Lucent Technologies
Bell Labs Innovations

Advanced Reporting System with Advanced Traffic Collection

Installation & Setup Guide

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Notice

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Notes

1. Document Overview

The installation and setup guide has been revised to expand the installation procedures and to conform to Lucent Technologies' nomenclature standards.

This document is a step-by-step guide to installing the Advanced Reporting System with the Advanced Traffic Collector.

Note: If you are installing the Advanced Reporting System without the Advanced Traffic Collector, do not use this Installation and Setup Guide. Consult the *PlexView Advanced Reporting System Master Checklist* for the correct installation guide for your application.

2. Advanced Reporting System with Advanced Traffic Collection Setup Overview

This overview presents guidelines that you should consider when planning where to co-locate servers before deploying this Advanced Reporting System with Advanced Traffic Collection into your network.

The Advanced Reporting System with Advanced Traffic Collection is a distributed application consisting of many servers. The Advanced Traffic Collection system supports either centralized or distributed data collection architectures, allowing extensive scalability and flexibility. That flexibility is necessary to capture and analyze large volumes of data.

Co-locating some servers supports best performance practices. For example:

- Having the EMS and the Advanced Traffic Collector on the same subnet assures optimum system performance for inter-machine communication
- Having the Business Objects client on the same subnet as the EMS assures best performance when exporting a universe or creating and executing reports

Instructions for optimizing database layout to enhance performance within each server are included within this document.

The Advanced Reporting System with Advanced Traffic Collection is a distributed application that must be installed sequentially according to these instructions. All installation steps are listed in order. For some advanced third-party software configuration that goes beyond the scope of a general installation and configuration, you will be referred to the third party software's company's installation or configuration instructions.

Note: A qualified IT professional should do all installations or upgrades.

Each installation section in this document is presented in the sequence that leads to a correct installation. Installing or configuring the component parts that make up the Advanced Reporting system out of sequence can lead to undesirable results.

3. Advanced Reporting System Licensing Overview

The following licenses are required for the PlexView Advanced Reporting System with Advanced Traffic Collection:

- EMS license for StatsCollector software for Advanced Traffic Collection
- Business Objects Inc. and Oracle Inc. licenses for the PC.

Licensing information is available on the PlexView EMS License Readme CD included in your Advanced Reporting CD package. Please allow two business days for licenses to be emailed to you prior to installing this Advanced Reporting System with Advanced Traffic Collection.

4. Prepare and Install or Upgrade the Advanced Traffic Collector

4.1 Advanced Traffic Collector Overview

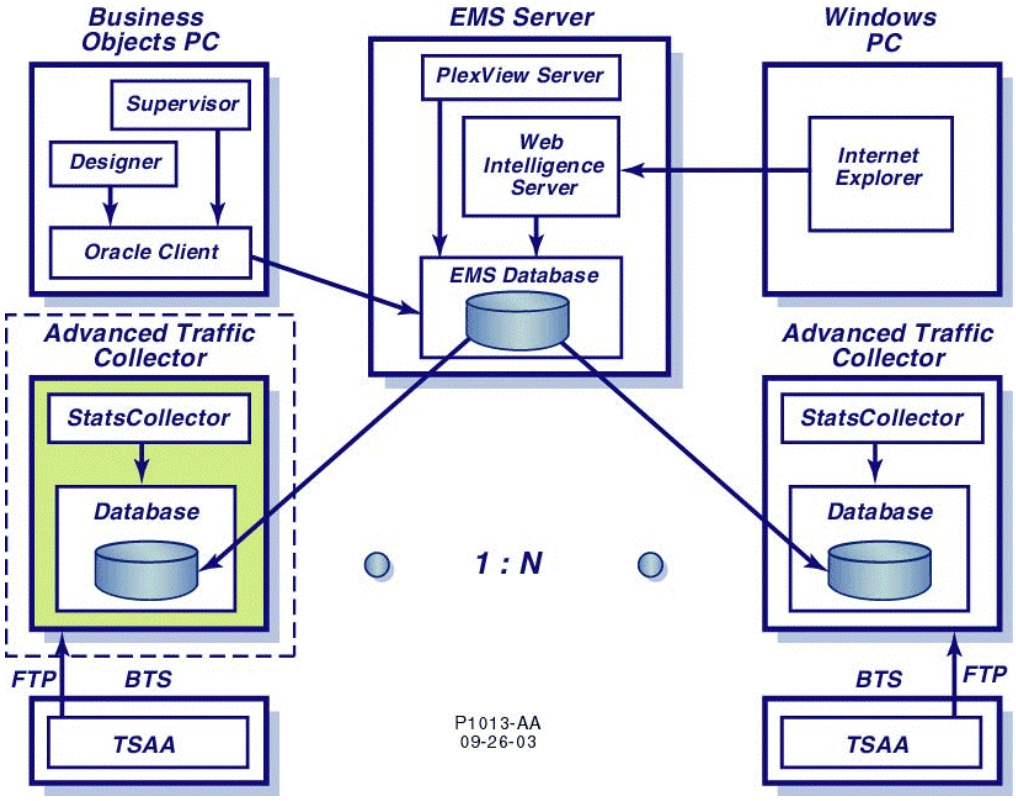
The Advanced Traffic Collector application runs on its own Sun workstation and has its own database. The traffic collector does not depend on the EMS in any way. The EMS does depend on the traffic collector and will establish an ODBC connection to the traffic collector to access traffic data. The PlexView Advanced Reporting Traffic Collector Software CD provides the StatsCollector database and the StatsCollector application for the Advanced Traffic Collector workstation.

Starting with Release 9.7, the Oracle database will be installed in a separate procedure.

Note: The workstation that will be the Advanced Traffic Collector must not have any prior versions of Oracle on it. If it does, Oracle must be COMPLETELY uninstalled before installing StatsCollector software. Verify that all Oracle files in /var are removed as well. Failure to completely uninstall Oracle can produce undesirable results.

The Advanced Traffic Collector with StatsCollector software is shown in the following figure.

Figure 2. StatsCollector on the Advanced Traffic Collector Workstation



4.2 Advanced Traffic Collector Hardware Partitioning

The Advanced Traffic Collector workstation has three hardware partitioning options listed in the Advanced Reporting System Software Release Notice. The three options are:

- Minimum configuration
- Standard configuration
- Ideal configuration

Note: An IT professional should execute your configuration choice.

This section provides details about partitioning. Options include:

4.2.1 Advanced Traffic Collector Minimum Configuration Option

Use one 36G hard drive or two 36G hard drives with one drive acting as a mirror. The operating system (OS) and Oracle database reside on the same physical disk partition, but this degrades performance.

Set up these partition parameters:

- Swap 2 GB

- / 4 GB
- /usr 4 GB
- /opt Allocate the remaining space

Note: The same configuration applies whether the dual server disk is mirrored by Sun Solstice or by Veritas Volume Manager.

Note: If mirroring is not used, the system should be periodically backed up, so that the data can be recovered if the disk fails.

4.2.2 Advanced Traffic Collector Standard Configuration Option

Use two 36G hard drives. To improve performance, put the operating system and the Oracle database on separate physical disk partitions. Set up these partition parameters for disk 1:

- Swap 2 GB
- / 4 GB
- /usr 4 GB
- /opt Allocate the remaining space

Set up these partition parameters for disk 2:

- /opt/PlexView/Oracle/ora02 36 GB

Note: Periodic backups are required.

4.2.3 Advanced Traffic Collector Ideal Configuration Option

Use Two 36G hard drives with one drive acting as a mirror and use a RAID Level 5 device for data read/write. Putting the operating system and Oracle on separate physical disk partitions on the active drive and putting the Oracle data on a RAID device eliminates the need for periodic backups.

Set up these partition parameters for the disks:

- Swap 2 GB
- / 4 GB
- /usr 4 GB
- /opt Allocate the remaining space

For the RAID level 5 device:

- Mount as /opt/PlexView/Oracle/ora02

Note: Periodic backups are not required.

4.3 Optimize Disk Layout for the Advanced Traffic Collector

The Advanced Traffic Collector can process high-volume traffic data if you optimize its physical database layout. System performance will improve if you add additional physical disk drives and map them to the Oracle data directories. Lucent recommends that each directory map to a separate disk.

Note: An IT professional should perform this disk layout setup.

Mount the additional disks to the following directories:

```
/opt/PlexView/Oracle/ora02/oradata/statsdw/data

/opt/PlexView/Oracle/ora02/oradata/statsdw/system

/opt/PlexView/Oracle/ora02/oradata/statsdw/rbs

/opt/PlexView/Oracle/ora02/oradata/statsdw/index

/opt/PlexView/Oracle/ora02/oradata/statsdw/redo
```

4.4 Installing or Upgrading the Advanced Traffic Collector Workstation

If you are installing the Advanced Reporting Traffic Collection Stats Collector Install CD for the first time, use the Install section 4.5, then skip Upgrade section 4.6, and go to Setup section 4.7.

If you are upgrading the Advanced Reporting Traffic Collection Stats Collector software, use the Upgrade section 4.6, and go to Setup section 4.7.

4.5 Install StatsCollector on the Advanced Traffic Collector Workstation

This procedure is for a new installation on a workstation that does not have any versions of Oracle on it.

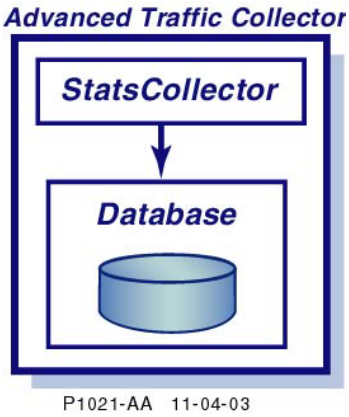
Note: For upgrades, do not perform this procedure. Go to section 4.6.

Caution: Using the install files to perform an upgrade will result in the loss of all data in the StatsCollector's Oracle database. To preserve existing data, use the upgrade procedure in section 4.6.

1. Copy the following files from the **PlexView Advanced Reporting Traffic Collection Stats Collector Install** CD to the /opt directory:

```
stats.tgz
```

```
install.sh
```



2. Once these files are in the /opt directory, go to the /opt directory and type the following command:

```
/opt/install.sh
```

3. When the install script exits successfully, reboot the system by typing in the following command:

```
sync; sync; reboot
```

4. After the system reboots, run a script that will automatically resize the database table spaces for StatsCollector. Go to the root directory and execute the following command:

```
/opt/PlexView/Stats/CurrRel/init-db.sh
```

If the script does not output any error messages, then it ran correctly.

5. Set the 'plx' and 'oracle' user account passwords as root using the following commands:

Type plx as the password.

```
passwd plx
```

You will be prompted to enter and re-enter new password. Use `plx`

6. Type oracle as the password.

```
passwd oracle
```

You will be prompted to enter and re-enter new password. Use `oracle`

7. Stop this procedure. Go to Section 4.7.

4.6 Upgrade StatsCollector on the Advanced Traffic Collector Workstation

This procedure is for upgrading the software release on workstations that already have StatsCollector and its accompanying Oracle database.

Note: To optimize Oracle physical database layout prior to performing this upgrade, contact Lucent Technical Support for assistance.

Caution: Do not use this upgrade procedure to install StatsCollector for the first time. To install for the first time, use the install procedure in section 4.5.

1. Stop the StatsCollector using the following command:

```
/etc/rc3.d/S99PLXStatsCollector stop
```

2. Copy the following files from the PlexView Advanced Reporting Traffic Collection Stats Collector Install CD to the /opt directory:

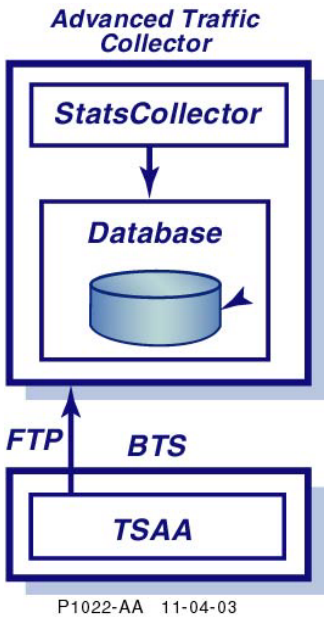
```
statsup.tgz

upgrade.sh
```

3. Once StatsCollector is stopped and these files are in the /opt directory, go to the root directory and type the following command:

```
/opt/upgrade.sh
```

Continue on to the next section.

4.7 Set Up StatsCollector on the Traffic Collector Workstation



After you have completed the installation or upgrade, you must modify some files to enable the StatsCollector software to operate properly.

1. Edit the `/opt/PlexView/Stats/CurrRel/stats.cfg` properties file. Set the following properties accordingly:

```
switches=<comma-separated list of switches
stats will be collected for>

tsaa_path=<absolute path of directory the
tsaa will ftp stats files to>
```

Note: For Release 9.7 and later, the TSAA path is provisioned automatically and writing a path statement tsaa_path is unnecessary.

For example:

```
switches=hottawotta,greenmonster

tsaa_path=/opt/PlexView/Oracle/ora02/plxstat
s
```

Note: The switch name in the TSAA software in the Billing and Traffic application and the switch names in the StatsCollector software in the Advanced Traffic Collector must all be identical to the switch's SID name as displayed in the status bar of the EMS Navigator.

4.8 Start StatsCollector

2. After you have edited the stats.cfg file, start the StatsCollector software. 0.

To start StatsCollector, type:

```
/opt/PlexView/Stats/CurrRel/Stats.sh start
```

Note: If the script indicates that StatsCollector is already running, stop it and restart it to avoid possible errors.

Caution: Never terminate the StatsCollector software by using the kill command. If you use the kill command, the StatsCollector threads could terminate during database operations, producing undesirable results that include, but are not limited to, performing lengthy database rollbacks.

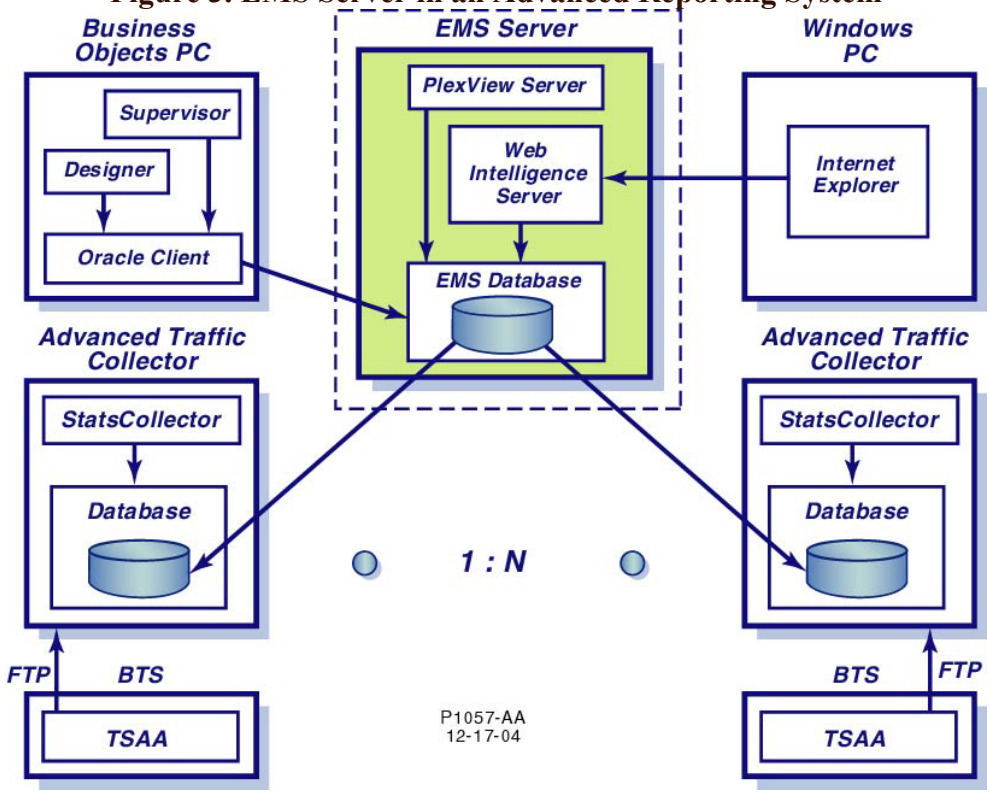
You have completed installing and configuring the Advanced Traffic Collector workstation.

5. Prepare and Load the EMS with Advanced Reporting Software

There are three steps to be performed on the EMS to support the Advanced Reporting System with Advanced Traffic Collection (ATC).

1. Provision the EMS to access the ATC workstation data
2. Optimize the EMS's Oracle database for ATC workstation data
3. Load WebIntelligence on the EMS and provision it Advanced Reporting. 0.

Figure 3. EMS Server in an Advanced Reporting System



To provision the EMS correctly, you must know:

- The location and name of each remote ATC workstation, or the IP address if no Domain Name Server is set up
- The name of every switch that each ATC workstation will collect statistics on

You can use any PlexView client to configure the EMS to support advanced reporting. All necessary information can be entered into the Add or Modify switch dialogs.

Refer to the PlexView EMS Installation documentation for instructions on how to install or upgrade the EMS or the PlexView client.

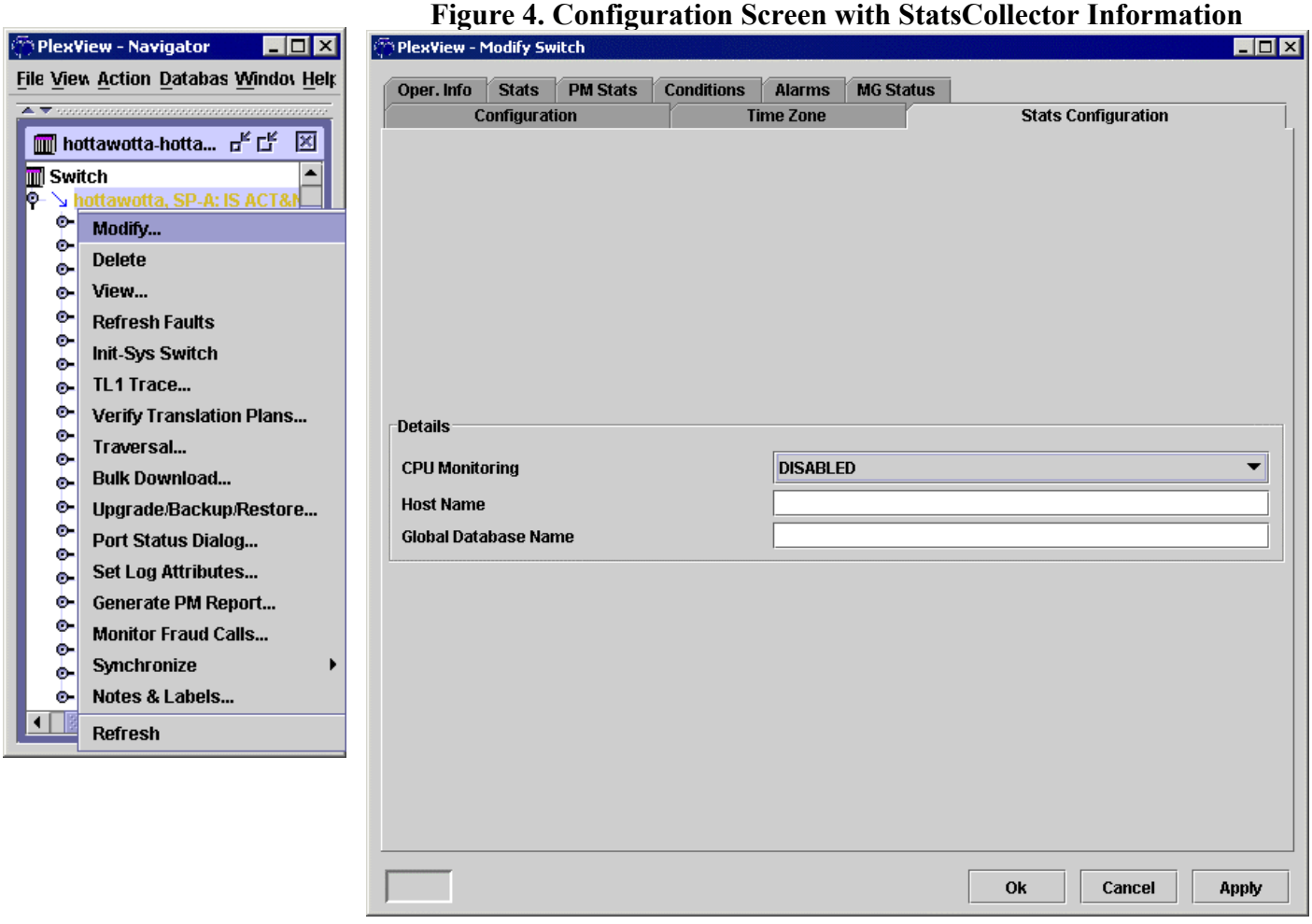
Note: An IT professional should perform this setup and installation.

5.1 Set Reporting Switch Properties

From a PlexView client, set the reporting switch properties in the EMS. This must be done for every switch that will report through the Advanced Reporting System.

1. On the PlexView client, Select Actions>Add or highlight the switch you want to receive Advanced Reporting data from, right-click and select Modify.
2. From the Modify Switch screen, click the Stats Configuration tab, as shown in the following figure.

Figure 4. Configuration Screen with StatsCollector Information



3. Fill-in the fields as follows:

- **CPU Monitoring**: Disabled by default. Monitors the active SP's CPU

Note: The CPU Monitoring field may be under the Stats Configuration tab or the Configuration tab, depending on the release of EMS software.

- **Host Name**: hostname or IP address of the ATC workstation

Note: If using the hostname, make sure that any DNS in your network can resolve the hostname.

- **Global Database Name**: statsdw.telica.com

Note: The Global Database Name, if not statsdw.telica.com must match the database identifier in the tnsnames.ora file in the Oracle database.

4. Click **Apply** to save the settings or **Ok** to save the settings and exit.

5.2 Set Oracle Database Advanced Reporting System support

The Oracle database already installed in the EMS has a default number of open_links=4. This number of links is insufficient to accept input from multiple Advanced Traffic Collectors when creating report views and must be changed. To change the maximum number of open links, perform the following steps:

1. Access the file using the following path:

```
/opt/PlexView/Oracle/ora01/app/oracle/admin/
plxdb/pfile/<initplxdb.ora>
```

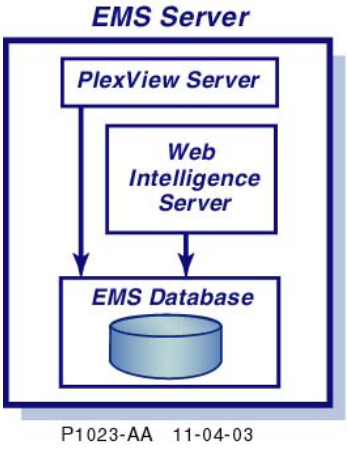
2. Open the file and find the number of open links. The default is `open_links=4`. This default may not be present in some files.
3. Change the number to `open_links=50`, or if the default does not exist, add the command to the file.
4. Save the file.
5. To complete this procedure, perform one of these two choices: 0.

- Reboot the EMS server.
- Shutdown Oracle and restart it. If you don't know how, reboot the server.

5.3 Install WebIntelligence on the EMS Server

Install the WebIntelligence Server on the same Sun workstation as the PlexView EMS Server. The **PlexView Advanced Reporting WebIntelligence Install CD** contains the WebIntelligence software.

5.4 Install WebIntelligence



Use this procedure to install WebIntelligence. WebIntelligence must be installed by root.

1. Mount the **PlexView Advanced Reporting WebIntelligence Install CD** to the CD drive.
2. Copy the following files to the `/opt` directory.

```
webinst.tar and webinst.sh
```

3. To install the WebIntelligence Server: From root: execute:

```
./opt/webinst.sh
```

The script will guide you through the installation. You will also be notified when the installation is complete.

Start the WebIntelligence server using the following command.

```
/etc/rc3.d/S99PLXWebIntelligence start
```

4. This completes the setup and installation of WebIntelligence on the EMS server. You may now proceed to the next section.

6. Prepare and Load the Business Objects PC

The next step in the installation sequence will be to set up the Business Objects PC. Co-locate this PC on the same subnet as the EMS server for best performance.

Caution: This software should be installed on a new PC. Never install this software on a PC that has ever had an instance of Oracle on it.

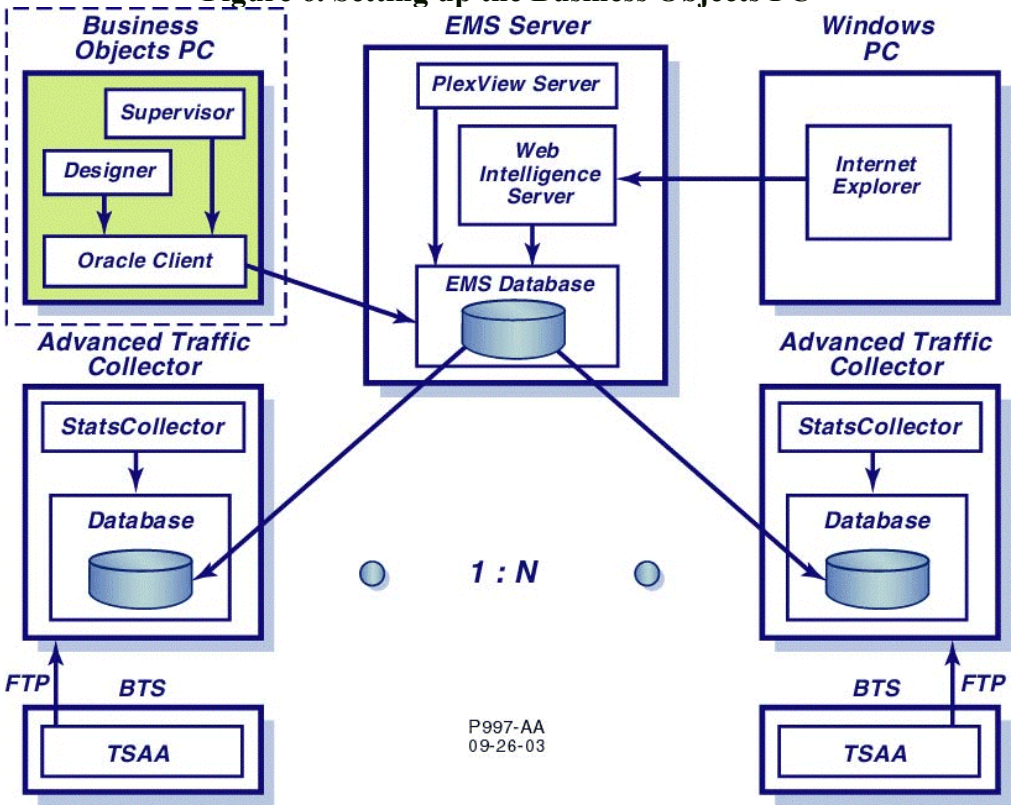
Note: This PC must be dedicated to Advanced Reporting. You can, however, use this PC as a WebIntelligence client, combining the top-right box and top-left box shown in the following figure. This PC will still be dedicated to Advanced Reporting with the Business Objects client on it.

The key components required on this PC, and included with this Advanced Reporting System software package, are:

- An Oracle client
- Supervisor from Business Objects, Inc.
- Designer from Business Objects, Inc.

These components all reside on the Business Objects PC.

Figure 6. Setting up the Business Objects PC



6.1 The Oracle Client

Install the Oracle client on the Business Objects PC first. The Oracle client is required for Business Objects to communicate with the universe repository/database.

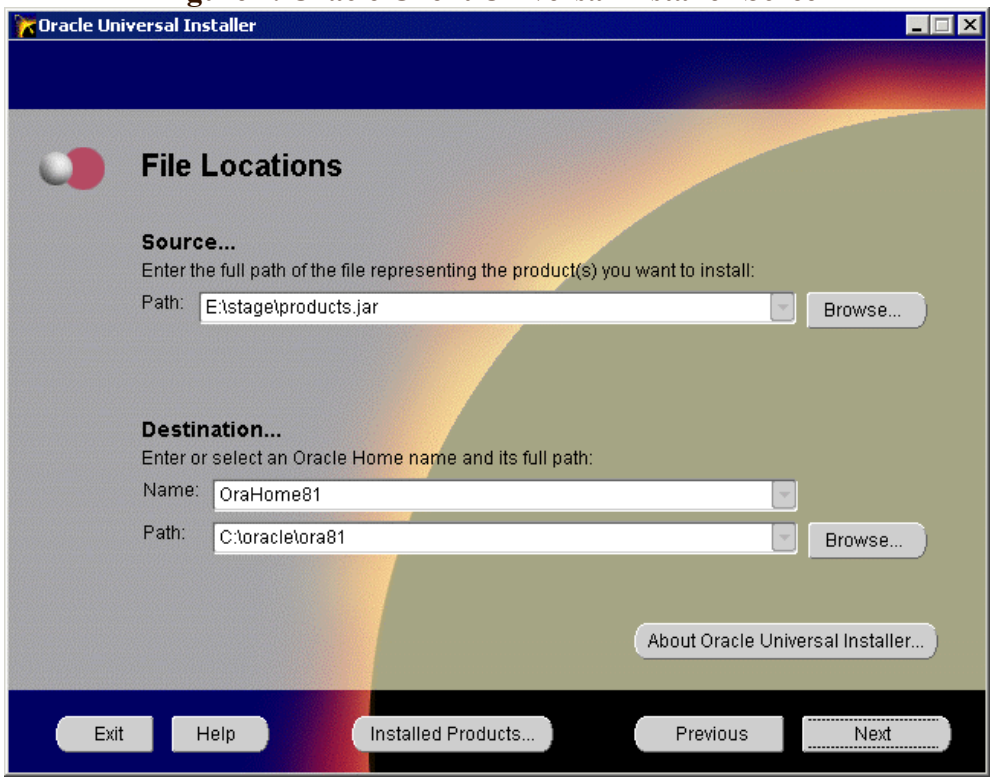
Note: It can take up to 30 minutes to load the Oracle Client.

6.1.1 Install the Oracle Client

To install the Oracle client, execute the install script from the **PlexView Advanced Reporting Oracle Client** CD.

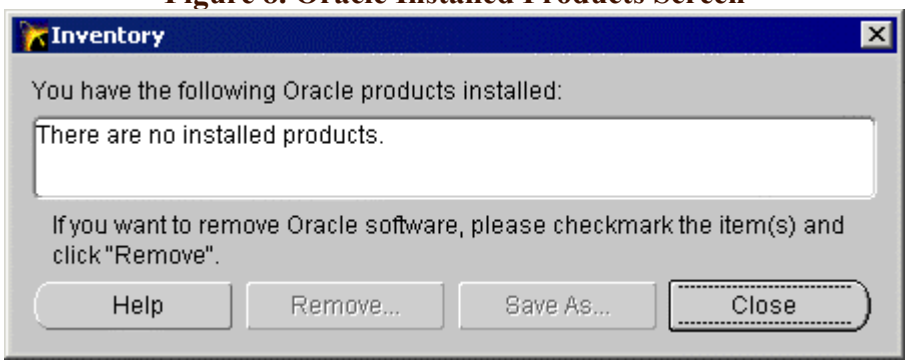
1. Insert the PlexView Advanced Reporting Oracle Client CD into the PC's CD drive. The Client's Autorun main screen will appear in a minute.
2. Select the Install/Deinstall Products button from the Autorun main screen.
3. The Oracle Universal Installer screen will appear in a minute, as shown in the following figure.

Figure 7. Oracle Client Universal Installer Screen



4. Click the **Installed Products** button to verify that no Oracle products have ever been installed on this PC. The results should be similar to the results shown in the following figure.

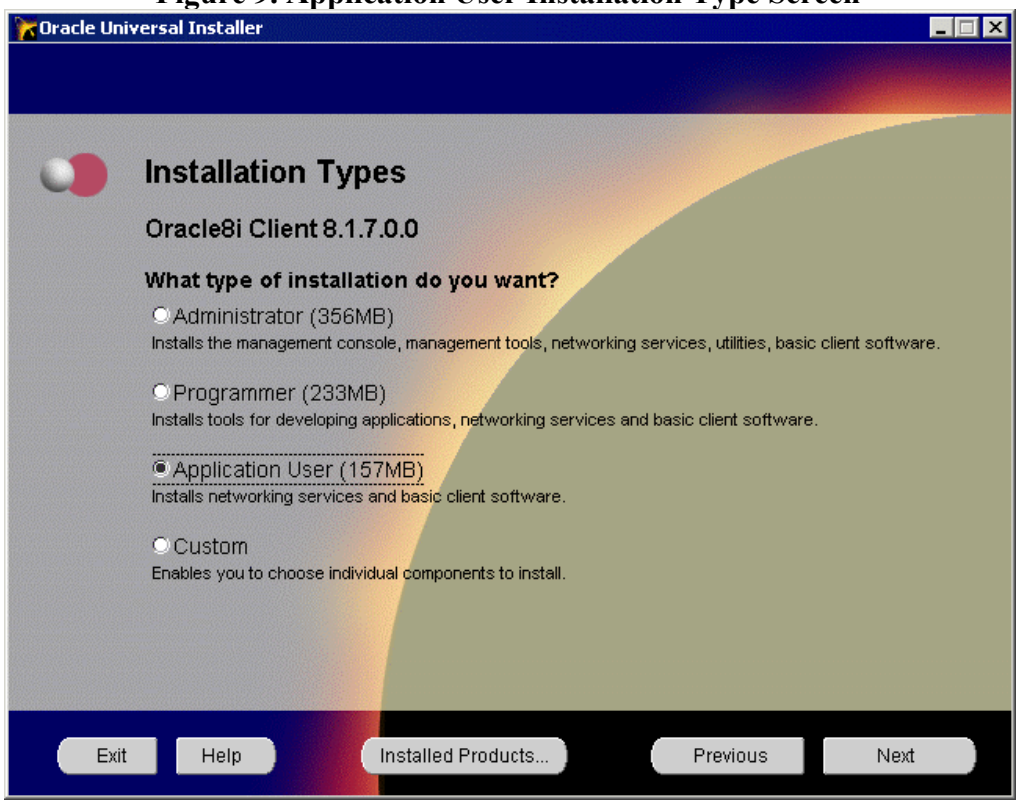
Figure 8. Oracle Installed Products Screen



Caution: This PC should never have had any instance of Oracle on it. If any Oracle products have ever been installed on this PC, the PC will not behave correctly, even if all installed Oracle products have been removed.

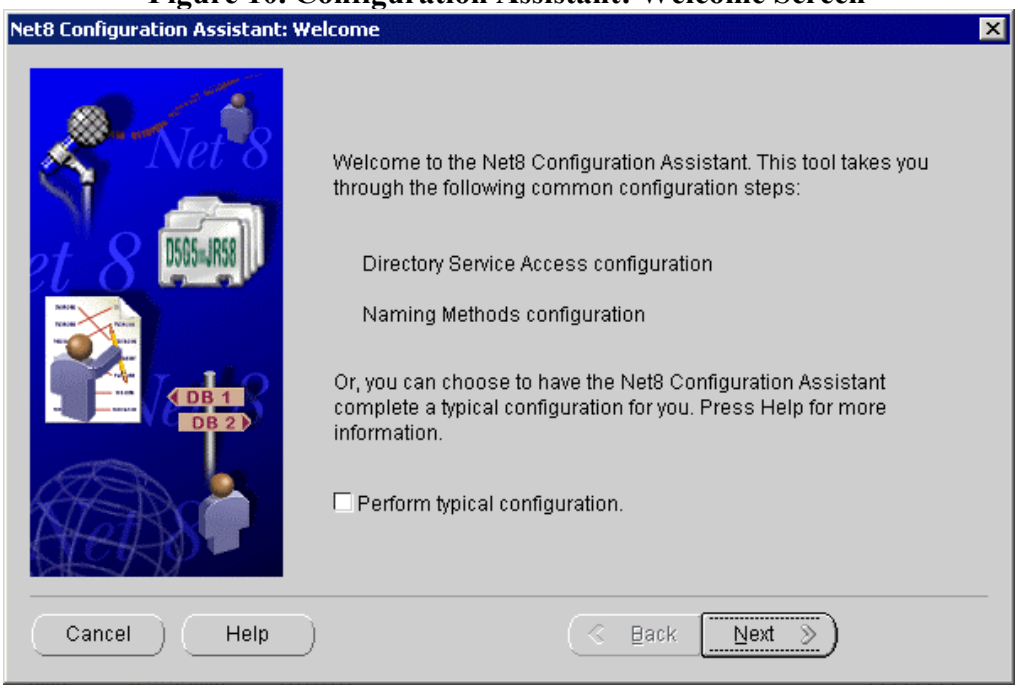
5. Click **Close** the Inventory window. The File Location screen should still be visible.
6. Select the default source and destination locations from the File Locations screen, as shown in Figure 7. If changing the destination, write down the destination file path. You will need it later.
7. Click the **Next** button.
8. When the Installation Types screen appears, as shown in the following figure, select the **Application User** radio button and click the **Next** button.

Figure 9. Application User Installation Type Screen



9. A screen with a summary of all software that will be installed will appear in a minute. Click the **Install** button.
10. After some installation time, a configuration assistant screen appears, as shown in the following figure.

Figure 10. Configuration Assistant: Welcome Screen

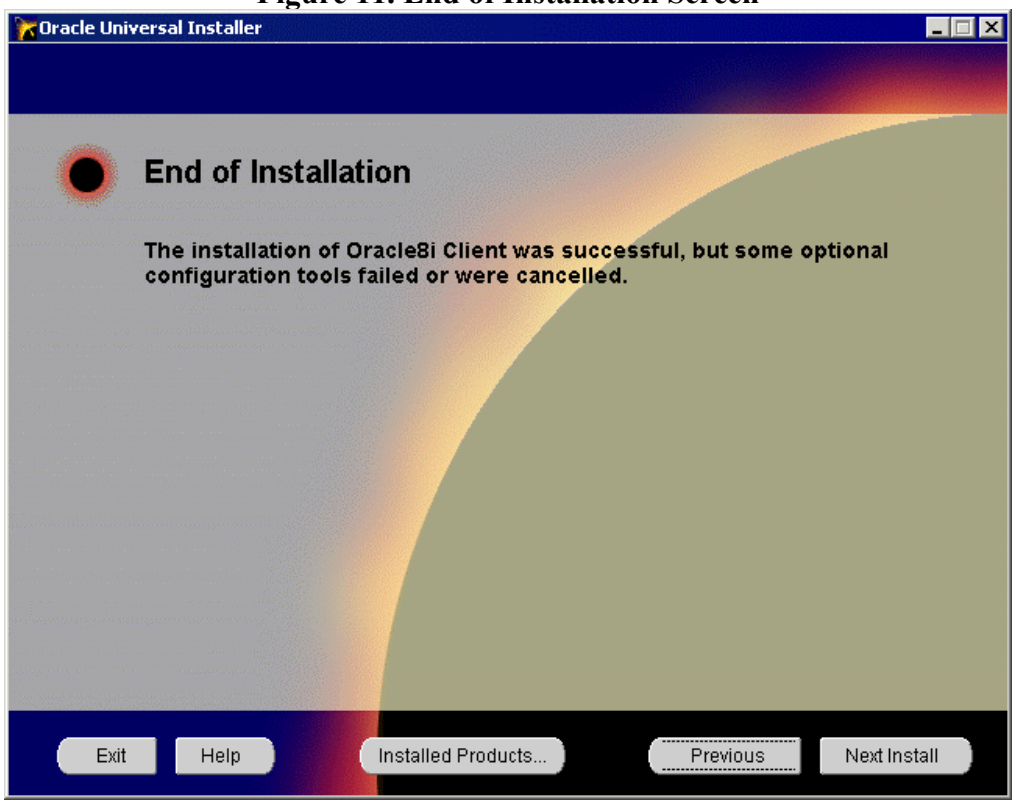


11. Click the **Cancel** button. These tools are unnecessary for this application. If you receive an Are You Sure prompt, select **Yes** again.

Note: Do not use the Net8 Configuration Assistant. Be sure to click **Cancel.**

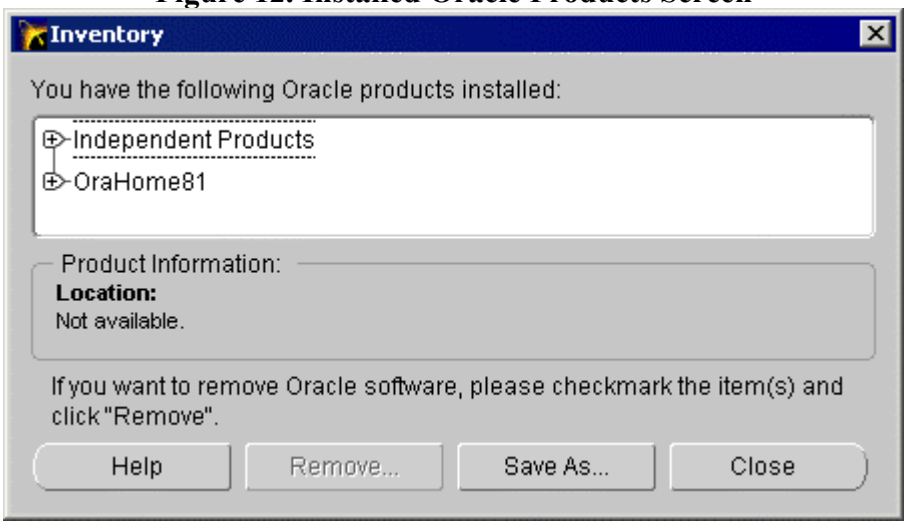
12. An End of Installation screen appears, as shown in the following figure.

Figure 11. End of Installation Screen



13. Click the **Installed Products** button. Your screen should tell you what software is installed, and the results should be similar to those shown in the following figure.

Figure 12. Installed Oracle Products Screen



14. Click the **Close** button.
15. On the End of Installation screen shown in Figure 11, click the **Exit** button.

16. Please remove the CD from the drive. You have completed this part of the installation. 0.

Once the Oracle Client software is installed, the next task is to configure the Oracle Client for advanced reporting.

6.1.2 Configure the Oracle Client

Configure the tnsnames.ora file to define the remote database that Business Objects will connect to.

1. From the EMS server, FTP or copy the source file `tnsnames.ora` from:

`/opt/PlexView/Oracle/ora01/app/oracle/product/8.1.7/network/admin/tnsnames.ora`

to the following destination location on the Business Objects PC:

`c:\oracle\ora81\network\ADMIN\tnsnames.ora`

Note: The destination path is the default path. If you change the destination path, enter the appropriate path to the Oracle client and note the change.

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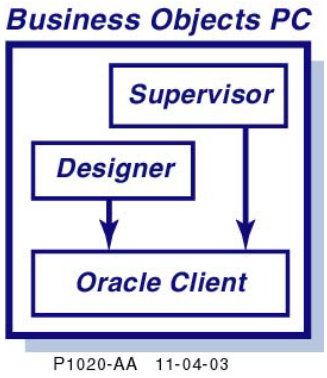
2. No further operations are necessary. The Oracle Client is now configured.

6.2 Supervisor and Designer Overview



Supervisor and Designer are both automatically installed when you install Supervisor from the Business Objects installation disk.

Supervisor is the Business Objects application that provides user administration. This software uses the database connection created by the Oracle client to control the groups and users that can login to WebIntelligence.

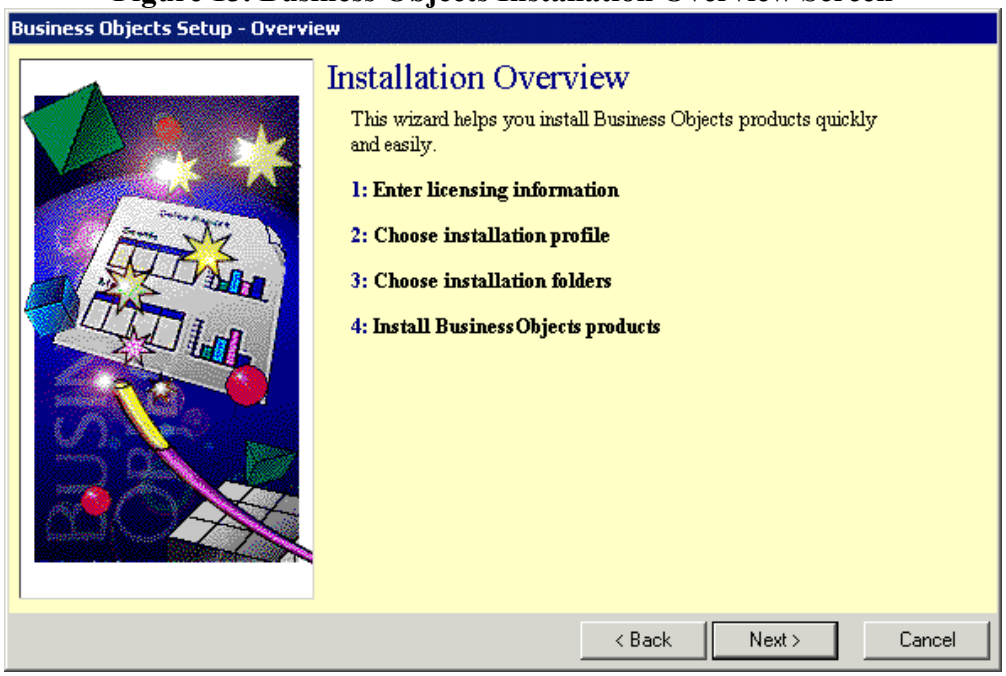
Designer allows you to export universes to the Business Objects Repository. Once a universe resides in the repository, you can develop reports from data in the repository.

6.2.1 Install Supervisor and Designer

To install Supervisor and Designer, execute the setup/install program on the **PlexView Advanced Reporting Business Objects** CD (1 of 2). The installation process installs Supervisor and Designer. Install both now.

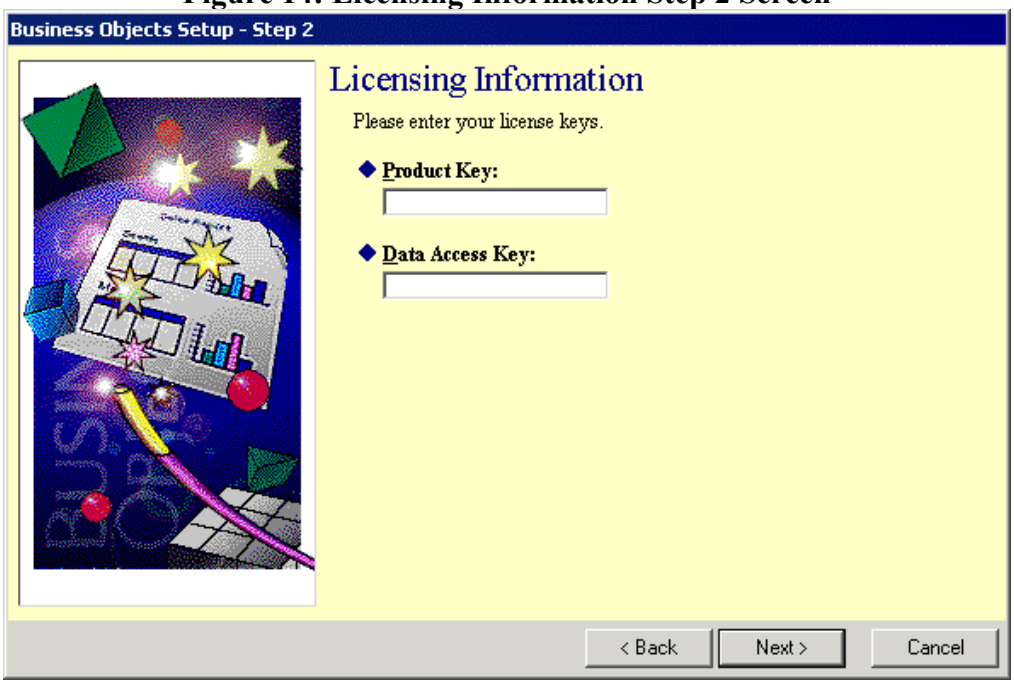
1. Insert the **PlexView Element Management System License Readme CD** provided with your Advanced Reporting package into the CD drive.
2. Open the `boreadme` file and write down all Business Objects license key information.
3. Remove the CD.
4. Insert the **PlexView Advanced Reporting Business Objects CD 1** into the CD drive of the PC. The Autorun main screen will appear in a minute.
5. From the Business Objects Setup Wizard screen, select the default of **Desktop Products** and click the **Begin** button.
6. The Installation Overview screen will appear as shown in the following figure.

Figure 13. Business Objects Installation Overview Screen



7. After reviewing the Installation Overview, click the **Next** button.
8. The User Information screen will appear and automatically fill in user information. Accept the defaults or change the user information as appropriate and click the **Next** button. The Licensing Information screen appears, as shown in the following figure.
9. Access the CD from an external window and open and print the readme file. It contains license information required for this procedure. If no printer is available, write down the product key and the data access key.

Figure 14: Licensing Information Step 2 Screen



10. Fill in the following:

- Product Key
- Data Access Key

from the `boreadme` file.

Note: If the boreadme file is not on the PlexView Advanced Reporting Business Objects Disk 1 of 2, you can get the file from the PlexView Element Management System License Readme CD.

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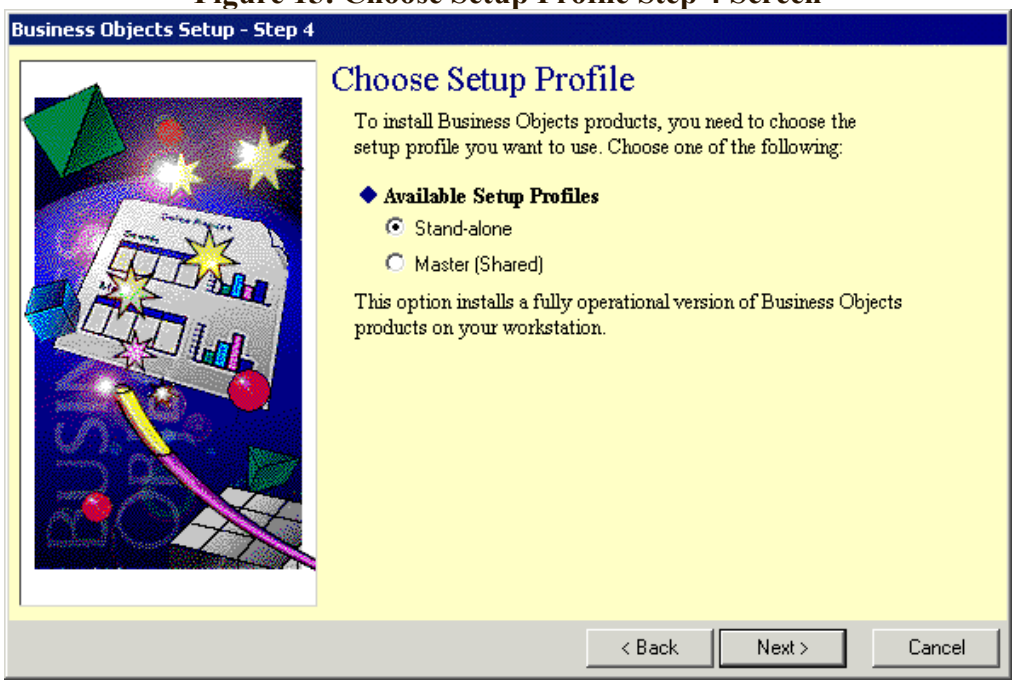
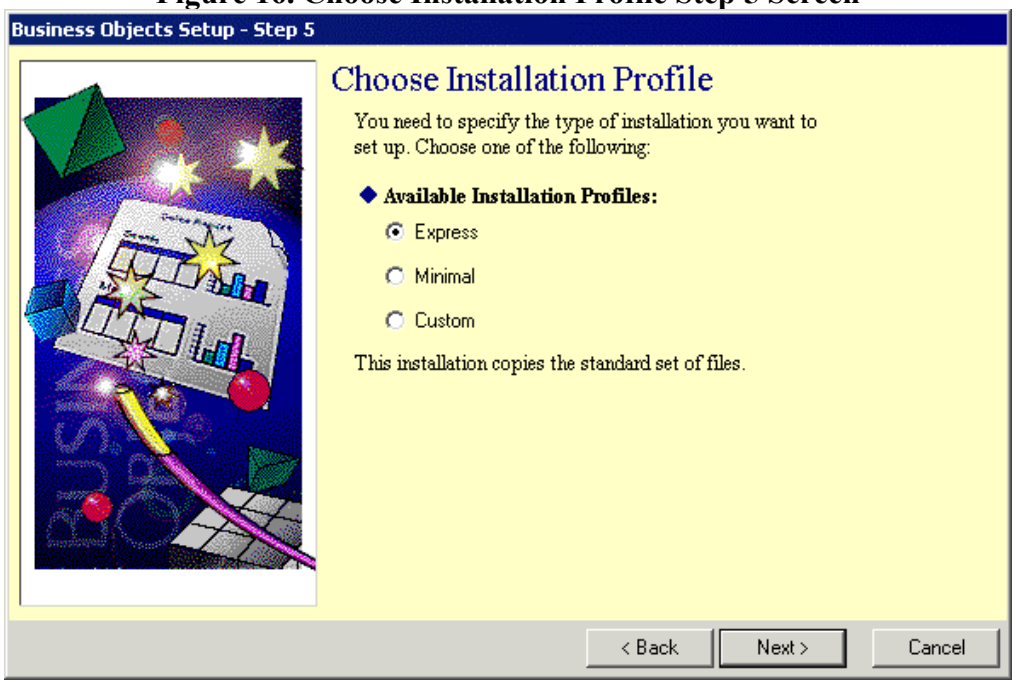
11. Review the license agreement and click the **I Agree** button. The Setup Profile screen appears, as shown in the following figure.

Figure 15: Choose Setup Profile Step 4 Screen



12. Accept the default **Stand-alone** setup profile and click the **Next** button. The Choose Installation Profile screen appears as shown in the following figure.

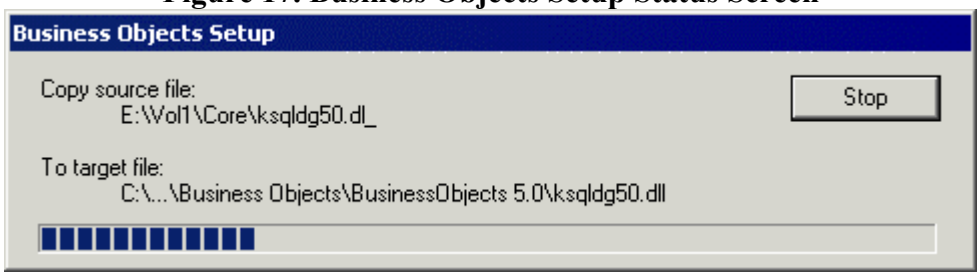
Figure 16. Choose Installation Profile Step 5 Screen



13. Accept the default **Express** profile and click the **Next** button.

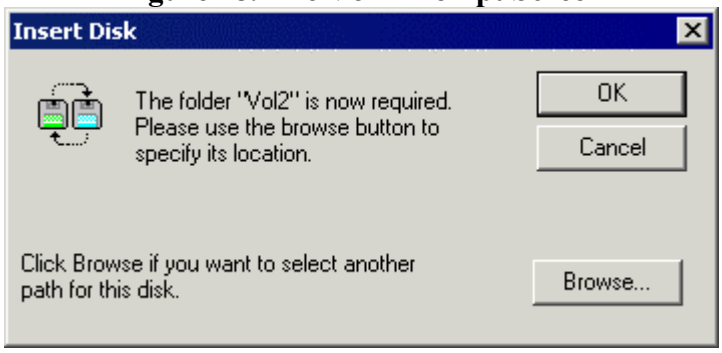
14. A couple of prompts may appear. Accept them and the installation will begin. Business Objects will load and you will be informed of its progress by a status screen, as shown in the following figure.

Figure 17. Business Objects Setup Status Screen



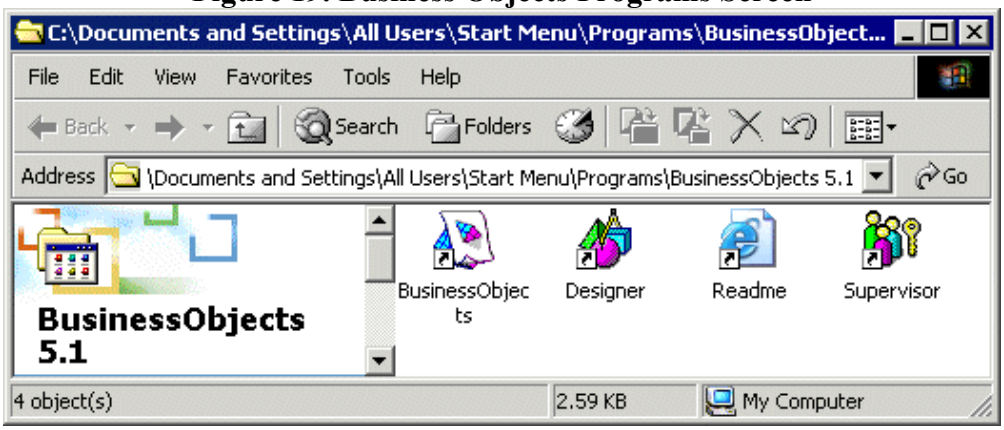
15. Business Objects will load for up to ten minutes, and then you will receive a prompt to put in the second CD, as shown in the following figure.

Figure 18. The Vol2 Prompt Screen



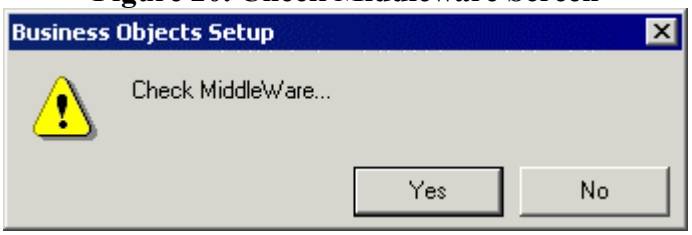
16. Remove the CD and insert the **PlexView Advanced Reporting Business Objects 2 of 2** CD into the drive.
17. Click **OK** to the prompt shown in Figure 18. The installation will complete shortly and you will be prompted to view the readme screen.
18. Your Business Objects directories will display as shown in the following figure. Do not close this window.

Figure 19. Business Objects Programs Screen



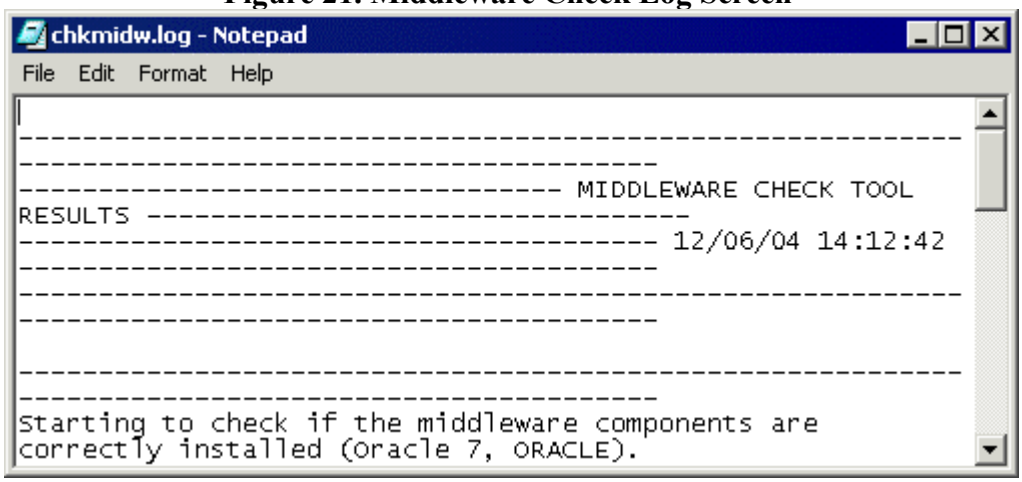
19. You will be prompted to check your middleware, as shown in the following figure.

Figure 20. Check Middleware Screen



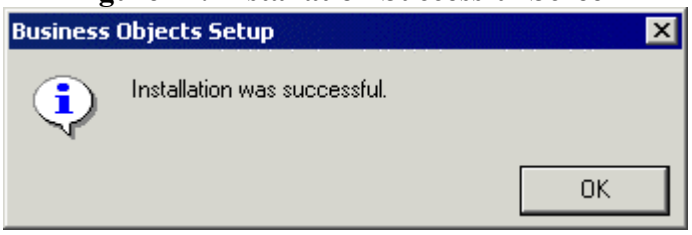
20. Click the **Yes** button and you will see a middleware check log as shown in the following figure.

Figure 21. Middleware Check Log Screen



21. After checking the log, the system will respond with the status of your installation. You should see the following prompt.

Figure 22. Installation Successful Screen



22. You have completed the Supervisor and Designer installation for the Business Objects PC.

6.2.2 Configure Supervisor

Define the Repository and universe connections using Supervisor.

1. Open Supervisor by clicking on the Supervisor icon from the Business Objects directory as shown in Figure 19.

2. Click the **Admin** button. When you open Supervisor for the first time, a setup wizard will appear, as shown in the following figure.

Figure 23. Supervisor Setup Wizard Screen

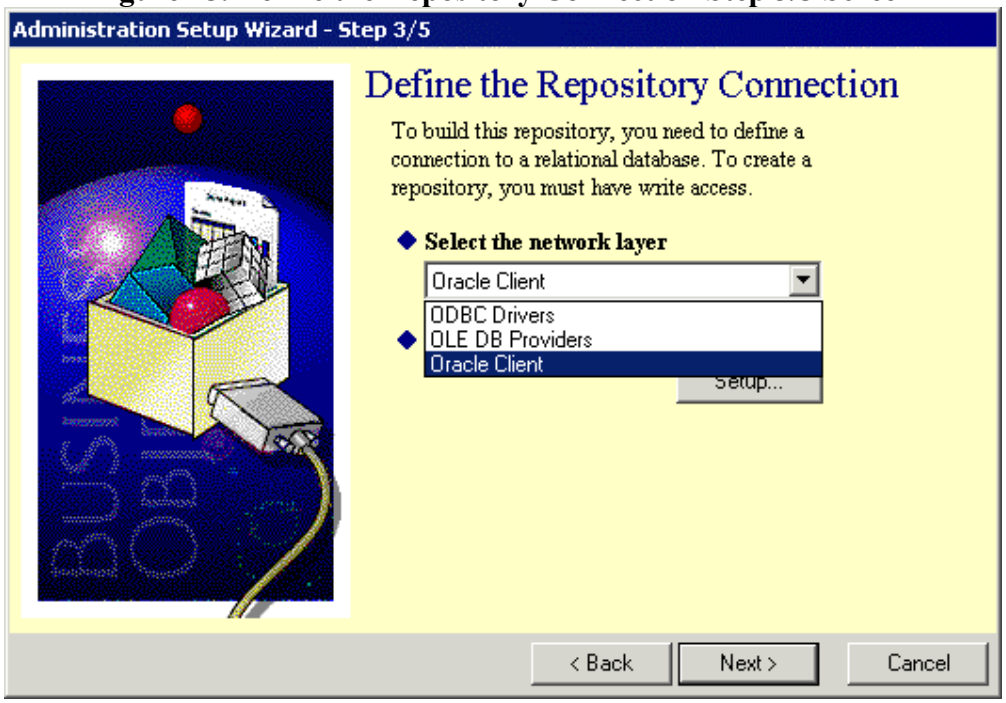
3. Click the **Begin** button.
4. Use the default "Run a default installation" as the setup configuration and click the **Next** button.
5. Define the General Supervisor, as shown in the following figure. Enter the appropriate Supervisor account information in all fields and click the **Next** button.

Note: Copy this account information somewhere you will remember. Invalid login attempts later will lock you out of the software.

Figure 24. Define the General Supervisor Step 2/5 Screen

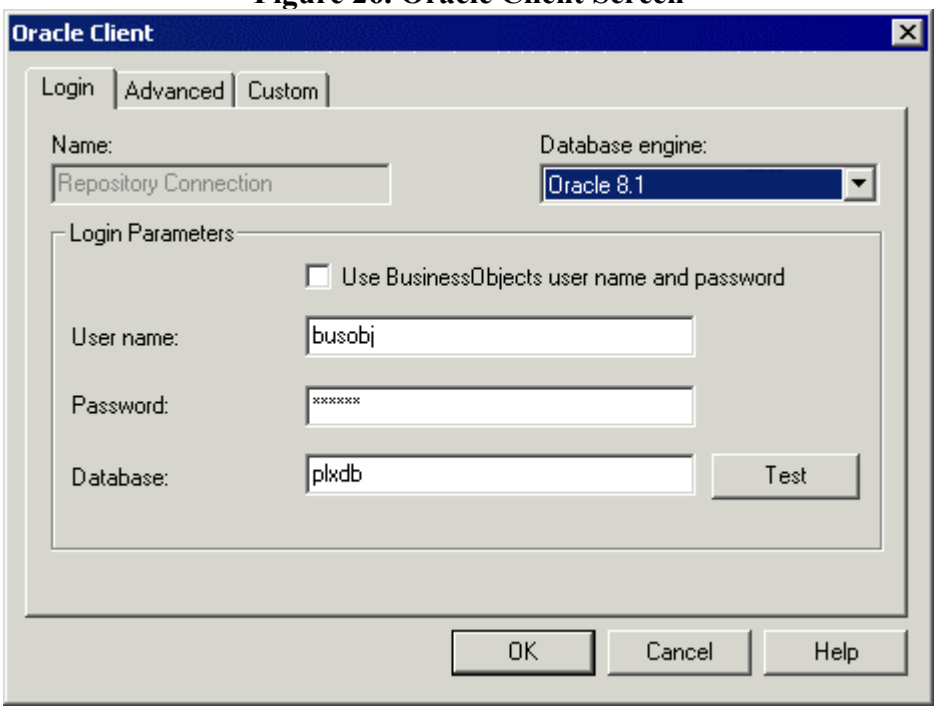
6. On the Define the Repository Connection screen, select **Oracle Client** from the pull-down for the network layer as shown in the following figure.

Figure 25. Define the Repository Connection Step 3/5 Screen



7. Click the **Setup** button. An Oracle Client screen appears, as shown in the following figure.

Figure 26. Oracle Client Screen

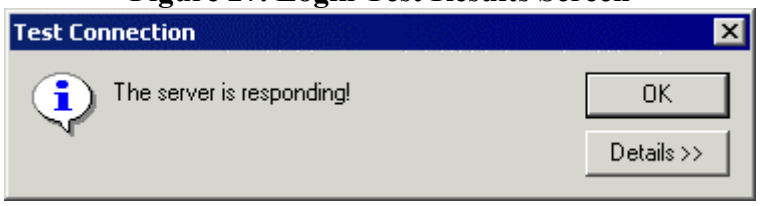


8. For the Oracle client repository connection, enter the following:

- User name: `busobj`
- Password: `busobj`
- Database: `plxdb`

9. Click the **Test** button to test the database connection. The test should succeed and you should see the results shown in the following figure.

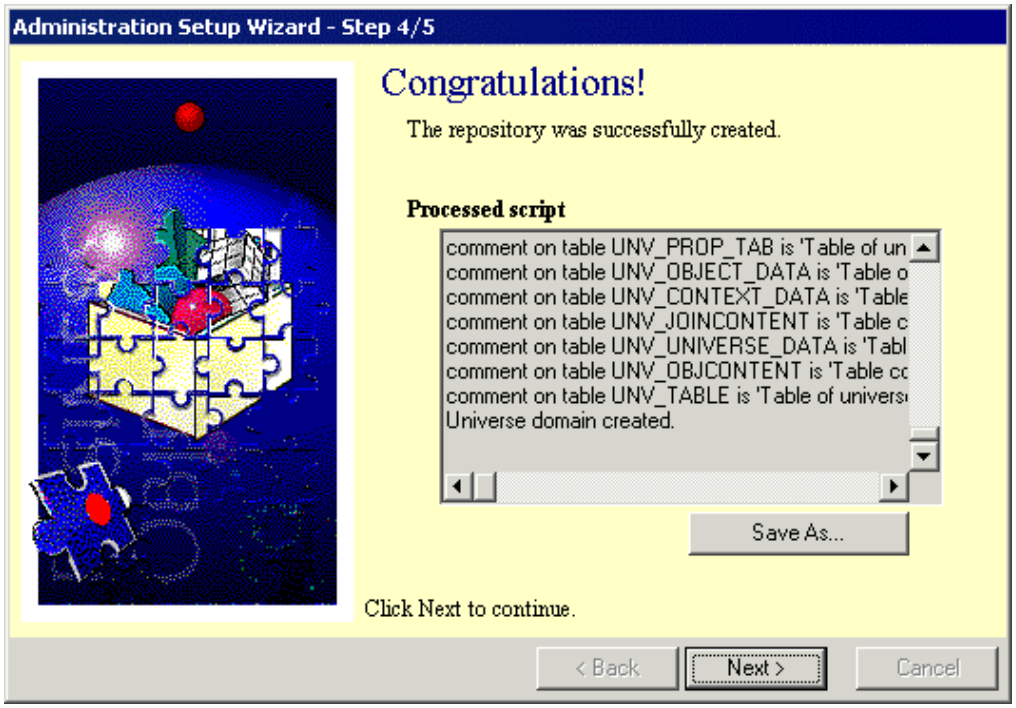
Figure 27. Login Test Results Screen



Note: The server will not respond if you have not copied the tnsnames.ora file to this PC and configured the Oracle client as described in section 6.1.2

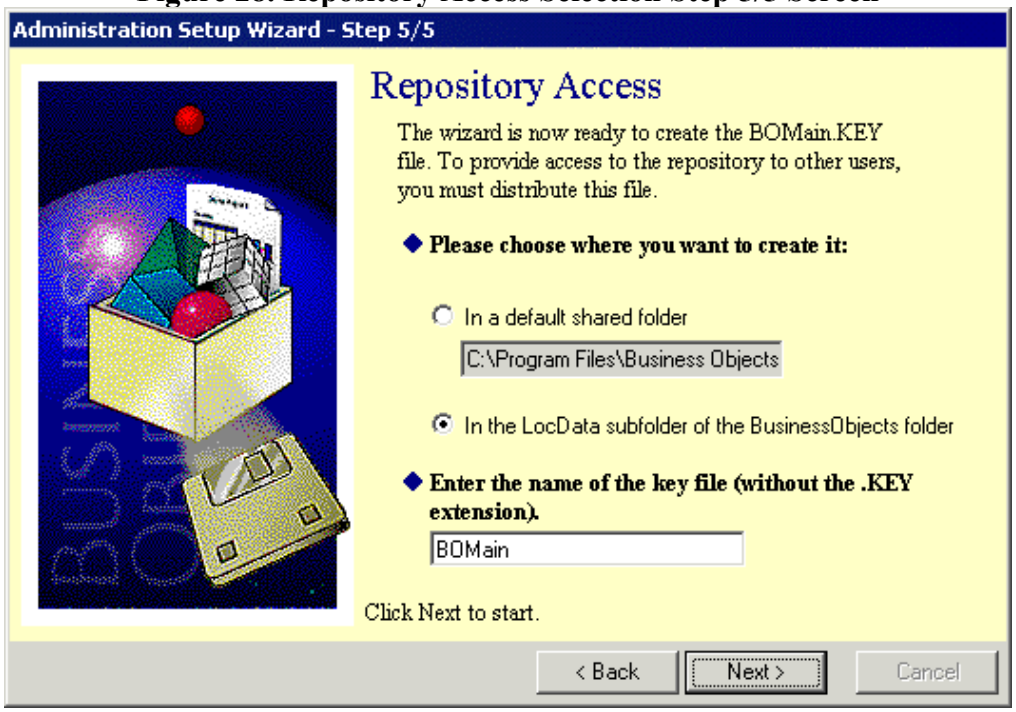
10. Click the **Ok** button. You will return to the Define the Repository Connection screen as shown in Figure 25. From that screen, click the **Next** button.
11. From the Build the Repository screen, click the **Next** button.
12. The PC will build the repository and you will see processed scripts scroll by in a script window. At the end you will receive a status message as shown in the following figure.

Figure . Repository Build Results Step 4/5 Screen



13. After the universe domain is created, click the **Next** button to continue.
14. Select the default repository from the Repository Access screen shown in the following figure and click the **Next** button. The software will place the repository in the LocData subfolder of the BusinessObjects folder.

Figure 28. Repository Access Selection Step 5/5 Screen



15. The repository will be created and you will receive a Repository Access complete screen. Click the **Finish** button to exit.
16. You will be prompted to create a new general supervisor account. Create one now.

Note: Write down your general supervisor and additional general supervisor account information and keep it available.

6.2.3 Create Users and Groups

Once you create the repository, you can create groups and user accounts. Lucent Technologies recommends that you create a group and set group privileges, and then add users to the group. The users will then inherit the group privileges.

The Supervisor's Guide in the Business Objects documentation describes in detail how to create users and groups. That documentation is included under the Business Objects Documentation heading from the main menu of your Advanced Reporting System documentation CD.

As a minimum, you may want to create two groups. Create a Write/Read group with the following privileges:

- Create Document
- Save Document
- Edit Document
- Publish Document
- Read Corporate Documents

This group needs permissions to create, open, and publish documents. WebIntelligence users will belong to this group.

Also, create a Read-Only group with Read Corporate Document privileges.

6.2.4 Configure Designer to Create a Universe

The Advanced Reporting System provides the end-user template called a universe and named `PlexView.unv`. Configure the universe template to interact with a specific switch in a specific database.

To do this, define a database connection. Each universe will map to a switch in the network. As such, each universe connection will point to a different user account, named after the switch, in the EMS database. The end result will be a universe for each switch.

6.2.4.1 Configure a Universe

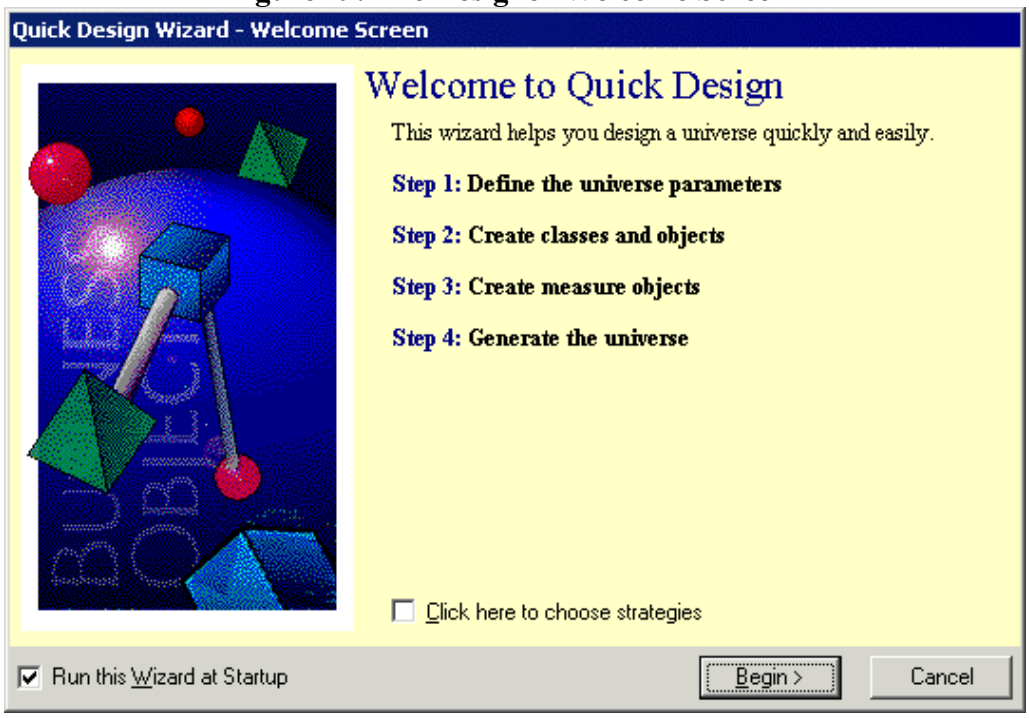
Note: You will be using the universe supplied on the PlexView Advanced Reporting Universe CD and will not need to create universes. You will need to make a database connection for, rename, save, and export a copy of the provided universe for the PlexView EMS and each switch you collect data from.

This example shows how to configure a global PlexView universe for the EMS. The EMS universe must be saved, and exported to the database before it can be used to execute reports. However, you can use these same procedures to make database connections, rename, save, and export switch universes also. The variations between the EMS universe and a switch universe are noted in the procedures and are only related to filenames you create, test, select, or export.

To configure a Universe:

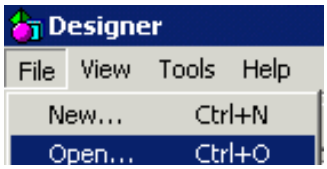
1. Insert the **PlexView Advanced Reporting Universe** CD in the CD drive.
2. Start Designer from the icon shown at the left. A Welcome to Quick Design wizard will appear the first time you open the screen, as shown in the following figure.

Figure 29. The Designer Welcome Screen



3. Uncheck the Run this Wizard at Startup checkbox on the lower left of the screen shown in the previous figure and click the **Cancel** button.

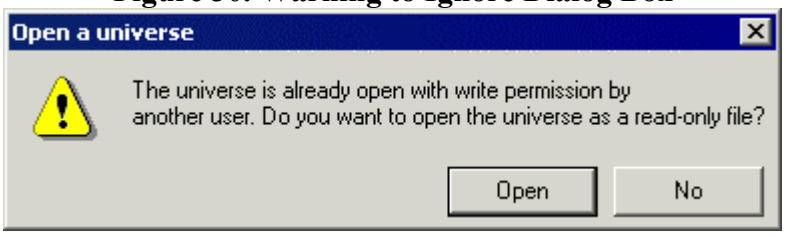
Note: The wizard will only appear once if you uncheck the checkbox. You will not need to run the wizard because the universe template has already been created for you by Lucent Technologies.



4. Select **File->Open** from the Designer main screen.
5. Locate the `PlexView.unv` file from the **PlexView Advanced Reporting Universe** CD.
6. Open `PlexView.unv` from the drive.
7. You will receive warning messages that you do not have write permission, and that you cannot connect to the database, as shown in the following figure. Ignore the warning and click the **Open** button.

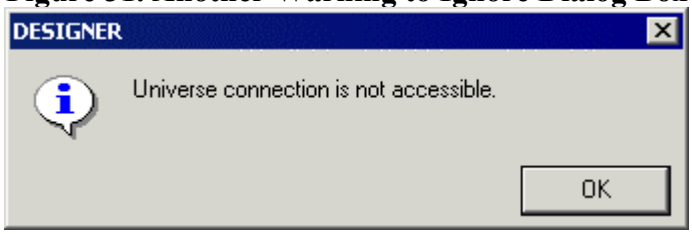
Note: Since the supplied universe is a template, you receive warnings because Designer was unable to connect to the Repository. You will set up the proper connection in the next steps.

Figure 30. Warning to Ignore Dialog Box



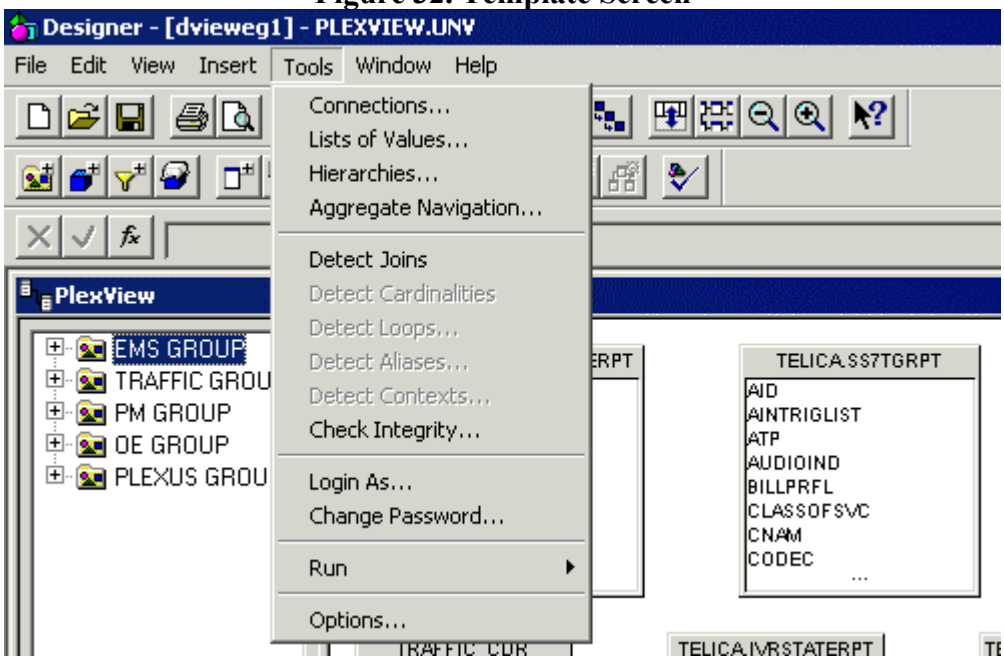
8. You will see another warning screen, as shown in the following figure. Ignore it.

Figure 31. Another Warning to Ignore Dialog Box



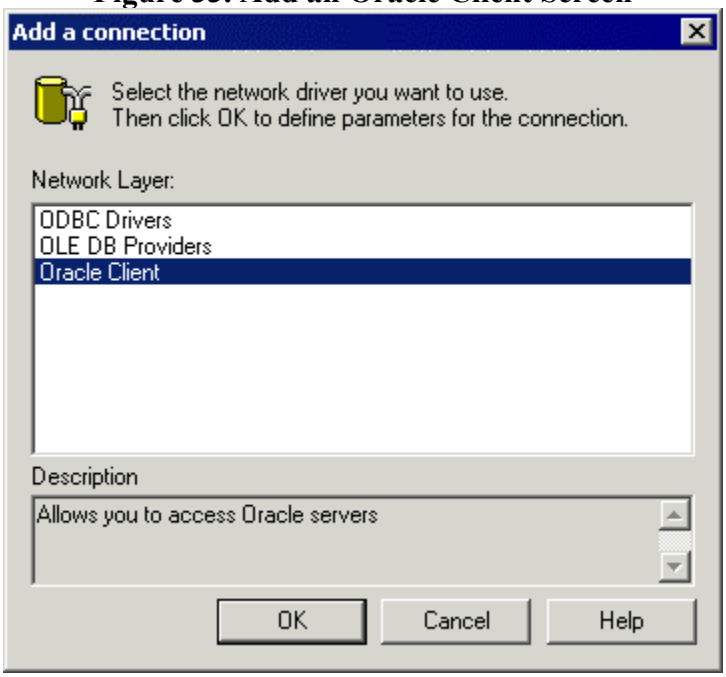
9. Click the **Ok** button on the warning screen.
10. You will see the template, as shown in the following figure.
11. To configure the connection, select **Tools>Connections**.

Figure 32. Template Screen



12. You will see a connection screen. To add a connection, click the **Add** button and, when the Add a connection screen appears, as shown in the following figure, select **Oracle Client** and click the **Ok** button.

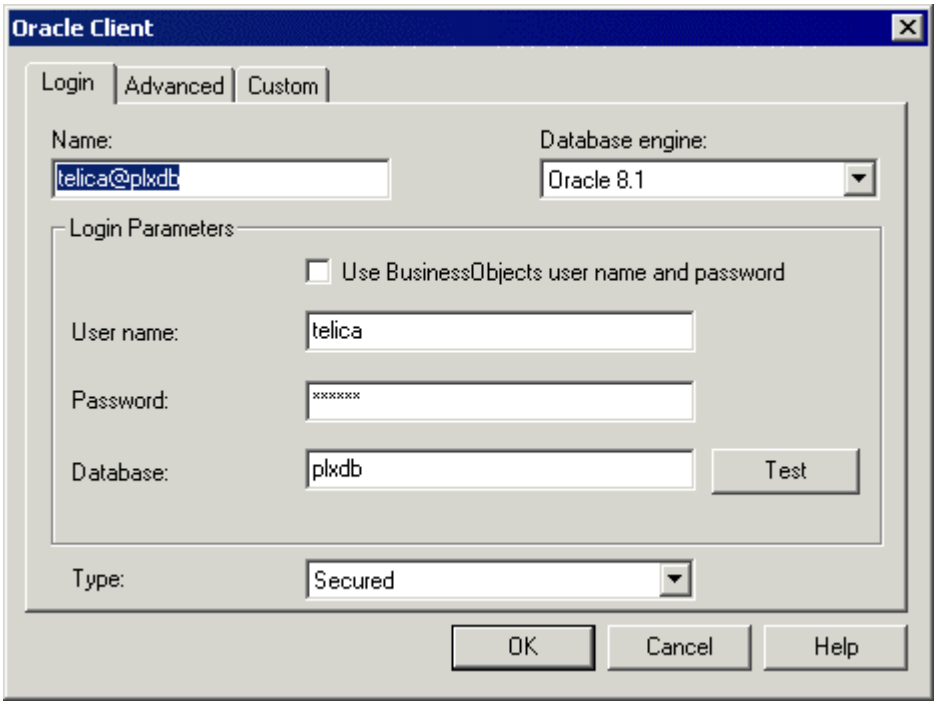
Figure 33. Add an Oracle Client Screen



13. For the Oracle Client Name: enter a name for the connection, for example, `telica@plxdb`, as shown in the following figure.

Note: A switch name must be identical to how it appears in the EMS.

Figure 34. Test Connection Screen



14. For the Username, enter `telica`.
15. For the Password, enter `telica`.

Note: Starting with Release 9.7, use busobj/busobj as the user name and password. For all releases <9.7, use telica/telica.

Note: For switches, use <switchname>/<switchname> as the user name and password.

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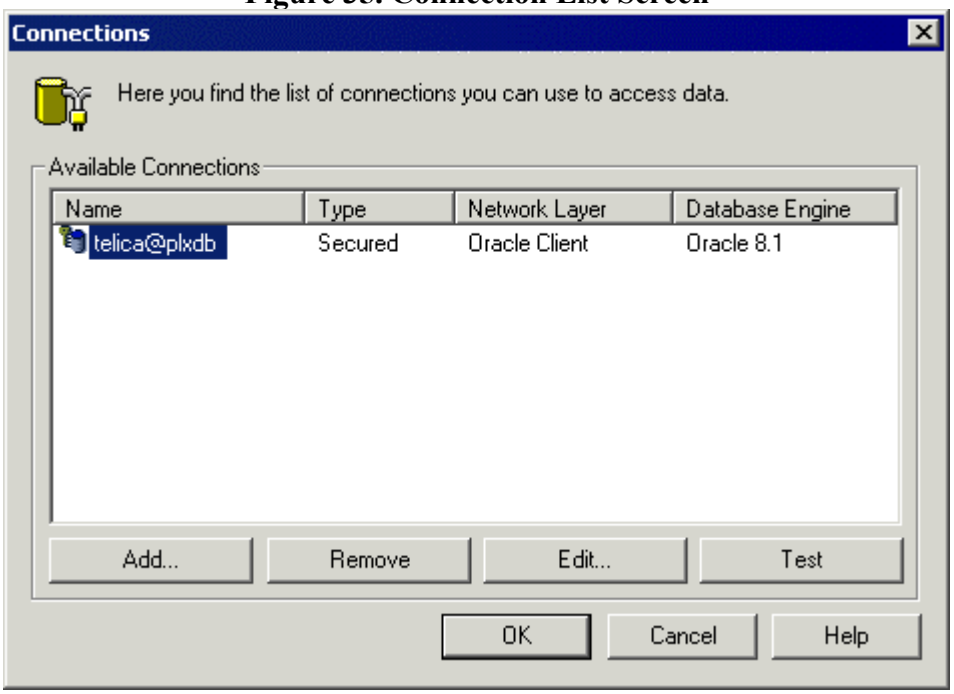
16. For the Database: `plxdb`.
17. Click the **Test** button to test the connection. If the server responds, the connection is valid.
18. Click the **Ok** button. The list of available connections appears, as shown in the following figure. Click the **Ok** button and the window closes.

Figure 35. Connection List Screen

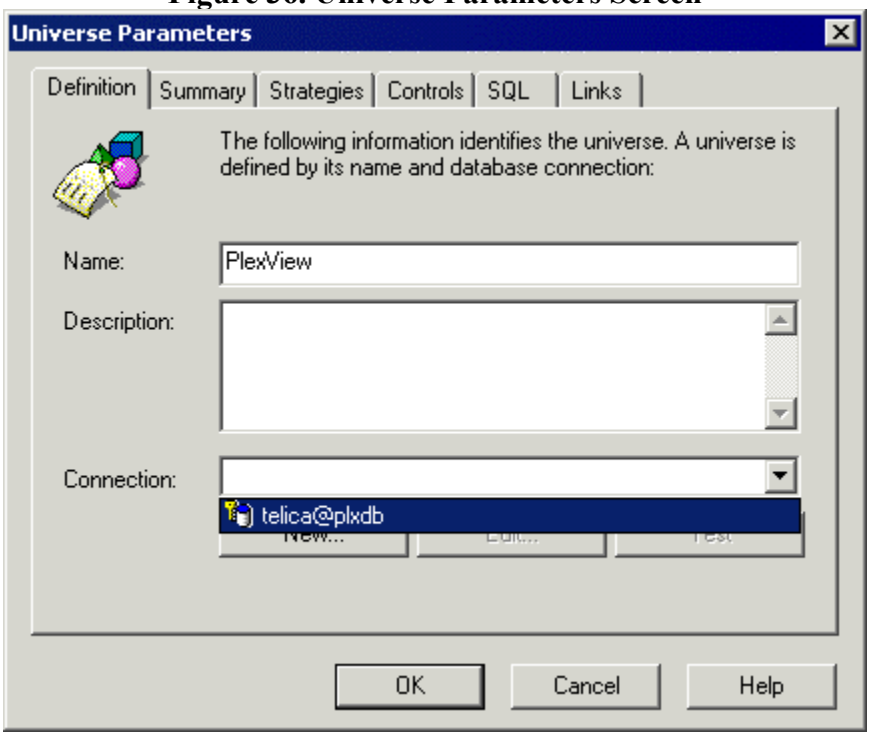


6.2.4.2 Name and Save a Universe

Once you have created and successfully tested a connection, rename the universe to appropriately identify the EMS server or the specific switch it represents as follows:

1. Select File>Parameters. The File Parameters main screen displays as shown in the following figure.

Figure 36. Universe Parameters Screen



2. Change the value for the name field to `<plexview>` for the PlexView universe or `<switchname>` for a specific switch's universe.

Note: Be sure to use the <switchname> for switches you connected in section 6.2.4.1.

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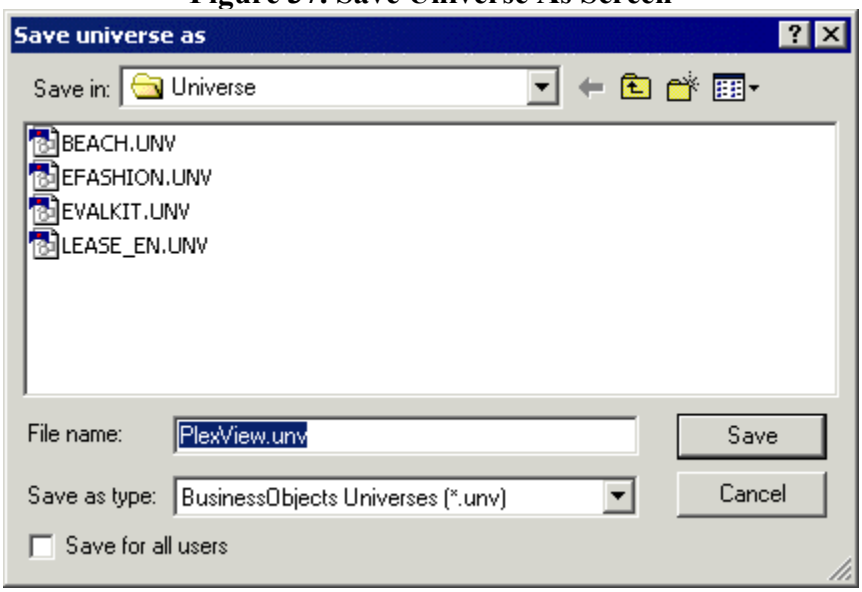
3. Click the down arrow in the Connection field as shown in the previous figure and select the connection you created earlier.
4. Click the **Ok** button. The Universe Parameters screen disappears.
5. To save the universe, select **File>Save As** `<plexview>` for the PlexView universe or `<switchname>` for a specific switch's universe.

Note: The switchname universe must have a maximum of eight characters. Truncate the switch name to eight characters that accurately identify the switch. Example: Hottawatta can be renamed to Hotawata or Hottawat. In all other instances, the switchname must be exactly as it appears in the EMS.

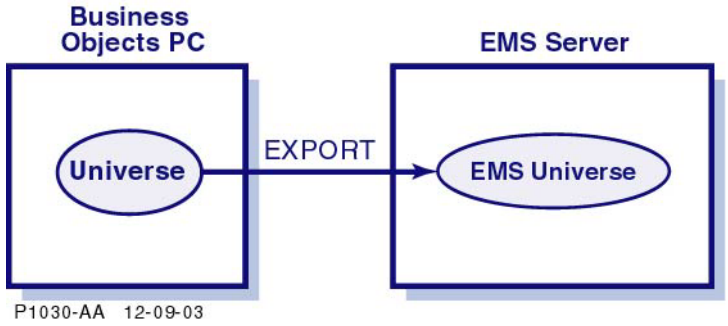
Figure 37. Save Universe As Screen



6.2.4.3 Export the Universe from Designer to the EMS

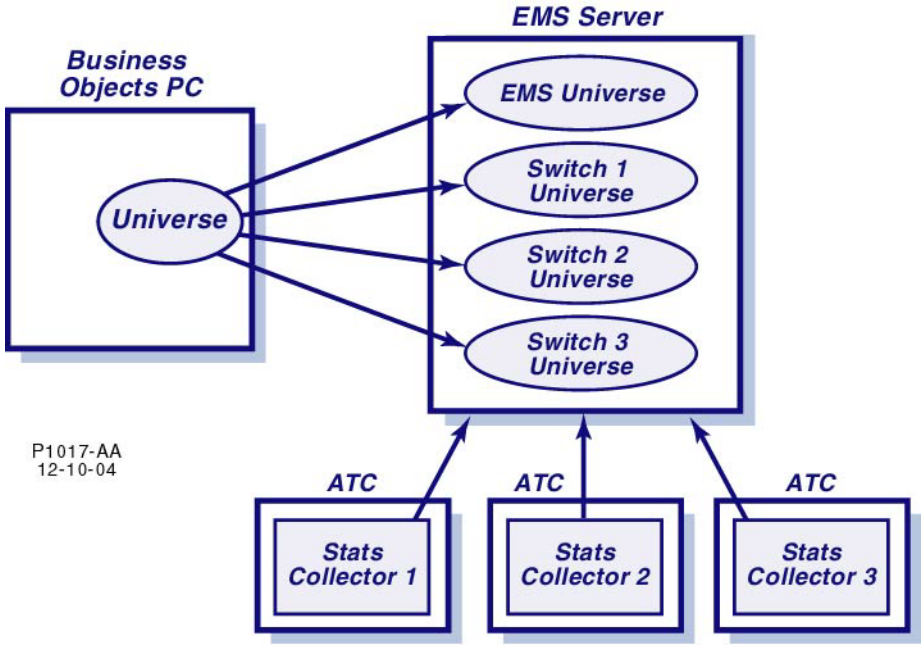
Once you have tested the connection, you can export the universe to the Repository as shown in the following figure.

Figure 38. Export Universe to the EMS



Multiple universes can also be exported, as shown in the following figure.

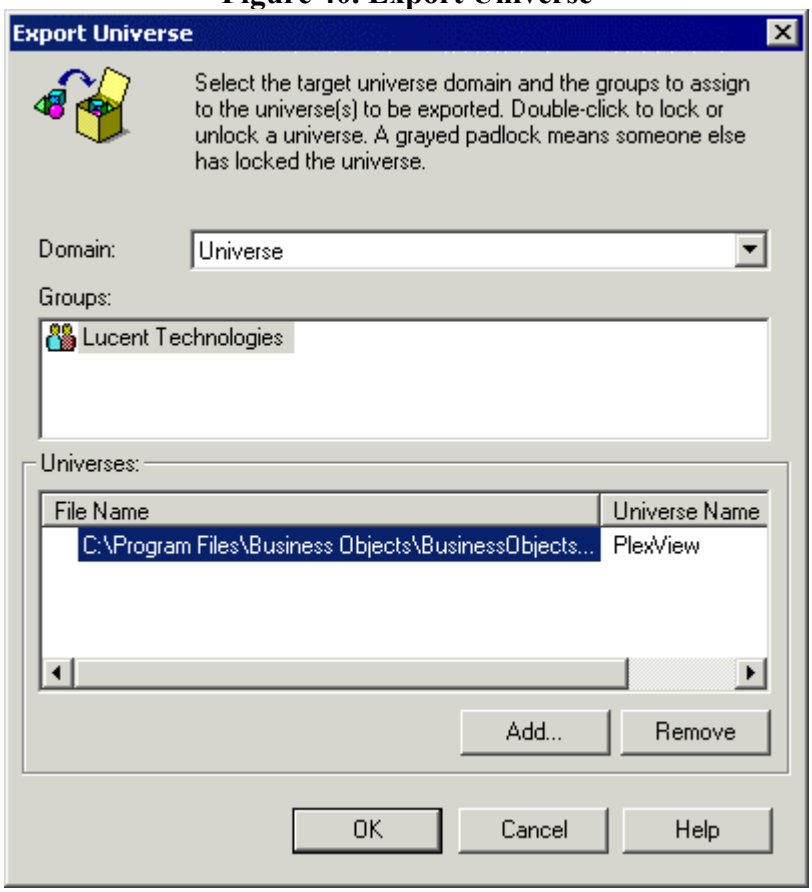
Figure 39. Exporting the PlexView Global Universe and Switch Universes



Export a universe as follows:

1. Select **File->Export**. The Export Universe main screen appears, as shown in the following figure.

Figure 40. Export Universe



2. Select the universe to be exported and click the **Ok** button.

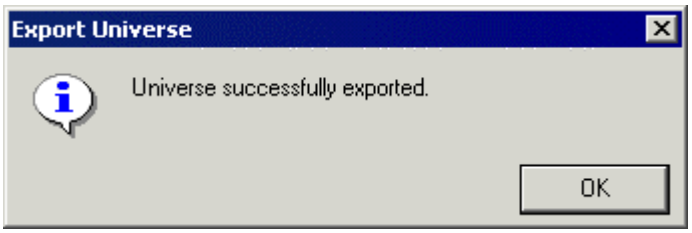
Note: If you have multiple universes highlighted in the Universes window, they will all simultaneously export in one operation.

---

3. The universe will be exported and the result will display as shown in the following figure.

Note: If the client or the Business Objects PC is not on the same subnet as the EMS server, exporting a universe may take at least ten minutes.

Figure 41. Results Screen



The universe has been successfully exported.

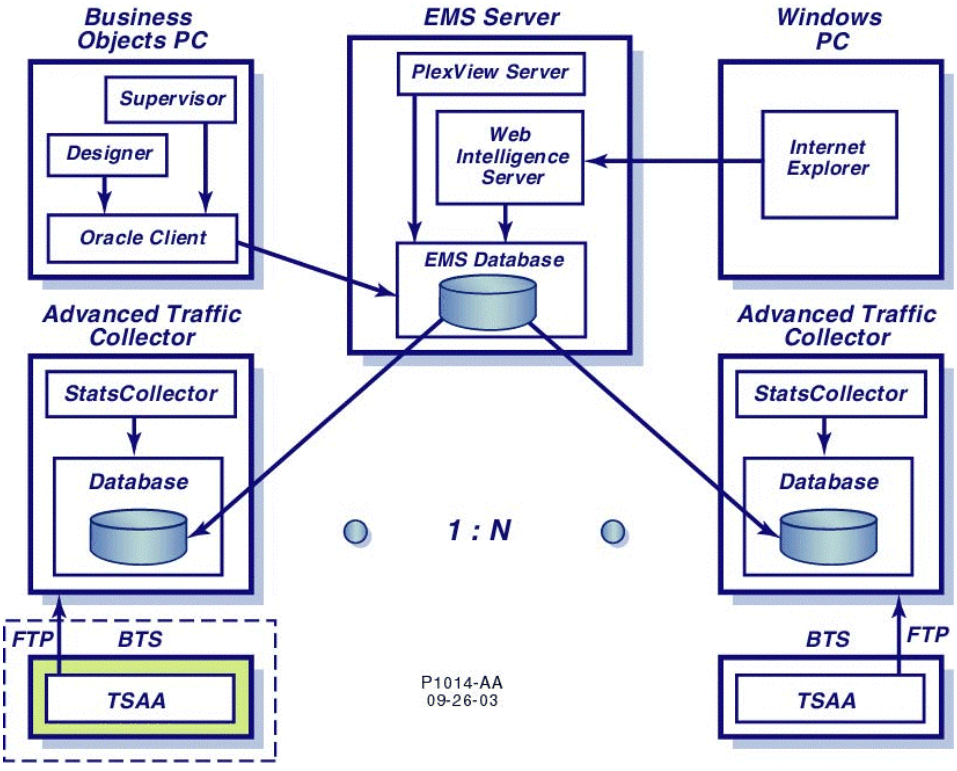
7. Configuring the TSAA

TSAA is part of the Billing and Traffic Server that supports a switch or switches. The Lucent Statistical Analysis Application (TSAA) manages creation of files that contain statistics data for a specific switch. The TSAA can be configured to forward these files to the Advanced Traffic Collector. To support Advanced Traffic Collection reporting, the TSAA will be set up to forward statistical files to StatsCollector. The StatsCollector will then store the stats data in the local database.

TSAA must be configured to ftp stats files to the Advanced Traffic Collector workstation into a predetermined directory (such as `/opt/PlexView/Oracle/ora02/plxstats/`)

using the plx/plx login. Please ensure the predetermined directory exists on the Advanced Traffic Collector server and that it can be written to by the plx user. Refer to the TSAA setup instructions in the *Billing and Traffic Guide* for more detailed information on TSAA (TCA) setup to support this application.

Figure 42. The TSAA Function in the Billing and Traffic Server



Notes: