

Product Configuration Guide
Oracle Financial Services Balance Sheet Planning
Version 6.1
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1. About this Manual

This manual provides the required information that Balance Sheet Planning Application administrator needs to setup the application. The document contains steps to create Hyperion Planning Application with BSP specific parameters, Creating Essbase Database, steps for creating Balance Sheet Planning relational data model and other required configurations.

2. Audience

This Manual is meant for use by the Oracle Financial Services Analytical Applications Infrastructure System Administrator or Hyperion System Administrator. It provides step-by-step instructions necessary for configuring the Oracle Financial Services Balance Sheet Planning v6.1 Product.

3. Environmental variables configuration

Note: BSP is not certified to use on RHEL 6.x versions.

Set the following environmental variables in the profile for the UNIX user where Hyperion Planning has been installed, if not already set:

- EPM_ORACLE_HOME
- MIDDLEWARE_HOME
- HYPERION_HOME – Same as EPM_ORACLE_HOME
- ORACLE_HOME - Oracle Client Home
- JAVA_HOME
- ARBORPATH=\$EPM_ORACLE_HOME/products/Essbase/EssbaseServer
- ESSBASEPATH=\$EPM_ORACLE_HOME/products/Essbase/EssbaseServer
- NLSPATH=\$EPM_ORACLE_HOME/products/Planning/bin/nls/msg/en_US/ofsmsg.cat: \$EPM_ORACLE_HOME/products/Planning/bin/nls/msg/C/ofsmsg.catt
- INIPATH=\$EPM_ORACLE_HOME/products/Planning/config
- FIC_HOME=\$EPM_ORACLE_HOME
- FIC_DB_HOME=\$EPM_ORACLE_HOME/logs/bsplog
- PATH=\$JAVA_HOME/bin: \$ARBORPATH/bin: \$EPM_ORACLE_HOME/products/Planning/bin: \$EPM_ORACLE_HOME/products/Planning/config: \$EPM_ORACLE_HOME/products/Planning/lib: \$ORACLE_HOME/bin: \$PATH: \$HOME/bin
- LD_LIBRARY_PATH=\$ORACLE_HOME/lib: \$ORACLE_HOME/rdbms/public: \$EPM_ORACLE_HOME/common/ODBC-64/Merant/7.0/lib: \$EPM_ORACLE_HOME/products/Planning/lib: \$ARBORPATH/bin
- LD_LIBRARY_PATH_64=\$LD_LIBRARY_PATH: \$LD_LIBRARY_PATH_64
- ODBCINI=\$EPM_ORACLE_HOME/common/ODBC-64/Merant/7.0/odbc.ini
- ODBCINST=\$EPM_ORACLE_HOME/common/ODBC-64/Merant/7.0/odbcinst.ini

Note: You need to make the changes into the .profile file of the UNIX account where Planning and ESSBASE are installed. Oracle client is required on the servers where Hyperion ESSBASE and Planning are installed. BSP uses the Oracle drivers.

4. Installation of BSP 6.1 on Hyperion Planning PS3

Hyperion PS3 bundles BSP 6.1 files. Installing Hyperion will only deploy the BSP files. BSP needs to be subsequently "initialized" in order to access it.

If CAPEX and/or WORKFORCE applications are required, initialize CAPEX and/or WORKFORCE after BSP initialization is complete.

Note: For PS3, sequence of initialization to be BSP, CAPEX, and then WORKFORCE.

Furthermore, after initializing the WORKFORCE and/or CAPEX modules you need to perform the following activities.

- Go to Manage->Dimension->Account and Entity Dimensions
- Edit "No Entity" and "No Account" members and select the option "BSP", "Rates" and "Core" Plan types. Perform a database refresh.

4.1 Hyperion Planning Application Creation

Note: Setup Classic Planning Application for Balance Sheet Planning as described in Oracle Hyperion Planning, Fusion Edition Administrator's Guide.

Select the value of following options in Create Application Wizard as specified below:

Application Type: Generic

First Fiscal Year -> Start Year: Set the value as per below illustration

If start year falls in a century between:

1900-2000 – Then start year will be 1980

2000-2100 – Then start year will be 2000

2100-2200 – Then start year will be 2100 and so on.

Note: Here, Start year should be any centennial year such as, 2000, 2100, and so on. BSP recommends to use 2000 as the Start year.

Create 5 Plan Types as given below:

Plan Type 1: BSP

Plan Type 2: Rates

Plan Type 3: Core

Plan Type 4: WORKFORCE [WRKFORCE]

Plan Type 5: CAPEX

NOTE: You must create all five Plan Types even if you are not planning to use Workforce and/or CapEx in your implementation.

Change the Date format in File -> Preferences→Display Options to MM-DD-YYYY

Note: While creating the Hyperion Planning Application, you can use any Application Name. BSP does not place any restriction on the Application naming convention. It is recommended to not use any special characters, like &, *, ", "'", %, and so on.

4.2 Create Essbase Database

- Log in to Balance Sheet Planning Application using the administrator username and password
- Go to Administration->Application->Create Database screen and selection options specified in the screen and create database.

4.3 Create Balance Sheet Planning Relational Data Model

- Create a tablespace with the user define name. The same table space name should be used in user "Configuration" UI for the variable

TABLESPACE.

TABLESPACE

Note: Here, this tablespace refers to Oracle TABLESPACE and all the output tables of Cash Flow Engine will be created in this TABLESPACE.

- Create Oracle database user for Balance Sheet Planning Relational Data Model in the tablespace as created in previous step. This database user should have 'create' privileges on tablespace it belongs to
 - This database user is different than Hyperion configuration database users and application data source.

Note: BSP requires a distinct schema that is different from the schema created for creation of an application in Hyperion Planning (which is created in section **4.1 Hyperion Planning Application Creation**).

- Assign the following specific privileges to the user created for Balance Sheet Planning. These privileges are

```
GRANT MGMT_USER TO <DBUSERNAME>;
GRANT SELECT_CATALOG_ROLE TO <DBUSERNAME>;
GRANT CREATE PROCEDURE TO <DBUSERNAME>;
GRANT CREATE SEQUENCE TO <DBUSERNAME>;
GRANT CREATE SESSION TO <DBUSERNAME>;
GRANT CREATE SYNONYM TO <DBUSERNAME>;
GRANT CREATE TABLE TO <DBUSERNAME>;
GRANT CREATE TRIGGER TO <DBUSERNAME>;
GRANT CREATE TYPE TO <DBUSERNAME>;
GRANT CREATE VIEW TO <DBUSERNAME>;
```

4.4 Create Data Source DSN to Database

Note: BSP requires only one Data Source, this data-source will point to the Oracle schema where the BSP application will be initialized.

- Open \$HYPERION_HOME/common/ODBC-64/Merant/7.0/odbc.ini.
- Add a new ODBC Data Source entry pointing to the Oracle-schema into which BSP was initialized, in section 4.3 Create Balance Sheet Planning Relational Model. This name should later be specified in the BSP's configuration UI (available in Planning under Administrator Activities -

> Master Maintenance -> Assumption Forms -> Configuration), as mentioned in Section 5 below.

- The entry should contain information required to connect to the schema created for BSP objects.
- Verify Host Name, Logon ID, Password, Port Number, and SID contain the information required to connect to the schema.

5. Initializing Balance Sheet Planning

- Login into Hyperion Planning
- Go to Administration→Application-->Properties
- In the Properties window Add new row
 - Property Name = APPTYPE Property Value = BSP
 - Restart the Planning Sever
- Go to Administration→Initialization->Balance Sheet Planning.
- Specify the below parameters:
 - Server: Database Server Name/IP Address
 - Port: Database port
 - Database: Database SID
 - User: Username
 - Password: Password for Database schema
 - APS Server: <IPAdress>

Below is a sample screenshot:

The screenshot shows a configuration window titled "Financial Services Data Model". It contains several input fields and a dropdown menu. The "Database Platform" is set to "Oracle". The "APS Server *" field contains "10.220.31.85:13080". The "Server *" field contains "10.220.31.85". The "Port *" field contains "1521". The "Database *" field contains "ORCL". The "User *" field contains "ofsaabsp". The "Password *" field is masked with dots. The "Model" dropdown menu is set to "Standard".

The Model option (in above sample screenshot) allows you to choose the number of custom dimensions that you need for initialization of BSP. This drop-down list has following options:

- Standard – No additional custom dimensions
- Custom 1 - One additional custom dimension
- Custom 2 - Two additional custom dimensions

Note: The following errors generated to the bsplug.log during Initialize BSP step may be ignored:

- Error:ORA-00001: unique constraint (PLANBSP.PK_FSI_M_LOOKUP_B) violated.
- Error:ORA-00001: unique constraint (PLANBSP.PK_FSI_M_LOOKUP_MASTER) violated.
- Error:ORA-00001: unique constraint (PLANBSP.PK_FSI_M_LOOKUP_TL) violated.
- Error:ORA-00955: name is already used by an existing object.
- Error:ORA-01418: specified index does not exist.
- Error:ORA-01430: column being added already exists in table.

- Error:ORA-02260: table can have only one primary key.
- Error:ORA-00911: invalid character
- Error:ORA-12899: value too large for column.
"PLANBSP"."FSI_APPLICATIONS"."VERSION" (actual: 11, maximum:
10)
- Error:ORA-00942: table or view does not exist for table
"FSI_DIM_ACCOUNT_SETUP_DETAILS".

Note: In case you are planning for an integrated installation of BSP with OFSAA applications, you should first initialize BSP as a standalone installation and then point BSP to the OFSAA instance.

- Select "Finish"
- After successful initialization, click the "Configure" button to launch the "Configuration UI".

Note: The config.xml file gets updated automatically as the part of configuration process.

- Specify values for the parameters as mentioned under "annexure" section and click "save".
- Edit the file
\$EPM_ORACLE_HOME/products/Planning/bin/bsp_user_profile.sh file to specify the path for ORACLE_HOME variable.

5.1 Set Evaluation Order

Go to Administration->Dimensions->Evaluation Order tab.

- For BSP Plan type:
 - Set Chart of Account, Attribute Value and then Account Dimension.
- For Rates Plan type:
 - Set Rate Element then Mix Breakout Dimension

5.2 Steps to Enable Validation Rules

Follow the below steps to enable the validation rules:

- 1) Go to Manage data form open the Loan Fees form and click on column A the Loan_Fees_VR Validation rule is enable open this rule and select the Chart of Account dimension against attribute of source type in last condition. Then click ok and save the form.
- 2) Go to Manage data form open the Loan Fees Annual form and click on Grid the Loan_Fees_VR, Loan_Fees_VR1, Validation rules are enable open these rules and select the Chart of Account dimension against attribute of source type in last condition. Then click ok and save the form.
- 3) Go to Manage data form open the Deposit Service Charge form and click on Grid the Dep_Svc_Chg_VR, Validation rules are enable open this rule and select the Chart of Account dimension against attribute of source type in last condition. Then click ok and save the form.
- 4) Go to Manage data form open the Deposit Service Charge Annual form and click on Grid the Dpst_Svc_Chg_Annl_VR, Loan_Fees_VR1,

Validation rules are enable open these rules and select the Chart of Account dimension against attribute of source type in last condition. Then click ok and save the form.

- 5) Go to Manage data form open the Synchronization for Balance Accounts form and click on Row1 the Syn_Assets_VR, Syn_Liabty_VR, Validation rules are enable open these rules and select the Chart of Account dimension against attribute of source type in last condition. Then click ok and save the form

5.3 LCM export and Preparation for Metadata Synchronization.

- 1) Post the Loading of Metadata in to BSP Planning Application, the administrator should export the Application Metadata to File System in Shared Services.
- 2) Administrator has to login into Shared Services and Select the BSP Planning Application.
- 3) In the Artifact Summary Page at the right Bottom Submit Select All and then Click Export.
- 4) Here the Administrator defines a LCM Directory Name which has to be provided in Configuration Custom UI in the BSP Application
- 5) Once the LCM export is completed, a .zip file will be created with the given name in shared services.
- 6) This .zip file will be located in the import_export path of the Hyperion Instance chosen during Installation.

5.4 Metadata Synchronization

- 1) After completing the Preparation for Metadata Sync, Login to the BSP application, Select Administrator Activities folder in the left pane.
- 2) Select Master Maintenance form and then Right Click on the menu appeared as large square box.
- 3) From the right click menu Select Metadata Synchronization and choose the type needed by the Administrator Purpose.

6. Create an Integrated set up for Hyperion/BSP and OFSAAI

6.1 Pre-requisites

- 1) Execute the below SQL on the configuration-schema – replace \$ATOMIC_USER with the name of the information-domain schema user.

Grant select on SETUPINFO to \$ATOMIC_USER;

- 2) On OFSAAI, applications have been installed and configured.
- 3) BSP OPatch 13879279 has been applied and BSP has been successfully initialized on Hyperion 11.1.2.3.0 PS3 release. Note down the initialization mode, that is standard or custom1 or custom2.

Note: OFSAA Atomic Schema and BSP Schema (schema in which BSP was initialized) should be on the same Database.

6.2 Steps to integrate BSP with OFSAAI

- 1) Download the Patch **17486220** and apply it as per the steps described in the Readme file.
- 2) Take the BSP ERWIN Model (**BSP_Datamodel.erwin**) and perform the following customizations in ERWIN, as applicable
 - a. Merge this model with the ERWIN model of other applications installed on OFSAAI
 - b. If CUSTOM1 option was selected in Pre-requisite step #3, modify to merged model to add a column called CUSTOM1 in the following super-type objects
 - i. BSP_LEAF_COLUMNS
 - ii. LEDGER_LEAF_COLUMNSNote: While adding the column, set the UDPs to the same values as that of the STRATEGY_ID column
 - c. If CUSTOM2 option was selected in Pre-requisite step #3, modify to merged model to add two columns called CUSTOM1 and CUSTOM2 in the following super-type objects
 - i. BSP_LEAF_COLUMNS
 - ii. LEDGER_LEAF_COLUMNSNote: While adding the columns, set the UDPs to the same values as that of the STRATEGY_ID column
 - d. Perform an incremental model-upload of this model in OFSAAI, into the required information domain.
- 3) Execute one of the below mentioned sql script as per opted data model type in Pre-requisite step #3.
 - a. `execbspdm_std_integrate_to_ofsaai_6_1.sql` - if BSP initialization is STANDARD
 - b. `execbspdm_custom1_integrate_to_ofsaai_6_1.sql` - if BSP initialization is CUSTOM 1
 - c. `execbspdm_custom2_integrate_to_ofsaai_6_1.sql` - if BSP initialization is CUSTOM 2

Note: These scripts will prompt you for the configuration schema name. Specify the name of the configuration-schema followed by a "dot"; for example: CONFIGUSER.

- 4) Login to Planning, launch the BSP Configuration UI and change the database username/password/Tablespace values to that of the OFSAA's atomic schema. Click **Save** and confirm that the settings have been saved successfully.
- 5) In OFSAA, create a new segment called BSP and map this segment to the required OFSAA users. This folder will be the container for sharing rules/assumptions between ALM/FTP and BSP.
- 6) If the default-product dimension in OFSAA is PRODUCT_ID, execute the script **bsp_preference_product_id.sql** on the atomic schema.
- 7) The sliced model upload of BSP will introduce one or more additional leaf dimensions into the data model. To reflect these additional dimensions in the respective applications, perform the following steps
 - a. **For OFS ALM:** On the OFSAA Atomic schema, drop all tables with the name RES_DTL_XXXXX / CONS_DTL_XXXX – re-execute the relevant ALM Processes to regenerate the tables.
 - b. **For OFS PFT:** In the OFSAA Information Domain, open and resave all the OFS-PFT allocation rules so that the new leaf-dimensions are referenced properly
- 8) Execute the post.sh under \$EPM_ORACLE_HOME/Opatch/13879279/custom/scripts. Ensure that the \$EPM_ORACLE_HOME is properly set before executing the script.
- 9) Edit \$EPM_ORACLE_HOME/products/Planning/bin/bsp_user_profile.sh to specify the correct path for ORACLE_HOME.
- 10) Modify the entry made earlier in odbc.ini & point it to the OFSAA Atomic Schema. The odbc.ini file is usually found under \$EPM_ORACLE_HOME/common/ODBC-64/Merant/7.0/ folder.

6.3 Limitations

- 1) The Time Buckets cannot be shared across OFSAAI and BSP applications. The user has to create the required Time buckets to be used for BSP through BSP UI and the user should not EDIT / modify these newly defined time buckets through OFSAAI UI.
- 2) The defined Forecast rates cannot be shared across in ALM and BSP, because of hybrid nature of forecast rates sys id generated in BSP.
- 3) The currencies created through BSP UI cannot be edited through OFSAAI UIs and vice versa.
- 4) BSP does not support Breakage Charges as adjustment type. The Adjustment Rule definitions created through OFSAAI Uis, having Adjustment Method as Formula Based Rate and Assignment date as Origination Date only will be viewable / editable in BSP.

7. Distributed Environment Setup

Perform the below steps when Hyperion Planning is installed in a distributed manner, that is, the Hyperion components Planning and ESSBASE are installed on separate servers.

Note:

- Hyperion ESSBASE should not be installed on Windows
- Hyperion ESSBASE and Hyperion Shared Services must be installed on the same UNIX Server
- The OS/Version of the server where Planning is installed must be the same as the OS/Version of the server where ESSBASE is installed.
- Steps mentioned below should be repeated after every
 - I. Initialization/re-initialization of Hyperion Planning generic application(s) created for Balance Sheet Planning using “Administration→Initialization→Balance Sheet Planning”.
 - II. Update of Configuration settings for Balance Sheet Planning using “Master Maintenance→Assumption Forms→Configuration”.

Perform the following steps, in the given sequence

1. Ensure that tnsnames.ora on the ESSBASE Server is configured with the same name as on the Planning server, to connect to the database specified during initialization of BSP.
2. Copy the \$EPM_ORACLE_HOME/common/ODBC-64/Merant/7.0/odbc.ini from the Planning server to the corresponding folder on ESSBASE Server, and update the odbc.ini for driver path for the BSP-specific entry.
3. Save the Configuration Parameters in Planning; while saving the configuration, make sure that LCMDIRPATH is the LCM export path as on the ESSBASE server.
4. From the annexure, copy “BSP_RunOnPlanning.sh” and “BSP_RunOnEssbase.sh” to \$EPM_ORACLE_HOME/products/Planning/bin on the Planning Server
5. Give execute permissions to “BSP_RunOnPlanning.sh” and run the script without passing any parameters. The script will create a gzip archive “bsp.tar.gz” in the same folder.
6. Copy “BSP_RunOnEssbase.sh” and “bsp.tar.gz” from \$EPM_ORACLE_HOME/products/Planning/bin to \$EPM_ORACLE_HOME in ESSBASE Server, to where ESSBASE is installed.
7. Give execute permissions to “BSP_RunOnEssbase.sh” and run the script without passing any parameters.
8. On the ESSBASE server, modify bsp_user_profile.sh present under \$EPM_ORACLE_HOME/products/planning/bin, and set the ORACLE_HOME as appropriate.



8. Annexure

List of Parameters

Sl. No.	Parameter Name	Description
1	PASSWORD	Database Password
2	USERNAME	Database User
3	DSNNAME <input type="text" value="DSNNAME"/>	DSN Name (value should be the system DSN name configured for ODBC) Note: You should use the same DSN name which is created using section 4.4 . <input type="text" value="DSN Name"/>
4	SERVERNAME <input type="text" value="SERVERNAME"/>	Essbase Server Name
5	ESSUSER	Essbase User Name <input type="text" value="Essbase User Name"/>
6	ESSPWD <input type="text" value="ESSPWD"/>	Essbase Password
7	LCMDIRPATH <input type="text" value="LCMDIRPATH"/>	LCM Directory path
8	LCMDirName <input type="text" value="LCMDIRNAME"/>	LCM Directory Name Note: You can use underscore ("_") in LCM Directory Name, but hyphen ("-") is not allowed. <input type="text" value="LCM Directory Name"/>
9	FirstYr <input type="text" value="FirstYr"/>	First Year
10	EndYr	End Year
11	CurrMonth <input type="text" value="CurrMonth"/>	Current Month
12	StartPeriod	Start Period (By Default set to Jan)
13	EndPeriod <input type="text" value="EndPeriod"/>	End Period (By Default set to Dec) <input type="text" value="End Period"/>

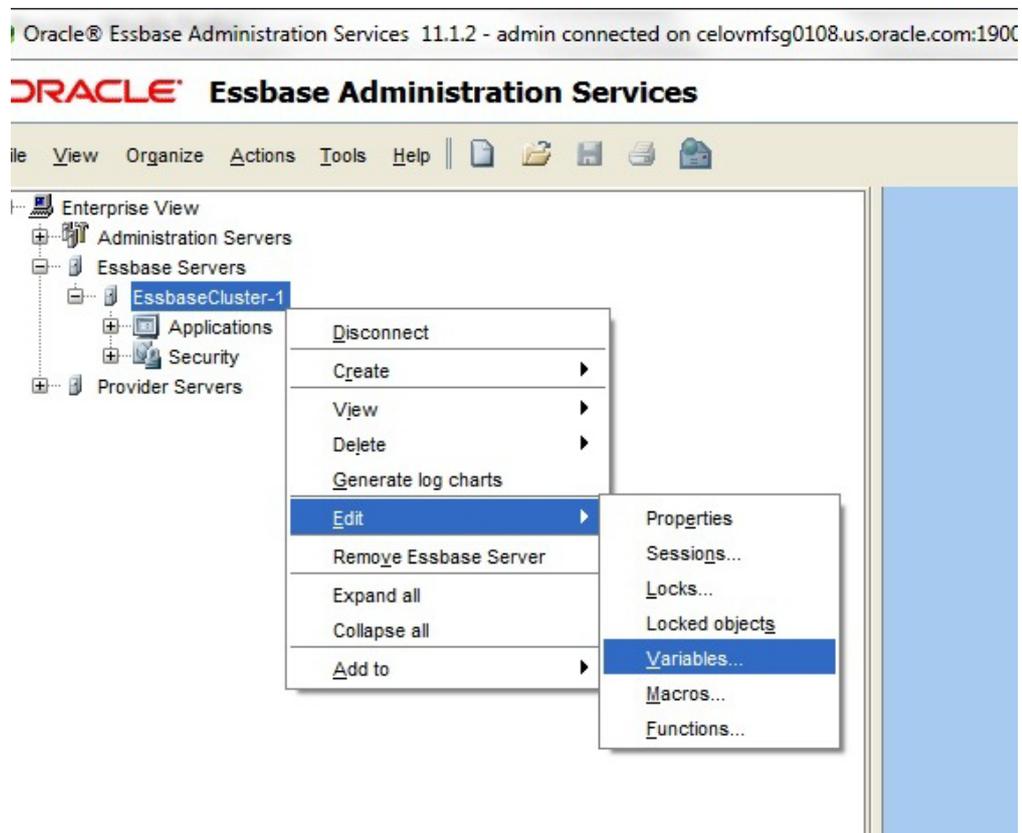
SI. No.	Parameter Name	Description
	StartPeriod	
14	TABLESPACE	DB Table Space Table Space

Setting of Substitution Variable

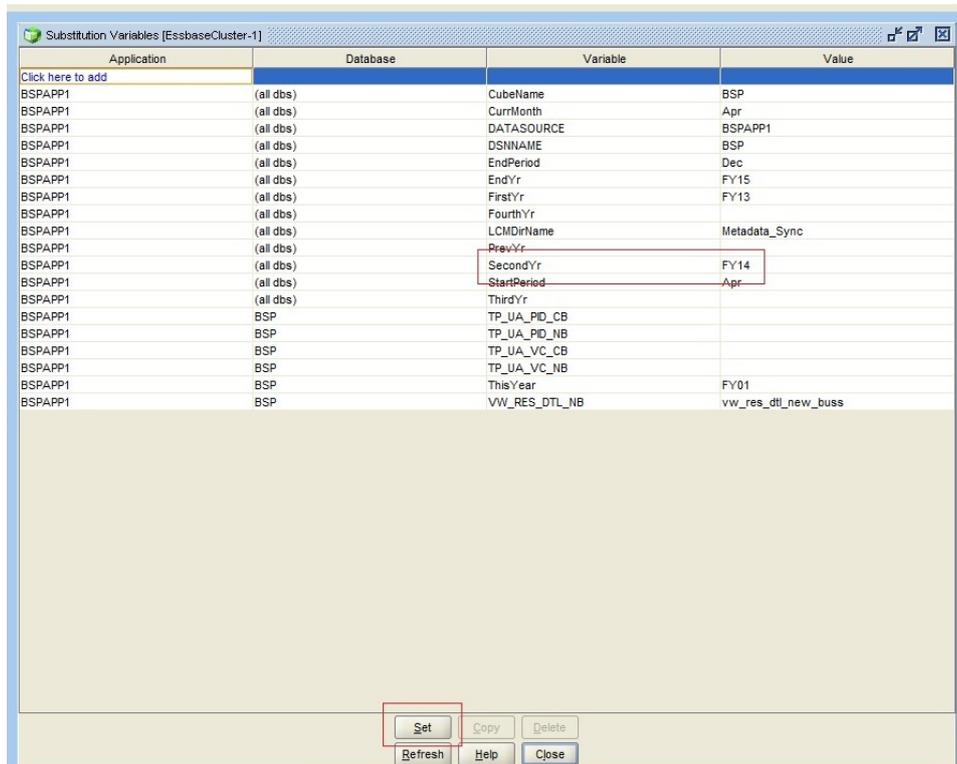
Note: If you are attempting to open a Form in BSP and following error appears: "A substitution variable required for this calculation is undefined. Variable: SecondYr", then set the **SecondYr** variable in Essbase Administration Services.

SecondYr is a substitution variable. Any other variable can also be appeared in the above error message. Follow the below steps to configure the variable:

1. Log in to EAS Console: <http://<hostname>:19000/easconsole>
2. Click on "Launch"
3. The Essbase Administration Services console will open.
4. Expand Enterprise View -> Essbase Servers.
5. Right-click on your server -> Edit -> Variables.



6. The Substitution Variables window will open. Go to the variable you are looking for and double-click on the value
7. Enter the value and click on Set.



8. Go back to BSP, and reload the Form.

Note: Logout and Login are not required.



Installation Manual

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Oracle Financial Services Balance Sheet Planning v6.1 Product

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