HP Service Health Reporter

for the Windows® and Linux operating systems

Software Version: 9.30

Disaster Recovery Guide



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Disaster Recovery

Disaster recovery planning provides for minimizing the business disruption should a significant event affect an entire data center. Possible uses for the disaster recovery configuration include the following:

- Unexpected unavailability of a data center due to natural disaster.
- Anticipated unavailability of a server or data center due to natural events (for example, a forecasted hurricane), facilities maintenance, or data center movement.

Disaster recovery is different from high availability in that with disaster recovery, downtime is expected. Generally, disaster recovery configuration includes both of the following processes:

- 1 Setting up redundant hardware and software at a disaster recovery location that is remote to the primary, operational location.
- 2 Providing for one-way replication of application data to the disaster recovery location.

Planning Disaster Recovery of SHR

Disaster recovery of SHR (SHR) includes planning for taking regular backups of SHR databases, and backing up key configuration and license files. SHR enables you to back up and recover the Sybase IQ database, the SAP BusinessObjects database, and the SAP BusinessObjects file store to prevent data loss in the event of a disaster. It is recommended that you take regular backup of the Sybase IQ database, the SAP BusinessObjects database, and the SAP BusinessObjects file store before you begin using SHR in production.

SHR provides the following database backup options:

- **Full Backup:** A full backup enables you to take a complete backup of the following SHR databases (including the database files and transaction logs):
 - Sybase IQ
 - SAP BusinessObjects (SQL Anywhere)
 - Management database tables (PostgreSQL)

In addition, you can take a complete backup of the SAP BusinessObjects file store.

It is recommended to take a full backup every week.

• **Incremental Backup:** An incremental backup enables you to take a backup of the transaction logs. It takes a backup of the files that have been modified or added since the last full backup. It is recommended to take an incremental backup daily.

You must schedule the full backup and the incremental backup tasks to run at regular intervals.

In the event of a database failure, SHR enables you to recover the database from the backup location.

Additionally, you must retain the SHR 9.30 media and note down the details of the hardware of the system where SHR is currently installed.

Backing Up SHR on Windows

Backing Up the Sybase IQ Database

Task 1: Edit the Backup Scripts

SHR provides two backup scripts, one each for full backup and incremental backup respectively, that you must edit to fit your requirements before you begin the backup process. These scripts are available in the %PMDB_HOME%\scripts\Sybase folder. The scripts are:

- For Full Backup: %PMDB_HOME%\scripts\Sybase\IQ_backup_full.sql
- For Incremental Backup: %PMDB_HOME%\scripts\Sybase\IQ_backup_incr_since_full.sql

To edit the scripts, follow these steps:

- Browse to the %PMDB_HOME%\scripts\Sybase folder.
- 2 Open IQ_backup_full.sql with the Notepad application.

In the last parameter within the .sql script, create a folder (for example, E: \HP-SHR\Backup) where you want to save the backup files.

```
dsi_pmdb_backup
'FULL',NULL,'READWRITE_FILES_ONLY',NULL,NULL,NULL,NULL,NULL,'D','loca
tion_for_backup'
```

Similarly, for the incremental backup, enter the location for backup as follows:

```
dsi_pmdb_backup
'INCREMENTAL_SINCE_FULL',NULL,'READWRITE_FILES_ONLY',NULL,NULL,NULL,NULL,NULL,NULL,'D','location for backup'
```



For an SHR installation with a remote database, **location_for_backup** denotes a valid path on the SybaseIQ database server.

The scripts are run through two batch files <code>Execute_FullBackup_Script.bat</code> and <code>Execute_IncrSncFullBackup_Script.bat</code> for full backup and incremental backup respectively. These batch files are available in <code>%PMDB_HOME%\DR\</code>.

After the scripts are run, a database backup is created with file name suffixed with day of the week at the specified location.

Task 2: Edit the Copy Backup Script

SHR provides a Copy Backup script that takes a backup of the previous full backup file in the specified location.

To edit the copy backup script, open the <code>%PMDB_HOME%\DR\Copy_Backup.bat</code> script with a text editor, and then enter the location of the existing full backup file and the location where you want to save the copied files before starting the full backup procedure.

```
COPY "location of existing full backup file" "copy to location"> %PMDB_HOME%\tmp\Copy_Backup.txt 2>&1 /Y /V
```

For an SHR installation with a remote database, you must run this script on the system where the Sybase IQ database is installed.

An example of the script is as follows:

```
COPY "E:\HP-SHR\Backup\Full*" "E:\HP-SHR\Backup\Old\" >
%PMDB_HOME%\tmp\Copy_Backup.txt 2>&1 /Y /V
```

Task 3: Schedule the Backup

To take regular backup of the database, you must schedule to run the backup scripts by using the Windows Task Scheduler. It is recommended to run a full backup once a week and an incremental backup once a day.



When Sybase IQ is installed on a remote system, do not schedule this task on the SHR system. Make sure to schedule the backup activity on the system where the Sybase IQ database is installed.

Schedule to Run the Copy Backup Script

The Copy Backup script creates a copy of the full backup database files in the specified location to avoid overwriting an existing full backup. You must schedule to run the Copy Backup script every time before you run the full backup script.

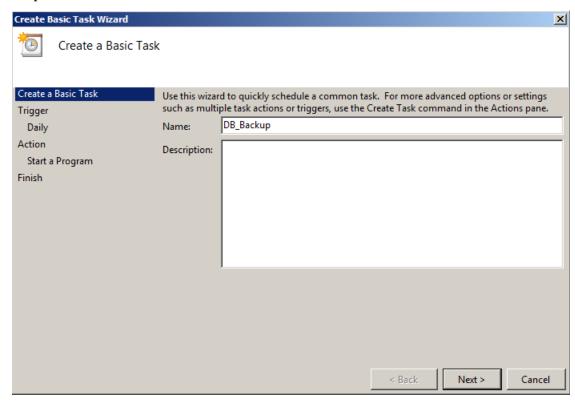
On Windows 2003

- 1 Go to Start-> Settings -> Control Panel -> Scheduled Tasks.
- 2 Double-click Add Scheduled Task. The Scheduled Task wizard opens.
- 3 Click Next.
- 4 Browse to %PMDB_HOME%\DR, and then select Copy_Backup.bat.
- 5 Click Next.
- 6 Type a name for the task and click **Weekly** under **Perform this task**. This defines the frequency at which the task will be performed.
- 7 Click Next.
- 8 Select the time and day you want the task to begin:
 - a Set the start time.
 - b Do not change the default value of 1 for the frequency of weeks.
 - c Select the day of the week. It is recommended to schedule this task on a day when the workload is less. You can select multiple days if you want to take a full backup more than once a week.
- 9 Click Next.
- 10 Enter the user name and password to set the account information.
- 11 Click Finish.

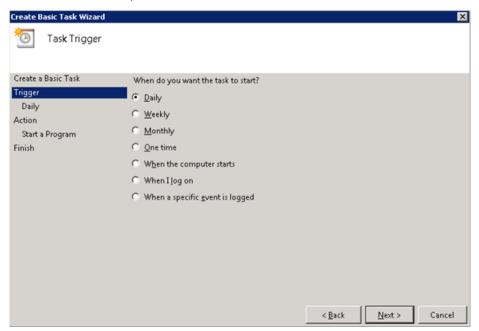
On Windows 2008

1 Go to Start-> Control Panel -> System and Security -> Administrative Tools -> Schedule Tasks. The Task Scheduler window opens.

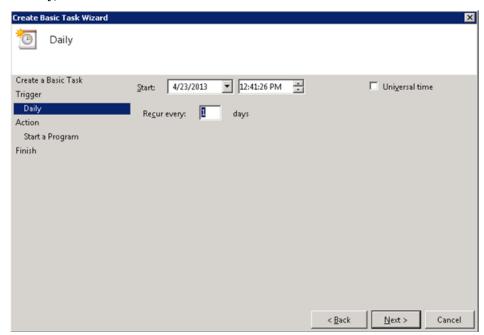
2 In the Task Scheduler window, click **Create Basic Task**. The Create Basic Task wizard opens.



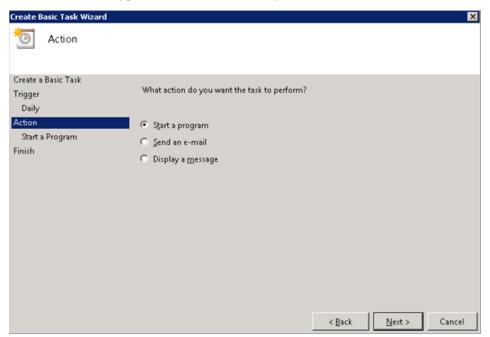
3 Type a name for the task, and then click Next.



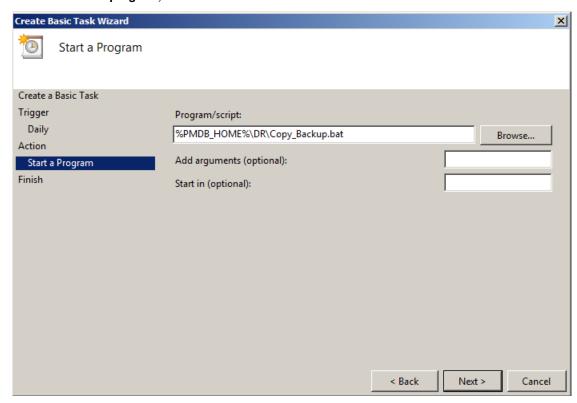
4 Select Daily, and then click Next.



Select the start time, type one in the Recur every field, and then click Next.



6 Select Start a program, and then click Next.



- 7 Browse to %PMDB_HOME%\DR, select Copy_Backup.bat, and then click Next.
- 8 Click Finish.

Schedule to Run the Full Backup Script

You must schedule to run the Full Backup script after the Copy Backup script.

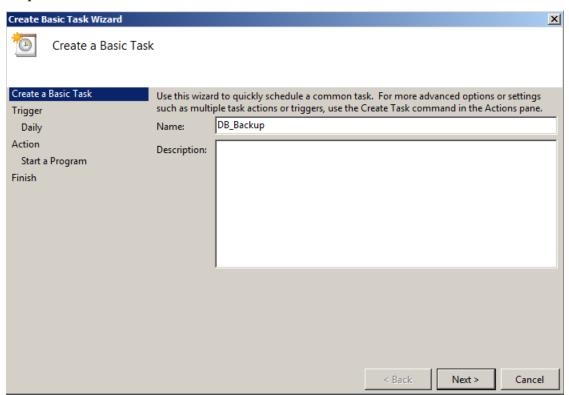
On Windows 2003

- 1 Go to Start-> Settings -> Control Panel -> Scheduled Tasks.
- 2 Double-click Add Scheduled Task. The Scheduled Task wizard opens.
- 3 Click Next.
- 4 Browse to %PMDB_HOME%\DR, and then select Execute_FullBackup_Script.bat. Click Next.
- 5 Type a name for the task and click **Weekly** under **Perform this task**. This defines the frequency at which the task will be performed. Click **Next**.
- 6 Select the time and day you want the task to begin:
 - a Set the start time.
 - b Do not change the default value of 1 for the frequency of weeks.
 - c Select the day of the week. It is recommended to schedule this task on a day when the workload is less. You can select multiple days if you want to take a Full Backup more than once a week.
- 7 Click Next.
- 8 Enter the user name and password to set the account information.

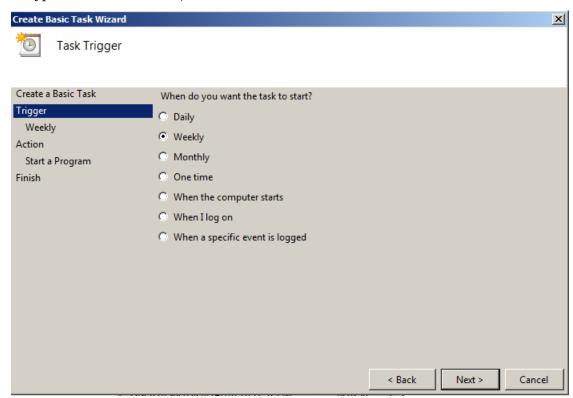
9 Click Finish.

On Windows 2008

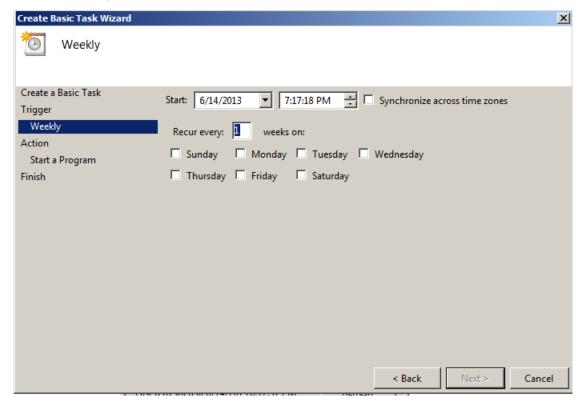
- 1 Go to Start-> Control Panel -> System and Security -> Administrative Tools -> Schedule Tasks. The Task Scheduler window opens.
- 2 In the Task Scheduler window, click **Create Basic Task**. The Create Basic Task wizard opens.



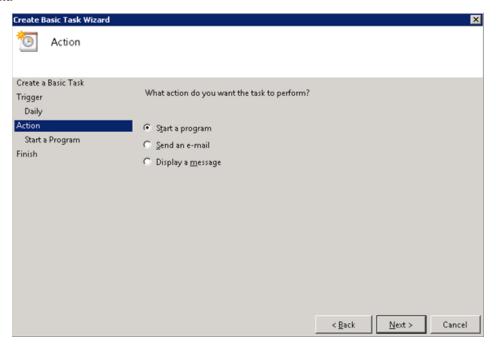
3 Type a name for the task, and then click Next.



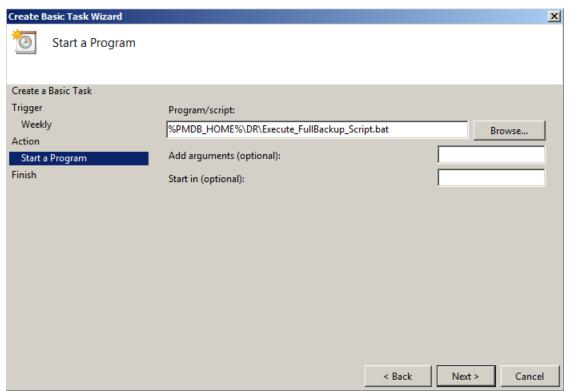
4 Select Weekly, and then click Next.



5 Select the start time, day of the week, type one in the Recur every field, and then click **Next.**



6 Select Start a program, and then click Next.



- 7 Browse to %PMDB_HOME%\DR, select Execute_FullBackup_Script.bat, and then click Next.
- 8 Click Finish.

Schedule to Run the Incremental Backup Script

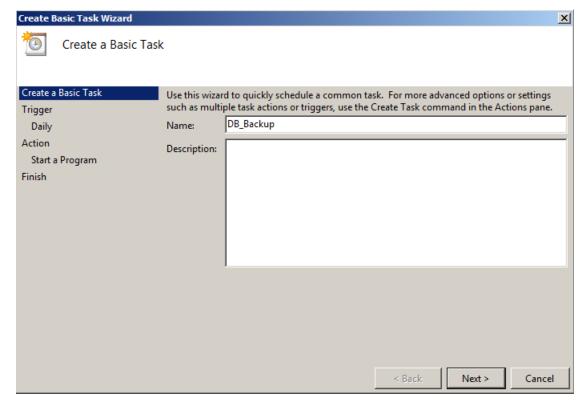
You must schedule to run the Incremental Backup script once a day.

On Windows 2003

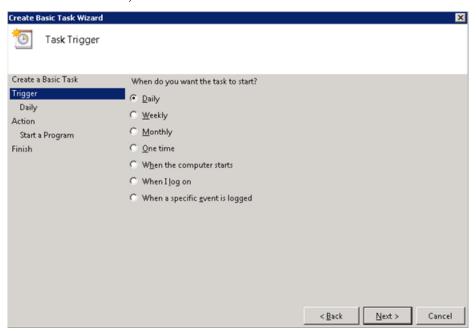
- 1 Select Daily, and then click Next.Go to Start-> Settings -> Control Panel -> Scheduled Tasks.
- 2 Double-click Add Scheduled Task. The Scheduled Task wizard opens.
- 3 Click Next.
- 4 Browse to %PMDB_HOME%\DR, and then select Execute_IncSncFullBackup_Script.bat. Click Next.
- 5 Type a name for the task and click **Daily** under **Perform this task**. This defines the frequency at which the task will be performed. Click **Next**.
- 6 Select the time and day you want the task to begin:
 - a Set the start time.
 - b Do not change the default value of Daily under Perform this task.
 - c Set the start date.
- 7 Click Next.
- 8 Enter the user name and password to set the account information.
- 9 Click Finish.

On Windows 2008

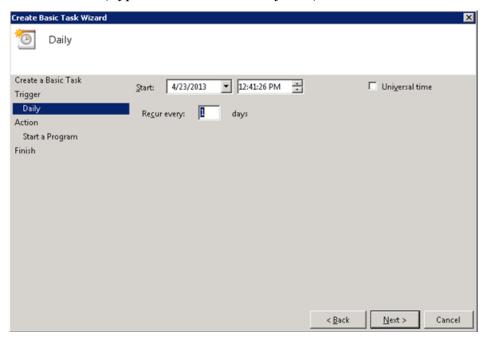
- Go to Start-> Control Panel -> System and Security -> Administrative Tools -> Schedule Tasks. The Task Scheduler window opens.
- In the Task Scheduler window, click **Create Basic Task**. The Create Basic Task wizard opens.



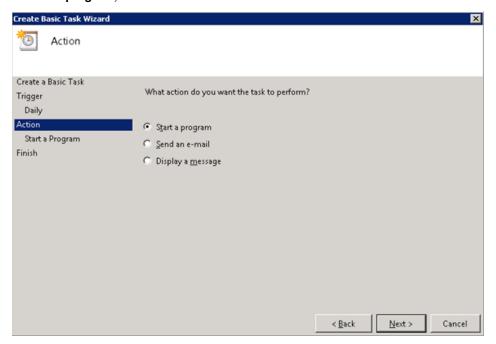
3 Type a name for the task, and then click Next.



4 Select the start time, type one in the Recur every field, and then click Next.



5 Select Start a program, and then click Next.



- 6 Browse to %PMDB_HOME%\DR, select Execute_IncSncFullBackup_Script.bat, and then click Next.
- 7 Click Finish.

Backing Up the SAP BusinessObjects Database and File Store

The %PMDB_HOME%\DR\Execute_BO_FullBackup.bat script helps you take a backup of the SAP BusinessObjects database and file store. To schedule the backup, follow these steps:

On Windows 2003

- 1 Go to Start-> Settings -> Control Panel -> Scheduled Tasks.
- 2 Double-click Add Scheduled Task. The Scheduled Task wizard opens.
- 3 Click Next.
- 4 Browse to %PMDB HOME%\DR, and then select Execute BO FullBackup.bat.
- 5 Click Next.
- 6 Type a name for the task and click **Daily** under **Perform this task**. This defines the frequency at which the task will be performed.
- 7 Click Next.
- 8 Select the time and day you want the task to begin:
 - a Set the start time.
 - b Do not change the default value of **Daily** under **Perform this task**.
 - c Set the start date.
- 9 Click Next.
- 10 Enter the user name and password to set the account information.

- 11 Select the Open advanced properties... check box.
- 12 Click **Finish**. The dialog box for advanced properties opens.

In this instance:

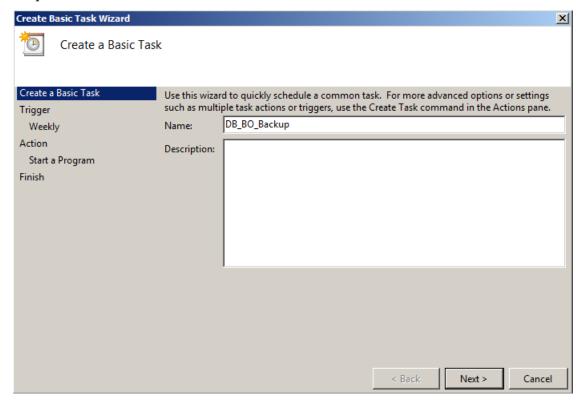
-

 <br/
- <*SAP_BusinessObjects_InstalledDrive>* is the drive where SAP BusinessObjects is installed. By default, this is the C:\ drive. If a different drive was selected for SAP BusinessObjects during SHR installation, enter that drive.

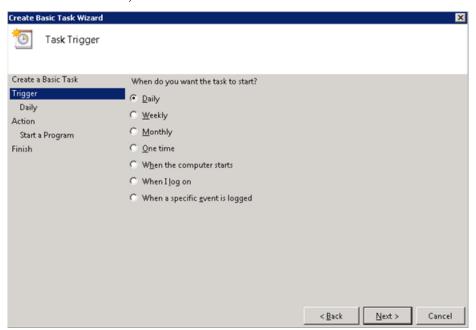
Note: If you want to backup the files to a custom folder, you must create it earlier.

On Windows 2008

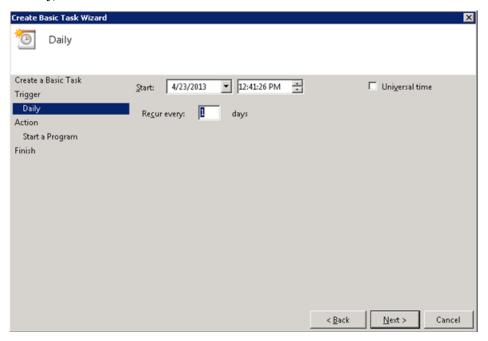
- 1 Go to Start-> Control Panel -> System and Security -> Administrative Tools -> Schedule Tasks. The Task Scheduler window opens.
- 2 In the Task Scheduler window, click **Create Basic Task**. The Create Basic Task wizard opens.



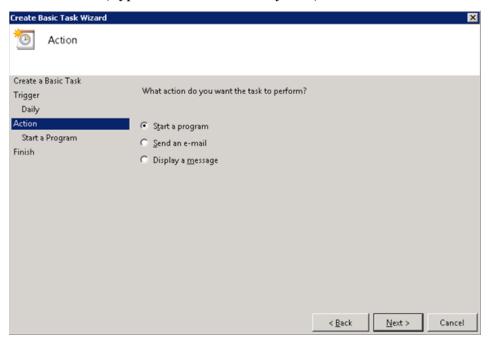
3 Type a name for the task, and then click Next.



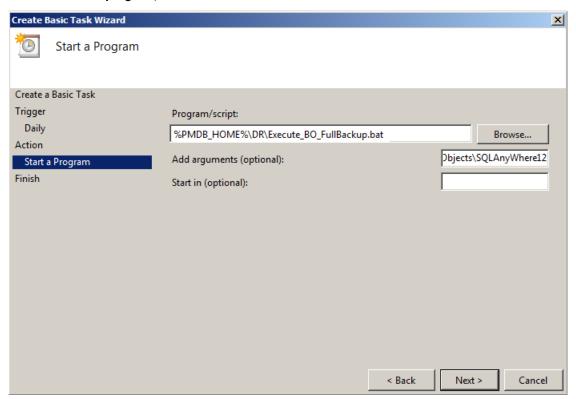
4 Select Daily, and then click Next.



5 Select the start time, type one in the Recur every field, and then click **Next**.



6 Select Start a program, and then click Next.



- 7 Browse to %PMDB_HOME%\DR, select Execute_BO_FullBackup.bat, and then click Next.
- 8 In the Add arguments field, type the following details:

<backup_path> <SAP_BusinessObjects_InstalledDrive>



Include a space between two items.

In this instance:

- <backup_path> is the location where you want to store the backed-up files and data.
- <*SAP_BusinessObjects_InstalledDrive>* is the drive where SAP BusinessObjects is installed. By default, this is the C:\ drive. If a different drive was selected for SAP BusinessObjects during SHR installation, enter that drive.

Note: If you want to backup the files to a custom folder, you must create it earlier.

9 Click Finish.

Backing Up the Management Database Table

Task 1: Edit the Backup Scripts

SHR provides the

%PMDB_HOME%\scripts\MgmtDB\Postgres\backup_aggregate_control.sql and %PMDB_HOME%\DR\DB_tables_backup.bat scripts to back up the management database table. You must manually edit the backup_aggregate_control.sql script to specify the backup location. To edit the script, follow these steps:

- 1 Browse to the %PMDB_HOME%\scripts\MgmtDB\Postgres folder.
- 2 Open backup_aggregate_control.sql with a text editor.
- 3 Go to the following line:

```
Copy dwabc.AGGREGATE_CONTROL TO
E'E:\bo backup\backup AGGREGATE CONTROL.dat'
```

4 Replace E:\\bo_backup with the directory where you want to back up the data.



While specifying the directory path, type \\ instead of \.

5 Save the file.

Task 2: Schedule to Run the Backup Script

You must schedule to run the backup script once a day.

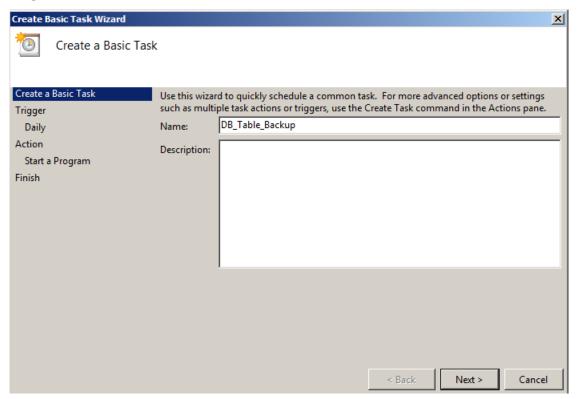
On Windows 2003

- 1 Go to Start-> Control Panel -> Scheduled Tasks.
- 2 Double-click Add Scheduled Task. The Scheduled Task wizard opens.
- 3 Click Next.
- 4 Browse to %PMDB_HOME%\DR, and then select DB_tables_backup.bat.
- 5 Do not type anything in the Add arguments field.
- 6 Click Next.
- 7 Type a name for the task and click **Daily** under **Perform this task**. This defines the frequency at which the task will be performed.
- 8 Click Next.

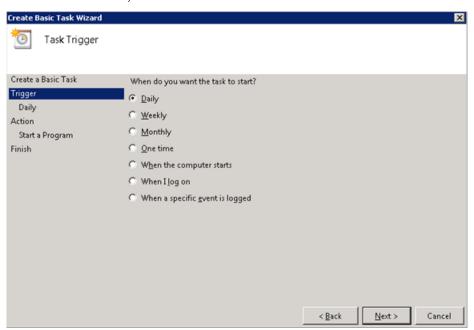
- 9 Select the time and day you want the task to begin:
 - a Set the start time.
 - b Do not change the default value of Daily under Perform this task.
 - c Set the start date.
- 10 Click Next.

On Windows 2008

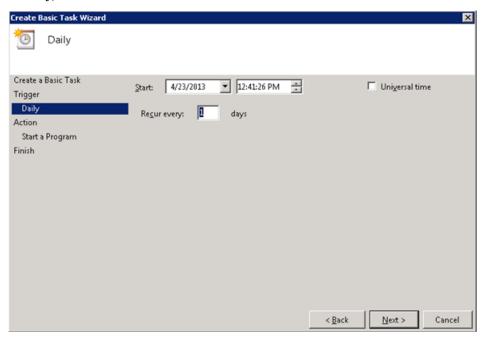
- Go to Start-> Control Panel -> System and Security -> Administrative Tools -> Schedule Tasks. The Task Scheduler window opens.
- 2 In the Task Scheduler window, click **Create Basic Task**. The Create Basic Task wizard opens.



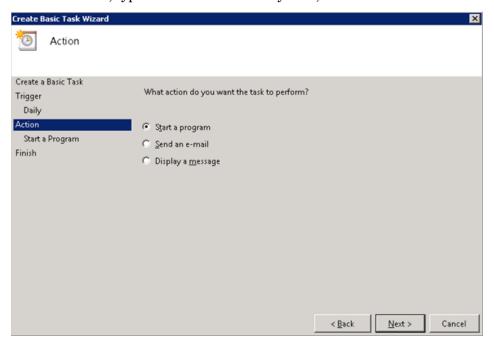
3 Type a name for the task, and then click Next.



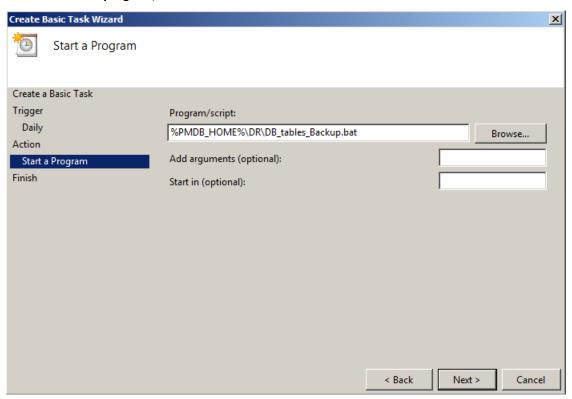
4 Select Daily, and then click Next.



5 Select the start time, type one in the Recur every field, and then click Next.



6 Select Start a program, and then click Next.



7 Browse to %PMDB_HOME%\DR, select DB_tables_Backup.bat, and then click Next.

Backing Up License Files

Back up the following license files:

- %PMDB_HOME%\AutoPass\data\LicFile
- %PMDB_HOME%/\config\license\BOLic.txt

Backing Up Configuration Files

Back up the following configuration files:

- %PMDB_HOME%\data\config.prp
- %PMDB HOME%\config\collection.properties
- <SHR Installation_Directory>\Sybase\IQ-15_4\scripts\pmdbConfig.cfg
- All XML files under %PMDB HOME%/data/downtime

Backing Up SHR on Linux

Backing Up the Sybase IQ Database

Task 1: Edit the Backup Scripts

SHR provides two backup scripts, one each for full backup and incremental backup respectively, you must edit to fit your requirements before you begin the backup process.

These scripts are available in the \$PMDB HOME/scripts/Sybase directory.

These scripts are:

- For Full Backup: IQ_backup_full.sql
- For Incremental Backup: IQ backup incr since full.sql

To edit the scripts follow these steps:

- 1 Browse to the \$PMDB_HOME/scripts/Sybase directory.
- 2 Open IQ_backup_full.sql with a text editor application.
- In the last parameter within the .sql script, create a directory where you want to save the backed-up files. That is, replace location_for_backup with the actual location.

For example:

Default String

```
After Modifying
```

```
dsi_pmdb_backup
'FULL',NULL,'READWRITE_FILES_ONLY',N
ULL,NULL,NULL,NULL,'D','locatio
n for backup'
```

```
dsi_pmdb_backup
'FULL',NULL,'READWRITE_FILES_ONLY'
,NULL,NULL,NULL,NULL,'D',
'/backup'
```

4 Similarly, in the incremental backup script (IQ_backup_incr_since_full.sql), replace the location_for_backup string with the actual backup location.

For example:

Default String

After Modifying

dsi_pmdb_backup
'INCREMENTAL_SINCE_FULL',NULL,'READW
RITE_FILES_ONLY',NULL,NULL,NULL,NULL
,NULL,'D','location_for_backup'

dsi_pmdb_backup
'INCREMENTAL_SINCE_FULL',NULL,'REA
DWRITE_FILES_ONLY',NULL,NULL,NULL,
NULL,NULL,'D','/backup'

The above .sql scripts will be run by the following Shell scripts:

- Execute_FullBackup_Script.sh (Full Back up)
- Execute_IncSncFullBackup_Script.sh (Incremental Back up)

These Shell scripts are available in the \$PMDB_HOME/DR directory.

After running these scripts, a database backup is created with file name suffixed with day of the Week at the specified location.

Task 2: Edit the Copy Scripts

SHR provides a script for copying backed-up database files into a specific directory.

To edit the copy script, type the location where the backed-up database file exists and the location where you want to copy the copied files before starting the full backup procedure. You must run this script on the system where the Sybase IQ database is installed.

COPY "location of existing full backup file" "copy to location"> \$PMDB_HOME/tmp/Copy_Backup.txt 2>&1

Replace location of existing full backup file and copy to location with actual location details.

An example of the script:

```
cp "/disk1/HP-SHR/Backup/Full*" "/disk1/HP-SHR/Backup/Old/" > $PMDB_HOME/tmp/
Copy_Backup.txt 2>&1
```

Task 3: Schedule the Backup

To take regular backup of the database, you must schedule to run the backup scripts by using the Linux CronJobs scheduler. It is recommended that you take a full backup once a week and an incremental backup once a day.

The Copy Backup script creates a copy of the full backup database files in the specified location to avoid overwriting an existing backup. You must schedule to run the Copy Backup script every time before you run the full backup script.

Follow these steps to set up a cronjob scheduler on Linux:

To edit your crontab file, type the following command at the Linux Terminal:

```
crontab -e
```

2 Schedule to run the copy backup script every day:

Type the following line in the crontab file.

```
0 15 * * * $PMDB HOME/DR/Copy Backup.sh
```

In the above example, the copy backup script is run every day at 15:00 Hours.

3 Schedule to run the full backup script once a week:

Type the following line in the crontab file.

0 15 * * 1 \$PMDB_HOME/DR/Execute_FullBackup_Script.sh

In the above example, the full backup script is run on the first day of the week at 15:00 Hours.

4 Schedule to run the incremental backup script every day:

Type the following line in the crontab file.

```
0 15 * * * $PMDB_HOME/DR/Execute_IncSncFullBackup_Script.sh
```

In the above example, the incremental backup script is run every day at 15:00 Hours.

5 After adding the entries, save the crontab file.

Backing Up the SAP BusinessObjects Database and File Store

The \$PMDB_HOME/DR/Execute_BO_FullBackup.sh script helps you take a backup of the SAP BusinessObjects database and file store.

To schedule the backup, follow these steps:

- 1 Log on to the SHR system as root.
- 2 To edit your crontab file, type the following command at the command prompt:

```
crontab -e
```

3 Add a line to the crontab file to invoke the \$PMDB_HOME/DR/Execute_BO_FullBackup.sh script once every week.

Example:

```
0 15 * * 1 $PMDB_HOME/DR/Execute_BO_FullBackup.sh /root/SHR_Backup
```

In the above example, the \$PMDB_HOME/DR/Execute_BO_FullBackup.sh script is invoked on the first day of the week at 15:00 hours and the backed-up data file is stored at /root/SHR Backup.

4 Save the crontab file.

Backing Up the Management Database Tables

The DB_Tables_Backup.sh script enables you to back up the management database tables. Before you schedule to run the script, you must modify the backup aggregate control.sql script, which is used by DB Tables Backup.sh.

Task 1: Edit the backup_aggregate_control.sql Script

- Open the backup_aggregate_control.sql script from the \$PMDB_HOME/scripts/MgmtDB/Postgres directory with a text editor.
- 2 Locate the following line:

```
Copy AGGREGATE CONTROL TO /root/temp/backup AGGREGATE CONTROL.dat'
```

Replace /root/temp with a location where you want to store the backed-up management database file. Do not specify a directory that does not exist on the system.

For example, to store the backed-up management database file into the /tmp/dbtables directory, replace /root/temp with /tmp/dbtables.

4 Save the file.

Task 2: Schedule to Run DB Tables Backup.sh the Script

- 1 Log on to the SHR system as root.
- 2 To edit your crontab file, type the following command at the command prompt:

crontab -e

Add a line to the crontab file to invoke the \$PMDB_HOME/scripts/BO/DB_Tables_Backup.sh script once every day.

Example:

```
0 15 * * * $PMDB HOME/scripts/DR/DB Tables Backup.sh
```

In the above example, the \$PMDB_HOME/scripts/DR/DB_Tables_Backup.sh script is invoked on the at 15:00 hours everyday.

4 Save the crontab file.

Backing Up License Files

Back up the following license files:

- \$PMDB HOME/AutoPass/data/LicFile
- \$PMDB_HOME/config/license/BOLic.txt

Backing Up Configuration Files

Back up the following configuration files:

- \$PMDB_HOME/data/config.prp
- \$PMDB HOME/config/collection.properties
- <SHR Installation_Directory>/Sybase/IQ-15_4/scripts/pmdbConfig.cfg
- All XML files under \$PMDB_HOME/data/downtime

Restoring SHR

Before restoring the backed-up data, licenses, and configuration files, you must install SHR 9.30 on the system with the SHR 9.30 media. After the installation is complete, you must transfer all backed-up data into a local directory onto the system.

Restoring SHR on Windows

Restoring Sybase

To restore the Sybase IQ database, follow these steps:

- 1 Stop the HP PMDB Platform Sybase service by following these steps:
 - a Click **Start** \rightarrow **Run**. The Run dialog box opens.

- Type **services.msc** in the **Open** field, and then press **ENTER**. The Services window opens.
- On the right pane, right-click the **HP_PMDB_Platform_Sybase** service, and then click **Stop**.
- d From the **Windows Task Manager**, select the **Processes** tab, look for iqsrv15.exe, right-click it and select **End Process**.
- 2 Search for all files with extensions .db, .log, and .iq from the database file location and move these files to any other location on the system. These files are recreated by the restore process.
- 3 Start SybaseIQ server. At the command prompt run the following command:

start_iq

@<installation_directory>\Sybase\IQ-15_4\scripts\pmdbConfig.cfg

Type the command in a single line.

- 4 Connect to SybaseIQ server by following these steps:
 - a On the SHR system, click Start-> Run. The Run dialog box opens.
 - b Type dbisql in the Open field and press ENTER. The Connect dialog box on Interactive SQL program opens.
 - c On the **Identification** tab, type the following:
 - In the User ID field, type dba
 - In the Password field, type sql
 - In the Server Name field, type the name of the server where the SHR SybaseIQ database is installed
 - In the Database name field, type utility_db
 - d Click Connect. The Interactive SQL window opens.
- 5 Restore the Full Backup.

On the SQL Statements box type the following sql statement:

 $\begin{tabular}{ll} \textbf{RESTORE DATABASE} < location where database files were present > \textbf{FROM} < location where the backup file is saved > \\ \end{tabular}$

```
For example: RESTORE DATABASE 'E:\SybaseDB\pmdb.db' FROM 'E:\HP-SHR\backup\Full.Sunday'
```

6 Restore the Incremental Backup, if any, after restoring a Full Backup.

If several incremental backup files are available, select and restore the latest incremental backup. For example, if the database fails on a Thursday and a Full Backup had been taken on the previous Sunday, you must restore the Full Backup files of Sunday followed by the Incremental Backup taken on the previous Wednesday.

To restore the Incremental Backup on the SQL Statements box type the following sql statement:

RESTORE DATABASE < location where database files were present > FROM < location where the incremental backup file is saved >

```
For example: RESTORE DATABASE 'E:\SybaseDB\pmdb.db' FROM 'E:\HP-SHR\backup\Incr_sncfull.Wednesday'
```

Restoring the SAP BusinessObjects Database and File Store

To restore the SAP BusinessObjects database and file store, follow these steps:

- 1 Log on to the SHR system and open SAP BusinessObjects Central Configuration Manager.
- 2 Stop the Server Intelligence Agent and BusinessObjects web server.
- Rename the existing file store folder. The default location of the file store is C:\Program Files (x86)\BusinessObjects\BusinessObjects Enterprise 12.0\FileStore.

You can rename it to FileStore_old.

4 Run the restore script:

In this instance:

- < backedup_path > is the directory where you placed the backed-up SAP BusinessObjects database files
- <sqlanywherepath> is the SAP BusinessObjects database directory (default:
 C:\Program Files (x86)\Business Objects\SQLAnyWhere)
- <Filestorepath> is the SAP BusinessObjects file store directory (default:
 C:\ProgramFiles(x86)\Business Objects\BusinessObjects)
- <backupfoldername> is the folder within where backed-up files are present
- 5 Delete the original SAP BusinessObjects server:
 - Go to the SQL Anywhere home directory. The default location is <SAP_BusinessObjects_Install_Drive>\Program Files (x86)\Business
 Objects\SOLAnyWhere12\bin.
 - b Double-click the **dbisqlc** file. The Connect to SQL Anywhere window opens.
 - c In the Connect to SQL Anywhere window, type the following details:
 - User ID: Type the hostname of the SHR system (not FQDN)
 - Password: Type pmdb_admin.
 - Server name: BOE120SQLAW_<SHR_hostname>

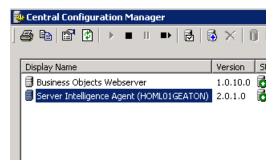
Leave the Database Name field blank, do not change any other settings, and then click **OK**. The SQL Anywhere console opens.

d In the command pane, type the following query:

delete from cms_infoobjects6 where parentid=16 or parentid=59;

- e Click Execute.
- 6 Create a new Server Intelligent Agent:
 - a From the Start menu, click **Programs > BusinessObjects XI 3.1 > Central Configuration Manager.** The Central Configuration Manager window opens.

b In the Central Configuration Manager window, note down the name of the Server Intelligence Agent (displayed within parenthesis).



c Go to <SAP_BusinessObjects_Install_Directory>\Business Objects Enterprise 12.0\win32 x86.

The default SAP BusinessObjects installation directory is C:\Program Files (x86)\Business Objects\BusinessObjects Enterprise 12.0.

- d Delete all files that start with _boe.
- e Delete the Server Intelligence Agent by running the following command:

sc delete boe120sia<name>

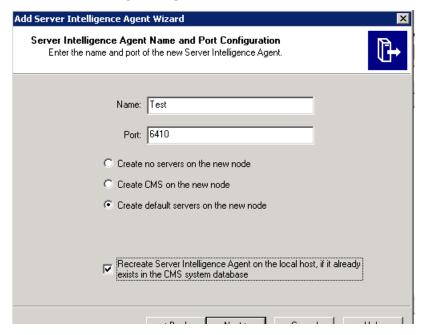
In this instance, <*name*> is the name of the Sever Intelligence Agent that you noted down in step b.

The following message appears in the command line console:

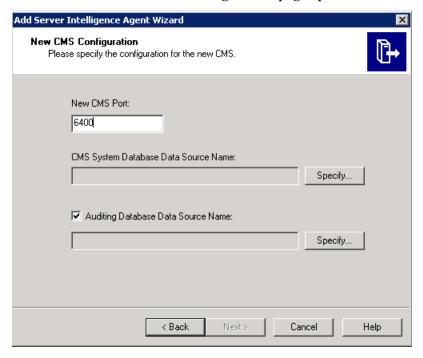
[SC] DeleteService SUCCESS

- In the Central Configuration Manager window, right-click and stop BusinessObjects

 Webserver, and then click **Add Server Intelligent Agent** (). The Add Server Intelligence Agent wizard opens.
- g In the Add Server Intelligence Agent wizard, click Next.



h Type a name for the Server Intelligence Agent, type 6410 for port, select the **Create Default Servers...** option, select the **Recreate Server Intelligence Agent on ...** check box, and then click **Next**. The New CMS Configuration page opens.



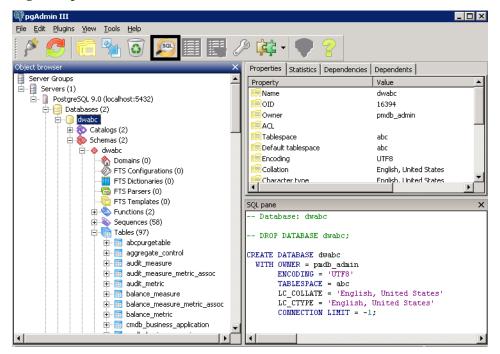
- i Type 6400 for new CMS port.
- Under the CMS System Database..., click **Specify**. The Create Database Driver dialog box opens.
- k In the Create Database Driver dialog box, select SQL Anywhere (ODBC), and then click **OK**. The Select Data Source window opens.
- In the Select Data Source window, go to Machine Data Source, select **BOE120**, and then click **OK**.
- m In the Connect to SQL Anywhere window, type the host name of the SHR system as the user ID, type the SQL Anywhere database password, and then click **OK**. Do not change any other settings. Do not select **Encrypt Password**.
- n Optional. Enable auditing.
 - Under the Auditing Database Data Source.. check box, click Specify. The Create Database Driver dialog box opens.
 - In the Create Database Driver dialog box, select SQL Anywhere (ODBC), and then click **OK**. The Select Data Source window opens.
 - In the Select Data Source window, go to Machine Data Source, select BOE120_Audit, and then click OK.
 - In the Connect to SQL Anywhere window, type the host name of the SHR system as the user ID, type the SQL Anywhere database password, and then click **OK**. Do not change any other settings. Do not select **Encrypt Password**.
- o Click Next.
- Click Next.
- q Click Finish. A new Server Intelligence Agent is created.

r Start the Server Intelligence Agent.

Restoring the Management Database Table

To restore the management database table, follow these steps:

- 1 Log on to the SHR system.
- 2 From the Start menu, go to Programs > PostgreSQL 9.2 > PgAdmin III.
- 3 Connect to the database by providing the password. Launch the sql query analyzer by clicking the sql icon.



- 4 Run the following query to restore the database tables:
 - Delete From dwabc.aggregate_control table
 - COPY dwabc.aggregate_control from '<Path of the backupfile>\backup_AGGREGATE_CONTROL.dat'

In this instance, *Path of the backupfile>* is the directory where you placed the backed-up management database table.

Restoring Configuration File

Place the configuration files (see Backing Up Configuration Files on page 26) in their original location.

Restoring Licenses

To restore the permanent license of SHR and the SAP BusinessObjects license, follow these steps:

1 Save the LicFile backed-up in Backing Up License Files on page 25

- 2 Follow the steps in Managing licenses section in Online Help for Administrators.
- 3 Log on to the Central Management Console by launching the following URL:

http://<SHR_System_FQDN>:8080/CmcApp

In this instance, *SHR_System_FQDN>* is the fully qualified domain name of the SHR system.

Log on as Administrator.

- 4 Click License Keys.
- 5 Type the license key in the Add Key field (available in the BOLic.txt file that was backed-up in Backing Up License Files on page 25).
- 6 Click Servers.
- 7 Right-click each server, and then click **Enable Server**.

Post-Restore Tasks

1 After restoring the database, you must start the database to access it.

To start the Sybase IQ database follow these steps:

- α Click Start \rightarrow Run. The Run dialog box opens.
- b Type **services.msc** in the **Open** field, and then press **ENTER**. The Services window opens.
- c On the right pane, right-click the HP_PMDB_Platform_Sybase service, and then click Start.
- 2 At the command prompt, type the following command to start the Sybase IQ database:

start_iq

 $\verb|@<Installation_Directory>\Sybase\\ | 1Q-15_4\\ | scripts\\ | pmdbConfig.cfg | <Sybase | datafiles | location\\ | pmdb.db | | datafiles | location\\ | config.cfg | | datafiles | datafiles | | datafiles | | datafiles | | datafiles | dat$

In this instance, *<Installation_Directory>* is the location where you install SHR and *<Sybase datafiles location>* is the location where Sybase IQ database files are stored.

- 3 Launch dbisql and log on to Sybase.
- 4 Use the following update script to set DB_HOST and DB_SERVER_NAME in the table IM_DB_DBINFO:
 - UPDATE IM_DB_DBINFO SET
 DB_HOST=<shrsystemname>,DB_SERVER_NAME=<dbServerName>
 - COMMIT

In this instance, *<shrsystemname>* is the name of the new SHR system and *<dbServerName>* is the name of the server where the Sybase database for the newly installed SHR is hosted.

- 5 Use the following update script to set hostname, osname, and source in the table IM PM OS INFO:
 - UPDATE IM_PM_OS_INFO SET hostname='<shrsystemname >',osname='<shrsystem osname>','<source>' where hostname='<old hostname>'

COMMIT

In this instance, *<shrsystemname>* is the name of the new SHR system and *<shrsystemname>* is the name of operating system on the new SHR system.

<old hostname> is the name of the old SHR system.

If the HP Operations agent is installed on the SHR system, type HP Performance Agent for <source>; otherwise, type Sun JMX.

- 6 Use the following update script to set hostname, osname, and source in the table IM_PM_APPS_INFO:
 - UPDATE IM_PM_APPS_INFO SET hostname='< shrsystemname >', hostos ='<shrsystem osname>','< hostinfo > where hostname='<oldhostname>'
 - COMMIT
- 7 Restart the following SHR services from the Services window:
 - HP_PMDB_Platform_Administrator
 - HP_PMDB_Platform_IM
- 8 Stop the following services:
 - HP_PMDB_Platform_Collection
 - HP_PMDB_Platform_Timer
- 9 Configure data sources. For more information, see the *Configuring SHR* section in the *SHR Installation and Configuration Guide*.
- 10 Start the following services:
 - HP_PMDB_Platform_Collection
 - HP_PMDB_Platform_Timer

Restoring SHR on Linux

Restoring Sybase

To restore the Sybase database, follow these steps:

- 1 Stop the HP_PMDB_Platform_Sybase service:
 - cd /etc/init.d
 - service HP_PMDB_Platform_Sybase stop
- 2 Run this command: ps -ef|grep iqsrv15

Note the process ID displayed by the command output.

- 3 Run this command by entering the process ID in <pid>: kill -9 <pid></pid>
- 4 Search for all files with extensions .db, .log, and .iq from the database file location and move those files to any other location on the system. Those files are recreated by the restore process.
- 5 Start the SybaseIQ server. At the command prompt, run the following command:

start_iq @/opt/HP/BSM/Sybase/IQ-15_4/scripts/pmdbConfig.cfg
Type the command in a single line.

6 Connect to SybaseIQ server:

dbisql -c

"uid=dba;pwd=sql;dbn=utility_db;eng=<server_name>;commlinks=tcpip(hos
t=<host_name>;commlinks=tcpip(host=<host_name>;port=21424)"

Example:

dbisql -c

"uid=dba;pwd=sq1;dbn=utility_db;eng=SHRLR02;commlinks=tcpip(host=SHRLR02.DOMAIN.COM;p

7 Restore the Full Backup on the same path/drive:

On the SQL Statements box, type the following sql statement:

RESTORE DATABASE <location where database files were present> FROM <location where the backup file is saved>

For example

RESTORE DATABASE \'root/SHR_Sybase/pmdb.db' FROM \'root/HPSHR/backup/ Full.Sunday'

8 Run the following command to restore the database on a different path/drive

RESTORE DATABASE <location where database files were present> from <location where the backup file is saved>

RENAME IQ_SYSTEM_MAIN TO <path to pmdb.iq>

RENAME IQ_SYSTEM_TEMP TO <path to pmdb.iqtmp>

RENAME pmdb_user_main TO <path to pmdb_user_main01.iq>

Make sure the path to pmdb.db exists.

Run all the above commands together.

9 Restore the Incremental Backup, if any, after restoring a Full Backup.

If several incremental backup files are available, select and restore the latest incremental Backup.

To restore the Incremental Backup on the same path/drive in the SQL Statements box, type the following sql statement:

RESTORE DATABASE < location where database files were present > FROM < location where the incremental backup file is saved >

RENAME IQ_SYSTEM_MAIN TO <path to pmdb.iq>

RENAME IQ_SYSTEM_TEMP TO <path to pmdb.iqtmp>

RENAME pmdb_user_main TO < path to pmdb_user_main01.iq>

- 10 Stop and start the Sybase services:
 - service HP_PMDB_Platform_Sybase stop
 - service HP_PMDB_Platform_Sybase start

Restoring SAP BusinessObjects Database and File Store

To restore the SAP BusinessObjects database and file store, follow these steps:

Copy the backed-up SAP BusinessObjects database and file store on a system where SHR 9.30 is installed.

- 2 Log on to the system as root.
- 3 Run the following command to stop the web server:
 - sh /opt/HP/BSM/BO/bobje/tomcatshutdown.sh
- 4 Switch to the SAP BusinessObjects administrator by running the following command:
 - su SHRBOADMIN
- 5 Run the following command to stop all Server Intelligence Agent servers:
 - sh /opt/HP/BSM/BO/bobje/stopservers
- 6 Stop the SQL Anywhere service:
 - sh /opt/HP/BSM/BO/bobje/sawstop.sh
 - While prompted for password, specify the SQL Anywhere database password.
- 7 Take a backup of all SQL Anywhere Data Base files under the by running the following command:
 - cp /opt/HP/BSM/BO/bobje/SQLAW/Bin/*BOE120* <backup_path>
 - In this instance, *<backup_path>* is the directory where you want to back up the existing SQL Anywhere database files.
- 8 Switch to root by running the following command:
 - su root
- 9 Copy the backed-up SAP BusinessObjects database file (that you backed up in Backing Up the SAP BusinessObjects Database and File Store on page 18) to following location:
 - /opt/HP/BSM/BO/bobje/SQLAW/Bin
- 10 Run the following commands to grant adequate rights to the SAP BusinessObjects user:
 - a chown SHRBOADMIN:root *BOE120*
 - b chmod 755 *BOE120*
- 11 Create a new Server Intelligence Agent by running the following command:
 - sh /opt/HP/BSM/BO/bobje/serverconfig.sh
 - The SAP BusinessObjects wizard opens in the command line console.

12 Type 1, and then press **Enter**.

```
SAP BusinessObjects

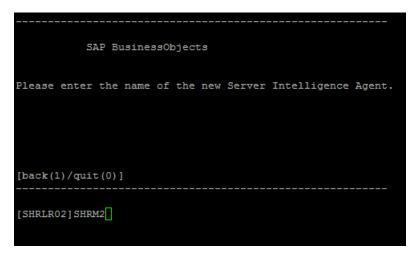
If it already exists in the CMS system database, do you want to recreate the Server Intelligence Agent on the local host?

Use this option only if this Server Intelligence Agent does not exist on any hosts in the deployment.

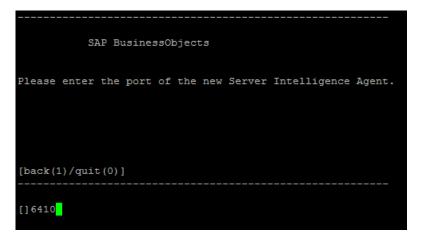
[yes(3)/no(2)/back(1)/quit(0)]

[no]3
```

13 Type 3, and then press **Enter**.



14 Specify a name for the agent (as a best practice, type the hostname of the system as the name of the agent), and then press **Enter**.



15 Type 6410 as the port number, and then press **Enter**.

16 Type 2 (default server), and then press Enter.

```
SAP BusinessObjects

Enter the port of the new CMS.

[back(1)/quit(0)]

[default (6400)]
```

17 Type 6100 as the port number, and then press **Enter**.

```
SAP BusinessObjects

Specify Destination CMS database connection information.

Select the type of database connection from the following:

[Oracle(6)/DB2(5)/Sybase(4)/MySQL(3)/SQL Anywhere(2)/back(1)/quit(0)]

[Oracle]2
```

18 Type 2 (SQL Anywhere), and then press Enter.

```
SAP BusinessObjects

Specify Destination CMS database connection information.

Enter the ODBC data source name (DSN) for connecting to your SQL Anywhere database.

[back(1)/quit(0)]

[SHRLR02B0E120]
```

19 Press **Enter** (the correct server is selected by default).

```
SAP BusinessObjects

Specify Destination CMS database connection information.

Enter the user name for connecting to your SQL Anywhere database.

[back(1)/quit(0)]

[SHR]
```

20 Press Enter (the correct user name is selected by default).

```
SAP BusinessObjects

Specify Destination CMS database connection information.

Enter the password for connecting to your SQL Anywhere database.

[back(1)/quit(0)]
```

21 Type a password (note down for future reference), and then press **Enter**.

```
SAP BusinessObjects

Would you like to enable auditing?

[yes(3)/no(2)/back(1)/quit(0)]

[yes]
```

22 Select Yes, and then press Enter.

```
SAP BusinessObjects

Specify auditing database connection information.

Select the type of database connection from the following:

[Oracle(6)/DB2(5)/Sybase(4)/MySQL(3)/SQL Anywhere(2)/back(1)/quit(0)]

[SQL Anywhere]2
```

23 Type 2 (SQL Anywhere), and then press Enter.

```
SAP BusinessObjects

Specify auditing database connection information.

Enter the ODBC data source name (DSN) for connecting to your SQL Anywhere database.

[back(1)/quit(0)]

[SHRLR02BOE120]SHRLR02BOE120_AUDIT
```

 $\,$ 24 $\,$ Type the ODBC data source name, and then press Enter.

The data source name is of the following format:

<agent_name>BOE120_Audit

<agent_name> is the name that you selected in step 14 on page 39.

```
SAP BusinessObjects

Specify auditing database connection information.

Enter the user name for connecting to your SQL Anywhere database.

[back(1)/quit(0)]

[SHR]
```

25 Press **Enter** (the correct user name is selected by default).

```
SAP BusinessObjects

Specify auditing database connection information.

Enter the password for connecting to your SQL Anywhere database.

[back(1)/quit(0)]
```

26 Type a password (note down for future reference), and then press Enter.

```
SAP BusinessObjects

Enter the user name to connect to this CMS.

[back(1)/quit(0)]

[Administrator]
```

- 27 Press Enter. The correct user (Administrator) is selected by default.
- 28 Press Enter when prompted for password.

```
SAP BusinessObjects

Choose the number of the type of authentication to use when contacting the CMS

1 - secEnterprise
2 - secLDAP

[back/quit(0)]
```

- 29 Type1 (secEnterprise), and then press Enter.
- 30 Type yes, and then press Enter.

```
SAP BusinessObjects

The following information will be used to create the new Server Intelligence Agent.

CMS Name: SHRLR02

Server Intelligence Agent Name: PRD_SHR

Server Intelligence Agent Port: 6410

Create Default Servers: yes

CMS Port: 6400

CMS Database: SHRLR02B0E120

Audit Database: SHRLR02B0E120_AUDIT

Do you want to create the Server Intelligence Agent?

[yes(3)/no(2)/back(1)/quit(0)]

[yes]

Adding Server Intelligence Agent...

Please press Enter to continue...
```

31 Press Enter.

```
SAP BusinessObjects

What would you like to do?

1 - Add a Server Intelligence Agent
2 - Delete a Server Intelligence Agent
3 - Modify a Server Intelligence Agent
4 - List all Server Intelligence Agents in the config file

[quit(0)]

[4]4
```

32 Type 4, and then press **Enter**.

```
SAP BusinessObjects

PRD_SHR (sia)

[back(1)/quit(0)]

[back]0
```

- 33 Type 0, and then press **Enter**.
- 34 Run the following command to start the newly added agent:

```
sh /opt/HP/BSM/BO/bobje/startservers
```

35 Wait for two minutes, and then make sure the server is running. Run the following command to see the status:

```
ls /opt/HP/BSM/BO/bobje/serverpids
```

- 36 Run the following command:
 - a cd/opt/HP/BSM/BO/bobje
 - b ./ccm.sh ?]updateobjects ?]cms <SHR_hostname>:6400

Restoring the Management Database Table

- 1 Launch PgAdminIII.
- 2 Connect to the database by providing the password.
- 3 Launch the sql query analyzer
- 4 Run the following query to restore the database tables:

```
Delete From dwabc.aggregate_control table COPY dwabc.aggregate_control from '<br/>backup_path>\backup_AGGREGATE_CONTROL.dat'
```

In this instance, $<\!\!backup_path\!\!>$ is the directory where you placed the backed-up management database file.