

CHAPTER

8

Doing More with Remote Connect

<i>Introduction</i>	137
<i>Additional Information</i>	137
<i>Assigning Librefs on Remote SAS Sessions</i>	137
<i>Setting Up SAS/ASSIST Tasks On Remote Data</i>	139
<i>Instructions</i>	139
<i>Behind the Scenes: Anatomy of a Remote Connect Session</i>	141
<i>Remote Configuration Management</i>	142
<i>Adding, Editing, and Deleting Remote Configurations</i>	142
<i>Setting the SASSCRIPT System Option</i>	143

Introduction

In the “Using Remote Connect” chapter of *Getting Started with the SAS System Using SAS/ASSIST Software*, you learned how use SAS/ASSIST software to establish and terminate a remote connection, upload and download files, and run a SAS/ASSIST task on a remote host. The “SAS/ASSIST Software Setup” appendix in the same book contains instructions on setting up a remote configuration. This chapter describes some more capabilities of Remote Connect.

Additional Information

For additional information on using the Remote Connect capabilities of the SAS System, refer to *SAS/CONNECT User's Guide*.

Assigning Librefs on Remote SAS Sessions

When you establish a connection to a remote host, the remote host invokes a SAS session. The remote SAS session has the automatically-defined libraries associated with it (WORK, SASUSER, and so on), as well as any libraries and options that are defined by the SAS session's AUTOEXEC file. See the SAS companion documentation for your operating environment for more information on AUTOEXEC files.

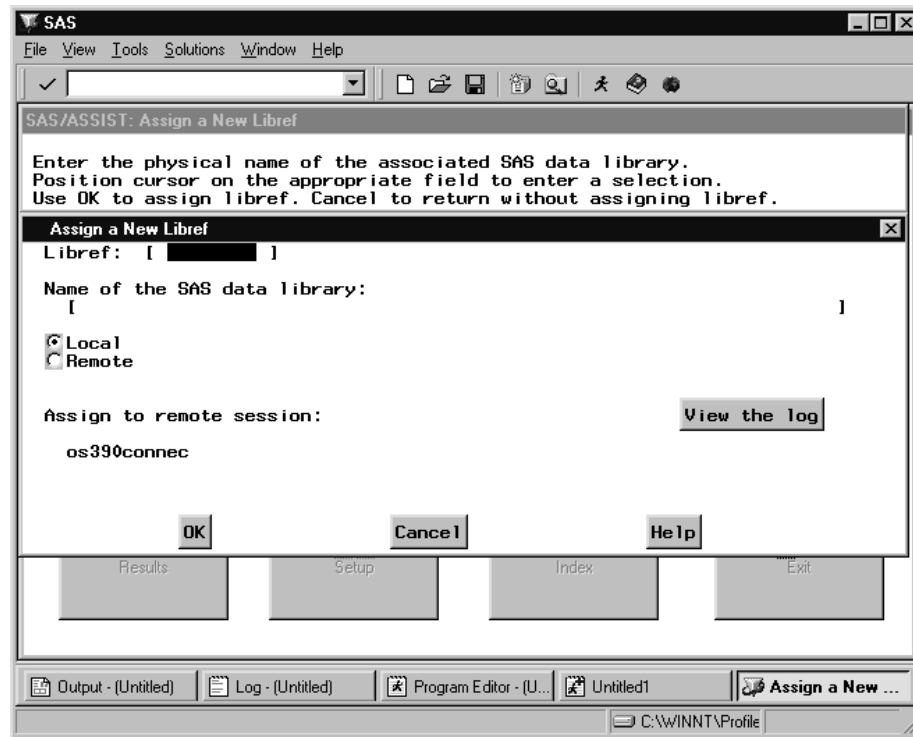
You might want to assign librefs to libraries on the remote host other than the ones automatically assigned. You can assign librefs on a remote host using SAS/ASSIST software by following these directions.

- 1 Establish the remote connection.
- 2 Follow this selection path:

Tasks ► Remote Connect ► Transfer Data ► Utilities ► Assign libref

The Assign a New Libref window appears.

Display 8.1 Assign a New Libref Window



- 3 In the **Libref** field, type the libref you want to use to reference the library.
- 4 In the **Name of the SAS data library** field, type the path to the library, using the naming conventions of the remote operating environment.
- 5 Select **Remote**. If more than one remote connection is open, select the remote connection to the host on which you want to assign this libref.
- 6 Select **OK**.
- 7 If the libref assignment is successful, a message appears to inform you of this fact; select **Goback** to return to the WorkPlace menu. If the assignment is not successful, select **View the log** to read the error messages and diagnose the problem. If you do not understand the error messages, contact the SAS Support Consultant at your site.

If you find that you are frequently using this method to access the same library, or if assigning librefs on your remote host requires special options, you should consider having that library automatically assigned upon startup of the remote SAS session by adding appropriate LIBNAME statements to the remote host's AUTOEXEC file. Contact your SAS Support Consultant for details.

If you are going to download table information (as in the following section) to set up SAS/ASSIST tasks for remote execution, you must have a library on your local SAS session that has the same libref as the remote library containing the desired table. You can assign a libref on the local SAS session by following this selection path:

Tasks ► Setup ► File Management ► SAS Data Libraries
 ► Assign a new libref

Give your new library the same libref as the remote library, and assign it to any library on the local host.

Note that SAS/ASSIST software will not download table information for a remote *libref.table-name* if a table with the same *libref.table-name* already exists on the local host. This feature prevents overwriting an existing table. If you need to download table information for a remote table that has the same libref and table name as an existing table on the local host, you can temporarily clear the libref on the local host and then re-assign it when you are finished. To clear a local libref, follow this selection path:

Tasks ► Setup ► File Management ► SAS Data Libraries ► Clear a libref

Select the libref to be cleared in the Select a Library window and select **OK**.

Alternatively, you can use the Explorer to change the libref or rename the table.

Setting Up SAS/ASSIST Tasks On Remote Data

The “Using Remote Connect” chapter of *Getting Started with the SAS System Using SAS/ASSIST Software* showed you how to use task window selections in a local SAS/ASSIST session and run the task on a remote host using remote data. However, that process works only if you have a copy of the remote table on the local host because you need information about the table stored locally in order to make task window selections. If the table you wish to use is very large, it may not be practical to download a copy to your local host.

The process described in this section addresses this problem. Using this process, you can download information about the table (such as column names, types, and formats), without downloading any data, so that you can make task window selections. Alternatively, you can download a small portion of the data (a few rows or a subset based on a WHERE clause) to test the task. Then you can run the task on the remote host using **Remote submit** on the **Run** menu.

Instructions

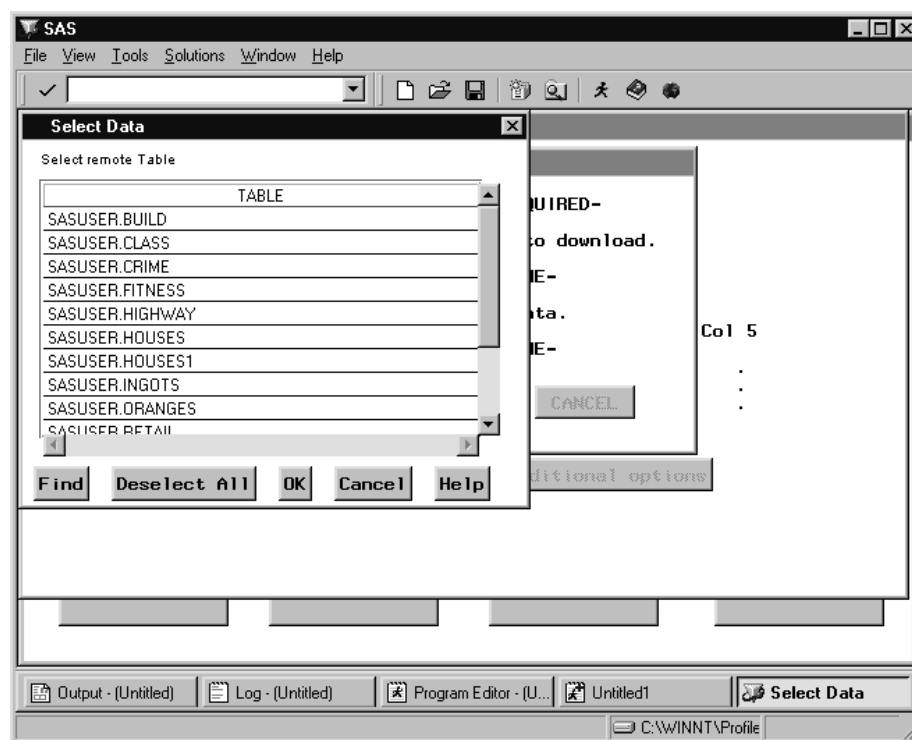
- 1 Ensure that you have a remote connection established.
- 2 Use the **Tasks** menu to access the desired SAS/ASSIST task window.
- 3 Instead of using the **Table** button to select a table, follow this selection path:

Run ► Select Remote Data

The Get Remote Data window appears.

- 4 Select **Table**. A list of tables on the remote host appears.

Display 8.2 Select Remote Table Window



This list includes all tables on all libraries which are assigned on startup of the remote SAS session. If a particular library you are looking for does not appear, the library is not assigned in the remote SAS session. To assign a libref on a remote host, follow the instructions in “Assigning Librefs on Remote SAS Sessions” on page 137, then begin this procedure again from step 1.

Note: If you have more than one remote connection open, the Remote Data window displays only the libraries from the connection most recently established. If you want to select data from a different remote host, terminate and then re-establish a connection with the desired remote host. △

- 5 Select the desired table. The Get Remote Data window reappears.
- 6 By default, this process downloads information about the table only, without downloading any rows. If you want to download some rows, perform one of these steps:
 - Select **Number of Rows**. The Get remote data OBS window appears. Select **All** to download all rows, or select **Or type number** and enter a number of rows to download. Select **OK**.
 - Select **Subset Data**. The **Build a WHERE Clause to Subset the Current Data** window appears. Use this window to construct a WHERE clause. This window is described in detail in the “Report Writing” chapter in *Getting Started with the SAS System Using SAS/ASSIST Software*.
- 7 Select **OK**. The table information and rows, if any, are downloaded and the table name appears as the active table.
- 8 Proceed with the task window selections and run the task by following this selection path:

Run ► **Remote submit**

Behind the Scenes: Anatomy of a Remote Connect Session

The following table provides a look at what is going on when you establish a Remote Connect session, set up and submit a task for remote execution, and terminate the session. Included are technical details on the statements being passed from the local SAS/ASSIST session to the remote SAS session.

Table 8.1 Anatomy of a Remote Connect Session

	Local SAS/ASSIST session actions: What you do	Remote SAS session actions: What the remote host does	Technical details
1	Invoke SAS/ASSIST software	n/a	n/a
2	Establish remote connection (Establish Connection under Remote on the Tasks menu)	Invokes SAS session	SAS/ASSIST software submits a SIGNON statement using SAS/CONNECT script
3	Open task window with Tasks menu	n/a	n/a
4	Select Remote Data from the Remote menu. <i>Note:</i> See “Assigning Librefs on Remote SAS Sessions” on page 137 for details on remote and local library requirements. △	Sends information on contents of all tables in all libraries to local SAS/ASSIST session	SAS/ASSIST software submits a program in an RSUBMIT block to the remote SAS session. The program creates a table containing information on tables in libraries assigned on the remote session (except SASHELP, LIBRARY, MAPS, and WORK). Table is downloaded to local SAS session.
5	Select Table in Get Remote Data window; list of tables appears	n/a	n/a
6	Select desired table, then select desired number of rows and OK in Get Remote Data window	Downloads table with user-selected number of rows (default is 0 rows) or subset	SAS/ASSIST software submits a PROC DOWNLOAD statement with appropriate options in an RSUBMIT block to the remote host.
7	Make task window selections	n/a	n/a

	Local SAS/ASSIST session actions: What you do	Remote SAS session actions: What the remote host does	Technical details
8	Select Remote Submit from the Run menu	Executes task and returns any output or messages to the local SAS session	SAS/ASSIST software submits task code to remote host in an RSUBMIT block.
9	Select Terminate Connection under Remote on the Tasks menu	Terminates SAS session and closes connection	SAS/ASSIST software submits a SIGNOFF statement.

Remote Configuration Management

This section describes how to make changes to an existing remote configuration, how to delete a remote configuration you no longer need, and how to set the SASSCRIPT system option.

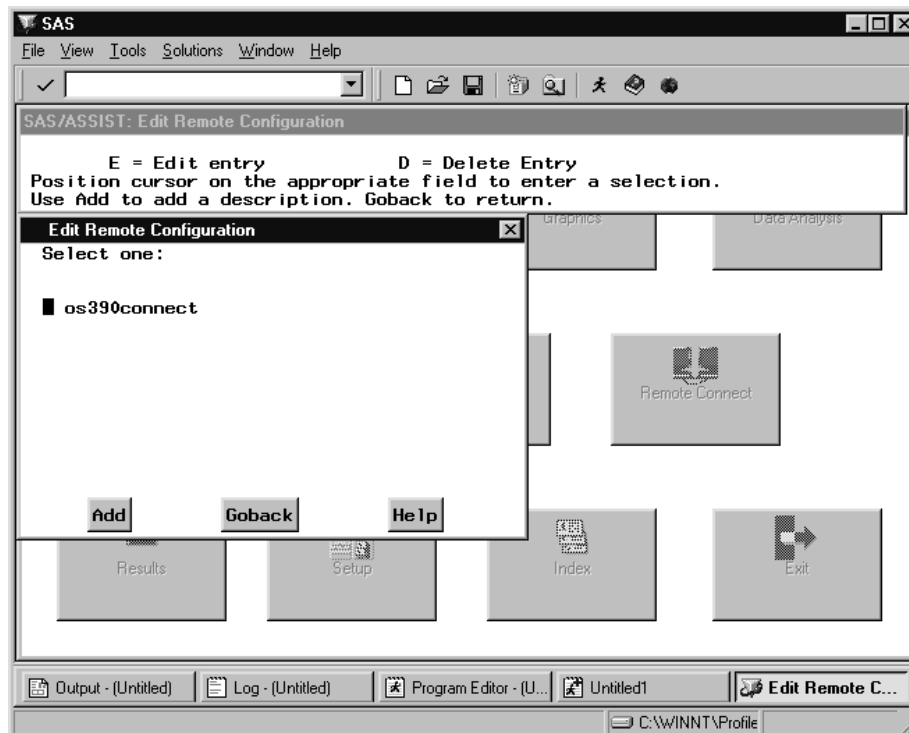
Adding, Editing, and Deleting Remote Configurations

To add, edit, or delete a remote configuration, follow this selection path:



The Edit Remote Configuration window appears.

Display 8.3 Edit Remote Configuration Window



- ❑ To add a new configuration, select **A**dd; the Create a New Configuration window appears. Follow the instructions earlier in the “SAS/ASSIST Software Setup” appendix in *Getting Started with the SAS System Using SAS/ASSIST Software* to create a new configuration.
- ❑ To edit an existing configuration, type **E** next to the configuration you want to edit and press ENTER.
- ❑ To delete an existing configuration, type **D** next to the configuration you want to delete and press ENTER. When prompted, select **O**K to delete the configuration.

Select **G**o**b**ack to exit the Edit Remote Configuration window.

Setting the SASSCRIPT System Option


When you create or edit a remote configuration, you are asked to select a SAS/CONNECT script file. SAS/CONNECT script files are normally stored in a location (directory, folder or data set, depending on the operating environment) specified by the SASSCRIPT SAS system option. If you have SAS/CONNECT script files stored in a different location, you might want the SAS System to search there for SAS/CONNECT scripts. To set or change the SASSCRIPT system option, follow these directions:

- 1 Follow this selection path:

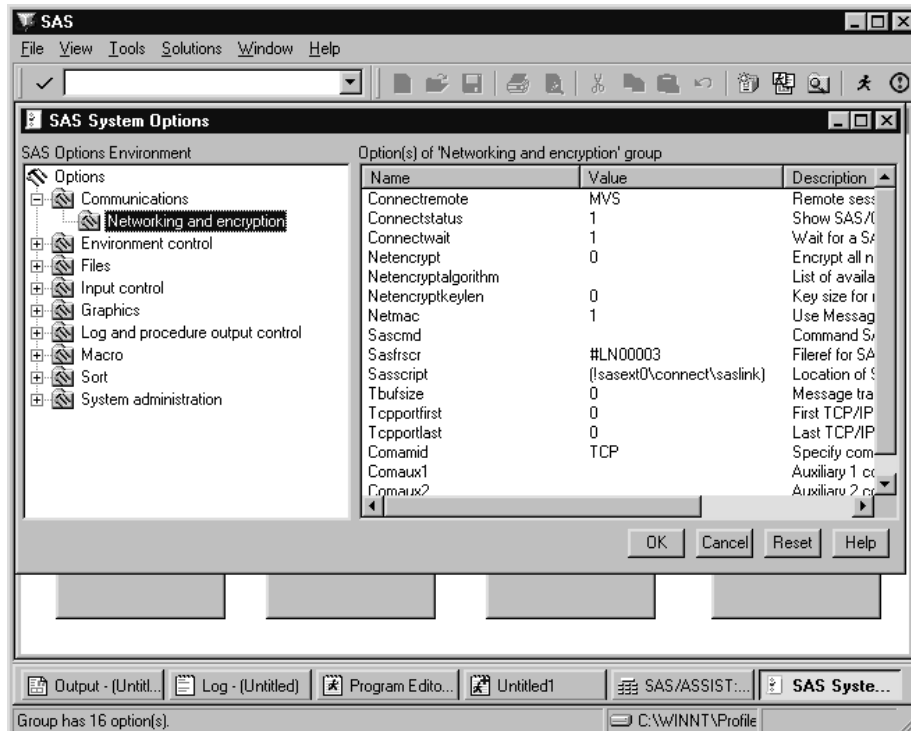
Tools

 ► Options ► System

The SAS System Options window appears

- 2 Select the  symbol next to **C**ommunications in the left pane, then select **N**etworking and **e**ncryption. A list of communication-related options appears in the right pane.

Display 8.4 SAS System Options Window With Networking and Encryption Options



Look in the **value** field for the **Sasscript** option to see where the option points.

- 3 To assign a new value, select **Sasscript**. (For desktop operating environments, double-click the **Sasscript** name.) The Modify Value window appears. Enter a new value in the **New Value** field and select **OK**. If you do not know the value to enter, contact your SAS Software Consultant.
- 4 Select **OK** to exit the SAS System Options window. Select **ASSIST** from the **Solutions** menu to return to SAS/ASSIST software.

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