

Paper 324-2010

Be All That You Can Be: Best Practices in Using Roles to Control Functionality in SAS® 9.2

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ABSTRACT

As a SAS administrator, you might need to deal with issues caused by someone who used an application feature that was too advanced for their skill level or a feature that is appropriate only for a limited group of power users. The best way to prevent this type of problem is to eliminate access to the feature before it can be used, so the user is unaware that it exists. In previous releases, you were limited in your ability to restrict functionality. In most cases, if a feature was available to one user, it was available to all users. In SAS 9.2, several clients use roles that are defined and managed in metadata to control features and functionality.

INTRODUCTION

This paper covers roles that are supported within a SAS® Enterprise BI Server deployment. It addresses how you can create your own custom roles, and provides best practices for managing and protecting predefined roles. You will learn how to create and assign roles in SAS® Management Console, and then see the effect of roles in the SAS® Add-In for Microsoft Office, SAS® Enterprise Guide®, SAS® Web Report Studio, and SAS Management Console. The paper helps you avoid some possible issues when creating and assigning roles, and demonstrates debugging and testing techniques.

Note: Some SAS solutions implement roles that are specific to the solution. Those roles are not discussed in this paper.

OVERVIEW

SAS clients are used by a wide variety of users and groups within an organization who have different skill sets and job responsibilities. Administrators want to be able to control the resources and functionality that users can access. While metadata permissions can control which objects a user can access, roles can provide additional control over what a user can do within SAS clients.

Roles were originally introduced in SAS Web Report Studio 2.1. In that release, roles were managed by editing a configuration file, and changes required redeploying the web application. In addition to SAS Web Report Studio, SAS 9.2 roles are used by the SAS Add-In for Microsoft Office, SAS Enterprise Guide, SAS Management Console, and SAS® BI Dashboard. Roles are now centrally managed in the metadata repository using SAS Management Console. Working with roles is much easier, because no configuration files are modified and you no longer have to redeploy applications.

Here are examples of some features you can control with roles:

- In SAS Web Report Studio, you can allow some users to view reports, but not create them. You can allow some users to print reports, but not others. Some users can link reports, while others cannot.
- In SAS Enterprise Guide, you can discourage users from saving files to their local hard drives. You can enable some users to define libraries in metadata. You can disable the query window to prevent resource intensive joins on the database server.
- In the SAS Add-In for Microsoft Office, you can remove any tasks that use products that have not been licensed. You can prevent users from opening files on the local computer.
- In SAS Management Console, you can hide plug-ins that are not applicable to a user's job.
- For Metadata Server administration, you can provide unrestricted metadata access. You can control who administers user information and manages the metadata server.

WHAT IS A ROLE?

Roles define what functionality is available to a user within an application. A role controls application behavior, features, and functions.

These application features are called *capabilities*. A capability might control whether a menu item, button, plug-in, or icon is displayed. It is a functional behavior that can be activated for a user. A role might consist of multiple capabilities.

Users and groups are assigned to roles. An individual user in metadata can be assigned to one or more roles directly or indirectly as part of a group membership.

THE EFFECT OF ROLE ASSIGNMENTS ON THE APPLICATION INTERFACE

Perhaps the biggest effect you will see from roles is the ability to dynamically change the application interface, based on the current user's role assignment. In the display below, note that this user has the ability to create new reports in SAS Web Report Studio using commands from the **File** menu and links on the Welcome page. This user is a member of a group assigned to the predefined **Web Report Studio: Report Creation** role, which has capabilities that enable the user to create reports.

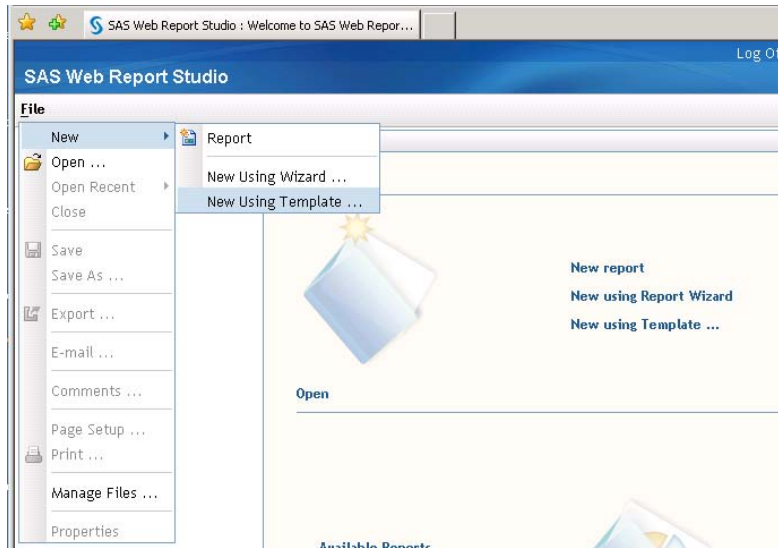


Figure 1. SAS Web Report Studio Interface for the Web Report Studio: Report Creation Role

In the display below, the user is assigned to the predefined **Web Report Studio: Report Viewing** role. Notice that the **File** menu does not include the **New** command, and there are no links on the Welcome page to created new reports. These features are controlled by a specific capability that is not selected for this role.

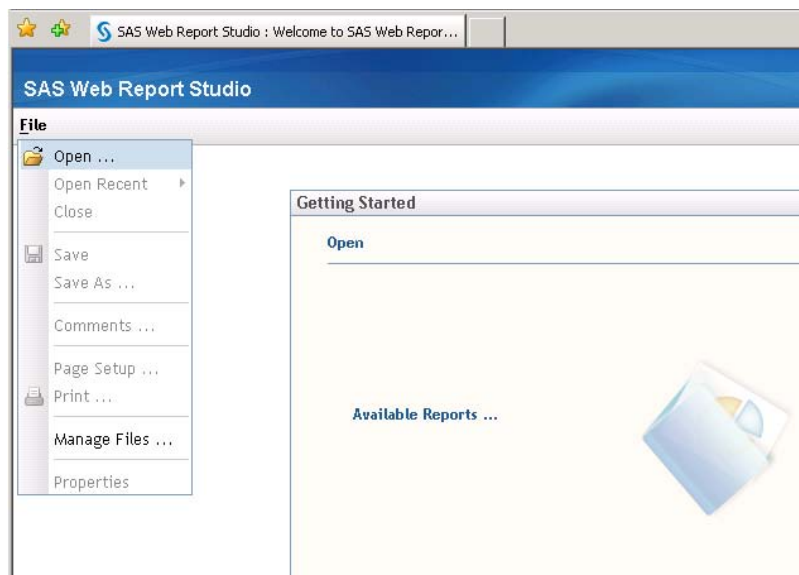


Figure 2. SAS Web Report Studio Interface for the Web Report Studio: Report Viewing Role

IMPORTANT FEATURES AND LIMITATIONS OF ROLES

- Not all SAS applications use roles. Roles are supported for SAS Management Console, Metadata Server administration, SAS Web Report Studio, SAS Enterprise Guide, the SAS Add-In for Microsoft Office, and SAS BI Dashboard.
- You cannot control every feature within an application using roles, because some features are not specified as a capability.
- You can add your own custom roles, but you cannot add a new capability. The only capabilities that are available are the ones defined by the SAS® Deployment Wizard during the deployment.
- Roles are additive. If a user is a member of a group assigned to multiple roles, the user has all the capabilities found in each role.
- There are no negative capabilities to limit what a user can do. Capabilities specify what a user can do, not what they are prevented from doing.
- Roles do not provide security and do not protect data or metadata. Metadata permissions are used to control which objects a user can access and modify. Roles control what a user can do in an application. Having a certain capability is not an alternative to meeting a permission requirement. Roles and permissions should be used together to control the actions and access for a user of SAS applications.

MANAGING ROLES

The User Manager plug-in in SAS Management Console is used to manage roles and role membership. This provides flexible administration without coding or editing of configuration files.

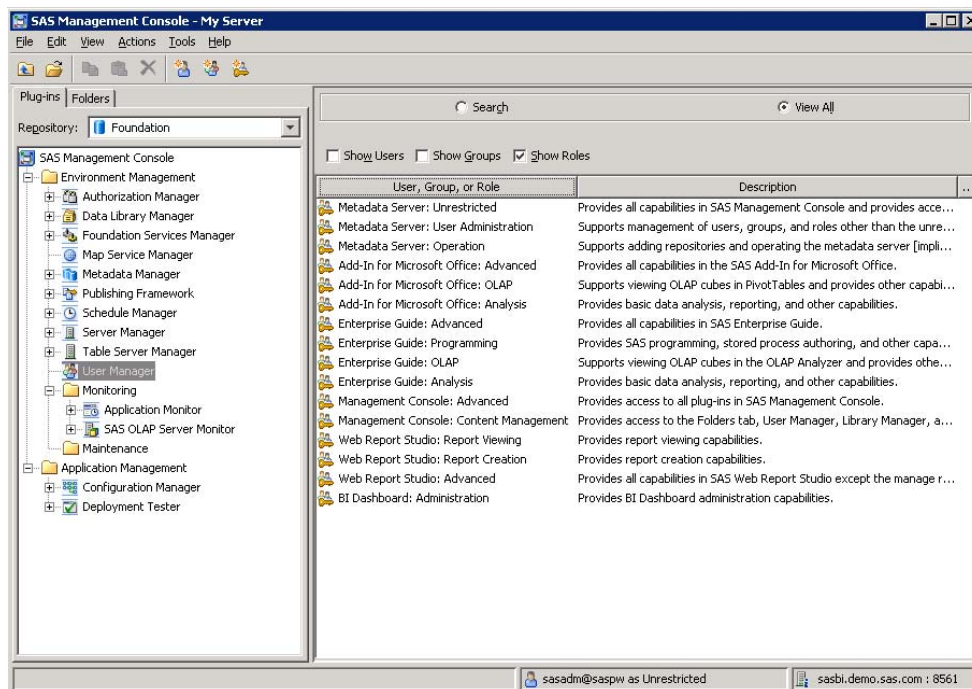


Figure 3. User Manager Plug-in in SAS Management Console

WHO CAN MANAGE ROLES?

In the initial configuration, members of the SAS Administrators group can manage roles. In order to manage roles, a user must either be unrestricted or have all of the following special privileges:

- Membership in the **Metadata Server: User Administration** role
- User Manager capability in SAS Management Console

- WriteMetadata permission for the identities (to change role memberships)
- WriteMetadata permission for the roles and the software components that provide role capabilities (to change capability assignments)

The metadata permissions on a role's **Authorization** tab do not determine what that role can do. They determine who can modify or delete the role.

Since role definition and membership have a major affect on the way SAS applications operate, you should be careful not to allow too many people access to role management. The default configuration limits this access to SAS administrators, so roles are well protected as long as you limit membership for that group.

PREDEFINED ROLES

In a typical SAS Enterprise BI Server deployment, there are 16 predefined roles with over 200 capabilities. These roles were created during deployment by the SAS Deployment Wizard based on the products specified in the software order and plan.

The default roles and group assignments provide a reasonable starting place for most organizations. Some organizations might choose to use only the predefined roles without modification. Other organizations might choose to modify the predefined roles or create custom roles to meet their needs.





















User, Group, or Role	Description
 Metadata Server: Unrestricted	Provides all capabilities in SAS Management Console an...
 Metadata Server: User Administration	Supports management of users, groups, and roles oth...
 Metadata Server: Operation	Supports adding repositories and operating the metad...
 Add-In for Microsoft Office: Advanced	Provides all capabilities in the SAS Add-In for Microsoft ...
 Add-In for Microsoft Office: OLAP	Supports viewing OLAP cubes in PivotTables and provi...
 Add-In for Microsoft Office: Analysis	Provides basic data analysis, reporting, and other cap...
 Enterprise Guide: Advanced	Provides all capabilities in SAS Enterprise Guide.
 Enterprise Guide: Programming	Provides SAS programming, stored process authoring, ...
 Enterprise Guide: OLAP	Supports viewing OLAP cubes in the OLAP Analyzer an...
 Enterprise Guide: Analysis	Provides basic data analysis, reporting, and other cap...
 Management Console: Advanced	Provides access to all plug-ins in SAS Management Con...
 Management Console: Content Management	Provides access to the Folders tab, User Manager, Libr...
 Web Report Studio: Report Viewing	Provides report viewing capabilities.
 Web Report Studio: Report Creation	Provides report creation capabilities.
 Web Report Studio: Advanced	Provides all capabilities in SAS Web Report Studio exce...
 BI Dashboard: Administration	Provides BI Dashboard administration capabilities.

Figure 4. Predefined Roles Shown in SAS Management Console

IMPLICIT VERSUS EXPLICIT CAPABILITIES

Capabilities can be explicit or implicit.

Explicit capabilities are listed as items in the capability tree on the **Capabilities** tab for a role. There are four applications with explicit capabilities: the SAS Add-in 4.2 for Microsoft Office, SAS Enterprise Guide 4.2, SAS Management Console 9.2, and SAS Web Report Studio 4.2. You'll find all the available capabilities for the application under each of these applications. A check mark indicates the capability is selected. A solid black branch icon () indicates that all capabilities under that section are selected. If the branch icon is partially filled () it means that at least one capability underneath is selected. If the branch icon is empty () none of the capabilities under that section are selected. You can click on the icons to select or deselect all of the capabilities under that heading.

In the display below, note that the **Metadata Server: Unrestricted** role has all available capabilities selected, as indicated by the  icon before each application branch.

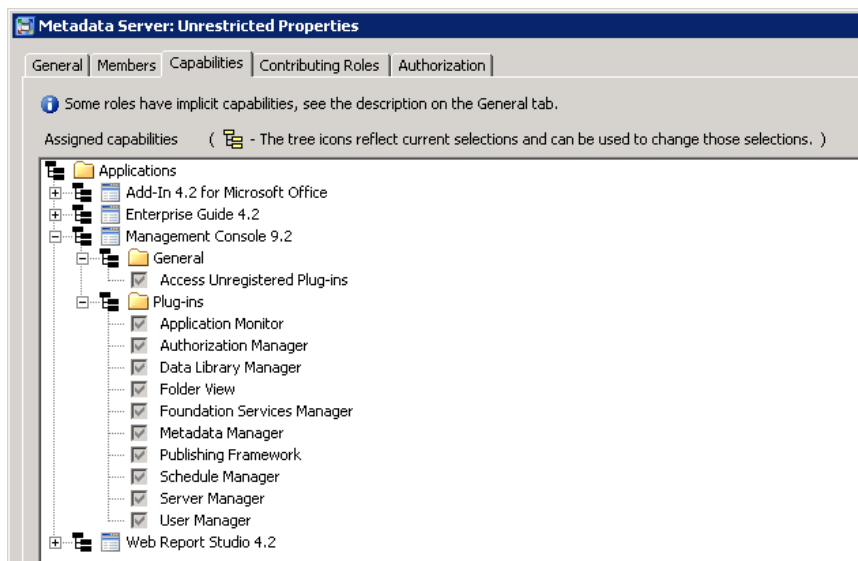


Figure 5. Explicit Capabilities for the Metadata Server: Unrestricted Role

Implicit capabilities do not appear as items in the capability tree, but are inherently part of the definition of a role. If a role has implicit capabilities, they are shown in the description field on the **General** tab. All of the metadata server roles have implicit capabilities. For example, members of the **Metadata Server: User Administration** role can create new users, but there is no **Create Users** check box on any **Capabilities** tab. In fact, if you examine the capabilities on the **Capabilities** tab, there are no capabilities selected. For this role, the only capabilities are the implicit capabilities described on the **General** tab.

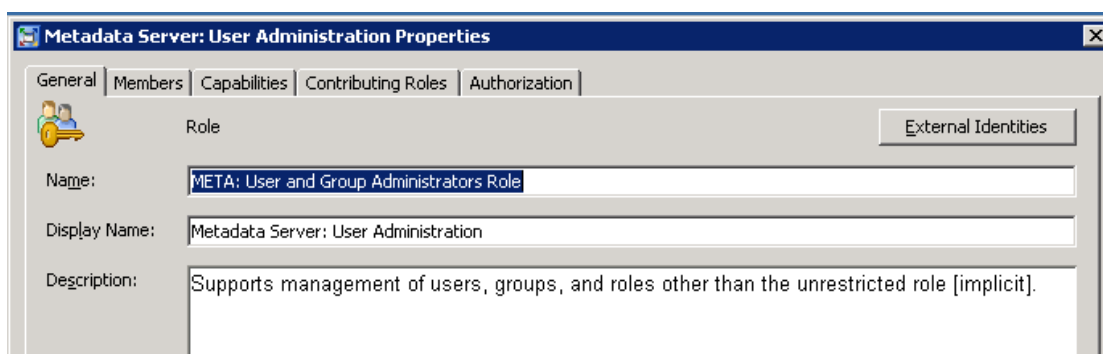


Figure 6. Implicit Capabilities Shown in Description of Metadata Server: User Administration Role

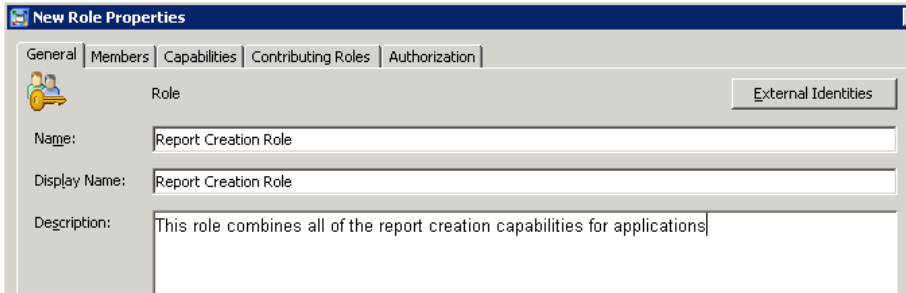
CREATING CUSTOM ROLES

In some organizations there are people that cross over roles and need a customized set of capabilities. If the predefined roles do not meet your needs, you might want to create custom roles rather than modifying the predefined roles.

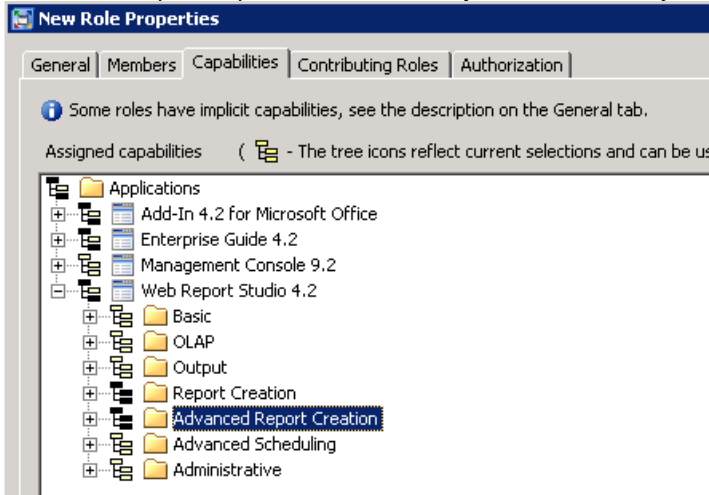
One thing to consider is that although most of the predefined roles are application specific (each role applies to a single application), you can create your own roles that cross applications. For example, you might choose to create a single role that contains report creation capabilities in the SAS Add-In for Microsoft Office, SAS Enterprise Guide, and SAS Web Report Studio. Similar roles could be created for OLAP or for analytic capabilities.

To create a new role:

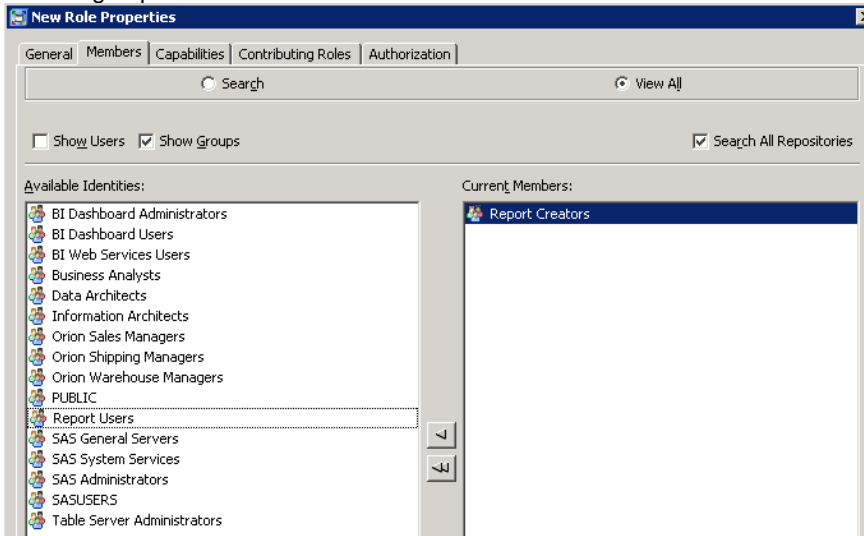
1. Log in to SAS Management Console as a SAS administrator.
2. In the **User Manager** plug-in, choose **Actions**→**New**→**Role**.
3. Specify a name and description on the **General** tab.



4. Choose the explicit capabilities from the **Capabilities** tab that you want to enable.



5. Choose groups and users as **Members**.



6. Choose **OK** to save the role.

Remember that the members of this role will have these capabilities added to those they already have from other role memberships.

USING CONTRIBUTED ROLES TO BUILD A NEW ROLE

You can build a new role based on the capabilities of other roles. You should use contributing roles in the following circumstances:

- You want to extend implicit capabilities (like the capabilities of the metadata server roles) to other roles.
- You want to provide dynamic aggregation of roles so that changes to one role propagate to other roles.

When you add a role as a contributing role, you are adding all of that role's implicit and explicit capabilities. You cannot deselect a contributed capability. A change to the capabilities of one role affects any roles to which the first role contributes its capabilities.

In this next example, we create a custom role that combines the implicit capabilities of other administrative roles with the explicit administrative capabilities found in some of the advanced application roles

1. In User Manager, choose **Actions**→**New**→**Role**. Name the role **Administrative Role**.
2. On the **Contributing Roles** tab, choose **BI Dashboard: Administration**, **Metadata Server: User Administration**, and **Metadata Server: Operation**.

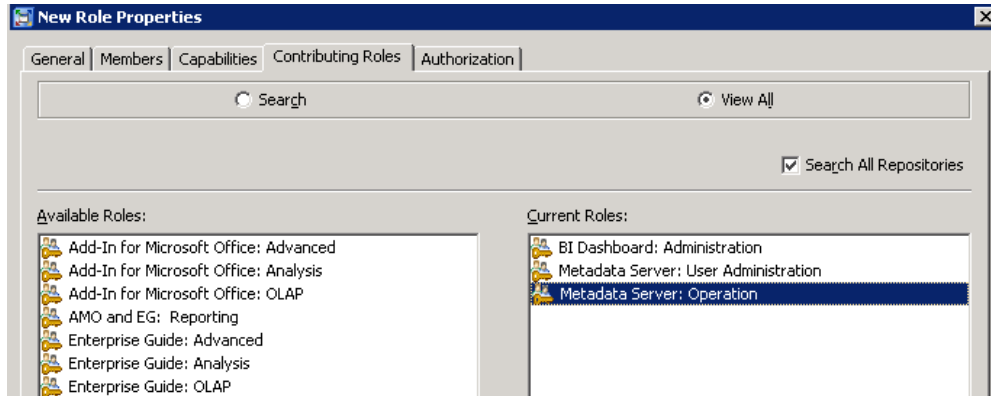


Figure 7. Using Contributed Roles

3. On the **Capabilities** tab, select administrative capabilities in the **Add-In 4.2 for Microsoft Office**, **Enterprise Guide 4.2**, and **Web Report Studio 4.2**. Click **OK** to save the new role.

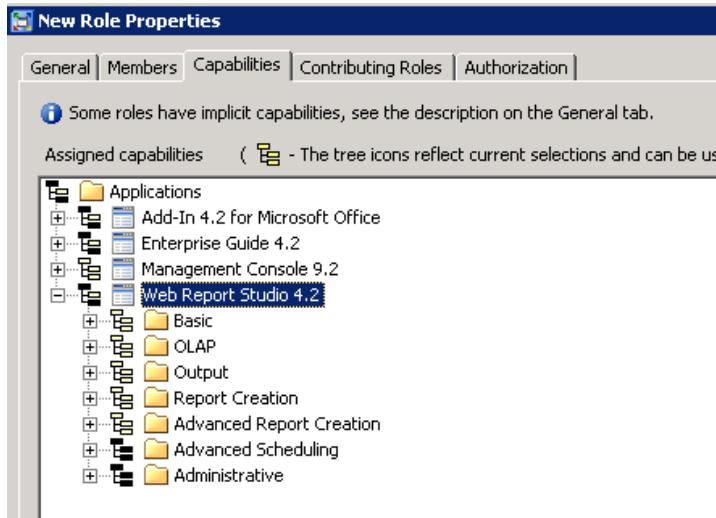


Figure 8. Selecting Additional Administrative Capabilities

WHICH ROLES USE PUBLIC OR SASUSER GROUPS?

In the default configuration, the predefined groups PUBLIC and SASUSERS are members of some roles. Remember that the PUBLIC group includes any user who can access the metadata server, and the SASUSERS group includes any user with a metadata identity. SASUSERS is a subset of PUBLIC.

When you are determining which capabilities a user should have, you need to be aware of the roles in which the PUBLIC and SASUSERS groups are members. Remember that roles are additive, so if the PUBLIC group is assigned to a role, then every user will have every capability selected in that role. If you want to change the capabilities for users by assigning them to other roles, you must remove these groups as a member from the other predefined roles that have the capabilities you want to control.

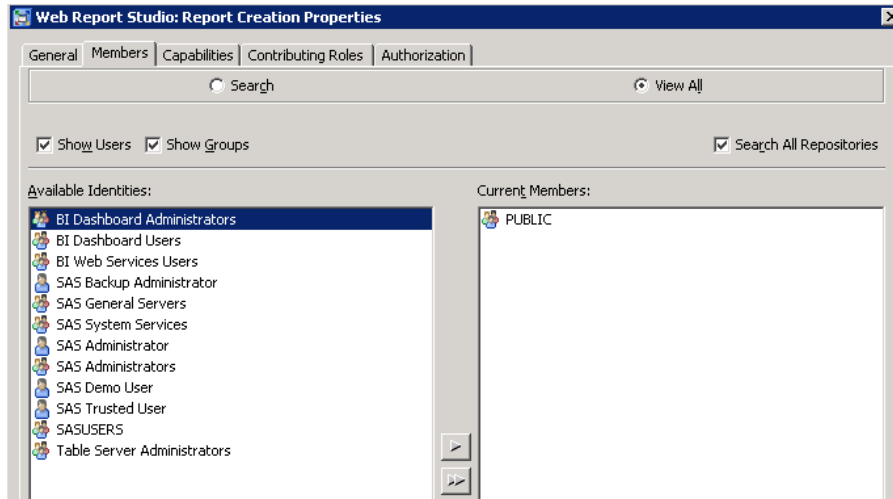


Figure 9. PUBLIC Group As a Member of Web Report Studio: Report Creation Role

In the default configuration, PUBLIC is assigned to the following roles:

- **Web Report Studio: Report Creation**
- **Web Report Studio: Report Viewing**
- **Enterprise Guide: Advanced**
- **Add-in for Microsoft Office: Advanced**

The default member assignments for SAS Enterprise Guide and the SAS Add-In for Microsoft Office place PUBLIC in the advanced roles to ensure that all users have access to every feature in the applications. This is done to ensure that if security groups and roles are not assigned in a customer environment, all users can use the software. If you want to limit capabilities, you need to remove the PUBLIC group from these advanced roles and assign groups as members to other predefined or custom roles.

The PUBLIC group is a member of the **Web Report Studio: Report Creation** role by default. Even if a user or group is added to the **Web Report Studio: Report Viewing** role, they will still have the Report Creation capabilities until PUBLIC is removed from the Report Creation role.

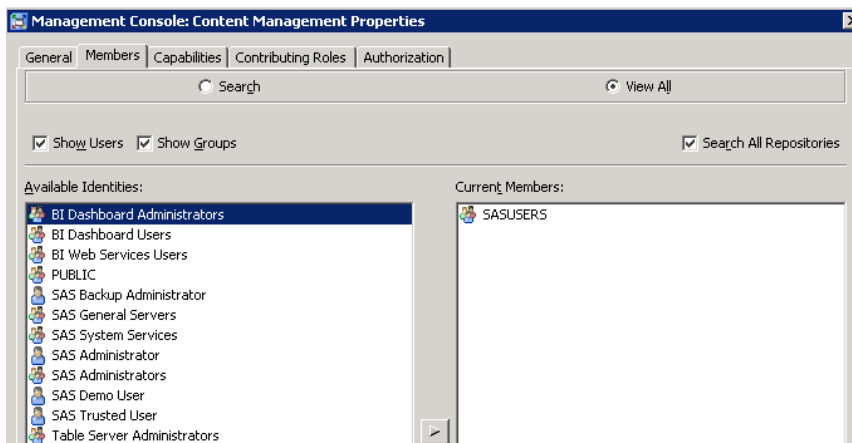


Figure 10. SASUSERS Group As a Member of Management Console: Content Management Role

SASUSERS is assigned to the **Management Console: Content Management** role. The default member assignment for SAS Management Console ensures that any user with a metadata identity will have access to a limited number of plug-ins and the SAS Folders view. If you want to create custom roles to further restrict access, remember to remove SASUSERS as a member of this role.

BEST PRACTICES FOR MANAGING ROLES

- Before you make any changes to predefined roles, make sure you have backed up the metadata.
- Although you can modify predefined roles, you should be aware that there is no automated method for rebuilding the roles once you modify them.
- Instead of adjusting the capabilities of a predefined role, consider creating a new custom role.
- Use groups where possible when you want to assign users to roles.
- Do not change the name of predefined roles.
- Since PUBLIC has been added to many of the predefined roles by default, you should consider removing PUBLIC from those roles before you begin to design the role assignment strategy for your organization.

APPLICATIONS THAT SUPPORT THE USE OF ROLES

This section reviews the predefined roles for each application, and includes suggestion of roles you might want to modify for your organization.

USING ROLES WITH SAS MANAGEMENT CONSOLE

Roles can be used by SAS Management Console to limit access to plug-ins. There are two predefined roles for SAS Management Console. One provides access to all plug-ins, while the other is more limited. At your site, you might want to create a custom role that limits additional features or adds some plug-ins.

SAS Management Console: Advanced provides access to all plug-ins. The default member is the SAS Administrators group. On the left, the figure shows the SAS Management Console Plug-ins list for a SAS Administrator. Shown on the right is the list of capabilities that control plug-ins in SAS Management Console. Note that all plug-ins are selected for the **Management Console: Advanced** role.

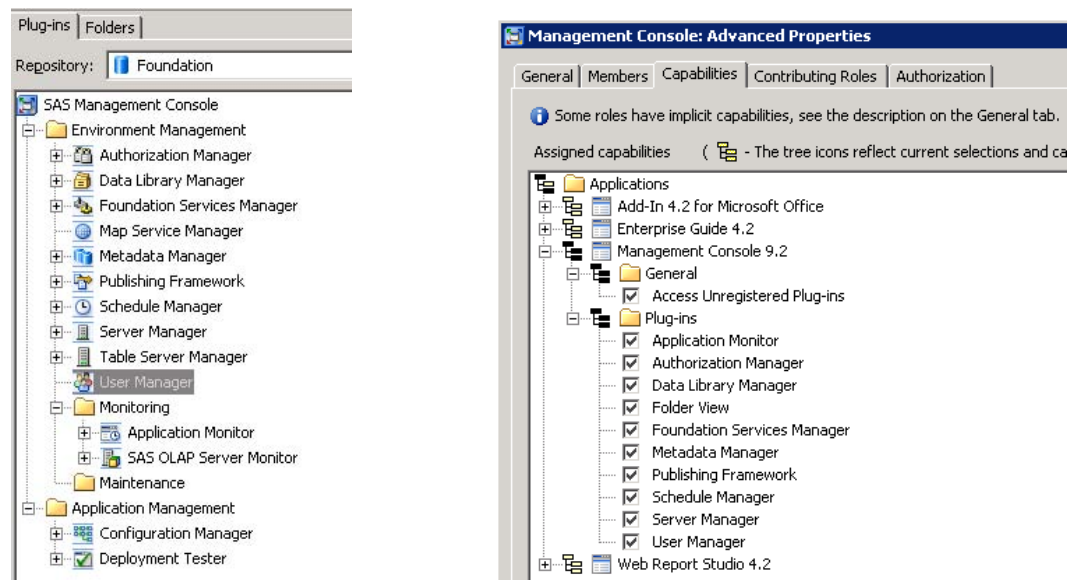


Figure 11. Plug-ins Available for Users Assigned to SAS Management Console: Advanced Role

SAS Management Console: Content Management provides access to the **Folders** tab, User Manager, Library Manager, and Authorization Manager. The default member is the SASUSERS group. Shown on the left is the view

of SAS Management Console for a user in the **Management Console: Content Management** role. On the right, the list of capabilities selected for that role.

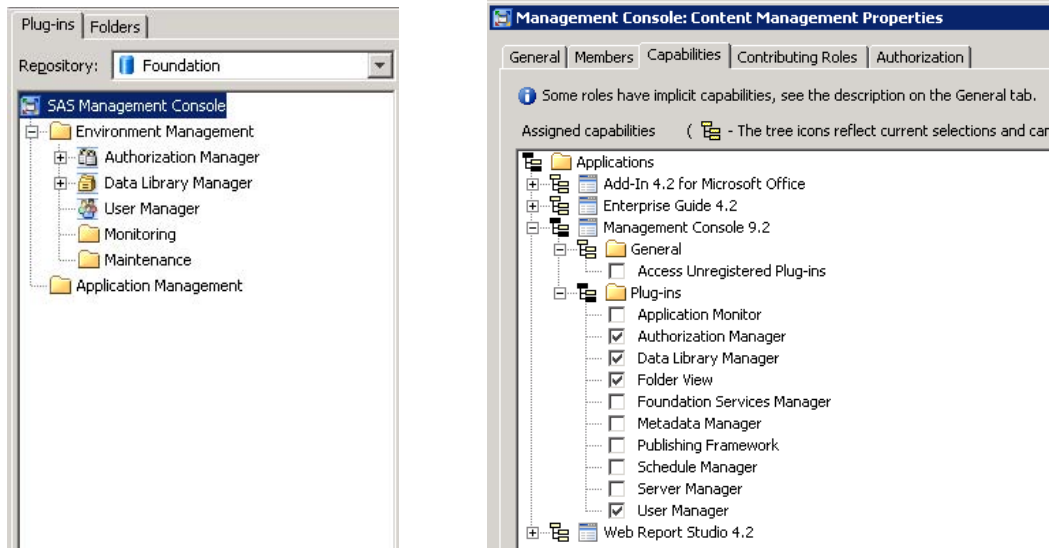


Figure 12. Plug-ins Available for Users Assigned to Management Console: Content Management Role

USING ROLES WITH METADATA SERVER ADMINISTRATION

All of the Metadata Server administration roles have implicit capabilities.

The **Metadata Server: Unrestricted** role provides all metadata server capabilities, all explicit capabilities, and access to all metadata (except passwords). On this role's **Capabilities** tab, all explicit capabilities are selected, and you cannot deselect any of the capabilities. The default member is the SAS Administrator user (unrestricted user).

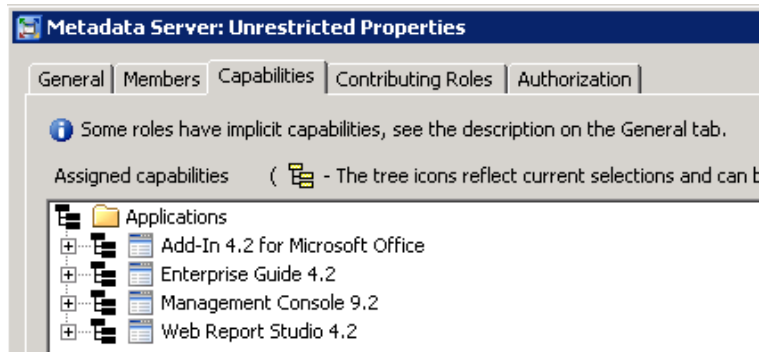


Figure 13. All Capabilities Selected for Metadata Server: Unrestricted Role

The **Metadata Server: Operation** role supports adding repositories and operating the metadata server. This is an implicit capability. No explicit capabilities are specified. The default member is the SAS Administrators group.

The **Metadata Server: User Administration** role supports management of users, groups, and roles other than the unrestricted role. Members can create, update, and delete users, groups, roles, internal accounts, logins and authentication domains. This is an implicit capability. No explicit capabilities are specified. The default member is the SAS Administrators group.

USING ROLES WITH SAS ENTERPRISE GUIDE AND THE SAS ADD-IN FOR MICROSOFT OFFICE

SAS Enterprise Guide might be the application that benefits the most from the use of roles. This is because it has many powerful features and is used by a very diverse set of users. It is used by programmers, business analysts, statisticians, and administrators, all who have different needs. Using roles, you can customize the interface for the

job each group needs, removing features that are not needed or would be confusing. This helps keep users out of trouble by hiding features that might do more than what they need.

For SAS Enterprise Guide and the SAS Add-In for Microsoft Office, the capabilities include how files are opened and saved, the options settings that are visible, and which project settings might be modified. Each task is also a capability, so they can be controlled through roles.

SAS Enterprise Guide and the SAS Add-In are built using a common framework, which means they share many features and functions. Because of this, if you have people who are using both products, you might want to consider coordinating any changes you make in EG roles with those you are making in the SAS Add-In roles. It does not make sense to remove a feature from SAS Enterprise Guide if the user can still go to the SAS Add-In to gain access to it.

Here are some common scenarios and questions regarding SAS Enterprise Guide:

- Can I turn off administrative features in SAS Enterprise Guide?** Yes. In previous releases, the administrative features for SAS Enterprise Guide (surfaced in a component called SAS Enterprise Explorer) were installed by default, although you could override that through a prompt during installation. If you wanted to remove that capability after the installation, you had to remove a file from the file system. With SAS Enterprise Guide 4.2, administrative features are now controlled via roles. The SAS Administrator can control who has these features after deployment by modifying metadata.

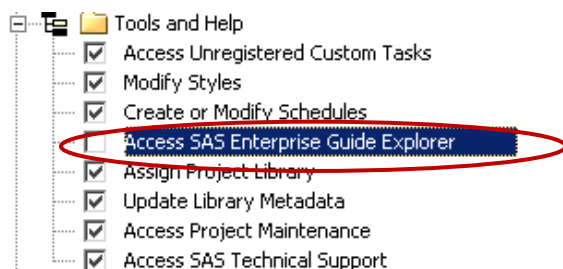


Figure 14. Disabling SAS Enterprise Guide Explorer

- Can I prevent people from submitting resource intensive joins on the database server?** Yes. Disable "Join" capability in the query builder, or disable the query builder altogether and leave the users with Filter and Sort only.

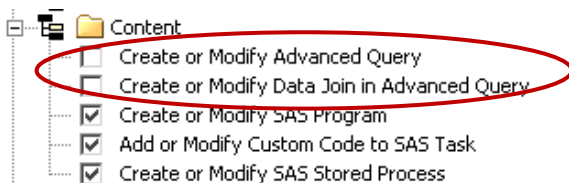


Figure 15. Disabling the Query Window and Join Features

- Can I hide tasks that use SAS products we don't have?** Yes, you can disable the QC tasks for example, or ETS. Mostly these are in predefined groups. See <http://support.sas.com/documentation/onlinedoc/guide/sastasksandprocs.htm> for a list of tasks, procedures, and license needed.

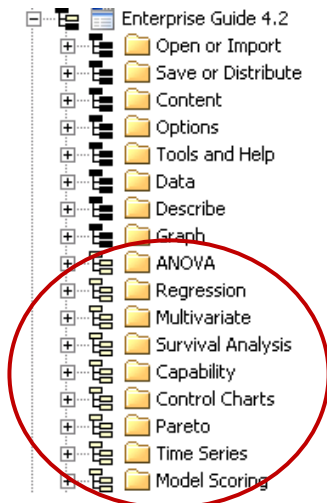


Figure 16. Disabling Tasks for SAS Enterprise Guide

- **Can I prevent my end users from saving our sensitive content to their local machines?** No, not entirely. You can disable various capabilities to discourage this, but it won't prevent every possible approach to saving/capturing content.

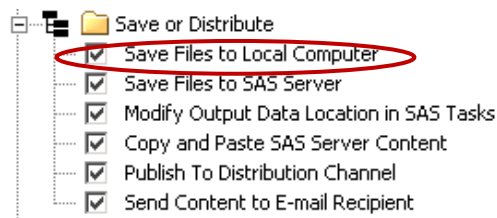


Figure 17. Saving Content

USING ROLES WITH SAS WEB REPORT STUDIO

In SAS Web Report Studio 3.1, the following roles were supported:

- WRS Report Consumer
- WRS Report Author
- WRS Advanced User
- WRS Administrator

In SAS Web Report Studio 4.1, the following roles are predefined:

- Web Report Studio: Report Viewing
- Web Report Studio: Report Creation
- Web Report Studio: Advanced

Since the number of supported roles has changed, there is not a one-to-one mapping of an old role to a new role.

WRS Report Consumer is similar to **Web Report Studio: Report Viewing**. **WRS Report Author** is similar to **Web Report Studio: Report Creation**.

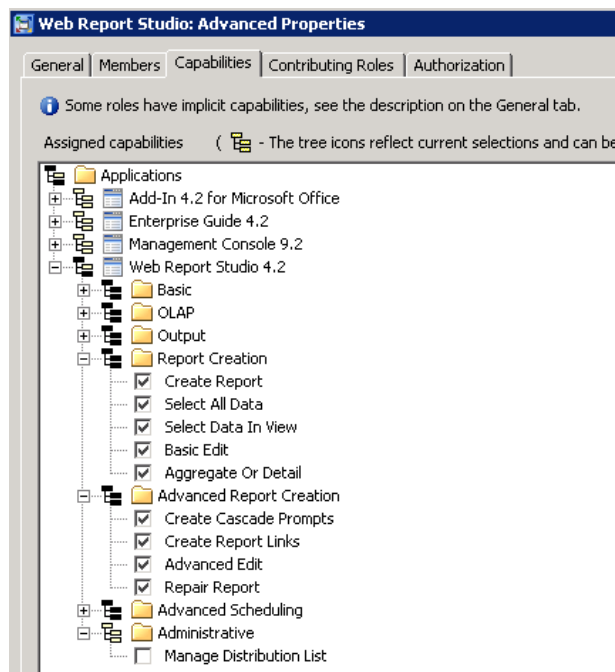


Figure 18. Capabilities of the Web Report Studio: Advanced Role

Since the new roles are not exactly like the old roles, here are some features that you should be aware of:

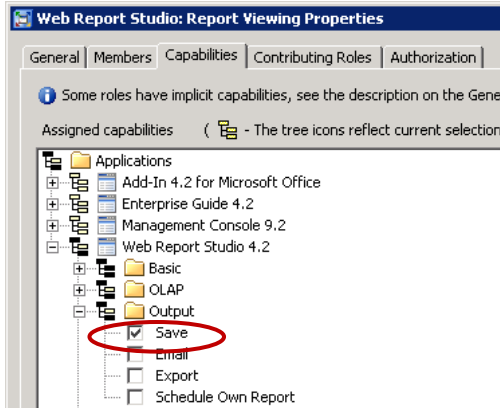
- The **Manage Distribution Lists** capability is not assigned to any of the predefined SAS Web Report Studio roles. The SAS Administrator can assign this capability to the **Advanced** role, or create a new role (for example, a role named as Manage Distribution) specifically for this capability and assign this role to a restricted number of users.
- Some features that were previously in the **WRS Report Author** role are not in the **Web Report Studio: Report Creation** role. Instead, they are in the **Web Report Studio: Advanced** role.

These features include:

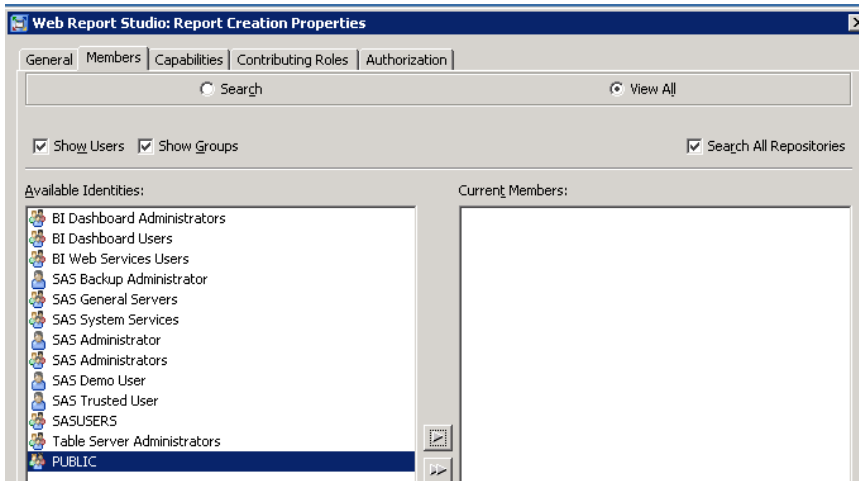
- Linking reports. The capability is named **Create Report Links**.
- Changing aggregation settings for a relational report. In order to change aggregation settings, you must be assigned the **Aggregate or Detail** capability.
- For the **Web Report Studio: Advanced** role, no members are assigned by default. This means you must add a member to the role before anyone has access to the advanced features of SAS Web Report Studio. Remember that the **Manage Distribution Lists** feature is not assigned by default to any role, including this advanced role.
- PUBLIC is a member of both the **Web Report Studio: Report Viewing** and **Web Report Studio: Report Creation** roles. You will need to remove PUBLIC from the **Report Creation** role in order to limit features for any user.

Here are some common scenarios and questions regarding SAS Web Report Studio:

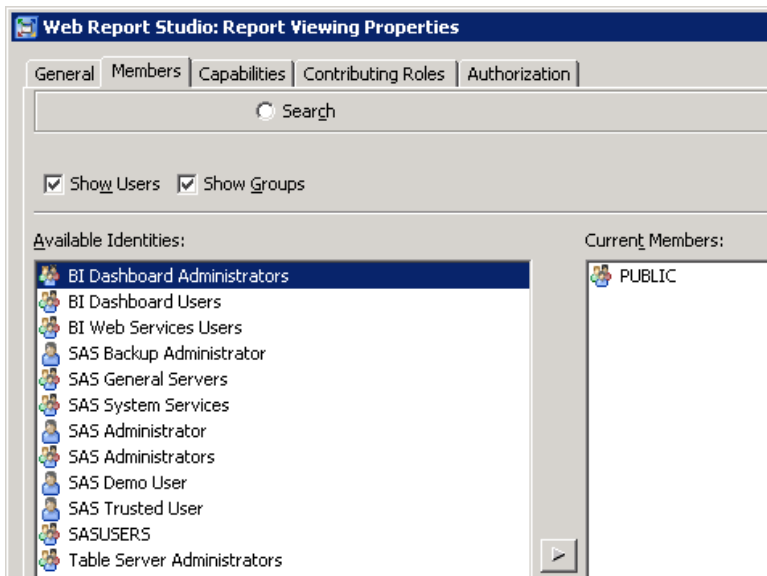
- **Can I remove the Save icon in Web Report Studio?** Yes. **Save** is a capability that is assigned under **Applications**→**Web Report Studio 4.2** → **Output** → **Save**. It is assigned by default to the **Web Report Studio: Report Viewing** role. To remove the ability to save, you must make sure it is not assigned in any role in which the user is a member.



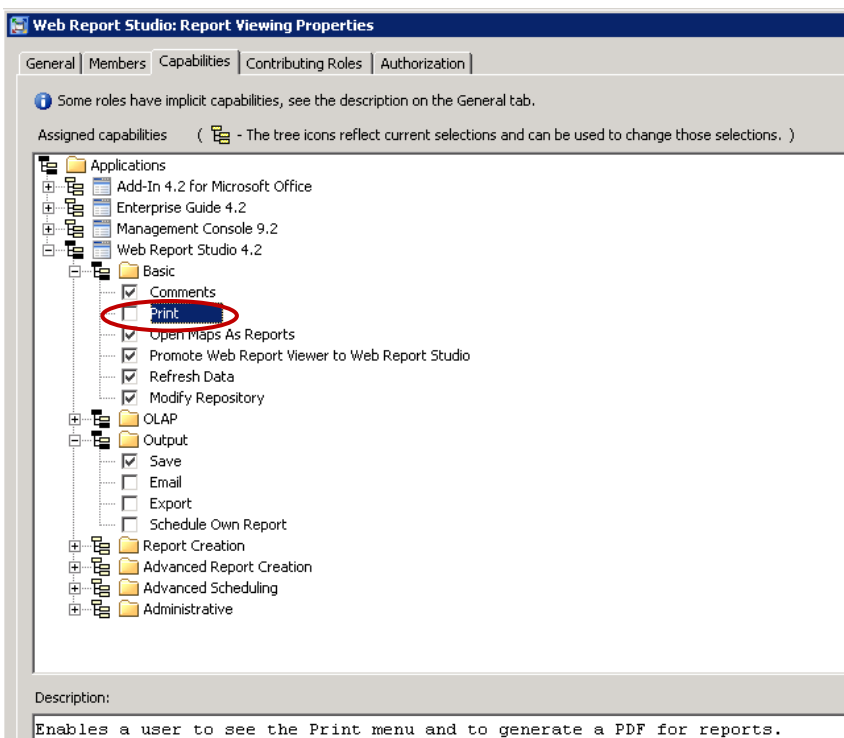
- Can I remove the edit tab for users in Web Report Studio?** Yes. You can use the predefined roles. The **Web Report Studio: Report Viewing** role does not provide edit features. The key to making this work is to make sure that the user is not also a member of the **Web Report Studio: Report Creation** role. Remember that the **PUBLIC** group is a member of both roles, so first be sure to remove **PUBLIC** from **Web Report Studio: Report Creation**.



Then assign the user as a member of a group in **Web Report Studio: Report Viewing** role.



- **Can I remove the ability to Print in SAS Web Report Studio?** Yes. You can remove the Print command from the application by disabling the **Print** capability. This will prevent the user from using the SAS Web Report Studio print command that creates a PDF. However, they will still be able to use the print features built into the browser.



USING ROLES WITH SAS BI DASHBOARD

SAS BI Dashboard supports a single predefined role named **BI Dashboard Administration**. This role has the implicit capability that enables BI Dashboard administration. There are no explicit capabilities for BI Dashboard. The default group assigned to this role is the BI Dashboard Administrators group. Membership in that group allows access to the BI Dashboard application, where dashboards are created and managed.

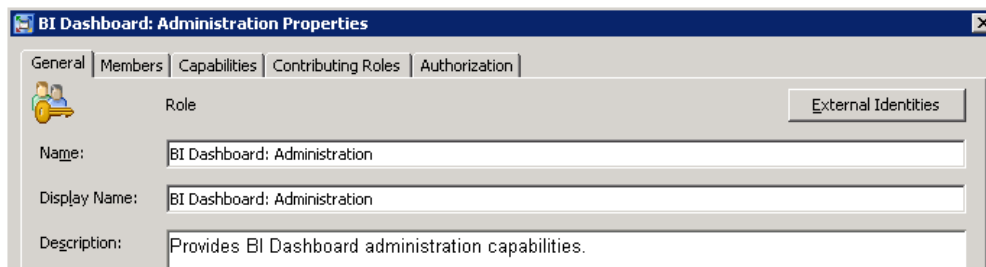


Figure 19. BI Dashboard: Administration Role

TIPS FOR TESTING AND DEBUGGING

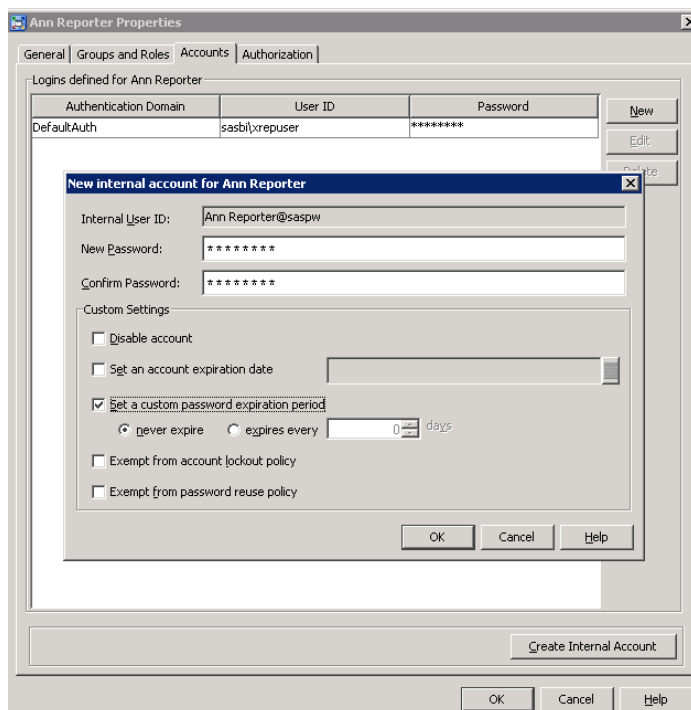
If it seems that roles are not working as expected after you've defined roles and assigned members, verify that the PUBLIC group has been removed from the advanced roles.

Do not confuse metadata permissions with roles. If features like menu items, icons, or buttons are missing in an application, it might be because the user does not have that capability in any role she is a member of. If the missing item is a library, table, server, or report, it is likely that metadata permissions are set so the user does not have ReadMetadata for the object.

TESTING ROLES

To test whether your custom roles are working properly, you will need to log into applications using the ID of a person who is assigned that role. Since it is highly likely that you would not have the user ID and password of other users, it can be helpful to have the ability to temporarily assume another user's identity. If you have user administration capabilities, you can temporarily add an internal account to another user's definition. This enables you to log on as that user.

1. On the user's **Accounts** tab, click **Create Internal Account** and then enter and confirm a password.
2. To ensure that you won't have to change the password on first use, set the account password to never expire.



3. Use the internal account ID and password to log on to a SAS application and see what access and features the user has.

Note: Because you aren't using the user's external account ID, you will not be able to test any feature that launches a workspace server. Also, you can't use an internal account to log on to a Web application that uses Web authentication.

4. When you are finished, return to the user's **Accounts** tab and click **Delete** to remove the internal account.

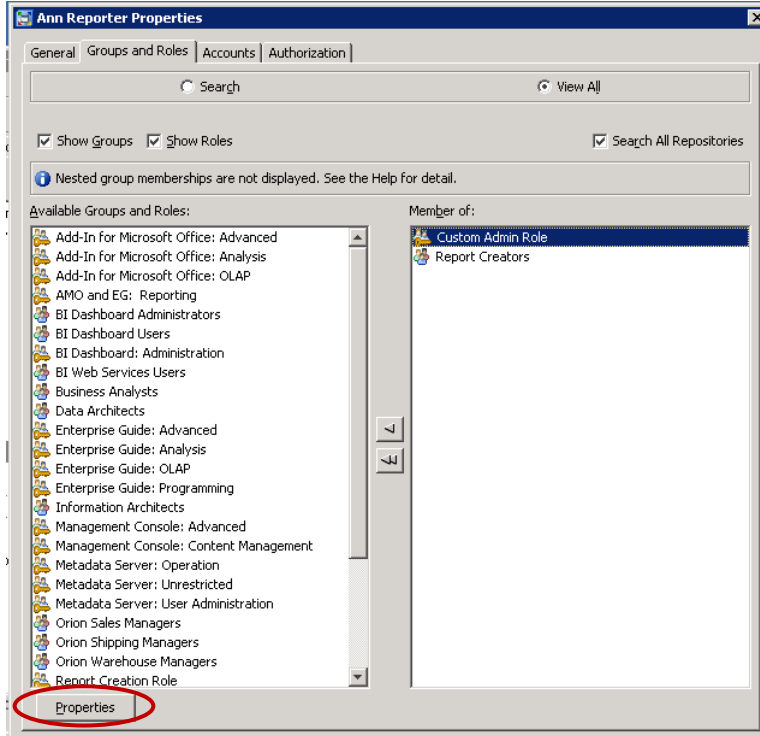
DETERMINING WHICH ROLES AND CAPABILITIES A USER HAS

There is no simple way of determining all of the capabilities for a specific user. You must open the properties for the user, then determine which groups and roles in which they are members, then work your way back through the properties of those groups and roles to determine which capabilities are assigned.

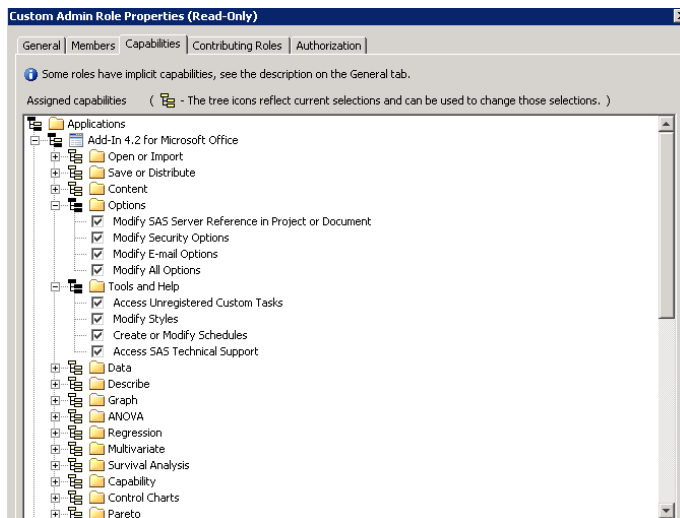
Users can be a direct or indirect member of a role. If a user is directly assigned to any roles, those assignments are displayed in the **Member of** list box on the **Groups and Roles** tab in user's properties dialog box.

To determine the capabilities of a user:

1. Open the properties for the user, and then go to the **Groups and Roles** tab.
2. Select a role from the **Member of** list. Click the **Properties** button.

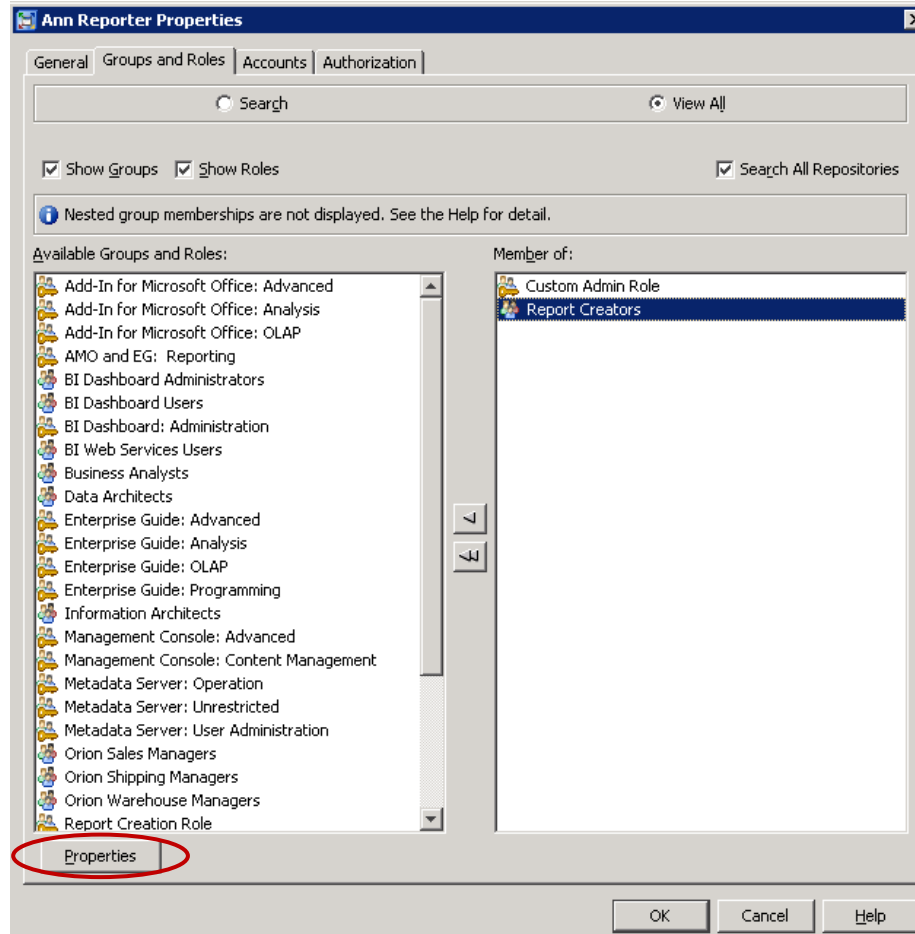


3. You can now view the capabilities for that role.

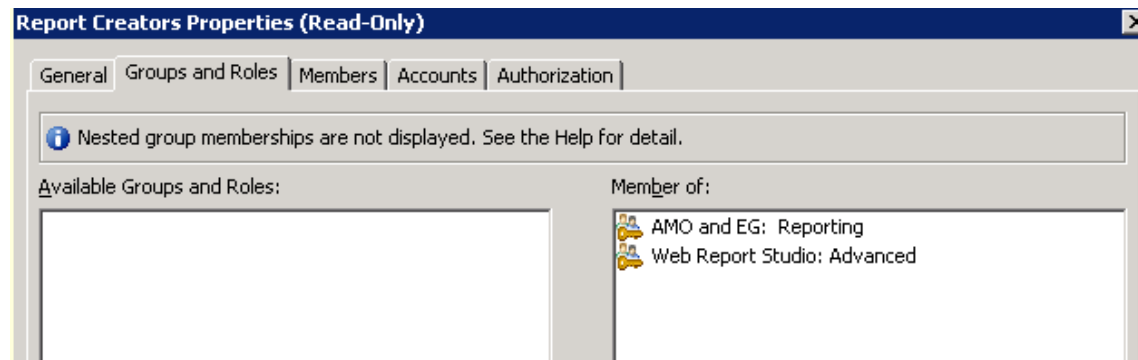


4. If a user is a member of a group that is assigned to a role, the user is an indirect member of that role. Because indirect membership is not displayed in the **Member of** list box, you must check the properties of each group that the user belongs to in order to determine whether that group is a member of any roles. Remember that the user's **Member of** list box does not reflect his implicit membership in SASUSERS and PUBLIC.

Return to the **User** properties. Select the group, then select **Properties**.



5. Choose **Groups and Roles**. For any groups or roles in the **Member of** list, choose the **Properties** button to see the capabilities for the user. In this way, you can continue to work your way back to find the different groups and roles this user is a member of.



WHAT IF THE PREDEFINED SAS ENTERPRISE GUIDE ROLES ARE MISSING?

This issue sometimes happens with the roles for SAS Enterprise Guide, because it is not included in some of the standard plans you can choose in the SAS Deployment Wizard.

To add roles for SAS Enterprise Guide to your existing 9.2 metadata:

1. Run setup to launch the SAS Deployment Wizard from a software depot. The depot must contain an order that includes SAS Enterprise Guide and that order must be selected.
2. From the SAS Deployment Wizard, select **Install SAS Software**. On the next screen, select only **Configure software** (all other options should be deselected).
3. Choose the **Enterprise Guide 2 Machines** plan from a list of standard plan files.
4. Select the Machine value **Server**.
5. Select Prompting Level value **Typical**.
6. When prompted, select the existing configuration directory (for example, C:\SAS\) on your Metadata Server. When prompted to proceed with a directory that already contains existing files, choose **Yes**.
7. From the list of configurable products, select only **SAS Enterprise Guide Server Data**.
8. Be sure to supply the SAS Deployment Wizard with the same information that you provided during the initial deployment. When the configuration is complete, metadata for the SAS Enterprise Guide roles will be added to your existing configuration.

CONCLUSION

Roles enable SAS Administrators to customize SAS applications to meet the needs of their organization. They provide the ability to dynamically change the interface and features of clients, based on the identity of the user. The use of roles can improve the end-user experience by only surfacing features necessary for their job role and responsibilities. With the ability to use both predefined and custom roles, SAS Administrators have a powerful tool to help them manage the way users interact with SAS applications.

RESOURCES

For general information about roles, see "Managing Users, Groups, and Roles" in the **SAS Intelligence Platform: Security Administration Guide**.

For additional information about specific clients and roles see client-specific documentation:

- For System Administrator roles used in SAS Management Console, see "Overview of Initial Roles, Groups, and Users" in the **SAS 9.2 Intelligence Platform System Administration Guide**.
- For SAS Web Report Studio roles, see "SAS Web Report Studio Administration: Predefined Roles" in the **SAS 9.2 Intelligence Platform: Web Application Administration Guide**.
- For SAS Enterprise Guide roles, see "Administering Role Based Settings" in **Administering SAS Enterprise Guide 4.2**.

CONTACT INFORMATION

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