.61
2	BA:CONC.1	100	?	?	May 1, 2015 10:54:32.0 AM	0
3	BA:CONC.1	100	?	?	May 1, 2015 9:49:05.0 PM	1.82
4	BA:CONC.1	100	?	?	May 2, 2015 8:43:38.0 AM	9.96
5	BA:CONC.1	100	?	?	May 2, 2015 7:38:10.0 PM	14.56
6	BA:CONC.1	100	?	?	May 3, 2015 6:32:43.0 AM	20.46
7	BA:CONC.1	100	?	?	May 3, 2015 5:27:16.0 PM	22.03
8	BA:CONC.1	100	?	?	May 4, 2015 4:21:49.0 AM	23.78
9	BA:CONC.1	100	?	?	May 4, 2015 3:16:21.0 PM	24.65
10	BA:CONC.1	100	?	?	May 5, 2015 2:10:54.0 AM	33.9
11	BA:CONC.1	100	?	?	May 5, 2015 1:05:27.0 PM	41.46
12	BA:CONC.1	100	?	?	May 6, 2015 12:00:00.0 AM	41.26
13	BA:CONC.1	100	?	?	May 6, 2015 10:54:32.0 AM	41.46
14	BA:CONC.1	100	?	?	May 6, 2015 9:49:05.0 PM	0.01
15	BA:CONC.1	100	?	?	May 7, 2015 8:43:38.0 AM	0.25
16	BA:CONC.1	100	?	?	May 7, 2015 7:38:10.0 PM	6.75
17	BA:CONC.1	100	?	?	May 8, 2015 6:32:43.0 AM	12.61
18	BA:CONC.1	100	?	?	May 8, 2015 5:27:16.0 PM	19.75
19	BA:CONC.1	100	?	?	May 9, 2015 4:21:49.0 AM	19.48
20	BA:CONC.1	100	?	?	May 9, 2015 3:16:21.0 PM	22.88
21	BA:CONC.1	100	?	?	May 10, 2015 2:10:54.0 AM	23.14
22	BA:CONC.1	100	?	?	May 10, 2015 1:05:27.0 PM	28.65
23	BA:CONC.1	100	?	?	May 11, 2015 12:00:00.0 ...	39.37
24	BA:CONC.1	100	?	?	May 11, 2015 10:54:32.0 ...	39.61

Statement 'select * from "SYSTEM"."HANA_CONN1_MII_OSI_PI/TagRetrieveInterpolate_00" where "TagName" in ...' successfully executed in 1.669 seconds (server processing time: 1.664 seconds)
Fetched 200 row(s) in 6 ms 420 µs (server processing time: 0 ms 865 µs)