



**Software for the Statistical
Analysis of Correlated Data**

SUDAAN Installation Guide PC

Release 9.0

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RTI International
P.O. Box 12194
Research Triangle Park, NC 27709

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1. OVERVIEW

SUDAAN is a single program consisting of a family of procedures used to analyze data from complex surveys and other observational and experimental studies involving cluster-correlated data. A complete description of the capabilities of SUDAAN can be found at <http://www.rti.org/sudaan>.

The following document provides instructions on how to install and run SUDAAN. The most current version of these installation instructions can be obtained by visiting the SUDAAN website at <http://www.rti.org/sudaan> and selecting the *Downloads* tab.

1.1 Technical Support

RTI International (Research Triangle Institute) provides limited technical support for SUDAAN problems free of charge. The [SUDAAN Language Manual](#) provides detailed information on programming with SUDAAN and the [SUDAAN Example Manual](#) provides numerous examples. Both of these manuals can be installed during the SUDAAN setup (as .PDF files). These manuals can also be purchased from the SUDAAN website at <http://www.rti.org/sudaan>. You may also review bug reports, get answers to frequently asked questions and obtain other technical assistance through our website.

For additional technical support please submit a support request available from our website or send an email to sudaan@rti.org.

You may also contact the RTI SUDAAN offices at:

RTI International
SUDAAN Coordinator
3040 Cornwallis Road
Research Triangle Park, NC 27709-2194

Voice Mail: (919) 541-6602
FAX: (919) 541-7431
Email: sudaan@rti.org

Due to the high volume of telephone calls we receive, when calling the SUDAAN office you may be automatically sent to the SUDAAN voice mail. Please leave your name, telephone number and a brief description of the reason for your call. One of our SUDAAN administrators will contact you as soon as possible.

SUDAAN is supplied on a CD-ROM. This media contains all versions of SUDAAN compiled and tested for DOS and Windows. The instructions below tell you where to find the appropriate version(s) of SUDAAN for your license(s). **Note: If you have licensed more than one version of SUDAAN you may install all licensed versions during one call to the setup.**

1.2 Software Installation

Insert the SUDAAN CD into your CD-ROM drive and execute the program **setup.exe** in the root directory on this disk. You can do this by entering:

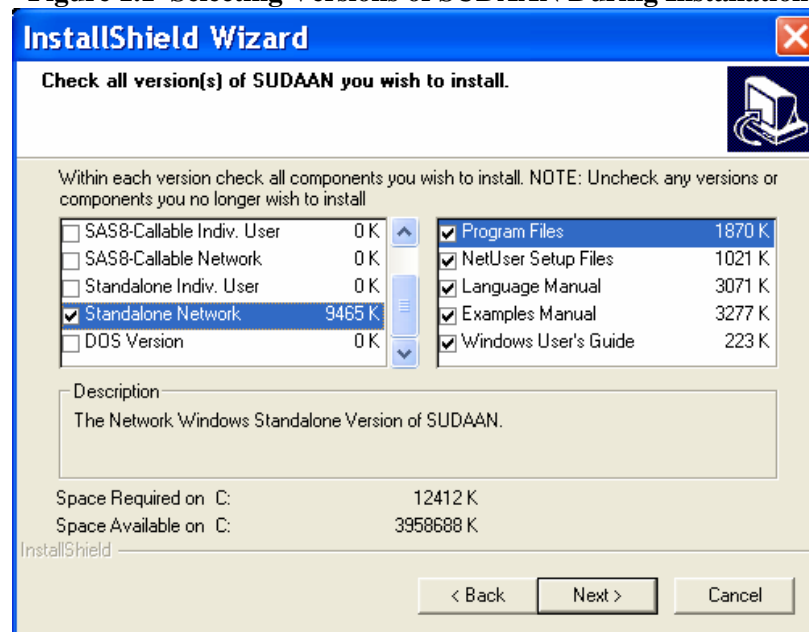
D:\setup

From the **Run** command on the Windows **Start** menu. Here we assume that D: is the drive letter associated with your CD-ROM reader. You can also execute `setup.exe` by locating it in the Windows Explorer. Double-click on the `setup.exe` program icon to start the installation.

The `SETUP` program will lead you through the installation process, during which you will do the following:

1. Supply your name and company as they should appear in the SUDAAN banner.
2. Read and accept the SUDAAN license agreement.
3. Accept the default target directory `C:\Program Files\SUDAAN\Release90x` (*recommended*) or specify a different directory where SUDAAN should be installed.
4. As illustrated in **Figure 1.1**, you will be asked to check all versions of SUDAAN that you wish to install. Refer to subsequent sections of this Installation Guide for detailed instructions on installing each version. Note that if you have purchased more than one license to SUDAAN (e.g. Standalone and SAS-Callable Indiv User), then all versions can be installed simultaneously by checking the corresponding boxes at this screen.

Figure 1.1 Selecting Versions of SUDAAN During Installation



1.3 SUDAAN Help

SUDAAN's Interactive Help system is easily accessible from within SUDAAN by Selecting **Help** from the Main Menu, or from the SUDAAN folder on the Start Programs menu.

The SUDAAN Interactive Help is also available at SUDAAN's website: <http://www.rti.org/sudaan>. Click on Technical Assistance, then On-line Help.

Please note that not all features of the compiled HTML help (the file is called SUDAAN.CHM) work properly under Windows 95 and Windows 98. Use the HTML help from our website by visiting the *Downloads* page to download the HTML help files to your computer.

1.4 SUDAAN Manual

The SUDAAN Language Manual the SUDAAN Example Manual will be installed by default in the manual subdirectory of SUDAAN\Release90x and shortcuts to these documents will be located in the SUDAAN folder on the Start Programs menu. Additionally, the Windows User's Guide (for Standalone SUDAAN only) will be installed by default in the SUDAAN\Release90x directory and a shortcut to this document will also be placed in the SUDAAN folder on the Start Programs menu. All of these files are in PDF format. Use Adobe Acrobat Reader, which is available free from Adobe's website to view these documents. You can find additional SUDAAN examples on our website.

1.5 Procedure to Renew a SUDAAN License

Unless you have obtained a permanent license to this release of SUDAAN, you will need to renew your SUDAAN license in order to continue using the software after the expiration date. Once you have purchased the renewal, you will receive a new 22-digit Product Key for each version of SUDAAN that you have an annual license to. To update your software, do the following:

1. For Windows XP, 2000, or NT, make sure that you are logged in to your computer with administrator privileges.
2. Click on the shortcut to SUDRENEWAL.EXE in the SUDAAN folder on the Start Programs menu.
3. Enter your name and company as they should appear in the SUDAAN banner, and your new 22-digit product key
4. The renewal software will ask you for the location for the SUDAAN.EXP file. By default, this will be located under

Directory Location of SUDAAN.EXP

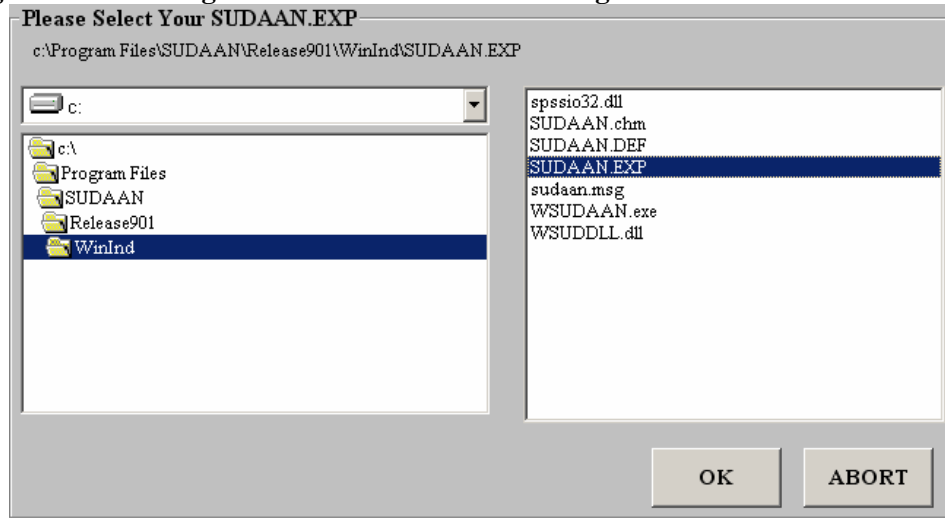
Program Files\SUDAAN\Release90x\DOS
Program Files\SUDAAN\Release90x\WinInd
Program Files\SUDAAN\Release90x\WinNet
Program Files\SUDAAN\Release90x\SAS8Ind
Program Files\SUDAAN\Release90x\SAS8Net
Program Files\SUDAAN\Release90x\SAS9Ind
Program Files\SUDAAN\Release90x\SAS9Net

SUDAAN Version

For DOS Version
For Standlone Individual User Version
For Standalone LAN User Version
For SAS8 Callable Individual User Version
For SAS8 Callable LAN User Version
For SAS9 Callable Individual User Version
For SAS9 Callable LAN User Version

Figure 1.2 illustrates the box that will appear when the renewal software asks for the location of your SUDAAN.EXP file. Note that you should select the directory location of your SUDAAN.EXP on the left side of this box, and select the SUDAAN.EXP file on the right. The OK button at the bottom of this box will not appear until the SUDAAN.EXP file is selected with a mouse-click.

Figure 1.2 Selecting the SUDAAN.EXP File During the SUDAAN Renewal Process



At this point your software is updated, and you can continue to use it.

2. INSTALLATION INSTRUCTIONS FOR DOS STANDALONE, INDIVIDUAL USER VERSION

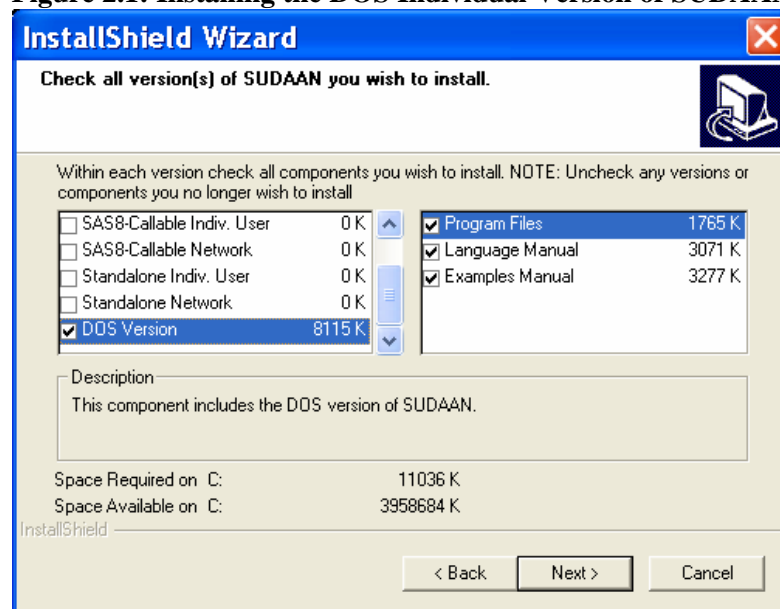
2.1 System Requirements

<u>Category</u>	<u>Requirement</u>
Computer	486 or better PC Compatible
Resources	8 MB of RAM (16 MB RAM suggested), 40 MB of hard disk
Operating System	Microsoft Windows 95 and above

2.2 Software Installation

1. Select **DOS** as the setup type by clicking on the check box to the left of this type in the left pane of the setup window as shown in **Figure 2.1** below. Note that you will need to page down in the left-hand pane to locate the DOS version.

Figure 2.1: Installing the DOS Individual Version of SUDAAN



By default, the following components will be installed. However you can deselect any of these components by clicking on the check boxes to the left of the component names which are displayed in the right pane of the setup window.

<u>Component</u>	<u>Description</u>
Program Files	Files required to execute SUDAAN procedures
Language Manual	SUDAAN Language Manual in Adobe Acrobat .PDF format
Example Manual	SUDAAN Example Manual in Adobe Acrobat .PDF format

2. Confirm your selections.

3. Enter your 22-digit product key. This key is located on the attached letter that was sent to you with this CD. Make sure the product key is for the DOS Standalone Individual User version of SUDAAN.

IMPORTANT: Be sure to save this product key, since you will need it again whenever you have to reinstall the software, for example on a new computer. You will also need this product key for renewing an annual license to SUDAAN.

Following installation, the following subdirectories and files should be present (by default under C:\Program Files, or in the installation directory you have specified during setup)

- **SUDAAN\Release90x**
This subdirectory will contain SUDAAN's license renewal software and README.1ST files.
- **SUDAAN\Release90x\DOS**
This subdirectory will contain all program and other required files.
- **SUDAAN\Release90x\Help**
This subdirectory will always be present, and contains the CHM Help. Note that SETUP will create a shortcut to it in the SUDAAN folder on the Start Programs Menu.
- **SUDAAN\Release90x\Manual**
This subdirectory will be present if you specify installation of the SUDAAN Language Manual, and/or the SUDAAN Example Manual. Note that SETUP will create shortcuts to these documents in the SUDAAN folder on the Start Programs Menu.

The SETUP program will install a SUDAAN folder on the Start Programs menu with shortcuts to the SUDAAN program, the SUDAAN website, SUDAAN Language and Example Manuals, Windows User's Guide, SUDAAN Help, and the SUDRENEWAL program.

2.3 Running SUDAAN

After installation, you will need to add your new SUDAAN directory, by default

`<path>\SUDAAN\Release90x\DOS,`

to your directory PATH. `<path>` is the complete path specification for the SUDAAN programs, which by default is C:\Progra~1. Remove any old SUDAAN directory from the PATH. If you make these changes in your system settings, they will be available each time you boot your system.

The syntax for executing SUDAAN (from the DOS Command prompt, or from the RUN command) is:

```
SUDPROC infile [outfile] [-r | -a]
```

where *infile* is the name of the file containing SUDAAN procedure statements, *outfile* is the name of the file to which you should direct outputs, and *r* and *a* are write options.

IF *outfile* already exists...

- r causes the file to be overwritten, and
- a causes the output to be appended to the existing file

See the [SUDAAN Language Manual](#) and the [SUDAAN Example Manual](#) for complete information on using the SUDAAN procedures.

3. INSTALLATION INSTRUCTIONS FOR WINDOWS STANDALONE INDIVIDUAL USER VERSION

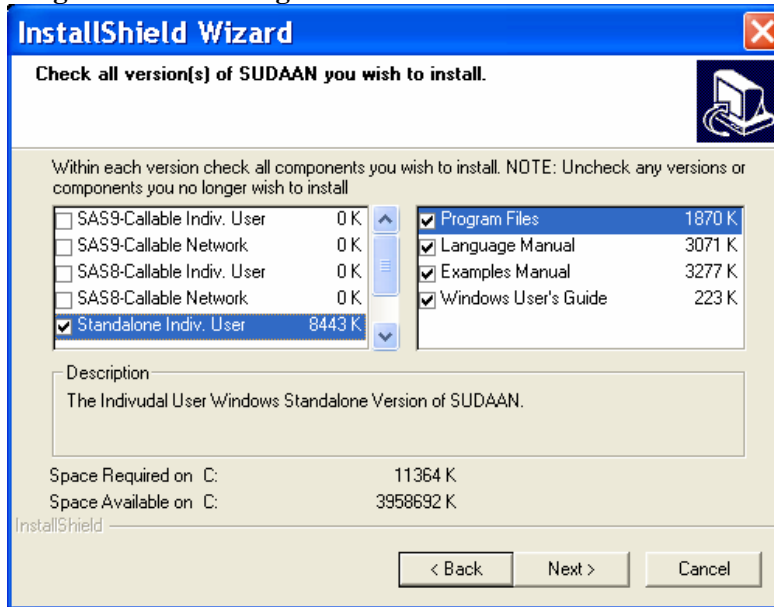
3.1 System Requirements

<u>Category</u>	<u>Requirement</u>
Computer	486 or better PC Compatible
Resources	8 MB of RAM (16 MB RAM suggested), 40 MB of hard disk
Operating System	Microsoft Windows 95 and above

3.2 Software Installation

1. Select **Standalone Indiv. User** as the setup type by clicking on the check box to the left of this type in the left pane of the setup window as shown in **Figure 3.1** below.

Figure 3.1: Installing Standalone Individual User SUDAAN



By default, the following components will be installed. However you can deselect any of these components by clicking on the check boxes to the left of the component names which are displayed in the right pane of the setup window.

<u>Component</u>	<u>Description</u>
Program Files	Files required to execute SUDAAN procedures
Language Manual	SUDAAN Language Manual in Adobe Acrobat .PDF format
Example Manual	SUDAAN Example Manual in Adobe Acrobat .PDF format
Windows User's Guide	A User's Guide for the Standalone Windows Version

2. Confirm your selections.

3. Enter your 22-digit product key. This key is located on the attached letter that was sent to you with this CD. Make sure the product key is for the Standalone Individual User version of SUDAAN.

IMPORTANT: Be sure to save this product key, since you will need it again whenever you have to reinstall the software, for example on a new computer. You will also need this product key for renewing an annual license to SUDAAN.

Following installation, the following subdirectories and files should be present (by default under C:\Program Files, or in the installation directory you have specified during setup)

- **SUDAAN\Release90x**
This subdirectory will contain SUDAAN's license renewal software and README.1ST files as well as the Windows User's Guide. Note that SETUP will create a shortcut to this document in the SUDAAN folder on the Start Programs Menu.
- **SUDAAN\Release90x\WinInd**
This subdirectory will contain all program and other required files.
- **SUDAAN\Release90x\Help**
This subdirectory will always be present, and contains the CHM Help. Note that SETUP will create a shortcut to it in the SUDAAN folder on the Start Programs Menu.
- **SUDAAN\Release90x\Manual**
This subdirectory will be present if you specify installation of the SUDAAN Language Manual, and/or the SUDAAN Example Manual. Note that SETUP will create shortcuts to these documents in the SUDAAN folder on the Start Programs Menu.

The SETUP program will install a SUDAAN folder on the **Start Programs** menu with shortcuts to the SUDAAN program, the SUDAAN website, SUDAAN Language and Example Manuals, Windows User's Guide, SUDAAN Help, and the SUDRENEWAL program.

3.3 Running SUDAAN

Please refer to the Windows User's Guide for complete details on how to run Windows Standalone Individual User SUDAAN.

4. INSTALLATION INSTRUCTIONS FOR WINDOWS STANDALONE NETWORK

All LAN versions of SUDAAN should be installed using a two-step process:

1. Install the Administrator version of SUDAAN from the CD as described in **Section 4.2**.
2. Each user wishing to use SUDAAN on the LAN must complete the LAN User Version installation as described in **Section 4.3**. All files needed for the LAN User Version installation will be installed during the LAN Administrator Version installation.

IMPORTANT: As indicated in the SUDAAN license agreement, the maximum number of simultaneous users who access SUDAAN on the network should not exceed the total number of users associated with your SUDAAN LAN license.

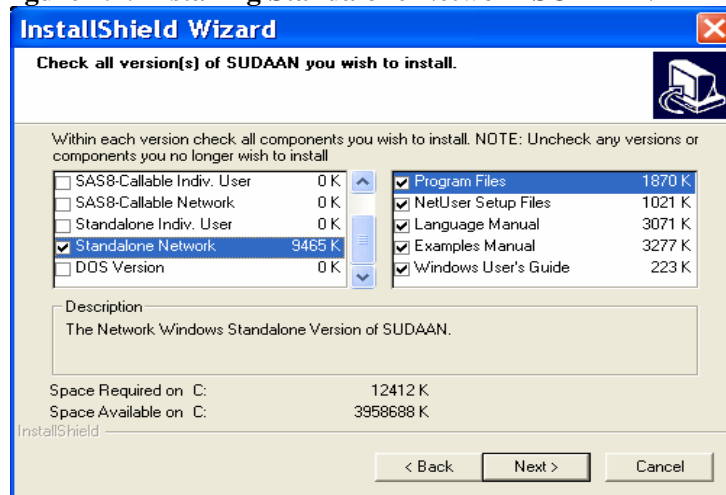
4.1 System Requirements

<u>Category</u>	<u>Requirement</u>
Computer	486 or better PC Compatible
Resources	8 MB of RAM (16 MB RAM suggested), 40 MB of hard disk
Operating System	Microsoft Windows 95 and above

4.2 Software Installation—LAN Administrator

1. Select **Standalone Network** as the setup type by clicking on the check box to the left of this type in the left pane of the setup window as shown in **Figure 4.1** below. Note that you may need to scroll down to see this version on the setup window.

Figure 4.1: Installing Standalone Network SUDAAN



By default, the following components will be installed. However you can deselect any of these components by clicking on the check boxes to the left of the component names which are displayed in the right pane of the setup window.

<u>Component</u>	<u>Description</u>
Program Files	Files required to execute SUDAAN procedures
NetUser Setup Files	SETUP . EXE and other files for network user install (See Section 4.3)
Language Manual	SUDAAN Language Manual in Adobe Acrobat .PDF format
Example Manual	SUDAAN Example Manual in Adobe Acrobat .PDF format
Windows User's Guide	A User's Guide for the Standalone Windows Version

2. Confirm your selections.
3. Enter your 22-digit product key. This key is located on the attached letter that was sent to you with this CD. Make sure the product key is for the Standalone Network version of SUDAAN.

IMPORTANT: Be sure to save this product key, since you will need it again whenever you have to reinstall the software, for example on a new computer. You will also need this product key for renewing an annual license to SUDAAN.

Following installation, the following subdirectories and files should be present (by default under C:\Program Files, or in the installation directory you have specified during setup)

- **SUDAAN\Release90x**
This subdirectory will contain SUDAAN's license renewal software and README.1ST files. This subdirectory will contain SUDAAN's license renewal software and README.1ST files as well as the Windows User's Guide. Note that SETUP will create a shortcut to this document in the SUDAAN folder on the Start Programs Menu.
- **SUDAAN\Release90x\WinNet**
This subdirectory will contain all program and other required files.
- **SUDAAN\Release90x\WinNet\NetUser**
This subdirectory will contain SETUP . EXE and other files required for the network user install
- **SUDAAN\Release90x\Help**
This subdirectory will always be present, and contains the CHM Help. Note that SETUP will create a shortcut to it in the SUDAAN folder on the Start Programs Menu.
- **SUDAAN\Release90x\Manual**
This subdirectory will be present if you specify installation of the SUDAAN Language Manual, and/or the SUDAAN Example Manual. Note that SETUP will create shortcuts to these documents in the SUDAAN folder on the Start Programs Menu.

The SETUP program will install a SUDAAN folder on the Start Programs menu with shortcuts to the SUDAAN program, the SUDAAN website, SUDAAN Language and Example Manuals, Windows User's Guide, SUDAAN Help, and the SUDRENEWAL program.

4.3 Software Installation–LAN User

The `SETUP.EXE` program in the NetUser subdirectory of the SUDAAN\Release90x\WinNet network directory is a program that will automatically set up SUDAAN for each user. This program should be run by each user. After `SETUP` has run, verify that `SETUP` has created a SUDAAN folder in the Start Programs menu. In the folder one should find shortcuts to the SUDAAN program, the SUDAAN website, SUDAAN Language and Example Manuals, the Windows User's Guide, and the SUDAAN Help.

4.4 Running SUDAAN

Please refer to the Windows User's Guide for complete details on how to run Windows Standalone Individual User SUDAAN.

5. SUDAAN WINDOWS USERS GUIDE

This guide will introduce you to the special features of the **Standalone Windows Version** of SUDAAN (Individual or LAN version). You can execute this version in either interactive or batch mode. **Section 5.1** describes the SUDAAN interface available to you when you run in interactive mode. **Section 5.2** describes how to use SUDAAN in batch mode.

5.1 Using Interactive SUDAAN

To launch an interactive session of SUDAAN for Windows, click on the **Start** button on your Windows Desktop (generally in the lower left corner), choose **Programs** or **All Programs**, and then click on the SUDAAN icon. You may also locate the SUDAAN executable, WSUDAAN.EXE in the Windows Explorer and double click on the icon to execute SUDAAN as shown in **Figure 5.1**.

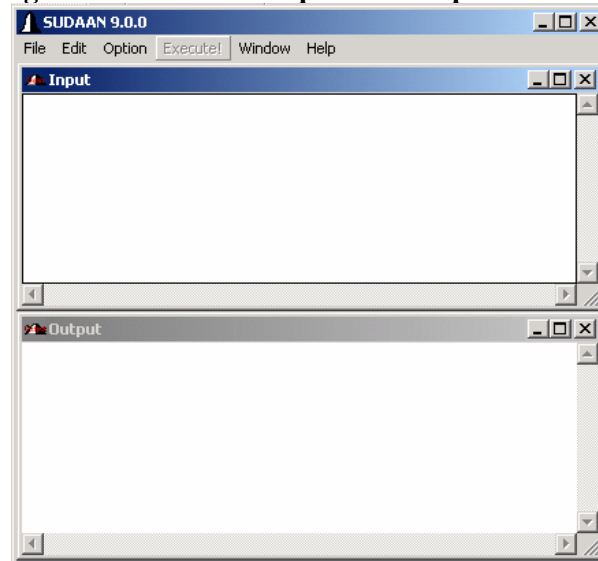
Figure 5.1: SUDAAN for Windows Icon



5.1.1 Main Menu

SUDAAN's interface (**Figure 5.2**) displays two windows: the *Input window* and the *Output window*. The Input window is a text editor in which you can create or edit SUDAAN programs; the Output window is a read-only viewer used to display the results from SUDAAN runs. You can switch from the Input window to the Output window by simply clicking in the Output window area, and vice versa.

Figure 5.2: SUDAAN Input and Output Windows



The SUDAAN interface has a single main menu bar at the top of the screen for both Input and Output windows as shown in **Figure 5.2**. From this menu, you can edit and save your SUDAAN programs, execute, display and save SUDAAN results, access font selection and data directories options, and get online help resources. These options are discussed in the next several sections.

5.1.2 File Menu Option

From the Input window, you can open an existing SUDAAN program by selecting **Open** from the **File** menu, or you can select **New** to create a new program from scratch. Note that the capacity of the Input window is 32KB under Windows '95 and '98. The capacity of the Input window under Windows NT, 2000 and XP is 2GB.

From either window you can choose **Save** or **Save as** to save the contents of the window and you can choose **Print** to print the contents of the window.

Figure 5.3 and **Figure 5.4** illustrate the **Open** and **Save** screens in SUDAAN.

Figure 5.3: File Popup Menu for Input Window

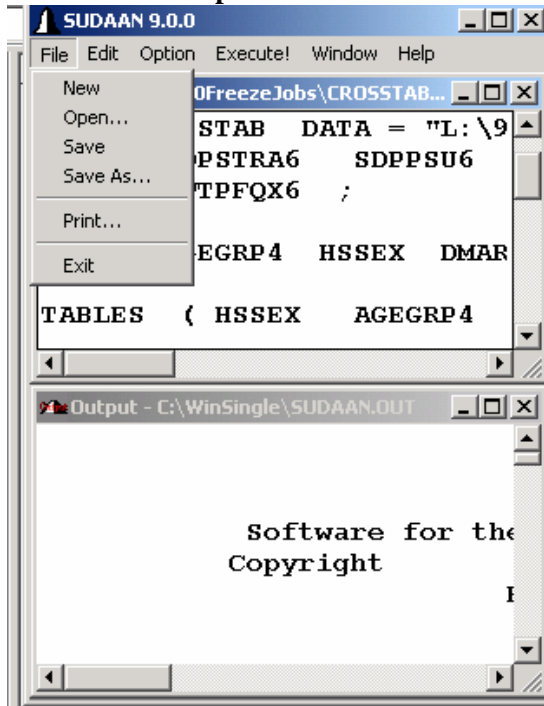
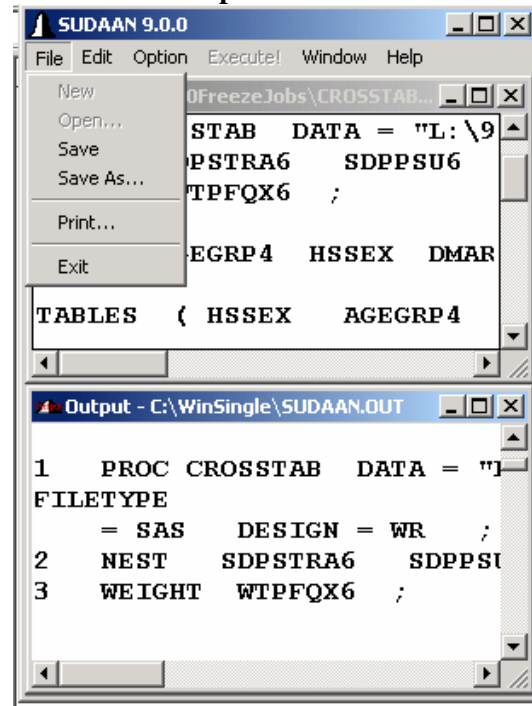


Figure 5.4: File Popup Menu for Output Window



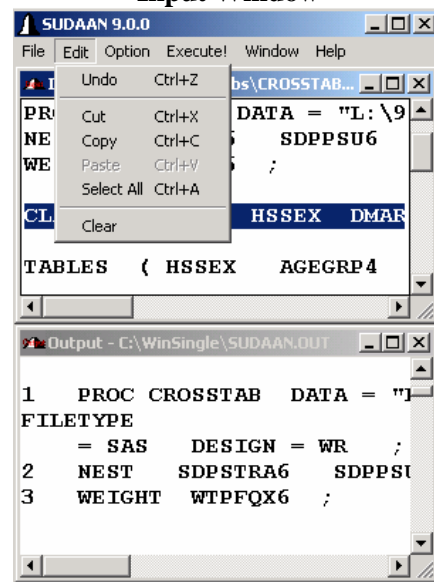
5.1.3 Edit Menu Option

The **Edit** option from the menu bar provides the standard **Undo**, **Cut**, **Copy**, **Paste** and **Select All** functions for the Input window. You can select these functions using either the mouse or the key accelerators. Selecting **Clear** from the **Edit** menu will clear everything in the Input window; anything unsaved will be lost.

The only available selection in the **Edit** Menu for the Output window is **Clear**, since it is a read-only viewer. You can save the output to a file and then edit it using another editor, for example, *NotePad*.

Figure 5.5 illustrates the **Edit** screen in SUDAAN associated with the Input window.

Figure 5.5: Edit Popup Menu from Input Window



5.1.4 Option Menu Option

Selecting **Option** from the menu bar will allow you to change the default directory and change the font for both viewing and printing. This is depicted in **Figure 5.6**.

Figure 5.6: Option Popup Menu

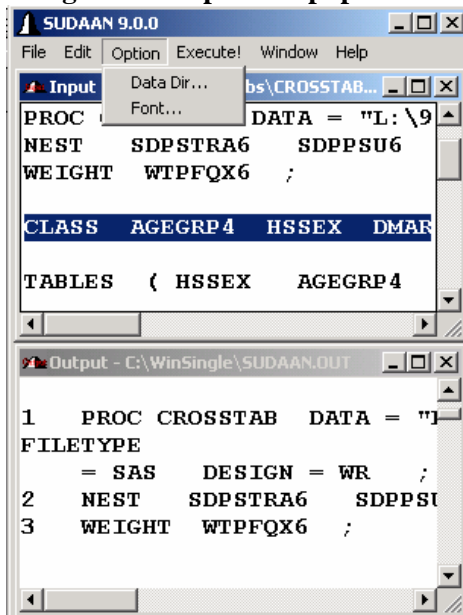
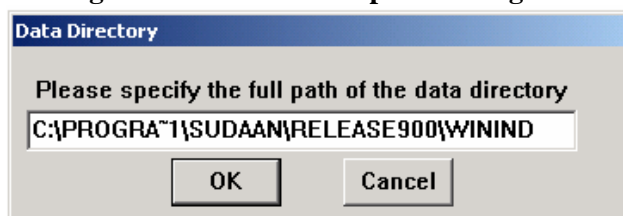


Figure 5.7: Data Dir... Option Dialog Box



You can set the Data Directory for your SUDAAN data files by selecting **DataDir...** from the **Option** menu. After selection, a dialog box will appear as depicted in **Figure 5.7**.

NOTE: If you don't specify a full path name in the *DATA=* option on the PROC statement of your SUDAAN program or the *FILENAME=* option on the PRINT and OUTPUT statements, SUDAAN will assume the data is in the directory specified in **DataDir...** on the **Option** menu. The default Data Directory is the directory where the SUDAAN program is located.

Once you set this directory, SUDAAN saves it in a SUDAAN.INI file for future use. SUDAAN will continue to use this Data Directory for both interactive and batch mode until you change it. The SUDAAN.INI file in your Windows directory has several sections. *You should not attempt to modify this file.* The sections entitled [DATA DIRECTORY] and [FILE DIRECTORY] in SUDAAN.INI are used to store the currently selected values for these directories. *DataDir=* and *FileDir=* are reserved case sensitive keywords in SUDAAN.INI which you should never change. *DataDir* is used to keep track of your Data Directory settings. You should change the Data Directory setting only by choosing the **DataDir...** option from the **Option** menu. *FileDir* is used to initialize the current working directory for SUDAAN and should never be changed.

The **Font...** option is available from both Input and Output windows. Select **Font** from the **Option** Menu to specify the font type and font size for both viewing and printing. You can select different fonts for the Input and Output windows. The Courier or Courier New font is suggested for the Output window, since it is a monospaced font.

5.1.5 Execute Command

Click **Execute!** on the menu bar or press the **F3** key, to execute the program in the Input window. The results are displayed in the Output window. Use the cursor keys to navigate within the Output window.

Please note the following:

- | If you don't clear the Output window following execution, the results from subsequent runs will be appended to it.
- | SUDAAN saves all output from the current program in the file SUDAAN.OUT in the same directory with the SUDAAN executable. In cases where no output appears in your Output window because of an error, check this file to determine the possible cause of problems.

5.1.6 Window Menu Option

The **Window** menu option (Figure 5.8) provides utilities for **Cascade**, **Tile Horizontal** and **Tile Vertical**. The active window (either Input or Output) is checked. You can switch from Input window to Output window by selecting **Output** from the **Window** menu, and vice versa.

5.1.7 Help Menu Option

Help on the menu bar links to a complete online reference for all SUDAAN features and utilities. The **Help** menu has the following options (see Figure 5.9):

- | **Contents: (F1)** links to the **Help** facility with **Contents** displayed in the left pane. SUDAAN Help is a compiled HTML (.CHM) file which can be accessed either from the **Help** menu on SUDAAN's main menu, or directly from the Windows Explorer.
- | **Search for help on..:** Links to the **Help** facility with the Keyword Search dialog displayed in the left pane.

Figure 5.8: Window Popup Menu

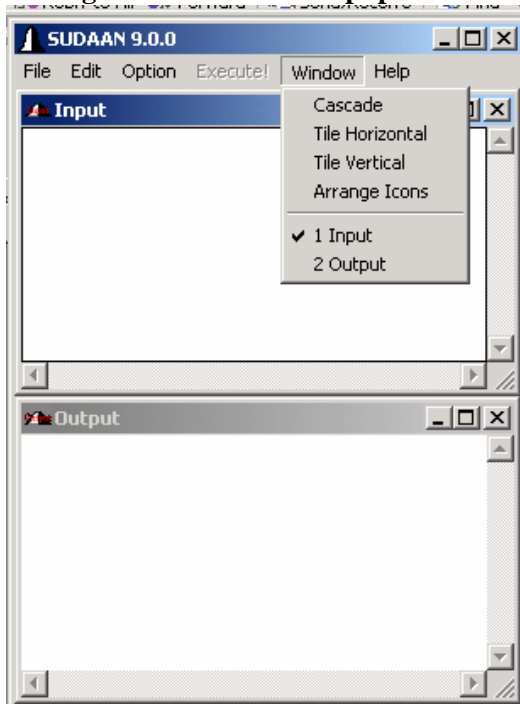
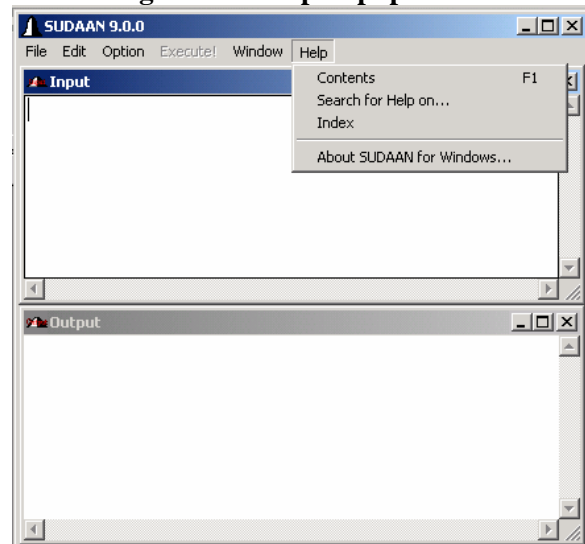


Figure 5.9: Help Popup Menu



- | **Index:** Links to the **Help** facility with the index tab displayed in the left pane.
- | **About SUDAAN For Windows:** Displays the SUDAAN release number as well as your license information.

5.1.8 The Right Mouse Button Options

Click the right mouse button in either the input or output window and then select different options using the left mouse button. The options are a subset of those on the SUDAAN main menu. See **Figure 5.10** and **Figure 5.11** for an example.

Figure 5.10: Right Mouse Menu from Input Window

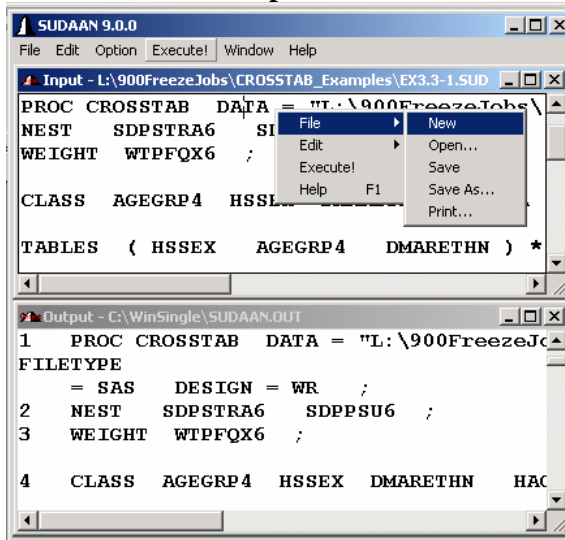
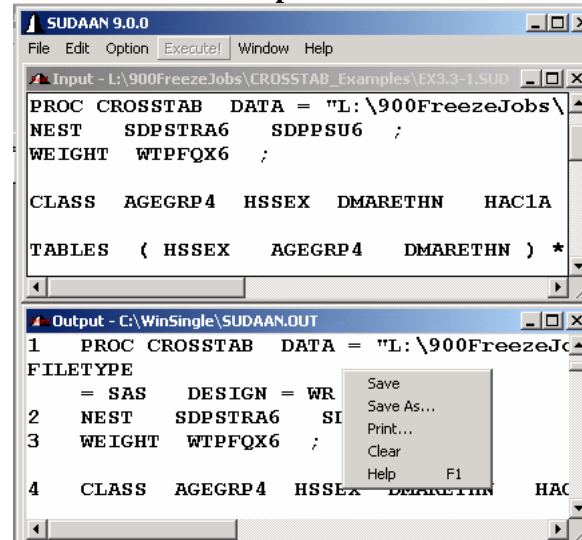


Figure 5.11: Right Mouse Menu from Output Window



5.2 How to Execute SUDAAN in Batch Mode

The complete command line syntax to run SUDAAN in batch mode is:

```
<path>WSUDAAN.EXE [infile] [outfile] [-r | -a]
```

where:

path is the complete path specification for the SUDAAN executable

infile is the complete file specification for the file containing your SUDAAN program. If this option is omitted, an interactive session of SUDAAN is launched

outfile is the name of the file where output should be directed. If this option is omitted, SUDAAN will direct output to a file with the same directory location and name as *infile*, but with extension “.OUT”. If the *outfile* already exists, and no write option is specified, SUDAAN will display a dialog box to confirm that you want to overwrite the existing file.

-r | -a is the write option. The option *r* indicates that SUDAAN should *replace* or overwrite an existing file of the same name in the same location. The option *a* indicates that SUDAAN should *append* new output to an existing file of the same name in the same location.

If you don't specify the full path name of the input data file using the DATA= option on the SUDAAN procedure statement, SUDAAN will assume the data is in the *DataDir=* variable of the [DATA DIRECTORY] section of the SUDAAN.INI file. If the data is not in the specified directory, there will be an error message in the SUDAAN output file. When the SUDAAN batch job starts to run, the following message box will appear (**Figure 5.12**) then automatically disappear when the job is completed.

Figure 5.12: SUDAAN Job is Running Message



SUDAAN can be run in batch mode using the following methods:

1. Choose **Run** from the **Start** menu in Windows and type in the desired WSUDAAN.EXE command line.
2. Select **Command Prompt** from the **Start** menu in Windows (sometimes located under **All Programs** and then **Accessories**) and type in the desired WSUDAAN.EXE command line.
3. The WSUDAAN.EXE command line can be put in a typical .BAT file and executed accordingly.

6. INSTALLATION INSTRUCTIONS FOR SAS-CALLABLE INDIVIDUAL USER VERSION

SAS-Callable SUDAAN users are permitted to install SUDAAN SAS8-Callable, SUDAAN SAS9-Callable or both versions for each licensed user. So one user may have both SUDAAN SAS8-Callable and SUDAAN SAS9-Callable on their machines at the same time and this will count as only “one user” for license purposes. SUDAAN requires users of SAS8 and SAS9 to go through separate installations only because the files needed to run SUDAAN are slightly different to accommodate differences between SAS8 and SAS9.

Note that SUDAAN SAS8-Callable will run under Windows 95 and above however SUDAAN SAS9-Callable will only run under Windows NT, 2000 and XP.

The following instructions apply to both the installation of SUDAAN for SAS8 and SAS9. Unless otherwise noted, the “#” character in these instructions should be interpreted as an “8” for SUDAAN SAS8 installations or as a “9” for SUDAAN SAS9 installations.

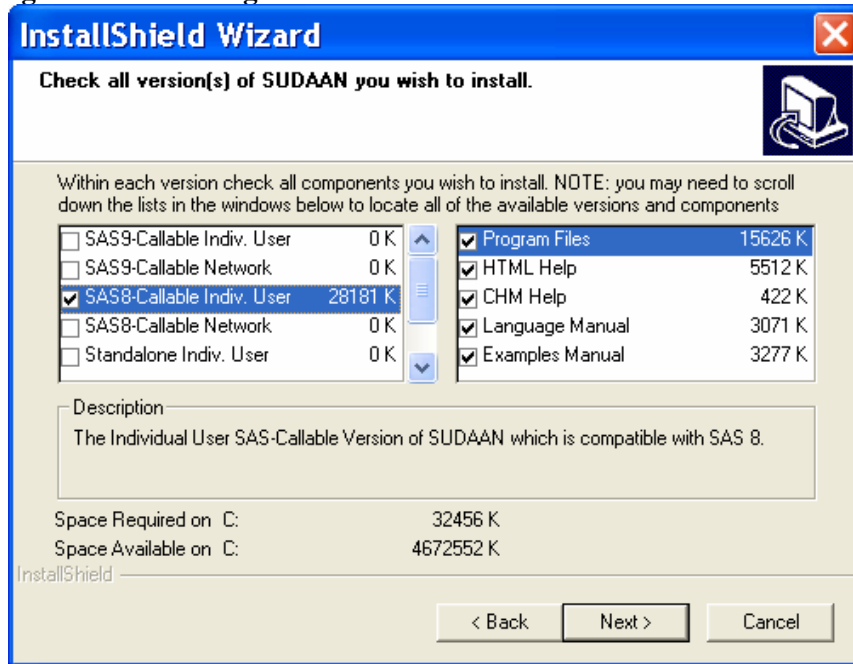
6.1 System Requirements

<u>Category</u>	<u>Requirement</u>
Computer	486 or better PC Compatible
Resources	8 MB of RAM (16 MB RAM suggested), 40 MB of hard disk
Operating System	Microsoft Windows 95 and above (for SUDAAN SAS8-Callable) Microsoft Windows NT, 2000 or XP (for SUDAAN SAS9 Callable)
Software	SAS® 8 for Windows or SAS® 9 for Windows

6.2 Software Installation

1. Select **SAS#-Callable Indiv. User** as the setup type by clicking on the check box to the left of this type in the left pane of the setup window as shown in **Figure 6.1** below. Users wishing to install SUDAAN SAS8-Callable and SUDAAN SAS9-Callable can install these versions of SUDAAN concurrently by selecting all the desired boxes in **Figure 6.1**.

Figure 6.1: Installing SAS8-Callable Individual User SUDAAN



By default, the following components will be installed. However you can deselect any of these components by clicking on the check boxes to the left of the component names which are displayed in the right pane of the setup window.

<u>Component</u>	<u>Description</u>
Program Files	Files required to execute SUDAAN procedures
HTML Help Files	SUDAAN online help, callable from SAS
CHM Help File	Compiled Help file
Language Manual	SUDAAN Language Manual in Adobe Acrobat .PDF format
Example Manual	SUDAAN Example Manual in Adobe Acrobat .PDF format

2. Confirm your selections.
3. If you are installing SUDAAN SAS9-Callable, the installation will present the question “**Are all SAS9-Callable SUDAAN users working with SAS 9.1 or above?**” A response is needed to this question because SAS Version 9.0 requires different files from SUDAAN than SAS Version 9.1 or above. This question will not be displayed during the SUDAAN setup if you are only installing SUDAAN SAS8-Callable.

4. Enter your 22-digit product key. This key is located on the attached letter that was sent to you with this CD. Make sure the product key is for the SAS-Callable, Individual User version of SUDAAN.

IMPORTANT: Be sure to save this product key, since you will need it again whenever you have to reinstall the software, for example on a new computer. You will also need this product key for renewing an annual license to SUDAAN.

5. Supply the directory location of your default SAS configuration file (SASV8.CFG or SASV9.CFG). Setup will display the correct path for you if SAS is installed in the default locations. If you are not sure where the SASV# .CFG are, or you want to override the default location, you can use the Browse

option provided by SETUP, or you can choose **F**ind from the Start menu, and search for the file in the Windows Explorer. If SETUP locates the file, it creates a backup copy, named SASV#.BK0 before making changes in the SASV#.CFG file. SETUP makes the following changes to the file:

- If you have specified installation of HTML Help files, then SETUP inserts the following line at the beginning of the SASV#.CFG file. By default:

```
-HELPPREGISTER 'SUDAAN Help' 'C:\Program Files\SUDAAN\Release90x\HELP\sudaan.htm'
```

- SETUP inserts a line within the -PATH command at the end of the SASV#.CFG file pointing to the location of your SUDAAN program files. By default:

```
'C:\Program Files\SUDAAN\Release90x\SAS#Ind'
```

If the default SASV#.CFG contains only a -CONFIG command pointing to a complete SASV#.CFG file in another location, the install will update the second SASV#.CFG file.

IMPORTANT: SAS will not be able to find your SUDAAN .DLL and HTML Help files without these changes to your SASV#.CFG. If you have multiple SASV#.CFG files on your computer (both local and network drives), check to make sure that you have specified the **default** SAS configuration file within SETUP and that you manually update the remaining SASV#.CFG files you will be using with SUDAAN.

Following a default installation, the following subdirectories and files should be present (by default under C:\Program Files, or in the installation directory you have specified during setup)

- **SUDAAN\Release90x**
This subdirectory will contain SUDAAN's license renewal software and README.1ST files.
- **SUDAAN\Release90x\SAS#Ind**
This subdirectory will contain all program and other required files.
- **SUDAAN\Release90x\Help**
This subdirectory will be present if you specify installation of either HTML or CHM Help during the installation process. Note that if you specify installation of CHM Help, then SETUP will create a shortcut to it in the SUDAAN folder on the Start Programs Menu.
- **SUDAAN\Release90x\Manual**
This subdirectory will be present if you specify installation of the SUDAAN Language Manual or the SUDAAN Example Manual. Note that SETUP will create shortcuts to these documents in the SUDAAN folder on the Start Programs Menu.

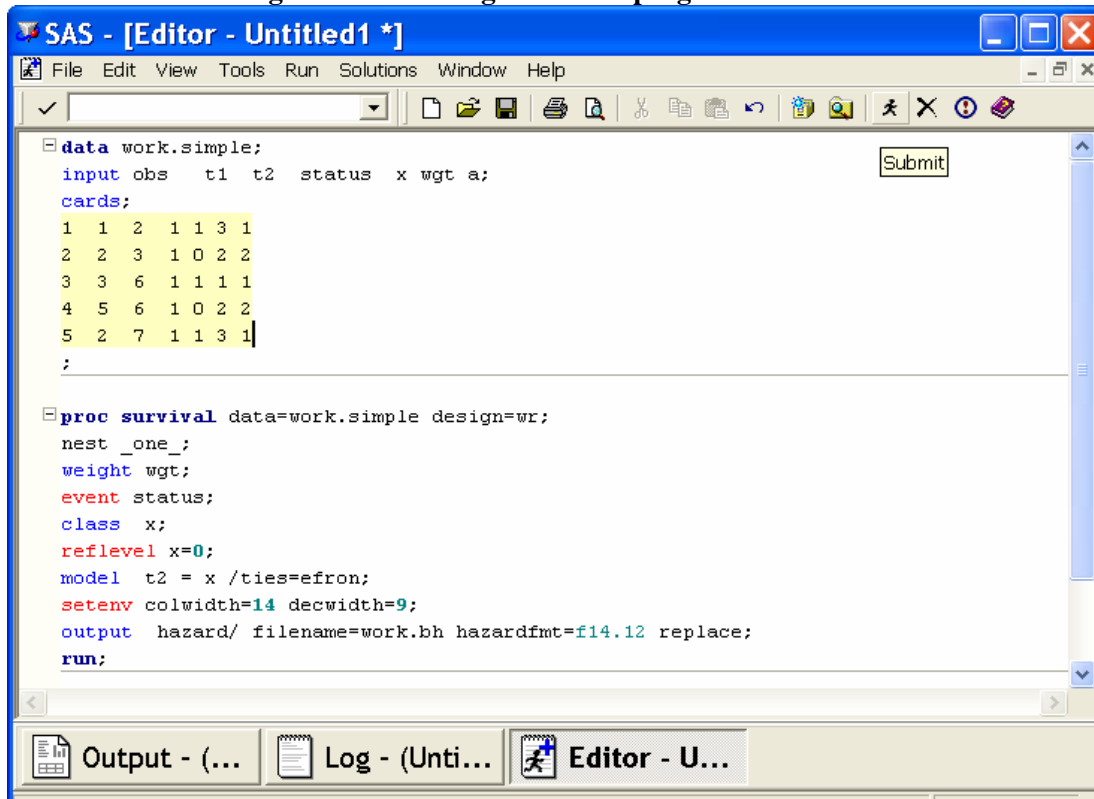
The SETUP program will install a SUDAAN folder on the Start Programs menu with shortcuts to the SUDAAN website, SUDAAN Language and Example Manuals, SUDAAN Help, and the SUDRENEWAL program.

IMPORTANT: The SETUP program copies MSVCRT.DLL to your Windows System directory if it is not currently present. *SUDAAN will not run properly without this DLL file.*

6.3 Running SUDAAN

You can run SUDAAN jobs in either SAS's interactive mode or in batch mode. You should execute SUDAAN procedures just like any other SAS procedures in either mode. **NOTE: Some SUDAAN syntax has been changed for this SAS-Callable version.** Please refer to the [SUDAAN Language Manual](#) for details. See the SAS User's Manual for information on how to run SAS jobs. The example illustrated in **Figure 6.2** shows how to run the SURVIVAL procedure in interactive SAS.

Figure 6.2: Running SUDAAN programs in SAS 8



7. INSTALLATION INSTRUCTIONS FOR SAS-CALLABLE NETWORK

All SAS-Callable, LAN versions of SUDAAN should be installed using a two-step process:

1. Install the Administrator version of SUDAAN SAS8-Callable and/or SUDAAN SAS9-Callable from the CD as described in **Section 7.2**.
2. Each user wishing to use SUDAAN on the LAN must complete the LAN User Version installation as described in **Section 7.3**. All files needed for the LAN User Version installation will be installed during the LAN Administrator Version installation.

IMPORTANT: As indicated in the SUDAAN license agreement, the maximum number of simultaneous users who access SUDAAN on the network should not exceed the total number of users associated with your SUDAAN LAN license.

SAS-Callable SUDAAN users are permitted to install SUDAAN SAS8-Callable, SUDAAN SAS9-Callable or both versions for each licensed user. So one user may have both SUDAAN SAS8-Callable and SUDAAN SAS9-Callable on their machines at the same time and this will count as only “one user” for license purposes. SUDAAN requires both the LAN administrator and the SUDAAN user(s) of SAS8 and SAS9 to go through separate installations only because the files needed to run SUDAAN are slightly different to accommodate differences between SAS8 and SAS9.

Note that SUDAAN SAS8-Callable will run under Windows 95 and above however SUDAAN SAS9-Callable will only run under Windows NT, 2000 and XP.

The following instructions apply to both the installation SUDAAN for SAS8 and SAS9. Unless otherwise noted, the “#” character in these instructions should be interpreted as an “8” for SUDAAN SAS8 installations or as a “9” for SUDAAN SAS9 installations.

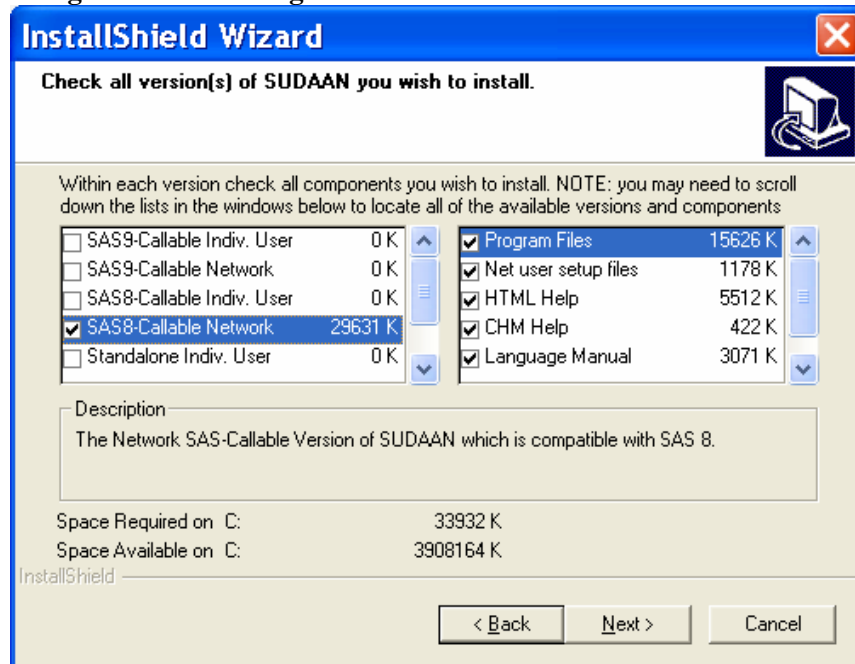
7.1 System Requirements

<u>Category</u>	<u>Requirement</u>
Computer	486 or better PC Compatible
Resources	8 MB of RAM (16 MB RAM suggested), 40 MB of hard disk
Operating System	Microsoft Windows 95 and above (for SUDAAN SAS8-Callable) Microsoft Windows NT, 2000 or XP (for SUDAAN SAS9 Callable)
Software	SAS® 8 for Windows or SAS® 9 for Windows

7.2 Software Installation–LAN Administrator

1. Select **SAS#-Callable Network** as the setup type by clicking on the check box to the left of this type in the left pane of the setup window as shown in **Figure 7.1** below. Administrators wishing to install SUDAAN SAS8-Callable and SUDAAN SAS9-Callable can install these versions of SUDAAN concurrently by selecting all the desired boxes in **Figure 7.1**.

Figure 7.1: Installing SAS8-Callable Network SUDAAN



By default, the following components will be installed. However you can deselect any of these components by clicking on the check boxes to the left of the component names which are displayed in the right pane of the setup window.

<u>Component</u>	<u>Description</u>
Program Files	Files required to execute SUDAAN procedures
HTML Help Files	SUDAAN online help, callable from SAS
CHM Help File	Compiled Help file
NetUser Setup Files	SETUP . EXE and other files for network user install. (See Section 7.3)
Language Manual	SUDAAN Language Manual in Adobe Acrobat .PDF format
Example Manual	SUDAAN Example Manual in Adobe Acrobat .PDF format

2. Confirm your selections.
3. If you are installing SUDAAN SAS9-Callable, the installation will present the question “**Are all SAS9-Callable SUDAAN users working with SAS 9.1 or above?**” A response is needed to this question because SAS Version 9.0 requires different files from SUDAAN than SAS Version 9.1 or above. This question will not be displayed during the SUDAAN setup if you are only installing SUDAAN SAS8-Callable.
4. Enter your 22-digit product key. This key is located on the attached letter that was sent to you with this CD. Make sure the product key is for the SAS-Callable Network version of SUDAAN.

IMPORTANT: Be sure to save this product key, since you will need it again whenever you have to reinstall the software, for example on a new computer. You will also need this product key for renewing an annual license to SUDAAN.

5. Supply the directory location of your default SAS configuration file (SASV#.CFG). Setup will display the correct path for you if SAS is installed in the default location. If you are not sure where

the file is, or you want to override the default location, you can use the Browse option provided by SETUP, or you can choose **F**ind from the Start menu, and search for the file in the Windows Explorer. If SETUP locates the file, it creates a backup copy, named SASV# .BK0 before making changes in the SASV# .CFG file. SETUP makes the following changes to the file:

- If you have specified installation of HTML Help files, then SETUP inserts the following line at the beginning of the SASV# .CFG file. By default:

```
-HELPPREGISTER 'SUDAAN Help' 'C:\Program Files\SUDAAN\Release90x\HELP\sudaan.htm'
```

- SETUP inserts a line within the –PATH command at the end of the SASV# .CFG file pointing to the location of your SUDAAN program files. By default:

```
'C:\Program Files\SUDAAN\Release90x\SAS#Net'
```

If the default SASV#.CFG contains only a –CONFIG command pointing to a complete SASV#.CFG file in another location, the install will update the second SASV#.CFG file.

IMPORTANT: SAS will not be able to find your SUDAAN .DLL and HTML Help files without these changes to your SASV# .CFG. If you have multiple SASV# .CFG files on your computer (both local and network drives), check to make sure that you have specified the **default** SAS configuration file within SETUP and that you manually update the remaining SASV# .CFG files you will be using with SUDAAN.

Following a default installation, the following subdirectories and files should be present (by default under C:\Program Files, or in the installation directory you have specified during setup)

- **SUDAAN\Release90x**
This subdirectory will contain SUDAAN's license renewal software and README.1ST files.
- **SUDAAN\Release90x\SAS#Net**
This subdirectory will contain all program and other required files.
- **SUDAAN\Release90x\SAS#Net\NetUser**
This subdirectory will contain the SETUP for all network users.
- **SUDAAN\Release90x\Help**
This subdirectory will be present if you specify installation of either HTML or CHM Help during the installation process. Note that if you specify installation of CHM Help, then SETUP will create a shortcut to it in the SUDAAN folder on the Start Programs Menu.
- **SUDAAN\Release90x\Manual**
This subdirectory will be present if you specify installation of the SUDAAN Language Manual or the SUDAAN Example Manual. Note that SETUP will create shortcuts to these documents in the SUDAAN folder on the Start Programs Menu.

The SETUP program will install a SUDAAN folder on the **Start Programs** menu with shortcuts to the SUDAAN website, SUDAAN Language and Example Manuals, SUDAAN Help, and the SUDRENEWAL program.

IMPORTANT: The SETUP program copies MSVCRT.DLL to your Windows System directory if it is not currently present. *SUDAAN will not run properly without this DLL file.*

7.3 Software Installation—LAN User

The SETUP . EXE program in the NetUser subdirectory of the SUDAAN\Release90x\SAS#Net network directory is a program that will automatically setup SUDAAN for each user. This program should be run by each user. After SETUP has been run for each user, verify that the following steps have completed successfully.

1. The MSVCRT . DLL file

MSVCRT . DLL is required in the Windows System directory. SUDAAN will not work without this file. A copy of MSVCRT . DLL is supplied in the directory SUDAAN\Release90x\SAS#Net. Verify that a copy of this file is in the user's Windows System directory.

2. The SASV# . CFG file

In order to use the SUDAAN interactive help system, the following line must appear at the beginning of the default SASV# . CFG file. (for example):

```
-HELPREGISTER 'SUDAAN Help' 'M:\SUDAAN\Release90x\Help\SUDAANHelp.HTML'
```

where in this example the directory where SUDAAN files are located is

M:\SUDAAN\Release90x. If your network administrator has installed the HTML help files, then verify the presence of this line.

Also verify that the network path to SUDAAN is inserted into the -PATH command in the default SASV# . CFG file. This tells SAS where to find SUDAAN procedures. For example, if SUDAAN is installed at M:\SUDAAN\Release90x\SAS#Net, then the following line should be present:

```
M:\SUDAAN\Release90x\SAS#Net
```

in the -PATH command. This command is usually located at the end of the SASV# . CFG file.

Note: If the default SASV# . CFG contains only a -CONFIG command pointing to a complete SASV# . CFG file in another location, the install will update the second SASV# . CFG file.

If a user changes their network drive letter associated with SUDAAN, or if the directory where SUDAAN is located changes, then the user will need to make the corresponding changes in their SASV# . CFG file.

7.4 Running SUDAAN

SUDAAN jobs can be run in either SAS's interactive mode or in batch mode. One should execute SUDAAN procedures just like any other SAS procedures in either mode. **NOTE: Some SUDAAN syntax has been changed for this SAS-Callable version.** Please refer to the [SUDAAN Language Manual](#) for details. See the SAS User's Manual for information on how to run SAS jobs. The example illustrated in **Figure 7.2** shows how to run the SURVIVAL procedure in interactive SAS.

Figure 7.2: Running SUDAAN programs in SAS 8

