CHAPTER

16

Using Remote Connect

Chapter Overview

This chapter describes the `Remote Connect` feature of SAS/ASSIST software. With `Remote Connect`, you can

- upload and download data and programs
- run programs on remote computers
- execute a SAS/ASSIST task on remote data using `Remote submit` from any SAS/ASSIST task window
- run a saved local program using remote data.

This chapter shows you how to establish a connection with a remote SAS session, transfer data to a remote location, execute a SAS/ASSIST task on remote data, and terminate a remote connection. You must have SAS/CONNECT software licensed to complete tasks using `Remote Connect`.

Additional Information

For additional information about working with remote SAS sessions, see the *SAS/CONNECT User's Guide*.

Establishing a Remote Connection

You must establish a connection to a remote host before you can do any remote processing with `Remote Connect`. The example in this section establishes a connection between a SAS session under UNIX and a remote SAS session under OS/390. Throughout this example, you should use information specific to the platforms you are using.

Instructions

1 Use one of the following methods to establish a remote connection:

☐ From the WorkPlace menu or any task window, follow this selection path:

| Tasks | ► | Remote | ► | Establish connection |

☐ From the WorkPlace menu or any task window, follow this selection path:
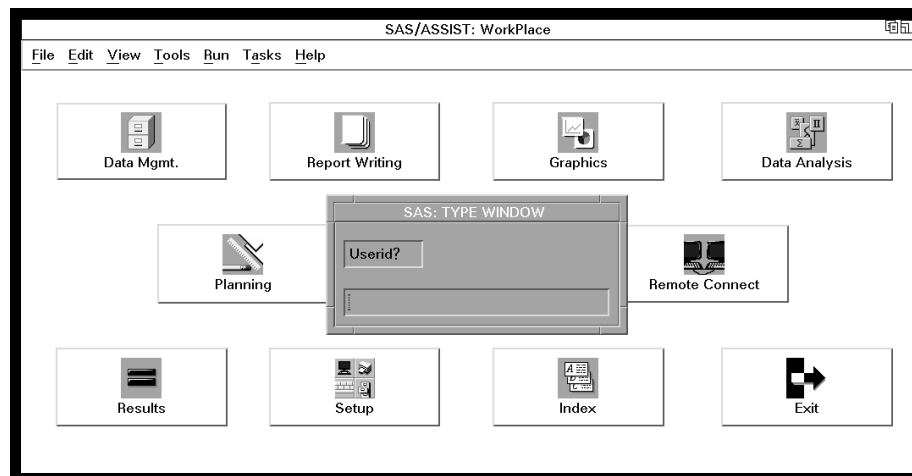
| Run | ► | Signon |

The window that appears depends on how many remote configurations are available. A *remote configuration* is a set of instructions that SAS/CONNECT software uses to connect to a specific remote host.

☐ If you *do not have any* remote configurations saved, the Create New Configuration window appears, which enables you to create a configuration. See "Setting Up Remote Connect Configurations" on page 175 for instructions on how to set up a remote configuration, or contact your site's SAS Support Consultant for assistance.

☐ If you have *one* remote configuration saved, that configuration is invoked and the remote connection described in the configuration is established.

☐ If you have *more than one* remote configuration saved, the Select Description window appears and asks you to select the configuration you want to use to establish a remote connection. Select the configuration you want to use, and then select **OK**; the connection is established.

This section illustrates a situation where you have one remote configuration saved. In this example, a connection to an OS/390 host is established.

2 When the connection is made, the TYPE window appears, which prompts you for your userid.

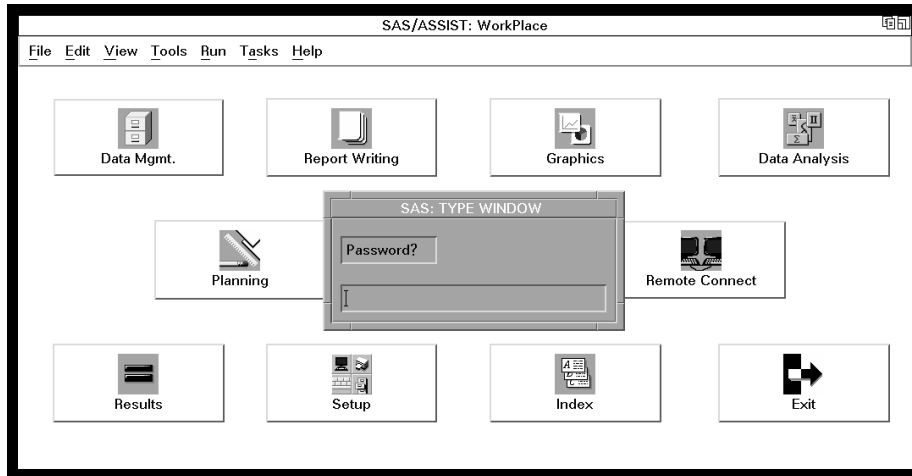**Display 16.1**   TYPE Window for Userid Entry

Type your userid for the remote host and press ENTER.

Note: If your userid is hard coded into the remote configuration script you are using, you are not prompted for your userid. △

3 Another TYPE window appears, which prompts you for your password.

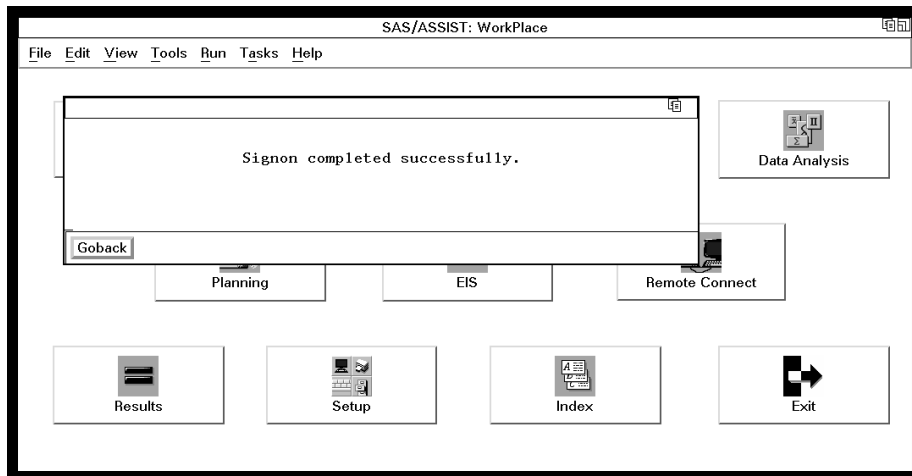**Display 16.2** TYPE Window for Password Entry

Type your password for your remote host userid and press ENTER.

Note: If your password is hard coded into the script you are using, you are not prompted for your password. △

4 A window appears, indicating that the signon to the remote host completed successfully.

Display 16.3 Successful Signon Message

Select **Goback** to return to the WorkPlace menu or task window.

Use the connection you just established to complete the rest of the activities in this chapter. This connection remains established until you terminate the connection as described in "Terminating a Connection" on page 161 or until you end the SAS session.
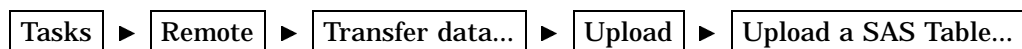
Transferring Data

You can use `Transfer data` on the `Remote Connect` menu to *upload* (transfer from a local to a remote session) or *download* (transfer from a remote to a local session) SAS tables, SAS catalogs, external files, or members of a SAS data library, from one SAS session to another. Additionally, you can download graphics output from a remote session to a local session. To assist you with uploading and downloading data, you can assign librefs and filerefs in the local or remote session, view the contents of a remote table, or view a remote library listing from within the WorkPlace menu's `Remote Connect` item. Make sure you are connected to the remote session before you transfer the data.

In this section, you transfer the HOUSES table from the local SAS session to a remote table called HOUSES. You also view the contents of the remote HOUSES table and view the contents of the remote SASUSER library.
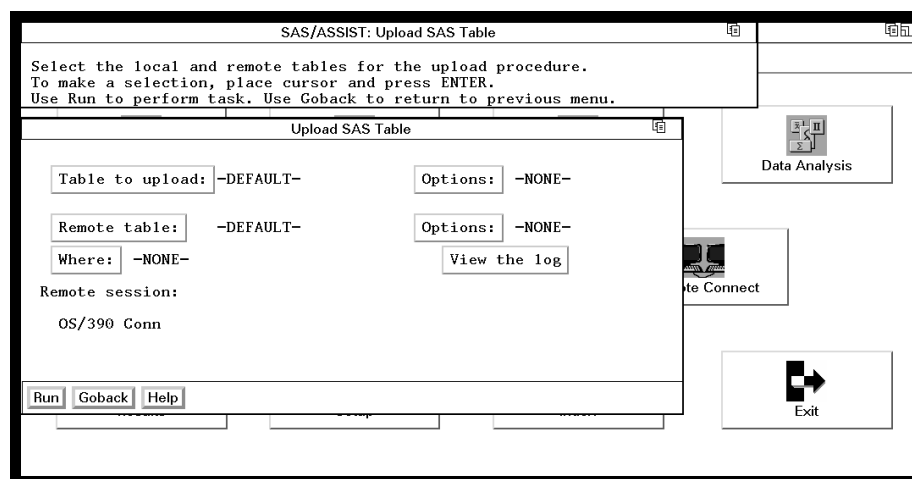
Instructions

1 Follow this selection path:

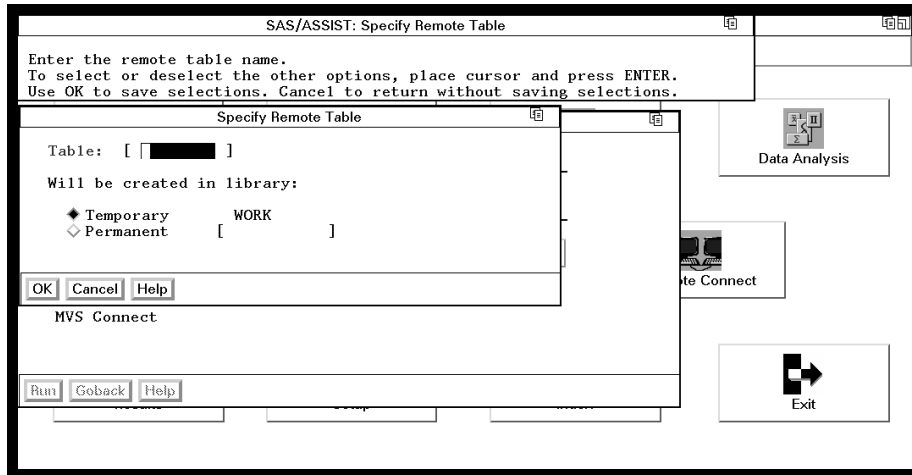Tasks ▶ Remote ▶ Transfer data... ▶ Upload ▶ Upload a SAS Table...

The Upload SAS Table window appears.

Display 16.4 Upload SAS Table Window

2 Select the remote session from the list shown at the bottom of the Upload SAS Table window. For this example, `OS/390 Connection` is selected. If you have only one remote session, you do not need to perform this step.

3 Select `Table to upload`, and then select the SASUSER.HOUSES table. For information on selecting tables, see "Selecting a Table" on page 24.

4 Select `Remote table`. The Specify Remote Table window appears.

Display 16.5 Specify Remote Table Window

5 In the `Table` field, type `HOUSES` as the name of the remote table. Select `Permanent`. In the field next to `Permanent`, type `SASUSER` as the permanent remote library in which you want to store the new HOUSES table. By creating a permanent table of SASUSER.HOUSES, you can remotely run the program that you create and save in the next section.

6 Select `OK` to return to the Upload SAS Table window.

7 Select `Run`. The HOUSES table is uploaded from the local host to the remote host into a permanent table called SASUSER.HOUSES. A window appears showing the progress of the upload. When the upload is complete, a message appears indicating that the upload completed successfully.
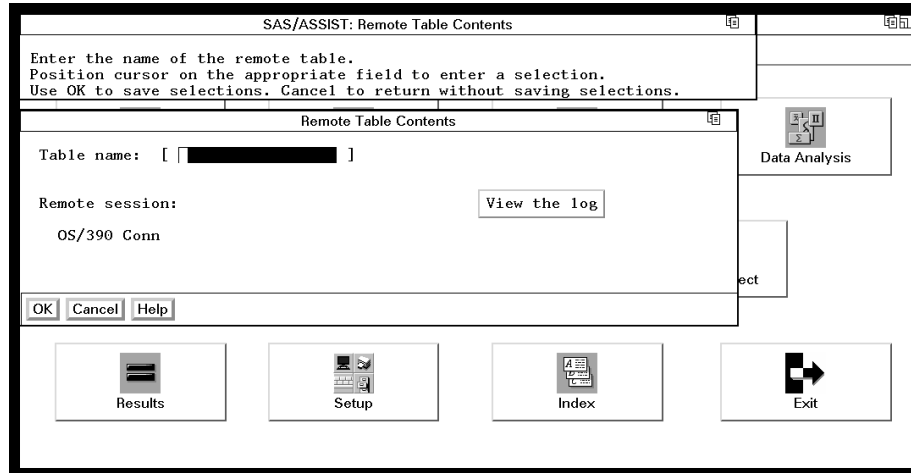
   Note: If the table being uploaded is small, the window showing the progress of the upload appears only briefly on the display. △

8 Select `Goback` to return to the WorkPlace Menu.

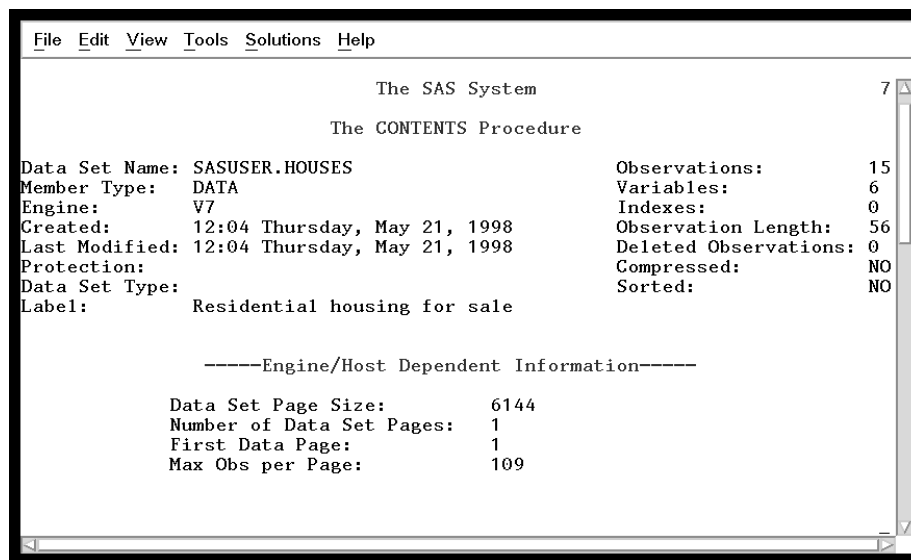9 To view the contents of the table you just uploaded on the remote system, follow this selection path:

   Tasks ▶ Remote ▶ Transfer data ▶ Utilities ▶ Remote table contents...

   The Remote Table Contents window appears.

Display 16.6   Remote Table Contents Window

10 In the **Table name** field, type **SASUSER.HOUSES** as the name of the table whose contents you want to view.

11 Select the remote session that you want to use from the list in the window. For this example, **OS/390 Connection** is selected.

12 Select **OK**. The contents of the SASUSER.HOUSES table that is on the remote host appear in the Output window.
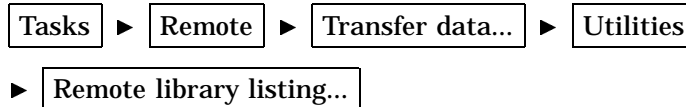
Display 16.7   Remote Table Contents Output

Use the scroll bars or the UP and DOWN function keys, depending on your operating environment, to display the rest of the contents.

Depending on your operating environment, when you are in the Output window, you may need to continue using the DOWN function key until all of the output is viewed before returning to the SAS/ASSIST window. You do this to ensure that any procedures running in the Output window are completed.

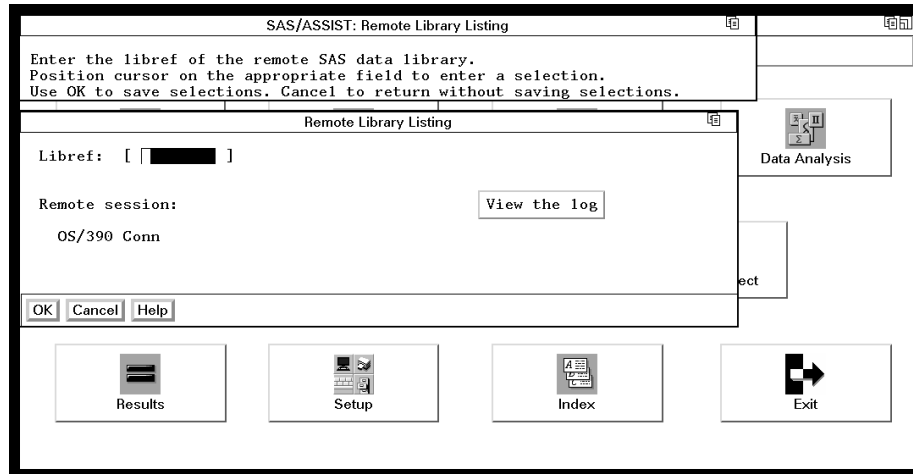13 To return to the WorkPlace menu, use one of the following methods, according to your operating environment:

□ Use the PREVWIND function key.

□ Click on the SAS/ASSIST window.

14 If you wish to view the contents of a SAS data library on a remote host, follow this selection path:

| Tasks | ► | Remote | ► | Transfer data... | ► | Utilities |

► | Remote library listing... |

The Remote Library Listing window appears.
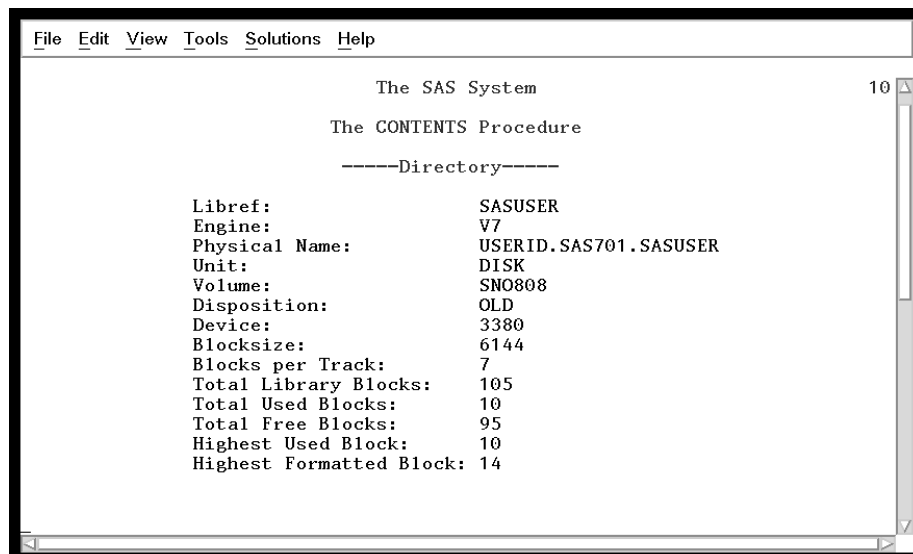
Display 16.8 Remote Library Listing Window

15 In the `Libref` field, type `SASUSER` as the libref of the remote library that you want to list.

16 Select the remote session that you want to use from the list in the window. For this example, `OS/390 Connection` is selected. If you have only one remote session, you do not need to perform this step.

17 Select `OK`. The contents of the SASUSER library appear in the Output window.

Display 16.9 Remote Library Listing Output

Use the scroll bars or the UP and DOWN function keys, depending on your operating environment, to display the rest of the contents.

Depending on your operating environment, when you are in the Output window, you may need to continue using the DOWN function key until all of the output is viewed before you return to the SAS/ASSIST window. You do this to ensure that any procedures running in the Output window are completed.

18 To return to the WorkPlace menu, use one of the following methods, according to your operating environment:
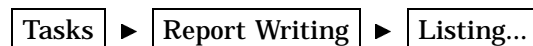
☐ Use the PREVWIND function key.

☐ Click on the SAS/ASSIST window.

Executing a SAS/ASSIST Task Using Remote Data

In this section, you will make task window selections to run a listing report on the table that you uploaded in "Transferring Data" on page 156. You will then run the task using the `Remote Submit` menu item. For details on creating listing reports, refer to "Producing a Listing Report" on page 30. Make sure you are connected to the remote session before you run the task remotely.
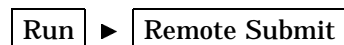
1 Follow this selection path:

| Tasks | ► | Report Writing | ► | Listing... |

The List a Table window appears.

2 If the active table is SASUSER.HOUSES, continue to the next step. Otherwise, select `Table`, and then select the SASUSER.HOUSES table. For more information on selecting tables, see "Selecting a Table" on page 24.

3 If there is an active Subset Data selection (indicated with `BY`, `WHERE`, or `ROWS` next to the `Subset data` button), clear the selection. For more information, see "Clearing a Subset Data Selection" on page 26.

4 If other report selections exist (for example, `Columns` is not `-ALL-`), follow this selection path to clear these selections:
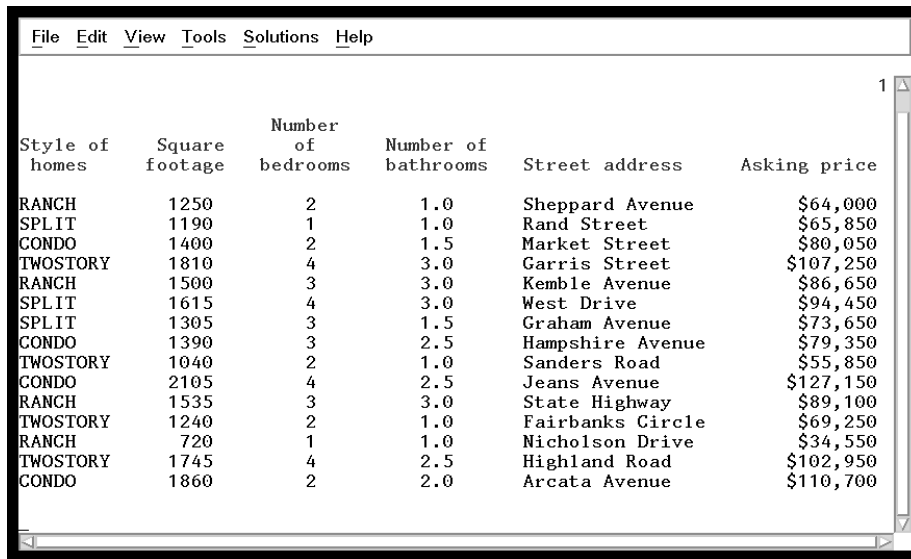
| File | ► | New |

5 Follow this selection path:

| Run | ► | Remote Submit |

A listing of the remote SASUSER.HOUSES table appears in the Output window.

Display 16.10 Listing of HOUSES Table

```
 File  Edit  View  Tools  Solutions  Help

                                                              1 △

                   Number
Style of  Square     of      Number of
  homes   footage  bedrooms  bathrooms   Street address    Asking price

RANCH       1250       2        1.0     Sheppard Avenue       $64,000
SPLIT       1190       1        1.0     Rand Street           $65,850
CONDO       1400       2        1.5     Market Street         $80,050
TWOSTORY    1810       4        3.0     Garris Street        $107,250
RANCH       1500       3        3.0     Kemble Avenue         $86,650
SPLIT       1615       4        3.0     West Drive            $94,450
SPLIT       1305       3        1.5     Graham Avenue         $73,650
CONDO       1390       3        2.5     Hampshire Avenue      $79,350
TWOSTORY    1040       2        1.0     Sanders Road          $55,850
CONDO       2105       4        2.5     Jeans Avenue         $127,150
RANCH       1535       3        3.0     State Highway         $89,100
TWOSTORY    1240       2        1.0     Fairbanks Circle      $69,250
RANCH        720       1        1.0     Nicholson Drive       $34,550
TWOSTORY    1745       4        2.5     Highland Road        $102,950
CONDO       1860       2        2.0     Arcata Avenue        $110,700
```

Note: This operation works because there is a SASUSER.HOUSES table available for both the local and remote sessions. To run a task on a remote table that is not also available for the local session, you must use the `Select Remote data` item on the `Run` menu. △

6 Return to the List a Table window by using one of the following methods, depending on your operating environment:

  □ Use the PREVWIND function key.

  □ Click on the SAS/ASSIST window.

Terminating a Connection

When you have finished processing using the remote SAS session, you terminate the connection with the remote session. Remote connections remain established until you terminate them or end the SAS session.

In this section, you terminate the remote connection that you established in "Establishing a Remote Connection" on page 153.
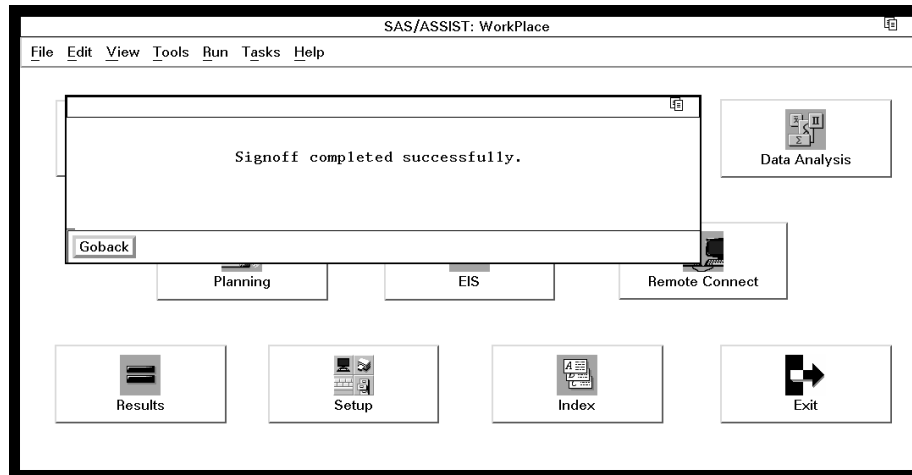
Instructions

1 To terminate the connection, follow one of these selection paths:

| Tasks | ► | Remote | ► | Terminate connection |

| Run | ► | Signoff |

A message appears indicating that the signoff was completed successfully.

Display 16.11 Successful Signoff Message

Note: The window that appears when you select `Terminate connection` from the Remote Connect Menu depends on which of the following situations exists:

□ If you have *only one* remote connection established, this connection is terminated.

□ If you have *more than one* remote connection established, the Select Description window appears for you to select the connection that you want to terminate.

△

2 Select `Goback` to return to the Workplace Menu.

Getting Started with the SAS System Using SAS/ASSIST Software, Version 8