

# LINK Manager



**Instruction  
Manual  
RG352201**



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# *LINK* Manager

## Instruction Manual

For use with *LINK* Manager Ver. 4.X

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# Safety Information



PLEASE READ THIS INFORMATION BEFORE INSTALLING THE SOFTWARE.

Only qualified personnel should carry out installation, operation and maintenance of the software. A qualified person is someone who is technically competent and familiar with the installation process, operation and maintenance of this software.

Procedures in this manual may contain Warnings and Notes. A Warning gives the reader the information, which, if disregarded, could cause injury or death. A Note furnishes additional information for added emphasis or clarity.

The customer is responsible for assessing his or her ability to carry out the procedures in this manual. Make sure you understand a procedure or the precautions necessary to carry it out safely before beginning. If you are unsure of your ability to perform a function, or have questions about the procedures listed in the manual, contact SSD Drives, Inc. customer service at (704) 588-3246.

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## WARNING!

This software is a powerful tool designed to manage the database and projects used by software tools in *LINK* control systems. The user assumes all liability and risk for the performance, application, reliability, and safety of systems implemented using this tool. It is the user's responsibility to understand thoroughly and to check independently all configurations before commissioning any *LINK* equipment. SSD Drives, Inc. accepts no liability for the application of the software.

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## Contents

<b>Chapter 1</b>	<b>Introduction</b>	<b>1</b>
	What is Manager?.....	1
	Basic <i>LINK</i> concepts.....	1
	The Hub / user relationship.....	1
	Minimum System Requirements.....	2
	Noise.....	3
<b>Chapter 2</b>	<b>Handling</b>	<b>5</b>
	Unpacking instructions.....	5
	Special handling.....	5
<b>Chapter 3</b>	<b>Installation &amp; Setup</b>	<b>7</b>
	Installation procedure.....	7
	Starting the program.....	8
	Setting up manager.....	8
	Setting up a modem.....	9
	High Speed Modems.....	11
	Partial List of Supported Modems and <i>Initialization</i> Strings.....	12
<b>Chapter 4</b>	<b>Project Management</b>	<b>13</b>
	Introduction.....	13
	Project utilities.....	13
	Deleting Projects.....	13
	Exporting projects.....	15
	Export to a File.....	15
	Export to an Archive.....	17
	Project Import.....	18
	Import a File.....	18
	Import an Archive.....	20
	Error messages.....	20
<b>Chapter 5</b>	<b>Database Management</b>	<b>21</b>
	Introduction.....	21

## Contents (cont.)

	Exporting the Database .....	21
	Database Import.....	23
	Database Transfer errors.....	25
<b>Chapter 6</b>	<b>Calling the SSD Drives Hub</b>	<b>27</b>
	Introduction.....	27
	Uploading/Downloading Projects .....	27
	Updating LINK Software / Database .....	27
	Logging into the hub.....	27
	Using the project selection window.....	29
	Downloading a Project.....	29
	Uploading a Project.....	30
	Updating the program / database.....	32
	Error Messages .....	33
	Error messages on the user Account.....	33
	Error messages for the Projects.....	34
<b>Chapter 7</b>	<b>Troubleshooting</b>	<b>35</b>
	Error Dialogs .....	35
<b>Chapter 8</b>	<b>Appendix</b>	<b>37</b>
	Menu Reference .....	37
	File Menu.....	37
	Edit Menu.....	37
	Settings Menu .....	37
	Accounts Menu.....	38
	Project Menu.....	38
	Database Menu.....	38
	Font Menu .....	38
	Style Menu.....	38
	Help Menu .....	38



## Chapter 1 Introduction

### WHAT IS MANAGER?

Manager is a software tool designed to import / export projects, import / export databases, and ensure that the database elements used by customers in *LINK* modules are current and match those in a master database, or Hub, maintained at SSD Drives.

The maintenance of this data exchange system is critical to the long-term support of the projects and databases used by customers in the field:

- SSD Drives regularly provides new and updated function blocks, modules, and *LINK* tools to customers. Without Manager, customers would not be able to integrate those new and updated materials into their systems;
- For backup security, copies of all projects may be kept at both a user's home office and at a Hub;
- If a user database is not kept current, field service personnel may be unable to access a customer's system with DSD (or ConfigEd) and analyze problems;
- Users would have no way to move and use projects on systems in different locations.

Typically, SSD Drives maintain one main production Hub for creation and modification of *LINK* materials and several user databases for customers or service personnel. As projects move through the engineering, testing, commissioning, and servicing stages, there must be controlled data exchange among the different databases. Manager provides this data exchange while ensuring that only the owner (or designated guest) of an item may modify it.

Manager works with both Drive System Designer (DSD) and Configuration Editor (ConfigEd) software. These tools are used to design, install and maintain configurations for *LINK* modules. For the rest of this manual, only DSD will be mentioned.

### BASIC *LINK* CONCEPTS

Before using Manager, you must be familiar with the *LINK* fiber optic network. The *LINK* network connects all *LINK* compatible drives and modules via high speed fiber optic cabling, and eliminates the signal and control wiring of a conventional system.

All modules in a *LINK* network (except repeaters) are configurable and can perform a wide variety of control and processing functions. DSD software is used to program, modify, monitor and install configurations into the modules in a *LINK* network. Manager software is used to update the DSD program files and the database used in customer configurations from those in the master database at SSD Drives. For additional information on DSD, consult the manuals included with those programs. For additional information on the *LINK* network, review the *LINK* Overview manual (Part Number HA350678).

### THE HUB / USER RELATIONSHIP

SSD Drives maintains the Root Hub for upgrading, creating and distributing new database elements and configurations in two locations; Charlotte, North Carolina, USA, and Little Hampton, UK. These Hubs are independent of each other and are maintained separately. If the manager software is purchased from the Charlotte, NC location, the user can only call the Charlotte Hub and the same holds true for software purchased from Little Hampton. The user should keep this in mind when they are planning to purchase the software.

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**Note**

After the software is purchased, it cannot be changed to call the other hub. Users will call that hub and keep their programs and databases up to date.

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An important part of the Hub/User relationship is the concept of project ownership. When DSD creates a project, that program owns the project and has write access to it. That access is represented by a *write token* (simply referred to as the *token*) that allows read/write access to the project. The *token* is actually a bit in the project that is turned on or off. If a project is imported or exported in read/write mode, the *token* travels with it to the new destination and confers the right to modify it.

*Token* protection removes the chance that multiple copies of the project are modified in parallel, which leads to conflicting configuration revisions, overwritten files, and lost work. Project ownership is intended to ensure that one copy of the project exists somewhere in a permanent storage from which it cannot be deleted. Transferal of project ownership only occurs when the creating user program calls into one of the root hubs and transfers the *token* to the Hub, thereby registering the project with the Hub and transferring ownership of the project to the hub. After the *token* and ownership of a project has been transferred to the hub, the project can then be deleted from the creators program.

Databases are periodically updated to take advantage of new and revised elements (including function blocks, configurations and programs). This updating may be accomplished by:

- Using the Manager software to call the appropriate Hub using a modem.
- Importing the database from files exported from another Manager program, via floppy disks or email.
- Downloading the database files from the SSD Drives website, [www.SSDdrives.com](http://www.SSDdrives.com).

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**Note**

SSD Drives Inc., recommends upgrading the database using the appropriate Hub. It will not only upgrade your database, but also will upgrade the software tools and check the directory structure for missing elements.

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## MINIMUM SYSTEM REQUIREMENTS

Since Manager is Designed to work alongside DSD, it has the same computer requirements:

- 386 Processor or better (486 or better recommended)
- Microsoft Windows 3.11, 95, 98, NT, XP, 2000 or later
- 4 MB RAM
- 10 MB hard drive space required.
- Mouse, trackball, or similar Windows pointing device.
- Standard RS232 Serial port with 9 pin male connector. (Special adapters for USB serial ports are available from SSD Drives.)
- Local Printer configured

### Optional Equipment

- Internal or External modem 28.8baud or higher (used for calling hubs)

## NOISE

Ground noise may disturb serial communications. It is created by ground loops caused when both the computer and the *LINK* hardware are grounded. Manager has a built-in retry routine to deal with occasional electrical noise. Continuous noise, however, will cause extremely slow communications between the computer and the drive.

In systems with large amounts of electrical noise (for example, systems containing AC drives) it may be necessary to break the ground loop to achieve usable communications. The ground loop can be broken by:

- Using a battery-powered notebook computer rather than a plug-in model since most notebook computers are not grounded.
- Installing an RS232 isolator module between the computer and the P3 socket or RTNX port.
- Wrapping the UDP cable through ferrite rings on both ends of the cable.

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### WARNING!

Do not use any connectors, adapters, and/or cables other than those supplied by SSD Drives. Failure to use materials supplied by SSD Drives can result in severe damage to equipment and injury to personnel and will void the SSD Drives warranty.

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## Chapter 2 Handling

### UNPACKING INSTRUCTIONS

Before you install and use Manager, verify the completeness of your package. Since Manager is always packaged with either DSD or ConfigED, refer to the packing list included with those products.

If any item is missing, contact SSD Drives Customer Service at 704-588-3246.

### SPECIAL HANDLING

Proper care must be shown in the handling of the materials used for the program. The installation disks should be kept in a clean, dry environment within a relatively constant range of temperature and humidity. Keep the program disks far from any sources of extreme heat, magnetism and electrical fields, including permanent magnet motors, as the magnetic or electrical fields may erase the information on the disk.

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## Chapter 3 Installation & Setup

### INSTALLATION PROCEDURE

Manager is packaged with DSD and cannot be loaded separately, so please refer to the product manual for installation.

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#### Note

The installation program must be used to load Manager, DSD or ConfigED onto the harddrive. The files are compressed on the CD-ROM and the installation program extracts them and organizes them properly on the harddrive. Failure to use the installation program will lead to a failure of the programs to load or run.

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It is absolutely vital for every SSD LINK program to have its own unique identity. Duplicating the programs and then using both the original and the copy will violate this requirement and put both the original and the copy at risk of data loss and corruption.

Manager attempts to enforce this restriction by allowing a “new” installation disk set to be used only once in that capacity. During the installation procedure, the disks are automatically converted to “update” disks, which cannot be used again to install a new copy of the program.

Do not attempt to circumvent this protection by initially duplicating the installation disk for other than archival purposes. If you need extra copies of the program, please contact your supplier.

SSD Drives recommends users follow proper backup procedures to safeguard their SSD *LINK* programs and databases. The program and database must be backed up and restored as a complete unit. Relational data vital to the proper operation of the programs is stored among the many files in the database. This data is put at risk of damage or loss if only part of the program and database is backed up and restored.

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#### Note

It is important that the structure of the `ssd_link` directory created during installation is maintained; the programs look for files in specific places and will not work if those files or directories have been relocated or renamed. Follow the installation instructions carefully, and never move any of the files, directories, or applications from their original locations.

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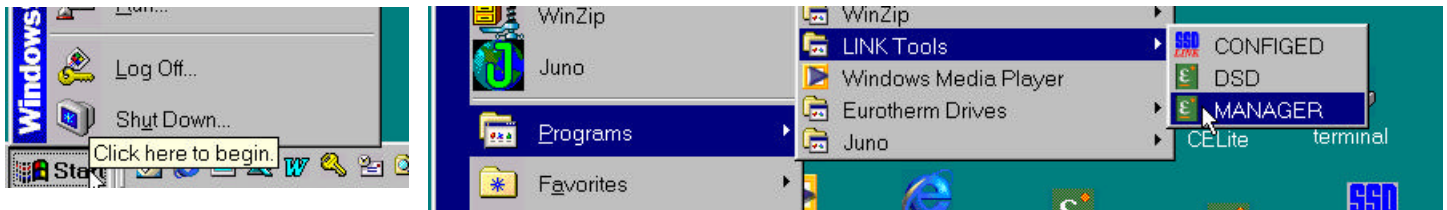
#### IMPORTANT

Before launching the program, make sure a local printer has been configured and is set to default. Any printer will work as the local printer; it does not have to be connected just configured. Network printers are OK, but if the only printer configured is a network printer and the computer is not connected to the network the program will not work properly.

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### STARTING THE PROGRAM

Start the program by clicking on the Start button, Programs, LINK Tools, and then Manager .

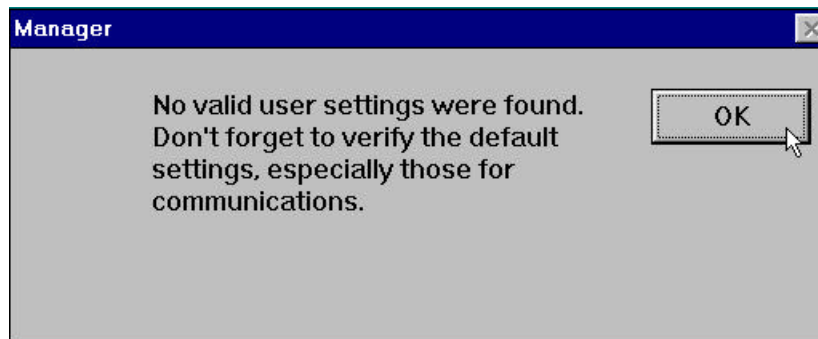


### SETTING UP MANAGER

After the program has started to launch the following window will appear. Enter a user name (between 5 and 39 characters) and then click OK. This window will only appear the first time the program is launched.



The next window is just a warning to let you know that the Manager program settings will have to be entered. Click on OK to continue.



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#### Note

This window will also appear if the Manager configuration file has been deleted or reloaded from the original program disks.

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The next window to appear is the Manager Scratchpad; it will display the current date, time, database ID and user name.





The scratchpad keeps a running log of your program’s activity. The scratchpad window cannot be closed, but it may be moved and resized by dragging the sides or corners with the mouse. The font displayed in the scratchpad may be changed by selecting other fonts, sizes or styles from the Font and Style menus.

When the program is closed all the information in the scratchpad is stored to a file on the harddrive. Using a text editor you can view or print this file, which is located under `SSD_LINK:Tools:Win 3` and named `Manager.tex`. If this file is renamed or deleted, when the program is started, it will recreate the file.

## SETTING UP A MODEM

SSD Drives, Inc. supports V.32bis on its Manager Hub, although the modem will scale down to as low as a standard 2400 baud V.22bis connection if the calling modem requires it. For performance reasons, we strongly recommend using as fast a modem as possible within the constraints of the port speed of the host computer.

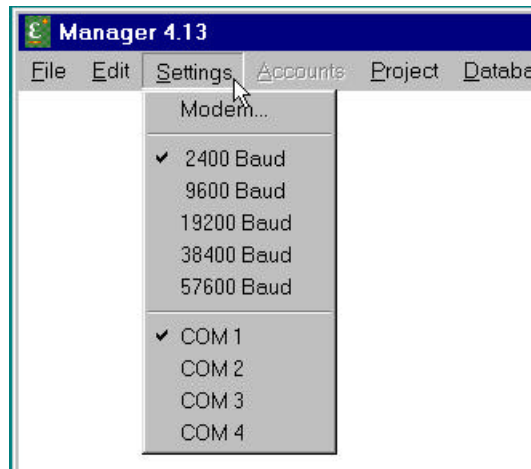
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### NOTE

Manager requires use of a modem cable that supports hardware handshaking when using an external modem, regardless of the speed of the modem or the baud rate selected.

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To configure your computer and modem, go to the Settings menu.



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### Note

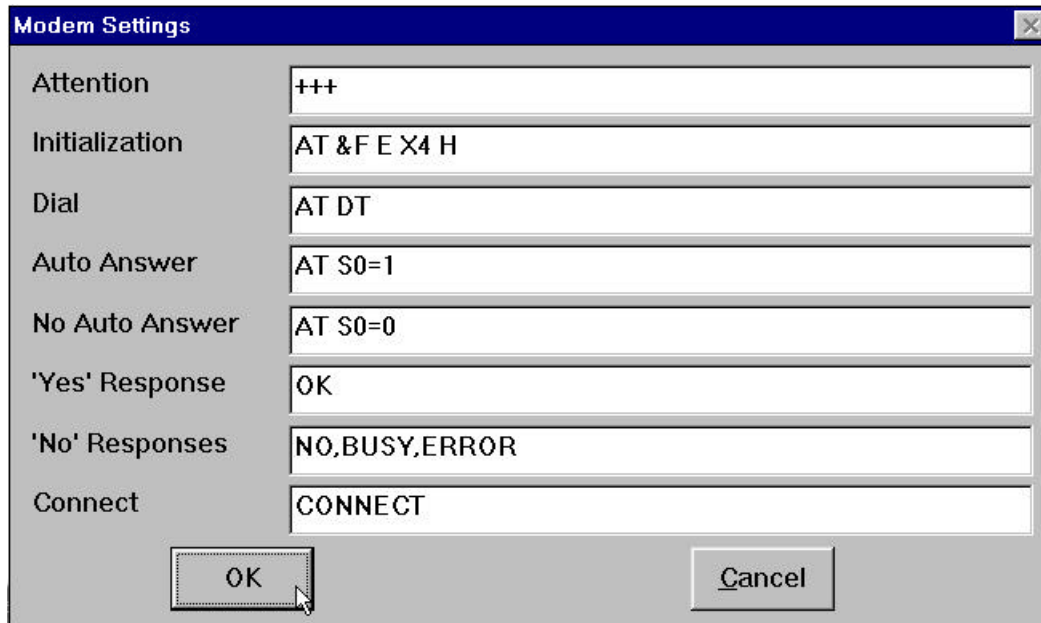
Everything entered or selected in the Modem Settings menu is saved and automatically restored on subsequent executions. Unless you receive a dialog indicating `No user settings were found...` or something in your setup changes, you should have no need to re-enter the information on this menu.

---

- 1) Select the port to which your modem is connected (COM 1, COM 2, etc.).
- 2) Select the baud rate for your modem communications. To maximize your modem’s high-speed and data compression capabilities go to the Settings menu and choose a baud rate that exceeds the stated rate of the modem. For example, for a 14400 baud modem, specifying a port speed of 19200 will allow the data compression feature to increase throughput. If Manager reports comms errors while trying to use the modem, try selecting a lower baud rate; many PCs cannot support sustained data transfer at high speeds without dropping characters. Refer to *Section 4.5 Modem Connection* for additional information on comms errors.

If you are using a bus modem - one mounted on a card inside the computer rather than connected to a serial port - set the rate at 57600, the highest level Manager allows. A bus modem automatically operates at its highest speed (up to the level selected in the *Settings* menu) since it doesn't have to rely on serial connections.

- 3) Select Modem... to bring up an input window for modem initialization commands. You will be presented with a series of input lines in which to specify the commands your modem is to follow when establishing communications.



Manager initializes most of the fields in the *Modem Settings* dialog automatically. Blank spaces and punctuation characters are ignored by the modem. The strings perform the following functions:

String	Default	Meaning
Attention	+++	Forces modem to enter command mode
Initialization	AT &F E X4 H	Factory settings, no command echo, basic result codes and connect message indicating modem data rate.
Dial	AT DT	Commands modem to tone-dial phone number
Auto Answer	AT S0=1	Sets modem to answer line on 1 ring
No Auto Answer	AT S0=0	Sets modem to not answer
'Yes' Response	OK	How the modem responds in the affirmative
'no' Responses	NO ,BUSY	How the modem responds in the negative
Connect	CONNECT	How the modem indicates a connection was made

- 4) For nearly all modems supporting the Hayes AT command set, the only changes required to these defaults will be to the *Dial* and *Initialization* strings. For Hayes-compatible modems, the *Initialization* sequence must remain as in the default through the letter H. For other modems refer to the partial list of supported modems later in this section.

If you will be using a non-AT command modem, refer to your modem instruction manual for any specific commands required by your equipment. For non-AT high speed modems, refer also to the next section for Initialization string requirements beyond the defaults given above. If you are unsure of the correct settings, leave the default values in place and attempt a connection.

Modem Settings	
Attention	+++
Initialization	AT &F E X4 H
Dial	AT DT

- 5) To connect to the SSD Drives hub, using the File Client mode, the one value you *must* enter is the telephone number of the Hub you will be calling. The numbers for the SSD Drives are as follows:
- Charlotte, North Carolina, U.S.A. is 704-588-8713
  - Little Hampton, UK is 44-1903734113

For dialing, simply append the phone number to the AT DT Dial string. Enter the correct phone number after the AT DT string.

Modem Settings	
Attention	+++
Initialization	AT &F E X4 H W2 &U8 &N13
Dial	AT DT 9, 1-704-588-8713

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#### Note

The T after the D, in this string refers to tone dialing: omit it if you are using a pulse-only phone line.

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- 6) Once all modem initialization commands are satisfactory, click on the OK button.

For standard 2400 baud modems, the default Initialization string is sufficient for initialization; for high speed modems, see the following section.

### High Speed Modems

To use modems faster than 2400 baud, the following features must be added to the Initialization string.

- Hardware handshaking;
- Auto-sensing of your modem's error-control and data compression modes (with preference given to the highest speed mode);
- Serial port speed must be allowed to exceed the data rate;
- Connect messages indicate the modem-to-modem data rate, *not* the local modem-to-computer serial port speed.

---

**Note**

Many of these features are the &F defaults and do not need to be explicitly specified. Check the modem's documentation to verify either that the required feature is the default or to identify the command that must be added to the `Initialization` string.

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**Partial List of Supported Modems and *Initialization* Strings**

These strings have been modified beyond the items specified above to make using each modem more pleasant (specifically, the L command entered below reduces the speaker volume).

<b>Modem</b>	<b>String</b>
AT&T DataPort (external)	AT &F E X4 H L1 \D0 \T1
AT&T DataPort (PCMCIA)	AT &F E X4 H L1 \N7 \T1 \D1
Hayes-compatible 2400	AT &F E X4 H (Manager default setting)
Hayes Optima 9600	AT &F E X4 H (Manager default setting)
Intel (PCMCIA)	AT &F E X4 H W2 N0 F10
Megahertz	AT &F E X4 H W2
Supramodem 2400	AT &F E X4 H (Manager default setting)
Supra V.42bis	AT &F1 E X4 H L M1
US Robotics Sportster 14.4	AT &F E X4 H &H1 &B1 &M5 &R2 &S1
US Robotics Sportster (internal)	AT &F1 E0 H L0
3 Com Sportster V90 – 56kb	AT &F E0 H L0 &U6 &N23
3 Com Megahertz – 56kb	AT &F E X4 H &U8 &N13
Compac Persario V90– 56kb	AT &F E X4 H &C1 &D2

# Chapter 4 Project Management

## INTRODUCTION

Manager may be used to delete projects from a local database, import new or revised projects, and export projects to a file. The following is accessible through the `Project` menu:

- Delete copies of unwanted or outdated projects created on another computer but residing on the local computer;
- Export projects residing on the local computer to a file;
- Import projects to the local database from a file.

Manager automatically compresses a project during a project import and uncompresses a project during a project export. These compressed files may be a single item or, divided into appropriately-sized files called *segments*. As the segments are created by Manager, they are assigned numerical file name extensions (e.g., .001).

These features allow Manager to easily exchange project information from maintenance personnel to the supervisor's computer or for storage on a local network.

## PROJECT UTILITIES

Project Utilities is designed to provide a way to import / export projects from the computer.

### Deleting Projects

Maintenance personnel typically carry projects on portable computers for use while on site. Once the maintenance staff have completed their work and transferred the updated files and *token* back to the supervisor's computer, they may choose to delete those projects from the computer to free up disk space.

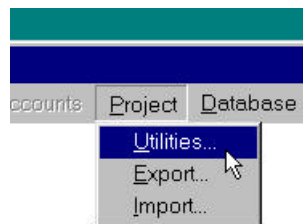
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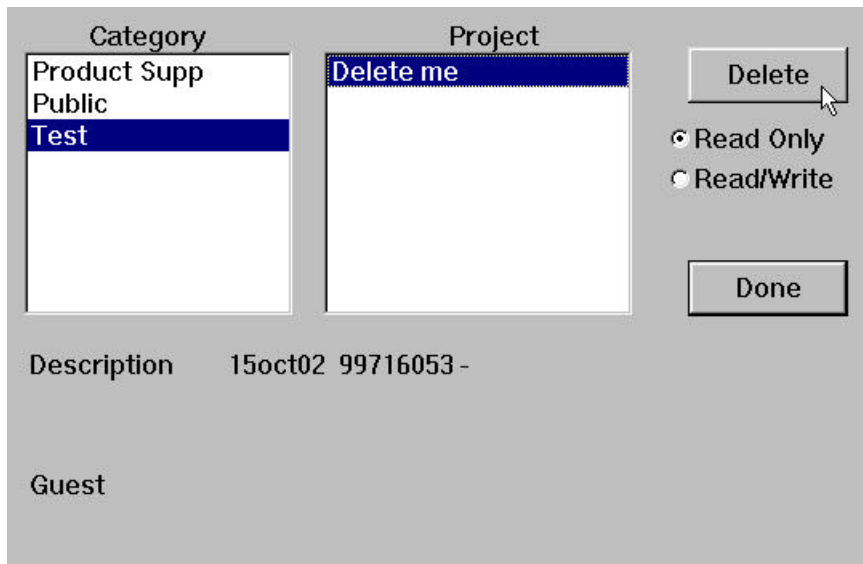
### NOTE

Manager prevents the local database from deleting projects it owns or for which it has the write token to ensure the true version of a project will stay available. Only projects whose ownership rights and token reside elsewhere (such as on the Hub) may be deleted. Once a project is deleted it cannot be recovered.

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To delete a project, select click on `Utilities` from the `Project` Menu.

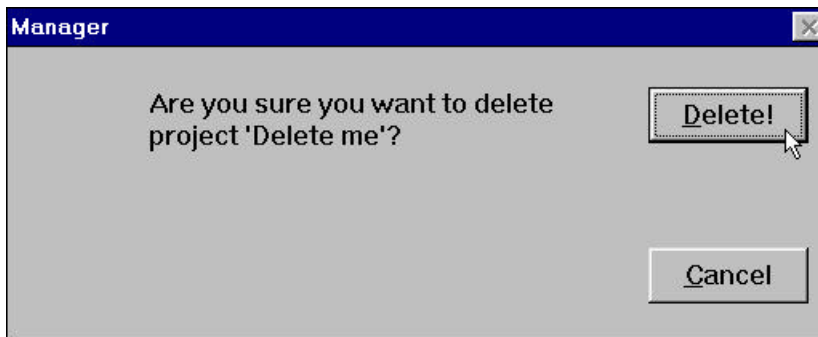




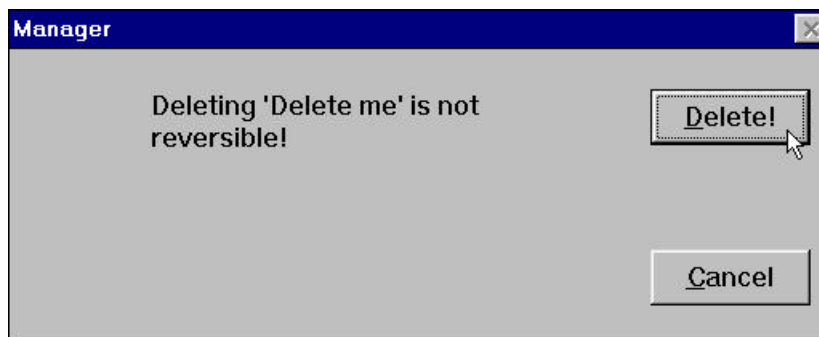
A window will appear, which allows the user to select a Category and then choose the Project to delete. The Description field displays the project information entered using DSD. The Read Only and Read/Write are only to show if the highlighted project has the token. If Read/Write is selected, the project cannot be deleted.

As a demonstration, the TEST category was selected and the DeleteMe project. To delete the project, Click on the Delete button.

The program will prompt for confirmation to remove the DeleteMe project; Click on Delete to continue.



Manager will prompt again to emphasize that the project will be permanently removed from your computer. Click on Delete to continue.

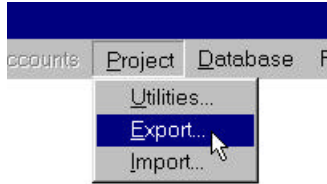


If a user tries to delete a project that has the token, a window will explain the failure of the delete operation.

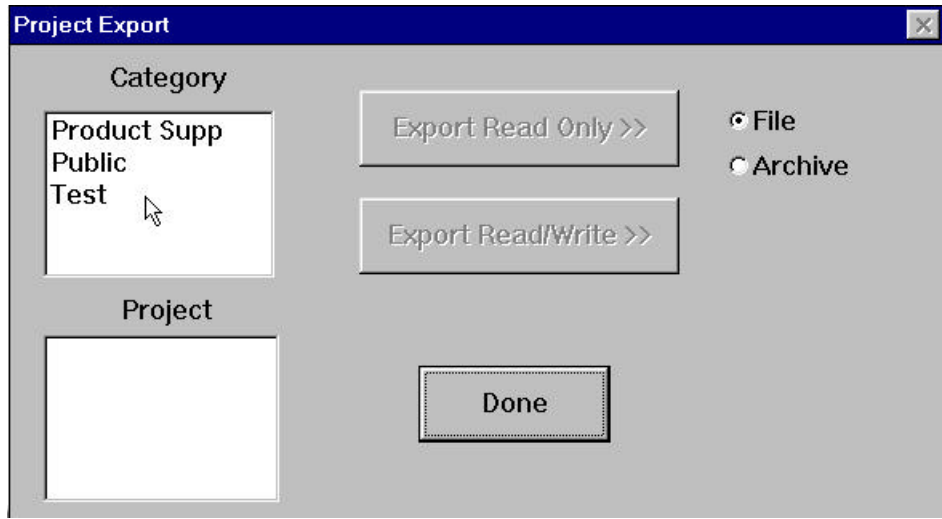
## EXPORTING PROJECTS

Project Export and Project Import are used together to move projects between computers or for storage. Only Hubs can Export to Archive, end users are limited to exporting to a file. When a project is exported to a file, a read-only copy remains on the computer.

Select Export from the Project menu.



A dialog box will appear with listings of categories and projects, buttons to select either Export Read Only or Export Read/Write, and check off to select either File or Archive mode. Users may use only File, which is the default setting.



### Export to a File

A project is exported to a file when it is to be used or accessed in another location (For example, by a field service person).

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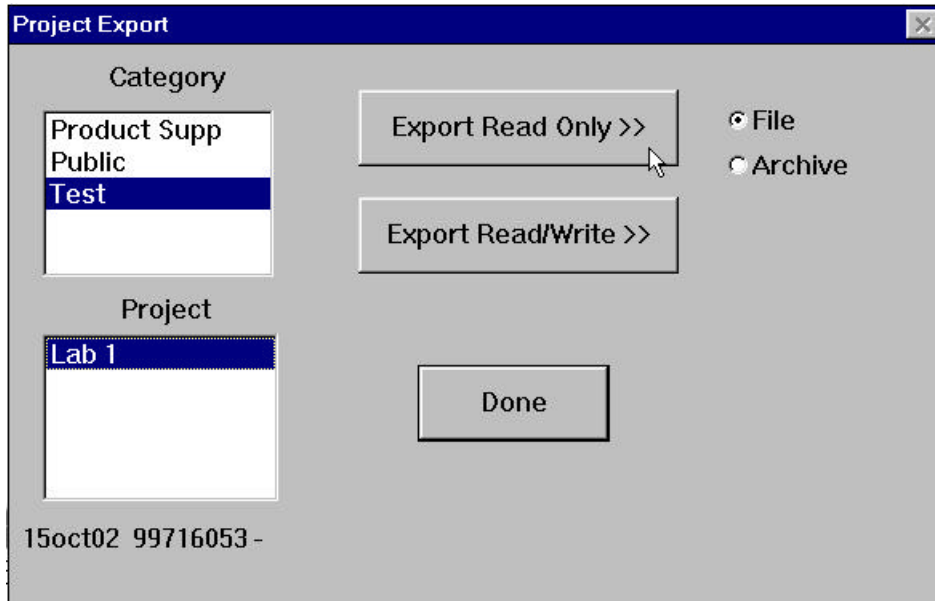
#### Note

If you are exporting to floppy disks, make sure you have a sufficient supply of formatted disks before you begin. If you run out of disks during the export process, you will have to quit the export, format diskettes, and start over.

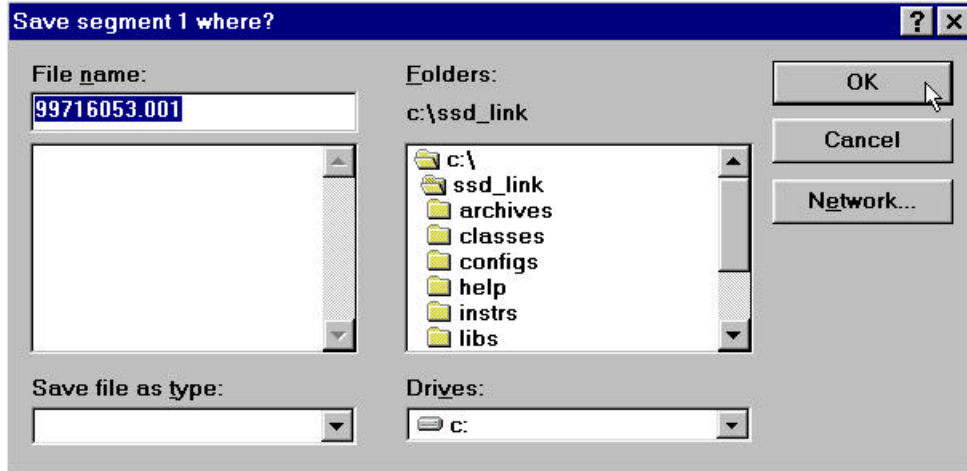
---

To export a project, first select a Category and then the Project to export. For this example, select the Test category and the lab1 project. Also, make sure the File button is selected.

If the project has the *token*, then either `Export Read Only` or `Export Read/Write` can be used. If not, then `Export Read Only` can be used. For this example, select `Export Read Only`.



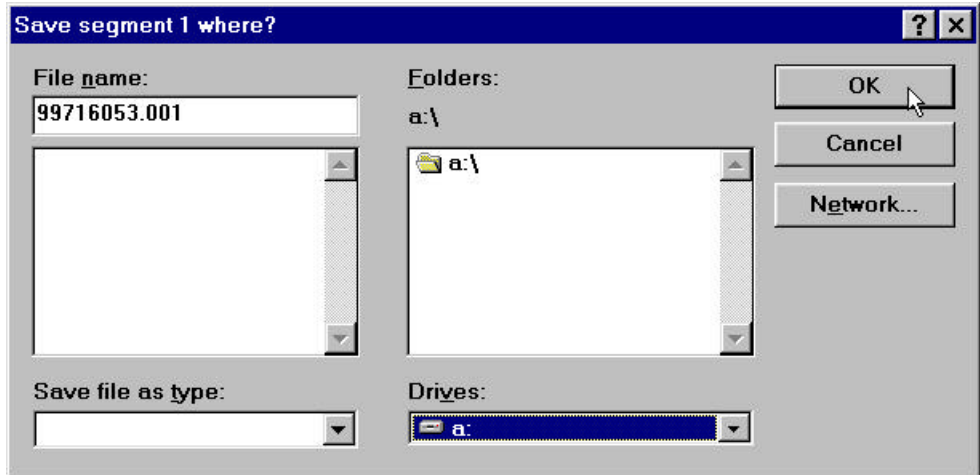
A dialog box will allow the user to enter a destination to save the project. The `Save File as Type` control is unused in Manager.



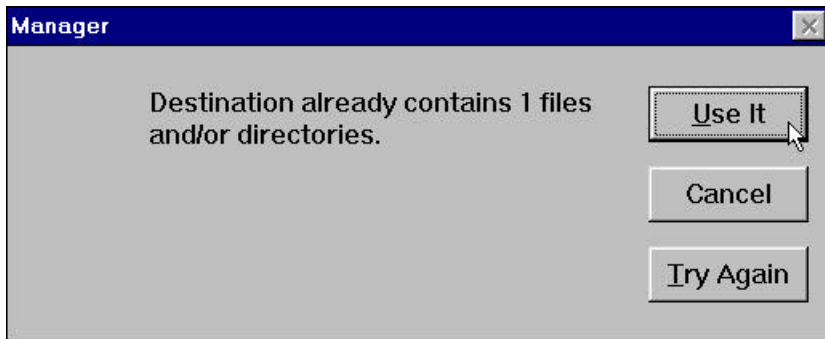
Manager provides a default name (for this project is the project number 99716053) and segment number which is the extension number (.001). It is strongly recommended that the default filename be used for the projects to ease identification later. Under no circumstances should the file extension be changed, whether in this dialog or by altering the file name outside of the Manager environment.

The default destination for an export is the `ssd_link` directory that contains the *LINK* tools and database. For this example, insert a disk into the floppy disk drive and choose drive [-a-]. Make your selections and click on the OK button.

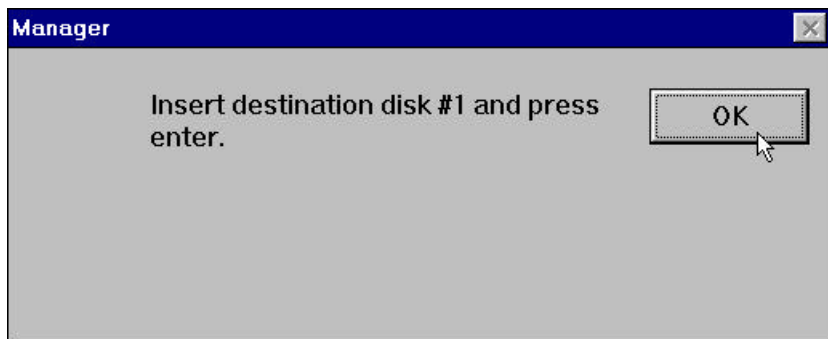




If the folder chosen for the export destination has any files in it, the following window will appear. To continue click on Use it.



If the destination media fills up, Manager will ask the user to insert the next disk. After completing the export, the Project Export dialog box will reappear. If you have no other projects to export, click on the Done button to close the window.



If you had exported the project as read/write, the Export Read/Write button would now be grayed out, indicating your database no longer has the token.

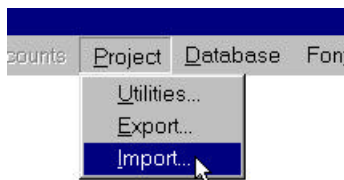
If you cancel the export or if a problem occurs with the export process, a window will appear to let you know the export did not complete.

### Export to an Archive

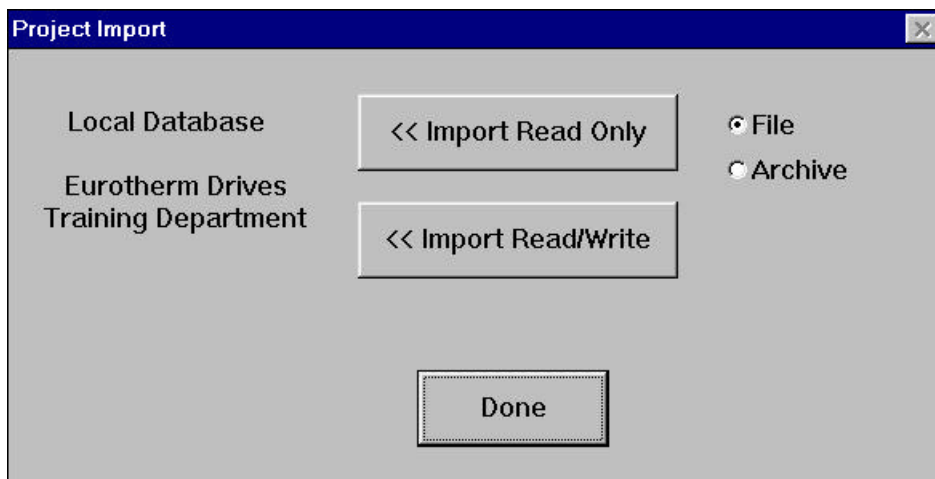
This feature is not available to users.

### PROJECT IMPORT

Project Import is used to copy or transfer a project into a database from a file. To access it, select **Import** from the **Project** menu.

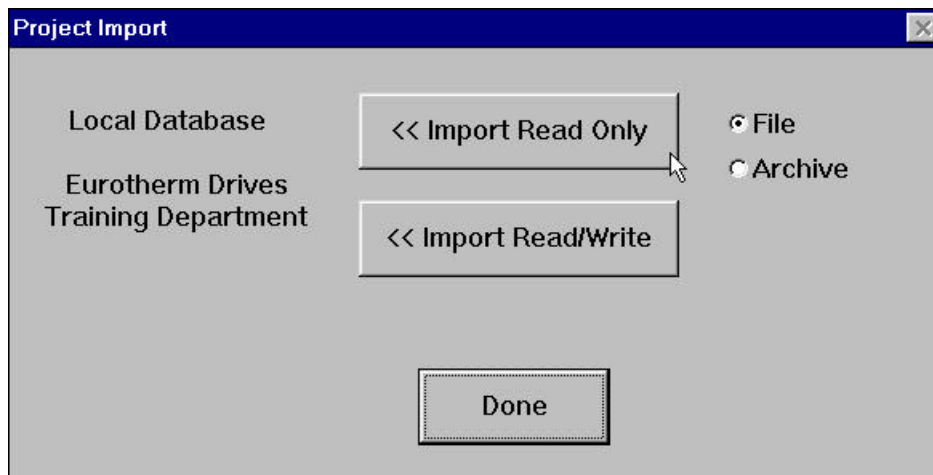


The **Project Import** dialog will appear with the local database identified and buttons to choose to import from either a file or an archive. Since only Hubs can use the archive features, the default selection is to import a file. If the export to file example has been completed, covered previously in this section, the project will be available to import.



#### Import a File

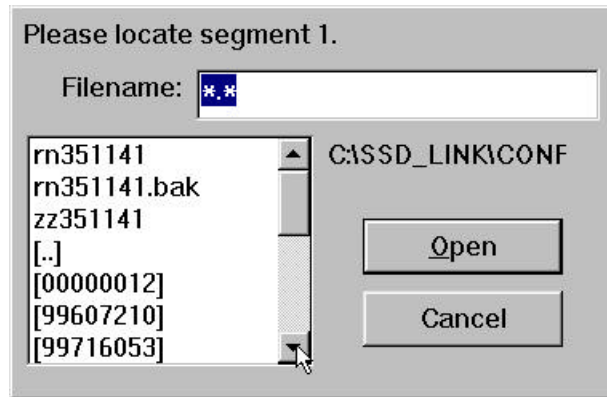
First, make sure the default **File** selection is checked. Depending on how the file was exported, will determine the choice between importing read-only or read/write. If you are certain you either already have the write token for the project or are importing a project containing the write token, select **Import Read/Write**; otherwise, select **Import Read Only**. In this example the file to be imported (Lab 1) is read-only, so select **Import Read Only**.



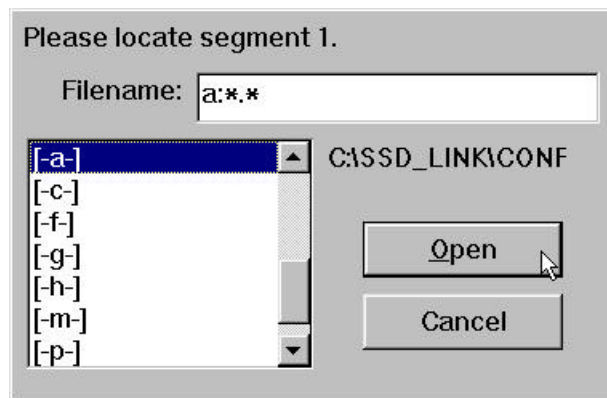
**NOTE**

If you select Import Read/Write and do not have the *token* for the project or the project was exported without the *token*, an error dialog will appear. After closing the error window, you must select Import Read Only to import the project.

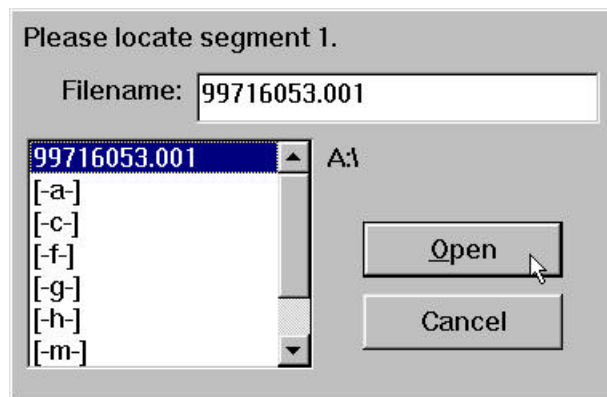
A dialog box will appear that allows you to specify the file to import (segment 1). The default directory is `ssd_link` on your hard drive (typically, drive `[-c-]`). Since the file in the previous section was exported to a floppy disk in drive `[-a-]`, the import source must be changed from the default directory.



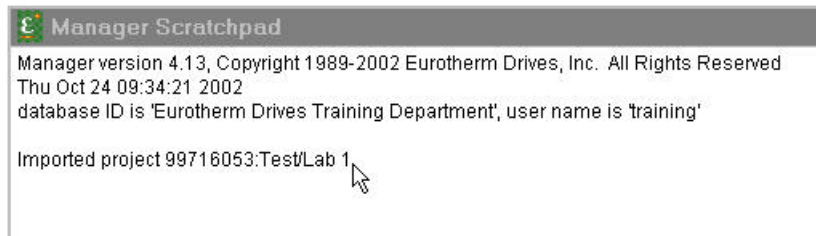
Scroll down the list of directories until you find drive `[-a-]`. Select drive `[-a-]` and click on the `Open` button.



A second dialog box will open, listing the files available on drive `[-a-]` and drives `[-a-]` and `[-c-]`. Select the desired file; for this example, choose the Lab 1 project (99716053.001) and click on the `Open` button. Manager will import the Lab 1 project and display an `Operation Completed Normally` window when finished.



Click on the Done button to close the Project Import window. The Scratchpad will show the information from the imported project, Project Number, Category and Project Name. This information is needed when trying to use this project in the DSD program.

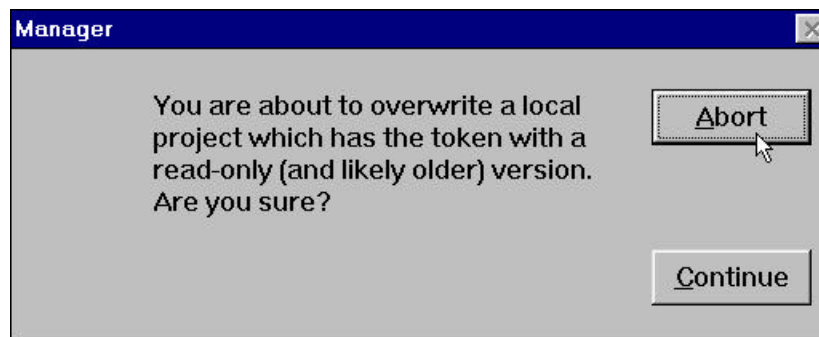


### Import an Archive

This function is not available to users.

### ERROR MESSAGES

This message will appear only if trying to import a read-only copy of the project on top of a read-write copy already on the computer. Click Abort to stop this action.



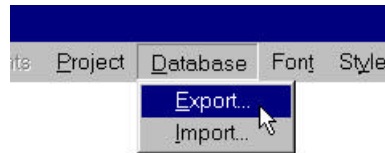
## Chapter 5 Database Management

### INTRODUCTION

Manager uses the Database Management operations to keep up the local database and software up to date. The best way to update the database is to call a SSD Drives hub, which is covered in Chapter 6. The following sections show another way to update databases on computers without a modem. The *database* refers to the source information that the Link software uses to program the Link projects. It is important to keep the database up to date as SSD Drives creates new elements and fixes old ones.

### EXPORTING THE DATABASE

You may export databases to either floppy disks or to your hard drive for storage.



To start the process, Select `Export` from the `Database` menu .

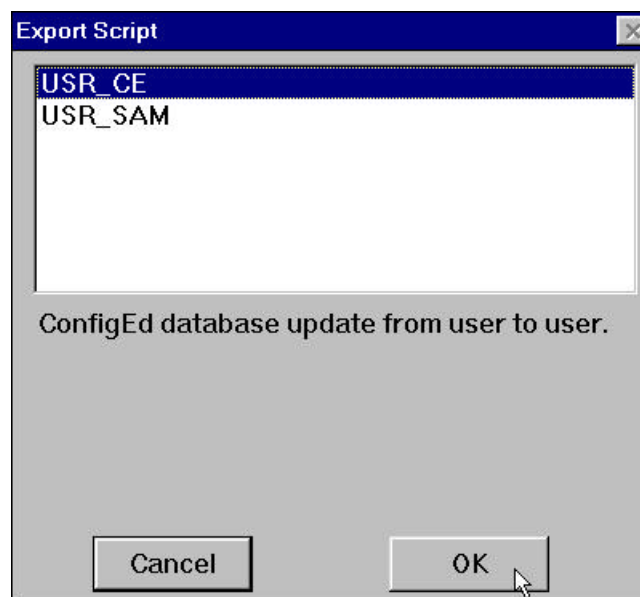
A dialog box will prompt you to select an export script. This script provides Manager with the instructions it needs to export the database. Manager comes with two export scripts. `USR_CE` is used for updating DSD databases from user to user. `USR_SAM` is used for updating SAM databases; this is not required for DSD users. Current users should select `USR_CE` as shown in the window.

---

#### NOTE

Only SSD Drives, Inc. may create or modify export scripts.

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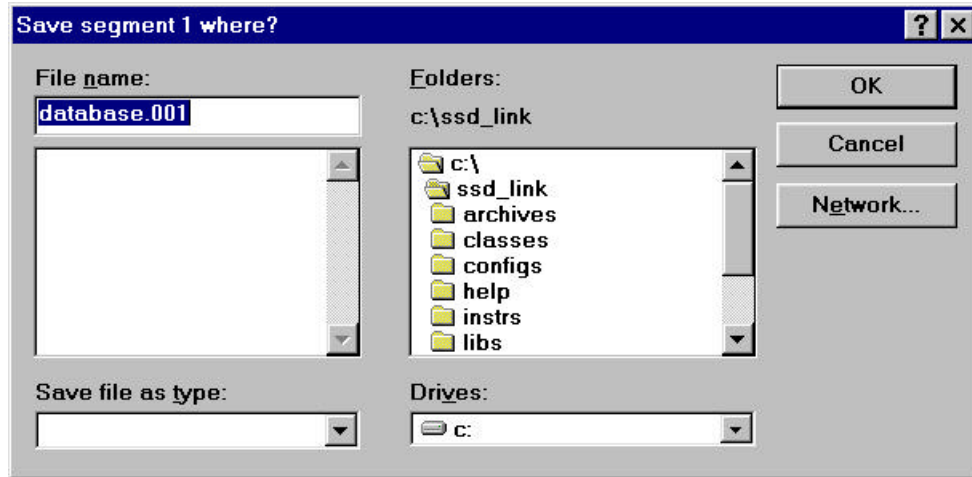


**NOTE**

These two default scripts do not transfer tools, forms, or restricted function blocks. User databases can receive updates to these items from their parent Hub only using Manger through a modem.

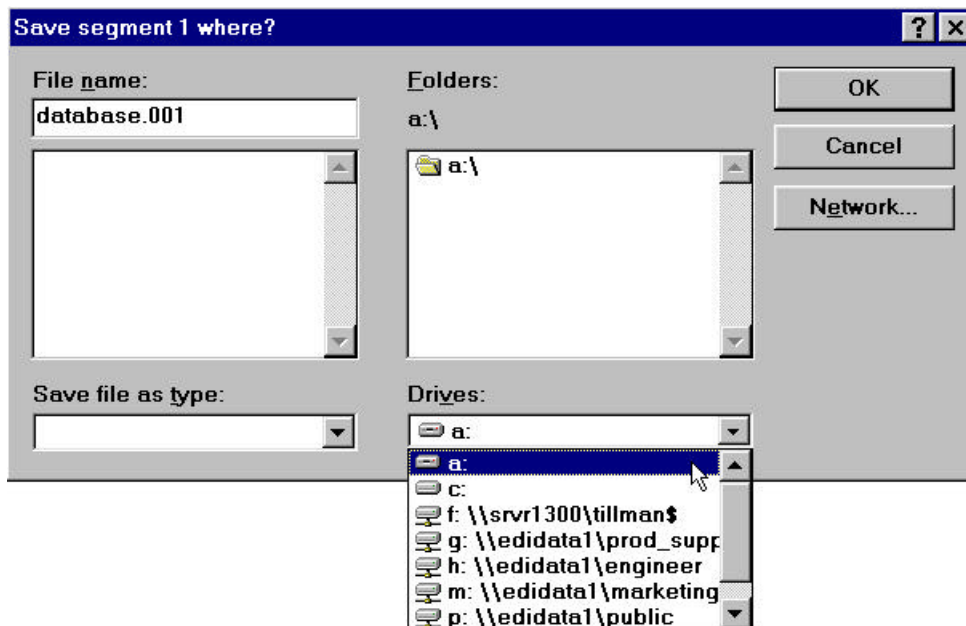
Select an export script, verify your selection by checking the descriptive text displayed below the script selection window, and click on OK.

A dialog box will prompt you to specify the destination for saving the database. You can choose to save it to either a series of floppy disks (the exact number depends on the size of the database you are exporting and the size of the storage media.) for transfer or your hard drive for storage. The first segment will always be `database.001`. Subsequent file segments will be `.002` and so on. You can then transfer the file segments to another computer using any communications software or technique that can transfer binary files.



**WARNING**

Do not change the name of the database either in this dialog or after it is saved!

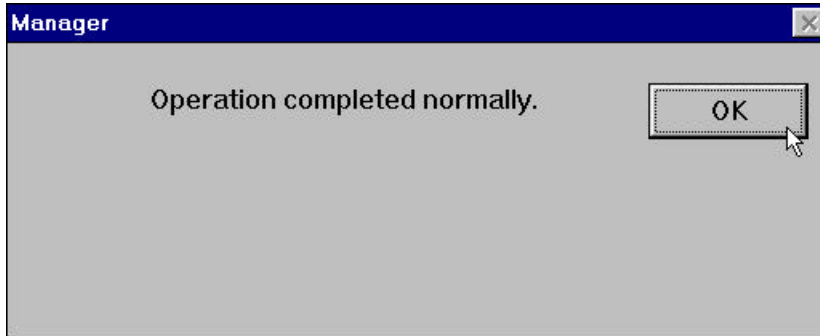


**NOTE**

If you are exporting to floppy disks, make sure you have an adequate supply of formatted disks. If you run out of disks during the export process, you will have to cancel the export, format additional disks and start over.

If you are exporting to floppy disks, insert a blank, formatted disk in your drive, select the correct drive (in this example, drive [ -a- ]), and instruct Manager to save the database file to the floppy. You will be prompted to insert additional disks as needed. If exporting to a volume on the hard drive, specify the volume to receive the database. Click on OK.

When the export is finished, a window will confirm normal completion of the export.



**DATABASE IMPORT**

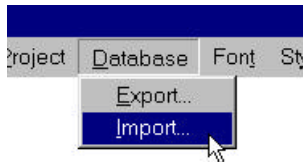
Database import is used to update a database. These updates may be on floppy disks, in E-mail files, or sent via any other method of transferring binary files.

**NOTE**

Transmission of updates via modem, does not use the Manager program and should not be confused with Manager modem functions in chapter 6.

This updated database, see the previous section, can include function blocks and other items associated with the creation and maintenance of the *LINK* database. It will not include the *LINK* tools (Manager, and DSD). The only way to get the updated tools is to call into the SSD Drives Hub, refer to Chapter 6 for more information.

To access this feature, select Import from the Database menu.

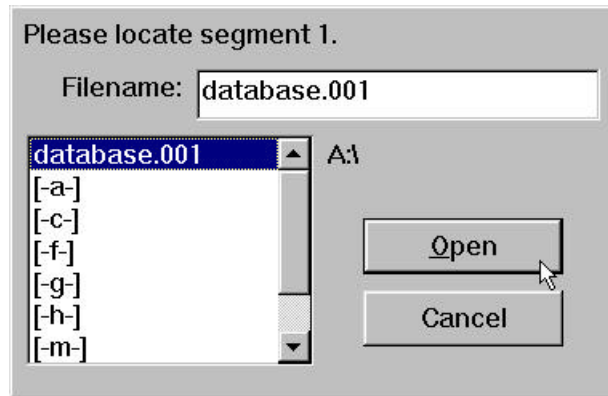


We will simulate the update from a floppy disk process by importing the same database exported previously in this chapter. Insert source (distribution) disk #1, select the floppy drive (in this example, [ -a- ]), and click on Open.

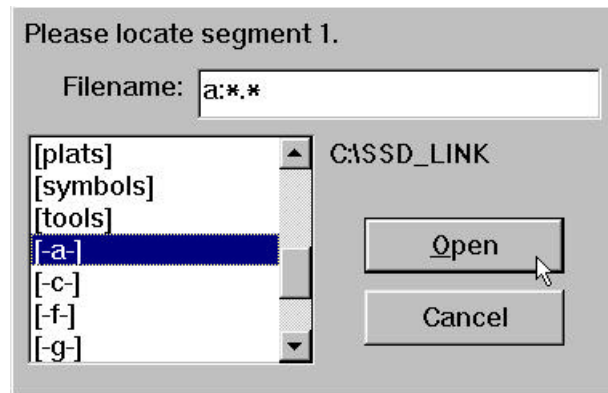
**NOTE**

Segment numbers (For example, .001) refer to the extension number on the file.

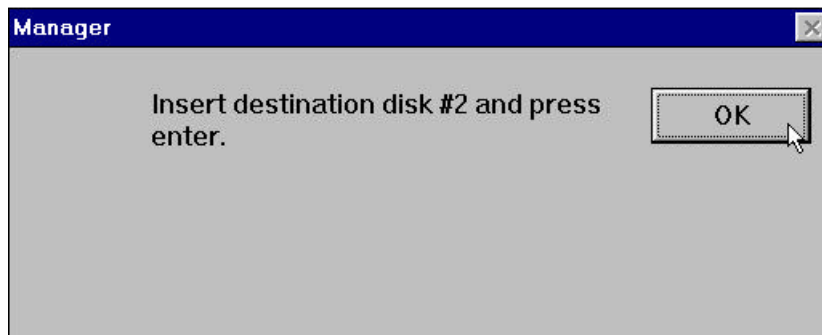
A dialog box will appear for you to locate segment 1 of the database.



Select database .001 and click on the Open button. After you click on the OK button, the Windows hourglass icon will appear, showing that the importing process is functioning.



If you are importing from floppy disks, you will be prompted to insert additional source disks for additional segments to complete the database import. Insert the disks in the order specified and click on the OK button. The windows hourglass will reappear as the import process continues. When the import process has ended, a window will let you know the import was completed successfully.

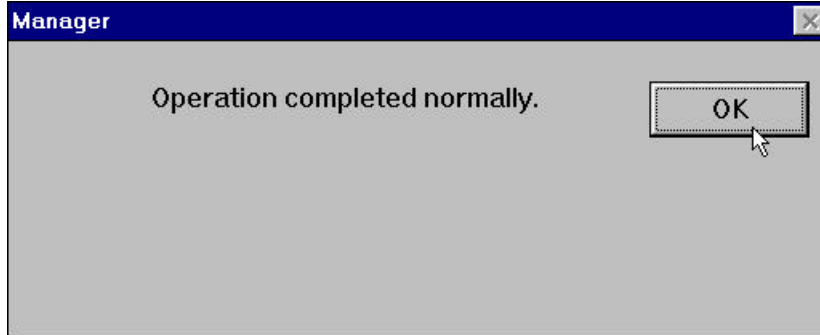


**Note**

Because of its size, when a database or a large project is stored on floppy disks, it is automatically divided into segments. If you are importing a database from a hard drive or network volume (e.g. received by E-mail or via a modem), you will be prompted to locate only segment 1 since the file will be in only one segment.



Click on the OK button to end the database import process.

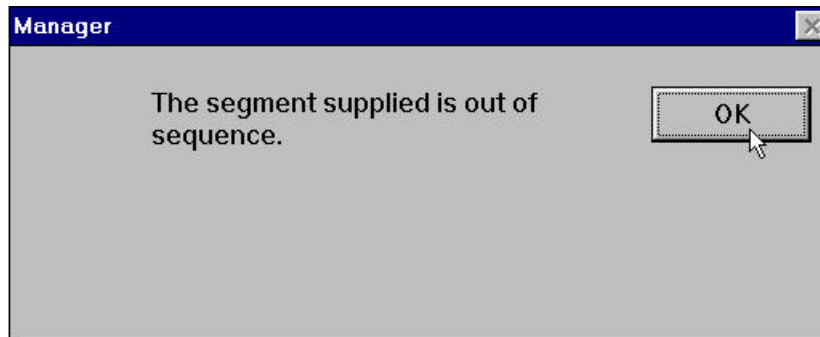


The database import is now completed.

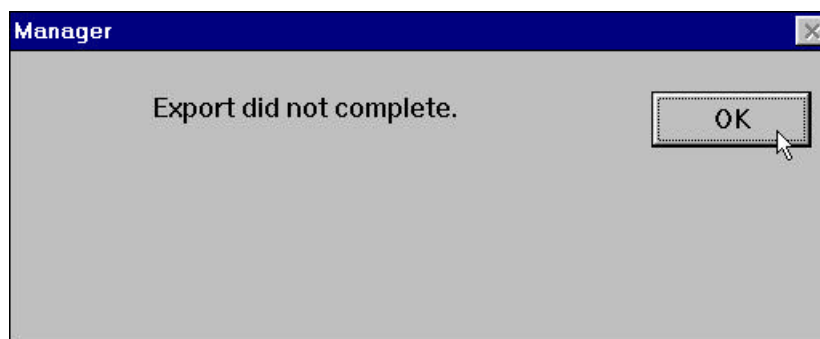
### DATABASE TRANSFER ERRORS

The following are errors that can occur during the database import/export sequence.

This message will appear if the database was divided up into more than one segment and the user entered them in the wrong sequence. Disk one would be database .001 and disk two .002 and so on. Find the appropriate segment needed and click OK.



If a problem was encountered in the export sequence or the user terminated the export, the following message will appear. Click OK and try again



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## Chapter 6 Calling the SSD Drives Hub

### INTRODUCTION

Manager enables the user to call an SSD Drives Hub to update the LINK software, database, and upload / download projects using a modem. This is the easiest way to keep up to date with the changes and additions to the software.

### Uploading/Downloading Projects

The user can upload and download their projects from the hub. The only projects available to users are those in their filter. SSD Drives uses the filter to limit access to the projects on the hub. Users have access to the projects they create (or own) and can be added to their filter at any time by SSD Drives Product Support. Once projects have been added to the filter, the user can then call in and have access to them. Storing a copy of the projects on the SSD Drives Hub is offered as a free service. It is a great way to back up the projects and allow Product Support to have a copy of the project to help in assisting with problems on their Link system.

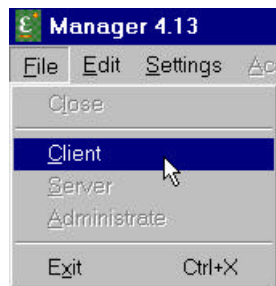
### Updating LINK Software / Database

When Manager calls into the SSD Drives hub, it checks to see if the *LINK* database and tools on the local computer matches the hub. If not, it will retrieve all files or database elements it needs to update the local computer. This action can take some time if there is a slow connection or the local computer hasn't been updated for a while.

### LOGGING INTO THE HUB

Before Manager can successfully call an SSD Drives hub. The user must set up the modem and enter the proper phone number. Refer to Manager setup in Chapter 1.

Selecting **Client** from the **File** menu begins the process of initializing the modem and making the modem connection to the Hub.



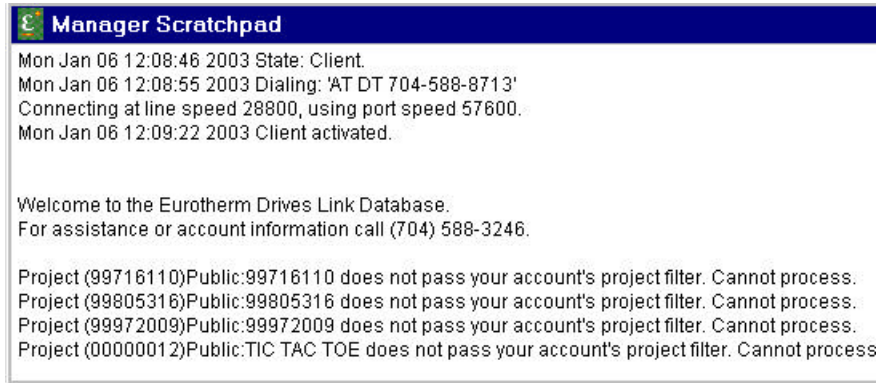
The scratchpad will show that the client process has been activated and then dial the phone number of the hub. If the scratchpad does not show this within in 2 –3 minutes, refer to the modem setup in Chapter 1.



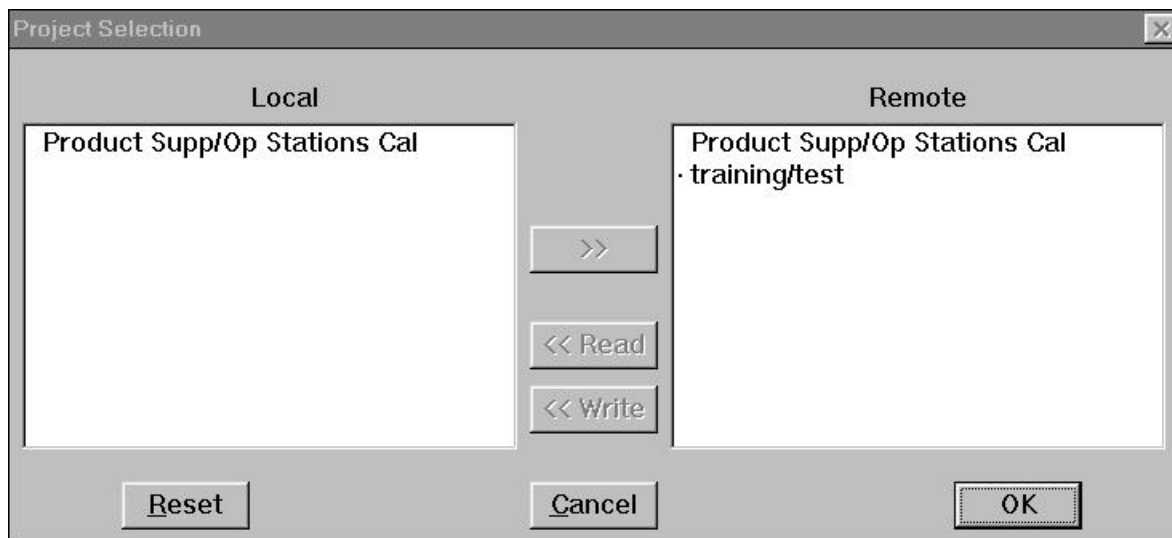
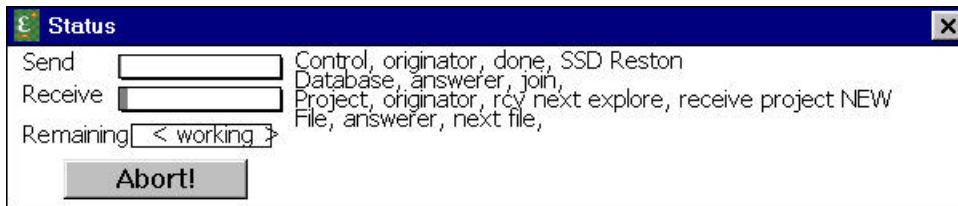
**WARNING**

When using Manager for a client modem connection, no other *LINK* tools should be running. Manager in client mode requires unencumbered access to the database.

When the connection is made, the *Scratchpad* will show the line speed and port speed of the connection. Then a greeting will appear on the *Scratchpad*, showing that a connection has been made to the SSD Drives hub.



After the *Scratchpad* greeting, the *Status* window appears briefly, followed by the *Project Selection* dialog window.



**Note**

If no projects are to be transferred, click the OK button to continue with the updating of the database.

## USING THE PROJECT SELECTION WINDOW

The `Project Selection` window displays only the projects that reside in the user's account. The user's account is managed by SSD Drives in a file called a Filter. Only the projects the end user owns or creates will be entered into the filter. If a project is not in your filter, please call SSD Drives Product Support, to have it added.

The `Local` side of the `Project Selection` lists the projects in the end user's filter that are on the end user's computer. The projects are listed in alphabetical order by Category and then by the Project name. If there is a dot (.) next to the project listing, that means that project has the token.

The `Remote` side of the `Project Selection` lists the projects in the end user's filter that are on the SSD Drives hub. The projects are listed in alphabetical order by Category and then by the Project name. If there is a dot (.) next to the project listing, that means that project has the token.

A project can be listed on both sides of the `Project Selection` window, but only one project can have the token. If for some reason both the local computer and the hub have the token for the same project, the project will not appear on either side of the `Project Selection` window. A message that says "project does not match host" will be written on the scratchpad. The hub will ignore this project until the problem is fixed. Please contact SSD Drives Product Support for help.

The `Reset` button returns the `Project Selection` window to its appearance at the start of the modem session.

The `Cancel` button causes the program to skip all project updates and database updates and will log off the hub.

The `OK` button will close the `Project Selection` window and start to perform the project upgrades and any changes made by the user to the listings of projects. The `Status` window will reappear and show the progress of the changes.

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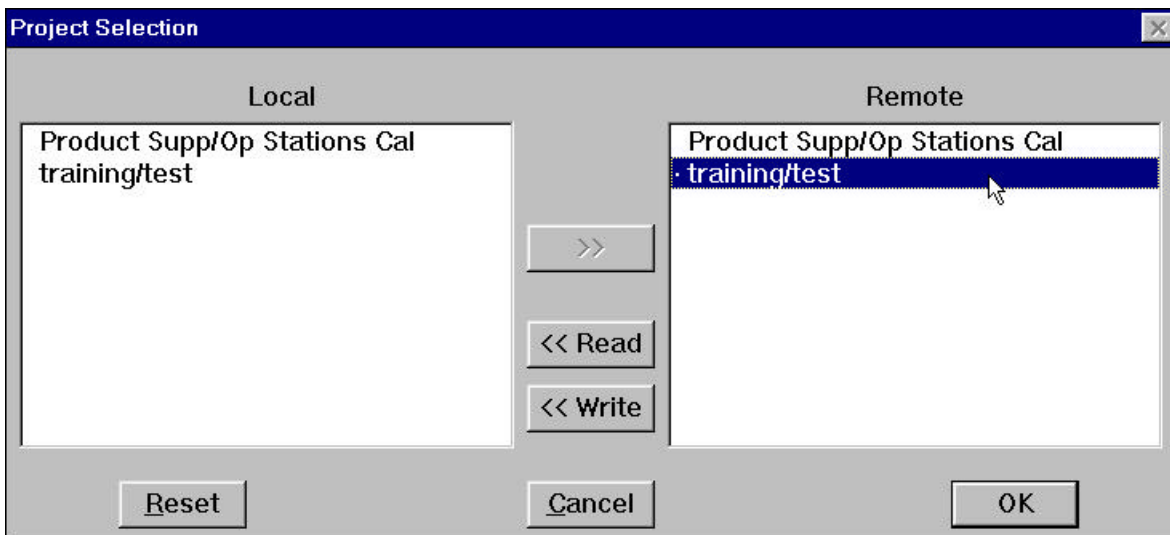
### Note

SSD Drives recommends that only read-only copies of projects should be retained on the local computer. Projects not needed for an extended time may be transferred completely to the Hub for storage. This helps to minimize the number of projects in the local computer and, since Manager scans all projects in the local database when making a modem connection, speeds up performance by lessening the work done at the time. Keeping a read-only copy of a project speeds up the connection to obtain a read/write version, since most of the project data will already reside on the local computer and will not need transferred.

---

## Downloading a Project

To download a project from the Hub, highlight the project on the `Remote` side of the `Project Selection` window.



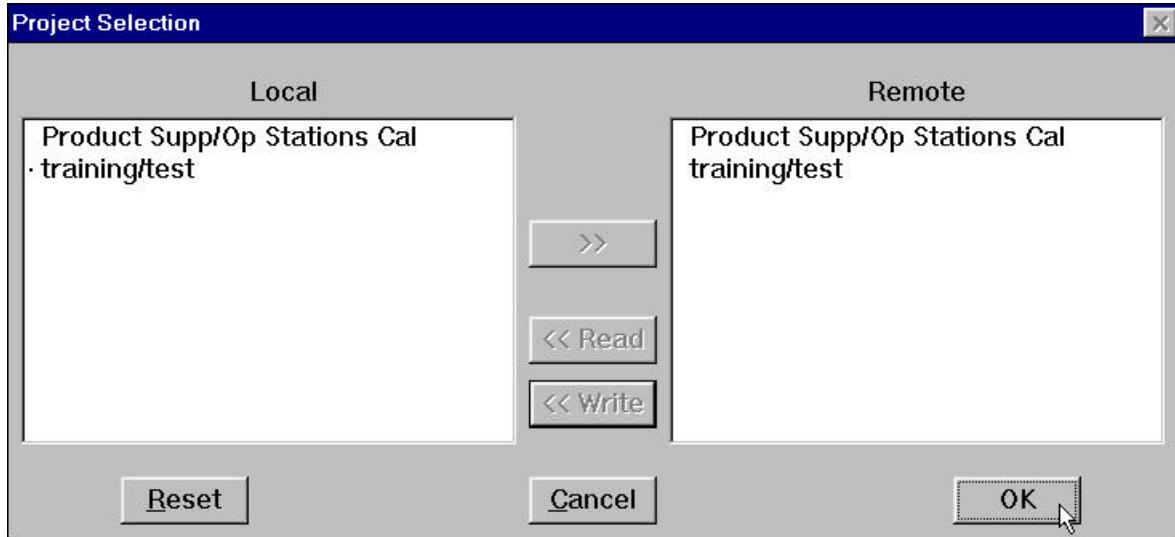
The Read and Write buttons will activate.

The Read button will download a read-only copy of the project to the end users computer. A read-only copy of the project can be used for printing, downloading configurations to nodes, and online troubleshooting.

The Write button will download a read/write copy of the project with the token and the hub will retain a read-only copy. A read/write copy of the project is needed if configuration changes are going to be made, or the configurations need to be updated and saved back to the project.

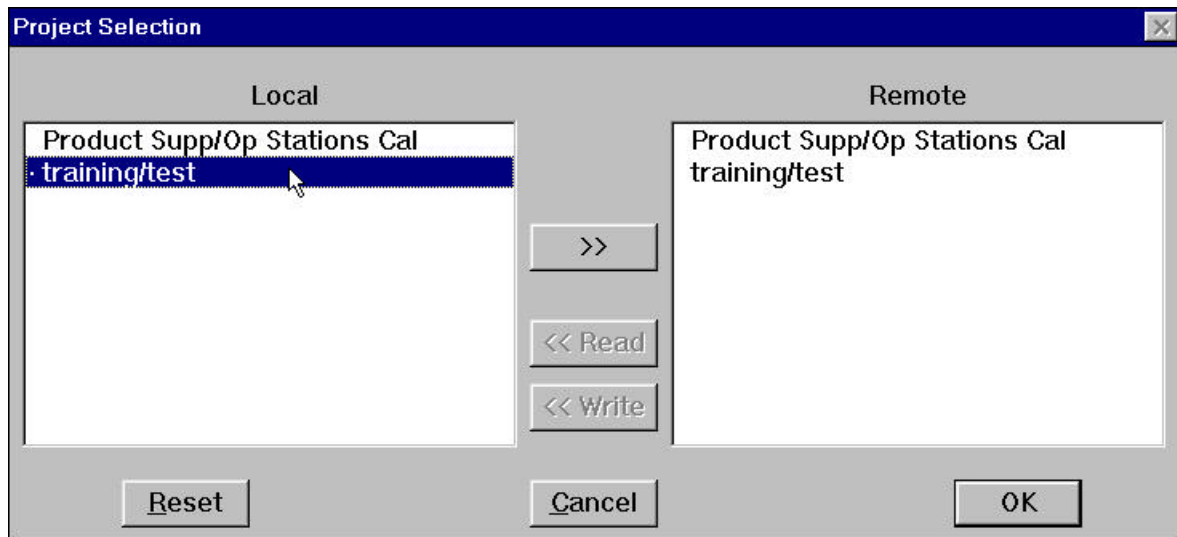
In this example, the Write button was clicked, so the token and the project are copied over to the Local side of the window.

When finished with this window, click on OK .

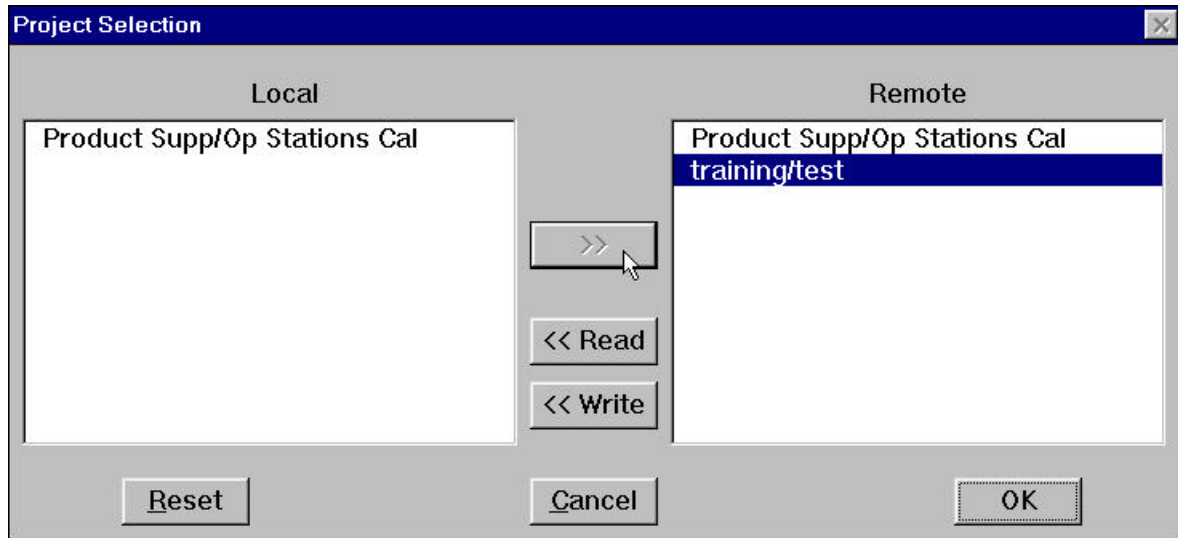


### Uploading a Project

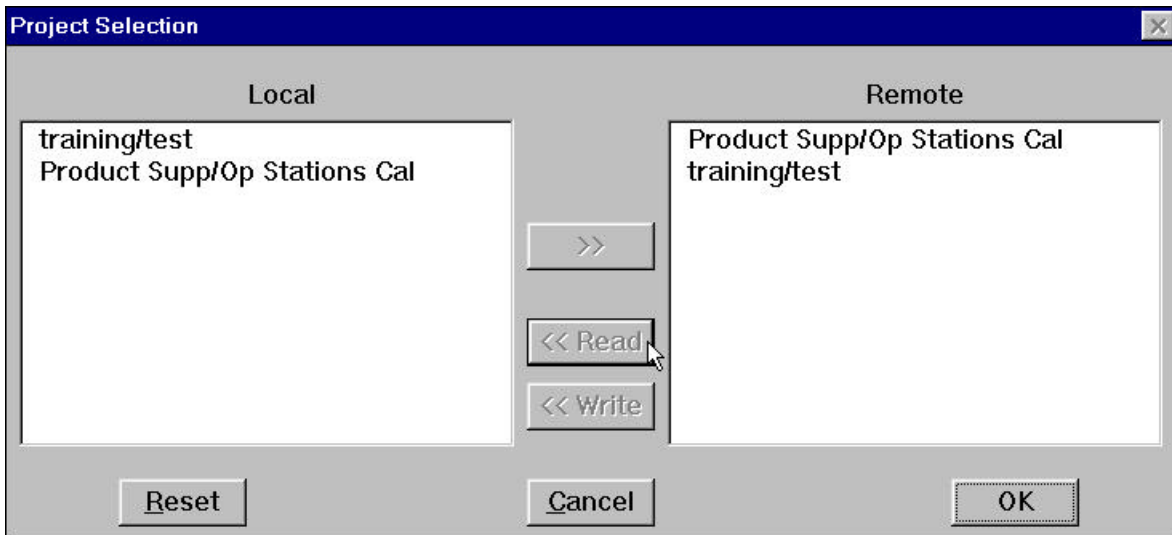
To upload a project from the end users computer, highlight the project on the Local side of the Project Selection window.



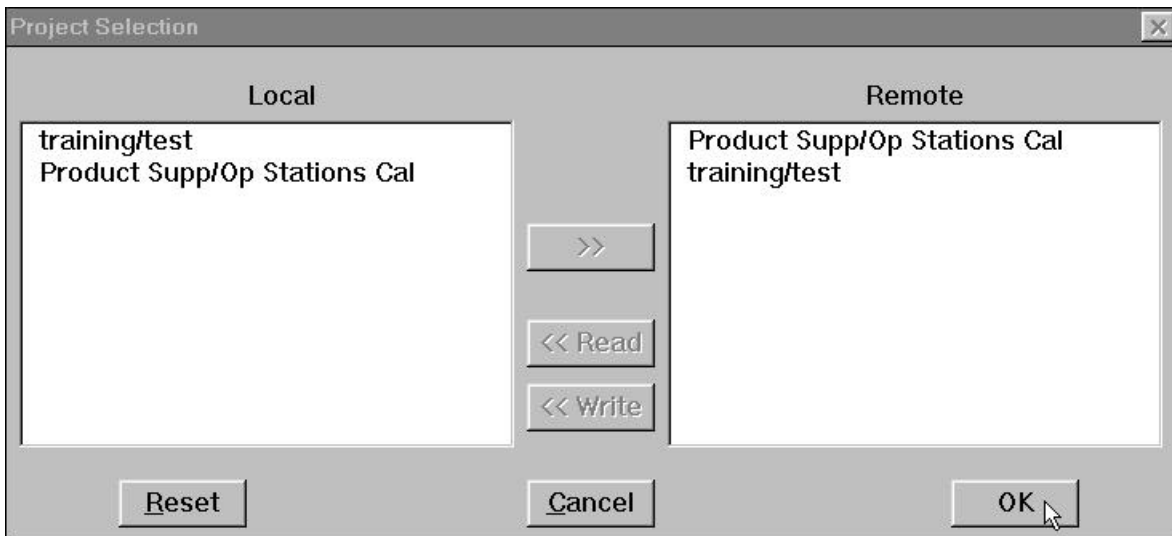
Click the >> button to transfer the project and the token to the Hub.



At this point if the OK button is clicked the project will be completely transferred to the Hub and no copy will be left on the Local computer. To retain a read-only copy, click the Read button.

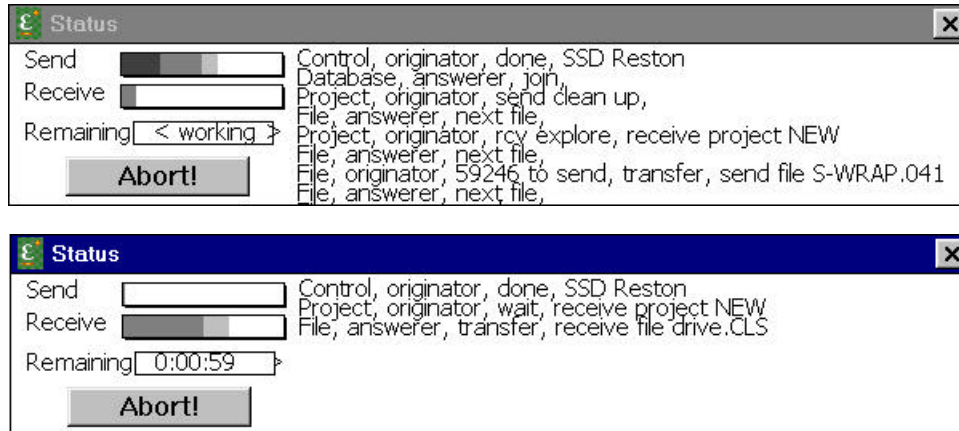


Click on OK to start updating projects and database.



## UPDATING THE PROGRAM / DATABASE

Updates to the database will take place automatically in the background whether or not the operator selects projects to transfer or copy as long as the OK button was clicked. The Status window shows the effective data transfer rate taking place through the modem connection.



A four-band display in the *Send* and *Receive* blocks illustrates the transfer of data:

- Dark gray signifies the characters per second (cps) having to be re-tried due to comms errors. If this band is relatively large, chances are you have a noisy phone connection or the comms rate chosen in the *Settings* menu is higher than your computer can support.
- Medium gray signifies the cps being transferred properly and at a rate up to the line speed reported in the *Manager Scratchpad* by the modem when the connection was made.
- Light gray signifies the cps being transferred at a rate that exceeds the line speed, usually because of data compression performed by the modem.
- The white band represents the bandwidth of your computer port (port speed) reported in the *Manager Scratchpad* and chosen in the *Settings* menu that is not being used.

---

### Note

If there is no white space and at least some light gray in either the send or receive bars, consider setting your baud rate higher. That will allow future connections to take advantage of the increased throughput provided by the data compression being done in the modem.

---

Below the color bands is the *Remaining* box, which presents an estimated length of time (in hours, minutes, and seconds) required to complete operations selected by the user and/or the database updates taking place in the background. An initial read out of *Working* appears as *Manager* computes the amount of time needed for the transfer. Once it calculates a transfer time, it displays it in the box. As the operation proceeds, *Manager* computes the time from measured throughput and increases or decreases the displayed time as the connection efficiency changes.

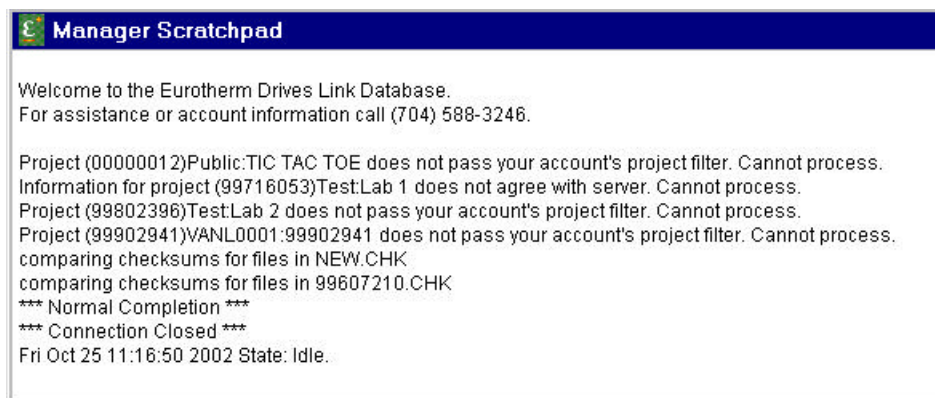
The *Abort!* button is similar to pulling the plug on your connection. It cleanly shuts down the modem operation, and discards files that were in the middle of being updated or transferred.



**WARNING**

If a modem operation is aborted, or if the scratchpad shows an `Abnormal Completion`, only some portions of the database or project may be updated. Before using either the database or the projects, the user *must* call in to the Hub again and complete the updating of the database and projects. Failure to do so may result in inoperable projects and/or dangerous operating conditions in the *LINK* software. Extensive use of the computer for other tasks during a modem operation may cause disconnection. Avoid holding down the mouse button for long periods of time or other processor-intensive functions, like formatting floppies.

Once all projects and database elements have been updated, the Scratchpad should have a `Normal Completion` and `Connection closed`. If any other messages appear, refer to the error messages section or contact SSD Drives Product support.



```

Manager Scratchpad

Welcome to the Eurotherm Drives Link Database.
For assistance or account information call (704) 588-3246.

Project (00000012)Public:TIC TAC TOE does not pass your account's project filter. Cannot process.
Information for project (99716053)Test:Lab 1 does not agree with server. Cannot process.
Project (99802396)Test:Lab 2 does not pass your account's project filter. Cannot process.
Project (99902941)VANL0001:99902941 does not pass your account's project filter. Cannot process.
comparing checksums for files in NEW.CHK
comparing checksums for files in 99607210.CHK
*** Normal Completion ***
*** Connection Closed ***
Fri Oct 25 11:16:50 2002 State: Idle.

```

**ERROR MESSAGES**

There are a few error messages that will appear in the Scratchpad when using the Manager software. Some will require intervention of SSD Drives Product Support.

**Error messages on the user Account**

We regret that your account has expired

This simply means that your account at SSD Drives has expired. To correct this problem call SSD Drives Product Support to have your account brought up to date.

We regret that your account cannot be validated.

There are two causes of this message. The program was operational at one time, crashed and then reloaded from the original disks. Any time the program is reloaded from the original disks the `id.dat` file will be reset to default on the local computer, but the hub will still be at the version from the operating software. The other condition that can cause this problem is that the program was loaded on multiple computers. The first computer to call in with the software will be reset to match the hub. All the other computers will not get reset and therefore show the above message. To allow multiple computers to call in, a copy of the software will have to be purchased for each computer. To correct the problem for one computer, call SSD Drives Product Support to have your account reset.

## Error messages for the Projects

Project(00000012)Public:TIC TAC TOE does not pass your account's project filter.  
Cannot process.

The project has not been entered into your filter on the SSD Drives hub. To have the project placed in the filter, call SSD Drives Product Support with the project number (99xxxxxx) and your database id (located in the scratchpad window when any *LINK* software is launched.) Projects can only be entered into an account during SSD Drives normal business hours.

Project (99802396)Test:Lab2 does not agree with server. Cannot process.

This means there is a conflict between the project on the local computer and the project on the Hub. If for some reason both the local computer and the hub have a token for the same project, this message will occur. Please call SSD Drives Product Support for help.

## Chapter 7 Troubleshooting

### ERROR DIALOGS

A variety of error messages are included in Manager to help identify and remedy conflicts; the most common are explained below.

```
The segment supplied is not from the same set.
```

When importing files stored on multiple floppy disks, you must ensure that the disks inserted are from the same set of files. If a disk that does not contain the same set of files is inserted (even if the disk is properly named); Manager will reject the improper floppy. Insert a disk from the correct set and retry.

```
The segment supplied is out of sequence.
```

When importing files from multiple floppies, it is imperative that the disks be inserted in the order requested. If, for example, disk #2 was inserted when Manager requests disk #1, this message will alert of that error. Insert the correct disk and retry.

```
This database does not own project [ ]. Cannot export.
```

Hubs trying to export read/write must own the project they are exporting.

```
You do not have guest-access to project [ ]. Cannot export.
```

This message means that the database does not have guest-access (write token) to the project and so cannot export it read/write or archive it (which implies read/write).

```
The supplied source item for project [ ] does not have the write token. Cannot import read/write.
```

Either the importer of a project or the project itself must contain the write token for an import read/write to proceed. If the token is absent, read/write import is disallowed.

```
Unable to remove write token from supplied segment.
```

```
Note that the media must not be write-protected.
```

This message occurs when an attempt is made to import a read/write project from a write-protected source, thus not allowing proper exchange of the write token. Remove the write protection and retry.

```
The specified source item was not created as an export and cannot be imported as one.
```

```
The specified source item was not created as an archive and cannot be imported as one.
```

If an import is attempted on an item in one form that was exported in another form (e.g., importing an archive as a file), Manager will disallow the action. This usually occurs when someone has moved or copied files improperly.

Project [ ] exists as an archive in group [ ] and cannot be imported.

This message will occur if an attempt is made to import a project file that already exists as an archive in the database. Determine which is the proper one. If it is the archive, erase the floppy disk; if it is the file on the floppy, de-archive the version in the archive and then import the floppy version which will overwrite the older project.

Import did not complete.

An attempt to import did not succeed. This message will usually occur after a message explaining the cause of failure. It will also occur if a user cancels a File dialog.

Export did not complete.

An attempt to export did not succeed. This message will usually occur after a message explaining the cause of failure. It will also occur if a user cancels a File dialog.

The specified volume does not have sufficient free space.

The folder to which you are trying to export does not have enough disk space to receive the file you are exporting. Switch to another folder and retry.

File system failure! Unable to restore rights information for project [ ]!

When projects are exported, the *token* is exported as well. If, for some reason, the export is interrupted or canceled, Manager attempts to restore the token to the project in the database. This message indicates Manager was unable to restore the *token*. Contact SSD Drives to restore the token; until then, DSD will be unable to modify the project.

You are about to overwrite a local project which has the token  
with a read-only (and likely older) version. Are you sure?

When attempting to import a project for which the *token* already exists in your local database. The project with the *token* should always be the most current and true version. If a project in the local database already has the *token* and the same project is imported, Manager will ask for confirmation of the action before proceeding.

You are about to downgrade the database.  
Are you sure you want to do this?

Importing a database older than the one already present locally will decrease the capabilities of your system and may cause configurations to malfunction. Manager will try to prevent this from happening.

The project calls for a later database than you have.  
Are you sure you want to import it?

The project you are importing requires a newer version of the database. Check with your network administrator, as this means you either have not received the new database or have not installed it.

User databases cannot create databases. Operation not allowed.

This message occurs if an end user attempts to create a new database; only Hubs are allowed to create databases.

This is a user database. Cannot archive project [ ].

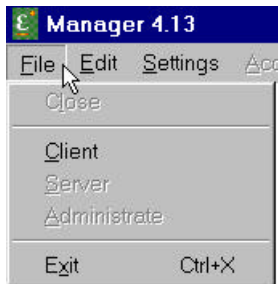
This message occurs if an end user attempts to export to an archive. Only Hubs may export to an archive.

## Chapter 8 Appendix

### MENU REFERENCE

#### File Menu

Provides access to Client, for modem connection to Hub; Server and Administrate, are not accessible for end users.



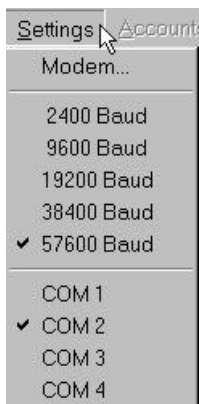
#### Edit Menu

Only Select All, used to select all text in the Manager Scratchpad, is supported for end users.



#### Settings Menu

Provides access to user settings for modem port, baud rate, and modem initialization settings.



### Accounts Menu

Not available for end users.

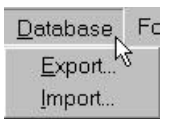
### Project Menu

Allows access to Project Utilities, Project Export, and Project Import functions.



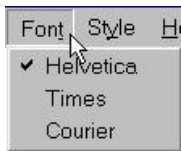
### Database Menu

Allows access to Database Import function; Database Export function supported only for Hub locations.



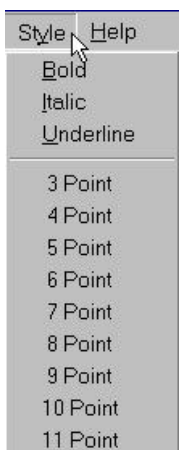
### Font Menu

Allows selection of fonts for use in the Manager Scratchpad. The fonts available to you may not be the same as the ones shown here.



### Style Menu

Allows selection of type size and style for text displayed in the Manager Scratchpad.



### Help Menu

Brings up the About Manager window, listing the versions of Manager and the SSD LINK database installed.





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LINK Manager