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SDI

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2.1 Data Integration on Commissions Using SDI

Quick Links

SAP Smart Data Integration

SAP Smart Data Integration (SDI) is a component of the HANA platform that facilitates receiving, transforming, and loading data to and from the HANA database. Capabilities include high-volume data loads, real-time and batch data movement, high-speed data provisioning, and data transformation.

Data Integration on Commissions HANA using SDI

SAP Smart Data Integration (SDI) is packaged as part of SAP Commissions and can be used to integrate your on-premise systems with SAP Commissions on HANA.

Smart Data Integration (SDI) allows you to securely transfer critical business data to and from the Commissions application, enabling you to easily synchronize and share data within your organization.

Using SDI, you can transfer data pertaining to the business objects that are defined in Commissions. You can transfer data to and from the following workspaces in Commissions:

- Orders and Transactions workspace for Results
- Participants, Positions, and Titles workspace for Organization
- Categories, Products, Customers, and Postal Codes workspace for Classification

Prerequisite

Understanding of data integration concepts, knowledge of SDI, Web IDE, HANA SQL and procedures, and working knowledge of GitHub is a prerequisite for implementing SDI with Commissions HANA.

Related Topics

- Commissions-SDI Architecture [page 7]
- Getting Started Checklist [page 5]

2.2 Getting Started Checklist

> **i** Note
>
> Understanding of data integration concepts, knowledge of SDI, Web IDE, HANA SQL and procedures, and working knowledge of GitHub is a prerequisite for implementing SDI with Commissions HANA.

Use this checklist to get started with the setup and configuration process. Make sure you have all the information handy before you proceed:

Item	URL	Notes
S-User ID		`Required to download DP Agent`
Link to Download DP Agent	https://support.sap.com/en/my-support/software-downloads.html or https://tools.hana.ondemand.com/#cloudintegration	

Tenant DB Name		`Provided in provisioning email`
		
		`Required to connect to Tenant DB from WebIDE`

Item	URL	Notes
HANA HTTPs URL (SQL connectivity)		Provided in provisioning email Required to create the data provisioning agent
Web IDE URL		Provided in provisioning email
Web IDE credentials		Provided in provisioning email Required to import/export projects and create flowgraphs
HANA DB credentials		Provided in provisioning email Required to access EXT Schema
Data Provisioning Task Monitor	https://<<servername>>/sap/hana/im/dp/monitor/index.html?view=IMTaskMonitor	Required to monitor information about replication tasks and transformation tasks

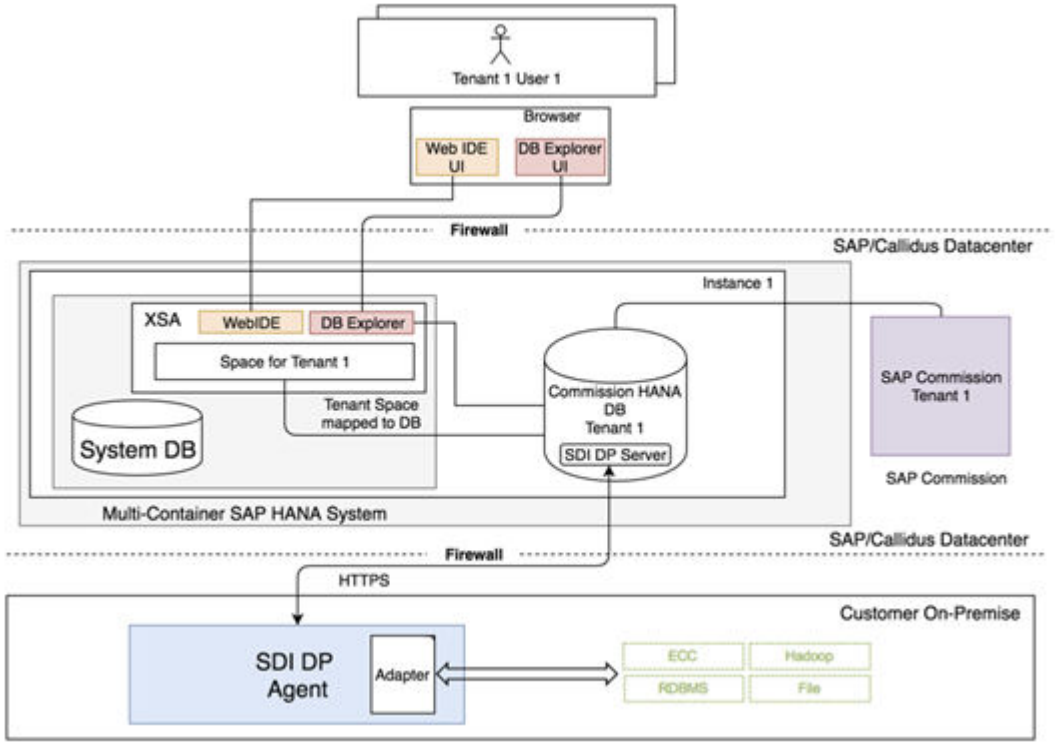
Related Articles

- Data Integration on Commissions Using SDI [page 4]
- Commissions-SDI Architecture [page 7]
- Setup and Configuration [page 10]

2.3 Commissions-SDI Architecture

Using SDI, data is loaded, in batches or real-time, into Commissions HANA from flat files using pre-built and custom adapters. Data Provisioning Agents are used to house adapters and connect to the source system with the Data Provisioning server which is provisioned by the HANA system.

The following image illustrates the Commissions-SDI architecture.



SDI is packaged as part of HANA Enterprise which comprises the following components:

- HANA Server (SDI Data Provisioning Server) hosted by SAP/Callidus Datacenter
- Data Provisioning Agent hosted on-premise by customers

The DP agent is installed in the customer's premise and is set up to connect with SDI and the HANA DB Server. The DP Agent connects to the data source systems (Hadoop, Files, RDBMS, or others) and passes information between the source systems and the HANA Server using built-in adapters that are packaged with the DP Agent. Data is transmitted over HTTPS to and from the HANA Server.

Every SAP Commission solution is provisioned with a separate HANA tenant database. Web IDE facilitates access to the HANA database and SDI components. A development space is provisioned in Web IDE XSA (Extended Application Service) to enable application developers to manage content integration development. The Web IDE DB Explorer plugin allows users to connect to the tenant database and access the schemas.

Related Topics

- Data Integration on Commissions Using SDI [page 4]
- Getting Started Checklist [page 5]
- Glossary [page 8]

2.4 Glossary

Commonly used terms in Commission-SDI are described below:

Term	Definition
Adapter	SDI component which allows connectivity to external sources.
Commissions Stage Tables	Temporary data storage area in Commissions where data from SDI is placed during export. Data is validated in the staging area before transferring into the Commissions tables and executing the pipeline. See Commissions Administrator online help and Data Dictionaries for more details.
DP Agent	The Data Provisioning Agent hosts all SDI Adapters and acts as the communication interface between Hana and the Adapter.
Flat File	Flat file allows you to specify data attributes, such as columns and data types table by table, and stores the data in plain text format.
Flow Graph	A graphical user interface to develop data integration mapping and transformations.
EXT Schema	EXT Schema in HANA database is a temporary database that facilitates data validation, transformation, aggregation, and cleaning for large volumes of data. It allows creating custom tables and stored procedures to process bulk data.
HANA Database	SAP HANA database which is used by Commissions for data storage and processing.
Pipeline	Pipeline is a compensation computation process initiated from the Pipeline workspace in the Job Queue view or from the command-line utility. The pipeline produces compensation and pay results for payees assigned to variable compensation plans. See Commissions online help for more details.

Term	Definition
Commissions Workspace	Designated area in Commissions where related compensation objects are grouped together so that a user can perform related tasks from the same place.
ODATA	Protocol for building and consuming REST APIs.
Virtual Table	A HANA component, which allows read and write of data from external sources.
Web IDE	SAP Web IDE is a browser-based integrated development environment (IDE), comprised of web-based UIs, business logic, and extensive SAP HANA data models, that are leveraged by SDI. Web IDE facilitates access to HANA database and SDI components. It is also a Web-based development environment for SAP Fiori, SAPUI5, and full-stack business apps.

3 Setup and Configuration

The following components need to be set up and configured to implement SDI with Commissions for data integration:

- DP Agent [page 10]
- Web IDE DB Explorer > EXT Schema Connectivity [page 13]
- GitHub [page 15] (Optional)

Related Topics

- Getting Started Checklist [page 5]
- Commissions-SDI Architecture [page 7]
- Inbound and Outbound Transfers [page 23]

3.1 Data Provisioning (DP) Agent Installation

The Data Provisioning Agent is a lightweight component that hosts data provisioning adapters, enabling data federation, replication, and transformation scenarios for deployments. It provides secure connectivity between the SAP HANA database and your on-premise adapter-based sources.

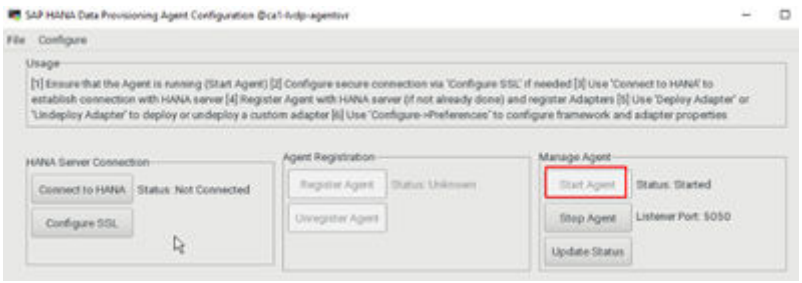
> **i Note**
>
> For best performance, we recommend that you install the Data Provisioning Agent on a separate machine or in a virtual machine as close to the source database as possible.

Perform the following steps:

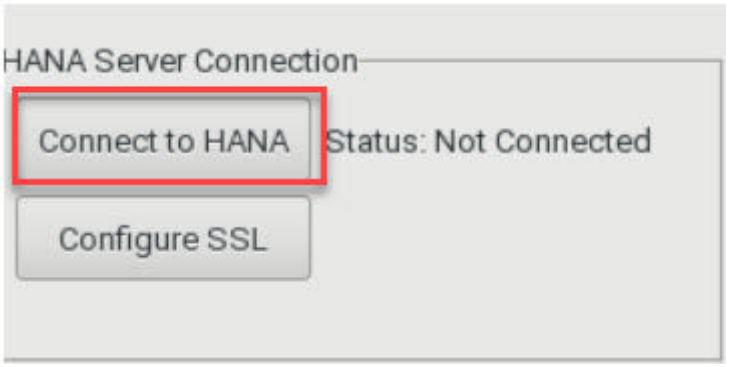
1. Download DP Agent. You can download the DP Agent and SAPCAR file from the SAP Support portal.

   > **i Note**
   >
   > You can also install DP Agent from the HANA Tools site.

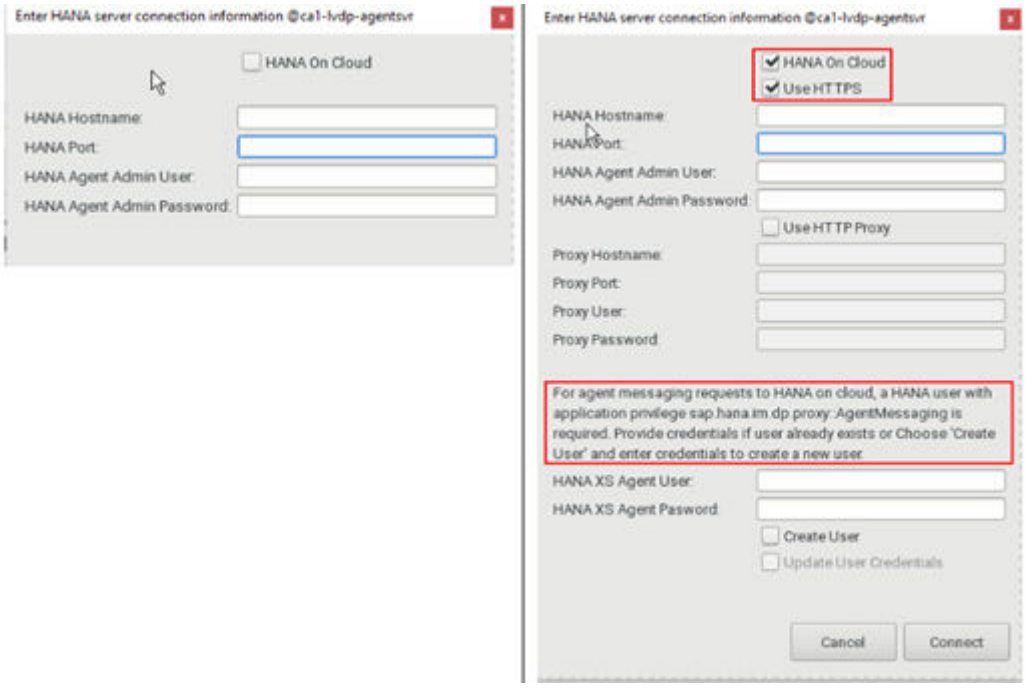
2. Install DP Agent.For detailed information on installing the DP Agent, see:
   - HANA Academy Video: https://www.youtube.com/watch?v=3GzU2NKc4Bs
   - SAP Documentation: https://help.sap.com/viewer/7952ef28a6914997abc01745fef1b607/2.0_SPS03/en-US/44cedf222fa045d8a056175cf21054b7.html
3. Configure DP Agent. Launch the DP Agent configuration tool.
   1. To start the DP Agent, click *Start Agent*.



2. Click *Connect to HANA*.



3. Select the **HANA on Cloud** and **Use HTTPS** checkboxes.



4. Provide the following information you received from SAP Support:
   - HANA Hostname
   - HANA Port
   - HANA Agent Admin Name
   - HANA Agent Admin Password
   - HANA XS Agent User
   - HANA XS Agent Password

5. Click *Connect*.

For detailed information on configuring the DP Agent, see: https://help.sap.com/viewer/7952ef28a6914997abc01745fef1b607/2.0_SPS03/en-US/76e13fc3ed064821841fe8049e23aa59.html

Related Topics

- Getting Started Checklist [page 5]
- Commissions-SDI Architecture [page 7]

3.1.1 Troubleshooting Connectivity Issues

For connectivity issues, check the DP Agent Logs (available at DP Agent Operating System level) to resolve the problem.

To resolve connectivity issues:

1. Log in to the DP Agent server ssh session.
2. Stop and restart the DP Agent service.
3. Connect to the DP Agent service again.

```
dpagent@cal-lvdp-agentsvr:/usr/sap/dataprovagent/bin> ./dpagent_service.sh ping
dpagent_service is not running
dpagent@cal-lvdp-agentsvr:/usr/sap/dataprovagent/bin> ./dpagent_service.sh start
dpagent@cal-lvdp-agentsvr:/usr/sap/dataprovagent/bin> ./dpagent_service.sh ping
dpagent_service is running
dpagent@cal-lvdp-agentsvr:/usr/sap/dataprovagent/bin>
```

If the issue persists, make sure the DP Agent server is able to access HANA over the internet and there are no Firewalls blocking the connection. If everything looks okay, and the connectivity is still not established, raise an incident with SAP support in support.sap.com using your “S” user account.

Related Topics

- Data Provisioning (DP) Agent Installation [page 10]
- GitHub Integration [page 15]
- Getting Started Checklist [page 5]
- Commissions-SDI Architecture [page 7]

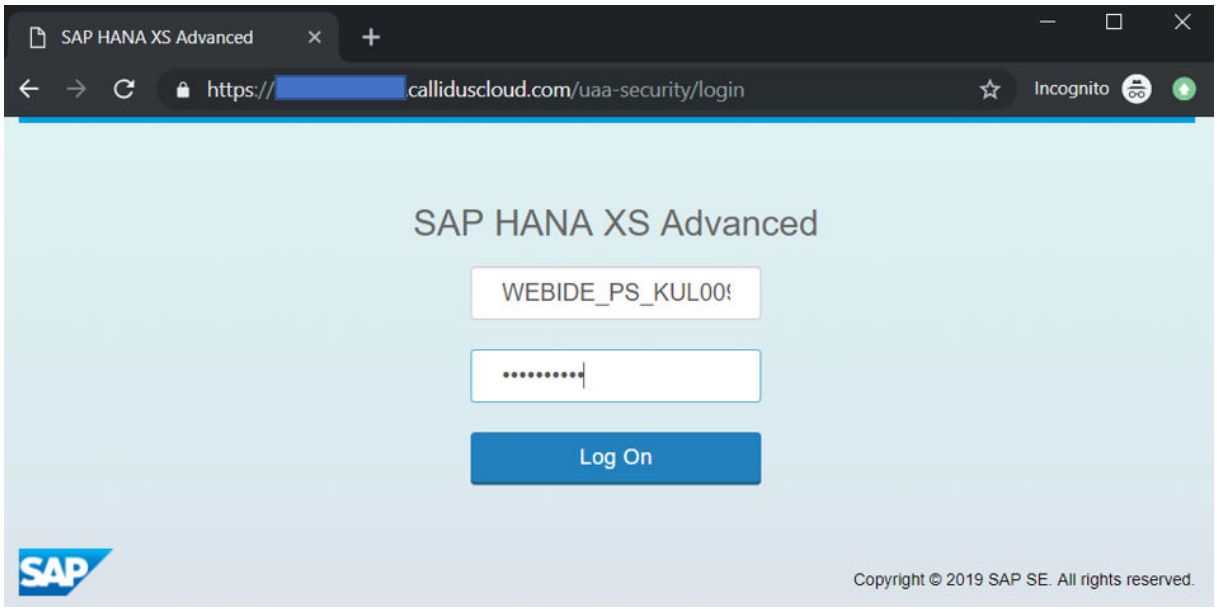
3.2 Web IDE DB Explorer > EXT Schema Connectivity

Logging in to Web IDE

Web IDE facilitates access to HANA database and SDI components. To connect to Web IDE, you need the following details:

- Web IDE URL
- Web IDE Username and Password

Launch the Web IDE URL and provide the **username** and **password**.

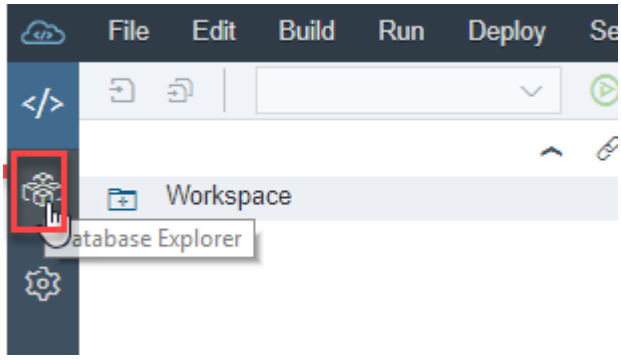


You will be prompted to change your initial password after the first login.

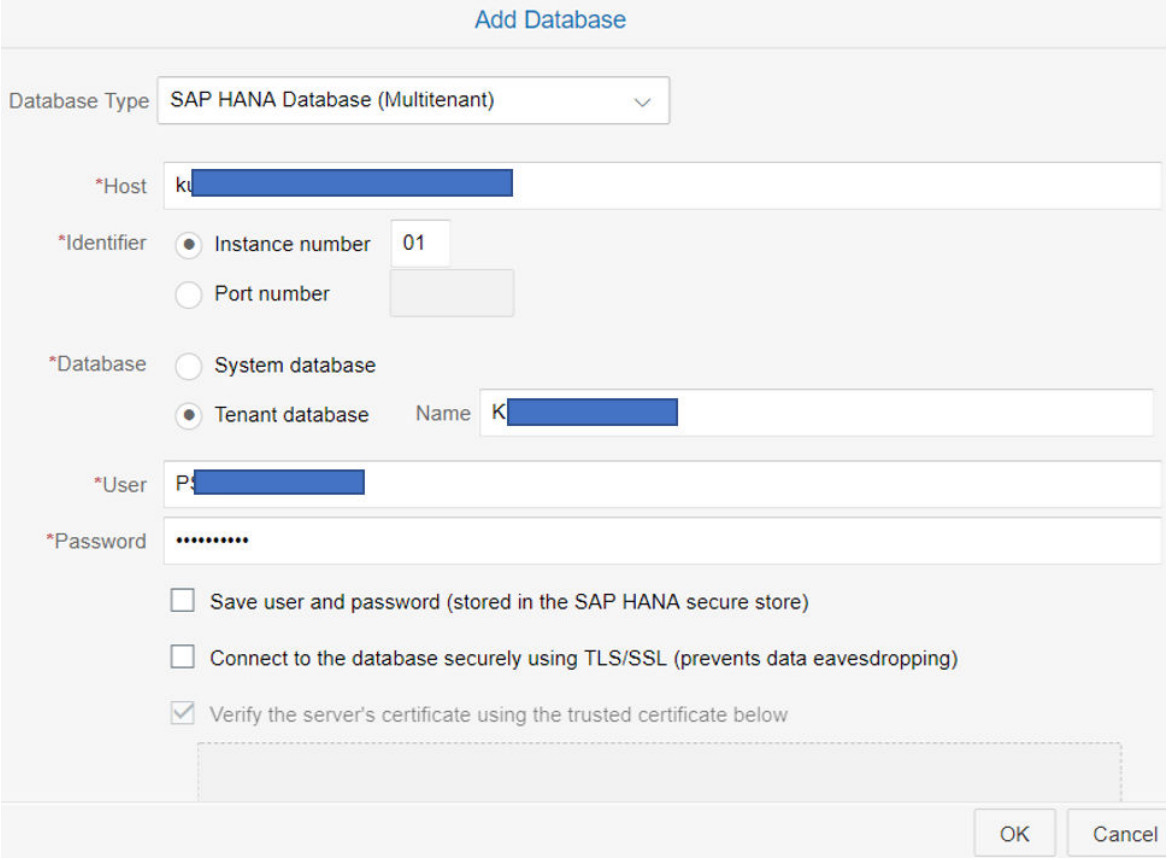
Web IDE DB Explorer > EXT Schema Connectivity

EXT Schema is the Commissions HANA database schema which allows creating custom HANA tables and procedures. In Web IDE, launch DB Explorer to connect to EXT Schema.

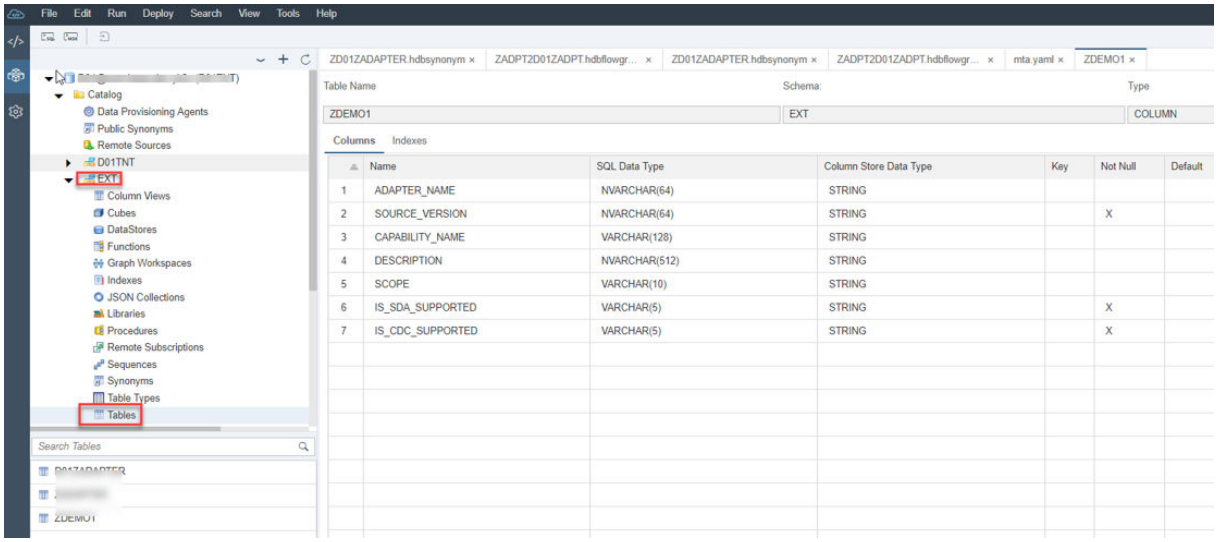
1. Launch DB Explorer from Web IDE. After logging in to **Web IDE**, click the **DB Explorer** icon on the left panel. The **DB Explorer** interface is displayed.



2. Add Database to DB Explorer (if logging in for the first time). To add the database to DB Explorer, you need the following details:
   - HANA Database Host URL
   - Port
   - Tenant Database Name
   - User and Password



3. Navigate and Work with EXT Schema.



Related Topics

- Getting Started Checklist [page 5]
- Commissions-SDI Architecture [page 7]

3.3 GitHub Integration (Optional)

SAP Web IDE leverages GitHub to manage projects in a central web-based Git repository. GitHub facilitates version control and source management by allowing developers to locally clone the central repository, update the code, and commit the changes into the respective branches in the central repository. The changes can then be reviewed and pulled into the central repository by authorized GitHub users.

To configure and set up GitHub for use with Web IDE:

1. Create a GitHub Account [page 16]
2. Create a Git Repository [page 16]
3. Configure GitHub Account(s) in Web IDE [page 18]
4. Clone Repository in Web IDE [page 19]

Related Topics

- Data Provisioning (DP) Agent Installation [page 10]
- Getting Started Checklist [page 5]
- Commissions-SDI Architecture [page 7]

3.3.1 Create GitHub Account

To get a GitHub account, log on to github.com and signup. Note down the username and email address you provide when creating your account. This is required to set up your GitHub account in Web IDE. See Configure GitHub in Web IDE for more details.

> **i** Note
>
> All users/developers need to have a Git account to use the Git-WEB IDE integration. For addition information on Git functionality, such as adding collaborators, cloning repositories, requesting a pull, and so on, see https://help.github.com/.

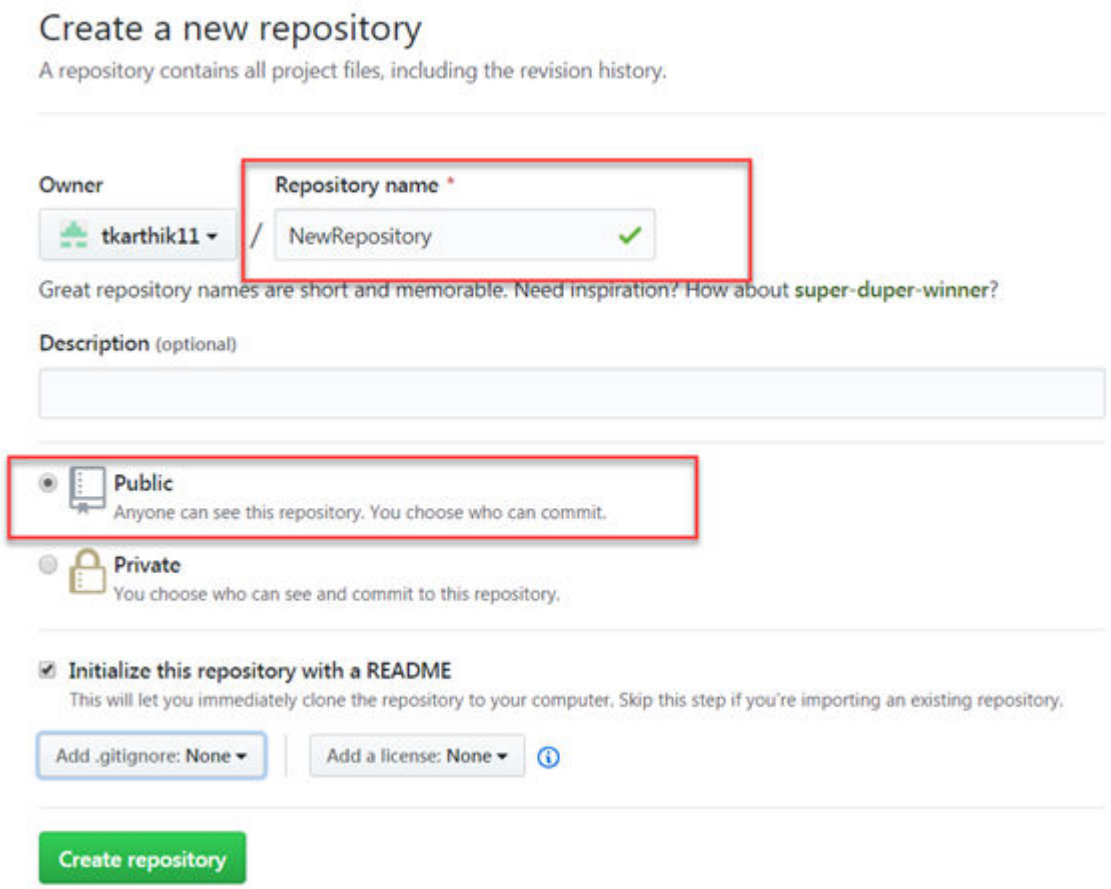
Related Topics

- GitHub Integration [page 15]
- Data Provisioning (DP) Agent Installation [page 10]
- Getting Started Checklist [page 5]
- Commissions-SDI Architecture [page 7]

3.3.2 Create a Git Repository

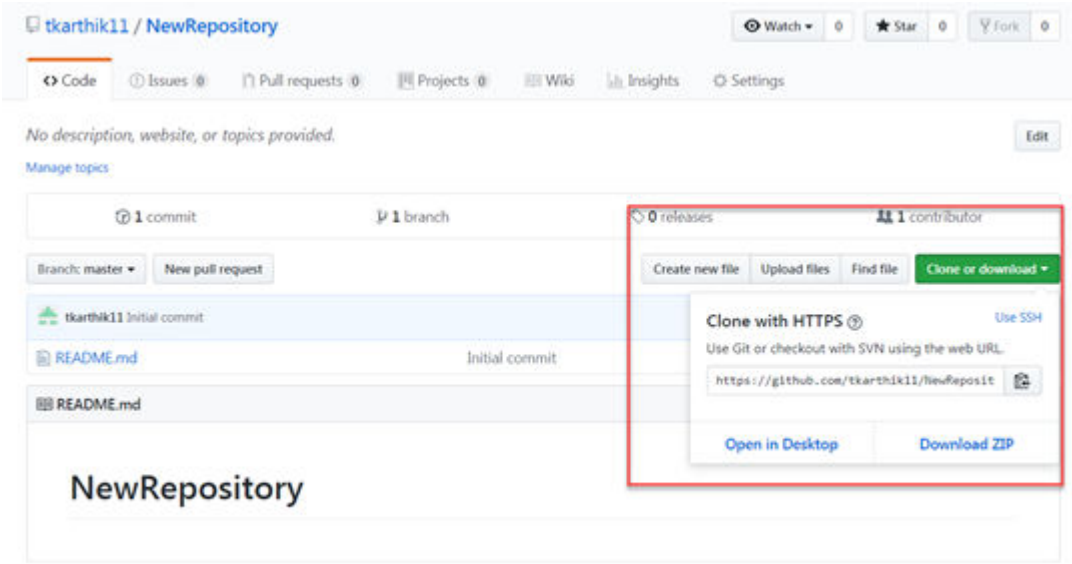
To create a new Git repository:

1. Log on to GitHub.
2. Select Your Repositories on the top-right corner.
3. Click New.



1. Enter a name for the repository.
2. Choose to make the repository either Public or Private. Public repositories are visible to the public. Private repositories are only accessible to you and to the people you share them with.
3. Click *Create repository*.

4. Click *Clone* or D**ownload and Copy** the repository URL. You will need this URL to integrate the repository with WEB IDE.



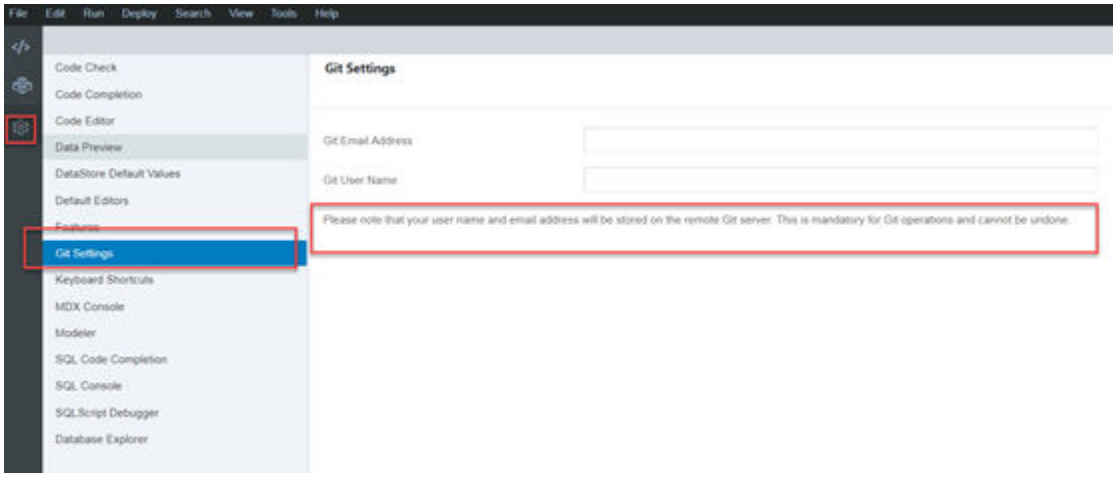
Related Topics

- GitHub Integration [page 15]
- Data Provisioning (DP) Agent Installation [page 10]
- Getting Started Checklist [page 5]
- Commissions-SDI Architecture [page 7]

3.3.3 Configure GitHub Account(s) in Web IDE

To enable GitHub Integration in WEB IDE:

1. Log in to WEB IDE.
2. Enter your GitHub email address and user name. You can also add the Git account of new users/ collaborators.



Related Topics

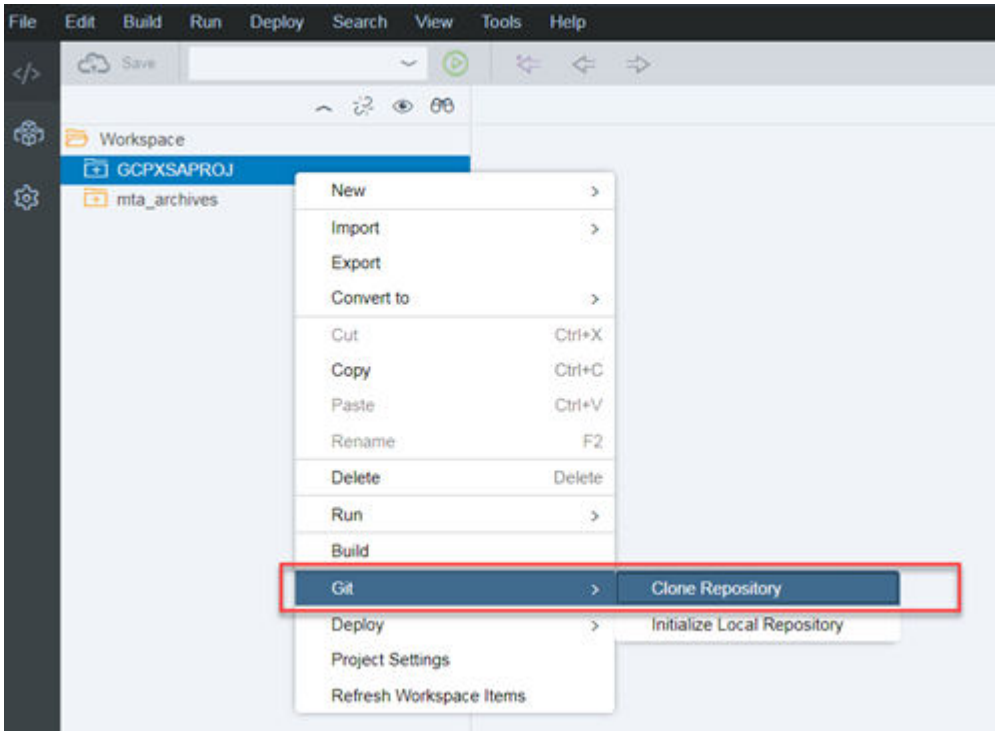
- GitHub Integration [page 15]
- Data Provisioning (DP) Agent Installation [page 10]
- Getting Started Checklist [page 5]
- Commissions-SDI Architecture [page 7]

3.3.4 Clone Repository in Web IDE

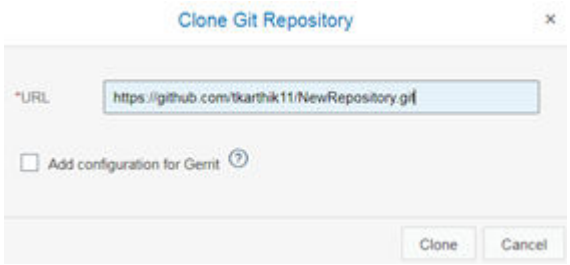
Once the project is created in WEB IDE, you can clone the Github repository in WEB IDE.

Perform the following steps to clone the repository:

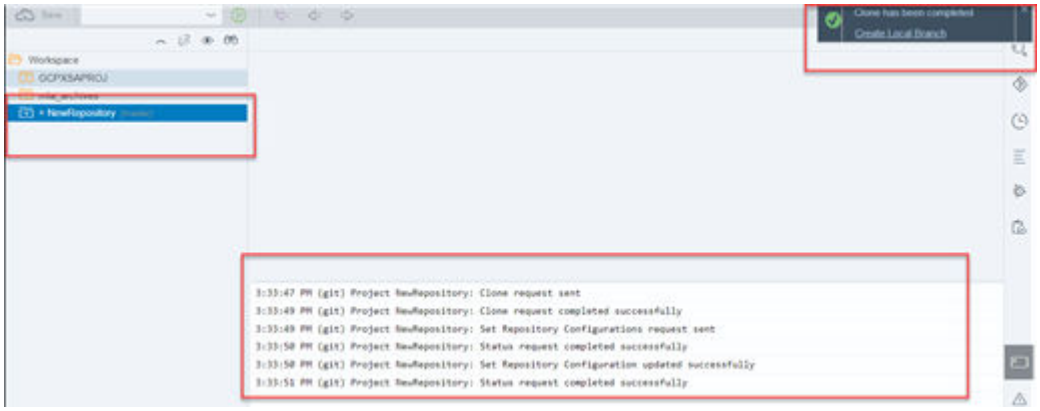
1. Right Click on the respective Project in the Workspace and select *Git* > *Clone Repository.*



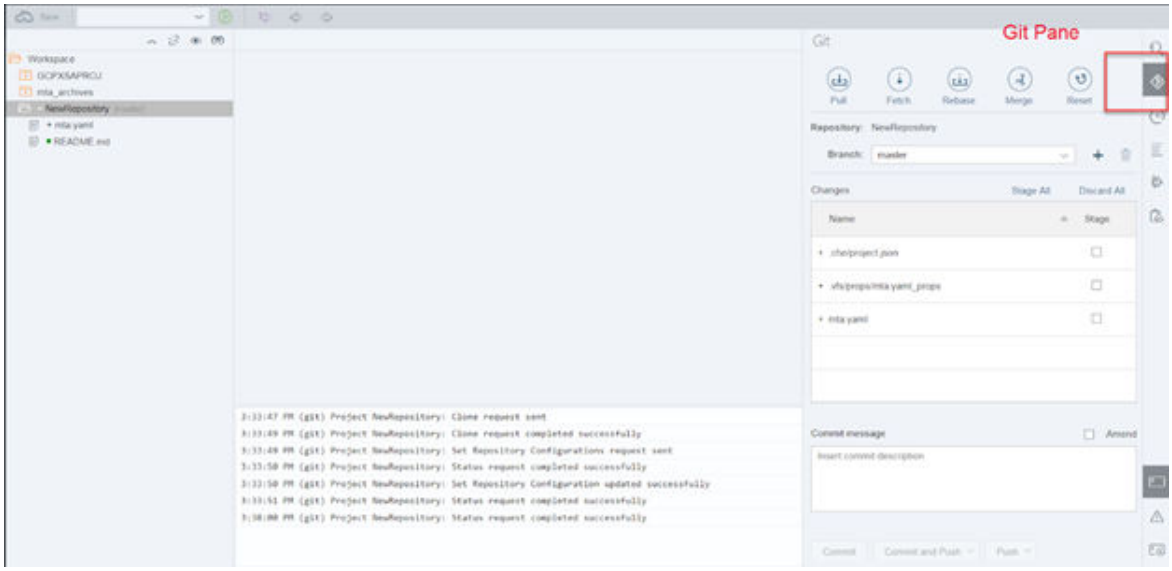
2. Provide the URL of the repository you got when you created the repository. See Create Git Repository [page 16]for more information.



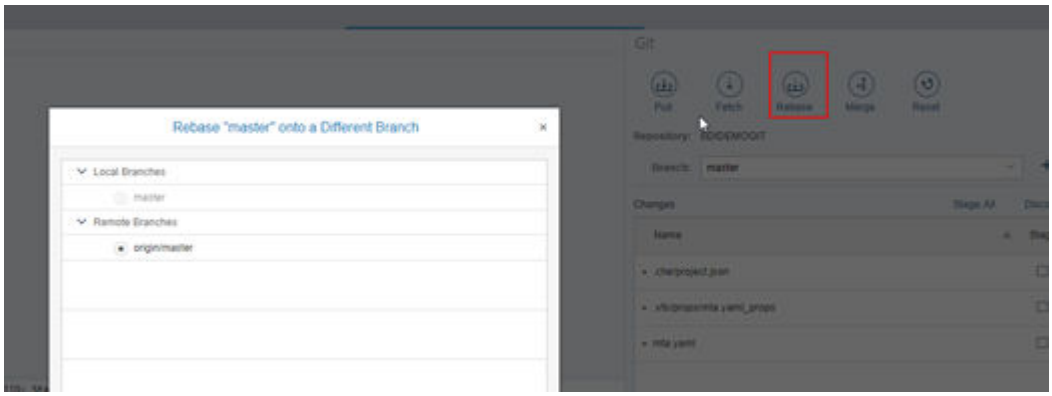
3. Click *Clone*. A success message is displayed once cloning is complete.



4. Click *Git Pane* to access Git functionality.



5. Click Rebase to rebase the master branch.



6. A success message is displayed when Rebase is complete. Click *OK*.

```
3:26:15 PM (git) Project SDIDEMOGIT: Clone request sent
3:26:17 PM (git) Project SDIDEMOGIT: Clone request completed successfully
3:26:17 PM (git) Project SDIDEMOGIT: Set Repository Configurations request sent
3:26:18 PM (git) Project SDIDEMOGIT: Status request completed successfully
3:26:18 PM (git) Project SDIDEMOGIT: Set Repository Configuration updated successfully
3:26:22 PM (git) Project SDIDEMOGIT: Status request completed successfully
3:29:08 PM (git) Project SDIDEMOGIT: Status request completed successfully
3:33:41 PM (git) Project SDIDEMOGIT: Rebase request sent
3:33:43 PM (git) Project SDIDEMOGIT: Rebase request completed successfully
```

7. Verify the content on Github. Log in to Github.com and check if the data/project is synced with the Git repository.

Note: For more information on Git functionality, such as adding collaborators, cloning repositories, requesting a pull, and so on, see https://help.github.com/.

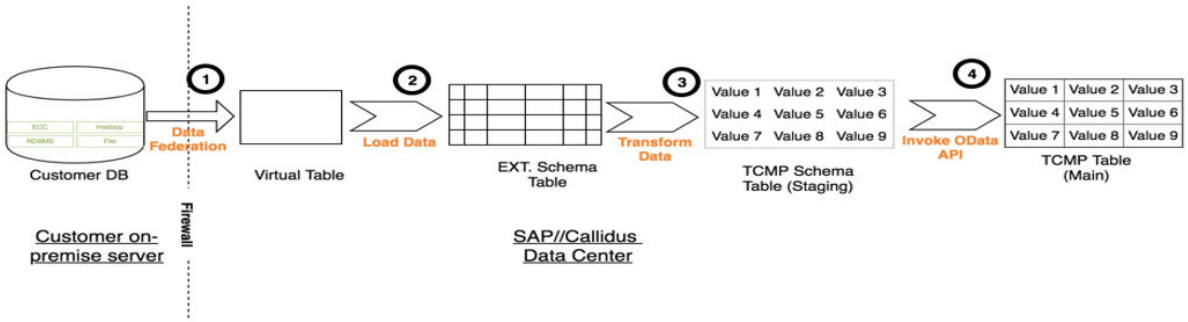
Related Topics

- GitHub Integration [page 15]
- Data Provisioning (DP) Agent Installation [page 10]
- Getting Started Checklist [page 5]
- Commissions-SDI Architecture [page 7]

4 Inbound and Outbound Transfers

Overview

A typical Extract, Load and Transform pattern would involve 4 primary stages as illustrated below. Data is first loaded into the EXT Schema typically where it is transformed, cleansed, and validated before being loaded into the Commissions Staging tables. After data is loaded into the staging tables, a flowgraph calls the ODATA API (using ODATA adapter) to execute the Commissions Pipeline to import data from the Staging tables to the main Commissions tables. Users can use monitors to track agents and execution of tasks.



Stage 1: Data Federation

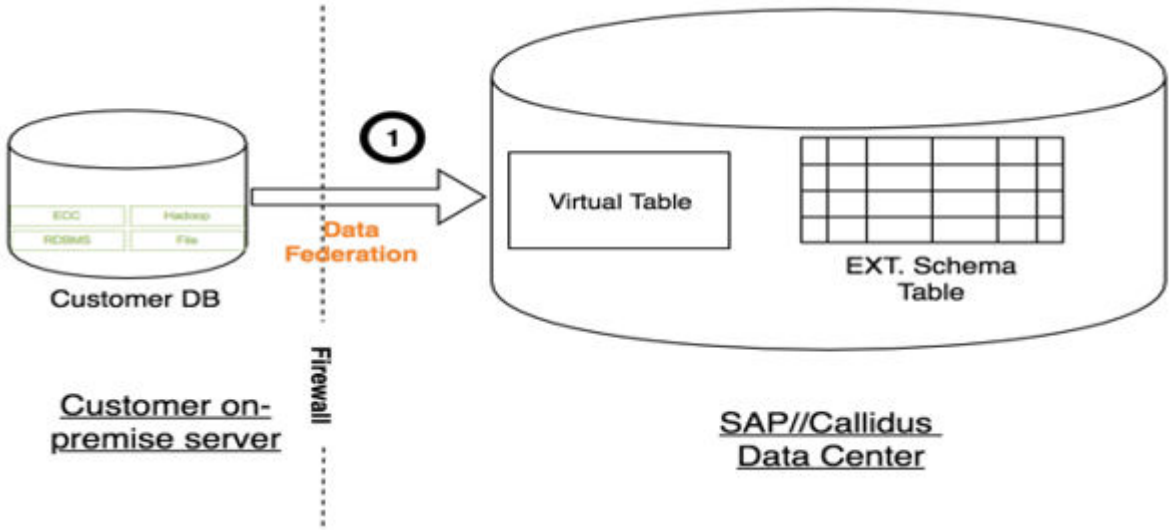
In the first stage, data is federated in the virtual table in DB Explorer from the remote data source.

Pre-requisite: Create a remote source in the HANA tenant database via Web IDE DB Explorer to be able to create virtual tables.

> **i** Note
>
> A remote source owner can create or grant privileges for creating virtual tables on a remote source. Alternatively, remote source creation can be done as `PS_ <user>`.

Ensure the following steps are performed:

1. Set up SDI DP Agent connection to the SDI DP Server.
2. Turn the adapter on.
3. Create a remote data source in the HANA DB via Web IDE DB Explorer. The remote source is required to create a virtual table.
4. Create a virtual table.



Stage 2: Load Data

In this stage, data is loaded into the EXT schema table from the virtual table. Typically, users create the same table structure in EXT schema as in the source table and then load data. This step is executed using flowgraphs that are built in Web IDE.

Transformations are possible in this stage but are not performed since this is mainly an Extract and Load step.

Stage 3: Transform Data

In this stage, data is transformed and moved from the EXT schema table to the TCMP schema table. This step is executed using flowgraphs that are built in Web IDE.

Stage 4: Invoke OData API

In the final stage, data is moved to the main Commissions table from the TCMP table.

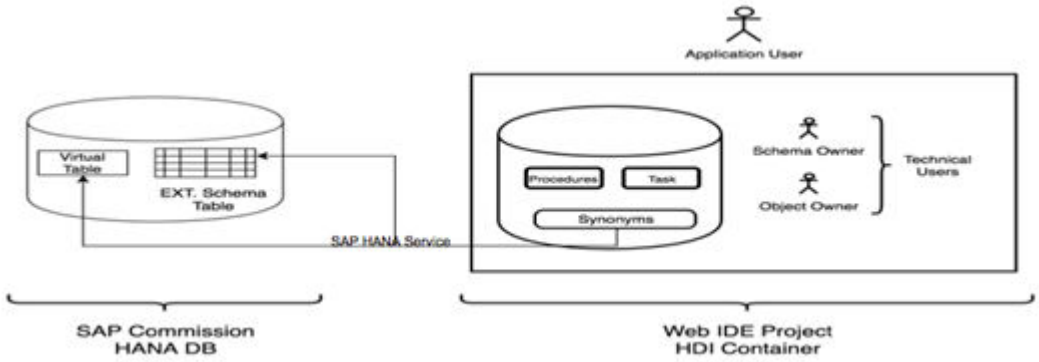
To achieve this, the SAP Commission Pipeline is triggered. Once the Commissions Pipeline is executed, data is moved from the TCMP stage table to TCMP main table.

Commissions Pipeline can be triggered using:

- Option 1: Calling SAP Commission OData API. This option is available with the SAP Commissions 1905 release and the details are illustrated in this topic.
- Option 2: Creating a flowgraph using Web IDE which uses the OData remote source. This option will be available with SAP Commission 1908 release.

Important: WEB IDE Project (Use, Function, Access)

Web IDE project uses the HDI (HANA Deployment Infrastructure) service layer to deploy HANA database artifacts. HDI also introduces HDI container for database. HDI container is essentially a database schema. It abstracts the actual physical schema and provides schema-less development to the Web IDE project. The physical schema is abstracted by the HDI container. Only local object (HDI container schema) access is allowed from the Web IDE application. Two technical users (Object Owner and Schema Owner) are also created. Technical users have access to only the local objects. Any foreign object (such as tables in EXT and TCMP schema) must be accessed via Synonyms and must be granted access by the foreign technical user (tenant database user).



Development Steps:

1. Create Web IDE project
2. Create SAP HANA Service to connect with SAP Commission HANA DB
3. Create Synonym for virtual table and EXT schema table
4. Build the project and grant access to virtual and physical tables to Object Owner as shown in the below example:

- GRANT SELECT, INSERT, UPDATE, DELETE ON "SCHEMA"."VIRTUAL_TABLE" to TECHNICAL_USER_1#OO;
- GRANT SELECT, INSERT, UPDATE, DELETE ON "SCHEMA"."PHYSICAL_TABLE" to TECHNICAL_USER _1#OO;

> **i Note**
>
> To speed up with Web IDE Project and the concepts described in this article, we recommend that you check the following Github Repository for a sample Web IDE project: https://github.com/I027369/commission_sdi. GitHub helps you migrate flat file data (by acting as a data source) to a table in TCMP schema.

Related Articles

- Perform an Inbound File Transfer (Example: Load Transaction) [page 26]
- Perform an Outbound File Transfer (Example: Generate Payfile) [page 30]

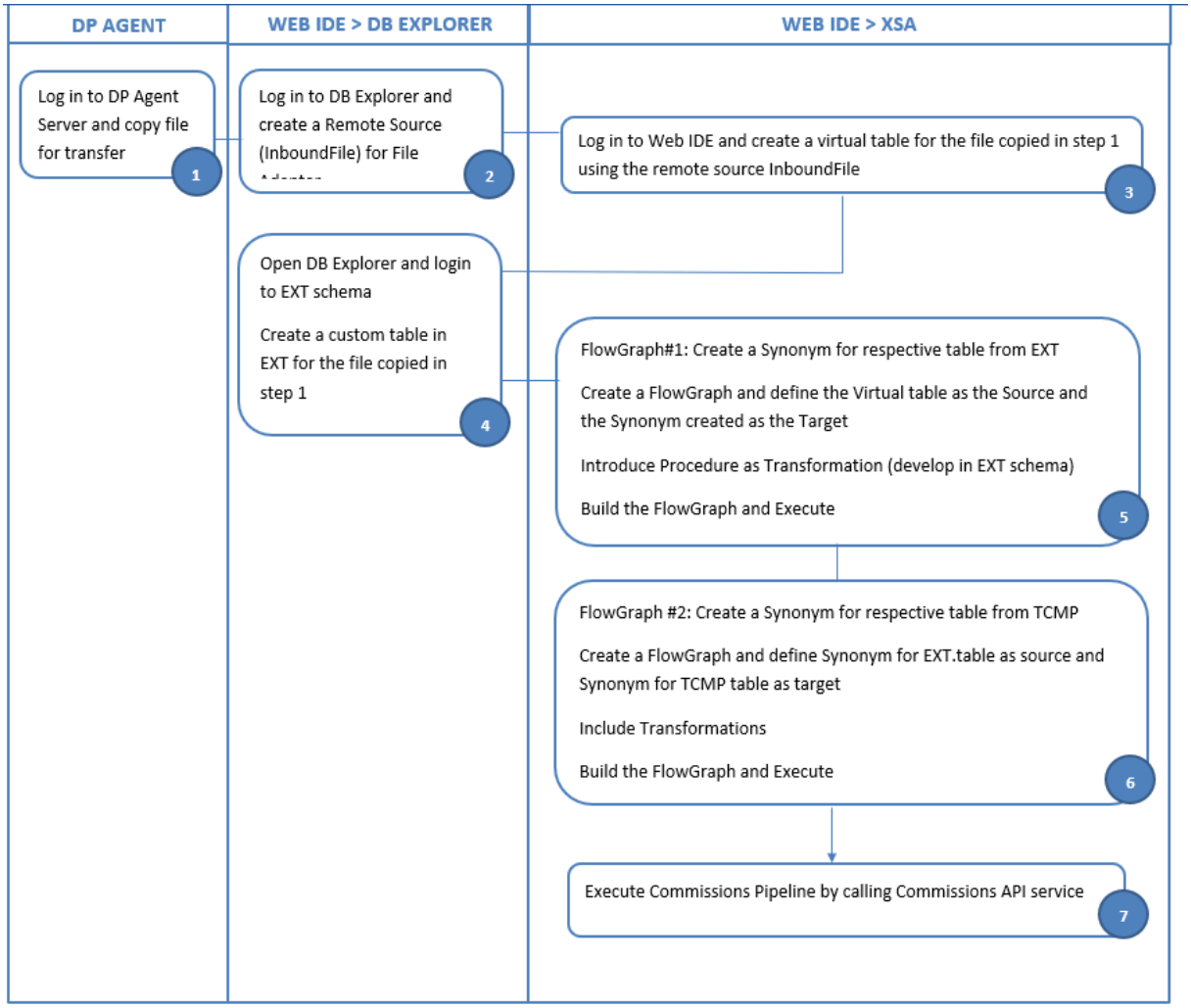
4.1 Perform an Inbound File Transfer (Example: Load Transaction)

In an inbound transfer, data will be copied from the source system/flat files and loaded into the Commissions tables.

> **i** Note
>
> Data can be loaded from various data sources. As an example, the procedure to transfer data from flat files is illustrated in this documentation. Any SDI compatible template can be used to create flat files.

Steps

The following image illustrates the steps involved in an Inbound File Transfer.



To perform an inbound transfer:

1. Copy file for Transfer.
    1. Log in to the DP Server Agent.
    2. Copy file for transfer. (Example: Transaction)
2. Create Remote Source (if it does not exist).
    1. Log in to WEB IDE and create a Remote Source (Inbound File) for File Adapter.
3. Create Virtual Table.
    1. Create a virtual table for the file copied in step 1 (Transaction) using the remote source Inbound File.
    2. Open DB Explorer and login to EXT schema.
4. Create a Custom EXT Table.
    1. Create a custom table in EXT for the file copied in step 1. (Example: Transaction)
5. Create FlowGraph #1 (Database folder):
    1. Create a Synonym for the respective table from EXT. (Example: Transaction)
    2. Create a FlowGraph and define Virtual table as the Source and the Synonym created as the Target.
    3. In between the source and target, introduce a Procedure as a Transformation (develop this procedure in EXT schema).
    4. Build the FlowGraph and Execute.

6. Create FlowGraph #2(Database folder):
    1. Create a Synonym for the respective table from TCMP. (Example: CS_STAGESALESTRANSACTION)
    2. Create a FlowGraph and define Synonym for EXT.table as source and Synonym for TCMP table as target. (Example: EXT.Transaction as source and CS_STAGESALESTRANSACTION as target)
    3. Include Transformations.
    4. Build the FlowGraph and Execute.
7. Execute the Commissions Pipeline by calling the Commissions API service with the respective payload using Google Postman or any REST API Client tools.

ODATA API Details

URL: https://<commissionshostname>:447/TrueComp-SaaS/CommissionsService.svc/PipelineRuns

Method Type: POST

Basic Authorization: Commission Admin Username and Password

```
Sample Payload Validate and Transfer
{
"StartDateScheduled": "2019-06-06T14:57:00Z",
"TraceLevel": null,
"SkipAnalyzeSchema": null,
"SqlLogging": null,
"DebugContext": null,
"Command": "Import",
"StageType": "ValidateAndTransfer",
"CalendarName": "Main Monthly Calendar",
"Period": {
"Calendar": {
"Name": "Main Monthly Calendar"
},
"Name": "April 2019"

},
"BatchName": "BATCH1",
"RunMode": "all",
```

```
"Module": "OrganizationData"
}
```

CalendarName	String	Calendar name
StageType	String	Stage Type name
Revalidate	String	ReValidate the relevant stage records. Valid values are : all, onlyError
TraceLevel**optional**	String	Options to trace(log) the pipeline process. Available options are 'profile'-Performance Statistics,'internal'-Verbose Logging. You can pass multiple option as comma separated string.
-	String	Default value: status
SqlLogging**optional**	Boolean	Allow sql logging for Pipeline process.
-	Boolean	Default value: false
StartDateScheduled**optional**	String	Date when pipeline job starts. Only passed to submit job for future date.
UserIdoptional	String	User who submitted the pipeline job.
BatchName	String	Reset only specific data which are imported with this batchName.
Module	String	Reset only specific data which are from module specified by Module name. Valid values are: TransactionalData, OrganizationData , ClassificationData, PlanRelatedData or PlanRelatedData
RunMode	String	Run mode of the import job. i.e. all

To monitor load status and logs, see Monitor Tasks [page 33].

> **i** Note
>
> : Calling the ODATA adapter to execute the Commissions pipeline can be part of a flowgraph and scheduled in a task chain. Refer to Commissions documentation for more information.

Related Articles

- Setup and Configuration [page 10]

- Inbound and Outbound Transfers [page 23]
- Getting Started Checklist [page 5]

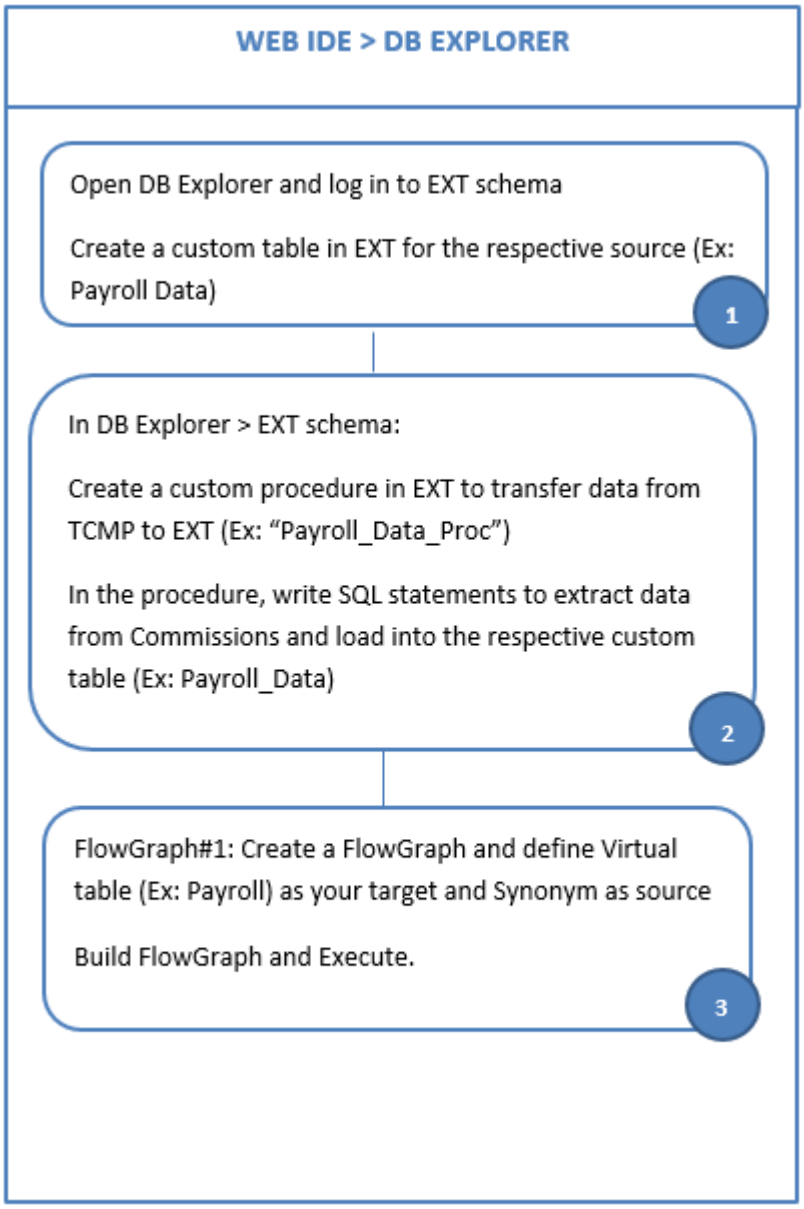
4.2 Perform an Outbound File Transfer (Example: Generate Payfile)

In outbound transfer, data is copied from EXT Schema which has read access Commissions tables (TCMP) and loaded into the target.

> **i** Note
>
> Data can be extracted into various data systems. As an example, the procedure to transfer data to flat files is illustrated in this documentation.

Steps

The following image illustrates the steps involved for an Outbound File Transfer.

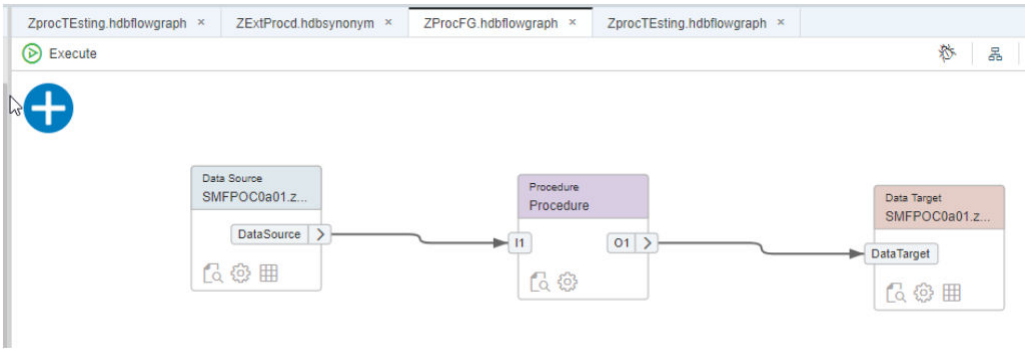


To perform an inbound transfer:

1. Create Custom EXT Table.
    1. Open DB Explorer and log in to EXT schema.
    2. Create a custom table in EXT for the respective source (Example: Payroll_Data)
2. Create a Custom Stored Procedure.
    1. Open DB Explorer and log in to EXT schema.
    2. Create a custom procedure in EXT to transfer data from TCMP to EXT (Ex: Payroll_Data_Proc)
    3. In this procedure write SQL statements to extract payment data from Commissions and load into the respective custom table (Example: Payroll_Data)
3. Create FlowGraph#1:
    1. Create a FlowGraph and define Virtual table (Example: Payroll) as your target and Synonym as a source.

2. Build FlowGraph and Execute.

Optionally, you can create additional flowgraphs to meet your requirements and chain flowgraphs.



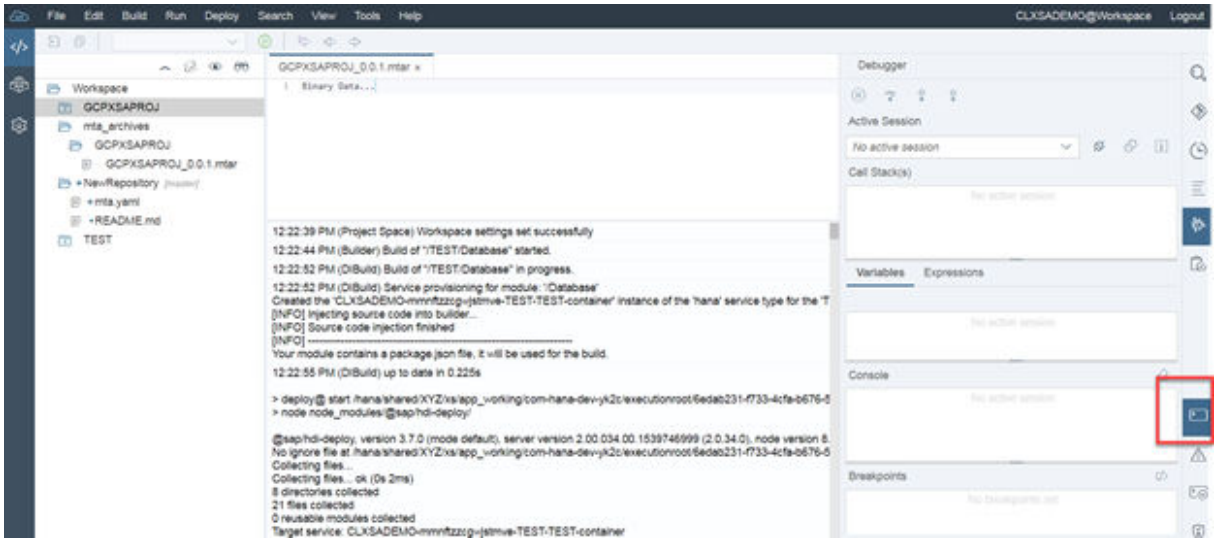
To monitor data transfer status and logs, see Monitor Tasks. [page 33]

Related Articles

- Setup and Configuration [page 10]
- Inbound and Outbound Transfers [page 23]
- Getting Started Checklist [page 5]

4.3 View Progress, Status Messages, and Logs in Web IDE

When developing Flowgraphs, check the **Console** in Web IDE to view data transfer progress, status messages, and logs.



See also Monitor Agents and Tasks [page 33].

Related Articles

- Monitor Tasks [page 33]
- Inbound and Outbound Transfers [page 23]

4.4 Monitor Tasks

Data Provisioning Monitor is a browser-based interface that lets you monitor information about tasks.

DP Monitor	URL	Purpose	Intended for (Persona/User Types)
Data Provisioning Task Monitor	https://<<server>>/sap/hana/im/dp/monitor/index.html?view=IMTaskMonitor	Monitor information about replication tasks and transformation tasks. Details include duration of a task, number of records processed etc.)	Operations Team

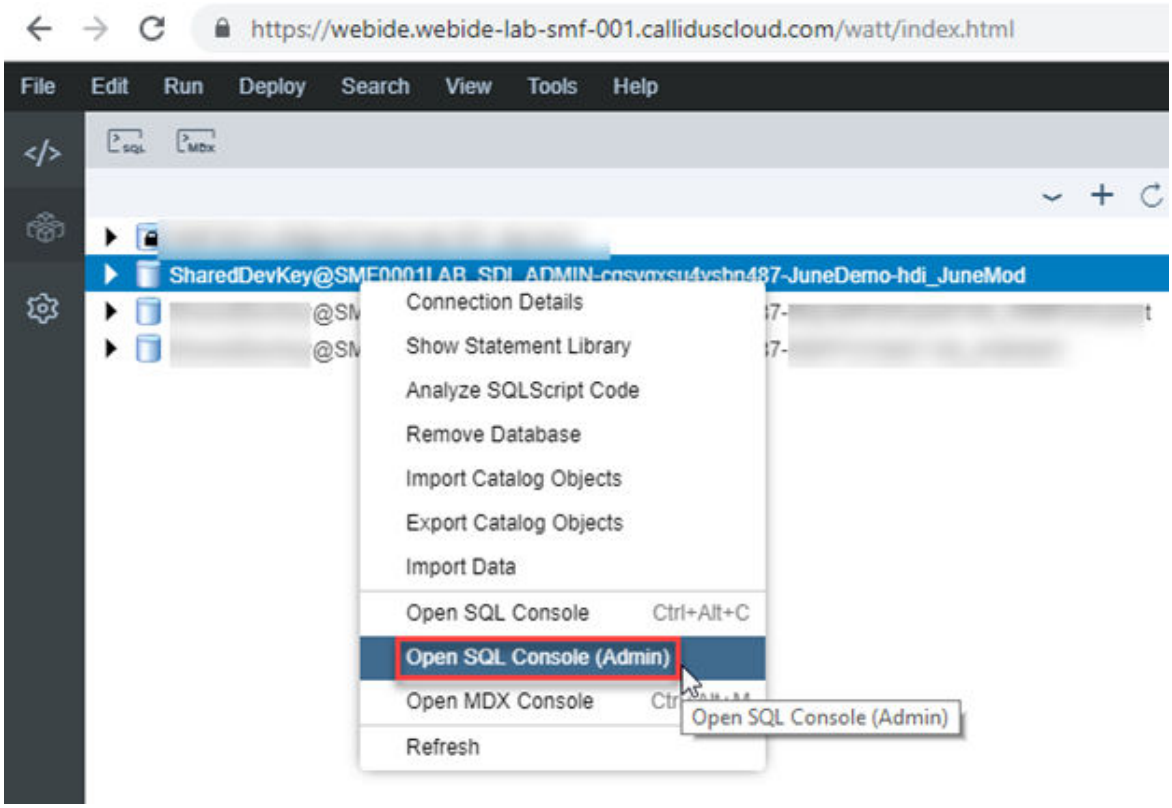
Providing DP Agent Task Monitor Users Access to Execute or Schedule WebIDE Flowgraphs

When WebIDE project with HANA module is deployed, the system creates an additional schema:

`"<ProjectName>"_HDI_"<HDIModuleName>"_1#OO.`

This schema contains a procedure named "GRANT_CONTAINER_SCHEMA_PRIVILEGES" which needs to be executed with proper authorization parameters to provide DP Task Monitor users authority to execute or schedule WebIDE flowgraphs. Perform the following steps to provide authorization:

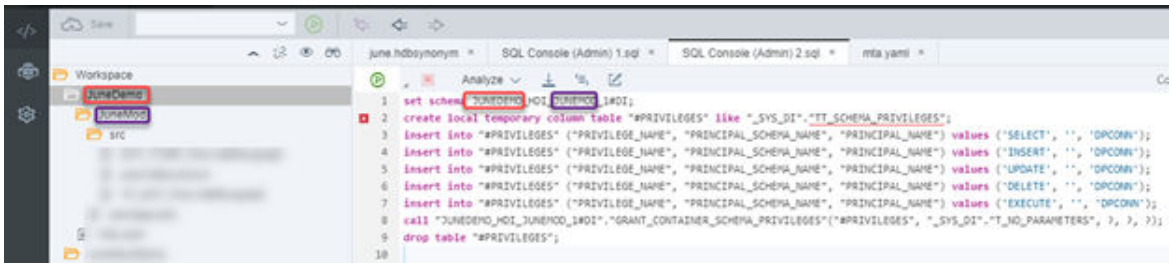
1. Log on to Webide/DBExplorer and launch **SQL Console (Admin)** in the respective container.



2. Insert the following SQL into the console and modify JUNEDEMO_HDI_JUNEMOD_1#DI with the Schema name similar to the Container name of your WebIDE project. Example: “<ProjectName>”_HDI_”<HDIModuleName>”_1#OO

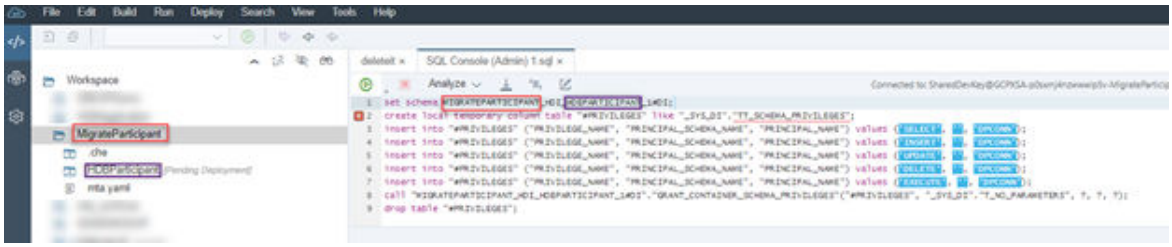
```
set schema JUNEDEMO_HDI_JUNEMOD_1#DI;
create local temporary column table "#PRIVILEGES" like
"_SYS_DI"."TT_SCHEMA_PRIVILEGES";
insert into "#PRIVILEGES" ("PRIVILEGE_NAME", "PRINCIPAL_SCHEMA_NAME",
"PRINCIPAL_NAME") values ('SELECT', '', 'DPCONN');
insert into "#PRIVILEGES" ("PRIVILEGE_NAME", "PRINCIPAL_SCHEMA_NAME",
"PRINCIPAL_NAME") values ('INSERT', '', 'DPCONN');
insert into "#PRIVILEGES" ("PRIVILEGE_NAME", "PRINCIPAL_SCHEMA_NAME",
"PRINCIPAL_NAME") values ('UPDATE', '', 'DPCONN');
insert into "#PRIVILEGES" ("PRIVILEGE_NAME", "PRINCIPAL_SCHEMA_NAME",
"PRINCIPAL_NAME") values ('DELETE', '', 'DPCONN');
insert into "#PRIVILEGES" ("PRIVILEGE_NAME", "PRINCIPAL_SCHEMA_NAME",
"PRINCIPAL_NAME") values ('EXECUTE', '', 'DPCONN');
call
"JUNEDEMO_HDI_JUNEMOD_1#DI"."GRANT_CONTAINER_SCHEMA_PRIVILEGES"("#PRIVILEGES",
"_SYS_DI"."T_NO_PARAMETERS", ?, ?, ?);
drop table "#PRIVILEGES";
```

You can get the Schema name from the DBexplorer under JuneDemo (example):

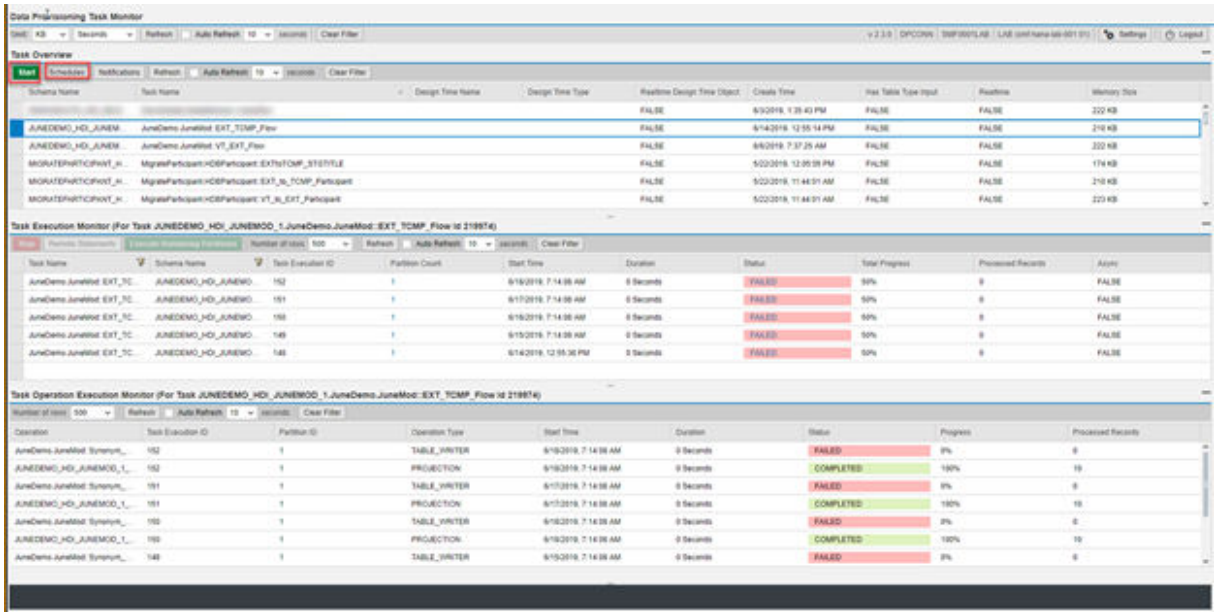


Another example for a GitHub project <Link for the project> MIGRATEPARTICIPANT with HDI container HDBPARTICIPANT is as follows:

```
set schema MIGRATEPARTICIPANT_HDI_HDBPARTICIPANT_1#DI;
create local temporary column table "#PRIVILEGES" like
"_SYS_DI"."TT_SCHEMA_PRIVILEGES";
insert into "#PRIVILEGES" ("PRIVILEGE_NAME", "PRINCIPAL_SCHEMA_NAME",
"PRINCIPAL_NAME") values ('SELECT', '', 'DPCONN');
insert into "#PRIVILEGES" ("PRIVILEGE_NAME", "PRINCIPAL_SCHEMA_NAME",
"PRINCIPAL_NAME") values ('INSERT', '', 'DPCONN');
insert into "#PRIVILEGES" ("PRIVILEGE_NAME", "PRINCIPAL_SCHEMA_NAME",
"PRINCIPAL_NAME") values ('UPDATE', '', 'DPCONN');
insert into "#PRIVILEGES" ("PRIVILEGE_NAME", "PRINCIPAL_SCHEMA_NAME",
"PRINCIPAL_NAME") values ('DELETE', '', 'DPCONN');
insert into "#PRIVILEGES" ("PRIVILEGE_NAME", "PRINCIPAL_SCHEMA_NAME",
"PRINCIPAL_NAME") values ('EXECUTE', '', 'DPCONN');
call
"MIGRATEPARTICIPANT_HDI_HDBPARTICIPANT_1#DI"."GRANT_CONTAINER_SCHEMA_PRIVILEGES"
("#PRIVILEGES", "_SYS_DI"."T_NO_PARAMETERS", ?, ?, ?);
drop table "#PRIVILEGES";
```



3. Log on to DPAgent Task Monitor and check that every flowgraph in the given HANA module (such as JUNEMOD and HDBPARTICIPANT as shown in the above example) is available and authorized for execution and scheduling to the DP Agent Task Monitoring user.



Refer to the following blog for more details: https://blogs.sap.com/2018/01/24/the-easy-way-to-make-your-hdi-container-accessible-to-a-classic-database-user/

Related Articles

- View Progress, Status Messages, and Logs in WEB IDE [page 32]
- Inbound and Outbound Transfers [page 23]

5 Deploying Projects

You can migrate the entire Web IDE XSA Project to another environment. You can also import projects from other environments.

Related Articles

- Export Projects [page 37]
- Import Projects [page 38]

5.1 Export Projects

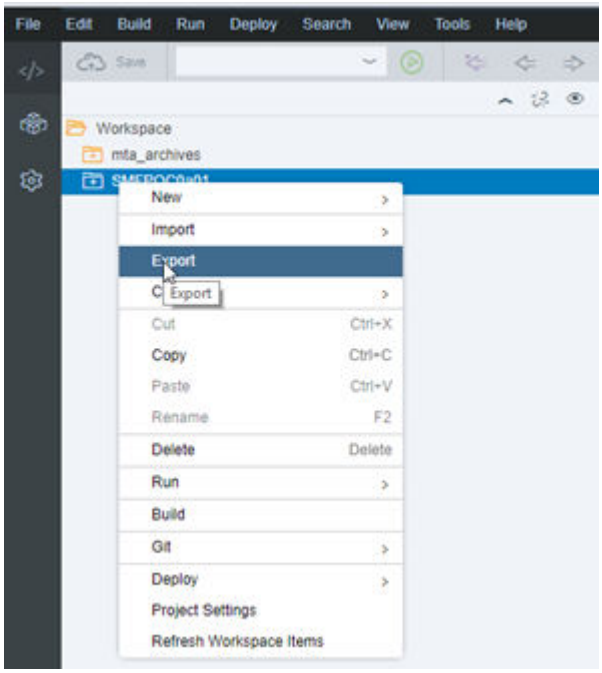
Quick Links

- Standard Option [page 37]

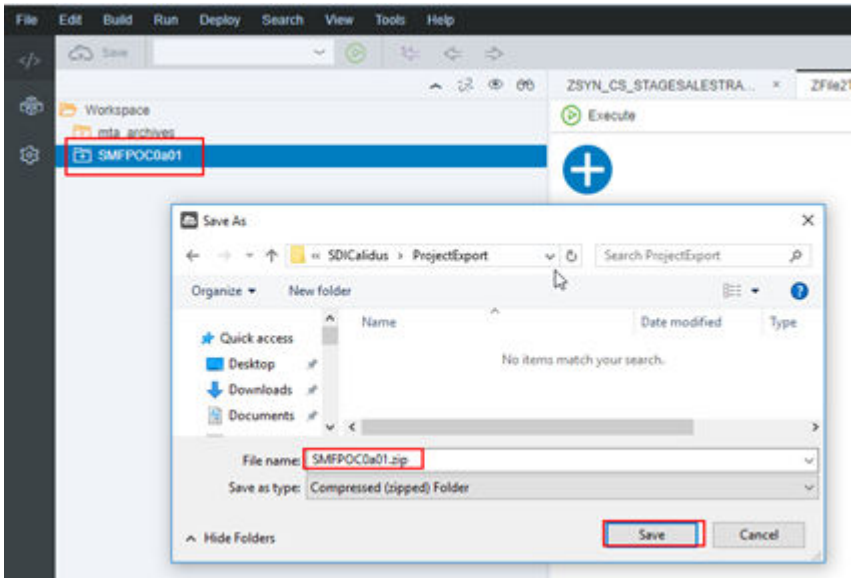
Standard Option

Perform the following steps to export a project using the standard option:

1. Log in to WebIDE of the source environment to export the Project.
2. Right click on the respective Project and select the **Export** option.



3. Select file location to save the exported project (.zip).



4. Click **Save**. Export is completed on clicking **Save**.

Related Articles

- Deploying Projects [page 37]
- Import Projects [page 38]

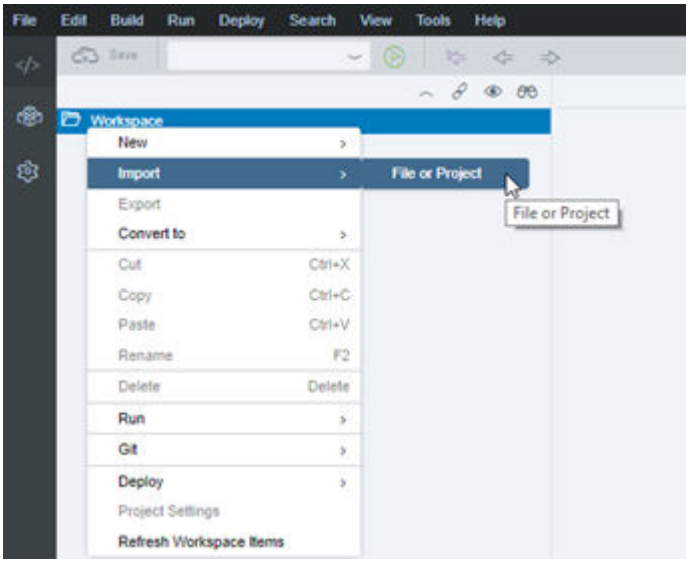
5.2 Import Projects

Quick Links

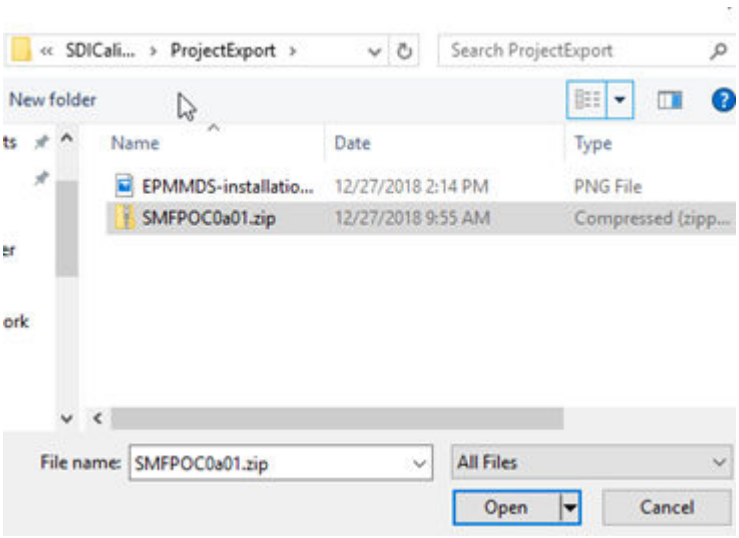
- Standard Option [page 38]
- MTAR Option [page 40]

Standard Option

1. Log in to WebIDE and select the workspace and click *Import*.

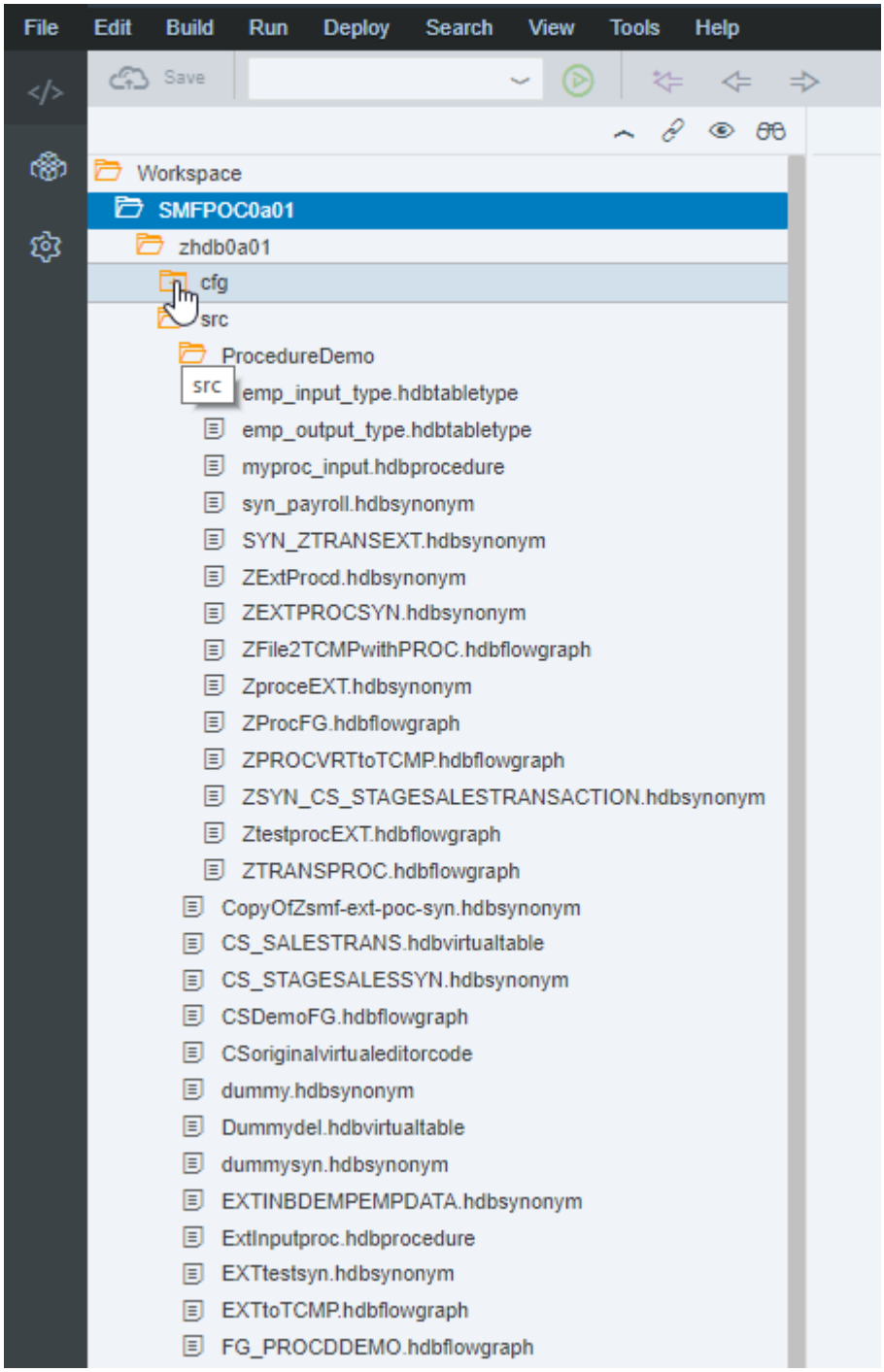


2. Select the project that needs to be imported into the workspace.



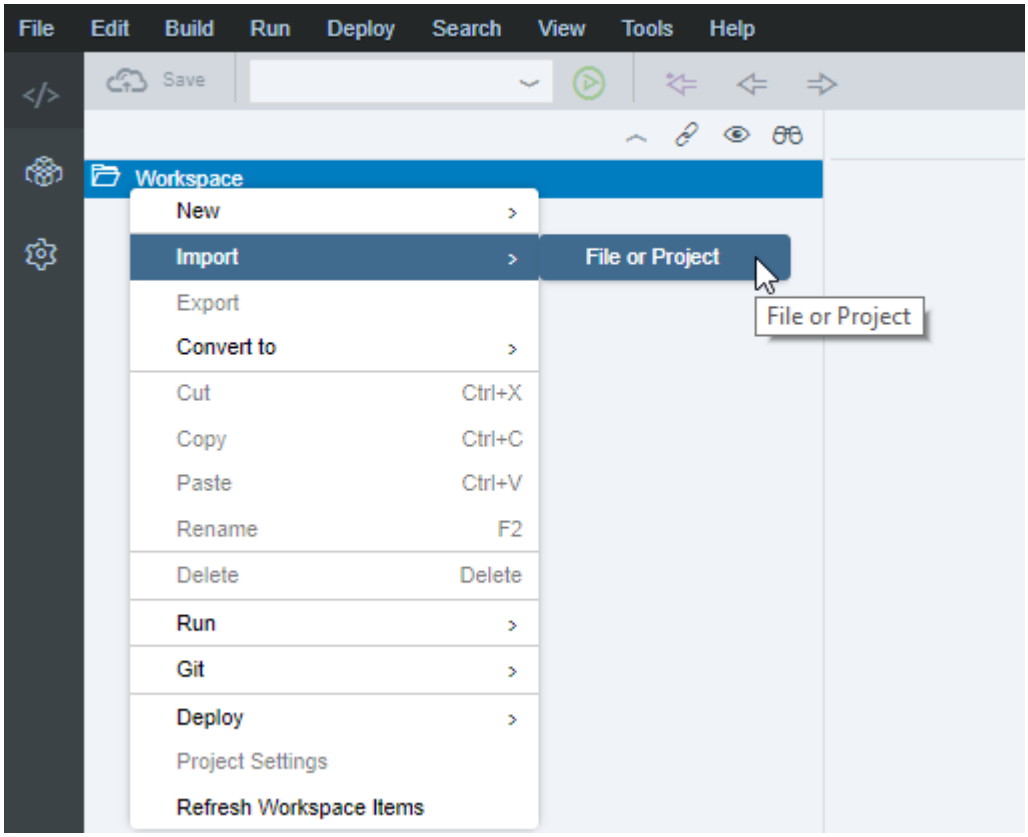
> ### Note
>
> : This will overwrite any content if a similar project already exists.

The project is available in the workspace after a successful import.

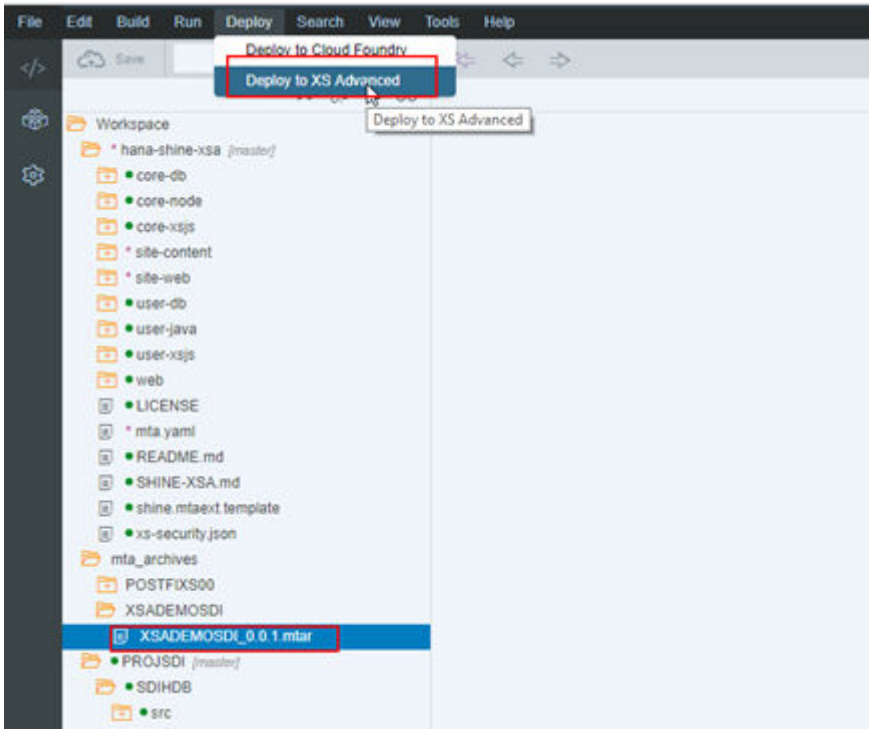


MTAR Option

1. Log in to WebIDE and select the workspace and click **Import**.

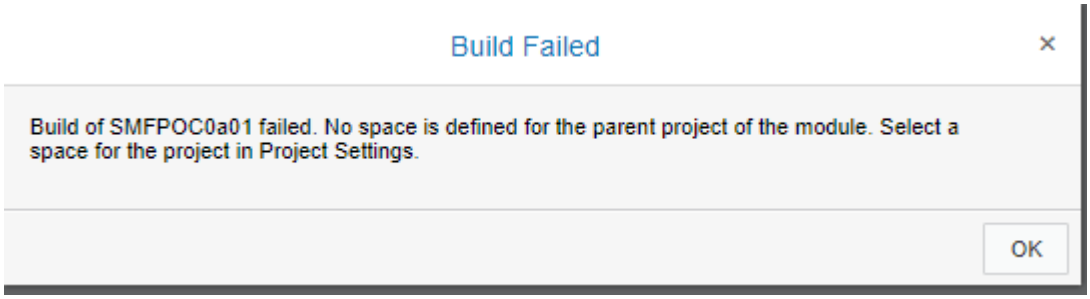


2. Select the MTAR file that is obtained from export.
3. To deploy, select Deploy to XS Advanced.



Troubleshooting

The following message is displayed during deployment if the underlying connection configurations are not correct.



To resolve this issue, ensure that the connection configurations are set correctly, and retry. If the problem persists, contact Customer Support.

Related Articles

- Deploying Projects [page 37]
- Export Projects [page 37]

6 References

The table below provides links to detailed information on the following topics:

Topic	Link
SDI Product Availability Matrix	https://support.sap.com/content/dam/launchpad/en_us/pam/pam-essentials/TIP/PAM_HANA_SDI_1_0.pdf https://support.sap.com/content/dam/launchpad/en_us/pam/pam-essentials/TIP/PAM_HANA_SDI_2_0.pdf
SDI Product Support	https://support.sap.com/en/product/support-by-product/73554900100800000033/default-editorial.html
HANA Academy Videos	https://www.youtube.com/playlist?list=PLkzo92owKnVwQ_preA3cxlQjn_v3W0Eh5
SDI Documentation	https://help.sap.com/viewer/p/HANA_SMART_DATA_INTEGRATION https://training.sap.com/course/ha350-sap-hana-data-provisioning-classroom-013-us-en/ https://jam4.sapjam.com/groups/aJfzfC-QIIJ2SUHVzjwlg3P/forums?folder_id=2c1CnFbSGkKWMm2tLSszh7

Related Articles

- Getting Started Checklist [page 5]
- Commissions-SDI Architecture [page 7]

- Setup and Configuration [page 10]

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