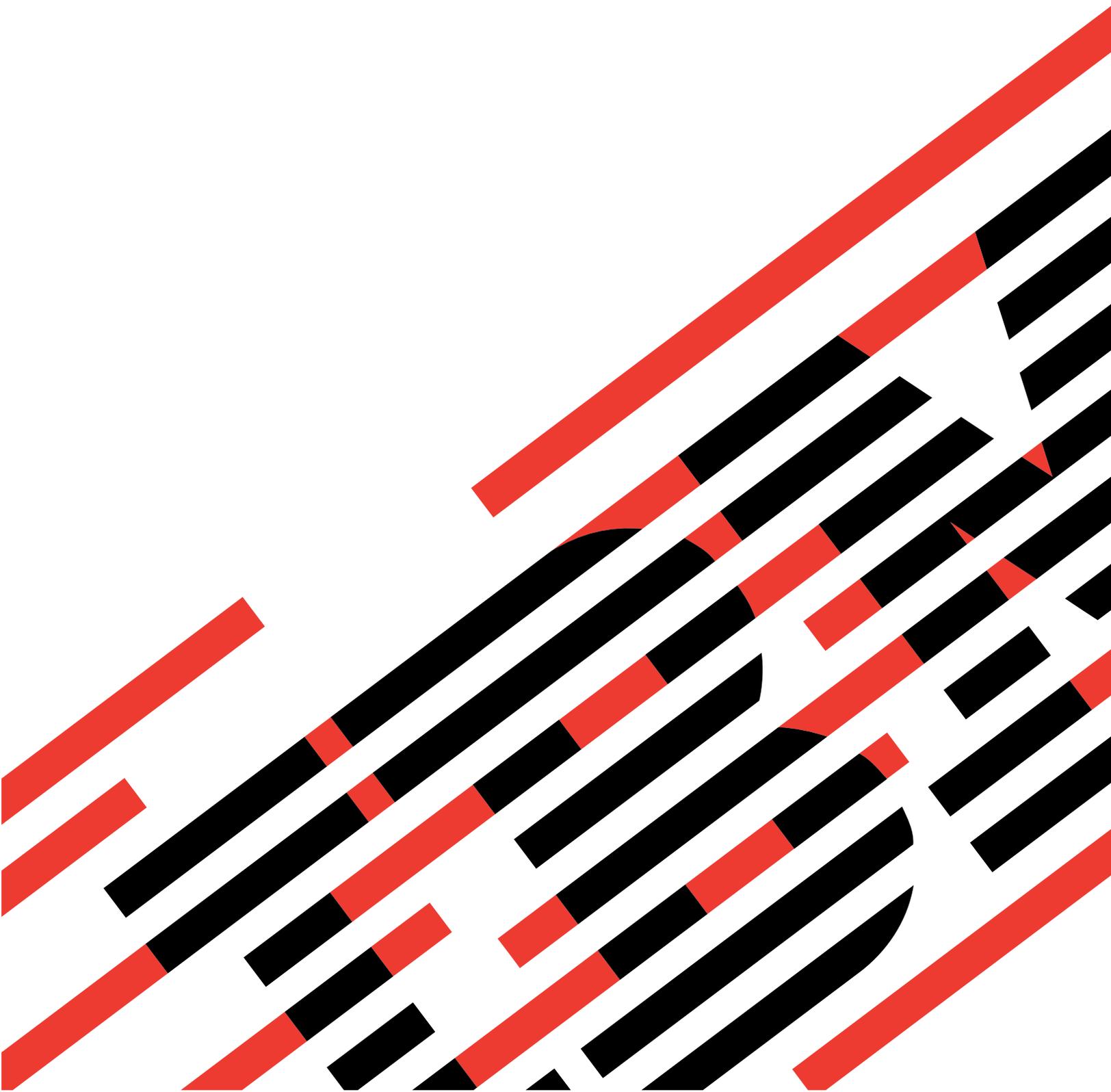


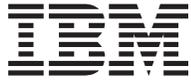
IBM

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Operations Navigator
Application Administration





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Operations Navigator
Application Administration

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Part 1. Application Administration

What is Application Administration?

Application Administration is an optionally-installable component of Operations Navigator, the graphical user interface (GUI). Application Administration allows administrators to control the functions or applications available to users and groups on a specific server. This includes controlling the functions available to users that access their server through clients. If you access a server from a Windows client, the OS/400 user and not the Windows user determines which functions are available.

Application Administration controls access to any application that has defined administrable functions on your server. Operations Navigator and Client Access Express are examples of applications that have defined administrable functions.

To install Application Administration, you must install Operations Navigator, and then select the Application Administration component.

Application Administration organizes applications into the following categories:

Table 1. Application Administration Categories

Category	Description
AS/400 Operations Navigator	Includes Operations Navigator and any plug-ins.
Client Applications	Includes all other client applications, including Client Access Express, that provide functions on clients that are administered through Application Administration.
Host Applications	Includes all applications that reside entirely on your servers and provide functions that are administered through Application Administration.
Application Administration is only available on servers that are running OS/400 V4R3M0, or later.	

How does Application Administration work?

Application Administration provides a convenient graphical user interface (GUI) that allows you to control the functions available to users and groups. To access Application Administration from within Operations Navigator, right-click your server and select **Application Administration**. This opens the Application Administration main dialog.

Note: The Operations Navigator online help provides details about each of the fields on the dialog.

Each application may contain one or more functions. Each function has multiple settings, called access settings that are used to control access to the function. Each user is either denied or allowed access to the functions that are managed by Application Administration based on the function's access settings.

Before you begin working with Application Administration, you should become familiar with these concepts:

- **Application registration**

- You must register an application before using Application Administration to administer it. When you register an application, Application Administration creates the application's administrable functions on the server. This allows security administrators to manage which users have access to the application.
- Use the **Applications** dialog within Application Administration to register or remove Operations Navigator or Client applications. Typically, host applications register their administrable functions when you install them on the host system.

- Once you register an application, all users are allowed access to the application's functions by default. Removing an application removes the application's administrable functions and associated access settings. This results in all users having access to the application's functions.
- The **Applications** dialog displays a list of Operations Navigator and Client applications that you have registered on your server. The dialog also displays the applications on your PC that define administrable functions. You must install the application on your PC before you can register it on your server. Once you register an application, any other PC running Application Administration can administer or remove the application's administrable functions from your server.
- **Administering applications**
 - Once you register an application on your server, you can administer it through Application Administration.
 - You can change the access settings for each function.

Note: You must have Security Administrator system privilege to alter the access settings of a function.

- **Working with the settings of a specific user**
 - You can use Application Administration to identify which functions a user or group may access. You can also customize access for a user or group to specific functions. To do this, follow these steps:
 1. In Operations Navigator, expand **Users and Groups**.
 2. Select either **All Users, Groups**, or **Users Not in a Group** to retrieve a list of users and groups.
 3. Right-click a user or group, and select **Properties**.
 4. Click **Capabilities**.
 5. Click the **Applications** tab.

If you have questions about how to proceed, the Operations Navigator online help provides details about each of the fields on the dialog.

Note: In certain cases, a user may have read-only allowed access. This occurs when a function has All Object Access and the user has All Object system privilege.

Working with Application Administration

Refer to the following topics to ensure that you have taken the necessary steps to use and benefit from Application Administration:

- Chapter 2, "Getting started with Application Administration" on page 5
- Chapter 3, "Application Administration: advanced topics" on page 11

Chapter 1. Application Administration access settings

Each administrable function that your server supports has several associated access settings. The access settings determine whether a user is denied or allowed access to the function. The access settings are:

Default Access

Determines a user's access to a function when the user and its groups are not explicitly allowed or denied access to the function.

All Object Access

Indicates whether a user or group with all object system privilege is allowed access to the function. If selected, and the user or group has all object system privilege, this setting overrides all other access settings.

Customized Access

Indicates whether users or groups are explicitly denied or allowed access to the function.

Application Administration evaluates the access settings of a function to determine whether a user can access that function. See "Use of Application Administration to determine a user's access to a function" for more details.

Chapter 2. Getting started with Application Administration

Before you begin to use Application Administration, it is important that you become familiar with these topics:

- “Application Administration strategy”: describes the steps you must take to evaluate how you will use Application Administration in your environment.
- “Installing Application Administration” on page 6: describes how to install Application Administration when you install Client Access Express.
- “Example: Using Application Administration” on page 7: gives you an example of how to use Application Administration to administer applications on your server.

Application Administration strategy

You define and carry out your Application Administration strategy by performing the basic steps that follow. These steps will assist you in your evaluation of how to use Application Administration in your environment.

Step 1: Planning your Application Administration strategy

Answer the following questions to help you gather the information you need to begin to administer applications through Application Administration:

1. Which applications and servers do you want to administer with Application Administration?

Note: You can only use Application Administration to administer applications that define administrable functions.

2. What type of access do you want users to have to the administrable functions of those applications?
 - a. If you want most users to be either denied or allowed access to the function, then use the **Default Access** setting for the function.
 - b. If you want all users with All Object system privilege to always have access to the function, use the **All Object Access** setting for the function.

Note: This value allows all users with All Object system privilege to have access to this function even if they are explicitly denied access to the function by using the **Customized Access** setting.

- c. Identify groups that require an access setting that differs from the **Default Access** setting. You must specify a **Customized Access** setting for each of these groups.
- d. Identify users who require an access setting that differs from the one you specified for the group, or groups, to which they belong. You must specify a **Customized Access** setting for each of these users.
- e. Identify users not in a group who require an access setting that differs from the **Default Access** setting. You must specify a **Customized Access** setting for each of these users.

If you have questions about how Application Administration determines whether a user is denied or allowed access to a function, see this topic: “Use of Application Administration to determine a user’s access to a function.”

Step 2: Carrying out your Application Administration strategy

These steps outline what actions you must take to actually administer functions with Application Administration:

Note: These steps assume that you have installed Operations Navigator and the appropriate applications on your PC.

1. Register the applications you want to administer on the servers you want to control.
2. Set the **Default Access** setting for the application's functions.
3. Set the **All Object Access** setting for the application's functions.
4. Customize the access settings for your group profiles, if applicable.
5. Customize the access setting for your individual profiles, if applicable.

If you would like an example of how you might use Application Administration to administer applications on your server, see this topic: "Example: Use of Application Administration".

Use of Application Administration to determine a user's access to a function

Application Administration evaluates the access settings of a function to determine whether a user is allowed or denied access to that function. All functions have a default and an all object access setting. Functions may also have customized access settings which allow or deny specific users and groups access to that function.

These are the steps Application Administration takes to determine whether a user can access a particular function:

1. If **All Object Access** is selected for a function, and the user has all object system privilege, the user is allowed access to the function. If not, then continue on to the next step.
2. If the user is either denied or allowed access by the **Customized Access** setting, then the **Customized Access** setting determines the user's access to the function. If not, then continue on to the next step.
3. If the user is a member of one or more groups, then go to step 4. If not then go to step 7.
4. If **All Object Access** is selected for a function, and the group has All Object system privilege, then the user can access the function. If not, then continue on to the next step.
5. If the user is in a group whose **Customized Access** setting is Allowed, then the user is allowed access to the function. If not, then continue with the next group at step 4. After Application Administration processes each group, continue on to step 6.
6. If the user is in a group whose **Customized Access** setting is Denied, then the user is denied access to the function. If not, then continue on to the next step.
7. The **Default Access** setting determines the user's access to the function.

Administrable functions for Application Administration

An administrable function is any item that you can manage through Application Administration. Administrable functions are the leaf nodes that are displayed in the tree hierarchy of the Application Administration dialogs.

Installing Application Administration

Operations Navigator is a component of Client Access Express that contains many subcomponents, including Application Administration.

To install Client Access Express, follow these steps:

Note: These instructions assume that you have an OS/400 NetServer file share set up on your server. OS/400 NetServer shares the QIBM directory with clients. Sharing the directory allows users who already have user profiles to install Client Access Express on their client PCs.

1. Open the Windows **Start** menu.
2. Select **Find** from the Start menu and select **Computer**.

3. In the **Computer Name** field, enter the server name where Client Access Express is installed. For example, server1.
4. Double-click the computer that was found.
5. Open the **QIBM** folder.
6. Open the **ProdData** folder.
7. Open the **CA400** folder.
8. Open the **Express** folder.
9. Open the **Install** folder.
10. Open the **Image** folder.
11. Double-click **Setup**. The Install Wizard for Client Access Express takes you through the process of installing Client Access Express on your PC.

To install the Application Administration subcomponent, select the **Custom** installation option.

1. Display the list of currently selected subcomponents in the **Component Selection** window of **Custom** installation or **Selective Setup**.
2. Select AS/400 Operations Navigator.
3. Select Application Administration and any additional subcomponents that you want to install and continue with **Custom** installation or **Selective Setup**.

Application Administration requires no further configuration for you to start to administer applications.

Example: Using Application Administration

The following example shows you how to use Application Administration to administer client applications. Suppose that your company has two servers in the network that are used to run the following client applications:

Server 1

Manufacturing application, which has a client interface with these administrable functions:

- Inventory Management
- Order Fulfillment

Finance application, which has a client interface with these administrable functions:

- Accounts Receivable
- Budgeting

Server 2

Development and Test application, which has a client interface with these administrable functions:

- Library Release and Control
- Source Development Environment

System Administration Tools, which does not have any administrable functions.

Users will access both servers by using Client Access Express and Operations Navigator. You must determine which applications and servers you want to administer through Application Administration. Then you must evaluate what type of access your users require.

Step 1: Planning your Application Administration strategy

Server 1

Which applications to administer?

Server 1 has two, and only two, distinct groups of users: users of the Manufacturing application, and users of the Finance application. The manufacturing users should not have access to the Finance application, and Finance users should not have access to the Manufacturing application.

In addition, each group has different access to the various Operations Navigator functions. Because of this, you need to register Operations Navigator, the Manufacturing application, and the Finance application on Server 1.

What type of access do you want users to have to the administrable functions of those applications?

All users that use the Manufacturing application belong to a user group that is called MFGUSER. All manufacturing team leaders also belong to a user group that is called MFGLEAD. All users that use the Finance application belong to a user group that is called FINANCE. Now that you have determined the user groups, you can give the users of the applications on Server 1 access to the following:

Manufacturing application

Inventory Management

Only Judy, Natasha, Jose, and Alex require access to this function.

Order Fulfillment

All manufacturing team leaders require access to this function, except Alex.

Finance application

Accounts Receivable

All members of FINANCE require access to this function.

Budgeting

All members of FINANCE require access to this function.

Operations Navigator

- All manufacturing users require access to Basic Operations.
- All finance users require access to Basic Operations, Database, and File Systems.
- All system administrators require access to all Operations Navigator functions.

Note: The administrators on this server do not require access to the Manufacturing application or the Finance application. All administrators have All Object system privilege.

Server 2

All users on Server 2 have access to all Operations Navigator, Development and Test application, and System Administration Tools functions, unless their object security settings restrict them from a specific function. For this reason, control of applications on this server does not require you to use Application Administration.

Step 2: Carrying out your Application Administration strategy

Given the information you compiled in step one, configure the access settings for each application's administrable function as follows:

Manufacturing application

Inventory Management

1. From the **Application Administration** dialog, go to the **Client Applications** page.
2. Expand **Manufacturing application**.
3. For Inventory Management, deselect **Default Access**.
4. Click **Customize**. This opens the **Customize Access** dialog.
5. In the **Access** field, deselect **Users with all object system privilege**.
6. Expand **All Users** in the **Users and Groups** list box.
7. Select Judy, Natasha, Jose, and Alex from the list of all users and click **Add** to add them to the **Access Allowed** list.
8. Click **OK** to save the access settings.
9. For Order Fulfillment, deselect **Default Access**.
10. Click **Customize**. This opens the **Customize Access** dialog.

11. In the **Access** field, deselect **Users with all object system privilege**.
12. Expand **All Users** in the **Users and Groups** list box.
13. Select Alex from the list of all users and click **Add** to add him to the **Access Denied** list.
14. Expand **Groups** in the **Users and Groups** list box.
15. Select MFGLEAD from the list of groups and click **Add** to add the group to the **Access Allowed** list.
16. Click **OK** to save the access settings.

Finance application

All functions

1. From the **Application Administration** dialog, go to the **Client Applications** page.
2. Expand **Finance application**.
3. For Accounts Receivable, deselect **Default Access**.
4. Click **Customize**. This opens the **Customize Access** dialog.
5. In the **Access** field, deselect **Users with all object system privilege**.
6. Expand **Groups** in the **Users and Groups** list box.
7. Select FINANCE from the list of groups and click **Add** to add the group to the **Access Allowed** list.
8. Click **OK** to save the access settings.
9. Repeat these steps for Budgeting.

Operations Navigator

Basic Operations

1. From the **Application Administration** dialog, go to the **AS/400 Operations Navigator** page.
2. For Basic Operations, select **Default Access** and **All Object Access**.
3. Click **OK** to save the access settings.

Database

1. From the **Application Administration** dialog, go to the **AS/400 Operations Navigator** page.
2. For Database, deselect **Default Access**.
3. Click **Customize**. This opens the **Customize Access** dialog.
4. In the **Access** field, select **Users with all object system privilege**.
5. Expand **Groups** in the **Users and Groups** list box.
6. Select FINANCE from the list of groups and click **Add** to add the group to the **Access Allowed** list.
7. Click **OK** to save the access settings.

File Systems

1. From the **Application Administration** dialog, go to the **AS/400 Operations Navigator** page.
2. For File Systems, deselect **Default Access**.
3. Click **Customize**. This opens the **Customize Access** dialog.
4. In the **Access** field, select **Users with all object system privilege**.
5. Expand **Groups** in the **Users and Groups** list box.
6. Select FINANCE from the list of groups and click **Add** to add the group to the **Access Allowed** list.
7. Click **OK** to save the access settings.

All other Operations Navigator functions

1. From the **Application Administration** dialog, go to the **AS/400 Operations Navigator** page.
2. For each function, deselect **Default Access** and select **All Object Access**.
3. Click **OK** to save the access settings.

Server 2

The object security settings control Operations Navigator, the Development and Test application, and the System Administration Tools on Server 2. While some of these applications have administrable functions available, you have chosen not to control access through Application Administration. Therefore, no further action is required.

Chapter 3. Application Administration: advanced topics

When will my changes take effect?

Depending on the application, you may not see the changes that you make to a function's access settings until:

- The next time the client PC signs on to the server. This is the case for Operations Navigator functions.
- The next time you restart the client PC, or 24 hours after you make the change, whichever comes first. This is the case for Client Access Express functions.

Can I use Application Administration as a security tool?

No. Application Administration was designed for customizing the functions available on your client PC. You should not use Application Administration for administering security on your client PC for these reasons:

- Application Administration uses the Windows registry to cache restrictions on the client PC. A skilled user could obtain access to functions that they are restricted from using through Application Administration.
- If multiple interfaces exist to the same OS/400 resource, restricting a single interface through Application Administration does not restrict the other interfaces to the same resource. For example, you can restrict a user from accessing the database feature of Operations Navigator through Application Administration. However, the user still has access to database files by using other database interfaces, such as, Open Database Connectivity (ODBC) or database control language (CL) commands.

Management Central and Application Administration

You can also access Application Administration through Management Central. To do so by using Operations Navigator, right-click **Management Central** and select **Application Administration**. This opens the Application Administration main dialog.

The Application Administration dialog, when opened through Management Central, displays Management Central administrable functions. When you open the Application Administration dialog through your server, the dialog does not display these functions, with the exception of Fixes Inventory and Collection Services.

The Application Administration dialog, when opened through a server, displays Fixes Inventory and Collection Services as read-only. You must have Management Central installed, and you must register the functions on the central server, or they are not displayed. You can only administer these functions by accessing Application Administration through Management Central.

Operations Navigator plug-ins and Application Administration

Application Administration displays the administrable functions of an Operations Navigator plug-in in two places:

- As read-only values in the Operations Navigator hierarchy, in order to specify the location of the plug-in's function within the hierarchy.
- In a first level folder for the plug-in. You can administer the access settings for a plug-in's functions only from this folder.



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