**CHAPTER****1****Introduction to SAS
Management Console**

<i>What is SAS Management Console?</i>	1
<i>How SAS Management Console Works</i>	2
<i>Introduction to SAS Management Console Plug-ins</i>	5
<i>Working with the User Interface</i>	5
<i>Using the Navigation Tree</i>	6
<i>Using the Display Area</i>	6
<i>Using the Context Bar</i>	6
<i>Using the Status Line</i>	6
<i>Using the Menu Bar</i>	7
<i>Using the Toolbar</i>	7
<i>Using User Assistance</i>	8

What is SAS Management Console?

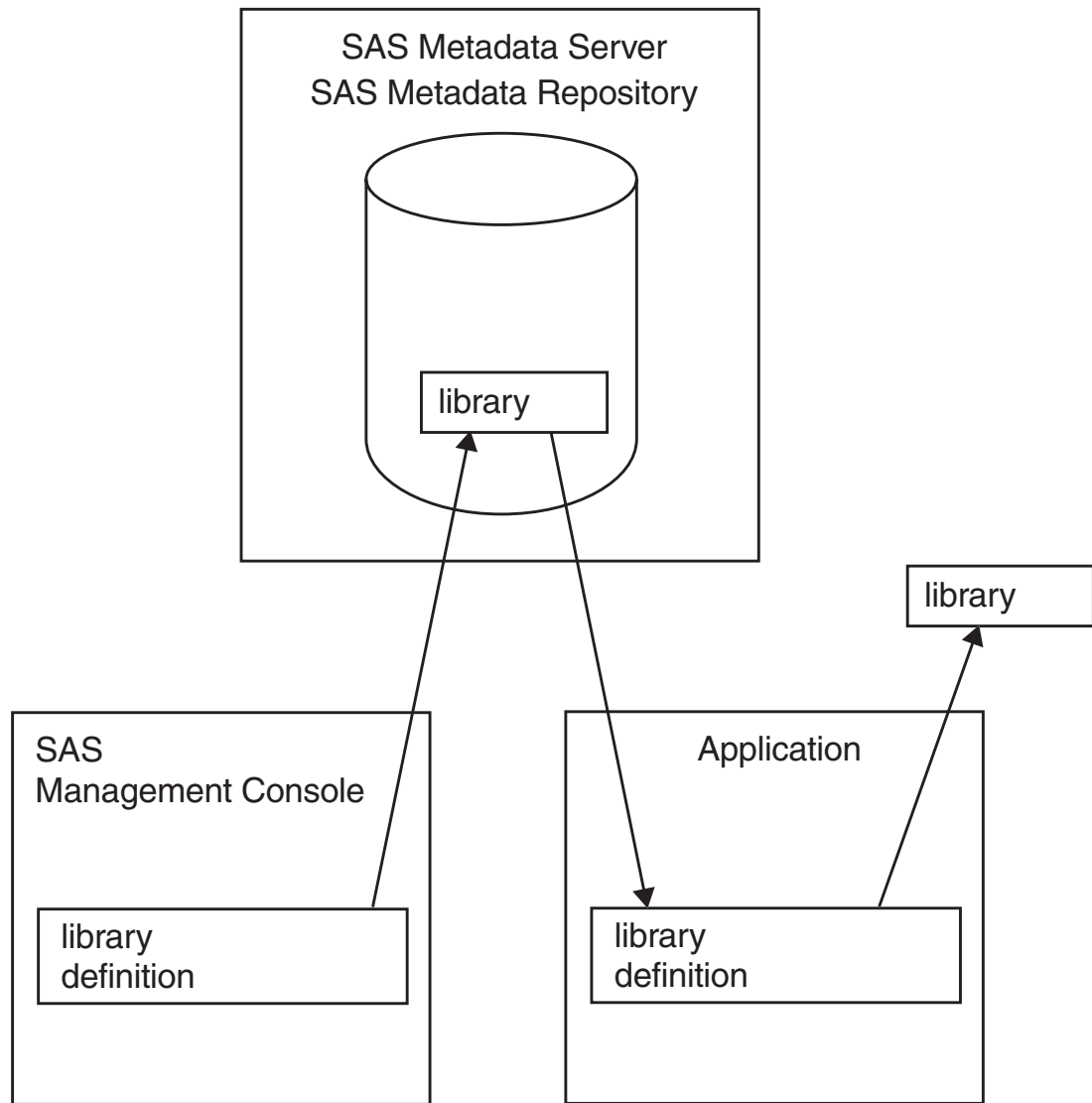
SAS Management Console is a Java application that provides a single point of control for managing resources that are used throughout the Intelligence Value Chain. Rather than using a separate administrative interface for each application in your enterprise intelligence environment, you can use SAS Management Console's single interface to perform the administrative tasks required to create and maintain an integrated environment. Although SAS Management Console runs on your desktop computer, you can use it to manage resources on all platforms supported by SAS. You can use SAS Management Console to manage

- server definitions
- library definitions
- user definitions
- resource access controls
- metadata repositories
- SAS licenses
- job schedules
- XMLMaps.

SAS Management Console manages these resources and controls by creating and maintaining metadata definitions for each resource or control. The metadata definitions you can create in SAS Management Console are stored in a repository on a SAS Metadata Server, where they are available for other applications to use. For example, you can use SAS Management Console to create a metadata definition for a SAS library that specifies information such as the libref, path, and engine type. After SAS Management Console stores the metadata definition for the library in the repository on

the metadata server, any other application can access the definition to access the specified library.

Figure 1.1 SAS Management Console Overview



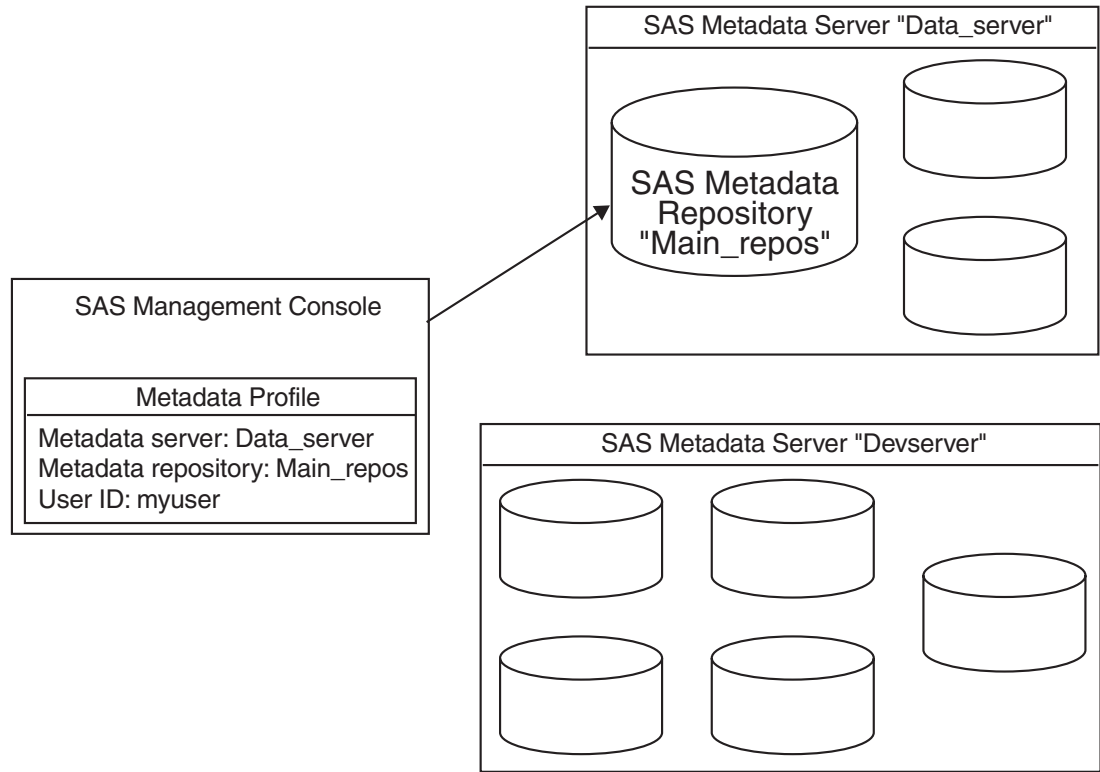
The SAS Management Console application is actually just a framework. The metadata definitions are created using plug-ins, which are application modules designed to create metadata for a specific type of resource. For example, the Server Manager plug-in creates metadata to define SAS servers and application servers. Although a set of basic plug-ins is provided with SAS Management Console, you can install other plug-ins to meet specific needs or develop your own plug-in.

How SAS Management Console Works

SAS Management Console works in conjunction with SAS Metadata Servers. You must set up and start a metadata server before you start working with SAS

Management Console. When you run SAS Management Console, you specify a metadata profile when you start the application. The metadata profile specifies the metadata server to which you will be writing metadata definitions, the active metadata repository, and information required to connect to the metadata server.

Figure 1.2 Connections to SAS Metadata Servers



After you open the metadata profile to connect to the metadata server, you can begin using the SAS Management Console to create metadata definitions. As you create definitions, they are stored in the active repository on the metadata server. In order to use the definitions you create, other SAS applications must connect to the metadata server and repository you are using.

Each metadata server can contain multiple repositories, and you can use SAS Management Console to store definitions in any of the repositories. The repository that is currently selected and is receiving metadata definitions from the application is the active repository. You can use SAS Management Console to set up a hierarchy of repositories on the metadata server, consisting of these three repository types:

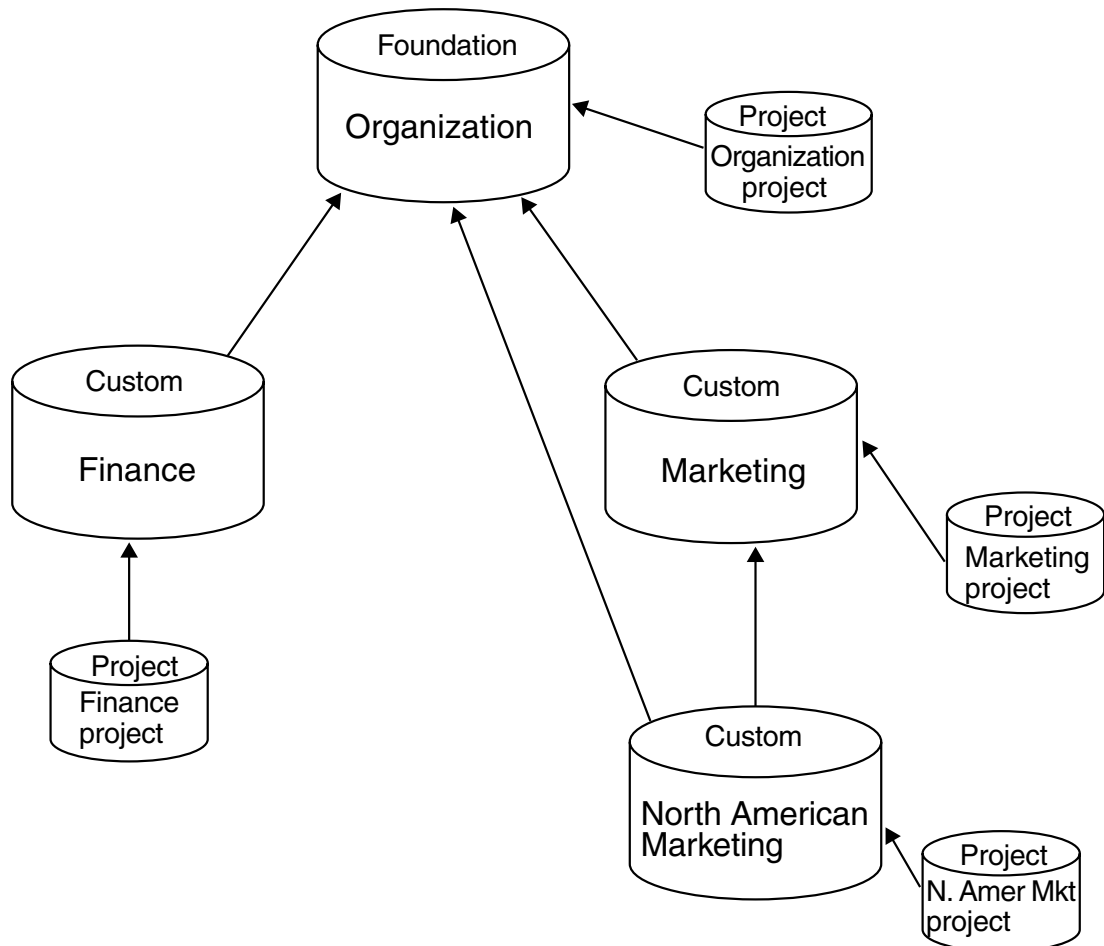
- Foundation repository** specifies the parent repository for all other repositories on the server. This repository contains resource definitions that are used throughout the server (such as user definitions).
- Custom repositories** specifies repositories that are dependent on the foundation repository or other custom repositories. A repository that is dependent on another repository accesses and uses resources from the parent.
- Project repositories** specifies dependent repositories that are intended to isolate development changes from a production environment.

You can use the three types of repositories to create a metadata environment where definitions that are widely used are stored in a foundation repository, while resources

that are only needed for specialized areas are contained in custom repositories. See “Working with Metadata Repositories” on page 18 for more information about repository types.

The following figure illustrates how an organization could use each of the repository types. Global metadata (such as user definitions) is stored in the foundation repository. Each major organizational division stores division-specific metadata in the division’s custom repository, and project repositories are used for making changes to the foundation and custom repositories.

Figure 1.3 Sample Repository Structure



Some SAS resources, such as servers and libraries, have many different types. To make defining these resources easier, SAS Management Console uses resource templates for the definitions. A resource template is an XML file that specifies the information required to create a metadata definition for a particular resource. For example, if you wanted to define a SAS workspace server, you must first load the resource template for the SAS workspace sever. A complete set of all available resource templates is loaded automatically when you create a foundation metadata repository.

Introduction to SAS Management Console Plug-ins

When installed, SAS Management Console includes a standard set of plug-ins. Other plug-ins can be installed to access and manage other SAS or third-party applications, or can be created at your site.

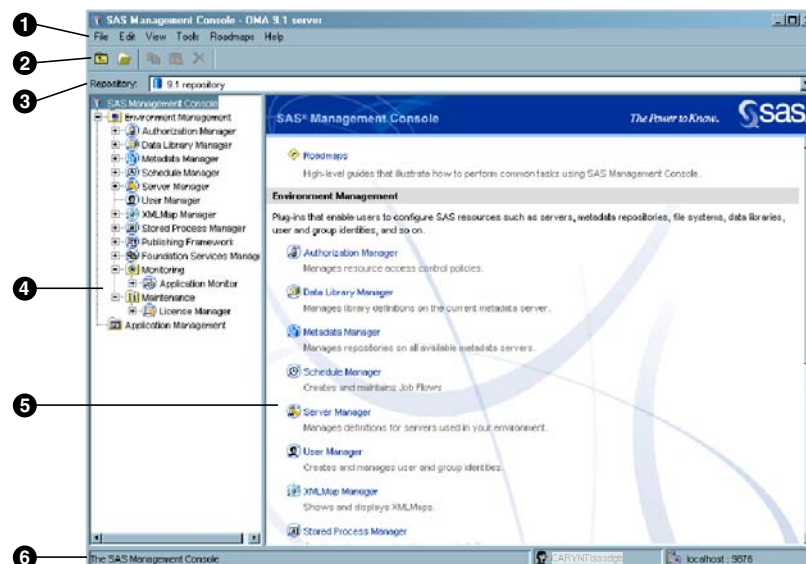
The plug-ins provided with SAS Management Console are

Authorization Manager	defines access rules to control how users and groups can access metadata definitions.
Data Library Manager	creates definitions for SAS libraries and database schemas.
Metadata Manager	provides functions for defining metadata repositories on the active server, managing resource templates, and creating jobs to promote or replicate a metadata repository.
Schedule Manager	allows you to create schedules for running jobs created in SAS ETL Studio.
Server Manager	creates definitions for servers, including SAS application servers, database servers, and enterprise servers.
User Manager	creates definitions for users and user groups.
License Manager	allows you to view information about the SAS licenses installed on a machine, as well as details about the machine.
XMLMap Manager	allows you to import and create XMLMaps, which are XML files that describe how the SAS XML LIBNAME engine should interpret XML markup.

Working with the User Interface

The SAS Management Console user interface consists of six major parts:

Display 1.1 SAS Management Console User Interface



- 1 Menu bar
- 2 Toolbar
- 3 Context bar
- 4 Navigation tree
- 5 Display area
- 6 Status line

Using the Navigation Tree

The navigation tree displays an organized list of all of the installed plug-ins and the objects and folders that are associated with each plug-in. The plug-ins are organized into two main categories:

Environment Management	contains plug-ins for defining metadata that applies to the overall SAS environment (such as servers, libraries, and metadata repositories).
Application Management	contains plug-ins for defining metadata that applies to specific applications, such as third-party or custom-designed applications.

Selecting a plug-in icon in the navigation tree activates the plug-in and displays folders or metadata definitions for that plug-in in the display area. To display the objects associated with the plug-in in the navigation tree, click the plus sign next to the plug-in icon to expand its contents (not all plug-ins are expandable). When you expand a plug-in, the navigation tree displays metadata definitions created by the plug-in or folders that contain sub-categories of definitions.

Using the Display Area

The display area is used to display detailed information about objects selected in the navigation tree. The information displayed depends not only on the object selected in the navigation tree, but also on the plug-in that is active. Some plug-ins (such as the User Manager) use the display area for entering information about metadata definitions.

If you select an object (plug-in or other object) in the navigation tree that contains sub-folders, the display area lists the folders.

If you select a folder in the navigation tree, the display area lists the objects that are contained in the folder.

If you select an object in the navigation tree that does not contain any sub-folders, the display area displays any metadata definitions that are associated with that object. For example, if you select a server definition in the navigation tree, the display area lists all of the connections that have been defined for the server.

Using the Context Bar

The context bar identifies the active repository, which is the metadata repository to which you are storing metadata definitions. You can select the repository that you want to access from the **Repository** drop-down list.

Using the Status Line

The status line, at the bottom of the SAS Management Console window, displays the following information:

number of objects selected	displays the number of objects selected or the number of objects contained in the currently selected folder or plug-in.
current login for the metadata profile	specifies the domain and user ID defined in the metadata profile used to log on to the active metadata server.
machine and port	specifies the machine and port number of the active metadata server.

Using the Menu Bar

The menu bar provides six standard menus and one that is controlled by the selected plug-in:

File	provides selections for opening objects, changing or closing the current metadata profile, and viewing properties for an object.
Edit	provides selections for copying, pasting, and deleting.
View	provides selections for refreshing the information displayed in the application and for moving up a level in the navigation tree.
Actions	provides selections that are valid only for the current plug-in. If no plug-in is selected, the Actions menu is not present. The Actions menu items are different for each plug-in.
Tools	provides access to an experimental metadata utility. CAUTION: Only experienced administrators should use this utility. Metadata errors could occur if this utility is used incorrectly. △
Roadmaps	provides access to roadmaps, which are user assistance documents designed to guide you through SAS Management Console tasks.
Help	provides options for selecting help for SAS Management Console or for the current plug-in. Help for a specific plug-in is only available when the plug-in is selected in the navigation tree.

Using the Toolbar

The toolbar provides a set of five standard tools for

- moving up one level in the navigation tree
- opening the selected object
- copying
- pasting
- deleting.

In addition, plug-ins can also add tools to the toolbar. The tools that are specific to a plug-in are only available when the plug-in is selected in the navigation tree. The plug-in can also provide different tools depending on the object that is selected under the plug-in. Refer to the Help or the chapters on each of the plug-ins for more information about plug-in tools.

Using User Assistance

SAS Management Console provides online user assistance through product Help and roadmaps. You can access help by selecting the **Help** menu or the [Help](#) button in SAS Management Console windows.

The help that is available from the **Help** menu depends on the plug-in that is active. If a plug-in is selected, the **Help** menu contains selections for SAS Management Console Help as well as Help for the currently active plug-in. Help for a plug-in is only available when the plug-in is selected.

Roadmaps are guides that provide the steps and brief explanations to lead you through tasks in SAS Management Console. The roadmaps are stored as XML files in the **/roadmaps** directory of your SAS Management Console installation. A default roadmap is provided with SAS Management Console, but new roadmaps to explain specific tasks can be created and installed by SAS or your organization.