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MicroStrategy Object Manager Concepts

MicroStrategy Object Manager provides complete life cycle management capabilities for a MicroStrategy environment. Object management involves maintenance of all application, schema, and configuration objects within and across related projects in an intuitive and fault-tolerant manner. MicroStrategy Object Manager lets you set up these related projects in multiple environments easily, by enabling you to copy elements that are already developed.

MicroStrategy Object Manager uses many of the same concepts, interfaces, and procedures as MicroStrategy Desktop, so you should be familiar with Desktop fundamentals before using Object Manager or its documentation. For more information on Desktop fundamentals, see the MicroStrategy Getting Started Guide.

Why use MicroStrategy Object Manager?

A typical application progresses through several stages before it is considered ready for production. Each stage has its own related MicroStrategy project. The stages are usually

- Development, where objects are created for the first time
- Test, where objects are tested and verified, or certified
- Production, which contains only certified objects and where the data they access is live

MicroStrategy Object Manager is the tool you use to promote objects from one stage, or project, to the next, by letting you copy an object or group of objects from one project to another. You can also copy and move objects within the same project.
MicroStrategy Object Manager services

MicroStrategy Object Manager allows you to:
• duplicate and upgrade projects
• copy and paste objects within a project
• copy and paste objects across related projects
• move objects within a project
• delete objects within a project
• rename objects within a project
• search for objects within a project
• find an object’s parents or children within a project

Setting up your environment

To perform operations across projects, MicroStrategy Object Manager requires that the projects involved be created from the same source project. This ensures that they have a similar set of schema and application objects and that the object IDs in the two projects are the same. MicroStrategy Object Manager uses the same object IDs and their version IDs across the projects to perform comparisons.

For example, usually at least two versions, Development and Production, of the same project are created, and sometimes a third, Testing. To use these projects with MicroStrategy Object Manager, one project, usually Production, must be set up first. Then the others are created by duplicating that initial site.

How copying works in MicroStrategy Object Manager

The copy command duplicates all the selected objects in the source location to the target location. However, exactly how that is accomplished depends on the situation, for example whether the object is copied within a single project or from one project to another.

The terms defined below are used throughout this section, so you should become familiar with them.
MicroStrategy Object Manager operations may involve the following objects:

- **Application objects** include consolidations, custom groups, documents, filters, metrics, prompts, reports, searches, templates, and folders.
- **Configuration objects** include database instances, schedules, users, and user groups.
- **Schema objects** include attributes, facts, functions, hierarchies, tables, and transformations.

These objects are classified one of the following nine ways based on their location during an Object Manager operation. The classification determines in which folder Object Manager saves an object. It also helps to resolve conflicts during an operation.

- **Base object** is the top-level object, the item you selected from the interface during an Object Manager operation.
- **Base folder** is the top-level folder, the folder you selected during an Object Manager operation.
- **Base user group** is the top-level user group, the user group you selected during an Object Manager operation.
- **Base user** is the top-level user, the user you selected during an Object Manager operation.
- **Child folder** is a folder located in a base folder or in another child folder.
- **Child group** is any group located in a base or child group.
- **Child object** is any object that is located in a base folder or in another child folder. For example, if the Reports folder is selected to be copied, the Reports folder is the base object and all the objects inside the Reports folder are the child objects.
- **Child user** is any user in a base or child group.
- **Dependent object** is any object that is retrieved from the dependency list of each base or child object. For example, a report is a base object that has a template and a filter as dependent objects.

**Duplicating projects**

Projects created in MicroStrategy 7 can be duplicated in the same project source or in a different one. MicroStrategy Object Manager activates MicroStrategy Desktop Project Duplication wizard to perform the operation.

A project created in MicroStrategy 6.x cannot be duplicated until it is upgraded to a 7.x project in a 7.x project source. MicroStrategy Object Manager activates the MicroStrategy Desktop Project Upgrade wizard to perform the upgrade.

A direct (two-tier) connection to the source and destination project sources is required, whether the project is duplicated or upgraded.
**Copying objects within a project**

The simplest copying scenario is one in which the source and target projects are the same. The MicroStrategy Object Manager copy function performs in a manner similar to that of MicroStrategy Desktop.

**Copying application and schema objects within a project**

When copying application and schema objects within a project, MicroStrategy Object Manager behaves exactly as Desktop does. Remember that a base object is the object you select from the interface during an Object Manager operation.

<table>
<thead>
<tr>
<th>Object classification</th>
<th>Destination directory</th>
<th>Action</th>
<th>Name of copied object</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base object (application or schema object)</td>
<td>Same as source</td>
<td>Copy identically</td>
<td>Copy of source name</td>
</tr>
<tr>
<td></td>
<td>Different from source</td>
<td>Copy identically</td>
<td>Source name</td>
</tr>
<tr>
<td>Base folder</td>
<td>Same as source</td>
<td>Copy identically</td>
<td>Copy of source name</td>
</tr>
<tr>
<td></td>
<td>Different from source, and not a subdirectory of source</td>
<td>Copy identically</td>
<td>Source folder name</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>If that already exists, Copy of source folder name</td>
</tr>
<tr>
<td>Subdirectory of source</td>
<td>Warning message displayed; cannot copy folder</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Dependent objects</td>
<td>N/A</td>
<td>No action</td>
<td>N/A</td>
</tr>
<tr>
<td>Child objects and folders</td>
<td>Remain within copy of base folder in destination location</td>
<td>Copy identically</td>
<td>Source object/folder name</td>
</tr>
</tbody>
</table>
Copying configuration objects within a project

Configuration objects include database instances, schedules, users, and user groups. During a copy operation, database instances and schedules are handled differently from users and user groups.

<table>
<thead>
<tr>
<th>Object classification</th>
<th>Destination directory</th>
<th>Action</th>
<th>Name of copied object</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base object (database instance or schedule)</td>
<td>Can only be the same as source</td>
<td>Copy identically</td>
<td>Copy of source name</td>
</tr>
<tr>
<td>Base user/group</td>
<td>Same as source group</td>
<td>Copy identically</td>
<td>Copy of source user/group name</td>
</tr>
<tr>
<td></td>
<td>Different from source group</td>
<td>Destination group is added to source user/group membership</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Copying across projects

To perform copy operations across projects, the projects involved must be derived from the same source project. To set up your environment to work with MicroStrategy Object Manager, please see the topic Setting up your environment.
Copying base application and schema objects across projects

Remember that a base object is the object you select from the interface during an object management operation.

<table>
<thead>
<tr>
<th>Object classification</th>
<th>Object conflict?</th>
<th>Action</th>
<th>Name of copied object</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base object (all application and schema objects except folders)</td>
<td>No, object does not exist in destination</td>
<td>Copy identically to destination location</td>
<td>Source object name</td>
</tr>
<tr>
<td></td>
<td>Yes, object exists identically (same version)</td>
<td>See the conflict resolution table</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes, object exists differently (different version)</td>
<td>See the conflict resolution table</td>
<td></td>
</tr>
</tbody>
</table>

Conflict resolution table

<table>
<thead>
<tr>
<th>User interaction</th>
<th>Action</th>
<th>Name of copied object</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use existing</td>
<td>No change to destination object</td>
<td>N/A</td>
</tr>
<tr>
<td>Keep both</td>
<td>No change to destination object</td>
<td>If new name specified, Specified object name</td>
</tr>
<tr>
<td></td>
<td>Source object duplicated in destination location</td>
<td>If another object of that name and type already exists, Specified object name (1...n)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If new name not specified, New version of Source object name</td>
</tr>
</tbody>
</table>
Dependent objects, folders, and child objects are handled differently from the base object copy described above. See the appropriate topics in this chapter for detailed information.
**Dependent objects of application and schema objects copied across projects**

A dependent object is any object that is retrieved from the dependency list of each base or child object.

<table>
<thead>
<tr>
<th>Object conflict?</th>
<th>Action</th>
<th>Name of copied object</th>
</tr>
</thead>
</table>
| No, dependent object does not exist in destination | If the relative dependent source location exists in the destination project, copied identically in relative destination location of source object  
If it does not, copied into a new folder titled Dependents in the destination location | Source object name |
| Yes, dependent object exists identically (same version) | No action | N/A |
| Yes, dependent object exists differently (different version) | See the conflict resolution table | |

**Copying base folders across projects**

A base folder is a top-level folder, the folder that you selected from the interface during the copy.

<table>
<thead>
<tr>
<th>Object Conflict?</th>
<th>Action</th>
<th>Name of Copied Object</th>
</tr>
</thead>
<tbody>
<tr>
<td>No, folder does not exist in destination</td>
<td>Copy identically</td>
<td>Source folder name</td>
</tr>
<tr>
<td>Yes, folder exists. Source and destination paths are the same</td>
<td>In Conflict Resolution dialog box, if you select <strong>Update destination folder name in same path</strong>, the existing folder is updated with the new objects from the copy operation.</td>
<td>N/A</td>
</tr>
</tbody>
</table>
### Child folders of base folders copied across projects

A child folder is a folder that is located within the base folder or one of its child folders.

<table>
<thead>
<tr>
<th>Object Conflict?</th>
<th>Action</th>
<th>Name of Copied Object</th>
</tr>
</thead>
<tbody>
<tr>
<td>No, folder does not exist in destination</td>
<td>Create a new folder in the destination location</td>
<td>Source child folder name</td>
</tr>
<tr>
<td>Yes; source and destination paths are the same</td>
<td>In the Conflict Resolution dialog box, if you choose Update destination folder name in same path, the existing folder is updated with the new objects from the copy operation.</td>
<td>N/A</td>
</tr>
</tbody>
</table>
A child object is any object that is located within the base folder or in one of its child folders.

**Object conflict?** | **Action** | **Name of copied object**
---|---|---
Yes; source and destination paths are different (child folder exists in the destination project but in a different location) | If you choose Update destination folder name in same path, the existing folder is updated with the new objects from the copy operation. | N/A
| If you choose Update destination folder name in new path, the folder moves to the new destination location and any new objects are copied into it | N/A

## Child objects of base folders copied across projects

A child object is any object that is located within the base folder or in one of its child folders.

**Object conflict?** | **Action** | **Name of copied object**
---|---|---
No, object does not exist in destination | Copy identically to destination location within base or child folder | Source object name
If an object of that name and type already exists, Source object name (1...n)
Yes, object exists identically (same version) | See the user/group conflict resolution table.
Yes, object exists differently (different version) | See the user/group conflict resolution table.

## Copying configuration objects across projects

Configuration objects include database instances, schedules, users, and user groups. During a copy operation, database instances and schedules are handled differently from users and user groups.
Copying database instances and schedules across projects

Copying database instances and schedules works the same as copying base application and schema objects. The single difference is that configuration objects can be copied only into their respective folders. For example, database instances can be copied only into the Database Instance Manager folder, and schedules can only be copied into the Schedule Manager folder.

**Note:** You are strongly discouraged from replacing database instances across projects. Database instances are usually different for different projects. For example, the development project typically points to the development warehouse while the production project uses the production warehouse. In these cases, replacing the database instance greatly affects all aspects of a project, since the database instance is the foundation for the application.

Dependent objects of database instances—Dependent objects of database instances include database management systems, database logins, and database connections. All of these are integral to identifying the database instance, so they are copied with the database instance. None of them appear in the **Conflict Resolution** dialog box.

Dependent objects of schedules—Schedules have only events as dependents. Events are copied automatically with their parent schedule. Events never appear in the **Conflict Resolution** dialog box.
Copying users and user groups across project sources

Copying users works similarly to copying application and schema objects. However, there are a few differences, outlined as follows:

- Since users are located at the project source level, all the projects that exist in the same project source may share the same user or group.
- Groups may be children of other groups, yet are not dependent objects.

<table>
<thead>
<tr>
<th>Object conflict?</th>
<th>Action</th>
<th>Name of copied object</th>
</tr>
</thead>
<tbody>
<tr>
<td>No, user does not exist in destination</td>
<td>Copy identically. If the destination group is not included in group memberships, it is added to them.</td>
<td>Source user name</td>
</tr>
<tr>
<td>Yes, user exists identically (same version)</td>
<td>See the user/group conflict resolution table.</td>
<td></td>
</tr>
<tr>
<td>Yes, user exists differently (different version)</td>
<td>See the user/group conflict resolution table.</td>
<td></td>
</tr>
</tbody>
</table>

User/group conflict resolution table

<table>
<thead>
<tr>
<th>User interaction</th>
<th>Action</th>
<th>Name of copied object</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use existing</td>
<td>No change to destination</td>
<td>N/A</td>
</tr>
<tr>
<td>Replace</td>
<td>Destination user/group definition replaced with source user/group definition. If the destination group is not included in source user/group memberships, it is added to them.</td>
<td>If new name specified, then Specified new name; if name already exists then New specified object name (1) Otherwise name stays the same.</td>
</tr>
<tr>
<td>Merge memberships</td>
<td>Destination user/group membership information modified to reflect the current content of both the source and destination user/group. If the destination group is not included in user/group memberships, it is added to them.</td>
<td>N/A</td>
</tr>
</tbody>
</table>
**Copying base groups across projects**

A base group is a top-level group, the group that you select from the interface during the copy.

<table>
<thead>
<tr>
<th>Object conflict?</th>
<th>Action</th>
<th>Name of copied object</th>
</tr>
</thead>
<tbody>
<tr>
<td>No, group does not exist in destination</td>
<td>Create a new group in the destination</td>
<td>Source group name</td>
</tr>
<tr>
<td></td>
<td>If the destination group is not included in group memberships, it is added to them.</td>
<td></td>
</tr>
<tr>
<td>Yes, group exists identically (same version)</td>
<td>See the user/group conflict resolution table in the topic Copying users and user groups across projects</td>
<td></td>
</tr>
<tr>
<td>Yes, group exists differently (different version)</td>
<td>See the user/group conflict resolution table in the topic Copying users and user groups across projects</td>
<td></td>
</tr>
</tbody>
</table>

**Child users/groups of users copied across projects**

A child user is any user located in the base group or in one of its child groups. A child group is any group that is located in the base group or in one of its child groups.

<table>
<thead>
<tr>
<th>Object conflict?</th>
<th>Action</th>
<th>Name of copied object</th>
</tr>
</thead>
<tbody>
<tr>
<td>No, user/group does not exist in destination</td>
<td>Copy identically</td>
<td>Source user/group name</td>
</tr>
<tr>
<td>Yes, user/group exists identically (same version)</td>
<td>See the user/group conflict resolution table in the topic Copying users and user groups across projects</td>
<td></td>
</tr>
<tr>
<td>Yes, user/group exists differently (different version)</td>
<td>See the user/group conflict resolution table in the topic Copying users and user groups across projects</td>
<td></td>
</tr>
</tbody>
</table>
Access control lists of objects copied across repositories

An access control list (ACL) is a data element of the MicroStrategy 7 security subsystem that defines and enforces the rights of users to access objects. ACLs are part of all objects, so they are not copied specifically. The ACL can be found in the Security tab of the Properties dialog box for any project-related object.

When an object is copied, its ACL may change in the destination, depending on the users and groups existing in the destination:

• If any user or group exists in the source project but not the destination, that user or group is eliminated from the destination object’s ACL.
• If all groups and users in the ACL exist in both the source and destination, then the ACL is valid for the copied object, and is not changed.

Object ownership of objects copied across projects in different repositories

If the owner of a source object does not exist in the destination project, the Object Manager user login for the destination project takes ownership of the object if it is copied or replaced.

How moving works in MicroStrategy Object Manager

An object can be moved only within one project. As with copying, application and schema objects are processed differently than are configuration objects.
How moving works in MicroStrategy Object Manager

MicroStrategy Object Manager behaves exactly as MicroStrategy Desktop does when moving application and schema objects within a project. Remember that a base object is the object you select from the interface during an object management operation.

<table>
<thead>
<tr>
<th>Object classification</th>
<th>Destination location</th>
<th>Name conflict?</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base objects</td>
<td>Same as source</td>
<td>N/A</td>
<td>Warning message displayed; cannot move object</td>
</tr>
<tr>
<td></td>
<td>Different from source</td>
<td>Yes, object of same name and type exists</td>
<td>Warning message displayed; cannot move object</td>
</tr>
<tr>
<td></td>
<td>Different from source</td>
<td>No, no name conflict</td>
<td>Object moved to destination</td>
</tr>
<tr>
<td>Base folders</td>
<td>Same as source</td>
<td>N/A</td>
<td>Warning message displayed; cannot move folder</td>
</tr>
<tr>
<td></td>
<td>Different from source, and not a subdirectory of source</td>
<td>Yes, folder of same name exists</td>
<td>Warning message displayed; cannot move folder</td>
</tr>
<tr>
<td></td>
<td>Different from source, and not a subdirectory of source</td>
<td>No, no name conflict</td>
<td>Folder moved to destination</td>
</tr>
<tr>
<td>Subdirectory of source</td>
<td>N/A</td>
<td>N/A</td>
<td>Warning message displayed; cannot move folder</td>
</tr>
<tr>
<td>Dependent objects</td>
<td>N/A</td>
<td>N/A</td>
<td>No action</td>
</tr>
<tr>
<td>Child objects and folders</td>
<td>Remain within base folder in destination location</td>
<td>N/A</td>
<td>No action</td>
</tr>
</tbody>
</table>
Moving configuration objects

Configuration objects include database instances, schedules, users, and user groups. Database instances and schedules cannot be moved within a project. They can only be copied.

<table>
<thead>
<tr>
<th>Object classification</th>
<th>Destination group</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base user</td>
<td>Same as source</td>
<td>No action</td>
</tr>
<tr>
<td></td>
<td>Different from source</td>
<td>Source user membership switched from source group to destination group</td>
</tr>
<tr>
<td>Base group</td>
<td>Same as source</td>
<td>No action</td>
</tr>
<tr>
<td></td>
<td>Different from source</td>
<td>Source group membership switched from source group to destination group</td>
</tr>
<tr>
<td>Child users/groups</td>
<td>N/A</td>
<td>No action</td>
</tr>
</tbody>
</table>

How deleting works in MicroStrategy Object Manager

An object can be deleted only if it does not have parent dependencies and is not a system object.

If an object has parent dependencies, a warning message is displayed with the option to search for parents of the object. No child object can be deleted.

System objects include:
- Administration directory
- Administrator user
- Data Explorer
- Schedule Manager
- The folder My Answers
- The folder My Favorites
- The folder My Objects
- The folder My Personal Objects
- The folder My Reports
How renaming works in MicroStrategy Object Manager

Most objects can be renamed in Object Manager, but not the following system objects:

- Administration directory
- Data Explorer
- Schedule Manager
- The folder My Answers
- The folder My Favorites
- The folder My Objects
- The folder My Personal Objects
- The folder My Reports
- The user group Everyone
- User Manager

If the new name already exists, MicroStrategy Object Manager prompts you for a different name.

To learn about...

...the MicroStrategy Object Manager windows, see the following chapters:

- **Object Manager** window
- **Conflict Resolution** dialog box
- **Object Manager Preferences** dialog box
- **Object Dependencies** window
- **Search for Objects** dialog box
...tasks you can perform using MicroStrategy Object Manager, see Chapter 7, How do I...?
CHAPTER 2

Object Manager Window

What is it?
The Object Manager window is the main MicroStrategy Object Manager interface; it is also the first window displayed when you log in to MicroStrategy Object Manager. The window contains an object browser for each project source you select. It is very similar to the MicroStrategy Desktop window, but contains added functionality to copy and move objects, among other utilities.

How do I access it?
You access the Object Manager window by starting up MicroStrategy Object Manager and logging in to a project source.

What can I do with it?
You can use the options available on the Object Manager window to
- duplicate projects
- copy and paste objects within a project
- copy and paste objects across related projects
- move objects within a project
- delete objects within a project
- rename objects within a project
- search for objects within a project
- find object parents or children within a project

For a description of the steps to follow when performing the tasks listed, please refer to Chapter 7, How do I...?
What should I know before I use it?

Before you use MicroStrategy Object Manager, you should familiarize yourself with the following topics:

- MicroStrategy Desktop concepts (see the MicroStrategy 7 Getting Started Guide)
- Setting up your environment
- How copying works in MicroStrategy Object Manager
- How deleting works in MicroStrategy Object Manager
- How moving works in MicroStrategy Object Manager
- How renaming works in MicroStrategy Object Manager

For more information, refer to Chapter 1, MicroStrategy Object Manager Concepts.

Object Manager window layout

The default view of the Object Manager window, which is the main interface of MicroStrategy Object Manager, includes

- an object browser for each project source you selected; each object browser contains the following items:
  - a Location box across the upper part of the object browser, showing the project currently selected
  - a Folder List displayed on the left, showing all the projects to which you have access
  - a display of folder contents on the right; depending on the view selected, it may show icons, a list, or a detailed list that includes Name, Type, and either Metadata Version columns (for projects) or Modification Time columns (for project components)
- a menu bar that in addition to standard Windows NT menus (File, Edit, View, Window, and Help) includes a Tools menu that contains MicroStrategy Object Manager-specific items
- a toolbar that provides, among other options, the capability to
  - create a new folder
  - select projects
  - view object properties
  - search for objects
Object Manager menu bar

The File and Tools menu bar options contain items unique to the Object Manager window. The tables that follow describe the contents of each.

<table>
<thead>
<tr>
<th>File menu option</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Folder</td>
<td>Creates a new folder</td>
</tr>
<tr>
<td>Properties</td>
<td>Displays the Properties dialog box, which, for the currently selected object, allows you to</td>
</tr>
<tr>
<td></td>
<td>• view general properties information such as type, location, description (which you can update), creation/modification date, owner, and access</td>
</tr>
<tr>
<td></td>
<td>• change security information such as addition/deletion of permission levels, access to attribute children, and ownership</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tools menu option</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search for Objects</td>
<td>Opens the New Search dialog box, with which you can search for objects by name, description, location, creation/modification date, type, or ownership</td>
</tr>
<tr>
<td>Object Child Dependencies</td>
<td>Opens the Child Dependencies dialog box and displays all the child objects on which the selected object depends</td>
</tr>
<tr>
<td>Object Parent Dependencies</td>
<td>Opens the Parent Dependencies dialog box and displays all the parent objects which depend on the selected object</td>
</tr>
<tr>
<td>Project Source Manager</td>
<td>Opens the Project Source Manager dialog box, which shows the name and connection mode of every project source and allows addition, removal, and modification of project source information</td>
</tr>
<tr>
<td>Diagnostics</td>
<td>Opens the Diagnostics dialog box, from which you can select one or more project components against which you can run diagnostics</td>
</tr>
</tbody>
</table>
For information on performing any of these operations, see Chapter 7, How do I...?

Object Manager toolbar

Of the options available through the menu bar, those most frequently used are duplicated on the toolbar, where they are accessible by means of icons. Their use is described below.

- **Create a new folder**: Create a new folder in the current location.
- **Open project sources**: Select a project from the list displayed when you click the Open icon.
- **Rename an object**: Save an object under a different name, in either the same directory or a different one.
- **View object properties**: View the general properties of the selected object and change its security properties.
- **Search for objects** (within a project): Use the Search Editor to search for objects by
  - name
  - description
  - location
  - date of creation or revision
  - type
  - owner
- **Show/hide the folder list**: Choose either to display or to hide the folder list for a project.
- **Refresh the window**: Synchronize the window display with the current state of the metadata.
- **Object child dependencies**: Display all the child objects on which the selected object depends.
- **Object parent dependencies**: You can display all the parent objects that depend on the selected object.
For information on performing any of the above tasks, see Chapter 7, How do I...?
CHAPTER 3

Object Manager Conflict Resolution Dialog Box

What is it?

The Conflict Resolution dialog box appears if a conflict arises during a copy operation. It allows you to review information about the conflict and decide how to resolve it.

How do I access it?

You cannot manually access the Conflict Resolution dialog box; it appears only if a conflict arises during a copy operation.

What can I do with it?

You can review information about the conflict, such as the name and type of the source and destination objects and the nature of the conflict. You can then choose from a list of options to resolve the conflict.

What should I know before I use it?

You should understand how copying works in MicroStrategy Object Manager. Refer to Chapter 1, MicroStrategy Object Manager Concepts.

Conflict Resolution dialog box layout

The Conflict Resolution dialog box includes

- a table displaying information about the source and destination objects. The table also contains a column labeled Action that allows user input to resolve the conflict.
- a menu bar that offers File and Tools options specific to this dialog box, including the ability to
  ◊ view object properties
  ◊ proceed with the operation
  ◊ view object dependencies
◊ view details of the conflict
• a toolbar containing the most frequently used menu options

The table contains the following columns:

<table>
<thead>
<tr>
<th>Column name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>A list of the user actions available for this type of conflict. Select an</td>
</tr>
<tr>
<td></td>
<td>action before proceeding with the original operation. Actions include</td>
</tr>
<tr>
<td></td>
<td>• Use Existing</td>
</tr>
<tr>
<td></td>
<td>• Replace</td>
</tr>
<tr>
<td></td>
<td>• Keep Both</td>
</tr>
<tr>
<td></td>
<td>• Use Oldest</td>
</tr>
<tr>
<td></td>
<td>• Use Newest</td>
</tr>
<tr>
<td></td>
<td>• Update in same path (when copying folders)</td>
</tr>
<tr>
<td></td>
<td>• Update in new path (when copying folders)</td>
</tr>
<tr>
<td></td>
<td>• Merge Privileges (when copying users/groups)</td>
</tr>
<tr>
<td>Name (origin)</td>
<td>The name of the source object</td>
</tr>
<tr>
<td>Type (origin)</td>
<td>The object type of the source object</td>
</tr>
<tr>
<td>Path (origin)</td>
<td>The directory location of the source object</td>
</tr>
<tr>
<td>Modified (origin)</td>
<td>The modification date of the source object</td>
</tr>
<tr>
<td>Name (destination)</td>
<td>The name of the destination object</td>
</tr>
<tr>
<td>Type (destination)</td>
<td>The object type of the destination object</td>
</tr>
<tr>
<td>Path (destination)</td>
<td>The directory location of the destination object</td>
</tr>
<tr>
<td>Modified (destination)</td>
<td>The modification date of the destination object</td>
</tr>
<tr>
<td>Conflict</td>
<td>The type of conflict. These include:</td>
</tr>
<tr>
<td></td>
<td>• Exists Identically</td>
</tr>
<tr>
<td></td>
<td>• Exists Differently</td>
</tr>
<tr>
<td>New Name</td>
<td>If the Action is set to Keep Both, you can enter a new name for the</td>
</tr>
<tr>
<td></td>
<td>destination object.</td>
</tr>
</tbody>
</table>
The **File** and **Tools** menu bar options contain items unique to the **Conflict Resolution** dialog box. The tables that follow describe the contents of each.

<table>
<thead>
<tr>
<th>File menu option</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Properties (Origin)</td>
<td>Displays the properties of the source object and allows you to</td>
</tr>
<tr>
<td></td>
<td>- view general properties information such as type, location, description (which you can update), creation/modification date, owner, and access</td>
</tr>
<tr>
<td></td>
<td>- change security information such as addition/deletion of permission levels, access to attribute children, and ownership</td>
</tr>
<tr>
<td>Properties (Destination)</td>
<td>Displays the properties of the destination object and allows you to</td>
</tr>
<tr>
<td></td>
<td>- view general properties information such as type, location, description (which you can update), creation/modification date, owner, and access</td>
</tr>
<tr>
<td></td>
<td>- change security information such as addition/deletion of permission levels, access to attribute children, and ownership</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tools menu option</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proceed</td>
<td>Continues the operation</td>
</tr>
<tr>
<td>Object child dependencies</td>
<td>Displays the children of the source object in the <strong>Child Dependencies</strong> dialog box</td>
</tr>
<tr>
<td>Object parent dependencies</td>
<td>Displays the parents of the source object in the <strong>Parent Dependencies</strong> dialog box</td>
</tr>
<tr>
<td>Details</td>
<td>Displays details of the conflict</td>
</tr>
</tbody>
</table>

For information on performing any of the previous operations, see Chapter 7, How do I...?
Of the options available through the menu bar, those most frequently used are duplicated on the toolbar, where they are accessible through icons. They work as follows:

- **Proceed** continues the original operation once you have set the action
- **Object child dependencies** allows you to view the children objects of the source object
- **Object parent dependencies** allows you to view the parent objects of the source object
- **Help** allows you to access the online help

For information on performing any of these tasks, see Chapter 7, How do I...?
Object Manager Preferences Dialog Box

What is it?

The Object Manager Preferences dialog box is a tool with which you can customize the appearance and behavior of objects displayed on the MicroStrategy Object Manager user interface.

How can I access it?

You can access the Object Manager Preferences dialog box from the Tools menu of the Object Manager window.

What can I do with it?

You can use the Object Manager Preferences dialog box to customize

• browsing options
• navigation preferences
• whether to warn before deleting an object
• conflict resolution preferences
• conflict resolution default actions
• event logging options
• interface languages

The Conflict Resolution and Events tabs contain options unique to MicroStrategy Object Manager. See the following topics for more information:

• Conflict Resolution tab
• Events tab

The remaining options work the same as in MicroStrategy Desktop. Please refer to the MicroStrategy 7 Getting Started Guide for more information on those options.
Conflict Resolution tab

When you select **Conflict Resolution** in the **Object Manager Preferences** dialog box, you can specify

- whether to display the type, modification time, and path of the origin and destination object in the **Conflict Resolution** dialog box
- the default action to use during a copy conflict of objects, folders, and users and user groups

For information on using the **Conflict Resolution** tab of the **Object Manager Preferences** dialog box, see the following topics in Chapter 7, **How do I...?**:

- Customize Conflict Resolution default actions
- Customize Conflict Resolution preferences

Events tab

When you select the **Events** tab in the **Object Manager Preferences** dialog box, you can specify whether to log events to a file, and the name and location of the log file.

For information on using the **Events** tab of the **Object Manager Preferences** dialog box, see the following topics in Chapter 7, **How do I...?**:

- Customize copy status data
- Enable event logging
Object Manager Object Dependencies
Window

What is it?

The *Object Dependencies* window displays the parents or children of the selected object.

How do I access it?

You can access the *Object Dependencies* window by selecting an object and choosing *Object children dependencies* or *Object Parent dependencies* from the *Tools* menu in the *Object Manager* window.

What can I do with it?

You can display the parents or children of the selected object, and view their properties and dependencies. You can also switch between the parents and children views without closing the *Object Dependencies* window.

For information on using the *Object Dependencies* window, see the following topics in Chapter 7, How do I...?:

- Find children dependencies
- Find parent dependencies

What should I know before I use it?

Before you begin using the *Object Dependencies* window, you should understand the concepts of parent and child objects. For more information, please see the following topic in Chapter 1, MicroStrategy Object Manager Concepts:

- How copying works in MicroStrategy Object Manager

Object Dependencies window layout

The *Object Dependencies* window displays the object you selected in the *Object Manager* window and, depending on the menu option you selected from the *Object Manager* window *Tools* menu, a list of that object’s parents or children.
The **File** menu and **Tools** menu include options specific to the **Object Dependencies** window. The tables that follow describe the functions of these unique menu options.

<table>
<thead>
<tr>
<th>File menu option</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Properties</td>
<td>Displays the properties of the selected object and allows you to</td>
</tr>
<tr>
<td></td>
<td>• view <strong>general properties</strong> information such as type, location, description (which you can update), creation/modification date, owner, and access</td>
</tr>
<tr>
<td></td>
<td>• change <strong>security</strong> information such as addition/deletion of permission levels, access to attribute children, and ownership</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tools menu option</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collapse All</td>
<td>Collapses the whole hierarchy so that only the originally selected object is displayed</td>
</tr>
<tr>
<td>Object child dependencies</td>
<td>Displays the child objects of the selected object in another <strong>Child Dependencies</strong> dialog box</td>
</tr>
<tr>
<td>Object parent dependencies</td>
<td>Displays the parent objects of the selected object in another <strong>Parent Dependencies</strong> dialog box</td>
</tr>
</tbody>
</table>

Of the options available through the menu bar, those most frequently used are duplicated on the toolbar, where they are accessible through icons. In addition to the Tool menu options listed above, the toolbar includes the **View object properties** button, which displays the properties of selected objects.

For information on using the Object Dependencies window, see the following topics in Chapter 7, How do I...?:

- Find children dependencies
- Find parent dependencies
Object Manager
Search for Objects
Dialog Box

What is it?

The Search for Objects dialog box is a tool you can use to search for either a specific object or a group of objects meeting certain criteria. To perform a search, you use a special type of MicroStrategy object called a search engine.

You can select multiple criteria to search for an object. For example, you can look for objects according to their type, the date on which they were last modified, and their owners. The larger the number of criteria you use for searching, the more restricted the result of your search becomes, and the smaller the number of objects meeting those criteria.

How do I access it?

You can access the Search for Objects dialog box directly from the Object Manager window by selecting Search for Objects from the Tools menu.

What can I do with it?

You can use the Search for Objects dialog box to perform searches based on one or more of the following criteria:

• name
• description
• location
• creation/modification date
• object type
• ownership

For a description of the procedures to follow when searching for an object, please refer to the following topics in Chapter 7, How do I...?:

• Search for an object by date
• Search for an object by name and location
• Search for an object by object type
• Search for an object by owner criteria

**Search usage**

The **Search for Objects** dialog box provides two options to initiate a search:

• **Find Now** generates a search based on parameters you have entered. When you use this option, the system shows a list of all the items meeting the criteria for those parameters.

• **New Search** clears the contents of the current search. When you use this option, the system prompts you to confirm deletion before you initiate a new search.

You can search for and select objects that meet specific criteria:

• name and location; for example, “Mid-Atlantic” located in the folder “Region”

• date or time interval during which they were created or last modified; for example, “all objects modified between 03/22/99 and 04/14/00”

• type; for example, “Attribute” or “Metric”

• owners; for example, “Administrator” or “John Smith”

The following topics describe the contents and function of each tab.

**Name & Location searches**

**Name & Location** provides spaces where you can enter an object name, description, and location, allowing you to search for objects when you know their identity.

---

**Note:** You can perform a search using any one of the three identifiers in this tab (*Named, Description, or Look in*); however, single-criterion searches of this type may have an impact on performance, because the search can be extensive.

---

**Date searches**

**Date** offers several time-interval search criteria, allowing you to search for objects when you know the time interval during which they were created or last modified.

**Object Types searches**

**Object Types** provides a list of all existing object types in a project, allowing you to search for objects when you know their type.
Owner searches

On the Owner tab you can select a search object when you know its owner.
Chapter 6  Object Manager Search for Objects Dialog Box
CHAPTER 7

How do I...?

Copy (duplicate) a project

**Steps**

1. In the **Object Manager** window, click on the project to be copied.
2. Drag the selected project to a project source icon and drop it.

Copy a user or group

**Steps**

1. In the **Object Manager** window, do one of the following:
   ◊ Right-click the user or group to copy and select **Copy** from the pop-up menu.
   ◊ Select the user or group and click the **Copy** icon in the toolbar.
   ◊ Select the user or group and choose **Copy** from the **Edit** menu.
2. Do one of the following:
   ◊ Right-click the destination and select **Paste** from the pop-up menu.
   ◊ Select the destination and click the **Paste** icon in the toolbar.

Select the destination and choose **Paste** from the **Edit** menu.

If the **Conflict Resolution** dialog box opens, the object cannot be duplicated without user interaction. Refer to the following topic:

Resolve a conflict when copying a user or group

3. Progress status is displayed. When the copy process is complete, click **Close** to return to the **Object Manager** window.
4. You may need to click **Refresh** on the Object Manager toolbar to see the changes.
Note

For more information on copying, see the following Chapter 1 topic:
How copying works in MicroStrategy Object Manager

Copy an object

Steps
1. In the Object Manager window, do one of the following:
   ◊ Right-click the application or schema object to copy and select Copy from the pop-up menu.
   ◊ Select the source object and click the Copy icon in the toolbar.
   ◊ Select the source object and choose Copy from the Edit menu.
2. Do one of the following:
   ◊ Right-click the destination and select Paste from the pop-up menu.
   ◊ Select the destination and click the Paste icon in the toolbar.
   ◊ Select the destination and choose Paste from the Edit menu

If the Conflict Resolution dialog box opens, the object cannot be duplicated without user interaction. Refer to the following topic:
Resolve a conflict when copying objects

3. Progress status is displayed. When the copy process is complete, click Close to return to the Object Manager window.
4. You may need to click Refresh on the Object Manager toolbar to see the changes.

Note

For more information on copying, see the following Chapter 1 topic:
How copying works in MicroStrategy Object Manager

Create a new Object Manager folder

Steps
1. In the Object Manager window, select where you want the new folder.
2. Do one of the following:
   ◊ From the File menu, select New folder.
   ◊ Click the New folder icon on the toolbar.
3. Enter the name of the new folder.

**Customize Conflict Resolution default actions**

**Steps**
1. Select Tools from the Object Manager window menu bar.
2. From the Tools menu, select Object Manager Preferences. The Object Manager Preferences dialog box opens.
3. Select the Conflict Resolution tab.
4. Click Set Default Actions. The Default Object Actions dialog box opens.
5. For each type of object, select the action to appear as the default when the corresponding Conflict Resolution dialog box opens. Click OK when you have completed your selections.
6. Click OK in the Object Manager Preferences dialog box to return to the Object Manager window.

**Customize Conflict Resolution preferences**

**Steps**
1. Select Tools from the Object Manager window’s menu bar.
2. From the Tools menu, select Object Manager Preferences. The Object Manager Preferences dialog box opens.
3. Select the Conflict Resolution tab.
4. Under Conflict resolution preferences, select the check box for the information you want displayed in the Conflict Resolution dialog box.
5. Click OK.

**Delete an object**

**Steps**
1. In the Object Manager window, select the object to be deleted.
2. Do one of the following:
   ◊ From the File menu, select Delete.
   ◊ Click the Delete the object selected icon on the toolbar.

**Notes**

- If the object has parent dependencies, a warning message will appear with an option to search for them.
- An object cannot be deleted if it is a system object or if it has parent dependencies.

**Enable event logging**

**Steps**

1. Select Tools from the Object Manager window’s menu bar.
2. From the Tools menu, select Object Manager Preferences. The Object Manager Preferences dialog box opens.
3. Select the Events tab.
4. Under Options, select the Log events to file check box.
5. Specify a text file name and folder location for the event log.
6. You can select Show objects without conflicts to log all Object Manager actions.
7. Click OK.

**Find child dependencies**

**Steps**

1. In the Object Manager window, select the parent object.
2. From the Tools menu, select Object child dependencies. The Object Dependencies window opens.
3. To expand an object, click it.
4. To close an expanded object, click it. To collapse the entire hierarchy down to the original selected object, click Collapse All on the toolbar.
5. To switch to parent objects view, click Object Parent Dependencies on the toolbar. A second Object Dependencies window opens, displaying the selected object’s parent dependencies.
6. To view object properties, select the object and click View Object Properties on the toolbar.

Find parent dependencies

Steps

1. In the Object Manager window, select a child object.
2. From the Tools menu, select Object parent dependencies. The Object Dependencies window opens.
3. To expand an object, click it.
4. To close an expanded object, click it. To collapse the entire hierarchy down to the original selected object, click Collapse All on the toolbar.
5. To switch to children objects view, click Object Child Dependencies on the toolbar. A second Object Dependencies window opens, displaying the selected object’s children dependencies.
6. To view an object's properties, select it and click View Object Properties on the toolbar.

Move an object

Steps

1. In the Object Manager window, do one of the following:
   ◊ Right-click the object to be moved and select Move from the pop-up menu.
   ◊ Select the source object and click the Move icon in the toolbar.
   ◊ Select the source object and choose Move from the Edit menu.
2. Do one of the following:
   ◊ Right-click the destination and select Paste from the pop-up menu.
   ◊ Select the destination and click the Paste icon in the toolbar.
   ◊ Select the destination and choose Paste from the Edit menu.

Notes

An object cannot be moved if an object of the same name and type already exists in the destination folder, or if the destination folder is the same as the source folder. Database instances and schedules cannot be moved.
Open a project source in Object Manager

Steps
1. From the Object Manager window File menu, choose Open. The Open Project Source dialog box opens.
2. Select the project sources to open and click Open. The Login dialog box opens.
3. Enter a valid login ID and password. You should log in with administrator privileges, which ensures that you will have the rights to copy, create, delete, and move objects.

Note
MicroStrategy Object Manager is based on the MicroStrategy 7.0 security model. Therefore, all activities that may be performed in MicroStrategy Object Manager are governed by user privileges and access control lists. For example, an object cannot be copied if you, as a user, do not have write privileges to the destination folder.

Rename an object

Steps
1. Do one of the following:
   ◊ Right-click the object to be renamed and select Rename from the pop-up menu.
   ◊ Select the object and click the Rename icon in the toolbar.
   ◊ Select the object and choose Rename from the Edit menu.
2. Enter the new name.

Note
An object can be renamed only if it is not a system object.
Resolve a conflict when copying a user or group

The Conflict Resolution dialog box opens when MicroStrategy Object Manager determines that the Copy function cannot be completed without user intervention. If it opens during a user or group copy, the Conflict column is set to Exists Differently, which indicates that the user or group exists in the destination in a different version, meaning they are not identical.

Steps

1. Choose an action from the following list to resolve the conflict:
   - **Use Existing**: The item is not copied. No changes are made either to the source or the destination items.
   - **Replace**: The destination object definition is replaced with the source object definition. If the destination group is not included in user memberships, it is added to the memberships.
   - **Merge Memberships**: The membership information of the destination item is modified to reflect the current content of both the source and the destination. This information includes the destination group only if it is not already included in the destination memberships.

2. Click Proceed to start the copying procedure.

Note

For more information on copying, see the following Chapter 1 topics:
- How copying works in MicroStrategy Object Manager
- Copying configuration objects within a project
- Copying users and user groups across projects

Resolve a conflict when copying objects

The Conflict Resolution dialog box opens when MicroStrategy Object Manager determines that the copy function cannot be completed without user intervention.

Steps

1. Refer to the Conflict column.

   - If Conflict is set to Exists Identically, the source and destination objects are identical, meaning that they are the same version. Choose an action from the following list:
     - **Use Existing**: The object is not copied. No changes are made either to the source or the destination objects.
– **Keep Both:** The destination object is not changed. MicroStrategy Object Manager duplicates the source object in the destination location. You can specify a name for the new object, if you desire, by typing it in the New Name column.

– **Update destination folder in Same Path:** This option is provided only when a folder is being copied. The destination folder remains in the original location and is updated with any new objects being copied.

– **Update destination folder in New Path:** This option is provided only when a folder is being copied. The folder moves to the new destination location and is updated with any new objects being copied.

◊ If Conflict is set to **Exists Differently**, the source object exists in the destination in a different version, meaning the source and destination objects are not identical. Choose an action from the following list:

– **Use Existing:** The object is not copied. No changes are made either to the source or the destination object.

– **Replace:** The destination object is replaced by the source object. If the object to be copied is the base object (the object you selected to copy), MicroStrategy Object Manager checks the folder location before replacing the destination object. If the specified destination folder is the same as the current location, Object Manager replaces the destination object with the source object. If it is different, Object Manager replaces the destination object with the source object and moves the destination object to a new location.

– **Keep Both:** The destination object is not changed; instead, the source object is duplicated in the specified destination location. You can specify a name for the new object, if you desire, by typing it in the New Name column.

– **Use Older:** If the source object is newer than the destination object, the object is not copied. The operation is the same as **Use Existing.** If the destination object is older than the source object, the destination object is replaced by the source object. This operation works like **Replace.**

– **Use Newer:** If the source object is newer than the destination object, the destination object is replaced by the source object. This operation works like **Replace.** If the source object is older than the destination object, the object is not copied. The operation is comparable to **Use Existing.**

2. Click **Proceed** to start the copying procedure.

**Search for an object by date**

**Steps**

1. From the **Object Manager** window **Tools** menu, select **Search for Objects.** The **Search for Objects** dialog box opens.

44 Chapter 7 How do I...?
2. Select the Date tab.

3. Click Find all objects and select either Modified or Created (the default value is Modified), then select one of the following:
   ◊ between __ and __, and enter a begin date and an end date to search for an object that was either modified or created during the specified interval
   ◊ during the previous __ days to search for an object that was either modified or created during the specified number of days prior to the current date
   ◊ during the previous __ months to search for an object that was either modified or created within the specified number of months prior to the current date

4. Click Find now. The system shows a list of objects that meet the criteria you specified.

Search for an object by name and location

Steps

1. From the Object Manager window Tools menu, select Search for Objects. The Search for Objects dialog box opens.

2. Select the Name & Location tab.

3. Do one of the following:
   ◊ Enter the name, description, and location of the search object, and check whether you want the search to include subfolders associated with the project.
   ◊ Use the Named field’s drop-down menu to select an object name.

4. Click Find now. The system displays a list of objects that meet the criteria you specified.

Search for an object by object type

Steps

1. From the Object Manager window Tools menu, select Search for Objects. The Search for Objects dialog box opens.

2. Select the Object Type tab.

3. Highlight the type of object to be identified.
4. Select **Only these types of objects** and click **Find now**. The system displays a list of objects of the type you selected.

**Search for an object by owner**

**Steps**

1. From the **Object Manager** window **Tools** menu, select **Search for Objects**. The **Search for Objects** dialog box opens.
2. Select the **Owner** tab. The Owner tab opens, listing all owners.
3. Highlight an owner.
4. Select **Only this owner** and then click **Find now**. The system displays all the objects that belong to the specified owner.