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

Applicable Release: MII 15.0

Version 1.0

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Document Version	Description	Author
1.0	Initial version	Sindhu Hariharan

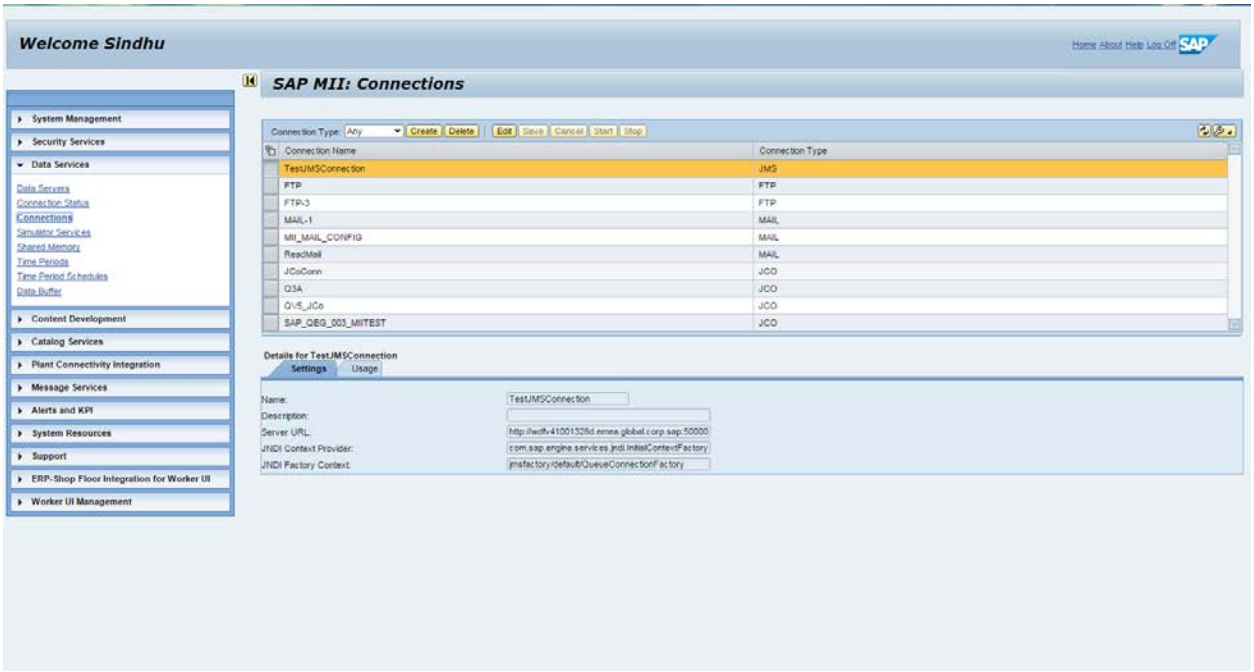
The value of y will be incremented by 1 for a new version of the How-To-Guide for a new version of MII.

1.1 HANA SDA Connection

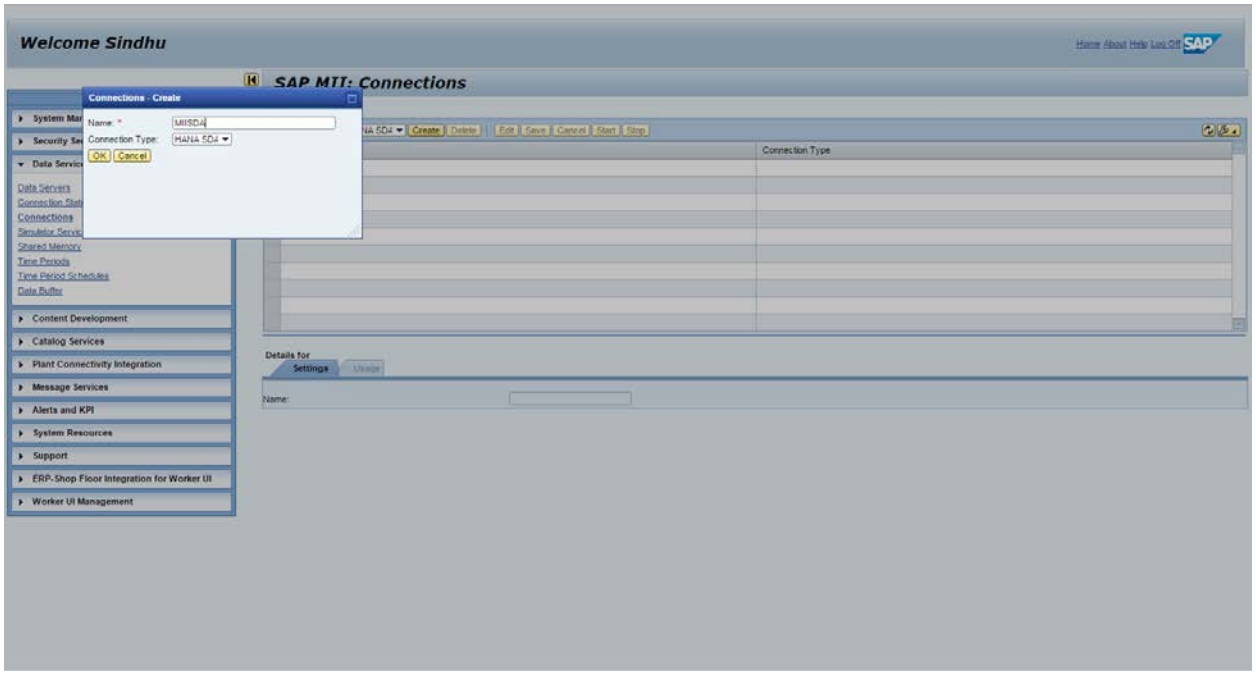
HANA SDA is a type of connection, which MII supports. Using this connection, Query template such as PCo Query and Xacute Query results retrieved in HANA studio.

2.1 Configure HANA SDA Connection in MII

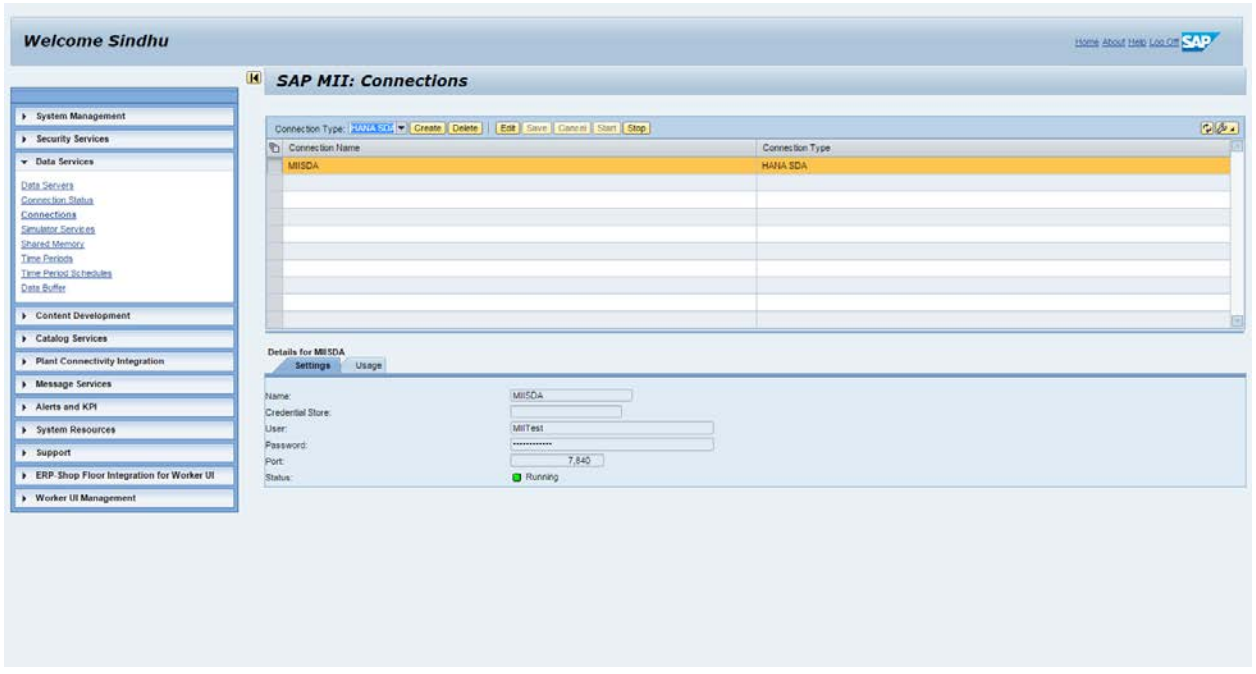
1. In MII Menu screen, navigate to Data Services -> Connections



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

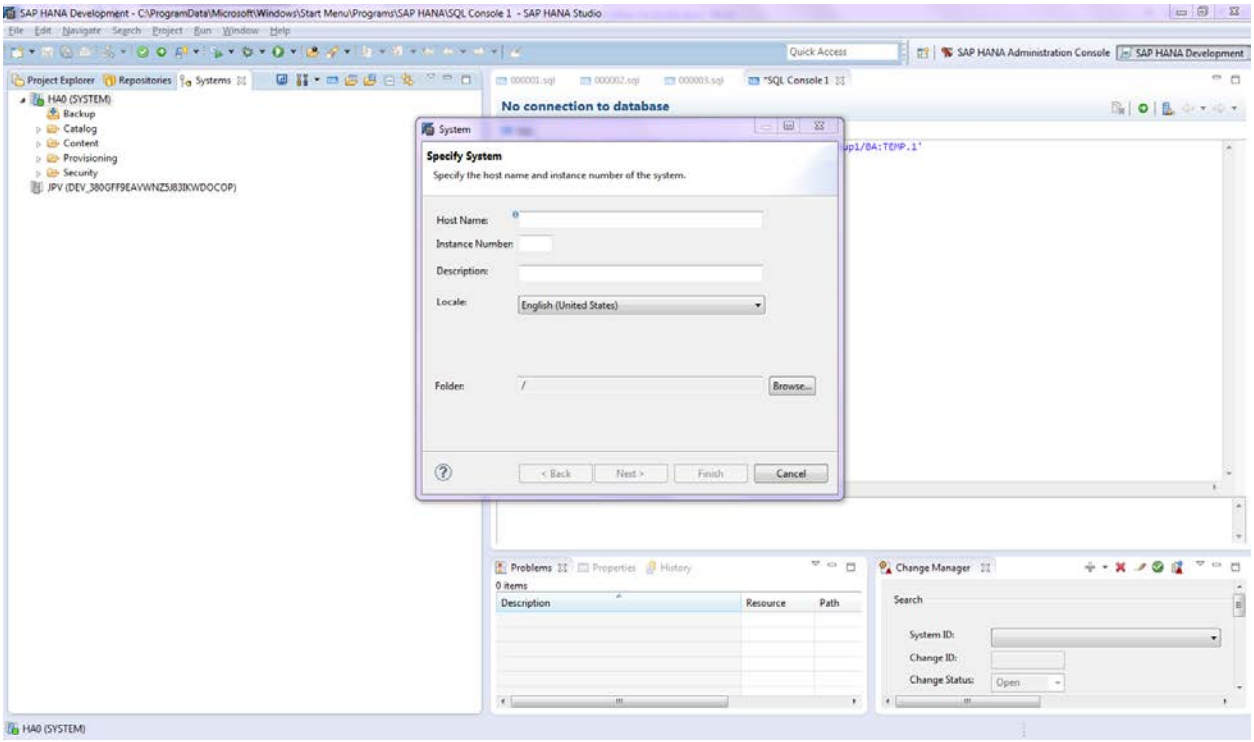


4. Enter the following details:
   Credential Store: <Optional>
   UserName: MIITest <UME user>
   Password: abcd1234<default password>
   Port Number: 7840
5. Save the Connection
6. Start the connection

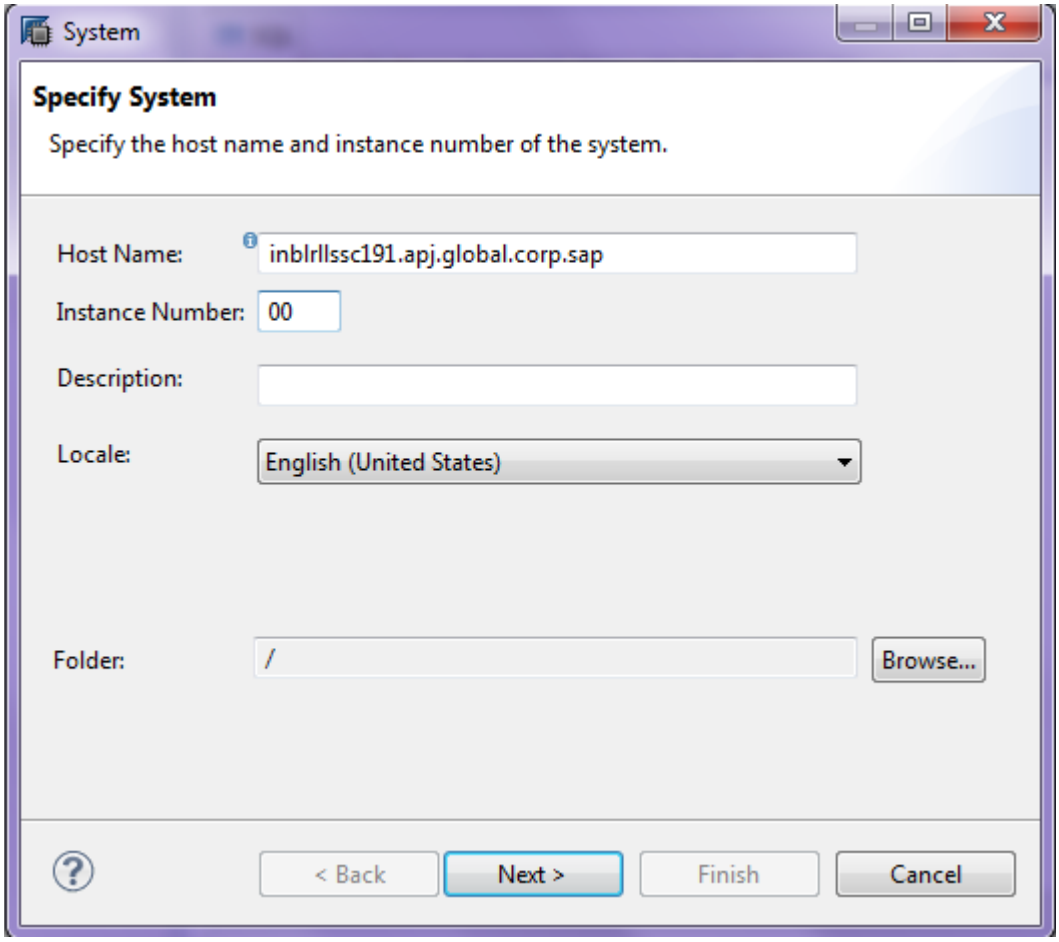


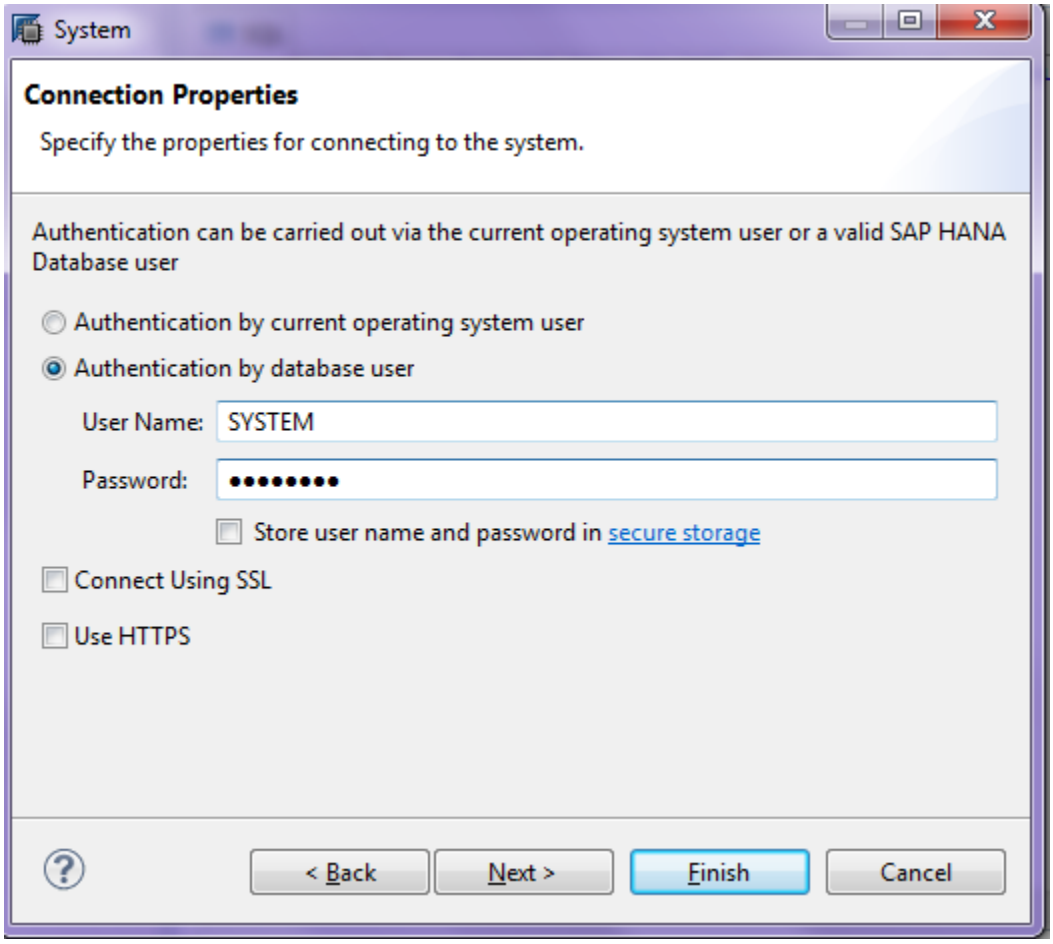
2.2 Configure HANA SDA in HANA Studio

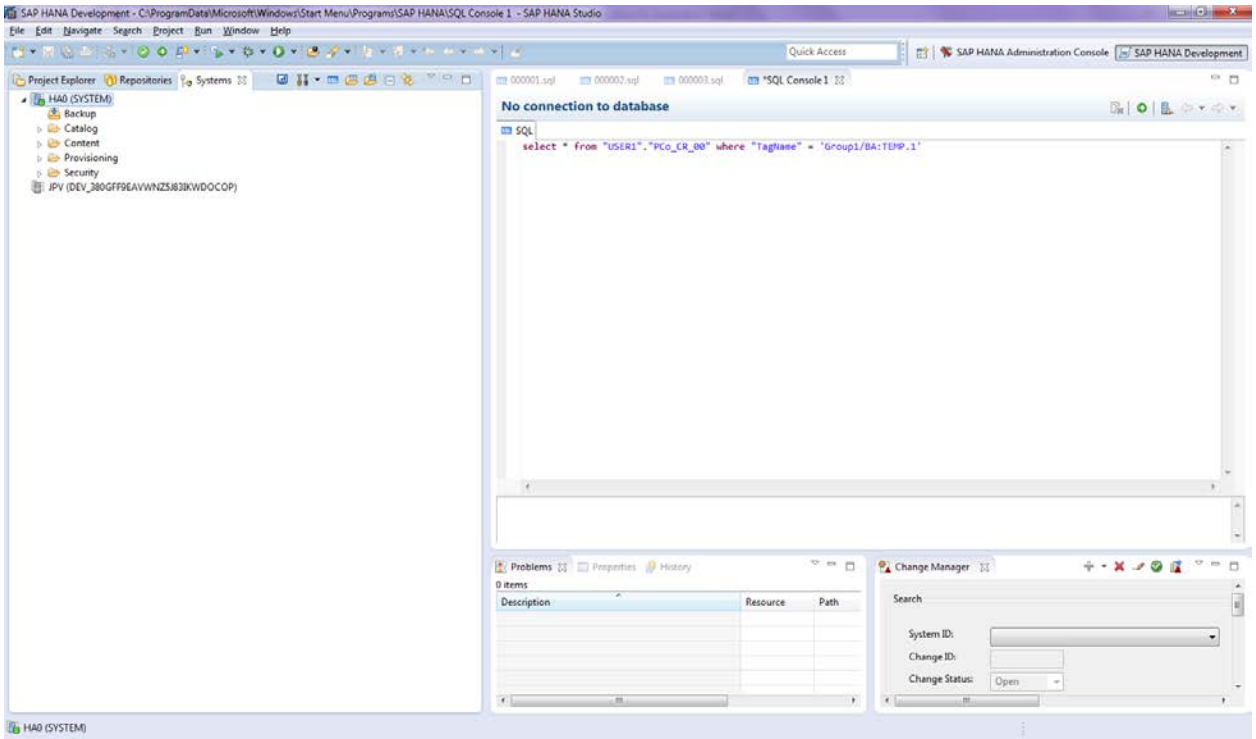
1. Launch the SAP HANA Studio
2. Go to System tab; Right Click Add System



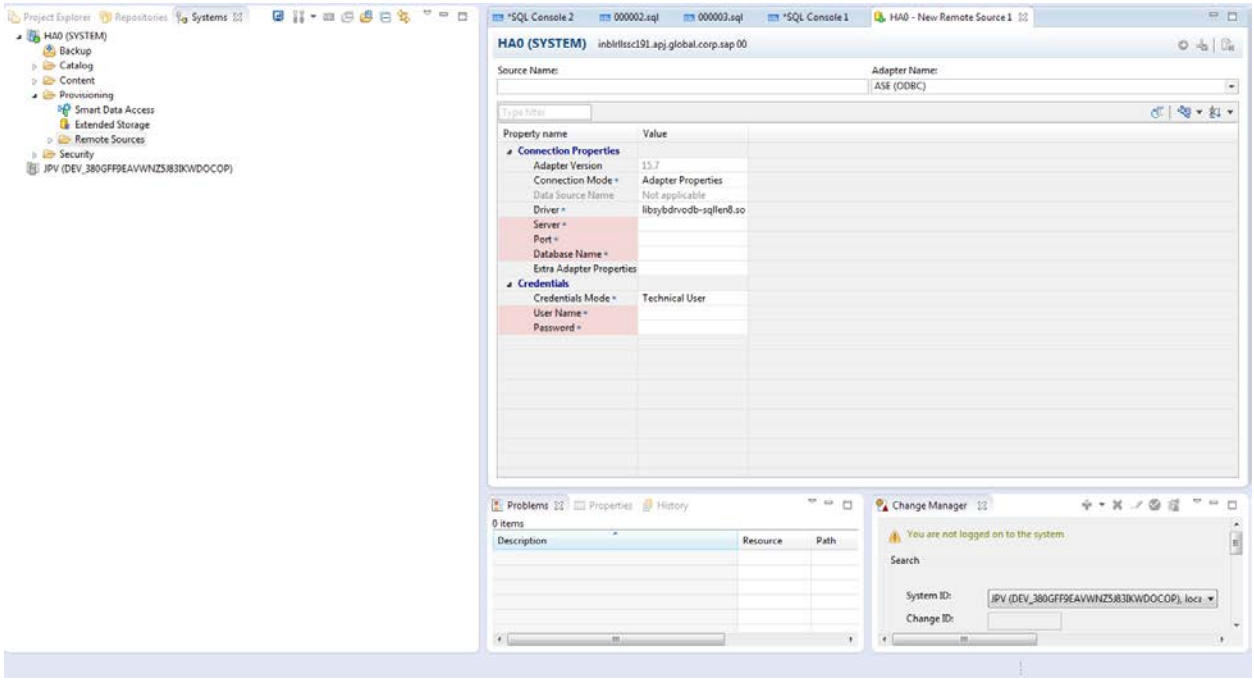
3. Provide Host Name and Instance Number
4. Click Next and Provide the Username and Password to connect to HANA DB
5. Click Finish


System
Specify System
Specify the host name and instance number of the system.
Host Name:
inblrllssc191.apj.global.corp.sap
Instance Number:
00
Description:
Locale:
English (United States)
Folder:
/
Browse...
< Back
Next >
Finish
Cancel

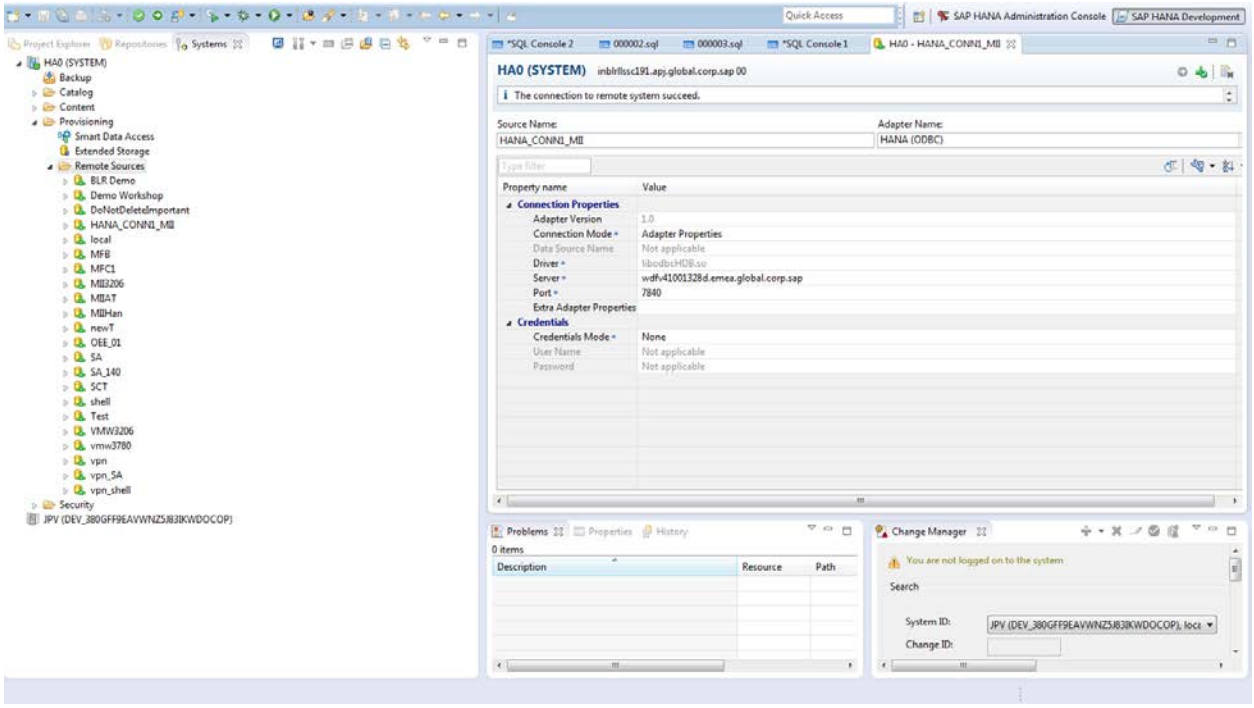

System
Connection Properties
Specify the properties for connecting to the system.
Authentication can be carried out via the current operating system user or a valid SAP HANA Database user
Authentication by current operating system user
Authentication by database user
User Name: SYSTEM
Password: ••••••••
Store user name and password in secure storage
Connect Using SSL
Use HTTPS
< Back
Next >
Finish
Cancel


SAP HANA Development - C:\ProgramData\Microsoft\Windows\Start Menu\Programs\SAP HANA\SQL Console 1 - SAP HANA Studio
File Edit Navigate Search Project Run Window Help
Quick Access
SAP HANA Administration Console
SAP HANA Development
Project Explorer
Repositories
Systems
HA0 (SYSTEM)
Backup
Catalog
Content
Provisioning
Security
JPV (DEV_380GFF9EAVWNZSJ83KWDOCOP)
*SQL Console 1
No connection to database
SQL
select * from "USER1"."PCo_CR_00" where "TagName" = 'Group1/BA:TEMP.1'
Problems
Properties
History
0 items
Description
Resource
Path
Change Manager
Search
System ID:
Change ID:
Change Status:
Open
HA0 (SYSTEM)

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

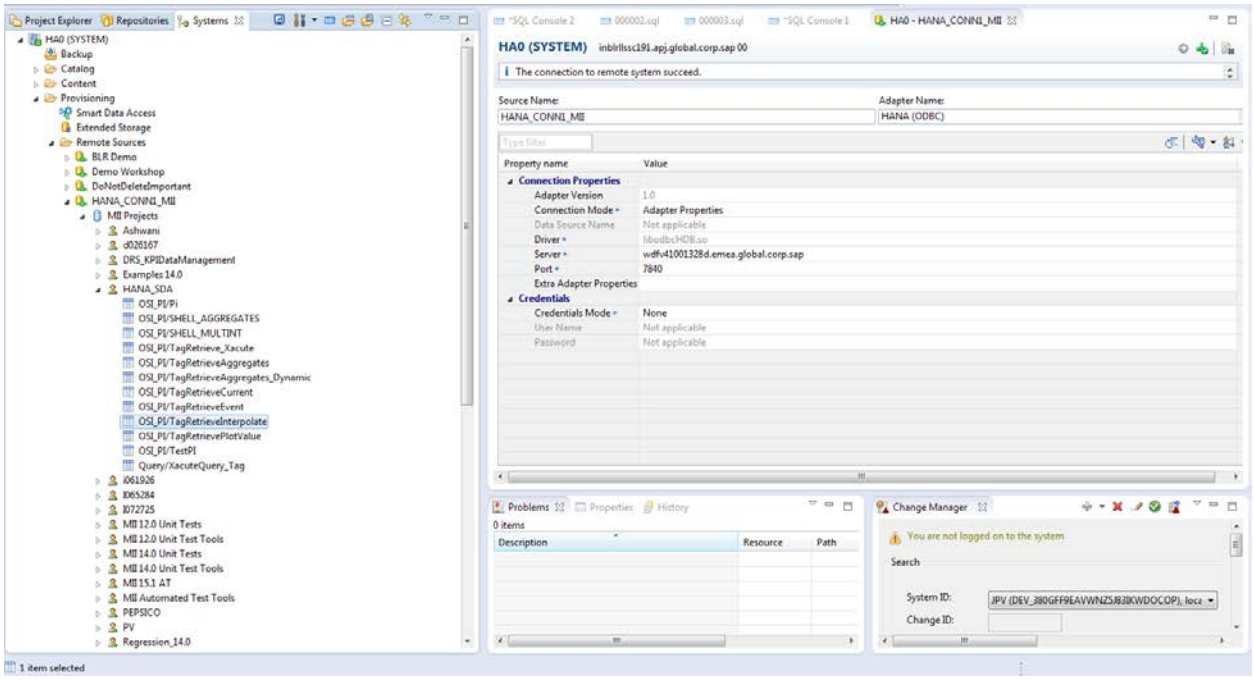


8. Enter the following details:
   a. Source Name: HANA_CONN1_MII
   b. Adapter Name: HANA (ODBC) <choose from dropdown>
   c. Connection Properties:
      Server: MII server name <ex: wdfv41001328d.emea.global.corp.sap>
      Port: 7840 <which was configure in MII Menu -> Connections - > MIISDA>
  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

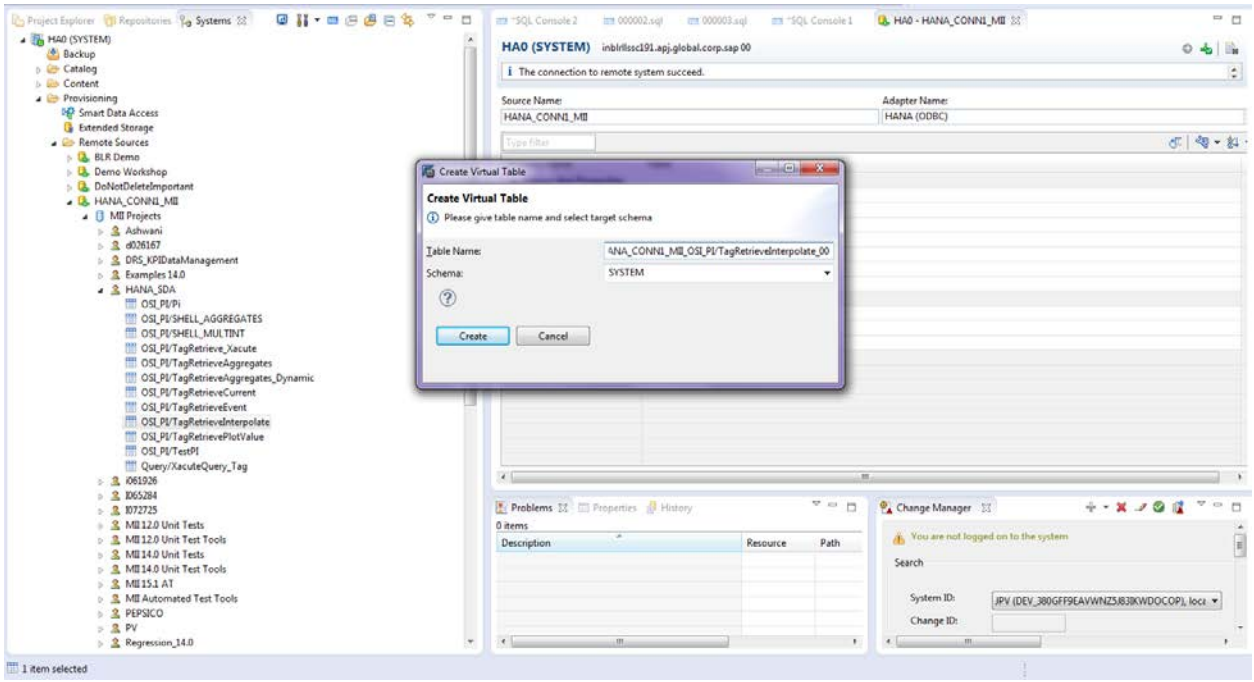


3.1 Virtual table creation on MII Query Template

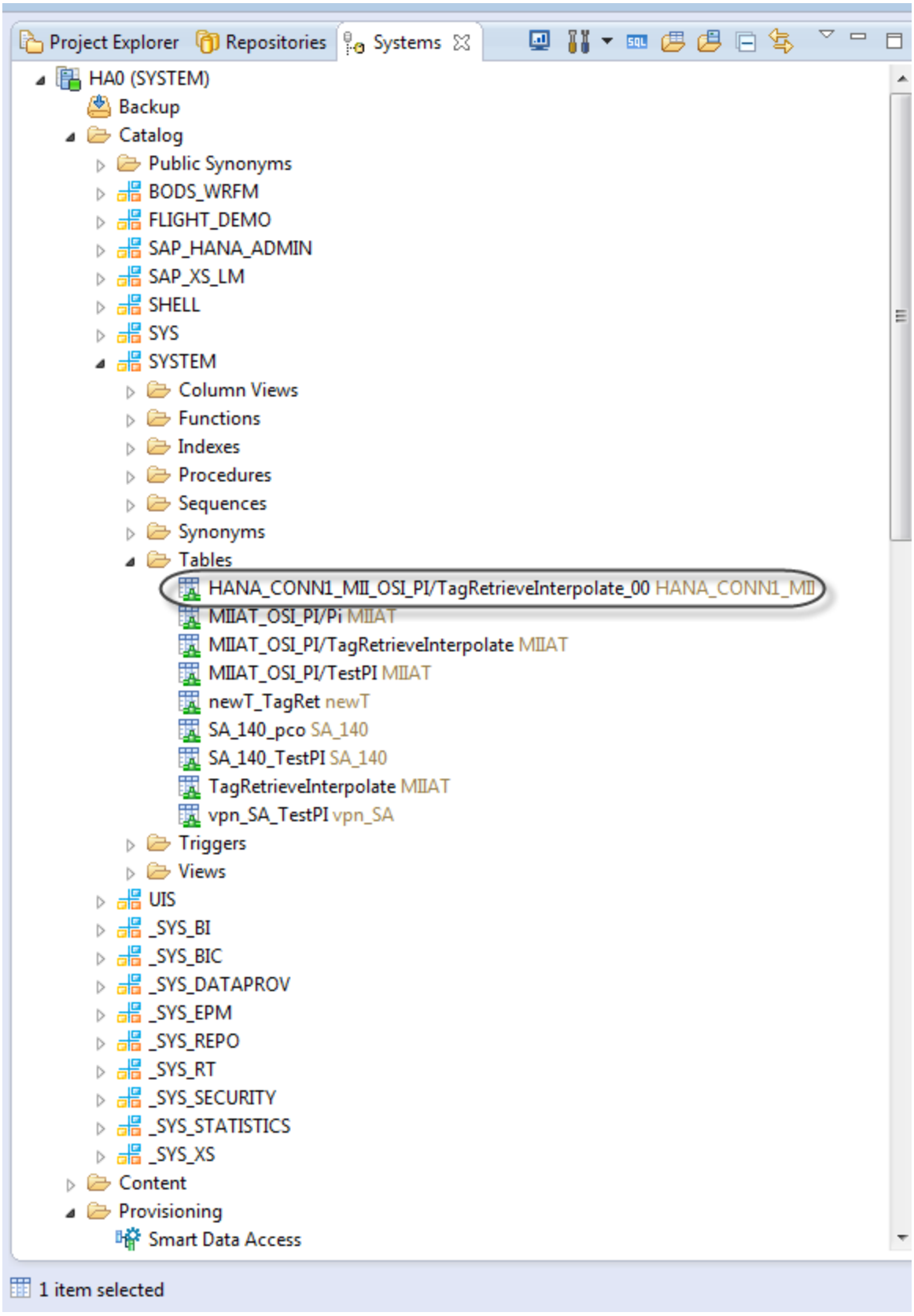
1. Once the Remote Source is configured
2. Expand the Remote Source HANA_CONN1_MII -> MII Projects
3. Expand MII Projects. Select the Query Template <ex: OSI_PI/TagRetrieveInterpolate>



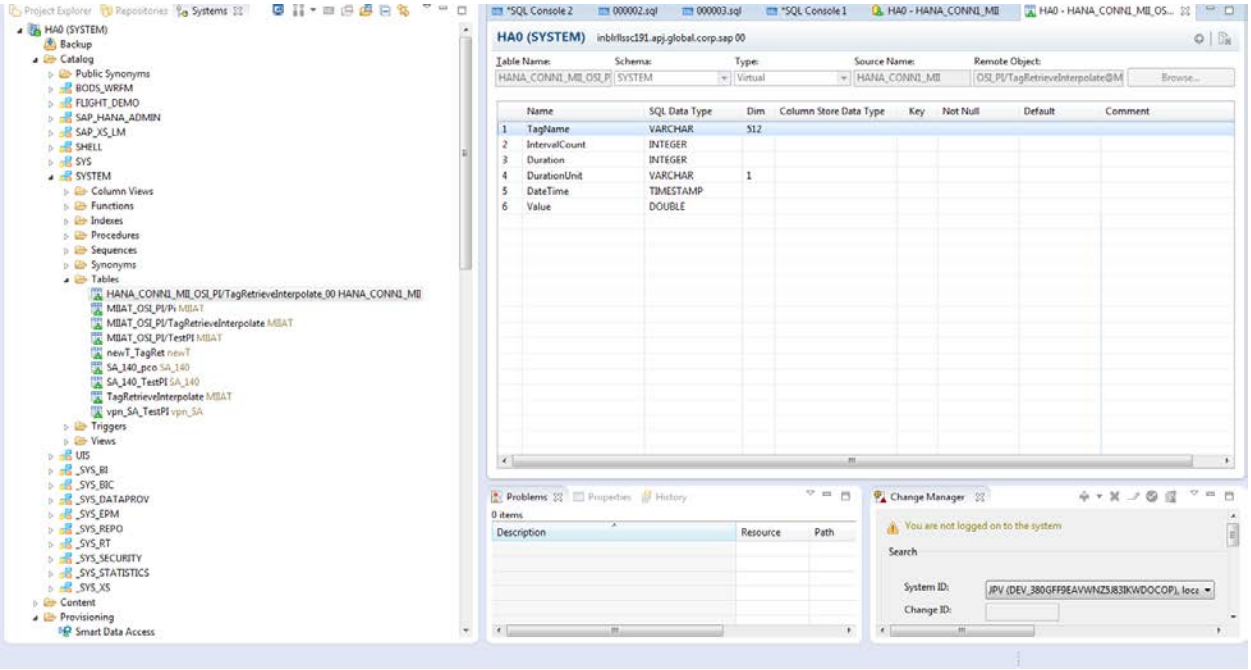
4. Right click and Add as Virtual Table
5. Enter the Table Name as HANA_CONN1_MII_OSI_PI/TagRetrieveInterpolate_00
6. Click on Create



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

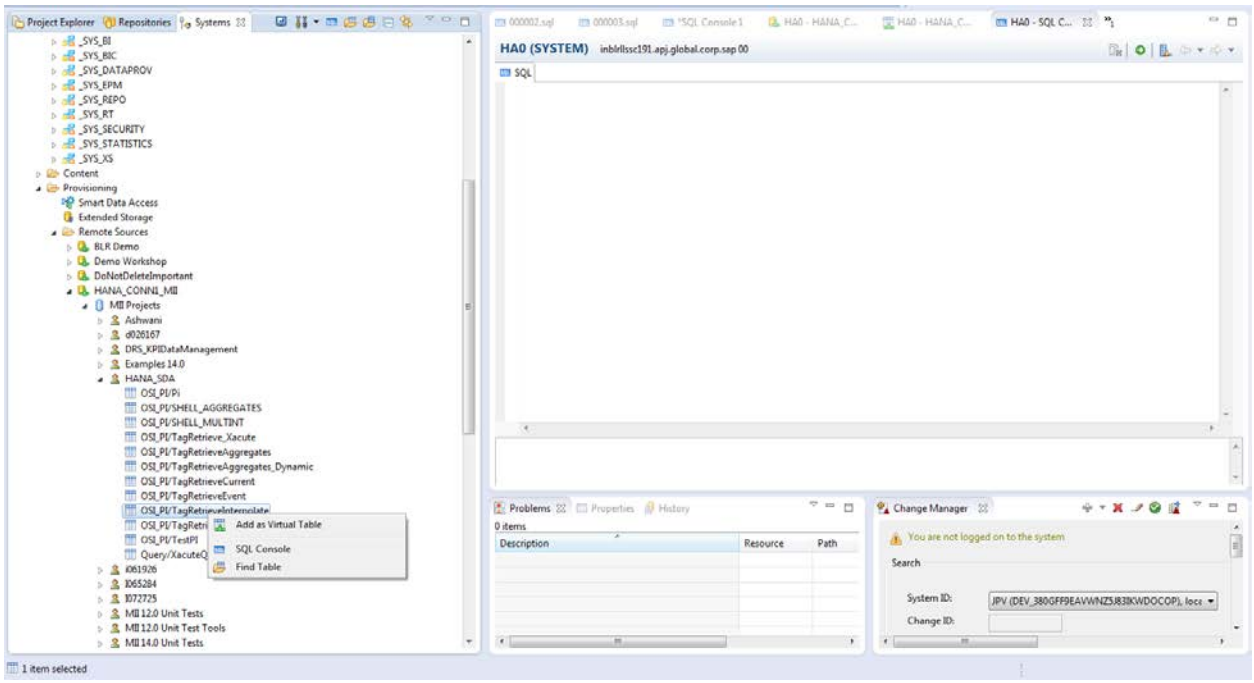

Project Explorer
Repositories
Systems
HA0 (SYSTEM)
Backup
Catalog
Public Synonyms
BODS_WRFM
FLIGHT_DEMO
SAP_HANA_ADMIN
SAP_XS_LM
SHELL
SYS
SYSTEM
Column Views
Functions
Indexes
Procedures
Sequences
Synonyms
Tables
HANA_CONN1_MII_OSI_PI/TagRetrieveInterpolate_00 HANA_CONN1_MII
MIIAT_OSI_PI/Pi MIIAT
MIIAT_OSI_PI/TagRetrieveInterpolate MIIAT
MIIAT_OSI_PI/TestPI MIIAT
newT_TagRet newT
SA_140_pco SA_140
SA_140_TestPI SA_140
TagRetrieveInterpolate MIIAT
vpn_SA_TestPI vpn_SA
Triggers
Views
UIS
_SYS_BI
_SYS_BIC
_SYS_DATAPROV
_SYS_EPM
_SYS_REPO
_SYS_RT
_SYS_SECURITY
_SYS_STATISTICS
_SYS_XS
Content
Provisioning
Smart Data Access
1 item selected

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



3.2 Retrieve query results on Virtual Table

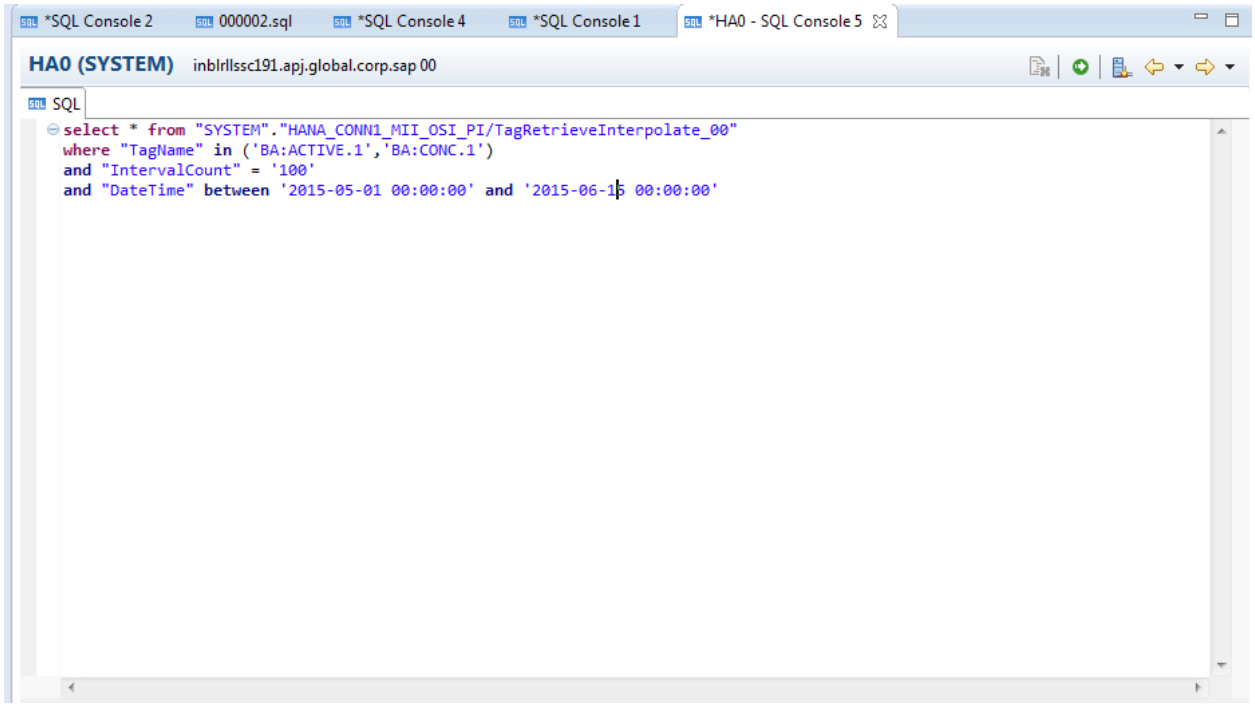
1. Expand and Select HANA_CONN1_MII -> MII Projects -> OSI_PI/TagRetrieveInterpolate
2. Right Click and Click on SQL Console



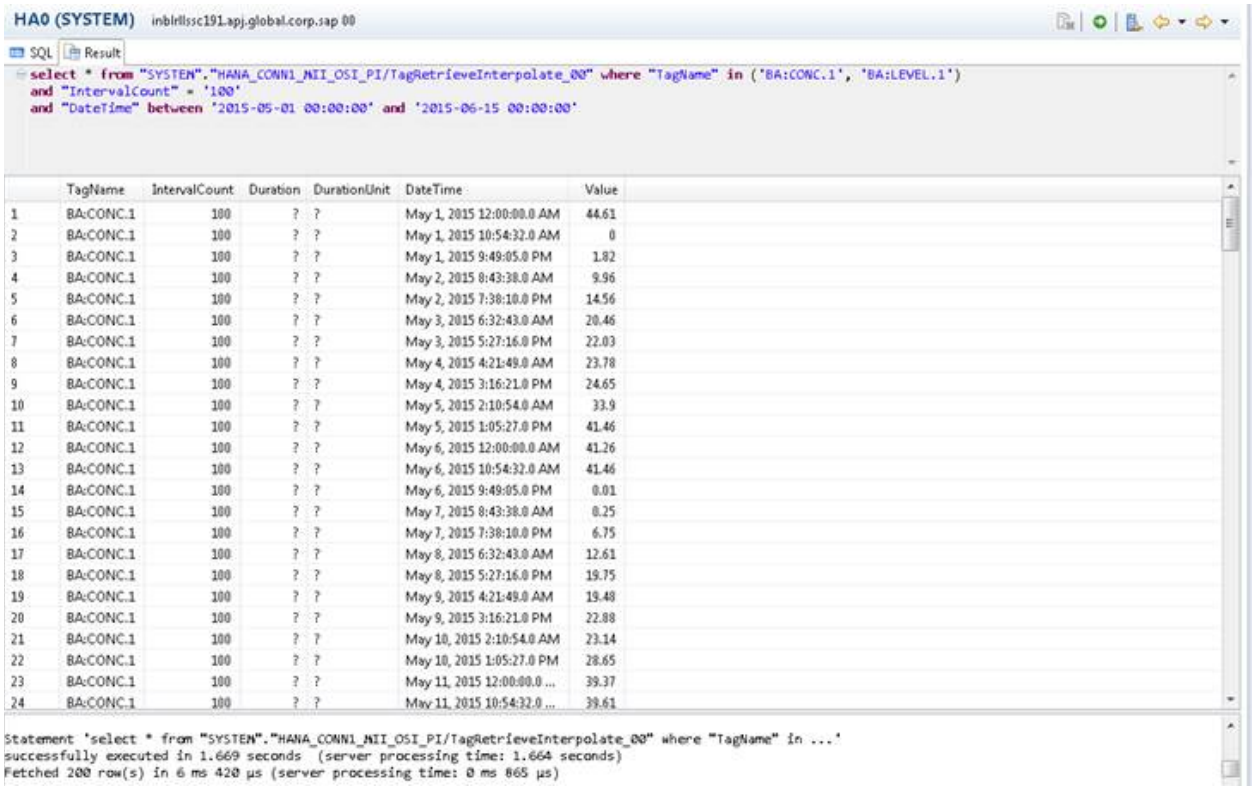
3. Write the SQL Syntax to retrieve query results on selected Query template
4. Sample SQL syntax :

```
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:



HA0 (SYSTEM) inblrllssc191.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)
```