



> ShowCase[®] Analyzer[™] 7.01 Guide



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Preface

Welcome to the *ShowCase® Analyzer Guide*. This preface provides the following information:

- What you'll find in this guide
- Where to find additional information
- How to find documentation online
- How to contact the documentation team to provide feedback about this guide

Adobe Acrobat (.pdf) versions of the ShowCase Suite guides are available on the applicable CD-ROM and on the Technical Support Web site at <http://support.spss.com>. Viewing and printing the documents requires Adobe Acrobat Reader. If necessary, you can download it at no cost from www.adobe.com, or you can install it from the CD-ROM. Click Browse the CD-ROM, and open the Tools folder. Use the Adobe Acrobat Reader online help for information about viewing and navigating the documents.

About This Guide

Chapter 1, "Technical Support," contains contact information.

Chapter 2, "Release Overview," contains ShowCase Analyzer enhancements and release notes.

Chapter 3, "Environment Requirements," describes the requirements necessary for Analyzer to function properly.

Chapter 4, "Licensing," describes ShowCase Analyzer licensing, how to enter and change licensing passwords, and how to display license information.

Chapter 5, "Installation and Uninstallation," describes installation requirements and explains how to install and uninstall ShowCase Analyzer.

Chapter 6, "Analyzer Migration," contains valuable information for migrating older versions of Analyzer to ShowCase Analyzer 7.01.

Chapter 7, "Data Models and Relational Connections," discusses ShowCase data models and relational databases.

Chapter 8, "Analyzer Administration," contains information on troubleshooting, Analyzer administration, and maintenance.

Chapter 9, "Performance," contains guidelines for optimizing Analyzer performance.

Chapter 10, "Troubleshooting," helps you diagnose and solve your Analyzer problems.

Additional Resources

- You can view and download additional documentation after you install the product. From the Analyzer Launch Page, open the Information Map.
- For information about installing and using ShowCase Suite, see the ShowCase Suite guides, available on the Technical Support Web site at <http://support.spss.com>. After you log on, click Documentation and then ShowCase Suite Documentation.
- To view Hyperion® Analyzer™ documentation, go to <http://dev.hyperion.com>. Click Resource Library and then Technical Documentation. Under Hyperion Analyzer, click the Release 7.0 link.
- For information about product features, see the online Help in each application.

Send Us Your Comments

Your comments are important to us. Please tell us what you think about any ShowCase Suite documentation by contacting:

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Technical Support

Contacting SPSS Technical Support

Phone. Our goal is to provide one-on-one technical support. However, based on the complexity and/or frequency of calls, you may reach our phone-mail system. Leave your name, company name, and telephone number, and a technical support member will call you back.

Fax. Send your name, company name, and telephone and fax numbers along with the details of your request and the name of the product with which you need assistance.

Internet. Enter your questions and requests on the SPSS Technical Support Web site. You can also use the site to find documentation, search resolutions, download patches, open a case, and participate in the customer forum. See “Technical Support Web Site” below.

E-mail. Include your name, e-mail address, company name, the feature you have a question about, and your question or request.

Technical Support Web Site

Table 1-1
Internet addresses

Site	Address
Technical Support Web site	http://support.spss.com
SPSS Web site	http://www.spss.com
Documentation team e-mail	DocumentationRoch@spss.com

If you are a ShowCase maintenance customer, you can apply for a personalized ID for the Technical Support Web site. If you do not already have an ID, access the SPSS Technical Support Web site at <http://support.spss.com> and click Apply for an ID. Information such as the following is available after you log on:

Troubleshooting. Search for a resolution, view frequently used resolutions, open a technical support case, and view the status of your cases.

Documentation. Read technical support policies, browse the technical support newsletters for technical issues, or view and download the latest documentation.

Supported Platforms. Find supported ShowCase software versions, release dates, end dates, iSeries and PC operating systems, and Web browsers.

Upgrade Info. Order an upgrade and view upgrade information pertinent to each release.

Patches. Download patches for all supported products.

My Corporate Info and My Personal Info. View your agreements, passwords, cases, and other status information.

Contact Us. Find the most current technical support phone numbers, e-mail addresses, and fax numbers for North America, Europe, and Japan/Asia Pacific. You can also open a case here.

Customer Forum. Network with other maintenance customers in this discussion group.

Other Links. Find information about products, training, and upcoming events.

Technical Support for North America

For the most current contact information, log on to the SPSS Technical Support Web site at <http://support.spss.com>.

Table 1-2

Technical support and services information for North America

Service	Phone	Fax	E-mail
North American technical support (relational products)	(507) 288-5922 option 2, then option 1	(507) 287-2809	scsupport@spss.com
North American technical support (multidimensional products)	(507) 288-5922 option 2, then option 2	(507) 287-2809	scsupport@spss.com
Product training and consulting services	(800) 543-2185		sales@spss.com

Technical Support for Europe

For the most current contact information, log on to the SPSS Technical Support Web site at <http://support.spss.com>.

Table 1-3

Technical support information for Europe

Country	Language	Phone	Fax	E-mail
Austria	German	49 89 48 9047 333	49 89 44 83115	suppge@spss.com
Belgium	Dutch	32 2 477 17 00	32 2 474 03 63	eursupport@spss.com
Belgium	French	32 2 477 17 01	32 2 474 03 63	eursupport@spss.com
Belgium	German	32 2 477 17 02	32 2 474 03 63	eursupport@spss.com
Denmark	English	45 361 58731	32 2 474 03 63	eursupport@spss.com
France	French	33 155 21 25 32	32 2 474 03 63	eursupport@spss.com
Germany	German	49 89 48 9074 333	49 89 44 83115	suppge@spss.com
Italy	Italian and English	39 0280 663036	32 2 474 03 63	eursupport@spss.com
Luxembourg	French	32 2 477 17 03	32 2 474 03 63	eursupport@spss.com
Switzerland	French	41 227 100034	32 2 474 03 63	eursupport@spss.com
Switzerland	German	49 89 48 9047 333	49 89 44 83115	suppge@spss.com
The Netherlands	Dutch	31 205 82 94 96	32 2 474 03 63	eursupport@spss.com
United Kingdom	English	44 1483 719 202	44 1483 719 290	support@spss.co.uk

Technical Support for Japan and Asia Pacific

For the most current contact information, log on to the SPSS Technical Support Web site at <http://support.spss.com>.

Table 1-4

Technical support information for Japan and Asia Pacific

Region	Phone	Fax	E-mail
Japan and Asia Pacific	813 5466 5674	813 5466 5622	<i>jpscsupport@spss.com</i>

Release Overview

Welcome to the *ShowCase Analyzer 7.01 Guide*. This chapter is an overview of Analyzer enhancements and restrictions. ShowCase Analyzer 7.01 is based on Hyperion Analyzer 7.01 features and functions, with iSeries-specific differences and exceptions noted in this guide.

SPSS changed the name of the STRATEGY suite of products to ShowCase Suite. In this chapter, we mention ShowCase 4.5. This is synonymous with STRATEGY 4.5.

Important: In release 4.5, all ShowCase, Essbase, and Analyzer components were shipped on the same CD. Beginning with ShowCase Suite 6.5, Essbase and Analyzer became separate products, called ShowCase Essbase and ShowCase Analyzer; these products are installed from separate CDs.

Locating Documentation

You can view and download additional documentation after you install the product. From the Analyzer Launch Page, open the Information Map.

You can also find ShowCase Analyzer documentation, including an updated version of the ShowCase Analyzer Guide, on the SPSS Technical Support Web site at <http://support.spss.com>. After you log on, click Documentation and then ShowCase Suite Documentation.

You can access Hyperion Analyzer documentation at <http://dev.hyperion.com>. Click Resource Library and then Technical Documentation. Under Hyperion Analyzer, click the Release 7.0 link.

Analyzer Components

Analyzer 7.01 consists of the following components:

- **Java Web Client.** An applet-based application that runs within your Web browser and enables online data analysis. It allows users to view and interact with predefined reports. Using the Java Web Client, report designers can design and format custom analysis applications without using programming language.
- **Administration Tools Client.** Provides a Java interface for managing users, user groups, report groups, security, and database connections using a Web browser.
- **Server.** A servlet-based Web application that resides in the integrated J2EE application server on your iSeries. The server facilitates report rendering for Java Web clients and provides services for the Administration Tools Client.

- **Repository.** A central storage location for Analyzer system data, user IDs, user preferences, and report definitions. The repository is stored in tables in the Analyzer Server library.
- **API Toolkit.** A tool that helps developers incorporate the Java Web Client look, feel, and functionality into their own custom Web applications.

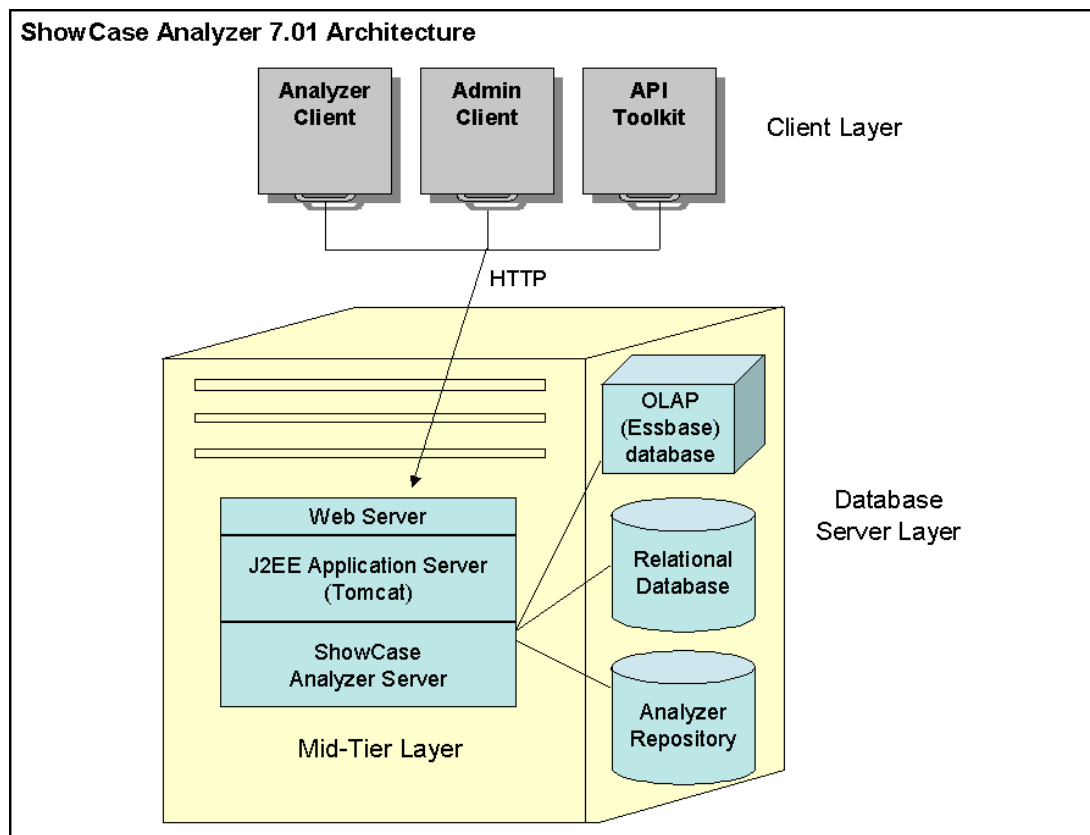
Analyzer Architectural Overview

When upgrading from release 4.5 to release 7.01, it is helpful to understand the new Analyzer architecture and how it impacts performance. The following sections compare the 7.01 architecture with the 4.5 architecture. For performance guidelines, see Chapter 9.

ShowCase Analyzer 7.01 functionality is distributed across a multitiered architecture:

- Client layer
- Mid-tier layer
- Database server layer

Figure 2-1
Analyzer 7.01 architecture



The **client layer** includes the Java Web Client, Administration Tools Client, and API Toolkit. All clients communicate with the rest of the Analyzer system using HTTP.

The **mid-tier layer** includes the following components:

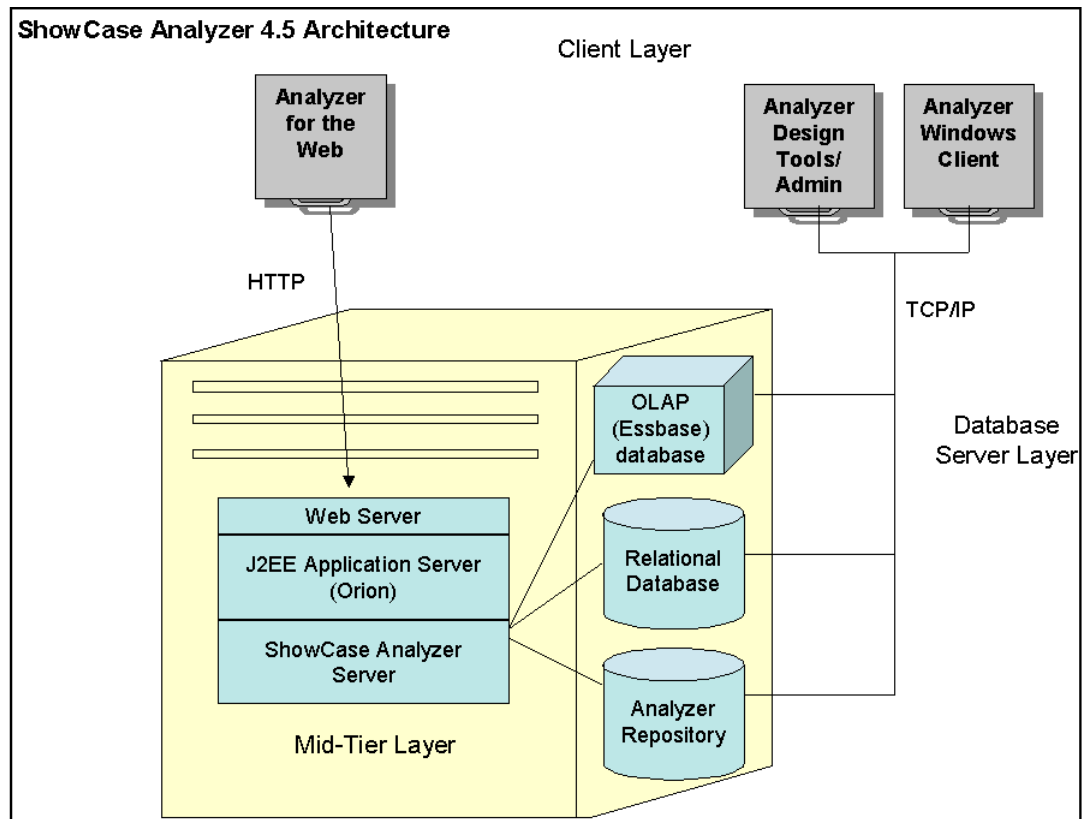
- Web Server
- J2EE application server (Tomcat)
- Analyzer Server
- Drivers for communicating with the database server layer

All mid-tier components reside on the iSeries in the Analyzer Server library. The Web Server and J2EE application server components are integrated with the Analyzer Server—they are transparent to users and are not separately installable. During installation, the server is deployed into the J2EE application server, and the Analyzer repository tables are created in the Analyzer Server library.

The **database server layer** includes the OLAP (Essbase) and relational databases used for analysis, as well as the relational Analyzer repository. The relational Analyzer repository is stored on the iSeries in the Analyzer Server library. Relational databases used for analysis are accessed via a JDBC driver. The OLAP (Essbase) databases can be located anywhere on the network, and they are accessed using the Java Essbase API via an IP address.

Architecture Comparison to Analyzer 4.5

Figure 2-2
Analyzer 4.5 architecture



In comparison to Analyzer 7.01, Analyzer 4.5 comprises two different client architectures—one for the Java-based Analyzer for the Web and one for the Windows-based applications. The 4.5 architecture for the Analyzer for the Web client is very similar to that of release 7.01, but the Windows-based architecture is much different.

The 4.5 Windows-based clients consist of the main Analyzer application and the Design Tools, and administration is performed with the Warehouse Manager Client application. Windows-based applications contain logic for handling key strokes and rendering the display images along with database access logic. Performance of the Windows applications is dependent on the computing power of user workstations.

The 7.01 Java-based applications communicate with the application server for much of the functional logic and for the database access logic. This allows more functionality to be centralized so that fewer tasks are performed on the client layer. This architecture minimizes client-side software installation and maintenance.

New Features

ShowCase Analyzer is based on Hyperion Analyzer 7.01 features and functions. For additional information, see the Hyperion documentation.

Migration

You can migrate to Analyzer 7.01 from the following versions of Analyzer:

- ShowCase (STRATEGY) Analyzer 4.5
- ShowCase Analyzer 6.21 (running on iSeries)
- Hyperion Analyzer 6.21, 6.5, 6.51, 7.0, or 7.01 (running on Windows)

Note: If you plan to use Analyzer with multidimensional databases, you must have ShowCase Essbase 6.51 or 7.1 installed.

New Utility Lists Databases Used by Reports

The new Retrieve Database Report utility creates a table showing the database that each report uses. Running the RTVDBRPT command will create a RTVDBRPT table with three columns: [Database] [ReportGrp] [Report].

To run this command, on an iSeries command line, type:

```
ANZSERVER/RTVDBRPT
```

(where ANZSERVER is your Analyzer Server library).

To verify the result, run STRSQL and type:

```
SELECT * FROM ANZSERVER/RTVDBRPT Order by Database
```

Accessing Relational Data

Relational database connections allow you to retrieve data from relational tables and define their properties in Analyzer. There are several ways to access relational data using Analyzer, including the following.

Note: Supported relational data sources for the following three access methods (Relational Drill-Through, Custom Report SQL Spreadsheets, and Relational Database Connections) now include ShowCase JDBC, iSeries DB2 UDB, Microsoft SQL Server, and Oracle.

Relational Drill-Through

Relational Drill-Through enables you to connect OLAP data and relational information. The connection is defined in the Essbase (OLAP) database connection. You can navigate from the dimension bottom (level 0) of the OLAP database to a specified relational data report. You can define your own select statements and clauses as part of the drill-through definition. The query result set is in the format of the SQL spreadsheet.

Custom Report SQL Spreadsheets (SQL Grid)—New!

You can add SQL Spreadsheet components to Analyzer custom reports to view relational data as a spreadsheet using SQL syntax queries and link those views to multidimensional objects. If you are familiar with the format of your relational data but don't know SQL syntax, you can create the SQL query with the SQL Query Builder Wizard. There are five separate tabs: Columns, Filters, Groups, Sorting, and Mappings. You can also include Dynamic Text Labels as filters in the query.

Relational Database Connections

This significantly enhanced feature is also described as **ROLAP**, or **Virtual Cubes**, and allows you to define a hierarchy for your relational data. If your data are defined in a dimensional structure, you can use virtual cubes to view the data as if they were in a multidimensional database. An interface helps you to define the mappings between your fact table and your dimension tables and the different levels in your dimensions. (To use this feature, your data must be in a star schema.) Once you have defined a relational connection, you can build reports that have the same functionality as multidimensional reports, including the ability to create charts, perform traffic lighting and calculations, and format data.

Connections can be defined as personal (Java Web Client) or global (Administration Tools). More information is available at www.essbase.com; click Resource Library, then White Papers, and open *Managing OLAP and Relational Data with SQL Queries*.

ShowCase Data Models

ShowCase data model connections allow you to access data models (.sdm) and lookups (.slp) created in ShowCase Query. ShowCase data models allow you to work with relational information in Analyzer similar to the way you work with multidimensional information. For information on using data models, see Chapter 7. See also the Analyzer Administration Tools Client online Help.

ShowCase JDBC Supports Warehouse Manager Security

Warehouse Manager row and column security is supported for relational connections that use the ShowCase JDBC driver. However, it is not supported for relational connections that use the iSeries DB2 UDB driver, the Oracle driver, or the SQL Server driver.

Integrated Security

Analyzer offers three security options: Analyzer-only, OS/400 Authentication, or Essbase Authentication. Set your security using Authentication Services (formerly System Settings) in the Administration Tools Client.

Improved Report Design and Usability

Report Design

Improved Report Design

Report design upgrades include:

- New Analysis Tools Manager interface
- Substitution variables in calculations. These are global placeholders for information that changes regularly.
- Dependent subscription controls
- The ability to align and distribute chart data to the left, right, top, bottom, or center of the cell
- The ability to set border color and size for a data object.

Selection Controls

Selection controls include the ability to:

- Point to another data source
- Order selections
- Set color
- Extend selection mode
- Populate one selection with another
- Indent members
- Set an “alias table”

Usability

Improved Functions

Improved functions include the ability to:

- Specify “Selected Member First” (previously known as “Parent First”)
- Size individual column widths
- Set font and style formatting of individual data and header cells
- Calculate percentage of members and set null values to missing or 0
- Scroll to show n series at a time in charts
- Show multiple dimensions in charts

Improved Printing

Printing features include the ability to:

- Print to *.jpg* format
- Save print settings per report
- Set font and style formatting in header and footer
- Use text replacement tokens

E-Mailing Links to Reports

Analyzer users can e-mail hyperlinks to the URL of the current report. To enable this feature, you must specify a mail server in the Administration Tools Client. For more information, see “Setting Up the Mail Server” in Chapter 8 on p. 71.

Release Notes

For the latest release notes, see the Analyzer Readme file (*anzreadme.htm*).

Unsupported Features

The following Hyperion 7.01 Analyzer features are not supported in this release of ShowCase Analyzer:

- HTML client
- Single Sign-on
- Hyperion Financial Management
- Web publishing batch utility
- Essbase Unicode databases
- Essbase Integration Services (EIS) relational drill-through

- Hyperion Hub configuration
- Related Content as it relates to integrated Hyperion applications. (However, linked reporting objects, such as cell notes, URLs, and file attachments, are supported.)

Performance

If you are upgrading from a pre-6.21 version of Analyzer, you will notice that server and client PC memory and processor requirements have increased. Depending on the physical memory of your machines and your system-tuning settings, you may see decreased performance because of insufficient memory or processing power. See Chapter 3 for recommended requirements. For more information about performance, see Chapter 9.

Licensing

If you are upgrading from Analyzer 6.21, your existing license password will work in Analyzer 7.01. If you are upgrading from a pre-6.21 version of Analyzer, your old passwords will not work in Analyzer 7.01, and you must enter the password you received with Analyzer 7.01 (during installation or with the `CHGANZENV` command). This password contains information on the number of licenses you purchased and the expiration date of those licenses.

Opening a New Browser Window

To open a second Analyzer session, you must open a new Internet Explorer session from the Start menu or a desktop shortcut. Opening a new window from the browser using `File > New > Window` may cause unpredictable results.

Closing the Browser Will Not Save Reports

When you connect to Java Web Client, two sessions open: the Internet Explorer and the Java Web Client. Note that if you close the Internet Explorer window without saving changes to a report, the changes will be lost.

Hybrid Analysis

Hybrid Analysis-enabled dimensions do not support the Also Select Descendants option in rows. Additionally, the Also Select Level option in rows displays member groupings incorrectly if this option was selected for an Essbase member in a Hybrid Analysis-enabled dimension. Selecting this option on a relational member within a Hybrid Analysis-enabled dimension will result in an error message.

ShowCase Essbase Hybrid-Analysis restrictions apply to ShowCase Analyzer. For more information, see your ShowCase Essbase documentation.

Do not Lose or Forget the Administrator Password

Administrators locked out of Analyzer must reinstall the product. There is no lockout recovery. If you are locked out of Analyzer and must reinstall, all data will be lost. Please call SPSS Technical Support for assistance.

Linked Reporting Objects

Linked Reporting Objects (LRO) are supported for cell notes, files, and URLs. However, Essbase Integration Services (EIS) Drill-Through is not supported. Enabling LRO indicators (whether or not LROs exist) may decrease Analyzer performance during report retrieval. By default, LRO indicators are not enabled.

- ▶ To enable LRO indicators for a report, open the report Java Web Client. Then open the Cube Navigator and select Show Linked Reporting Object Indicators from the Options drop-down list.
- ▶ To enable the LRO indicators for each report the user creates, in User Preferences, select OLAP Server and then Show Linked Reporting Object Indicators.

Essbase Outline Updates May Not Appear in Cube Navigator

Dimension changes to Essbase outlines are not reflected in Analyzer. Dimensions removed from the Essbase outline will still appear in the Cube Navigator. Use the Cube Navigator to remove dimensions from Analyzer reports. (*Note:* Member changes to Essbase outlines are reflected in Analyzer.)

Multiple Filter Dimension Member Selections Impact Retrieve Only Top/Bottom

Multiple filter axis dimension members are aggregated before being sent in a query. Because the client-based aggregation does not exist in the data source server, the query is processed in terms of the data values on the server. The discrepancy between client aggregations and server-based sorting and ranking results in irregular result sets. Users are strongly advised to nominate single filter dimension member selections when using Retrieve Only Top/Bottom and Restrict Data Analysis Tools.

Data Model Limitations

In SDM reports, dimension members are not displayed as the roll-up of the individual members. The workaround is to add a calculated value that is the roll-up of the individual members.

SCJDBC Driver Restriction

Using the ShowCase JDBC driver to query a table that uses an SQL reserved word as a column heading could result in an Invalid SQL Query error message or could result in no data returned.

The ShowCase JDBC driver supports SQL reserved words as column headings only if the Query Builder is used and the column heading is enclosed in quotation marks.

Otherwise, the ShowCase JDBC driver does not support SQL reserved words as column headings. The workaround: Use the iSeries DB2 UDB driver instead, noting that the DB2 UDB driver does not include Warehouse Manager security or aliases. (For a list of common reserved words, see “No Data Returned or ‘Invalid SQL Query’ with ShowCase JDBC Driver” on p. 80.)

Show/Hide Rules Previously Migrated Won't Work

The traffic lighting Show/Hide rules on reports migrated from version 4.5 to 6.21 will no longer work in release 7.01. As a workaround, open the Analysis Tools Manager, open each Show/Hide rule, and click OK. Then save the report. *Note:* Show/Hide rules migrated directly from release 4.5 to release 7.01 will work.

Error Adding Background Images

When adding a background image to a spreadsheet via the User Preferences option in the Java Web Client, you may receive the message Error occurred while saving user properties. However, the image will still appear as a background image despite this error.

Suppress Missing Rows Unsupported for ShowCase Data Models

The Suppress Missing Rows feature is not supported in ShowCase data models (SDMs).

Migrating from ShowCase Analyzer 6.1

If you are migrating from ShowCase Analyzer 6.1, please call ShowCase Technical Support for help with your migration.

DBCS Support

Showcase Analyzer 7.01 is supported on a system that uses a double-byte character set (DBCS) to represent character data. To use the functionality, you must install the DBCS-supported CD. To order the CD, contact your sales representative.

Prerequisites:

- iSeries: V5R2 or V5R3 with latest CUM package and group PTFs.
- PC: The PC used for Analyzer Server installation must use Windows 2000 Professional or XP Professional SP1.
- See the full list of environment requirements in Chapter 3.

When installing Analyzer on a DBCS system, DBCS users must connect to the iSeries with a 5035 CCSID profile rather than 5026. The 5035 CCSID is necessary for Java 1.4. If you do not use 5035, you may see a “failed to deploy” message during installation and the application will not run.

To make sure Analyzer interprets Essbase data correctly, you must specify the Analyzer code page for your language set that matches the Essbase ASCII CCSID. See “Specifying the Analyzer Code Page” in Chapter 5 for more details.

Note: DBCS migration from STRATEGY 4.5 to Analyzer 7.01 is not supported.

Environment Requirements

Environment Requirements

This chapter includes the following topics:

- “Server Requirements”
- “Installer PC Requirements”
- “Client PC and Browser Requirements”
- “Sun Java Plug-in”

Server Requirements

- OS/400 V5R1, V5R2, or V5R3
- JDK 1.4 (5722JV1 Java Developer Kit 1.4).
- **V5R3:** Java Group PTF SF99269 level 4 or later, applied after JDK is installed. Database and JDBC PTFs SI17835 and SI17838.
V5R2: Java Group PTF SF99169 level 20 or later, applied after JDK is installed.
V5R1: Java Group PTF SF99069 level 22 or later, applied after JDK is installed.
- Latest Database Group PTF.
- Latest OS/400 Cumulative Package.
- TCP/IP configured and started on the server.
- If you plan to use ShowCase data models (*.sdm*), you must have the Warehouse Manager Server (version 6.5x or 7.0) installed.
- If you plan to use Analyzer with multidimensional databases, you must have ShowCase Essbase 6.51 or 7.1 installed.
- 300 MB DASD.
- 2 GB run-time memory. (This is the minimum requirement for run-time space. Additional space may be allocated as it is needed.)

For Installation Only

- iSeries licensed program 5722SS1 Option 12 (Host Servers) must be installed and running. You can start Host Servers on your iSeries with the `STRHOSTSVR` command.

- iSeries licensed program 5722TC1 (TCP/IP) must be installed and running. Start TCP/IP on your iSeries with the `STRTCP` command.
- The user profile running the installation must have *SECOFR or equivalent server authority (*ALLOBJ, *IOSYSCFG, *SAVSYS, *JOBCTL, *AUDIT and *SECADM authorities are required). The installation will fail if the installing user profile setting is OWNER (*GRPPRF). *GRPPRF cannot own new objects created by the installing profile.

Installer PC Requirements

The PC used for Analyzer Server installation requires:

- Windows 2003, or Windows XP Professional with Service Pack 2 or 3, or Windows 2000.
- Minimum 350 MB free disk space.
- Microsoft Windows administrative authority to the PC. For more information, see your Windows documentation.

Client PC and Browser Requirements

The requirements for using Analyzer applications are as follows:

Table 3-3
Client PC system requirements

Computer	IBM or IBM-compatible personal computer
Microprocessor	Processor speed will affect performance. 450 MHz minimum
RAM	Memory will affect performance. 256 MB minimum; 512 MB recommended
Hard disk space	50 MB temporary space
Operating system	One of the following Microsoft operating systems: Windows 2003 Windows XP Professional with Service Pack 2 or 3 Windows 2000 with Service Pack 3 Windows NT 4.0 with Service Pack 6a
Web browser	Microsoft Internet Explorer 5.5 or 6.0 with Sun Java Plug-in 1.4.2_06 or a later 1.4.2 version. (For more information, see “Sun Java Plug-in” on p. 18.)
Other	Adobe Acrobat Reader 5.0

Sun Java Plug-in

The Analyzer Java Web Client, Administration Tools Client, and API Toolkit all require Sun Java Plug-in 1.4.2_06 or a later 1.4.2 version. When you install the Java Plug-in, the Java 2 Runtime Environment is also installed. (For the purposes of this document, they are the same—both are needed to enable the Analyzer applet.) Your Web browser will detect your plug-in version. If you do not have the necessary plug-in, you can install it in the following way:

- ▶ On the Analyzer Launch Page, launch one of the Analyzer applications. You will be prompted with a security warning to install the Java 2 Runtime Environment. A link is provided to the Sun

Microsystem Web site, where you can download the Java Plug-in. With a 56K connection, it may take as long as 45 minutes to download the plug-in. See the following figure.

Figure 3-1

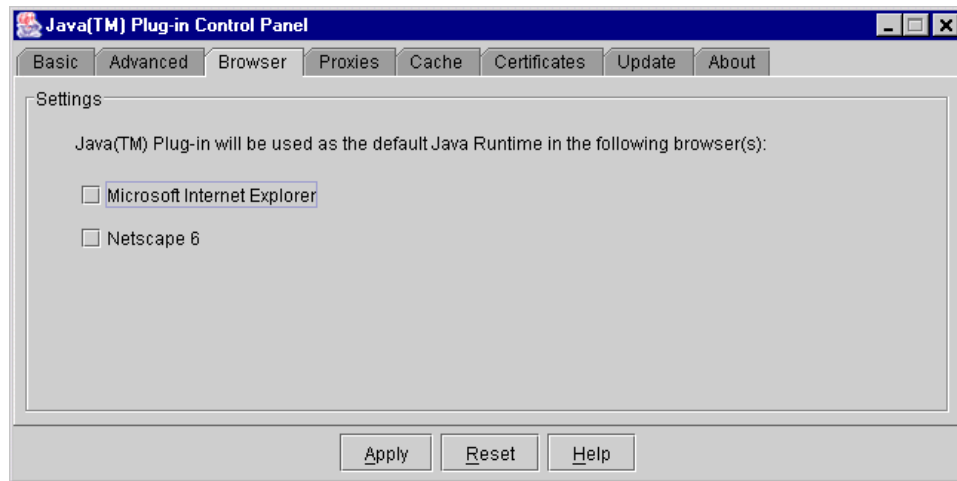
Installing Java Plug-in (with Java 2 Runtime Environment) from the server



Notes:

- You must have administrative authority to your PC to install the plug-in.
 - During installation of the *Java 2 Runtime Environment*, the Java Plug-in is set as the default Java runtime for Internet Explorer. This Java Plug-in browser setting risks breaking other applets and should be deselected. If you haven't yet installed Analyzer, you can specify the correct operation by running a custom installation and deselecting the Microsoft Internet Explorer browser setting during installation. If you have installed Analyzer and the Java Plug-in was set as the default Java runtime, you can specify the correct operation by deselecting the Microsoft Internet Explorer browser setting from the Java Plug-in Control Panel on the Browser tab. See the following figure.
- To open the Java Plug-in Control Panel, from the Start menu choose:
- Settings
 - Control Panel
- Open the Java Plug-in version used for Analyzer.

Figure 3-2
Java Plug-in Control Panel



Java Plug-in Memory Guidelines

Insufficient memory may result in OutofMemory errors (when you are importing a large number of reports, for example). Increasing Java plug-in memory on client workstations can result in improved performance. For instructions and other guidelines related to Analyzer performance, see Chapter 9 on p. 73.

Licensing

This chapter describes Analyzer licensing, including instructions for entering and changing licensing passwords and displaying license information.

To enable Analyzer, you must enter a license password on the server. You can do this during installation or with the `CHGANZENV` command after installation. You will not be able to connect to the server from the launch page until you enter your license password.

If you are upgrading from Analyzer 6.21, your existing license password will work in Analyzer 7.01. If you are upgrading from a pre-6.21 version of Analyzer, your old passwords will not work in Analyzer 7.01, and you must enter the password you received with Analyzer 7.01 (either during installation or later with the `CHGANZENV` command). This password contains information on the number of licenses you purchased and the expiration date of those licenses.

The Analyzer license password is based on your iSeries model number and serial number. Each installation of Analyzer requires a unique password. (After installation, you can display the password with the `DSPANZENV` command.) The password allows a defined number of first-come, first-served connections to the Analyzer Server from Analyzer applications (for example, the Java Web Client). Each time a user logs on to an Analyzer application, one license is used.

The Analysis Server Console is exempt from licensing; a user logged on to the Analysis Server Console does not use a license. Administrators can use the Analysis Server Console to display the number of users connected to Analyzer applications and to free licenses by forcibly logging off users from applications.

You cannot connect to multiple Analyzer servers with the same license password.

Entering an Analyzer License Password

To connect to the server, you must enter a correct license password either during installation or later with the `CHGANZENV` command. If the license password is not entered during installation, the server will start, but users will receive a licensing error when attempting to connect to the server from the launch page. To enter your password with the `CHGANZENV` command:

1. Log on to the iSeries with `*SECOFR` or equivalent server authority (`*ALLOBJ`, `*IOSYSCFG`, `*SAVSYS`, `*JOBCTL`, `*AUDIT` and `*SECADM` authorities are needed).
2. To add the Analyzer library to your library list, type the command:

```
ADDLIB ANZSERVER
```

where `ANZSERVER` is the name of your Analyzer library.

3. Stop the Analyzer Server, following the instructions provided in “Stopping the Analyzer Server” on p. 62.
4. Enter the command `CHGANZENV`, and press F4.
5. Enter your license password.
6. Start the Analyzer Server, following the instructions provided in “Starting the Analyzer Server” on p. 61.

Displaying Analyzer Settings

The `DSPANZENV` command displays Analyzer settings, including the following: OEM version, Analyzer Server version, iSeries serial number, iSeries model number, license expiration date, enabled features, number of licenses, license password, Analyzer Server port number and IP address, installation library, Enterprise Reporting Home Page URL, Warehouse Manager Server library, named connection, and whether relational connections (**not** ShowCase data models) are enabled or disabled.

This command is helpful if you have problems starting the server and need to display your Analyzer settings to check that your password is valid.

To use the `DSPANZENV` command:

1. Add your Analyzer library to your library list with the command:

```
ADDLIBLE ANZSERVER
```

where `ANZSERVER` is the name of your Analyzer library.
2. Type the command `DSPANZENV`, and press Enter.

Installing and Uninstalling Analyzer

Before you install Analyzer, see Chapter 3 for requirements.

This chapter includes the following topics:

- “Before You Install”
- “Installing Analyzer”
- “Specifying the Analyzer Code Page”
- “Installing Sample Reports”
- “Uninstalling Analyzer and Data”

Before You Install

The ShowCase Analyzer Server is installed on the iSeries from a PC. You must meet the following criteria before beginning installation:

- **Important:** Back up all data before installing over an existing server library. For information on backing up data, see “Saving and Restoring Data” on p. 69.
- iSeries licensed program 5722SS1 Option 12 (Host Servers) must be installed and running. You can start Host Servers on your iSeries with the `STRHOSTSVR` command.
- iSeries licensed program 5722TC1 (TCP/IP) must be installed and running. Start TCP/IP on your iSeries with the `STRTCP` command.
- The user profile running the installation must have a user class of `*SECOFR` or equivalent server authority (`*ALLOBJ`, `*IOSYSCFG`, `*SAVSYS`, `*JOBCTL`, `*AUDIT` and `*SECADM` authorities are needed). The installation will fail if the installing user profile setting is `OWNER(*GRPPRF)`. `*GRPPRF` cannot own new objects created by the installing profile.
- The PC used for server installation must use Windows 2003, Windows XP Service Pack 2 or 3, or Windows 2000 with at least 350 MB free disk space.
- You must have Microsoft Windows administrative authority to your PC to install the server. For more information, see your Windows documentation.
- If you install a new server, the installation selects the default or an available port number. To select your own port number, use the `WRKSRVTBLE` command before installation to find an available number.

Installing Analyzer

The Analyzer Server installation runs from a PC and transfers files to the iSeries. If there are already Analyzer libraries on the system, you may choose to upgrade an existing library or install a new library.

Note: You cannot install Analyzer in the same server library as Warehouse Manager Server, ShowCase Essbase, or Enterprise Reporting. You must install it in a new library or over an existing Analyzer 6.21 or 7.01 Server library.

1. If you plan to install over an existing Analyzer Server library, back up existing data and use the `ENDANZ` command to stop the server. For more information, see “Stopping the Analyzer Server” in Chapter 8 on p. 62.
2. Insert the CD into the CD-ROM drive on your PC.
3. Select Install Analyzer. It may take the setup program several minutes to run. During this time, the initial screen will not change.
4. In the Signon to the Server dialog box, type the name (or IP address) of the iSeries where you will install the server. Type your iSeries user name and password, using a profile of `*SECOFR` or equivalent server authority (`*ALLOBJ`, `*IOSYSCFG`, `*SAVSYS`, `*JOBCTL`, `*AUDIT` and `*SECADM` authorities are needed).
5. Follow the instructions on the screen, and use this chapter to complete the installation. The installation displays recommended values for the options. If you are installing over an existing Analyzer Server library, existing values are retrieved.

Upgrading an Existing Server Library

- The installation program lists existing 6.21 or 7.01 libraries available for upgrade.
- Back up all data before installing over an existing server library. For information on backing up data, see “Saving and Restoring Data” on p. 69.
- If the server you want to upgrade is running, you will be prompted to stop it during installation. This will disconnect all users, and unsaved data will be lost. Existing data will stay intact.
- You cannot change the library name or port number of an existing library during installation. You can change the port number after installation with the `CHGANZENV` command. For more information, see “Changing Your Server Port Number” in Chapter 8 on p. 62.

Installing a New Server Library

If there are no existing Analyzer Server libraries, or if you chose to install into a new library:

1. Accept the default Analyzer library name `ANZSERVER`, or specify a library name.
2. Enter your new Analyzer license password. If you do not know your password, leave the space blank. If the license password is not entered during installation, the server will start, but you will receive a licensing error when attempting to connect to the server from the launch page.
3. Accept the default port number (18682 or the next available port), or enter a port number in the range of 10000-65535. To find available port numbers, use the iSeries command `WRKSRVTBLE`.

- Record your port number. You will enter it as part of the URL for your Analyzer Launch Page.

Note: You can change your port number after installation by running the iSeries `CHGANZENV` command. For more information, see “Changing Your Server Port Number” in Chapter 8 on p. 62.

Completing Installation

When the installation ends successfully, you will receive a completion message, and the Analyzer Server will be running. If you did not enter your license password during installation, use the `CHGANZENV` command to enter it now. For more information, see “Entering an Analyzer License Password” in Chapter 4 on p. 21.

Connecting to the Launch Page

To connect to the Analyzer Launch Page, see the instructions in “Connecting to the Analyzer Launch Page” in Chapter 8 on p. 62.

Specifying the Analyzer Code Page

To make sure Analyzer interprets Essbase data correctly, specify an Analyzer code page that matches the Essbase ASCII CCSID, according to the table below. To set the code page, use the `scolap.essbase_encoding` setting in the *Analyzer.properties* file. The default is `windows-1252`.

To Modify the Analyzer.properties File

- Stop the Analyzer Server.
- In the IFS directory, open the *Analyzer.properties* file for editing. The file is in `/ANZSERVER/proddata/config/` (where *ANZSERVER* is the Analyzer installation library).
- Specify your code page according to the table below. For example:
`scolap.essbase_encoding=windows-1252`
 (where `windows-1252` is the Analyzer code page)

Note: Use the appropriate Essbase column for the Essbase version you are using.

- Save the file, and restart the Analyzer Server.

Table 5-1

Finding the Analyzer code page based on language set and Essbase CCSID

Language set	Essbase 6.51 ANSI CCSID	Essbase 7.1 code page	Analyzer code page
Eastern European	1250	MS1250	windows-1250
Russian	1251	MS1251	windows-1251
Western European (U.S./North American)	1252	MS1252	windows-1252
Greek	1253	MS1253	windows-1253
Turkish	1254	MS1254	windows-1254

Language set	Essbase 6.51 ANSI CCSID	Essbase 7.1 code page	Analyzer code page
Hebrew	1255	MS1255	windows-1255
Arabic	1256	MS1256	windows-1256
Baltics	1257	MS1257	windows-1257
Japanese	932	MS932	windows-31j
Korean	949	MS949	x-windows-949
Chinese (simplified)	936	MS936	x-mswin-936
Chinese (traditional)	950	MS950	x-windows-950

Installing Sample Reports

The Sample Report group (*Sample Reports.arg*) is installed to the server during installation and can be imported to the client in either of the following ways.

- **Import from the IFS.** In the Java Web Client, use the Analyzer import command to navigate to the IFS directory where the file is stored, and import the sample.
- **Import from the CD.** In the Java Web Client, use the Analyzer import command to navigate to the Samples folder on the CD, and import the sample.

For importing instructions, follow the Sample Report Group link on the Analyzer Launch Page. For instructions on using the sample reports after you have imported them, see the *Hyperion Getting Started Guide*. To locate this document, open the Analyzer Launch Page, select the Information Map, and open the *Hyperion Getting Started Guide*.

Uninstalling Analyzer and Data

Warning: Uninstalling Analyzer will delete all reports and security and configuration settings in the Analyzer environment. Back up your entire Analyzer environment before uninstalling. For information on backing up data, see “Saving and Restoring Data” on p. 69.

1. Log on to the iSeries with *SECOFR or equivalent server authority (*ALLOBJ, *IOSYSCFG, *SAVSYS, *JOBCTL, *AUDIT, and *SECADM authorities are needed).
2. Add the Analyzer library to your library list. (The default at installation was ANZSERVER.)
3. Stop the Analyzer Server, following the instructions in “Starting and Stopping the Analyzer Server” on p. 61.
4. Run the SAVANZ command to back up your environment. Follow the instructions in “Saving and Restoring Data” on p. 69.
5. Enter the command UNINSTANZ, and press F4.
6. At the prompt, enter your Analyzer Server library name and press Enter.
7. If your Analyzer environment is backed up completely and you are ready to delete the existing data, including the Analyzer library and IFS folder, change Proceed to delete environment? to *YES to continue the uninstall process.

When the uninstallation is successful, you will receive the message ANALYZER UNINSTALL COMPLETED SUCCESSFULLY.

Analyzer Migration

This chapter includes the following topics:

- “Migrating ShowCase Analyzer 6.21 to ShowCase Analyzer 7.01”
- “Migrating ShowCase Analyzer 4.5 to ShowCase Analyzer 7.01”
- “Analyzer Architectural Overview”
- “Performance ”
- “General Steps to Migration”
- “What Will Migrate”
- “What Won’t Migrate”
- “What’s Different after Migration”
- “Preparing for Migration”
- “Generating a Migration Table”
- “Modifying the Migration Table”
- “Performing the Migration”
- “Migrating Hyperion Analyzer to ShowCase Analyzer 7.01”

Note: SPSS changed the name of the STRATEGY suite of products to ShowCase Suite. In this chapter, we mention ShowCase Suite 4.5. This is synonymous with STRATEGY 4.5.

This chapter describes how to migrate older versions of Analyzer to ShowCase Analyzer 7.01. You can migrate from the following versions:

- ShowCase Analyzer 6.21 (running on iSeries)
- ShowCase Analyzer 4.5 (running on iSeries). If you are running ShowCase (STRATEGY) version 4.0 or 4.1, you must upgrade to version 4.5 before installing Analyzer 7.01.

Note: DBCS migration from Analyzer 4.5 to Analyzer 7.01 is not supported.

- Hyperion Analyzer 6.21, 6.5, 6.51, 7.0, or 7.01 (running on Windows)

If you are running ShowCase Suite 6.5, you have probably already migrated your Analyzer 4.5 data. Starting with ShowCase Suite 6.5, Analyzer became its own product, separate from ShowCase Suite.

Migrating ShowCase Analyzer 6.21 to ShowCase Analyzer 7.01

There are two ways to accomplish this migration: over-the-top migration or save/restore migration. Both methods suggest using a test library to safely migrate. If you plan to install Analyzer 7.01 on a different iSeries than Analyzer 6.21, consider using the save/restore migration to migrate reports, groups, and other objects from one server to another.

Reports migrate when they are opened in the 7.01 client. Once saved in 7.01, they cannot be used in 6.21.

Migrating Over the Top

To migrate by installing over the top:

1. Duplicate your Analyzer 6.21 production environment in a 6.21 test environment using the following steps:
 - Use the `SAVANZ` command to save your current production Analyzer information. For instructions, see your *Analyzer 6.21 Guide*.
 - Start the Analyzer 6.21 installation, and follow the instructions in your *Analyzer 6.21 Guide* to install a new (test) server.
 - Stop the Analyzer 6.21 test server after installation, and apply patches to match the production server level.
 - Start and then stop the test server to deploy the patch code.
 - Use the `RSTANZ` command to restore your 6.21 production environment into the test server.
2. Stop your Analyzer 6.21 test server.
3. Start the Analyzer 7.01 installation, and follow the instructions in Chapter 5. Choose to install over an existing library (your test library), and follow the instructions in “Upgrading an Existing Server Library” in that chapter.

When installation is complete, you will have installed the Analyzer 7.01 server over the top of the 6.21 test server.

Migrating by Save/Restore

This migration is accomplished with the save and restore commands. For more information, see “Saving and Restoring Data” in Chapter 8 on p. 69. After you save your 6.21 library, install Analyzer 7.01 into a new test library. Run the `RSTANZ` command using the new 7.01 test library as your 7.01 target Analyzer library.

Migrating ShowCase Analyzer 4.5 to ShowCase Analyzer 7.01

To deliver enhanced functionality to all users, Analyzer has been built on a new Java-based architecture. This architecture allows users to access all of Analyzer’s powerful analytic functions from a Web browser. With any change of this magnitude, the process for upgrading to the new release includes a migration phase that must be carefully planned and implemented. Review

the new Analyzer architecture in “Analyzer Architectural Overview” on p. 6. The following additional considerations should help make the transition to the new release as smooth as possible.

Before You Migrate

Before starting Analyzer migration:

- Because the system is heavily taxed during migration, consider planning migration over a weekend.
- Because the migration opens and runs migrating views, the time to migrate is unpredictable and could take several hours or longer than a day depending on the number of views, the size of views, if the system is dedicated for migration, and the cleanliness of the repository. Objects that don't work currently could take longer to migrate.
- Install Analyzer 7.01 and log into and out of Analyzer at least once.
- Apply the latest Analyzer 7.01 patch. This will ensure that your Analyzer code is up to date and that migration will go as smoothly as possible. You can find the patch at <http://support.spss.com>. After you log on, click Patches. After applying the patch, log into and out of Analyzer at least once.
- Be aware that security, user authentication, and your data may be different after migration. For more information, see “What's Different after Migration” on p. 34.
- The Analyzer migration utility requires applications and databases referenced in views to be in a ShowCase Essbase 6.51 or 7.1 library. We recommend upgrading your Essbase production server to 6.51 or 7.1. If you cannot upgrade your production environment, install Essbase 6.51 or 7.1 on an Essbase test server.
Important: Essbase 7.1 is supported as part of the upgrade path. However, the applications in version 4.5 (including Analyzer) *cannot connect* to an Essbase 7.1 server.
- We strongly recommend migrating everything, including your databases. If you choose not to migrate databases, the migration creates personal databases, each requiring a separate login to open a migrated view.

Migrating Data Models

Follow the instructions in Chapter 7 to prepare your data models for migration. For example, before migrating to Analyzer:

- ShowCase data models must be opened and saved in ShowCase 4.50.101 or later, or in ShowCase 6.5 or 7.0. The Query and Report Writer Migration Tool available with the latest patch will automate this process.
- You must define a named connection in the *QueryEngine.cfg* on your Analyzer Server. For more information, see “Named Connections” in Chapter 7 on p. 51.
- During Analyzer migration, images of your data models and lookups will migrate to Analyzer 7.01, but the source files will actually remain in the ShowCase 4.5 library. It is important to use the `CHGANZENV` command before migration so that models will be usable after migration. You must specify the library, URL, and named connection of your data models. If you do not specify this information before migration, you must individually enter the information for

each data model with the Administration Tools Client. For more information, see “Named Connections” in Chapter 7 on p. 51.

General Steps to Migration

The ShowCase Analyzer 4.5 client does not connect to the ShowCase 6.5 or 7.0 Warehouse Manager Server. You must first migrate your Analyzer 4.5 environment to a separate Analyzer 7.01 server. Then you can safely upgrade ShowCase 4.5 to ShowCase 6.5 or 7.0.

Important: The migration is a process that may take several days to complete. You should expect to run your production environment in parallel with your testing environment until migration is complete.

1. Upgrade to ShowCase Essbase 6.51 or 7.1 on your Essbase production server, or install ShowCase Essbase 6.51 or 7.1 on an Essbase test server. The Analyzer migration utility requires applications and databases referenced in views to be in a ShowCase Essbase 6.51 or 7.1 library.
Important: Essbase 7.1 is supported as part of the upgrade path. However, the applications in version 4.5 (including Analyzer) *cannot connect* to an Essbase 7.1 server.
2. Install ShowCase Analyzer 7.01 into a new library. For instructions, see Chapter 5.
3. Use the `SAVSRVRINF` command to move Analyzer AOS information from your ShowCase 4.5 Warehouse Manager Server library into a standalone save file (`SAVF`). For instructions, see your *4.5 Administrator's Guide*.
4. If you are migrating ShowCase data models (`.sdm`), follow the data model migration instructions in Chapter 7 before running the Analyzer migration. During Analyzer migration, images of your data models will migrate to 7.01, but the source files will actually remain in the ShowCase 4.5 library. It is important to use the `CHGANZENV` command to specify the location of your 4.5 library so that models will be ready for use after migration. For more information, see “Named Connections” in Chapter 7 on p. 51.
5. Use the `DMPAOS` command to analyze your data before migrating. This is optional. For instructions, see “Preparing for Migration” on p. 37. Based on the results of the `DMPAOS` table, you may need to adjust your views before performing the migration.
6. Use the `MIGAOS` command to migrate your AOS information from the save file (`SAVF`) to the Analyzer 7.01 environment. For instructions, see “Performing the Migration” on p. 41.
7. At this point, it will be safe to upgrade from ShowCase 4.5 to ShowCase Suite 6.5 or 7.0. See the *ShowCase Suite Upgrade Guide* for instructions.

What Will Migrate

The migration tool attempts to migrate ShowCase Analyzer 4.5 users, groups, views, forms, and databases to ShowCase Analyzer 7.01.

What Won't Migrate

The following tables list features that will not directly migrate to ShowCase Analyzer 7.01 due to a change in functionality.

Table 6-1
What won't migrate

Won't migrate	During migration
Database formatting.	Formatting will be removed and center-justified formatting will be used. Scale factor is no longer supported.
OLE objects/controls.	OLE objects will be replaced by text indicating where the OLE object was.
Header sorting.	Sorting will be removed and default sorting will be used.
Combo box fonts.	Will not migrate. A default font will be used.
Duplicate database names. Because Analyzer 7.01 is not case-sensitive for filenames, you cannot have duplicate database names. For example, you may not have names such as Tbc:Demo and TBC:Demo.	If you attempt to migrate files with duplicate names, you will receive a duplicate key error.
Database names longer than 35 characters.	If you attempt to migrate databases with names longer than 35 characters, report migrations will fail. Rename these databases with names 35 characters or less before migrating.
Series (y axis) legend in charts.	Will not migrate. No longer supported.
Settings for locking views in spreadsheets.	Will not migrate. No longer supported.
Option to sort by member.	Will not migrate. No longer supported.
Slack space.	Will not migrate but can be reset after migration.
Model-based views containing calculations.	Will result in ERROR status in the migration (DMPAOS) table, and will not migrate. Instead of migrating these views, you can either re-create them in Analyzer 7.01, or remove the calculated columns before migrating and re-create the calculated columns after the views have migrated.
Views created against an Essbase outline with an apostrophe in the member name.	When you run the DMPAOS command, these views will result in ERROR status in the migration table.
User preference settings.	All user settings will be replaced with default settings.
Underline and strikethrough font options on form captions.	This formatting is removed. Strikethrough and underlining font options are not supported in this version of Analyzer.
“Show Parent First” option	Will not migrate.
Data models and lookups containing prompts.	Remove the prompts before migration. Otherwise, you will receive an error running them in Analyzer 7.01.
Reports or data models containing lists.	Date lists result in an error message.
In data models containing lookups and aliases, views that select individual members and use descriptions.	Will not migrate. You may see unpredictable results.

The job log will have additional details on items that do not migrate. For more information, see “Preparing for Migration” on p. 37.

What’s Different after Migration

Note that views in ShowCase Analyzer 4.5 are referred to as reports in Analyzer 7.01. The following tables describe how your databases, users, views, and settings will be different after migration.

Table 6-2
General migration differences

ShowCase Analyzer 4.5	ShowCase Analyzer 7.01
Views.	Reports.
Group names.	Renamed as “owner_group” (where <i>owner</i> is the group owner and <i>group</i> is the group name).
Groups owned by System.	Migrate with the same names.
Views and forms with links.	If you run the migration a second time and a duplicate record is found, choosing to *KEEP the record in the target library may produce broken links that have to be reset after migration.

Table 6-3
Migrated databases

Databases in ShowCase Analyzer 4.5	Migrated databases in ShowCase Analyzer 7.01
Databases.	All are migrated as global databases.*
Lookups.	Automatically attached to each database connection.

Global versus Personal Databases

Databases created in the Administration Tools Client are called **global databases**. Users cannot change their properties. Personal databases are created by users in the Java Web Client. To identify the database type in the Java Web Client, open User Preferences, click Connections, and look at the Type column. Global databases are labeled with a database icon; personal databases are labeled with a user icon.

Table 6-4
Migrated data models

Data models in ShowCase Analyzer 4.5	Migrated databases in ShowCase Analyzer 7.01
Data models.	Migrated as global database connections.
Data model names.	Model name is the name of the database connection.
Data model reports.	Members are sorted in selection order by default in migrated SDM reports, which may not match how they were displayed previously.

Table 6-5
Migrated users and user settings

Users in ShowCase Analyzer 4.5	Migrated users in ShowCase Analyzer 7.01
Various user types and user settings.	All user types are migrated as “Interactive Users.”

Table 6-6
Migrated security settings

Security settings in ShowCase Analyzer 4.5	Migrated security settings in ShowCase Analyzer 7.01
Security settings.	Security settings are migrated with reports or databases and not with individual users. If a particular user does not exist when a database or report is migrated, all permissions for that user are dropped.
User security settings.	Users are migrated as Analyzer-only users. If user IDs are based on OS/400 profiles, and if OS/400 Authentication or Essbase Authentication is enabled, Analyzer will automatically promote these users to OS/400-authenticated or Essbase-authenticated users when they log on. Initially, these users are not members of any groups.
Authorities assigned to views, reports, and forms.	May be lost after migration. Authorities may have to be reassigned.
The Hide Report feature prevented access to reports.	The migration will migrate the hidden status but does not migrate the implied security. Report security should be set up separately.

Table 6-7
Migrated charts

View in ShowCase Analyzer 4.5	Migrated report in ShowCase Analyzer 7.01
Cube charts.	Displayed as bar charts.
Polar charts.	Displayed as bar charts.
Surface charts.	Displayed as bar charts.
Doughnut charts.	Displayed as pie charts.
Fit to Curve charts.	Displayed as spline charts.

Table 6-8
Migrated spreadsheets

View in ShowCase Analyzer 4.5	Migrated report in ShowCase Analyzer 7.01
Font sizes in spreadsheets.	Will migrate but may appear larger or smaller in Java Web Client.
Selected members could be placed first in the member list (the “Show Parent First” option).	Will not migrate. In 7.01, “Selected Member First” has replaced the “Show Parent First” option. It is located in the Data Display options on the Main Display panel context menu. If “Selected Member First” is not specified, the default positioning for selected members is to be placed below/after their descendants.

View in ShowCase Analyzer 4.5	Migrated report in ShowCase Analyzer 7.01
All members or all calculations could be hidden in a view.	Not supported with the same feature. However, appropriate “show/hide only” definitions are applied to match the functionality as closely as possible.
When a spreadsheet had a cell color and gridlines were turned off, the entire background of the view would be the chosen cell color.	Only the actual cell areas reflect the cell color. The rest of the blank space and top left cell of the spreadsheet remains gray.
Supported view notes per view so a user could add text notes to each view.	Not supported.
Option to show/hide null pins.	Not supported.
Option to indent headings.	Migrates as always enabled. Members are indented by level within a banded group.
Showing gaps in a group.	Not supported.
Options to “view selectable” and “view active.”	Not supported.
Option to sort by member.	Not supported.
Show only first x option of client-side “sort” feature.	Not supported.

Table 6-9
Migrated forms

View in ShowCase Analyzer 4.5	Migrated report in ShowCase Analyzer 7.01
Panels contained borders.	Panels do not have separate, configurable borders.
Hotspots.	Migrate as buttons (specific to action of hotspot).
Hotspots had flyover cursor changes.	Not supported.
Panel colors.	Not supported.
E-chalk Service button.	Not supported.
Create Slide Service button.	Not supported.
Selection buttons could contain a graphic image.	Not supported.
Selection buttons supported “extended” member selections.	Not supported. The button is set to the first member in the member list.
OLAP-aware controls (combo boxes, radio button groups, and tab sets) not linked to a view object (chart, spreadsheet, or pinboard) were supported.	All OLAP-aware controls must be linked to a report object. Running the DMPAOS command will alert users of this.
Service buttons were not required to be linked to a data source or view object.	Requires service buttons to be linked to a data source so that the first data source is chosen by default. After migration, links to view objects will probably be broken.
Service button hints.	Not supported.
Radio button hints.	Not supported.
Radio button captions.	Not supported.
Radio button color.	Not supported.

View in ShowCase Analyzer 4.5	Migrated report in ShowCase Analyzer 7.01
Inactive form views.	Will be made active.
Jump to view button link.	Will be broken because group name changes during migration.

Table 6-10
Migrated Data Transformation Objects (DTOs)

View in ShowCase Analyzer 4.5	Migrated report in ShowCase Analyzer 7.01
Show/Hide Only feature supported “between” two values.	Not supported.
Sort and show only the first <i>x</i> members.	Not supported. The members will be sorted, but all members will be shown.

Table 6-11
Migrated member selections

View in ShowCase Analyzer 4.5	Migrated report in ShowCase Analyzer 7.01
Users could define and use custom lists of members.	Lists are interpreted to the member names within them and the static member selections are migrated. Users must modify each report.

Table 6-12
Migrated pinboards

View in ShowCase Analyzer 4.5	Migrated report in ShowCase Analyzer 7.01
Four-frame pins.	Will not migrate correctly. If you attempt to migrate them, you will receive a warning message during migration. After migration, open the Java Web Client and reset your pins.

Preparing for Migration

For the Analyzer upgrade process, SPSS added a tool that allows you to determine which parts of your Analyzer 4.5 data will migrate. Using the Analyzer 4.5 `SAVSRVRINF` syntax, the `DMPAOS` command will allow you to preview the results before running the migration (`MIGAOS`). This allows you to evaluate your data before migrating views to the new environment. The `DMPAOS` generates an iSeries migration table named *Migrate* in the Analyzer 7.01 library, providing line entry information for each object that will be migrated to Analyzer 7.01. The table shows whether the elements will migrate fully, partially, or not at all during `MIGAOS` (migration).

Using the *Migrate* table and the `QPJOBLOG`, you can determine why an item did not migrate and use the *Migrate* table to facilitate cleanup of the data before migration.

You can specify whether to use the *Migrate* table during the migration. If you use the table, in the *Status* column, you can modify the data generated by the `DMPAOS` command to specify which elements you want to migrate. (To modify a migration table, see “Modifying the Migration Table” on p. 40.)

Note: You can run the `DMPAOS` command multiple times before migration. Note that the `MIGAOS` command does not produce a *Migrate* table

Table 6-13
Migration table elements

Analyzer data	Description
Type	Identifies object as report, report group, user, or database.
Status	Identifies how the object migrates. Success indicates object will migrate fully. Warning indicates object will migrate partially. Error indicates object will not migrate.
Report	Shows report name.
Usr	Shows object owner.
Group	Identifies group to which the report belongs. For reports only.
Database	Identifies database used by report. For reports only.
Notes	Explains the cause of a status other than Success .

Generating a Migration Table

1. Upgrade to ShowCase Essbase 6.51 or 7.1 on your Essbase production server, or install ShowCase Essbase 6.51 or 7.1 on an Essbase test server. The Analyzer migration utility requires applications and databases referenced in views to be in a ShowCase Essbase 6.51 or 7.1 library.
Important: Essbase 7.1 is supported as part of the upgrade path. However, the applications in version 4.5 (including Analyzer) *cannot connect* to an Essbase 7.1 server.
2. Install ShowCase Analyzer 7.01 and log into and out of the application at least once.
3. If you are migrating ShowCase data models (.sdm), follow the instructions in Chapter 7 before running the `DMPAOS` command.
4. Start the Essbase servers and applications referenced in the views that you are migrating.
5. In your Warehouse Manager Server library (where your ShowCase Analyzer 4.5 information resides), use the `SAVSRVINF` command to save your AOS (Analyzer) objects to a save file. For instructions, see the *Administrator's Guide* for release 4.5.
6. If necessary, move the save file to the iSeries where you installed ShowCase Analyzer 7.01.
7. Stop the Analyzer Server, following the instructions in "Starting and Stopping the Analyzer Server" on p. 61.
8. To run the `DMPAOS` command, use the `SBMJOB` (Submit Job) command instead of running `DMPAOS` interactively. Submitting the `DMPAOS` job frees the session during the migration and generates a `QPJOBLOG` in the issuer's spool files. Signing off the session will not lose this valuable information. To do this, at an iSeries command line, type `SBMJOB` and press F4 to prompt.

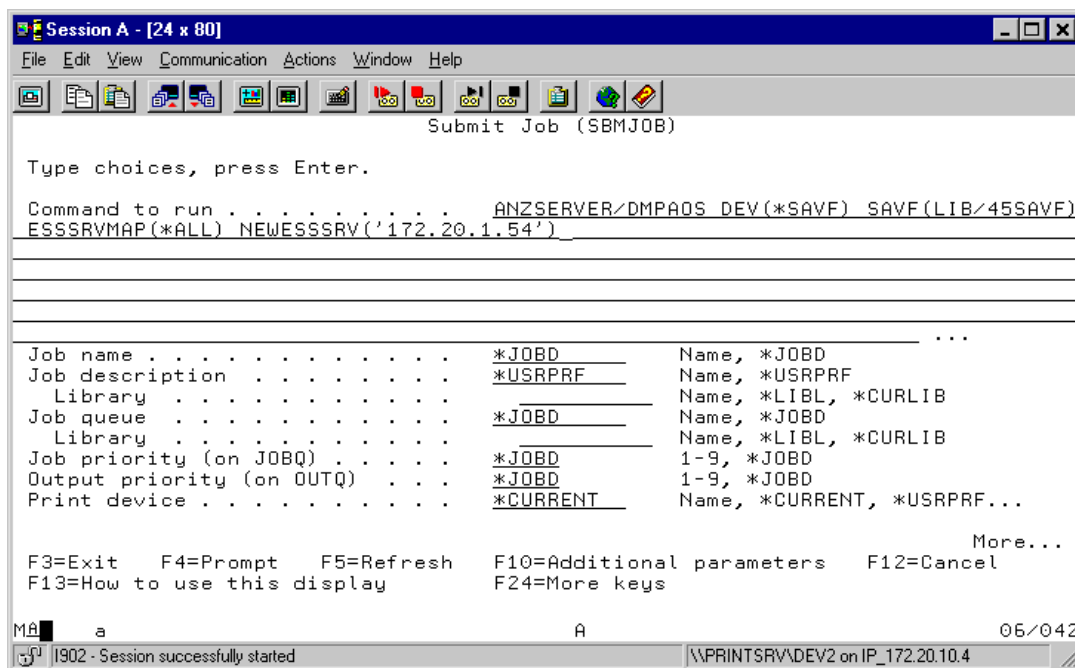
On the Command to run line, type the following, substituting your data and desired values:

```
ANZSERVER/DMPAOS DEV(*SAVF) SAVF(LIB/45SAVF) ESSSRVMAP(*ALL)
NEWESSRV('172.20.1.54')
```

- Replace `ANZSERVER` with the name of your Analyzer server.
- `DMPAOS` is the command that generates the migration table. Do not change this value.

- (*SAVF) represents the device you're using (save file). Do not change this value.
- Replace (LIB/45SAVF) with the library and name of your 4.5 save file.
- **If you are using an Essbase test server**, you must map your Analyzer views from your production server to your Essbase 6.51 or 7.1 (test) server. In the ESSSRVMAP parameter, enter the IP address or iSeries name of your current production Essbase server. If you are mapping from only one server, we recommend using *ALL. In the NEWESSRV parameter, enter the IP address of your Essbase test server. This must be a ShowCase Essbase 6.51 or 7.1 server.
- **If your production Essbase server is already at level 6.51 or 7.1**, do not enter mapping parameters (ESSSRVMAP or NEWESSRV).

Figure 6-1
SBMJOB command on DMPAOS



9. When you press Enter, the DMPAOS command reads the AOS information in your save file and displays the *Migrate* table. If the table already exists, it will be overwritten. See the job log for complete information regarding the migration table.
10. If the *Migrate* table is not displayed automatically, run the following command to display it:

```
DSPF FILE (ANZSERVER/MIGRATE)
```

where ANZSERVER is the name of your Analyzer Server library.

An easy way to review this table is by accessing the Migrate table (ANZSERVER/MIGRATE) with Query, selecting all of the columns, running the query and then saving the data as an Excel file. The same result can be accomplished by changing the Result Options to an Excel Worksheet.

Modifying the Migration Table

You can modify fields in the table in several ways, including using the `UPDDTA` command or using SQL through the `STRSQL` command. When you are modifying the fields, note that the status value must be padded to eight characters. See the following scenarios for examples.

Scenario 1

If for any reason you do not want to migrate an object, you can change the Success or Warning message to Error. The following statement prevents one particular view from being migrated:

```
UPDATE ANZSERVER/MIGRATE SET STATUS = 'ERROR___' WHERE REPORT =  
'Sample View' AND GROUP = 'Group Name'
```

In the above example, `ANZSERVER` is the Analyzer Server library. Note the three spaces inserted following `ERROR` to equal the required eight characters.

Scenario 2

This example shows how to remove all of one particular user's views. This could be used if someone has left the company and has old views:

```
UPDATE ANZSERVER/MIGRATE SET STATUS = 'ERROR___' WHERE USR =  
'UserProfile'
```

Scenario 3

When you run the migration (`MIGAOS` command), you can choose whether or not to migrate objects marked `WARNING`. You may want to migrate a few objects with `WARNING` indicators and exclude the others from migration. In this case, migrate a specific object with a `WARNING` indicator with the following, substituting your data as applicable:

- `UPDATE ANZSERVER/MIGRATE SET STATUS = 'SUCCESS ' WHERE REPORT=
'Sample View' AND GROUP = 'Group Name'`
- When running the `MIGAOS` command, select `*NO` in the `Include Objects with Warnings` parameter. This will prevent all of your `WARNING` objects from migrating, except the ones you set to `SUCCESS`.

Scenario 4

To change all of one type of indicator to another, you must use `LIKE` syntax instead of `'='` syntax. The following update statement changes the status on all `WARNING` indicators to `SUCCESS`:

```
UPDATE ANZSERVER/MIGRATE SET STATUS = 'SUCCESS ' WHERE STATUS LIKE  
'WARN%'
```

Check your table for errors. After you modify the table, verify that you have entered only `SUCCESS`, `WARNING`, or `ERROR` in the Status fields. Entering incorrect text could cause errors when the migration program reads the table for processing.

Performing the Migration

1. Upgrade to ShowCase Essbase 6.51 or 7.1 on your Essbase production server, or install ShowCase Essbase 6.51 or 7.1 on an Essbase test server. The Analyzer migration utility requires applications and databases referenced in views to be in a ShowCase Essbase 6.51 or 7.1 library.

Important: Essbase 7.1 is supported as part of the upgrade path. However, the applications in version 4.5 (including Analyzer) *cannot connect* to an Essbase 7.1 server.

2. Install Analyzer 7.01 and log into and out of the application at least once.

If you are migrating ShowCase data models (.sdm), follow the instructions in Chapter 7 before running the migration.

3. Start the Essbase servers and applications referenced in the views you are migrating.
4. If you have not already created a ShowCase Analyzer 4.5 save file, create one now. For instructions, see your 4.5 *Administrator's Guide*.
5. If necessary, move the 4.5 save file to the iSeries where you installed Analyzer 7.01.
6. Stop the Analyzer Server, following the instructions in “Starting and Stopping the Analyzer Server” on p. 61.
7. To run the MIGAOS command, use the SBMJOB (Submit Job) command instead of running MIGAOS interactively. Submitting the MIGAOS job frees the session during the migration, and generates QPJOBLOG in the issuer's spool files. Signing off the session will not lose this valuable information. To do this, at an iSeries command line, type SBMJOB and press F4 to prompt.
8. On the Command to run line, type the following, substituting your data and desired values:

```
ANZSERVER/MIGAOS DEV(*SAVF) SAVF(LIB/45SAVF) USER(*REPLACE)
DATABASE(*REPLACE) REPORT(*REPLACE) TABLE(*YES) INCLUDE(*YES)
ESSRVMAP(*ALL) NEWESSRV('172.20.1.54')
```

- Replace ANZSERVER with the name of your Analyzer server.
- MIGAOS is the migration command. Do not change this value.
- (*SAVF) represents the device you're using (save file). Do not change this value.
- Replace (LIB/45SAVF) with the library and name of your 4.5 save file.
- For the USER, DATABASE, and REPORT parameters, specify whether to migrate users, databases, and reports (and report groups). If you choose not to migrate the data, type (*NONE). If you choose to migrate, the saved data and target data are merged. When a duplicate record is found, you can choose to (*KEEP) the record in the target library or (*REPLACE) it with the record in the saved library.

Note: We strongly recommend migrating everything, including your databases. For example, on the MIGAOS command, specify *KEEP or *REPLACE when migrating databases. If some of the views have already been migrated, you can export and reimport the migrated views, or remigrate the views to include the databases (using the *KEEP or *REPLACE options). If databases are not migrated during migration, the migration creates personal databases, each requiring a separate login to open a migrated view.

Troubleshooting Migration

The DMPAOS and MIGAOS commands hang when processing data models. If the DMPAOS and/or MIGAOS commands hang on V5R1, check to see if they are hanging on a data model migration. If so, the data models may have been created before version 4.0.

Before you can migrate data models to Analyzer, ShowCase data models created before version 4.50.101 must be opened and saved in version 4.50.101 or later, or in version 6.5. For more information, see “Preparing ShowCase 4.5 Data Models for Migration to Analyzer 7.01” in Chapter 7 on p. 46.

Unable to connect to [database] running DMPAOS. If the DMPAOS command produces messages in the *Migrate* table, such as “Unable to connect to [database],” you may have two Essbase server environments. To specify which Essbase server to use, run the DMPAOS command, press F4 to prompt, and add additional parameters with the F10 key. Set the “Essbase Server Mapping From” and “Essbase Server Mapping To” parameters with the proper IP addresses for both environments.

Job Management. The Analyzer installation (and subsequently the Analyzer Server) requires a subsystem that allows more than one active job. The subsystem is determined by the job description attached to the profile of the user who is doing the install. If the subsystem has Max Active Jobs = 1, the installation will not complete although the server may try to start.

Connection Issues. Make sure the host servers are started. The iSeries must be networked to the PC from which the install is being run, or the user must use VPN to connect to the iSeries to run the installation. Note that remote connections will be extremely slow.

Authority Issues. The profile used to install and start the Analyzer Server must have *SECOFR user class or equivalent authorities.

Technical Support. Before contacting Technical Support for assistance, please review “What Won’t Migrate” on p. 33. There are several functional differences between Analyzer 4.5 and Analyzer 7.01. If assistance is needed, both the *Migrate* table and the QPJOBLOG should be forwarded to Support.

Migrating Hyperion Analyzer to ShowCase Analyzer 7.01

You can migrate from Hyperion Analyzer 6.21, 6.5, 6.51, 7.0, or 7.01 (running on Windows). This migration is accomplished through the Analyzer *Import/Export Reports and Report Groups* feature. See the “Import Reports and Report Groups” topic in the Analyzer Java Web Client online Help for details. Users must migrate their own reports and report groups. Administrators cannot migrate user reports and report groups.

Data Models and Relational Connections

This chapter includes the following topics:

- “Preparing ShowCase 4.5 Data Models for Migration to Analyzer 7.01”
- “Working with ShowCase Data Models in Analyzer 7.01”
- “Named Connections”
- “Using the CHGANZENV Command”
- “Relational Database Connections”
- “Using UNIONS”
- “Migrating Data Models from ShowCase Suite 4.5 to ShowCase Suite 6.5 or 7.0”
- “Troubleshooting”

In addition to multidimensional OLAP database connections, Analyzer provides two ways to access relational data: **ShowCase data model connections** and **relational database connections**.

ShowCase data model connections allow you to access data models (.sdm) and lookups (.slp) created in ShowCase Query. (Query’s guided interface allows you to specify the data source, tables and joins, columns, conditions, and sort order. Because Query does not directly connect to the Analyzer Server, you must save data models or lookups to the ShowCase Server to make them accessible from Analyzer.) This chapter will help you prepare your data models and lookups for use in Analyzer.

If you are migrating data models from ShowCase 4.5 to Analyzer 7.01, follow the instructions in this chapter to prepare your data models *before* migrating. For more information, see “Preparing ShowCase 4.5 Data Models for Migration to Analyzer 7.01” on p. 46.

If you are not migrating data models, see “Working with ShowCase Data Models in Analyzer 7.01” on p. 47.

Relational database connections allow you to retrieve relational tables from DB2, Microsoft SQL Server, or Oracle and define their properties within Analyzer. For information on relational database connections, see “Relational Database Connections” on p. 53 and the Administration Tools Client online Help.

Preparing ShowCase 4.5 Data Models for Migration to Analyzer 7.01

Your 4.50.101 (and later) data models and lookup information will migrate to Analyzer 7.01 when you run the `MIGAOS` command (see Chapter 6). However, you must follow the instructions in this chapter to prepare your data models for migration.

1. Make sure that you are running ShowCase 4.5 with the latest patch. This is required for the files to migrate correctly. To download the latest patch, log on to the SPSS Technical Support Web site at <http://support.spss.com/> and click Patches.
2. Data models created before 4.50.101 must be opened and saved in 4.50.101 or later, or in ShowCase Suite 6.5 or 7.0. This patch and subsequent patches include the Query and Report Writer Migration Tool, which you must run to automatically upgrade the internal format of your existing queries, reports, data models, and lookups. The instructions for running this tool are included in the *Enterprise Reporting Administrator's Guide*.

If you have already migrated your queries and reports to 4.50.101 (or later) with this tool, you might have migrated some or all of your data models and lookups to the same level. Rerun the tool to ensure that all data models and lookups have been migrated.

Note: Although the text in the *Enterprise Reporting Administrator's Guide* does not specifically reference data models and lookups, the Query and Report Writer Migration Tool migrates these files.

3. Back up the data using the `SAVSRVRINF` command. For more information, see the *ShowCase Administrator's Guide*.
4. Create a named connection using the instructions in “Named Connections” on p. 51.
5. During Analyzer migration, images of your data models will migrate to 7.01, but the source files will remain in the 4.5 library. For this reason, you must use the `CHGANZENV` command to specify the location of your 4.5 library so that the models will be usable after migration. For instructions, see “Named Connections” on p. 51.
6. See Chapter 6 for information about running the Analyzer migration.

During Data Model Migration

See the tables in Chapter 6 for information about what will happen with data models during migration.

What Won't Migrate

- **Database formatting.**
- **Lists.** Date lists result in an error message.
- **Data models containing prompts.** Remove the prompts before using the data model in Analyzer 7.01. If you attempt to migrate models containing prompts, you will receive an error message when you try to run them in Analyzer.

- **Data models containing multiple selection options within a selection (for example, a UNION statement).** You must create a view using iSeries OS/400 V5R2. For more information, see “Using UNIONS” on p. 59.
- **Model-based views containing calculations.** This results in `ERROR` status in the migration (DMPAOS) table and will not migrate. Instead of migrating these views, you can either re-create them in Analyzer 7.01 or remove the calculated columns before migrating and re-create the calculated columns after the views have been migrated

Working with ShowCase Data Models in Analyzer 7.01

ShowCase data models (SDM) and lookups are created in Query. Because Query cannot directly connect to the Analyzer Server, models and lookups are stored and secured by the Warehouse Manager Server. Analyzer supports ShowCase data models and lookups according to the following guidelines:

- After an SDM connection is created (manually or via migration), the named connection configured for the SDM connection must, at a minimum, reference a 6.50.120, 6.51.030, or 7.00.000 Warehouse Manager Server. Otherwise, the user will receive a licensing error when attempting to display an SDM report.
- Data model connections are defined in the Administration Tools Client or the Java Web Client. For information on global and personal connections, see the online Help.
- When defining data model connections, the Warehouse Manager Server and Orion Application Server must be running.
- When accessing data using a data model, the Warehouse Manager Server must be running.
- Define a named connection within the Analyzer Server (*QueryEngine.cfg*) to point to the Warehouse Manager Server for data access. For instructions, see “Named Connections” on p. 51.
- Use the Warehouse Manager Client to set data model security. For security information, see the *ShowCase Administrator's Guide*.

Note: When applying ShowCase security to the Warehouse Manager Server (via the Warehouse Manager Client), wait 10 minutes, log out of Analyzer, and then log in and reconnect to your ShowCase data model to ensure that the changes take effect.

- Data formatting must be applied in the Analyzer Administration Tools Client. Scale factor is no longer supported. See the online Help for information.
- When defining a data model connection, you are required to enter an Enterprise Reporting (ShowCase Server) user ID. You are also prompted for the iSeries user ID and password so that the Analyzer Server can determine lookup names.
- The Suppress Missing Rows function is not available for SDMs.
- For information on working with data models, see the Administration Tools Client online Help.

Adding a ShowCase Data Model Connection

This procedure assumes that you have created a data model in ShowCase Query and saved it to the ShowCase Server.

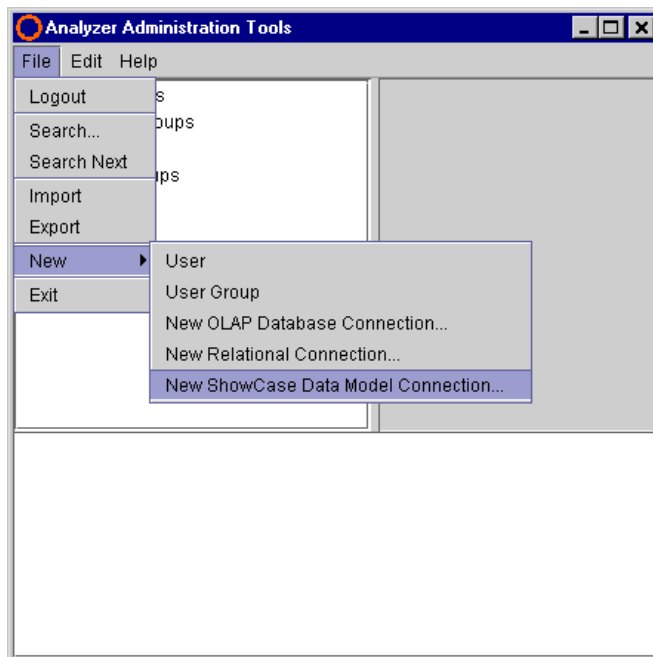
1. To connect to data models successfully, you must have ShowCase version 6.50.120, 6.51.030, or 7.00.000. This includes server and client versions.
2. Before adding a ShowCase data model connection, define a named connection in the Analyzer Server's *QueryEngine.cfg* file to point to the Warehouse Manager Server for data access. For more information, see "Named Connections" on p. 51.
3. Start the Warehouse Manager Server and Orion Application Server.
4. In Analyzer, log on to the Administration Tools Client or the Java Web Client.
5. To create a global database connection in the **Administration Tools Client**, from the File menu choose:

New

New ShowCase Data Model Connection

Figure 7-1

New data model connection in the Administration Tools Client



To create a personal database connection in the **Java Web Client**, choose to create a new report. In the Select Database Connection dialog box, right-click and choose:

Add New

ShowCase Data Model Connection

You can also create a personal database connection from the Tools menu: Click User Preferences. In the User Preferences dialog box, click Connections. Then click the Add New button. From the drop-down list, select ShowCase Data Model Connection.

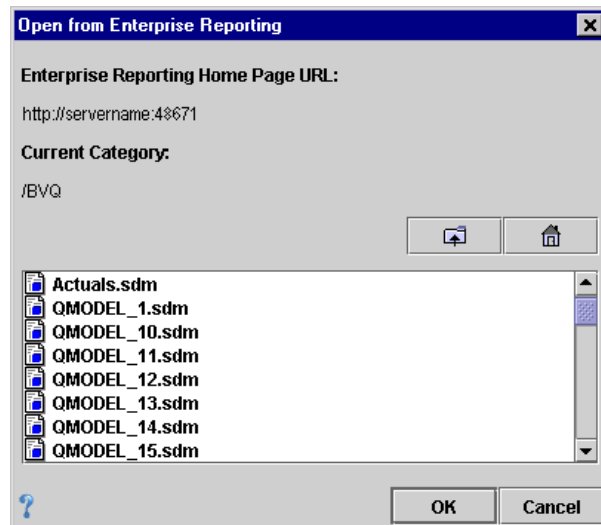
6. In the Enterprise Reporting Login dialog box, enter the information as shown in the following figure.

Note: To fill in the dialog box automatically, use the `CHGANZENV` command to specify a default Enterprise Reporting Home Page URL, Warehouse Manager Server library, and named connection. For more information, see “Named Connections” on p. 51.

Figure 7-2
Enterprise Reporting Login dialog box

- **Enterprise Reporting Home Page URL.** Include the relational database (RDB) name of your iSeries and the port you specified for the Orion Application Server when you installed the Warehouse Manager Server components. The default Orion port number is 48671. This is not your Analyzer port number or Warehouse Manager port number.
 - **Warehouse Manager Server Library.** Name of the Warehouse Manager Server library where the data models are stored. The default is SCSERVER.
 - **Named Connection.** Name of the stanza [in brackets] that you created in the *QueryEngine.cfg* file. For more information, see “To Define Named Connections” on p. 51.
 - **User ID and Password.** Enter a valid Enterprise Reporting user ID and password. This is the same information that you use to save to the ShowCase Server.
7. Because connecting to a data model loads the associated lookups, you will be prompted for the iSeries user ID and password so that the Analyzer Server can determine the lookup names.
 8. In the Open from Enterprise Reporting dialog box, locate the ShowCase data model (*.sdm*), as shown in the following figure, and click OK. The connection will be created and appear in your list of databases.

Figure 7-3
Choosing a data model



Modifying an Existing Data Model Connection

To modify the definition of an existing data model connection or lookup (for example, to add columns, to change the `SELECT` statement, or to change a lookup), first use Query to save the new information to the Warehouse Manager Server.

Because Analyzer “imports” data models and lookups from the Warehouse Manager Server to the Analyzer Server, changes to the data models or lookups are not automatically applied to Analyzer’s database connection. You must click the Refresh button in Analyzer to reimport the data model. (However, when you click the Refresh button, all data formatting applied in Analyzer will be lost and you will have to redefine the data formatting.) If a lookup has been changed, you must refresh each data model that uses that lookup.

1. In the Administration Tools Client, select the data model connection that you want to change.
2. On the General tab, click Refresh.
3. In the Login dialog box, enter your Enterprise Reporting (ShowCase Server) user ID and password. Click OK. You will be prompted for the iSeries user ID and password so that the Analyzer Server can determine the lookup names.
4. In the Open dialog box, locate the data model, and click OK. This reimports the connection.
5. You may have to log out of the Administration Tools Client and log in again to see the changed file.
6. Confirm that the formatting is acceptable.

Named Connections

A named connection links the Analyzer Server to the Warehouse Manager Server. This link is defined in the *QueryEngine.cfg* file on the Analyzer Server and provides data access and enables ShowCase security for data models. You must define a named connection before you migrate or work with data models in Analyzer.

When you define a named connection, the stanza name [in brackets] must match your named connection entries when defining ShowCase data models with the `CHGANZENV` command and when creating a new data model connection. (See Figure 7-2 on p. 49.)

To Define Named Connections

These instructions describe how to edit *QueryEngine.cfg* to establish a named connection.

1. Stop the Analyzer 7.01 Server. For more information, see Chapter 8.
2. In the IFS directory, the file is in the location
/ANZSERVER/proddata/reportservice/config/QueryEngine.cfg
(where *ANZSERVER* is the Analyzer 7.01 installation directory).

Use the iSeries `EDTF` (Edit Stream File) utility to edit *QueryEngine.cfg*. For example, at an iSeries command line, enter (not case sensitive):

```
EDTF STMF (' /ANZSERVER/proddata/reportservice/config/QueryEngine.cfg')
```

Alternatively, you can use a Windows text editor to manually open and edit the *QueryEngine.cfg* file. A simple text editor is recommended because it will not apply formatting or character properties.

3. Define a named connection, using the following example as a guide. Additional instructions are included in the *Enterprise Reporting Administrator's Guide*.

```
[SCServer]  
DRIVER_CLASSNAME=com.showcasecorp.jdbc.SCDriver  
URL=jdbc:showcasecorp://server_name:43419;translate binary=true
```

In the example,

- `[SCServer]` is the stanza name. It must match your named connection entries when defining ShowCase data models with the `CHGANZENV` command and when creating a new data model connection. (See Figure 7-2 on p. 49.)
 - `server_name` is the system name. For example, on the iSeries, it is the relational database (RDB) name of the iSeries where the data models are stored. This is the name of the iSeries as defined in `WRKRDBDIRE` with `*LOCAL`.
 - `43419` is the port number of the Warehouse Manager Server where the data models are stored.
4. Save the *QueryEngine.cfg* file, and restart the Analyzer Server.

Using the CHGANZENV Command

Use the CHGANZENV command in the following two situations:

Required for migrating data models. During Analyzer migration, images of your data models will migrate to 7.01, but the source files will remain in the 4.5 library. Therefore, you must use the CHGANZENV command to specify the location of the 4.5 library so that the models will be usable after migration. You must specify the library, URL, and named connection of your data models. If you do not specify this information before migration (MIGAOS), you must individually enter the information for each data model with the Administration Tools Client.

Optional for working with data models. You can set default data model information when you create a new data model database connection. The properties of existing data model connections are unaffected by the CHGANZENV command. Setting this information will automatically fill in the Enterprise Reporting Login dialog box. (See Figure 7-2 on p. 49.) The CHGANZENV command allows you to specify the following data model (.sdm) information:

Figure 7-4
CHGANZENV command

Change Analyzer Environment (CHGANZENV)		
Type choices, press Enter.		
License Password	*SAME	
Server Port	*SAME	Character value, *SAME
Default SDM WHM Server Library	SCSERVER	Character value, *SAME
Default SDM ER Home Page URL . .	http://servername:48671	
Default SDM Named Connection . .	SCServerStanza	
Support Relational Connections	*SAME	*SAME, *ENABLED, *DISABLED
Bottom		
F3=Exit F4=Prompt F5=Refresh F12=Cancel F13=How to use this display F24=More keys		

- **Default SDM Warehouse Manager Server Library.** Name of the server library where the data models are stored.
- **Default SDM Enterprise Reporting Home Page URL.** URL in the form `http://server_name:port`, where `server_name:port` is the relational database (RDB) name of the iSeries and the port of the Orion Application Server. The default Orion port number is 48671. This is not the Warehouse Manager Server or Analyzer Server port number.
- **Default SDM Named Connection.** Name of the named connection stanza [in brackets]. For more information, see “To Define Named Connections” on p. 51.

To Use the *CHGANZENV* Command

1. To add the Analyzer library to your library list, type the command:

```
ADDLIBLE ANZSERVER
```

where `ANZSERVER` is the name of the Analyzer Server library.
2. Stop the Analyzer Server. For instructions, see Chapter 8.
3. Type the command `CHGANZENV` and press F4.
4. Enter the Enterprise Reporting home page URL, Warehouse Manager Server library, and named connection, and press Enter to save the changes. For help in using the `CHGANZENV` command, press F1.
5. Start the Analyzer Server. For instructions, see Chapter 8.

Relational Database Connections

Relational database connections allow you to retrieve relational tables and define their properties in Analyzer. There are several ways to access relational data using Analyzer, including ShowCase data models (described in this chapter), custom report SQL spreadsheets, relational drill-through, and relational database connections (ROLAP). The online Help provides information on these data access methods. Supported data sources are described in the following table.

For help with data model problems, see Chapter 10.

Supported Data Sources

The following relational data sources are supported for Analyzer. The drivers are installed with Analyzer.

Table 7-1
Supported data sources

Driver type	Supported data sources
ShowCase JDBC	iSeries DB2 UDB. (New. Use if you want to use ShowCase security and other Warehouse Manager functions.)
iSeries DB2 UDB	iSeries DB2 UDB
Microsoft SQL Server	Running on Microsoft Windows via Tabular DataStream (TDS): Microsoft SQL Server 7.0 Microsoft SQL Server 2000 with SP1 and SP2
Oracle Database	Running on Windows and UNIX: Oracle 8i R2 (8.1.6) Oracle 8i R3 (8.1.7) Oracle 9i

Configuring Relational Connections

The following instructions help you to define a relational database connection (ROLAP).

To configure a global relational database connection:

1. Log in to the Administration Tools Client.
2. Right-click on the Databases folder, and select New Relational Connection. This opens the Configure JDBC Driver dialog box.

For information on relational database connections, see the Analyzer online Help.

To configure a personal relational database connection:

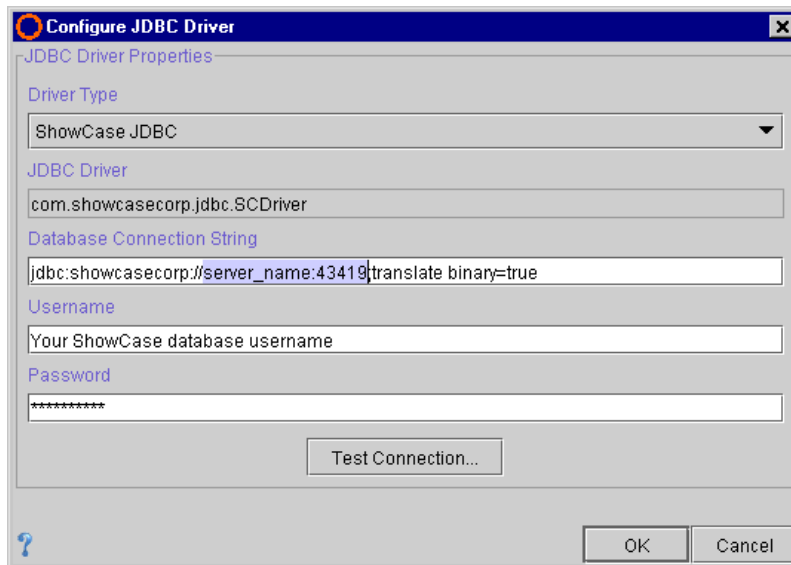
1. Log in to the Java Web Client.
2. From the Tools menu, choose User Preferences.
3. In the User Preferences dialog box, click Connections.
4. At the bottom of the dialog box, click Add New.
5. In the Select Database dialog box, choose Relational, and click OK. This opens the Configure JDBC Driver dialog box.

For information on relational database connections, see the Analyzer online Help.

Specifying a JDBC Driver

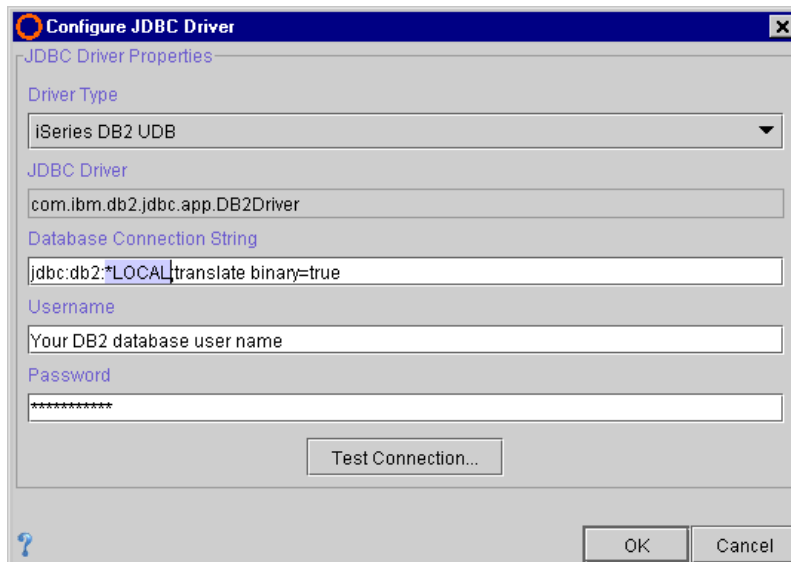
ShowCase JDBC. You can use this driver for DB2 data. When you choose this driver, the JDBC Driver field will be filled in automatically. In the Database Connection String field, replace `server_name` with the name of your iSeries hosting the database. This is the name of the iSeries as defined in `WRKRDBDIRE` with `*LOCAL`. Replace `43419` with the port of the server library hosting the database. Finally, enter the user name and password that will allow you to access the target database.

Figure 7-5
Using the ShowCase JDBC driver



iSeries DB2 UDB. This driver is the OS/400 native DB2 driver. When you choose this driver, the JDBC Driver field will be filled in automatically. The Database Connection String field requires no modifications unless your database is on a server different from where Analyzer is running. (If so, replace *LOCAL with your server name and port number, separated by a colon.) Finally, enter the user name and password that will allow you to access the target database.

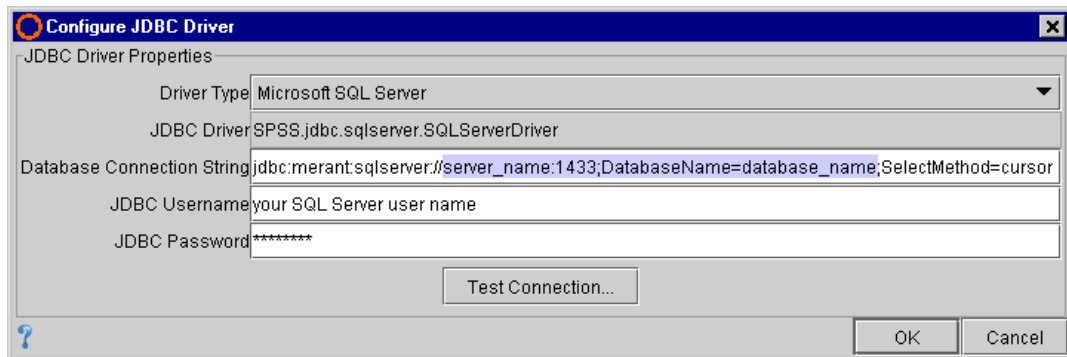
Figure 7-6
Using the iSeries DB2 UDB driver



Microsoft SQL Server. When you choose this driver, the Driver field will be filled in automatically. In the Database Connection String field, replace server_name with the name of your server hosting the database, and replace database_name with the name of your database. Do not change

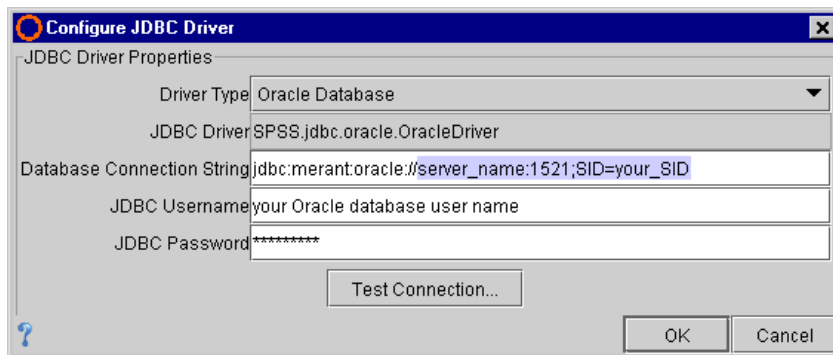
the port number (1433). Finally, enter the user name and password that will allow you to access the target database.

Figure 7-7
Using the SQL Server driver



Oracle Database. When you choose this driver, the Driver field will be filled in automatically. In the Database Connection String field, replace `server_name` with the name of your server hosting the database, and replace `your_SID` with your service ID (SID). Do not change the port number (1521). Finally, enter the user name and password that will allow you to access the target database.

Figure 7-8
Using the Oracle driver



- To complete your relational database connection, click OK to continue choosing relational tables and defining table properties. For more information, see the online Help.

Using the SQL Query Builder Wizard

If you use the SQL Query Builder Wizard to create a SQL spreadsheet and if you use the ShowCase JDBC driver or the DB2 UDB driver, you must specify the library (where the data reside) in the JDBC Connection String field.

ShowCase JDBC. When you choose this driver, the JDBC Driver field will be filled in automatically. In the JDBC Connection String field, replace `server_name` with the name of your iSeries hosting the database. This is the name of the iSeries as defined in `WRKRDBDIRE` with `*LOCAL`. Replace `43419` with the port of the server library hosting the database. Replace `library_name` with the library housing the data. If the library name is not supplied, no table

choices will be displayed in the wizard. Finally, enter the user name and password that will allow you to access the target database.

For example: `jdbc:showcasecorp://MyServer:43419;translate binary=true;libraries=SCSAMPLE70`.

Figure 7-9
SQL Query Builder Wizard: ShowCase JDBC driver

iSeries DB2 UDB. This driver is the OS/400 native DB2 driver. When you choose this driver, the JDBC Driver field will be filled in automatically. In the JDBC Connection String field, the library name must be included as part of the string, after the server name. If the library name is not supplied, no table choices will be displayed in the wizard. If your database is on a server different from where Analyzer is running, replace *LOCAL with your server name and port number, separated by a colon. Finally, enter the user name and password that will allow you to access the target database.

For example: `jdbc:db2:*LOCAL/SCSAMPLE70;translate binary=true`.

Figure 7-10
SQL Query Builder Wizard: iSeries DB2 UDB driver

Disabling Relational Connections

Warehouse Manager row and column security is supported for relational connections that use the ShowCase JDBC driver, but it is *not* supported for relational connections that use the iSeries DB2 UDB driver, the Oracle driver, or the SQL Server driver. Therefore, you may want to disable relational connections (they are enabled by default). The following steps will help you to disable (or enable) the New Relational Connection menu in Analyzer.

1. Log on to the server with *SECOFR or the equivalent server authority (*ALLOBJ, *IOSYSCFG, *SAVSYS, *JOBCTL, *AUDIT, and *SECADM authorities are needed).
2. To add the Analyzer library to your library list, type the command:

```
ADDLIBLE ANZSERVER
```

 where ANZSERVER is the name of the Analyzer Server library.
3. Stop the Analyzer Server. For instructions, see Chapter 8.
4. Type the command CHGANZENV and press F4.
5. Set the data model switch to *ENABLED or *DISABLED and press Enter.
6. Start the Analyzer Server. For instructions, see Chapter 8.

Note: Disabling relational connections affects only connections created after you disable this function. Existing connections will continue to work.

Using UNIONS

To use UNIONS in Analyzer, you must be running on a V5R2 (or later) operating system.

Create a view with a UNION in its SQL statement. Do not use Query to create the view. Then, do one of the following:

- ▶ Use Query to define an Analyzer data model, using your iSeries view as your source.

or

- ▶ Create a relational connection in Analyzer that targets your view as a database. When you create the relational connection, log in to the Analyzer Administration Tools Client, and from the File menu choose New and then New Relational Connection.

Note: ShowCase data models (SDMs) containing UNIONS are not supported.

Migrating Data Models from ShowCase Suite 4.5 to ShowCase Suite 6.5 or 7.0

If you move your data to a new server when you migrate from ShowCase Suite 4.5 to ShowCase Suite 6.5 or 7.0, simply update your named connection with the new server and port information, and use the `CHGANZENV` command to change your default settings. This will change the default settings for the new ShowCase data model connections that you create. Existing connections will remain as-is after running the `CHGANZENV` command.

Clicking the Refresh button will import any changes from the new server as long as the data model path doesn't change.

Troubleshooting

For help with data model problems, see Chapter 10.

Analyzer Administration

This chapter includes the following topics:

- “Starting and Stopping the Analyzer Server”
- “Connecting to the Analyzer Launch Page”
- “Changing Your Server Port Number”
- “Security Settings”
- “Saving and Restoring Data”
- “Setting Up the Mail Server”
- “Analyzer Commands”

Note: When you run the Analyzer commands, you must log on to the iSeries with a profile that has a user class of *SECOFR or equivalent authority (*ALLOBJ, *IOSYSCFG, *SAVSYS, *JOBCTL, *AUDIT, and *SECADM authorities are needed).

Starting and Stopping the Analyzer Server

Starting the Analyzer Server

The STRANZ command starts the Analyzer server.

Note: When running a job, Analyzer uses the *CURRENT CCSID value of the user running the job. Therefore, the CCSID value for the current job running the STRANZ command will also be used for the Analyzer Server. Job CCSID 65535 is not supported.

1. Log on to the iSeries with a profile that has a user class of *SECOFR or equivalent authority (*ALLOBJ, *IOSYSCFG, *SAVSYS, *JOBCTL, *AUDIT, and *SECADM authorities are needed). The profile used to start the Analyzer Server cannot use a password of *NONE.
2. To add the Analyzer Server library to your library list, run the command:

```
ADDLIBLE ANZSERVER
```

where ANZSERVER is the name of your Analyzer Server library.
3. Run the STRANZ command.

Stopping the Analyzer Server

The `ENDANZ` command terminates all current connections to the specified library and stops the server.

1. Log on to the iSeries with a profile that has a user class of `*SECOFR` or equivalent authority (`*ALLOBJ`, `*IOSYSCFG`, `*SAVSYS`, `*JOBCTL`, `*AUDIT`, and `*SECADM` authorities are needed).
2. To add the Analyzer Server library to your library list, run the command:

```
ADDLIBLE ANZSERVER
```

where `ANZSERVER` is the name of your Analyzer Server library.

3. Run the `ENDANZ` command.

Connecting to the Analyzer Launch Page

1. Start the Analyzer Server, using the instructions in “Starting the Analyzer Server” on p. 61.
2. Open Internet Explorer and enter the following URL:

```
http://iseriesname:ANZport/index.html
```

where *iseriesname* is the name of your iSeries, and *ANZport* is your Analyzer Server port number—for example, `http://ouriseries:48693/index.html`.

3. Click Java Web Client or Administration Tools to log in.

If this is the first time you have logged in, you may be prompted to install the Java Plug-in for Internet Explorer.

Responding to the Security Warning

To avoid unexpected problems with the Analyzer applet, when you log in to the Java Web Client or the Analyzer Administration Tools Client, we recommend choosing **Yes** or **Always** when you see the Security Warning.

4. In the Login dialog box, enter your user ID and password. Analyzer’s initial user ID is **Administrator**, and the initial password is **password**. They are case sensitive. Use this information to log in the first time. You may then want to change the password for security reasons. *Warning:* Do not lose or forget your password.

If this is the first time you have logged in, the page will take several minutes to load.

Changing Your Server Port Number

If you change your Analyzer Server port number, remember to update your Analyzer Launch Page URL. Use the following instructions to change your server port number:

1. Add your Analyzer library to your library list with the command:

```
ADDLIBLE ANZSERVER
```

where `ANZSERVER` is the name of your Analyzer Server library.

2. Use an unregistered port. The `WRKSRVTBLE` command allows you to view registered ports. We recommend a port number in the range of 10000–65535.
3. Stop the Analyzer Server, using the instructions in “Stopping the Analyzer Server” on p. 62.
4. Enter the `CHGANZENV` command, and press F4.
5. Change the port value to your new port number, and press Enter.
6. Start the Analyzer Server, using the instructions in “Starting the Analyzer Server” on p. 61.

Security Settings

Analyzer provides three security settings:

- Analyzer Security only
- Essbase Authentication
- OS/400 Authentication (default)

Specify these settings in the Administration Tools Client.

Analyzer Security Only

This setting allows you to create Analyzer user IDs and passwords in Analyzer only. The Analyzer user IDs and passwords are not linked to the iSeries or to Essbase, so to access external servers, you must maintain user IDs and passwords in each location.

To create and manage Analyzer users, user groups, and report groups, see the Administration Tools Client online Help.

Essbase Authentication

With this integrated security option, user IDs and passwords are authenticated based on Essbase security; that is, your Essbase user ID and password will work in Analyzer. You do not need to create users in Analyzer if those users have already been created in Essbase. By default, however, users will not have authority to perform any Analyzer operations.

To allow all Essbase users to log in to Analyzer, select none as the Activation User Group. To allow only select users from Essbase to log in to Analyzer, you must specify an Activation User Group.

The Essbase server must be running for Essbase authentication to work. In the Authentication Server text box, specify the Essbase server that Analyzer should use to authenticate users and security. Valid users on this Essbase server will be valid in Analyzer. You must enter the IP address (or name) of the Essbase server. The Authentication Server option is valid for this security setting only.

For information on adding authority to groups of users, see “Managing User Groups” on p. 65.

Note: For this security setting, not all users are required to be authenticated externally. Some users can be Analyzer-only.

OS/400 Authentication

This Analyzer integrated security setting is the default security setting. All user IDs and passwords are authenticated based on OS/400 security. iSeries user IDs and passwords will work in Analyzer. You do not need to create users in Analyzer if those users have already been created in OS/400. By default, however, users will not have authority to perform any Analyzer operations.

To allow all OS/400 users to log in to Analyzer, select none (default) as the Activation User Group. To allow only select OS/400 users to log in to Analyzer, you must specify an Activation User Group.

For information on adding authority to groups of users, see “Managing User Groups” on p. 65.

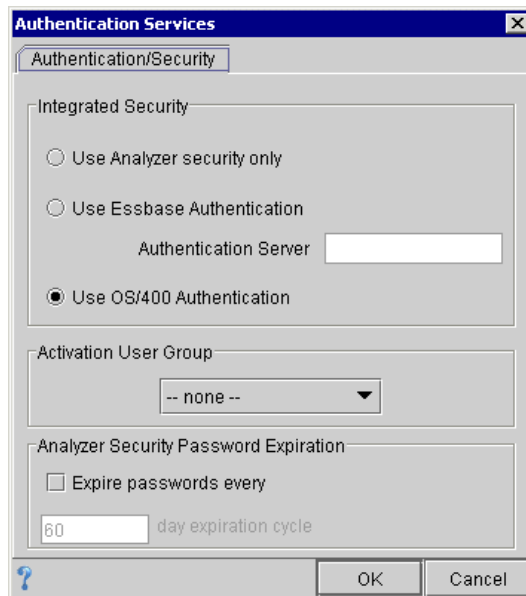
Note: For this security setting, not all users are required to be authenticated externally. Some users can be Analyzer-only.

Choosing a Security Setting

1. Open the Analyzer Launch Page. For more information, see “Connecting to the Analyzer Launch Page” on p. 62.
2. Click Analyzer Administration Tools.
3. When prompted, log in to the Administration Tools Client. If this is your first time logging in, use the default user ID (**Administrator**) and default password (**password**). These are case sensitive.
4. From the Edit menu, choose Authentication Services.
5. The default setting, Use OS/400 Authentication, is selected. The default Activation User Group is set to none. Make any necessary changes, and click OK.

If you choose an Analyzer integrated security setting (Essbase Authentication or OS/400 Authentication), see “Activation User Group” on p. 65 to specify which users will have Analyzer access.

Figure 8-1
Authentication Services dialog box



Managing User Groups

The three types of user groups in Analyzer are Activation User Group, Integrated User Groups, and Analyzer-only User Groups.

Activation User Group

The Activation User Group determines whether an external (OS/400 or Essbase) user can log in to Analyzer. If you choose Analyzer integrated security (OS/400 Authentication or Essbase Authentication) and leave none as the default, all users on the external server are allowed to log in to Analyzer.

To allow only certain users from the external server to log in to Analyzer, create an Analyzer integrated security group and specify it as the Activation User Group. Then create an identically named user group on the external server and add Analyzer users to it. Once you add users to this group, only those users will be able to log in to Analyzer.

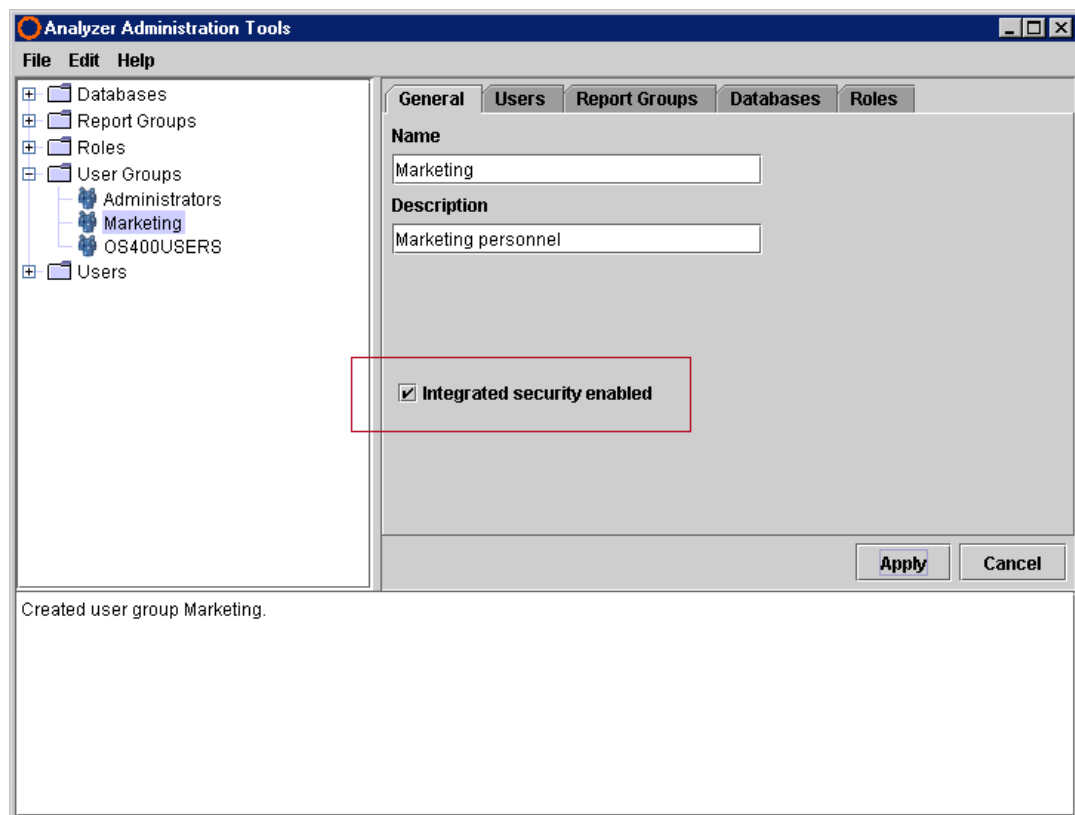
For example, if you select Use OS/400 Authentication, create a group on the iSeries called OS400USERS. Then, create a group in Analyzer called OS400USERS and select Integrated security enabled. Finally, open Analyzer's Authentication Services dialog box and specify OS400USERS as the Activation User Group. Only users in the OS400USERS group on the iSeries will be allowed to log in to Analyzer. For more information, see "Creating an Activation User Group" on p. 67.

Integrated User Groups

With OS/400 Authentication or Essbase Authentication, use Analyzer to create user groups with names identical to your external (OS/400 or Essbase) user groups and assign Analyzer report groups, databases, and roles to these user groups. For instructions on creating a new user group, see the Administration Tools Client online Help.

In Analyzer, when creating identically named user groups (for example, Marketing), on the General tab of the group, select Integrated security enabled. Analyzer user group membership is then managed by the external server. See the following figure.

Figure 8-2
Creating a new user group



You can add Analyzer-only users to integrated user groups in Analyzer. These users are not governed by external servers.

Analyzer-Only User Groups

To create user groups not managed from the external server, create user groups in Analyzer and *do not* select Integrated security enabled.

Creating an Activation User Group

1. Open the Administration Tools Client.
2. Create a new user group in Analyzer with the same name as the OS/400 or Essbase group that you will use as the Analyzer access group.
3. On the General tab of the group, select Integrated security enabled.
4. From the Edit menu, choose Authentication Services.
5. Select Use OS/400 Authentication or Essbase Authentication, and in the Activation User Group drop-down list, select your new group. This new group becomes the default user group for all integrated users and determines whether an external user can log in to Analyzer.

Reminder: If you are using Essbase Authentication and you already have a group profile that identifies OS/400 users with access to Essbase, you may want to use your existing group as your Activation User Group.

Guidelines for Analyzer Integrated Security

When using Analyzer integrated security (OS/400 Authentication or Essbase Authentication), user IDs and passwords are authenticated based on the external server. The following situations apply to systems with Analyzer integrated security enabled.

Administrative User

The initial administrative user (**Administrator**) is exempt from Analyzer integrated security. If the administrator profile exists on the authenticating server, it will not be integrated.

Adding Users or Groups

- Analyzer is resynchronized with the external server each time a user logs in to Analyzer, so changes made in Analyzer will not take effect. You must use the external (OS/400 or Essbase) server to add users to user groups.
- If you use none as the Activation User Group, any user on the external server has access to Analyzer.
- If you specify an Activation User Group, any user added to that group on the external server is automatically added to Analyzer when that user logs in.
- When an integrated security user logs in to Analyzer for the first time, that user is added to Analyzer. If there is a group associated with the user on the external server and that group is also an Analyzer user group and managed by Analyzer integrated security (specified by selecting Integrated security enabled on the General tab of the user group), the user is added to that Analyzer group and inherits its properties.
- If a user exists in Analyzer as an Analyzer-only user, and then the administrator registers the user as an Analyzer integrated security user (on the external server), the user will automatically be converted in Analyzer and will receive all authorities granted by the integrated security level.

Removing Users or User Groups

- Use the external server to remove OS/400 or Essbase users from user groups. Do not use Analyzer.
- If you specify an Activation User Group or use none as the Activation User Group, any user removed from the external server will no longer have access to Analyzer. However, all objects that the user owns or has created remain on the server.
- You cannot deselect Integrated security enabled for the Activation User Group.
- You cannot remove the Activation User Group.

Essbase Security Settings and Analyzer

Analyzer caches Essbase user connections. Therefore, when you make changes to Essbase security settings, if there are cached connections, changes to Essbase security settings will not take effect in Analyzer until you forcibly disconnect all instances of the user(s) on the Essbase server (or until the Analyzer Server is restarted). You can disconnect user instances in the Application Manager—from the Security menu, choose Connections.

For example, an Essbase user has access to Qtr1, Qtr2, Qtr3, and Qtr4 in an Analyzer report. In Essbase (Application Manager or EAS), the administrator applies a filter on the Essbase user to restrict Qtr1 and Qtr2. In Analyzer, the user is still able to see data from Qtr1 and Qtr2, even after logging out and logging in again. Disconnect the Essbase users or restart the Analyzer Server to see the Essbase security changes.

Password Guidelines

Table 8-1
Password security and restrictions

Security setting	Analyzer-only user	Integrated security user
Analyzer-only security	Minimum password length is 6 characters. Maximum password length is 30 characters. Password must consist of alphanumeric characters. Passwords are case sensitive. User ID and password cannot start with an asterisk (*).	Not applicable.
Essbase Authentication	Passwords for Analyzer-only users are defined by the restrictions for Analyzer-only security. User ID and password cannot start with an asterisk (*).	For profiles managed by Essbase, the Essbase security setting determines password restrictions. User ID and password cannot start with an asterisk (*) regardless of security setting.
OS/400 Authentication	Passwords for Analyzer-only users are defined by the restrictions for Analyzer-only security. User ID and password cannot start with an asterisk (*).	For profiles managed by OS/400, the OS/400 security setting determines password restrictions. User ID and password cannot start with an asterisk (*) regardless of security setting.

Important: Do not lose or forget your Administrator password. Administrators locked out of Analyzer must reinstall the product. There is no lockout recovery. If you are locked out of Analyzer and must reinstall, all data will be lost. Please call Technical Support for assistance.

Modifying the Security Setting

If you modify the setting in the Authentication Services dialog box after you specify your security setting, and if there are users who were externally authenticated (OS/400 or Essbase), you must choose to convert those profiles or remove them from Analyzer security.

For example, if you originally specified Use OS/400 Authentication but later changed the setting to Use Analyzer security only, a Modifying the Authentication message will appear if there are users who were authenticated externally. Specify whether those users will be granted access to Analyzer (Convert) or denied access to Analyzer (Delete). For more information, see “Modifying the Authentication” in the Administration Tools Client online Help.

Important: If you convert from integrated security to Analyzer-only security, the converted user IDs and passwords become case sensitive, and those users will be prompted to change their passwords the next time they log in.

Note: An integrated security user is not allowed to change security settings.

Saving and Restoring Data

The save and restore commands allow administrators to perform the following functions:

- Create backups of Analyzer reports, groups, and other objects.
- Safely move Analyzer reports, groups, and other objects from one server to another.

If you are restoring to a server with a different security model, carefully check the value on the security parameter before you run the `RSTANZ` command.

Saving Analyzer Data

You must run the save command from an Analyzer Server library, using `*ALLOBJ` authority to run the command.

1. Stop the Analyzer Server before saving server data. For more information, see “Stopping the Analyzer Server” on p. 62.
2. Add the Analyzer Server library to your library list with the command:

```
ADDLIBL ANZSERVER
```

where `ANZSERVER` is the name of your Analyzer Server library.
3. Type `SAVANZ` and press F4.
4. At the Device prompt, type the name of the device to save to, or type `*SAVF` to save to a file. Press Enter.

If you entered *SAVF, type the existing save filename and the library where you want to create the save file (or *LIBL). If you type a save filename that doesn't exist, the file will be created automatically if you specify the library where you want it saved—do not enter *LIBL. When you press Enter, all Analyzer data in the specified library is saved.

5. If the Analyzer Server library from which data should be saved is not the server library from which the command is run, press F10. At the Library prompt, enter the name of the Analyzer Server library from which data should be saved. This library must contain Analyzer 6.21 or 7.01 data. The default server name is ANZSERVER.

Restoring Analyzer Data

You must run the restore command from an Analyzer Server library and have *ALLOBJ and *JOBCTL authorities to run the command. If you have insufficient authority, the restore operation will fail.

1. If your target system is different from the source system, distribute your save file or move your tape or CD to the target system.
2. Add the target Analyzer Server library to your library list with the command:

```
ADDLIBL ANZSERVER
```

where ANZSERVER is the name of your Analyzer Server library.

3. Stop the Analyzer Server before restoring server data.
4. Type RSTANZ and press F4.
5. At the Device prompt, type the name of the device from which to restore data, or type *SAVF to restore data from a save file. Press Enter. If you entered *SAVF, type the save filename and the library where you created the save file.

Figure 8-3
RSTANZ command

Restore Analyzer Repository (RSTANZ)		
Type choices, press Enter.		
Device	> *SAVF	Name, *SAVF
Save File	— *LIBL	Name, *LIBL
Library		Name, *LIBL
Restore Configuration	*NO	*YES, *NO
Restore Users	*KEEP	*KEEP, *REPLACE, *NONE
Restore Databases	*KEEP	*KEEP, *REPLACE, *NONE
Restore Reports	*KEEP	*KEEP, *REPLACE, *NONE
Allow Security Differences	*NO	*YES, *NO
Bottom		
F3=Exit F4=Prompt F5=Refresh F12=Cancel F13=How to use this display		
F24=More keys		

6. When you press Enter, you will be prompted to restore configuration settings, database connections, user settings, reports, and security differences. If you choose to restore, the saved

and target data will be merged. When a duplicate record is found, you have the option to keep the record in the target library or to replace it with the record in the saved library. Select *YES for the security setting if you have made changes in your security settings or if you are moving data from different Analyzer servers.

Note: Object security for existing and restored objects remains the same.

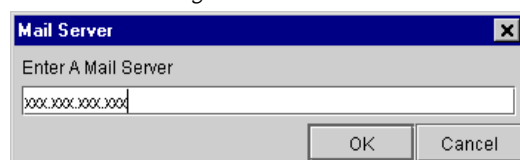
7. After specifying your options, press Enter to begin restoring.

Setting Up the Mail Server

Analyzer users can e-mail hyperlinks to the URL of the current report. To enable this feature, you must specify a mail server in the Administration Tools Client.

1. From the Edit menu, choose Mail Server.
2. In the Mail Server dialog box, enter the IP address or the URL of your e-mail server, (for example, xxx.xxx.xxx.xxx or email.spss.com), and click OK.

Figure 8-4
Mail Server dialog box



If users want to e-mail URLs, they should open the Java Web Client and from the Tools menu choose E-mail Report Link. For more information, open the Java Web Client online Help.

Analyzer Commands

When you run the Analyzer commands, you must log in to the iSeries with a profile that has a user class of *SECOFR or equivalent authority (*ALLOBJ, *IOSYS CFG, *SAVSYS, *JOBCTL, *AUDIT, and *SECADM authorities are needed).

Note: The Analyzer commands do not run if the job is using CCSID 65535.

Table 8-2
Analyzer Commands

Command	Description	Usage
CHGANZENV	Allows you to change your Analyzer environment attributes.	Allows you to enter or change the license password; change the server port number; change the default Warehouse Manager Server library name, URL, and named connection for data models; and/or enable or disable relational data model connections.
DMPAOS	Dumps the AOS repository analysis into a migration table.	This file can be used during the migration. Includes parameters ESSSVRMAP and NEWESSVR for mapping views to a ShowCase Essbase 6.51 or 7.1 server.

Command	Description	Usage
DSPANZENV	Displays your Analyzer environment attributes.	Displays the following information: OEM version, Analyzer Server version, iSeries serial number, iSeries model number, license expiration date, enabled features, number of licenses, license password, Analyzer Server port number and IP address, installation library, Enterprise Reporting Home Page URL, Warehouse Manager Server library, named connection, and whether relational connections are enabled or disabled.
ENDANZ	Stops the Analyzer Server.	Terminates all current connections to the specified library and stops the Analyzer Server.
MIGAOS	Migrates the AOS repository.	Migrates the Analyzer 4.5 repository to Analyzer 7.01. This command will optionally use the output from the DMPAOS command.
RSTANZ	Restores the Analyzer repository.	Restores information obtained by the SAVANZ command.
RTVDBRPT	Creates a table that shows the database that each report uses.	Running the command will create a RTVDBRPT table with three columns: [Database] [ReportGrp] [Report]. To run this command, on an iSeries command line, type: ANZSERVER/RTVDBRPT (where ANALYZER is your Analyzer server library). To verify the result, run STRSQL and type: SELECT * FROM ANZSERVER/RTVDBRPT Order by Database.
SAVANZ	Saves the Analyzer repository.	Backs up Analyzer data to a save file that can be restored with the RSTANZ command.
STRANZ	Starts the Analyzer Server.	Starts the Analyzer Server and readies it for connections.
UNINSTANZ	Uninstalls Analyzer.	Removes all Analyzer information, including any data and reports created with Analyzer 7.01.

Performance

Overview

The ShowCase Analyzer 7.01 release includes many new features that make it easier than ever to create and deliver valuable business insight to the people who need it most.

In order to deliver enhanced functionality to all users, the product has been built on a new Java-based architecture that allows users to access Analyzer's powerful analytic functions from within their Web browsers. For an architectural comparison of ShowCase Analyzer 7.01 and STRATEGY Analyzer 4.5, see "Analyzer Architectural Overview" on p. 6.

ShowCase Analyzer 7.01 is a server-based application. As a result, customers running STRATEGY 4.5 will see decreased performance in ShowCase Analyzer 7.01.

Server-Based Applications

Advantages of a server-based application include:

- Application is easy to deploy. User workstations simply need a supported browser and access to the application server.
- Application code is easily updated from one location (the Analyzer Server). Updates to STRATEGY Analyzer 4.5 require all user workstations to be manually updated.
- Application is available from all workstations with access to the remote ShowCase Analyzer 7.01 Server.

Disadvantages of a server-based application include:

- Overworked servers are common; server-based applications make this worse by off-loading their processing to the remote server.
- The simple fact that data requests must make a round trip from the client workstation to the remote server and then back to the client workstation results in higher response times. Depending on the remote server's workload, the response time can be considerable.
- Users cannot work offline.

Factors Affecting Server Performance

The following elements contribute to server performance:

- **Server load.** When moving to the Java-applet-based architecture, consider server capacity. Java may not perform well on older servers. Performance is also impacted when multiple users access server resources at the same time. For additional performance considerations when running Java applications on the iSeries, see the

“Performance” chapter of the *Enterprise Reporting Administrators Guide*, available at <http://support.spss.com/scdocs/Guides/7.0/ERAdmin.pdf>. This information is also applicable to the ShowCase Analyzer 7.01 Server on the iSeries.

- **Client hardware.** Ensure that the client workstations meet or exceed the recommended system requirements. See “Optimizing Client Workstations” below for more details.
- **Number of custom objects.** As the number of objects increase, system performance decreases. Avoid the inclusion of unnecessary objects whenever possible.
- **Number of members.** As the number of members increase, system performance decreases. Avoid the inclusion of unnecessary members whenever possible.

The redesigned ShowCase Analyzer 7.01 architecture may require users to rework their current views to make them more efficient. See “Efficient View Design” on p. 75 for more information.

Optimizing Client Workstations

The following client-side guidelines should help improve Analyzer’s performance:

System requirements. Whenever possible, ensure that the client workstations meet or exceed the recommended system requirements.

- 512MB of RAM are recommended. Performance improvements are seen up to 1GB of RAM.
- 1.5GHz (or higher) Pentium-class processor is recommended.

Applet use. Leave the applet open but not logged in to the Analyzer Server. For example, after logging out of Analyzer, do not close the main application window. This prevents the applet from being reloaded the next time you access Analyzer.

Note: The applet will consume system memory but will allow faster loading.

Caching. Ensure that browser caching is turned on (temporary Internet files and cookies). See your browser’s online Help for more information.

Application instances. Limit the number of simultaneously running Analyzer application instances.

Disable Linked Reporting Object (LRO) indicators. Enabling LRO indicators (whether or not LROs exist) may decrease Analyzer performance during report retrieval. By default, LRO indicators are not enabled.

- To disable LRO indicators, open a report in the Java Web Client. Open the Cube Navigator, and from the Options drop-down list, deselect Show Linked Reporting Object Indicators.

Java Plug-in (JVM) memory settings. Extending Java Plug-in’s memory on the client workstations can result in improved performance. The more you can extend the memory, the better performance you will see. Note that any other applications using the Java Plug-in will also draw from this same memory. To give the Java Plug-in access to more memory:

1. Open the Java Plug-in Control Panel (via the Start menu’s Control Panel). If you have more than one Java Plug-in, open the version used in Analyzer (or follow these instructions for each Java plug-in version.)
2. Click the Advanced tab.

3. In the Java Runtime parameters field, enter the following:
 - `-XmsN` (where N is the variable to replace with a minimum memory size).
Specify the initial size, in bytes, of the memory allocation pool. Set this at about 25% of the RAM on the PC. For example, if the PC has 512MB, set this to 128m. This value must be a multiple of 1024 greater than 1MB. Append the letter *k* or *K* to indicate kilobytes or *m* or *M* to indicate megabytes. The default value is 2MB.
Examples:
 - `-Xms6291456`
 - `-Xms6144k`
 - `-Xms6m`
 - `-XmxN` (where N is the variable to replace with a maximum memory size).
Specify the maximum size, in bytes, of the memory allocation pool. Set this at about 50%–75% of the RAM on the PC. For example, if the PC has 512MB, set this to 256m or 364m. This value must be a multiple of 1024 greater than 2MB. Append the letter *k* or *K* to indicate kilobytes or *m* or *M* to indicate megabytes. The default value is 64MB.
Examples:
 - `-Xmx83886080`
 - `-Xmx81920k`
 - `-Xmx80m`
4. Click Apply to save the changes.

Optimizing Analyzer Server Performance

The following guidelines should improve ShowCase Analyzer's performance.

Database Connections

Whenever possible, keep the number of database connections to a minimum. Numerous connections result in delayed response times because the server must negotiate each individual connection.

Efficient View Design

One of the keys to effective view design is to include only the information you need. The following view design guidelines should help to improve Analyzer's performance:

- **Use fewer objects.** Avoid the inclusion of unnecessary objects whenever possible. Objects such as combo boxes and radio buttons can be detrimental to server performance. Also, using multiple objects in a view can negatively impact performance.
- **Use members efficiently.** Try to limit the number of members. For example, do not retrieve 50,000 cells when the user will analyze only 500 cells.
- **Avoid data-intensive options.** Whenever possible, avoid data-intensive options. For example, do not use `Dim Bottom` on the member `Year` when you are interested only in results for the months of April and August.

ShowCase Data Model (SDM) Management

The following SDM management guidelines should help to improve Analyzer's performance:

- **Optimize and tune relational databases.** For details on working with data models, see Chapter 7.
- **Use Enterprise Reporting.** Whenever possible, use Enterprise Reporting to create intermediary results (for example, when working with JOINS that SDMs use).

Essbase Retrievals

The act of retrieving Essbase data does not negatively affect Analyzer's performance. However, the internal structure of the Essbase data can be tuned to provide more efficient performance.

For Essbase-related performance tips, see Chapter 4, "Managing Performance," in the *ShowCase Essbase Administrator's Guide*.

Troubleshooting

To troubleshoot Analyzer, search for your problem using the headings in this chapter. For a list of release notes that may provide additional information about the cause of your problem, see Chapter 2.

Unable to Start the Server

If you have problems starting the server, display your Analyzer settings to ensure that your password is valid. Use the `DSPANZENV` command.

If you receive a “Cannot start Analyzer server” message and the `DSPANZENV` command shows “Server IP not found,” update the TCP/IP network configuration with the iSeries system using the following instructions:

1. On an iSeries command line, enter the command `CFGTCP` and press Enter. Choose option 12 and press Enter. On the Change TCP/IP Domain screen, make sure that the host and domain names are configured for the TCP/IP domain information. For example, on an iSeries with the host name `ourserver` and the domain `spss.com`, the following information should be set up:

Host name: `ourserver`

Domain name: `spss.com`

2. On an iSeries command line, enter the command `CFGTCP` and press Enter. Choose option 10 and press Enter. On the Host Table Entries screen, make sure that the `Hostname.Domain` name is listed.

Using the above example, the following entry is required in Host Table Entries or on the DNS server:

`ourserver.spss.com`

3. Finally, ping the full name from the iSeries command line to ensure that the full name is set up correctly:
`ping ourserver.spss.com`

Unable to Log On to Analyzer

1. Check the job log for any error messages. Use the `DSPANZENV` command to verify that your password is valid based on the security setting you are using. For more information, see “Password Guidelines” in Chapter 8 on p. 68.
2. If you are an Analyzer-only user, verify that your password is correct. Analyzer-only passwords are case sensitive.

3. If you are an integrated user (externally authenticated via OS/400 or Essbase), verify that:
 - You have a valid profile on the external server and can log on to that server directly.
 - The IP address listed for the Essbase Authentication Server is correct in the Authentication Services dialog box.
 - You are using the correct user ID and password.
 - You are in the activation group on the external server (if one is specified in Analyzer).
 - The external activation group, if one is specified, is marked as the Activation User Group in Analyzer's Authentication Services dialog box.
 - The Essbase Server is running at the 6.51 or 7.1 level if you are using Essbase Authentication.

Forgotten Port Number

If you forget your server port number (which is used to connect to Analyzer), use the following command to find your port number:

```
WRKSRVTBLE SERVICE (ANZSERVERyour_server_name)
```

For example: `WRKSRVTBLE SERVICE (ANZSERVERANZSERVER)`

When you press Enter, the service table entry will display your port number. If you need to change the port number, see “Changing Your Server Port Number” on p. 62.

Server Stops Responding or Hangs

To avoid or correct any Analyzer Server response problems, use the following configuration settings:

1. Set the Essbase Query Governor to the desired, reasonable limit for Essbase retrievals.
2. Specify the session timeout for new sessions to be *greater* than the Essbase Query Governor using the following parameter in the *Analyzer.properties* file in the IFS:

```
scsession.timeout.minutes=nn
```

The `nn` value is a numeric value identifying the number of minutes the session can be inactive before it is cleaned up. If this value is not found in the properties file, the current default of 30 minutes will be used instead. In this case, the Essbase Query Governor *must* be set to *less* than 30 minutes.

To Modify the Analyzer.properties File

1. Stop the Analyzer Server.
2. In the IFS directory, open the *Analyzer.properties* file for editing. The file is in the location `/ANZSERVER/proddata/config/` (where `ANZSERVER` is the Analyzer installation library).

Client Stops Responding or Hangs

The Analyzer client may consume memory to the point where the client may hang or be slow to respond. Restarting the client occasionally will clean out the memory and may result in improved performance. To avoid or correct any client response problems, review “Optimizing Client Workstations” on p. 74.

Cube Navigator Slow to Load

If the Cube Navigator loads slowly (longer than two minutes) with a new report, use the CFGTCP command with option 12, and specify the host name search priority as *Local. This will force Analyzer to use the local DNS entry rather than being routed outside the company network.

Multiple Essbase Login Prompts from Analyzer

If you are receiving multiple Essbase login prompts from Analyzer (even with Essbase Authentication enabled), it may be because your databases were not migrated during the MIGAOS process.

During Analyzer migration, we recommend migrating everything, including your databases. For example, on the MIGAOS command, specify *KEEP or *REPLACE when migrating databases. If the views have already been migrated, you can export and reimport the migrated views, or remigrate the views to include the databases (using the *KEEP or *REPLACE options).

If databases are not migrated during migration, the migration creates personal databases, each requiring a separate login to open a migrated view.

Duplicate Key Error When Migrating

You will receive a duplicate key error if you attempt to migrate files with duplicate names. Because Analyzer is not case sensitive for filenames, you cannot have duplicate database names. For example, you cannot have names such as Tbc : Demo and TBC : Demo.

Repeated Login Prompt

If you are prompted repeatedly to log on when using the ShowCase data model database connection, make sure that the Warehouse Manager Server is running and the named connection information is correct. Verify that you are using the correct user ID and password. For more information, see Chapter 7.

'String index out of range:-1' Message When Importing a Group

Before exporting a report group migrated from Analyzer 4.5, you must open each report in the group. Doing so will automatically convert reports to the new version and resave them to the server. Once all reports are opened, you can export a report or report group and import it elsewhere without problems.

Security Problems

- Make sure that users have appropriate access to the collections, tables, or columns referenced in the database connections.
- If Essbase security changes don't seem to take effect in Analyzer, forcibly disconnect all instances of the user(s) on the Essbase server, or restart the Analyzer Server. You can disconnect user instances in the Application Manager—from the Security menu, choose Connections.

Working with UNIONS

To use UNIONS in Analyzer, you must be running on a V5R2 (or later) operating system.

If you are having trouble working with UNIONS, see “Using UNIONS” on p. 59.

Long-Running Member Searches in Dimension Browser

Right-clicking on a member in the dimension browser to perform a beginning, substring, or ending search against an outline dimension with many members (for example, more than 1,000) could take several minutes and consume server resources (depending on the power of your iSeries).

To limit search times, the administrator can specify a search timeout limit in the *Analyzer.properties* file. Imposing a time limit will cancel long-running beginning, substring, or ending searches but will have no effect on whole searches.

Notes:

- Not specifying a timeout implies an infinite timeout for the search.
- Specifying a timeout cancels the search after the requested time. An error message is returned to the user without any search results.
- The search limit applies only to OLAP data.

To Modify the Analyzer.properties File

1. Stop the Analyzer Server.
2. In the IFS directory, open the *Analyzer.properties* file for editing. The file is in the location */ANZSERVER/proddata/config/* (where *ANZSERVER* is the Analyzer installation library).
3. Add the following line to the file, specifying the timeout value in minutes:
`scolapsearch.timeout.minutes=10`
4. Save the file, and restart the Analyzer Server.

No Data Returned or 'Invalid SQL Query' with ShowCase JDBC Driver

Using the ShowCase JDBC driver to query a table that uses an SQL reserved word as a column heading could result in an “Invalid SQL Query” error message or could result in no data returned.

The ShowCase JDBC driver supports SQL reserved words as column headings only if the Query Builder is used and if the column heading is edited to be contained within quotation marks.

Otherwise, the ShowCase JDBC driver does not support SQL reserved words as column headings. The workaround is to use the iSeries DB2 UDB driver instead.

The most common reserved words are:

CATALOG	COUNT	CURRENT
DATE	DAY	DEC
DIAGNOSTICS	DOUBLE	EXTERNAL
FILE	FIRST	GROUP
HOUR	KEY	LANGUAGE
LAST	LEFT	LEVEL
LOCAL	MATCH	MINUTE
MONTH	NAMES	NATIONAL
NATURAL	OPTION	POSITION
PRIMARY	RELATIVE	SECOND
SECTION	SIZE	TIME
TRANSLATE	TRANSLATIONS	UPPER
VALUE	VALUES	WORK
YEAR	ZONE	

'Hide Report' Function Doesn't Prevent Users from Seeing Report

The Hide Report option (in Report Properties) indicates whether or not the report should be opened when the entire report group is opened. It is not a security mechanism. Use the Analyzer Administrator to control access to reports.

Unable to Import Sample Reports

If you are not able to import some or all of the sample reports, try giving the Java Plug-in access to more memory. For instructions, see "Java Plug-in Memory Guidelines" on p. 20.

Data Model Connection Errors

If you get an error when creating or refreshing a database connection (such as "The repository server is not responding," "file not found," or "resource missing"):

- Make sure that the Orion Application Server is running in the library that contains the data models.
- Verify that the iSeries name, Warehouse Manager Server library name, and Orion Application Server port are correct.

- Make sure that your original data model (.sdm) exists in the Warehouse Manager Server library and that the path and file to the library are correctly specified.
- Verify that you have access to the collection, table, or column referenced in the database connection.

Licensing Errors with Data Models

If the Warehouse Manager Server is not at the minimum supported level, the user will receive a licensing error when attempting to display an SDM report. For details on the minimum level, see “Working with ShowCase Data Models in Analyzer 7.01” on p. 47.

Lookups Are Missing

If you get an “Invalid RELATAB Control Table” error, open and save each lookup (.slp) and data model (.sdm), or use the Query and Report Writer Migration Tool. (For instructions on running this tool, see the *Enterprise Reporting Administrator’s Guide*.) Then click the Refresh button in Analyzer to reimport the file.

SDM Reports Don’t Display Dimension Member

In SDM reports, dimension members are not displayed as the roll-up of the individual members. The workaround is to add a calculated value that is the roll-up of the individual members.

Other Problems

If you have unexplained problems, the Essbase Server may have timed out. If this happens, log out of Analyzer and log back in. You can change the “inactive limit” value in the Essbase Application Manager or the Essbase Administration Services (EAS).

For all other problems, check to see if your problem is in the Readme file (*anzreadme.htm*). From the Analyzer Launch Page, open the Information Map.

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