

MicroStrategy 7

Installation and Configuration Guide

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09300600 Published June 2000

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SECTION I

Installation

Topics included in this section:

- Installation Prerequisites
- Installation Procedures

CHAPTER 1

Installation Prerequisites

1

Before installing MicroStrategy 7 products, you should review the following information:

- recommended hardware configurations
- software requirements
- system sizing guidelines

System hardware recommendations

The following hardware configurations are recommended for MicroStrategy products:

MicroStrategy product	Processor	Memory	Storage
Desktop	Pentium II, 266 MHz	64 MB	200 MB
Intelligence Server	dual processor	512 MB	200 MB
Web	dual processor	512 MB	200 MB

In addition to the MicroStrategy products listed above, the metadata database server should run on a machine with the following configuration:

- Processor: Pentium II, 400 MHz
- Memory: 256 MB
- Storage: 200 MB

System software requirements

For successful installation of MicroStrategy products, certain software requirements, both general and product-specific, must be satisfied.

General

The following are required to install *any* MicroStrategy product on Windows NT, Windows 95 or Windows 98:

Platform	Minimum Requirements
Windows NT	<ul style="list-style-type: none">• Windows NT 4.0 SP4• TCP/IP network protocol• 3 MB of memory for registry
Windows 95, 98	DCOM installed (installed automatically if it is not already installed)
All	256 colors

Product-specific

The following are MicroStrategy product-specific software requirements:

MicroStrategy product	Minimum Requirements
MicroStrategy Web	<ul style="list-style-type: none">• Microsoft Internet Information Server 4.0• Microsoft Internet Explorer 5.0
MicroStrategy Intelligence Server	<ul style="list-style-type: none">• Microsoft Internet Explorer 5.0• Microsoft Data Access Component (MDAC) 2.1 SP2 (installed automatically)

MicroStrategy product	Minimum Requirements
MicroStrategy Desktop	<ul style="list-style-type: none">• Microsoft Internet Explorer 3.01 (limited Agent and Architect functionality)• Microsoft Internet Explorer 4.01 SP 1 (full functionality)
MicroStrategy demo project (VMall)	Microsoft Access ODBC driver

Note: If the installed version of Microsoft Internet Explorer is lower than that required, the Installation Wizard provides the option to install Microsoft Internet Explorer 5.0. If the option is declined, Microsoft Internet Explorer becomes a missing requirement.

System sizing guidelines

System sizing topics include:

- number of users
- report complexity
- ad hoc reports versus caches
- additional considerations
- putting it all together

Note: The above topics are designed to help you determine what the best configuration is for your system. Keep in mind that there is no exact formula for determining this because it is impossible to predict the actual system load before a project is in production. These suggestions are intended to be basic guidelines to be used when you initially configure the system. You should periodically reevaluate your system and update the configuration based on actual system performance and usage.

Number of users

The number of users can be measured in the following ways:

- **Total users:** Users that are registered in the system. For example, if a corporate Web site is available to be viewed by 950 individuals, the site has 950 total users.
- **Active users:** Users that are logged into the system. For example, if a corporate Web site is available to be viewed by 950 individuals and 30 of them are logged in to the site, there are 30 active users.
- **Concurrent users:** Users that have jobs being processed by a server (MicroStrategy Web, MicroStrategy Intelligence Server, and so on) at the same time. For example, a corporate Web site is available to be viewed by 950 different individuals and 30 people are logged in. Of those 30 active users, 10 have jobs being processed by the server. So there are 10 concurrent users.

Of these measures, the number of concurrent users is the most important one to consider. Your system must be able to support the maximum number of concurrent users you expect at any given time.

The following table shows the percent of concurrent users to total users in some typical scenarios:

Scenario	% of concurrent users to total users
Typical enterprise system	3.50%
Peak for a typical e-Business system	1.00%
Average for a typical e-Business system	0.35%

Report complexity

The more complex a report, the more stress you put on the system. The response time for very simple reports can be just as fast as that for cached reports. Because analytically complex reports create a heavier load than simpler reports, you should have a general idea of what the average report complexity is for your system.

Knowing this can help you decide on a caching strategy and figure out how much processing power your system needs.

Ad hoc reports versus caches

By default, report caching is enabled when running reports in MicroStrategy Web. Report caching allows your users to experience better response time while minimizing the load on MicroStrategy Intelligence Server. Of course, this also increases the load on the Web server.

The benefits of caching are more apparent for complex reports than for simple reports. While a report cache for a complex report can save a lot of time, a report cache for a simple report may not significantly reduce processing time.

Tip: Keep in mind that object and element browsing are similar to ad hoc reports. By default, caching is enabled for these types of requests and you have the ability to limit the number of elements or objects that can be retrieved at a time.

Additional considerations

Numerous factors can affect system performance but most of them depend on the specifics of a particular system so it is impossible to predict them all. However, listed below are some things that you may wish to consider when determining the requirements for your particular system.

MicroStrategy Desktop versus MicroStrategy Web usage

MicroStrategy products are designed with the assumption that the majority of users access the system through MicroStrategy Web while only a small percentage of power users and administrators use MicroStrategy Desktop.

Statistics logging

Statistics logging is extremely useful for analyzing your system and further refining the system configuration based on actual usage. However, logging all statistics all the time may create a noticeable reduction in system response time. For this reason, you may wish to only log a subset of the statistics or only log statistics periodically.

Backup frequency

Caches can be stored in memory and on disk. When you enable Backup you allow MicroStrategy Intelligence Server to write all cache files to disk. If the backup frequency is set to zero (the default), backup files are written to disk as soon as they are created. However, writing all cache files to disk all the time may cause a noticeable reduction in system performance.

Set the backup frequency to a value that minimizes disk writes and optimizes memory usage for your system.

Ratio of Web servers to MicroStrategy Intelligence Servers

In a typical system you should have a 1:1 ratio of MicroStrategy Intelligence Servers to MicroStrategy Web servers. This ensures that you optimize resources on both sides. However, you may find it useful to add more servers to one or the other depending on your particular requirements.

Report styles

MicroStrategy Web provides a set of different XSL report styles. These styles provide an easy way for you to customize how reports look. Due to the varying complexity of these styles, some may require slightly more processing than others.

Putting it all together

The following tables are meant to serve as a starting point to help you determine the size of your system. Keep in mind that these are only guidelines. You should purchase enough hardware to allow room for growth as the user base, project size and system complexity increase.

The first table lists some possible hardware configurations for your system. All these configurations have MicroStrategy Intelligence Server and MicroStrategy Web on different machines except for *Quad, which has them on the same machine.

The second table shows which configuration to use based on the number of users and the desired system response time.

Configuration	Processor speed (MHz)	RAM (MB)	Number of processors	MicroStrategy Intelligence Servers	Total Machines
Single	450	128	1	1	2
Dual	500	512	2	1	2
Quad	500	1024	4	1	2
*Quad	500	1024	4	1	1
Cluster	500	1024	4	2	3

Supported Users			Configuration		
Enterprise	e-business	Concurrent	Recommended (response time of about 12 seconds)	Minimum (response time less than 18 seconds)	Optimal (response time less than 10 seconds)
0-1428	0-5000	0-50	Single	Single	Single
1428-2142	5000-7500	50-75	Dual	Single	Dual
2142-2857	7500-10000	75-100	Dual	Dual	*Quad
2857-4285	10000-15000	100-150	Quad	Quad	Quad
4285-5714	15000-20000	150-200	Quad	Quad	Cluster
5714-7142	20000-25000	200-250	Cluster	Quad	

CHAPTER 2

Installation Procedures

2

The following topics help you install one or more MicroStrategy products using the MicroStrategy Installation Wizard, the tool that provides step-by-step instructions to guide you through the installation process.

- The Installation Wizard
- Installation verification
- Uninstalling a MicroStrategy product

MicroStrategy Desktop, MicroStrategy Intelligence Server, MicroStrategy Web and MicroStrategy SDK can be installed independently from one another and from other components.

The Installation Wizard

Note: Note the following:

- To install MicroStrategy products, you must log on using a domain account with Windows NT administrative privileges for the domain or target machine.
 - The domain (or trusted domain) must include your database server(s).
 - If you want to exit the installation process at any time, click **Cancel**.
-

To access the Installation Wizard

1. Log on to the machine where you are installing one or more MicroStrategy products.
2. Exit all Windows applications before initiating the installation process.
3. Insert the CD into the CD-ROM drive and wait a few moments for the **Welcome** window to display automatically.

Tip: If the **Welcome** window is not displayed, run **Setup.exe** from the **INSTALL** directory on the CD.

The Installation Wizard consists of the following pages:

- Welcome
- Software License Agreement
- User Information
- Setup Type
- Choose Destination Location
- Select Components
- Select Program Folder
- Start Copying Files
- MicroStrategy Web setting
- MicroStrategy Intelligence Server service account
- Setup Complete

Welcome

Page content	Options
<ul style="list-style-type: none">• Welcome statement• reminder to exit applications	<ul style="list-style-type: none">• click Next to proceed• click About to view MicroStrategy contact information

Software License Agreement

Page content	Options
license-related terms and conditions	<ul style="list-style-type: none">• click Yes to proceed• click No to decline the agreement (if you choose No you cannot install MicroStrategy products)• click Back to return to the previous page

User Information

Page content	Options
boxes for name, company name, and product serial number	<ul style="list-style-type: none">• enter your Name• enter the name of your Company• enter the Serial Number of the MicroStrategy product you are installing• click Next to proceed• click Back to return to the previous page

Setup Type

Page content	Options
options to select a setup, either typical or advanced	<ul style="list-style-type: none">• select Typical (recommended) to place all products in a given root directory• select Advanced to specify a different directory for each MicroStrategy product to be installed• click Next to proceed• click Back to return to the previous page

Note: There are two significant differences between a “typical” setup and an “advanced” one:

- with the “advanced” setup option, you can select a different drive **for each** product selected on the **Select Components** window; with the “typical” option, all products selected are placed in the same drive.
 - with the “advanced” setup option, you can select a location for the common files; with the “typical” option, the system assigns the common file location.
-

Choose Destination Location

Page content	Options
location of the folder that will contain the MicroStrategy products	<ul style="list-style-type: none">• if you wish, click Browse to select a storage location different from the default value• click Next to proceed• click Back to return to the previous page

Note: With both typical and advanced setup types, MicroStrategy allows directory selection for any one product *only if that product is not already installed* in the server machine. Otherwise, the product can only be installed in the same directory as the one that already exists.

Select Components

Page content	Options
<ul style="list-style-type: none">• a list of all available MicroStrategy products• Space Required: space needed for the MicroStrategy products selected; the count changes dynamically as check boxes are selected and cleared• Space Available: total space available in the directory selected	<ul style="list-style-type: none">• select or clear the appropriate check boxes• click Next to proceed• click Back to return to the previous page

Note: If you choose to install MicroStrategy Desktop, you can click **Change** to specify which MicroStrategy Desktop components are installed:

- MicroStrategy Agent: provides Report Designer functionality such as template, filter, metric and report creation
 - MicroStrategy Administrator: provides Administrator functionality such as system monitoring, cache management, and user and group management
 - MicroStrategy Architect: provides Project Designer functionality such as attribute, fact, hierarchy and project creation
-

Select Program Folder

Page content	Options
<ul style="list-style-type: none"> • box to specify the name of the program folder in the Windows Start menu from which MicroStrategy products will be accessed • list of the existing program folders found under the Windows Start menu 	<ul style="list-style-type: none"> • type a folder name different from the default or select an existing folder; otherwise leave as is • click Next to proceed • click Back to return to the previous page

Start Copying Files

Page content	Options
<p>Current Settings:</p> <ul style="list-style-type: none"> • products that will be updated • locations in which the products will be installed • program folder 	<ul style="list-style-type: none"> • click Next to proceed • click Back to return to the previous page

MicroStrategy Web setting

Note: You will only see this page if you chose to install MicroStrategy Web.

Page content	Options
Virtual Directory: name of the Microsoft IIS virtual directory to be created	<ul style="list-style-type: none">• specify the name of the virtual directory to be created on IIS for MicroStrategy Web• click Next to proceed• click Back to return to the previous page

MicroStrategy Intelligence Server service account

Note: You will only see this page if you chose to install MicroStrategy Intelligence Server. The MicroStrategy Intelligence Server service requires a Windows NT account with administrative privileges under which to run.

Page content	Options
<ul style="list-style-type: none">• Login: local Windows NT login with administrative privileges• Password: valid password for the login entered in the Login box• Confirmation: retype the password to confirm	<ul style="list-style-type: none">• click Set (after entering the necessary data) to establish the account• click Cancel to bypass account initiation

Setup Complete

Window content	Options
<ul style="list-style-type: none">• message confirming installation completion• options (yes/no) to restart the machine• instructions to empty drives and click Finish	<ul style="list-style-type: none">• click Yes to restart the machine• click No to continue without restarting• click Finish to complete the setup

Installation verification

During the installation routine, the Installation Wizard gathers and records information about your system and your installation selections. You can verify installation setup information through the installation log file (**install.log**), located by default in **C:\Program Files\Common Files\MicroStrategy**.

The installation log file includes the following information:

- installation date
- target directories
- program folder name
- operating system identification
- hardware specifications
- selected installation options
- registry paths
- registered files

Note: The installation log file can be particularly helpful if you encounter errors during the installation process. For example, the log can tell you if a registry key or path was not added or if a critical file was not registered successfully.

Uninstalling a MicroStrategy component

You might have to uninstall one or more MicroStrategy components, perhaps to install those components on a different machine. There are certain capabilities and roles of the uninstall function to be considered for uninstalling MicroStrategy products. Specifically, the uninstall function:

- unregisters and removes selected files, registry entries, and shortcuts logged in the **Uninst.isu** log file
- calls a custom DLL to handle unlogged items such as certain registry entries and files

Before uninstallation begins the DLL file:

- checks for user privileges (if they are not valid, uninstallation stops)
- checks for running components (if one is found, uninstallation stops)
- stops and deletes the MicroStrategy Intelligence Server service
- deletes application-created files such as *.log, *.gid, *.ldb and *.tb

You can uninstall a MicroStrategy product:

- from the Control Panel
- (in an SMS environment) using command strings

The following paragraphs describe the procedure for each of the options listed.

Uninstalling from the Control Panel

Steps

- 1.** Close all installed MicroStrategy products.
- 2.** From the **Start** menu, select **Settings** and then **Control Panel**.
- 3.** In the Control Panel, double-click the **Add/Remove Programs** icon. The **Add/Remove Programs** dialog box opens with the **Install/Uninstall** tab visible.
- 4.** Select the MicroStrategy product you wish to uninstall and click **Add/Remove**.
- 5.** When the uninstall routine is complete, click **OK**. Click **OK** again to close the dialog box.

Uninstalling through command strings

In a System Management Server (SMS) environment, you must use command strings to uninstall a MicroStrategy Desktop product. The following conditions apply to the uninstall procedure:

- the syntax is the same in each case
- the string must include the name of the product being uninstalled
- you must restart the system once the uninstall procedure is complete

The list that follows shows the specific string for each product.

```
<Common Files>\Maregddl.exe -u "MicroStrategy Desktop"
```

```
<Common Files>\Maregddl.exe -u "MicroStrategy  
Intelligence Server"
```

```
<Common Files>\Maregddl.exe -u "MicroStrategy SDK"
```

```
<Common Files>\Maregddl.exe -u "MicroStrategy VMALL"
```

```
<Common Files>\Maregddl.exe -u "MicroStrategy Web"
```

<Common Files> is the path to the Common Files directory (typically, C:\Program Files\Common Files\MicroStrategy).

Next steps

After installation is complete, you are ready to configure the MicroStrategy components you have selected, to ensure that the software can be used immediately. Configuration is done with the **Configuration Wizard**. To learn about the Configuration Wizard, see the following topic in the Configuration section:

The Configuration Wizard

SECTION II

Configuration

Topics included in this section:

- Configuration Prerequisites
- Configuration Procedures

Configuration Prerequisites

3

Before configuring MicroStrategy 7 products, you should review the following information:

- connectivity
- metadata repository
- server definitions
- project source names
- response files

Note: Note the following:

- The descriptions that follow are based on the assumption that all the MicroStrategy components that will be used in your environment have been installed. If that is not the case, please refer to the topics about installation.
 - It is recommended that you configure MicroStrategy products soon after installation, so that they can be used without delay.
-

Connectivity

The following table includes the requirements for communication, both internally and with other systems, using one or more products in the MicroStrategy suite.

Connection type	Protocol requirements	Function
network	TCP/IP	Communication between MicroStrategy Intelligence Server and MicroStrategy Desktop when they are installed on separate machines
network	HTTP	Communication between MicroStrategy Intelligence Server and MicroStrategy Web
database	<ul style="list-style-type: none">• ODBC system data source name (DSN)• administrator user ID, password, and login privileges	Communication with the metadata repository and with the warehouse

Metadata repository

Configuring the metadata repository requires the following:

- an ODBC DSN pointing to the target database to serve as repository
- a valid user ID and a password for the database
- a working connection protocol

Important: Currently supported platforms for the metadata repository are SQL Server 7.0, Oracle, and DB2.

Server definitions

Configuring a server definition requires the following:

- ODBC driver for the metadata and the data warehouse
- metadata repository
- metadata repository machine name and database name
- valid user ID and password for metadata repository login
- server definition (for cluster configurations)

Tip: Multiple servers, such as in the case of N-server clusters, can share a single server definition.

Project source names

The Configuration Wizard allows you to create the following types of project source connections:

- **direct** (2-tier) for direct connection to a metadata repository that contains configuration, schema, and application objects
- **server** (3-tier) for connection to a MicroStrategy Intelligence Server

The following table shows the configuration requirements for each project source type:

Project source type	Configuration requirements
direct	<ul style="list-style-type: none">• metadata repository machine name and database name• user ID and password to access the metadata
server	<ul style="list-style-type: none">• name and port number of the MicroStrategy Intelligence Server machine

Response files

After you have completed a configuration procedure for your environment, you can use a response file as an alternative to the Configuration Wizard to configure MicroStrategy products automatically. The following applies when a response file is used:

- the default name for a response file is **response.ini**
- the response file includes all options and defaults specified through the Configuration Wizard
- by default, the response file is located in the Common Files directory

Configuration Procedures

4

The following topics help you configure an installed MicroStrategy suite of products using the Configuration Wizard:

- the Configuration Wizard
- automating the configuration

These topics assume that you have reviewed the configuration prerequisites and have met all configuration requirements.

Important: Configuration of a MicroStrategy product must be performed on the machine on which that product is installed.

The Configuration Wizard

The Configuration Wizard automates much of the configuration process and only prompts you for critical setup information. With this tool, you can configure:

- a metadata repository
- server definitions
- client/server connections

Note: Note the following:

- To set the parameters necessary to start a server and invoke server-definition objects, you must log in using Windows NT administrative privileges for the NT server machine.
 - If you want to discontinue the configuration process at any time, click **Cancel** to return to the **Welcome** window and then click **Exit** to leave the Configuration Wizard.
-

To access the Configuration Wizard

- 1.** From the Windows NT Start menu, point to **Programs**, then to **MicroStrategy 7**, then choose **MicroStrategy Configuration Wizard**. The Configuration Wizard's Main Screen appears.
- 2.** Choose whether to configure a metadata repository, a MicroStrategy Intelligence Server definition or client/desktop connections and click **Next**.

Configuring a metadata repository

When configuring a metadata repository, the Configuration Wizard presents you with these pages:

- Metadata Repository Configuration Tasks
- ODBC Data Source Name for Metadata Repository
- Metadata Repository and Statistics Tables Creation
- Summary

Metadata Repository Configuration Tasks

Window content	Options
<p>check boxes to select a configuration task</p>	<ul style="list-style-type: none"> • select Create Metadata Tables to create MicroStrategy 7 metadata tables • select Create Statistics Tables to create MicroStrategy 7 statistics tables, which allows you to record and analyze system performance statistics using the Warehouse Monitor project • select Create Default Configuration to create the MicroStrategy 7 metadata structure (only available if you have the MicroStrategy Architect component installed) • click Next to proceed • click Cancel to return to the Welcome window

Note: Although the Configuration Wizard allows creation of “empty” metadata tables, these are unusable until populated.

ODBC Data Source Name for Metadata Repository

Window content	Options
<ul style="list-style-type: none">• entry boxes to specify DSN, user name, and password• check box to specify if the DSN and user information selected will be used for statistics tables• option to create a new DSN	<ul style="list-style-type: none">• select an existing ODBC DSN from the drop-down menu or click New to create a new DSN• select the check box to use the same user information for statistics tables• click Cancel to return to the Welcome window• click Back to return to the previous page• click Next to proceed

When creating a metadata repository:

- You must provide a login ID for the metadata database.
- The login ID you provide becomes the “owner” of all metadata tables.
- All CREATE statements are issued under this login ID, so it must have CREATE privileges in the database. To modify the repository configuration in the future using the Configuration Wizard, you must use the same login ID (this will avoid access errors or the accidental creation of a new repository).

Important: Repository tables and statistics tables can share a location *only* in the SQL Server environment (metadata tables can be in Oracle, DB2, and SQL Server, but statistics tables can only be in SQL Server).

Metadata Repository and Statistics Tables Creation

Window content	Options
entry boxes to specify the location of the SQL scripts used to create the metadata repository and statistics tables	<ul style="list-style-type: none">• the Configuration Wizard automatically uses the SQL scripts that are optimized for your particular database platform• click ... to specify a SQL script different from the default• click Cancel to return to the Welcome window• click Back to return to the previous page• click Next to proceed

Summary

Window content	Options
<ul style="list-style-type: none">• summary of your configuration choices• option to return to the Main Screen when configuration is complete	<ul style="list-style-type: none">• click Finish to proceed• click Back to return to the previous page

Configuring a MicroStrategy Intelligence Server definition

When configuring a MicroStrategy Intelligence Server definition, the Configuration Wizard presents you with these pages:

- Connect to Metadata Repository
- User Authentication
- Create, Link, or Delete a Server Definition
- Summary

Connect to Metadata Repository

Window content	Options
<ul style="list-style-type: none">• entry boxes to specify DSN, user name, and password• option to create a new DSN	<ul style="list-style-type: none">• enter an ODBC DSN or select one from the drop-down menu• click New to create a new DSN• click Cancel to return to the Welcome window• click Back to return to the previous page• click Next to proceed

User Authentication

Window content	Options
entry boxes for MicroStrategy user name and password	<ul style="list-style-type: none">• enter a user name and password combination• click Cancel to return to the Welcome window• click Back to return to the previous page• click Next to proceed

The user name you enter is a MicroStrategy user name. It must have administrative privileges in the MicroStrategy environment. If this is the first time you are configuring the environment, you probably have not created an administrator user yet. In this case, you should use the default administrator user name: **Administrator** with no password.

Create, Link, or Delete a Server Definition

Window content	Options
<p>options to create a new server instance, use an existing server instance, and delete an existing server instance</p>	<ul style="list-style-type: none"> • if you choose to create a new server definition, enter a name for the new server definition • if you choose to use an existing server definition, select one from the list of existing server definitions • if you choose to delete a server definition, select the server definition you wish to delete from the list of existing server definitions and click Delete • click Cancel to return to the Welcome window • click Back to return to the previous page • click Next to proceed

Summary

Window content	Options
<ul style="list-style-type: none"> • summary of your configuration choices • option to return to the Main Screen when configuration is complete 	<ul style="list-style-type: none"> • click Finish to proceed • click Back to return to the previous page

Configuring client/desktop connections

When configuring a client/desktop connection, the Configuration Wizard presents you with these pages:

- Desktop Project Source Name and Connection Type
- MicroStrategy Intelligence Server Location
- Metadata Repository Version
- Connect to Metadata Repository
- Setup Client/Desktop Connection Security
- Summary

Desktop Project Source Name and Connection Type

Window content	Options
<ul style="list-style-type: none">• entry box for project source name• options to select either direct or server project source type	<ul style="list-style-type: none">• enter a name for the project source• click either Direct (2-tier) or Server (3-tier) to select a project source type• click Cancel to return to the Welcome window• click Back to return to the previous page• click Next to proceed

MicroStrategy Intelligence Server Location

Window content	Options
<ul style="list-style-type: none"> entry box for the MicroStrategy Intelligence Server name port number used by MicroStrategy Intelligence Server 	<ul style="list-style-type: none"> enter the name of a MicroStrategy Intelligence Server or click ... to select one from the list provided enter a port number to use for the connection (default value is "34952") click Cancel to return to the Welcome window click Back to return to the previous page click Next to proceed

Metadata Repository Version

Note: You will see this page only if you choose to create a direct (2-tier) project source.

Window content	Options
options to select either 7.X or 6.X as the metadata repository version to which you are connecting	<ul style="list-style-type: none"> select 7.X if the repository was created with MicroStrategy 7 products select 6X if the repository was created with MicroStrategy 6.X products click Cancel to return to the Welcome window click Back to return to the previous page click Next to proceed

Connect to Metadata Repository

Note: You will see this page only if you chose to create a direct (2-tier) project source.

Window content	Options
<ul style="list-style-type: none">• instructions to specify the ODBC Data Source Name that points to the metadata repository to which you will connect• entry boxes for the data source name and user name and password	<ul style="list-style-type: none">• select a data source name from the list or click New to create a new one• enter a valid user name and password for the database to which the data source name points• click Cancel to return to the Welcome window• click Back to return to the previous page• click Next to proceed

Setup Client/Desktop Connection Security

Window content	Options
<ul style="list-style-type: none">• instructions to select an authentication type• available security authentication options	<ul style="list-style-type: none">• choose a security authentication option• click Cancel to return to the Welcome window• click Back to return to the previous page• click Next to proceed

Summary

Window content	Options
<ul style="list-style-type: none">• summary of your configuration choices• option to return to the Main Screen when configuration is complete	<ul style="list-style-type: none">• click Finish to proceed• click Back to return to the previous page

Automating the configuration

You can automate the configuration process by either generating a **response file** or using an existing one.

To automate configuration

1. Access the Configuration Wizard.
2. Click **Advanced** on the Welcome window. The Configuration Wizard displays the **Advanced Options** window.
3. Select *one* of the following:
 - ◇ **Use response file** (if there is an existing response file you wish to reuse).
 - ◇ **Generate response file** (if you wish to create a new response file).
4. Click **OK**. The tool implements the selection you made in step 3.

The first time you go through the configuration process, the Configuration Wizard creates an associated **response file**. This file contains a record of your selections and it can be used to set the same values automatically in subsequent configurations.

Appendices

Topics included in this section:

- The Setup Log File (install.log)
- Systems Management Server (SMS) Environments
- ODBC
- Windows NT Registry Expansion

Appendix A: The Setup Log File (install.log)

The setup program generates a log file in text format. This log file contains records of all actions performed by the setup program and by other executable files related to installation. **setup.exe** and **mareg.dll.exe** write to this file. Log file data includes:

- update dates
- machine specifications
- user selections
- a list of files to be registered
- a list of files that do not require registration
- a list of registry entries
- identification of files that fail during registration
- installation activity such as performance counter loading and DSN creation
- reboot-time file registration results

The default location for the **install.log** file is in the Common Files folder, but both the location and the name can be specified to be different. Points from which the log file name and location can be specified include:

- the command line, reading the parameter **--LogFile**
- the response file in **[LogFile]**

Setup customization (the response.ini file)

The **response.ini** file, which is shared by the setup program and the MicroStrategy Configuration Wizard, can facilitate installation significantly by allowing you to progress through the installation and project creation processes with a single key stroke.

Note: **response.ini** should not be confused with the **setup.iss** file, which is used by InstallShield to perform silent installation.

- When both **response.ini** and **setup.iss** are included in the setup, **response.ini** overrides **setup.iss**.

The following applies to response file specification:

- if a file path is not provided, the setup program assumes the directory to be the disk itself
- if a file name is not provided, the setup program assumes that the file name is **response.ini**

The following are defaults for the response file when no file is specified:

[InitialPaths]

Desktop=C:\Program Files\MicroStrategy\Desktop

Server=C:\Program Files\MicroStrategy\Server

Web=C:\Program Files\MicroStrategy\Web

SDK=C:\Program Files\MicroStrategy\SDK

Demo=C:\Program Files\MicroStrategy\Demo

COMMONFILES=C:\Program Files\Common
Files\MicroStrategy

WINSYSDIR=C:\Program Files\System Directory

[LogFile]

LogFile=<COMMONFILES>\install.log

LightLog=FALSE

[InstallationOptions]

Administrator=TRUE

Agent=TRUE

Architect=TRUE

Server=TRUE

Web=TRUE

SDK=TRUE

Demo=TRUE

The list of installation options corresponds to the list of products displayed in the product selection dialog (**Select Components** window).

[SerialKey]

SerialKey=

SerialKey is the key used to set up a one-keystroke installation.

[SetupType]

Auto=FALSE

SetupType=Typical

Hidden=FALSE

- Auto indicates whether the installation uses all default values
- SetupType determines whether the install is Typical or Advanced
- Hidden hides the Setup Type dialog box

[PromptDirectories]

CommonFiles=TRUE

SystemDir=FALSE

There is no prompt for product selection, which is accomplished through the selected setup type.

[ProgramFolder]

FolderName=MicroStrategy 7

[MicroStrategyConfiguration]

ConfigurationFile=

ConfigurationPath=

WebVirtualRoot=

If the configuration file exists, the setup program performs a silent launch of the Configuration Wizard with this file as a parameter.

Command line setup considerations

The setup program supports several command-line parameters. The following applies to this function:

- parameters such as `-s` and `/s` are defined by InstallShield
- parameters using double dashes, such as `--auto`, are defined by MicroStrategy
- the command line is not case sensitive.

The following are parameters supported by the setup program:

`--Auto=`: instructs the setup program to use the response file and default values to enable a one-click installation. If a component (such as serial key or disk space) has an invalid value, the setup program automatically reverts to multiple-click mode, and all dialog boxes are displayed.

`--ResponseFile=`: contains responses to Setup Wizard questions and redefines default parameters. Path and file name must be in double quotes (" ").

`--ConfigFile=`: used by the Configuration Wizard to set up a repository, a server, or a client. Path and file name must be in double quotes (" ").

`--LogFile=`: used to specify an alternative location and/or name (other than `install.log`) for the log file in the Common Files directory. If only the file name is entered, the default location remains the Common Files directory. Once specified, the alternative file becomes the default one.

Appendix B: Systems Management Server (SMS) Environments

SMS provides the following installation capabilities and conditions:

- silent installation (see “Silent installation” in this appendix)
- generation of a Management Information Format (MIF) file upon setup completion
- two ways to generate the MIF file:
 - ◊ using the command line with the switch `-m<filename without extension>`
 - ◊ adding the MFI section to the **setup.ini** file

Note: Uninstallation in SMS also generates a corresponding MIF file using the command line with the switch `-m<filename without extension>`

- **setup.exe** runs with the command line switch `-SMS` (which is a case-sensitive switch) until installation is completed
- uninstallation can run in silent mode by adding the switch `-a`

With silent uninstallation:

- shared files are not removed; they remain on the disk
- reference counters are set to 0

Silent installation

This type of installation is available for environments using Systems Management Server (SMS). The following functions, criteria, and conditions apply to silent installation:

- When the setup program is run using `-r`, it generates the **setup.iss** file, where it records all installation settings, including **Back** and **Next** buttons. The file is created in the Windows directory, and it is accessible for editing.

- When a silent installation is performed, the setup program retrieves all installation-related data from a file called **setup.iss**.
- As long as the content of the response file is compatible with the server on which the installation is being performed, there is no interaction at the user interface.
- If silent installation is successful, the result code value is zero (ResultCode=0) in the **setup.log** file.
- If the setup program encounters an invalid value for an installation requirement, setup terminates and silent installation ceases.
- **setup.iss** requires that silent installation be performed under the same conditions under which it was created (for example, if **setup.iss** was created using the **response.ini** file and certain MicroStrategy command lines, the same response file and command lines must be used for silent installation to ensure compatibility).

To perform a silent installation, place the **setup.iss** file in the source directory and run the `setup -s` command.

You can change the location and the name of the **setup.iss** file by using the F1 switch; you can change the location and name of the **setup.log** file by using the F2 switch. For example:

```
setup -F1C:\initialsetup.iss -F2C:\setup.txt
```

Important: If you are using silent installation, you should manually upgrade Microsoft Internet Explorer before performing the install (instead of allowing the Installation Wizard to do it for you).

Appendix C: ODBC

The following information is intended to assist you in setting up **Open Database Connectivity** (ODBC) between the MicroStrategy Intelligence Server and your metadata database and data warehouse.

ODBC is a protocol that connects to and transfers data to and from data sources within relational databases. A client application uses a database driver and a driver manager to make a connection to the data source.

- **data source** is another term for a logical database within a database server. A database server may be comprised of multiple logical databases.
- **database driver** is the name for the code that is used to connect to and communicate with a database server.
- **ODBC Data Source Name (DSN)** is the name for a pointer used by a client application to find and connect to a data source. Multiple DSNs can point to the same data source; one DSN can be used by different applications.

MicroStrategy Desktop components are 32-bit applications that require 32-bit drivers to achieve ODBC connectivity. 32-bit applications call the 32-bit driver manager, which in turn calls 32-bit drivers. The following files are needed for this configuration:

File	Description
ODBC32.DLL	32-bit driver manager
ODBCCP32.DLL	32-bit installer library, used by ODBCAD32.EXE
ODBCAD32.EXE	32-bit ODBC Administrator utility
ODBCINST.HLP	Installer Help file
CTL3D32.DLL	32-bit 3D window style library

Note: Ideally, all ODBC drivers used on machines connected to data sources should be from the same vendor.

Default location for ODBC and driver files

ODBC.DLL and support files are usually installed in the following default directories:

Operating system	Default location for ODBC and driver files
Windows 95	C:\WINDOWS\SYSTEM
Windows 98	C:\WINDOWS\SYSTEM
Windows NT 4.0	C:\WINNT\SYSTEM32

ODBC Administrator

The **ODBC Administrator** utility is used to create a log with which to trace calls to data sources and to view, create, and edit DSNs.

The ODBC Administrator utility is available from Microsoft. It is usually included with the purchase of an ODBC driver. It is also available with the Windows NT Server 4.0 operating system.

In most cases, the ODBC Administrator utility is accessed through the Control Panel.

ODBC Data Source Names and connection strings

ODBC Data Source Names (DSNs) are used in conjunction with connection strings to establish connectivity to a database. The information contained within a DSN is a subset of the total information that is needed to make a connection to the database. The rest of the information is contained in the associated connection string. The information in the DSN and connection string depend on the specific database and driver.

Some sample connection strings follow:

SQL Server

```
ODBC;DSN=DataSourceName;UID=UserName;PWD=Password;  
WSID=ClientMachineName;DATABASE=LogicalDatabaseName;
```

Oracle

```
ODBC;DSN=DataSourceName;DBQ=PointerToOracle;  
UID=UserName;PWD=Password;
```

DB2

```
ODBC;DSN=DataSourceName;UID=UserName;PWD=Password;  
DATABASE=LogicalDatabaseName;DBALIAS=DataSourceName;
```

The requirements for DSNs used with MicroStrategy Desktop are:

- MicroStrategy Intelligence Server and MicroStrategy Web DSNs must be system DSNs because they run as Windows NT services.
- DSNs must be identical, including text case, across machines running MicroStrategy Desktop, MicroStrategy Intelligence Server, and MicroStrategy Web.
- MicroStrategy Web DSNs must be different for the metadata and data warehouse even if they are in the same physical database.

To add a System DSN using ODBC Administrator

1. Log in to the machine as the administrator. This gives you the ability to create a system-wide DSN, rather than a user-specific DSN.
2. Run the **ODBC Administrator** utility by clicking the **Start** menu and selecting **Settings** and then **Control Panel**.
3. Double-click the **32-bit ODBC** icon to open the **ODBC Data Source Administrator** dialog box.
4. Click the **System DSN** tab to view a list of all existing system data sources and their associated drivers.
5. Verify the existence of the ODBC driver that you installed for your database before attempting to add a new DSN. Click the **ODBC Drivers** tab to display a list of all installed ODBC drivers. Click the **System DSN** tab after confirming that your driver is installed.
6. In the **System DSN** tab, click **Add** to open the **Create New Data Source** dialog box. The installed ODBC drivers are listed.
7. Select the desired driver and click **Finish**. A unique setup dialog box for your driver appears.

Note: From this point on, the exact procedure for creating a new DSN depends on your database platform. The rest of these steps assume that the database is Microsoft SQL Server.

8. In the **ODBC SQL Server Setup** dialog box, click **Options** to reveal the entire setup dialog box.

9. In the **Data Source Name** box, enter a DSN.

Tip: You may call your DSN anything. A good convention is *DB_DBServer_Type* where *DB* is the database, *DBServer* is the database server machine name, and *Type* is the database type, such as Oracle.

10. Select or type the database server machine name in the **Server** box.

11. In the **Database Name** box, enter the logical database name.

12. Click **OK** to save the DSN and close the dialog box. The new system DSN appears in the **System DSN** tab.

13. Click **OK** to close the **ODBC Data Source Administrator** dialog box.

ODBC connectivity

ODBC connectivity is one of three layers of connectivity which are listed in the next table, along with the associated connectivity testing program. Connectivity should be tested from the bottom up—the network layer first, the Relational Database Management System (RDBMS) Gateway layer second, and the ODBC layer last.

Layer	Test with
ODBC	Test ODBC <ul style="list-style-type: none"> • TSTODBC2.EXE

Layer	Test with
RDBMS Gateway (also called the Database Network Library) <ul style="list-style-type: none"> • DBLIB for MS SQL Server • SQL*Net for Oracle 	Query Tool <ul style="list-style-type: none"> • ISQL/w, ISQL.EXE, for MS SQL Server • SQL Plus, PLUS32.EXE, for Oracle
Network <ul style="list-style-type: none"> • TCP/IP • IPX/SPX • NETBIOS/NETBEUI 	Simple Network Layer Testing Tool <ul style="list-style-type: none"> • Ping, PING.EXE, for TCP/IP

The ODBC test utilities TSTODBC2.EXE (a 32-bit application) were created by MicroStrategy and are installed with MicroStrategy Desktop in C:\Program Files\Common Files\MicroStrategy.

To test all connectivity layers to data sources

1. Test the network layer with the network layer utility. Consult your operating system or network system manuals for details.
2. Test the RDBMS Gateway layer with an RDBMS-specific layer utility. Consult your RDBMS manual for details.
3. Test the 32-bit ODBC layer with TSTODBC2.EXE (see below for steps).

To use ODBC

1. Run TSTODBC2.EXE to open the **Test ODBC** application.
2. From the **Session** menu, select **Open Connection** or click **Connect** on the toolbar. The **Select Data Source** dialog box opens. The connection interface may vary depending on the destination database.
3. Click the **Machine Data Source** tab and select the DSN for a data source, such as data warehouse or metadata.
4. Click **OK**. A login dialog box opens.
5. Type your user ID and password in the **Login ID** and **Password** boxes.

- 6.** Click **OK**. After your connection is opened, the connection string is displayed in the **Test ODBC** window text box located below the menu bar. Your cursor is inserted automatically in the **SQL Statement** window.
- 7.** In the **SQL Statement** window, type a SQL query:
select * from Table
where *Table* is a system-defined table, such as SYSOBJECTS for Microsoft SQL Server or a MicroStrategy-created table, such as ATTRIBUTES in MicroStrategy's metadata.
- 8.** Click **Execute SQL Query** or press **CTRL+E**. A table of data from the database in the **Query Result** window is displayed.
- 9.** From the **Session** menu, select **Close Connection** to close the database connection.
- 10.** From the **File** menu, select **Exit** to close the **Test ODBC** window.

Note: The Test ODBC utility includes many useful features not discussed here, such as the Query Wizard which can help users who are unfamiliar with SQL easily build statements to run against a database. Refer to your Test ODBC documentation for details.

Tracing ODBC calls

The ODBC Administrator utility allows you to trace all ODBC calls against a data source. The directions below describe how to specify when tracing will be initiated and how to enter or select a trace log file, along with its path.

To set up an ODBC trace with the 32-bit ODBC 3.0 Administrator

- 1.** Log in to the machine as the machine administrator.
- 2.** Run the **ODBC Administrator** utility by clicking the **Start** menu and selecting **Settings** and then **Control Panel**.
- 3.** Double-click the **32-bit ODBC** icon to open the **ODBC Data Source Administrator** dialog box.
- 4.** Click the **Tracing** tab to display all ODBC tracing options.

- 5.** Under **When to trace**, select from the following options:
 - **Don't trace.** Tracing is disabled.
 - **All the time.** Tracing occurs automatically for all machine connections.
 - **One-time only.** Tracing is performed on the next connection made and then disabled once the connection has been dropped.
 - **Start Tracing Now.** Allows you to perform tracing while the ODBC Data Source Administrator dialog box is displayed. Once the dialog box is closed, tracing is disabled. If you select this option, you can stop tracing manually by selecting it again.
- 6.** Specify a different log file and path if desired in the **Log file Path** box.
- 7.** Click **OK** to close the **ODBC Data Source Administrator** dialog box.

Appendix D: Windows NT Registry Expansion

As part of the installation routine for a Windows NT machine, the Installation wizard verifies that your machine's Windows NT Registry has sufficient disk space for MicroStrategy installation.

If the routine determines that the Registry is too small, you receive an error message immediately following the **Welcome** screen, prompting you to expand your Registry. You must perform the expansion to continue installation of MicroStrategy products.

The Installation Wizard can increase the NT Registry size for you or you can do it manually. Following is a description of how to expand the NT Registry manually:

Steps

1. From the **Start** menu, select **Settings** and then **Control Panel**.
2. Double-click the **System** icon to open the **System Properties** dialog box.
3. Click the **Performance** tab.
4. Under **Virtual Memory**, click **Change** to open the **Virtual Memory** dialog box.
5. Under **Registry Size**, change the value for **Maximum Registry Size (MB)** to 35 and click **OK**.
6. Click **Close** to close the **System Properties** dialog box.
7. When you are prompted to restart your computer, click **Yes** so that the setting can take effect.

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