

# ConfigED / DSD



**Product Manual**  
RG353792 Iss 3



# Configuration Editor

Software Manual

Version 5 Software

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Procedures in this manual may contain Warnings, Cautions, and Notes. A Warning gives the reader information which, if disregarded, could cause injury or death. A Caution provides the reader with advice which, if disregarded, could cause damage to the equipment. 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 and 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 this manual, contact SSD Drives Customer Service at (704) 588-3246.



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## **Contents**

### **Safety**

#### **Chapter 1 INTRODUCTION**

|                                |      |
|--------------------------------|------|
| Product Description .....      | 1- 1 |
| New Features .....             | 1- 1 |
| Key Features .....             | 1- 2 |
| Structure of This Manual ..... | 1- 2 |
| Text Conventions .....         | 1- 2 |

#### **Chapter 2 PACKAGE CONTENTS & HANDLING**

|                        |      |
|------------------------|------|
| Package Contents ..... | 2- 1 |
| Handling .....         | 2- 1 |

#### **Chapter 3 INSTALLATION AND SETUP**

|  |      |
|--|------|
| Computer Compatibility and Hardware Requirements ..... | 3- 1 |
| Setting Up ConfigEd .....                              | 3- 2 |
| Installing Manager .....                               | 3- 4 |

#### **Chapter 4 CONFIGURED FUNCTIONS**

|   |       |
|---|-------|
| The ssd_LINK Database .....                               | 4- 1  |
| Organizing Your Work .....                                | 4- 1  |
| The ConfigEd Main Menu Bar .....                          | 4- 2  |
| The Scratch Pad .....                                     | 4- 3  |
| The Project MENU .....                                    | 4- 4  |
| The Project-Select Command .....                          | 4- 4  |
| The Project-Manage Command .....                          | 4- 4  |
| Create a New Category .....                               | 4- 4  |
| Create a New Project .....                                | 4- 5  |
| Select a Project .....                                    | 4- 6  |
| Move a Project .....                                      | 4- 6  |
| Cat. Read-Only .....                                      | 4- 6  |
| Sort by Address .....                                     | 4- 6  |
| Find Project .....  | 4- 6  |
| Change Project Info .....                                 | 4- 7  |
| The Upgrade Command .....                                 | 4- 7  |
| The Project-Duplicate... Command .....                    | 4- 8  |
| The Project-Update... Command .....                       | 4- 8  |
| The Project-Compact Command .....                         | 4- 9  |
| The Project-Document... & Project-Print... Commands ..... | 4- 9  |
| The File Menu .....                                       | 4- 10 |
| The File-New... (Ctrl+N) Command .....                    | 4- 10 |

## Contents (Continued)

### Chapter 4 CONFIGURED FUNCTIONS (continued)

|  |        |
|--|--------|
| The File-Open (Ctrl+O) Command .....                                       | 4 - 11 |
| The File-Open-Open Command .....   | 4 - 11 |
| Configuration Read-Only Mode .....   | 4 - 11 |
| Graphical Mode .....   | 4 - 11 |
| Install Source .....   | 4 - 11 |
| Configuration Description Fields .....                                     | 4 - 12 |
| The File-Open History... Command .....                                     | 4 - 12 |
| The File-Open Selected Command (F2) .....                                  | 4 - 13 |
| The File-Extract Selected Command .....                                    | 4 - 13 |
| The File-Close Command (Ctrl+W) .....                                      | 4 - 14 |
| The File-Save Command (Ctrl+S) .....                                       | 4 - 14 |
| Modification Level vs. Revision Level .....                                | 4 - 14 |
| Saving Scratch Pad Text .....  | 4 - 15 |
| The File-Save As Command .....   | 4 - 16 |
| The File-Delete Command .....  | 4 - 16 |
| The File-Page Setup..., File-Print Scale, and File-Print... Commands ..... | 4 - 17 |
| The File-Exit Command .....  | 4 - 17 |
| The Edit Menu .....  | 4 - 18 |
| The Edit-Cut, Edit-Copy, Edit-Paste & Edit-Clear Commands .....            | 4 - 18 |
| The Edit-Select All and Edit-Paste Time Commands .....                     | 4 - 19 |
| The Edit-Net Address(##)... Command .....                                  | 4 - 19 |
| The Edit-Net Topology Command .....  | 4 - 19 |
| The Duplicate (Ctrl+D) Function Block Command .....                        | 4 - 20 |
| The Edit-Test Point Command .....  | 4 - 20 |
| The Block Menu .....   | 4 - 21 |
| Placing Function Blocks .....  | 4 - 21 |
| Renaming Function Blocks .....   | 4 - 21 |
| Deleting Function Blocks .....   | 4 - 21 |
| Configuring LINK Inputs and LINK Outputs .....                             | 4 - 22 |
| Normal & Priority Inputs .....   | 4 - 23 |
| Working With DC LINK Drive .....   | 4 - 23 |
| Configuring DC LINK Drive Outputs .....                                    | 4 - 24 |
| Working With L620 Vector LINK Drives .....                                 | 4 - 25 |
| Configuring L620 Vector LINK Drive Inputs & Outputs .....                  | 4 - 25 |
| The Command Menu .....   | 4 - 26 |
| The Command-Install at Selected Command (Ctrl+G) .....                     | 4 - 26 |
| The Command-Install at Address Command (Ctrl+T) .....                      | 4 - 27 |
| The Command-Install Changes Command (F3) .....                             | 4 - 27 |
| The Command-Halt, Command-Restart, and Command-Get Info Commands .....     | 4 - 28 |
| The Command-Halt Command .....   | 4 - 28 |
| The Command-Restart Command .....  | 4 - 28 |
| The Command-Get Info Command .....   | 4 - 29 |
| The Command-SAM Functions .....  | 4 - 31 |
| The Command-Comms.. Function .....   | 4 - 31 |

## Contents (Continued)

### Chapter 4 CONFIGURED FUNCTIONS (continued)

|  |        |
|--|--------|
| The Command-Revisions (#)... Command ..... | 4 - 31 |
| The Command-Readdress... Command .....     | 4 -32  |
| The Window Menu .....                      | 4 -33  |
| Opening a CE Module List .....             | 4 -33  |
| Duplicate & Temporary Addresses .....      | 4 -34  |
| The Window-Update Partial Command .....    | 4 -35  |
| The Window-Update Full Command .....       | 4 -35  |
| The Window-Auto Update Mode .....          | 4 -36  |
| The Window-Module List Command .....       | 4 -36  |

### Chapter 5 DISPLAYING, DOCUMENTING & PRINTING

|   |        |
|---|--------|
| Displaying Configurations .....                   | 5 - 1  |
| Display Options .....                             | 5 - 1  |
| "Screen Zooms" & The Scale Function .....         | 5 - 1  |
| Moving Function Blocks and Drawing Elements ..... | 5 - 3  |
| Arranging Elements Within a Configuration .....   | 5 - 3  |
| The Align Function .....                          | 5 - 4  |
| The Sheet Feature .....                           | 5 - 4  |
| Inter-Sheet Connections .....                     | 5 - 5  |
| Split Connections .....                           | 5 - 5  |
| Documenting Configurations & Projects .....       | 5 - 6  |
| Annotating Drawings .....                         | 5 - 6  |
| The Text & Drawing Tools .....                    | 5 - 7  |
| Text (F4) .....                                   | 5 - 7  |
| Rectangle (F8) .....                              | 5 - 7  |
| Oval (F7) .....                                   | 5 - 7  |
| Line (F6) .....                                   | 5 - 7  |
| Arrow (F5) .....                                  | 5 - 7  |
| Moving & Re-sizing Drawing Elements .....         | 5 - 8  |
| Move to Front & Move to Back .....                | 5 - 8  |
| Drawing Attribute Functions .....                 | 5 - 9  |
| Color .....                                       | 5 - 9  |
| Fill .....  | 5 - 9  |
| Pattern .....                                     | 5 - 9  |
| Width .....                                       | 5 -10  |
| Black White .....                                 | 5 -10  |
| Text Attribute Functions .....                    | 5 - 11 |
| Font & Style Menus .....                          | 5 - 11 |
| Forms .....                                       | 5 -12  |
| Inserting and Removing Forms .....                | 5 -12  |
| Creating Forms .....                              | 5 -13  |
| Modifying an Existing Form .....                  | 5 -13  |
| Creating a New Form .....                         | 5 -14  |

## **Contents (Continued)**

### **Chapter 5 DISPLAYING, DOCUMENTING & PRINTING (continued)**

|  |        |
|--|--------|
| Automatic Data Entry .....               | 5 - 15 |
| Creating an Index .....                  | 5 - 17 |
| The Document... Command .....            | 5 - 18 |
| Save Sources & Clear Unused .....        | 5 - 18 |
| Printing .....                           | 5 - 19 |
| Print Scale & Page Setup .....           | 5 - 19 |
| The File Print... (Ctrl+P) Command ..... | 5 - 19 |
| The Project Print... Command .....       | 5 - 20 |

### **Chapter 6 SAM FUNCTIONS**

|  |        |
|--|--------|
| Accessing The SAM Functions .....                                      | 6 - 1  |
| Opening Graphical SAM Windows .....                                    | 6 - 2  |
| Monitoring and Setting Parameters .....                                | 6 - 3  |
| Opening SAM Get & Set Parameter Windows .....                          | 6 - 3  |
| Monitoring Parameters .....  | 6 - 4  |
| The Get Operation .....  | 6 - 4  |
| The Monitor List .....   | 6 - 4  |
| The Chart Function .....   | 6 - 5  |
| Setting Parameters .....   | 6 - 6  |
| The Set Operation & the Read-Only Mode .....                           | 6 - 6  |
| Verify Mode .....  | 6 - 7  |
| The Pot Function .....   | 6 - 7  |
| Monitoring & Setting Parameters Through the Graphical SAM Window ..... | 6 - 8  |
| SAM Test Points .....  | 6 - 10 |
| Creating SAM Test Points .....   | 6 - 10 |
| Setting and Monitoring SAM Test Points .....                           | 6 - 11 |
| Backing Up .....   | 6 - 12 |
| Restoring .....  | 6 - 13 |
| SAM Document Module Command .....                                      | 6 - 13 |

### **Chapter 7 TROUBLESHOOTING**

|  |       |
|--|-------|
| PC Serial Port Communications Problems .....     | 7 - 1 |
| Error Dialogs .....                              | 7 - 2 |
| Display Problems .....                           | 7 - 3 |
| Get Info Status Messages .....                   | 7 - 4 |
| LED & Seven-Segment Status Display Codes .....   | 7 - 4 |
| The Help Menu & Function Block Information ..... | 7 - 4 |

## **Contents (Continued)**

### **Appendix A COMMUNICATIONS**

|   |           |
|---|-----------|
| Communicating with LINK Networks .....          | App A - 1 |
| Direct Communications Hardware Setup .....      | App A - 1 |
| Modem Communications Hardware Setup .....       | App A - 2 |
| Communications Settings .....                   | App A - 4 |
| Baud Rate Settings: Direct Communications ..... | App A - 4 |
| Baud Rate Settings: Modem Communications .....  | App A - 4 |
| Modem Command String Settings .....             | App A - 5 |

### **Appendix B QUICK REFERENCE**

|                                 |           |
|---------------------------------|-----------|
| ConfigEd Menu Reference .....   | App B - 1 |
| File Menu .....                 | App B - 1 |
| Edit Menu .....                 | App B - 1 |
| Project Menu .....              | App B - 2 |
| Block Menu .....                | App B - 2 |
| Command Menu .....              | App B - 2 |
| SAM Sub-menu .....              | App B - 3 |
| Draw Menu .....                 | App B - 3 |
| Window Menu .....               | App B - 4 |
| Font Menu .....                 | App B - 4 |
| Style Menu .....                | App B - 5 |
| Help Menu .....                 | App B - 5 |
| Keyboard Display Commands ..... | App B - 5 |

### **Appendix C DESIGNING A PROJECT— A TUTORIAL**

|  |            |
|--|------------|
| Getting to Work .....                      | App C - 1  |
| Creating & Saving Configurations .....     | App C - 3  |
| Creating a New Configuration .....         | App C - 3  |
| Configuration Display .....                | App C - 4  |
| Adding & Naming Function Blocks .....      | App C - 5  |
| Duplicating Function Blocks .....          | App C - 6  |
| Button Bands .....                         | App C - 8  |
| Adding Meters .....                        | App C - 8  |
| Adding & Connecting Inputs & Outputs ..... | App C - 9  |
| Creating and Connecting LINK Inputs .....  | App C - 10 |
| Creating and Connecting LINK Outputs ..... | App C - 12 |
| Button Highlights .....                    | App C - 13 |
| Organizing Your Display .....              | App C - 14 |
| Copying an Existing Configuration .....    | App C - 15 |
| Installing a Configuration .....           | App C - 16 |
| Printing a Configuration .....             | App C - 18 |

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**CONFIGURATION EDITOR  
SOFTWARE MANUAL**

# Chapter 1 INTRODUCTION

## PRODUCT DESCRIPTION

The *LINK* product line is a distributed control system manufactured by SSD Drives which uses fiber optic technologies in industrial control applications.. The *LINK* network connects all *LINK*-compatible motor controllers (drives) and modules using a high-speed fiber optic serial communications link. By using the *LINK* technology, customers eliminate conventional signal and control wiring required by current industrial control systems. Programming of *LINK* products is performed using the software tool Configuration Editor (ConfigEd).

Using the software tool Configuration Editor (ConfigEd), you can access, develop, install, modify, and monitor all drive and module programs for the entire first generation *LINK* and *LINK2* product range. ConfigEd employs a graphical user interface which includes sophisticated drawing tools which allow you to create, diagram, and document your control scheme in an easy-to-understand visual format. This visual format makes commissioning and troubleshooting of industrial control systems simpler and more intuitive for the average user.

### NOTE.

1. This manual assumes that you are proficient in using either a “mouse” or similar pointing device on a personal computer (PC) . Additionally, to fully benefit from this software package, you must be familiar with the basic concepts of, and the manipulation of data within, the Microsoft Windows™ environment.
2. ConfigEd’s software blocks use standard Boolean logic symbols (e.g., AND, NAND, OR, NOR, and XOR). You must have a basic understanding of Boolean logic.
3. Before using ConfigEd, you must be familiar with the basic concepts of the *LINK* fiber optic control network as described in the ***LINK Overview Manual*** (HA350678).

A working knowledge of AC and DC drives is recommended. Specific training in *LINK* drives is recommended, but not immediately required.

For those using this product on a regular basis, training by SSD Drives is available on both ConfigEd and *LINK* system design.

In addition to the software tool ConfigEd, this package also includes *LINK* Manager, a utility which provides you with the facilities to manage both your *LINK* database and the projects you create on your PC. Refer to the **Manager User Manual** (RG352101) for information on this product.

## NEW FEATURES

For users of ConfigEd prior to Version 5, the following is a brief list of new major features:

- Support added for all new generation LINK2 products.
- New editing commands supporting copying, cutting, pasting, deleting, and moving function blocks and their associated connections within the same configuration or *between* different configurations.
- The ability to install information into *LINK* modules which supports extracting the configuration from the modules without the original project files on your PC.
- Graphical Setup and Monitor (SAM) features where data from LINK modules is displayed on your configuration as originally drawn in lieu of the text based format of previous versions.
- A new on-screen potentiometer feature for incrementing and decrementing SAM parameters while on-line with a *LINK* control system.
- Four different SAM communication profiles may be stored for future use.

## Key Features

As previously supported by ConfigEd Version 4.x, you still can:

- Create and modify configurations for *LINK* drives and modules.

NOTE. You do not need *LINK* hardware to create or modify configurations for your control system. All configurations may be generated off-line on your PC and installed later into the appropriate devices while on-line with your *LINK* system.

- Create project folders for your configurations.
- Setup and monitor the performance of installed configurations while on-line with your *LINK* system.
- Generate project documentation.

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### WARNING!

Errors in configurations can cause unexpected and dangerous machine operation. Do *not* install configurations, or put any *LINK* system controlling machinery into service, unless it has been first thoroughly checked and tested by a qualified engineer or technician.

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### WARNING!

Installing configurations will interrupt drive and module processing. It is strongly recommended configurations be installed only after the equipment controlled by the *LINK* system has been fully stopped and disabled.

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## Structure of This Manual

**Chapters 1 through 3:** These chapters give a brief overview of ConfigEd, a listing of the parts included with your ConfigEd package, and instructions on how to install and setup ConfigEd.

**Chapter 4:** This chapter is an in-depth reference guide to all ConfigEd functions related to creating, configuring, and installing *LINK* configurations and managing *LINK* projects.

**Chapter 5:** This chapter discusses ConfigEd's displaying, documenting, and printing features.

**Chapter 6:** This chapter gives an overview of all the functions related to the Setup and Monitor feature within ConfigEd.

**Chapter 7:** This chapter gives tips on troubleshooting in ConfigEd.

**Appendix A:** This appendix gives information on communicating to *LINK* network devices with your PC through a *LINK* module's RTNX (RS232) port.

**Appendix B:** This appendix is a quick reference guide to all ConfigEd functions and features. It is a condensed version of Chapters 5, 6, and 7.

**Appendix C:** This appendix is a tutorial instructing beginners on how to configure an elementary two node *LINK* system. It is recommended that all new ConfigEd users work through the tutorial.

## Text Conventions

For clarity, all references to ConfigEd's functions, keyboard commands, or parameters appear in **courier** type in this manual.

## Chapter 2 PACKAGE CONTENTS & HANDLING

### PACKAGE CONTENTS

Before you install and begin using ConfigEd, first verify that your package is complete. Your ConfigEd package should include:

- 3.5" floppy diskettes (Part Number RD350672G000) containing the ConfigEd and Manager software programs and the *LINK* database files. At the time of publication of this manual, four diskettes were required with each disk containing the following files:

|         |              |              |
|---------|--------------|--------------|
| Disk 1: | CTL3D.DLL    | DATABASE.001 |
|         | ID.DAT       | INSTALL.EXE  |
|         | MANAGER.EXE  | XWMBA415.DLL |
|         | XWMHN415.DLL | XWMTE415.DLL |

Disk 2: DATABASE.002

Disk 3: DATABASE.003

Disk 4: DATABASE.004

- **Configuration Editor Software Manual, Version 5** (Part Number RG353792)
- **Manager User Manual** (Part Number RG352101)
- ***LINK* Overview Manual** (Part Number HA350678)
- ***LINK* Hardware Manual and Application Notes** (Part Number HA352136)
- **Installation Instruction for *LINK* Software** (Part Number HG352017)
- User licenses for ConfigEd and Manager (Part Number RH352747)
- Cable assembly, DE-9 to RJ11, three-meter length, surge arrester (Part Number CM353470)
- Zipper pouch for cables and adapters (Part Number IC351351)
- Binder for storing manuals and diskettes (Part Numbers IC351284, IC351858, IA352234U000, and IA352235)
- Diskette holder to fit binder (Part Number IC351283)

If any items are missing, or if the package or any of its contents is damaged, contact the SSD Drives Customer Service Department at (704) 588-3246.

### Handling

Take proper care in the handling the materials used for the program. Keep the distribution disks in a dry, clean environment with a relatively constant range of temperature and humidity.

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#### Caution

Magnetic or electrical fields may erase the information on the distribution diskettes. Keep the program diskettes far from magnetic and electrical field sources, including permanent magnet motors.

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## Chapter 3 Installation and Setup

The ConfigEd package includes Installation Instructions for Link software (Part Number HG470052) for installing ConfigEd and Manager. Refer to this note to install both programs on your PC's hard disk

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### Caution

The ConfigEd and Manager program files are compressed on the diskettes provided with the ConfigEd package. You must use the installation program on the diskettes, which automatically extracts the files and organizes them properly on your hard drive. The software will not run properly if ConfigEd and Manager are copied without using the installation program.

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Note. It is important to maintain the structure of the SSD\_Link directory as originally created during installation. The Link tools look for files in specific places and will not work if those files have been renamed, deleted, or relocated. Follow the installation instructions carefully and never rename, delete, or move any of the files, directories, or applications from their original locations.

### COMPUTER COMPATIBILITY AND HARDWARE REQUIREMENTS:

At a minimum, both ConfigEd and Manager are designed to run on personal computers equipped with:

- A 386 or better processor (486 or Pentium processor preferred).
- Microsoft Windows 3.1 (or later) operating system. ConfigEd and manager are both compatible with Windows 95 TM.
- At least 8 megabytes of RAM recognized by Windows (refer to your Windows manual).
- At least 35 megabytes of hard drive space available for initial installation. More disk
- Space may be needed as the number of projects and configurations you create and a RS-232 serial port for connecting your PC to the RTNX on Link modules.

Note: SSD Drives recommends using PCs equipped with a high – speed serial port (i.e., a 16550 universal Asynchronous Receiver-Transmitter (UART) installed) for optimum data transfer between your PC's serial port and the Link network. Most PCs running Microsoft Windows 3.1 (or later) operating system are equipped with this UART. If your computer does not have this UART and has an At-type slot available (half-length) available, you can upgrade your PC with an Enhanced Windows Communications Kit (Part Number LA351199) available from SSD Drives. Refer to Hardware Considerations in Appendix A communications for further Information.

- A Windows compatible mouse, track ball, or similar pointing device.
- A VGA or higher resolution display monitor for your PC.

In addition to the minimum requirements noted above. SSD Drives recommends the following additional hardware:

- A laser printer for printing your configurations.

- A 14.4 Kbaud modem (28.8 Kbaud modem is preferable) which serves two purposes. First, it may be used with the Manager program to receive updates of both Link tools and the SSD\_LINK database directly to your PC using standard phone lines. Second, it may be used remotely support first generation LINK systems which have had an L5214 High-Speed Modem installed, as well as, any Link2 systems which has had a third-party modem installed. Refer to appendix A – Communications for information on modem setup.

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**Caution**

Do not use any connectors, adapters, or cables other than those supplied by SSD Drives. Use of other connection hardware may result in severe equipment damage, injury to personnel, and will void the product warranty.

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## SETTING UP CONFIGED

When initially launching ConfigEd, you must configure the program to work properly with your personal computer's hardware. Although ConfigEd retains communication port settings and the between sessions, you must set up initially.

1. The installation program automatically creates the ConfigEd and Manager program icons, as well as the Link Tools program group, using Program Manager of Windows.  
Double – click on the ConfigEd icon to launch the program.

If you do not have enough system resources to run ConfigEd (for example, your computer is simultaneously running too many other applications), a dialog box will

If this occurs, click OK, and then close one or more of the other Windows applications prior to re-launching ConfigEd.

2. After you successfully launch ConfigEd, a dialog box will appear indicating that you need to configure the application's user settings. This dialog box will appear only once when you launch ConfigEd after initially installing the program. Click the OK Button.
3. The program then prompts you to configure the communication profile for your initial ConfigEd session. The default settings (profile 1) are for a direct connection between your PC's serial port and the RTNX port on a Link module. Profile 1 assumes that the serial port on your computer is COM1 and, that they have a 16550 UART installed,

Making your PC capable of 57.6 Kbaud communications. If either the communications port or baud rate is correct, change them now. Click the OK button to accept the setting.

Note: Make certain the serial port you select is not the same one being used by the pointing device is connected to COM1, you would normally use COM2 for your PC-to-Link communication profile.

If you will be communicating to a remote LINK system using a modem, select either Slow Modem or Fast Modem depending on the modem type install at remote location. Selecting either of the modem options opens a separate window for entry of modem-specific commands. Refer to Communications for details on setting modem command strings and customizing communications profiles.

Up to four different communication profiles may be created and independently named for future use. These four profiles are found under Comms in the Command menu.

4. Next, ConfigEd prompts you to enter a user name (for example John Doe). The user name must be at least five characters in length.
5. Depending on the type of ConfigEd installation (either PC or Local Area Network (LAN) based), a new dialog box may appear asking you to select the location of ConfigEd's ID.Dat file. This file is unique for every licensed copy of ConfigEd and its location must be known by the program for all the features to work properly.

The installation procedure should have automatically copied this file from disk 1 of the installation disk onto your PC's hard disk and specified its location; if the installation is LAN based, selection through the dialog box to the appropriate

SSD\_LINK directory on your LAN is required.

6. Next, the Manager dialog box appears asking you to either create or select an existing project. In order to successfully launch ConfigEd, you MUST specify a project.

The installation disks include a demonstration project called TIC TAC TOE to familiarize you with the ConfigEd program. This project is a working game for use on a first generation Link operator station (Model Number L5101) and processor module (Model Number L5207) and serves as a training tutorial in this manual (see Appendix C.). Because you are running ConfigEd for the first time and no other projects currently exist on your PC, select this project as a starting point by clicking on Public in the category list and clicking on TIC TAC TOE in the Project list. Now, click on the OK button to select the project.

ConfigEd groups projects by logical threads called categories. In the future, any projects and categories you created in ConfigEd or projects you import using Manager will appear in this list under the Manager sub-menu selection in the main menu item Project.

A Dialog box will then appear informing you that you cannot modify the configurations in the currently selected project because you do not have guest rights. Guest rights are the protection provided by the LINK Tools to insure only one ConfigEd user may edit any project at any time. This protection is controlled by Manager. Refer to the Manager User Manual (RG352101) for details. Click OK to proceed.

Once you have selected the project, the ConfigEd Scratch Pad window will appear, indicating you have successfully launched the software. The Scratch Pad records many commands and their associated results during a ConfigEd session. Additionally, the Scratch Pad title bar identifies the currently selected project's unique serial number, category, and title. Just like any other window, you can move, re-size, and zoom in on the Scratch Pad. Typically, it is kept at the bottom of your screen during your ConfigEd session.

7. To complete the initial setup, select Page Setup in the File menu. If you plan to use forms supplied with the installation disks, ensure the orientation is set to landscape as the standard forms supplied with ConfigEd assume a landscape (horizontal) layout. If you wish to create your own forms, see the section Creating forms in Chapter 5.

ConfigEd is now set up and ready to run.

When you complete a ConfigEd session and exit the program, ConfigEd retains these settings in a file called ConfigEd.RCT. This reconstruct file is stored in the working directory as Specified by the ConfigEd icon (typically C:/SSD\_LINK /Tools/WIN3). If this file exists when beginning subsequent sessions, ConfigEd bypasses the set up procedures and re-enters the program exactly where you left with the last project selected currently active.

## **INSTALLING MANAGER**

Manager is installed in the LINK Tools Program group prior to ConfigEd by the INSTALL.EXE program on Disk 1 of the installation disk. Refer to the Installation Instructions for LINK software (Part Number HG470052) and to the Manager User Manual (RG352101) for details on the LINK Tool Manager.

## Chapter 4 CONFIGED FUNCTIONS

This chapter describes all of ConfigEd's features related to creating, editing, and installing *LINK* configurations, as well as, managing *LINK* projects (refer to *Chapter 5 Displaying, Documenting & Printing* for details on displaying and printing your *LINK* projects). For information on ConfigEd's Setup and Monitor (SAM) features, refer to *Chapter 6 SAM Functions* while a quick reference for all of ConfigEd's features appears in *Appendix B Quick Reference*.

### THE SSD *LINK* DATABASE

The ConfigEd software package includes the *SSD\_LINK* database which contains all the files required to build *LINK* configurations. It occupies about 15 megabytes of hard disk space on your computer and must be accessible by the ConfigEd program for all of its features to work properly. As the number of function blocks and *LINK* module types grow, more disk space will be required. While running, ConfigEd continuously accesses the database and reports any file errors to the *Scratch Pad*. Refer to Appendix A of the *LINK Overview Manual* (HA350678) for a description of the file structure of the *SSD\_LINK* database.

### ORGANIZING YOUR WORK

A *LINK* project is a logical grouping of configurations for one coordinated system controlling a production line (e.g., a group of *LINK* drives supplied by SSD Drives which control the motors of a printing press). Within any *LINK* project, you may create configurations for any of the modules supported by ConfigEd (i.e., AC drives, DC drives, operator stations, processor modules, etc.). Categories, in turn, are used to keep all related *LINK* projects in some logical grouping.

As an example of project grouping, consider a printing facility which has three separate presses, each having a series of motor controllers, operator stations, tension transducers, and winders. A separate *LINK* system controls each press while a unique *LINK* project (in this case, Web 1, Web 2, Web 3) contains all the software configurations associated with the *LINK* motor control system. For each *LINK* module or drive within the system, one software configuration exists which contains the necessary function blocks to control the printing process. To further organize the work, all projects relating to particular department within the plant are grouped under the category Printing (as opposed to other plant operations, such as Laminating, Slitting or Binding). Figure 4.1 shows the hierarchical breakdown of this printing plant's *LINK* projects.

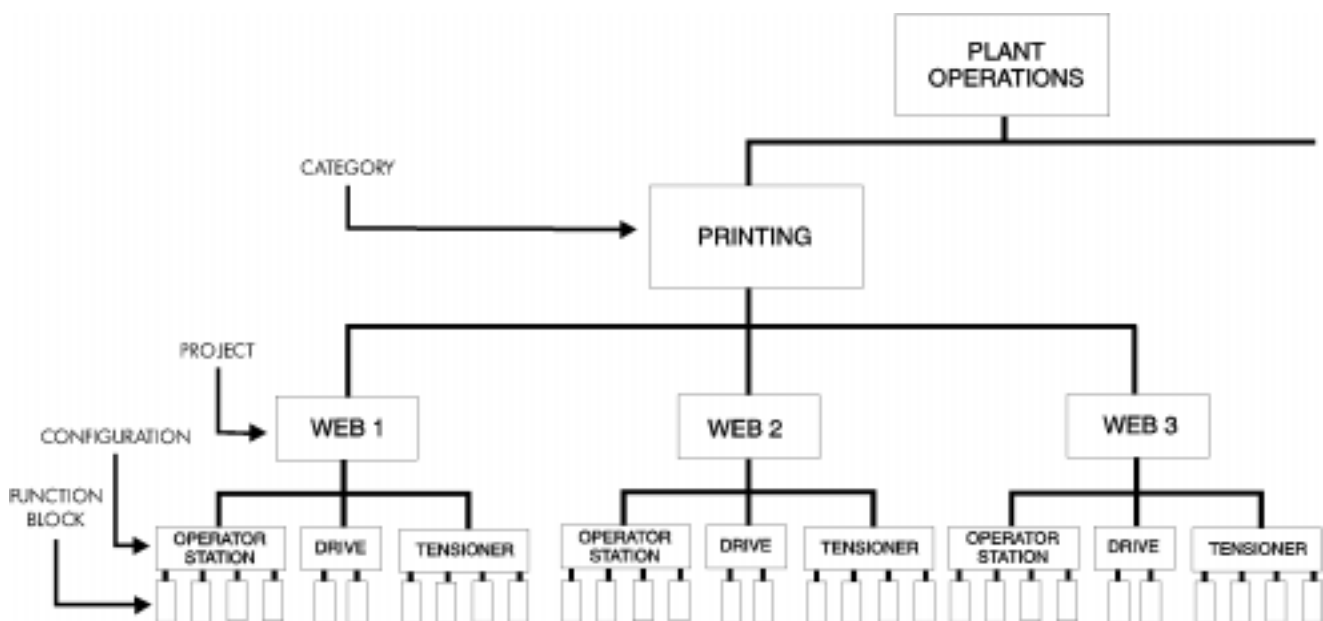


Figure 4.1 - Organization Breakdown of *LINK* System in a Printing Plant

Typically, one ConfigEd project is assigned to each separate *LINK* network while each configuration in that project is installed into only one *LINK* module on that network. However, grouping of the configurations for a *LINK* network may vary depending on whether you are using only first generation *LINK* hardware, only *LINK2* hardware, or a mixture of the two. Refer to the *LINK Overview Manual* (HA350678) for planning considerations for a *LINK* system.

## THE CONFIGED MAIN MENU BAR

When you begin a new ConfigEd session, the ConfigEd workspace fills your entire screen. The main menu bar is located at the top of the screen and the ConfigEd **Scratch Pad** appears at the bottom. Each main menu heading contains commands associated with one aspect of designing configurations for a *LINK* project. Clicking on a main menu heading with your mouse opens a list of sub-menus which are commands/selections associated with the main menu picked. Figure 4.2 highlights the functions associated with each main menu heading.

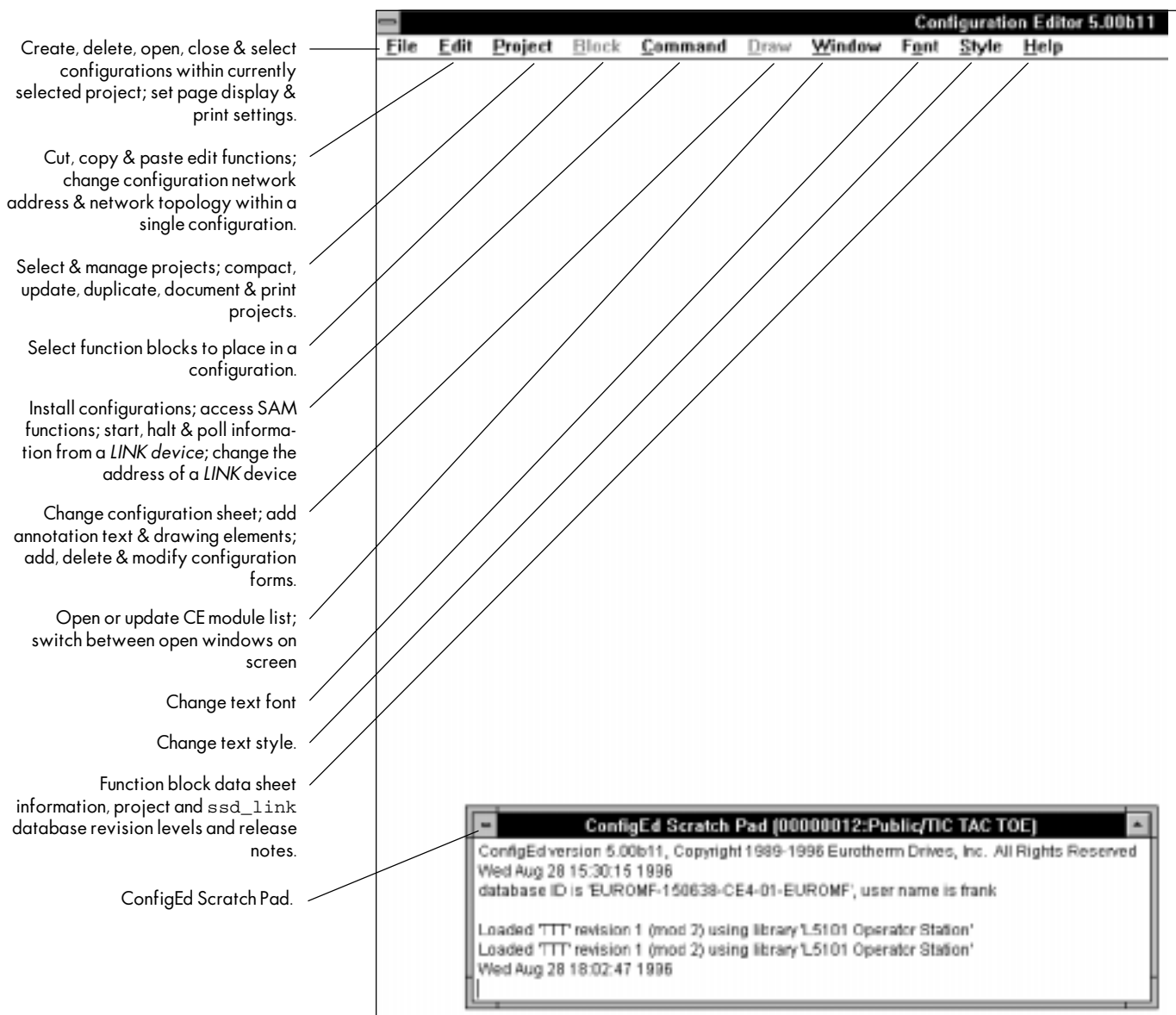


Figure 4.2 - ConfigEd Main Menu Bar

## THE SCRATCH PAD

The **Scratch Pad** appears on screen during every ConfigEd session. As previously mentioned, it responds to the same commands as any other window and provides a written record of most actions you perform during your ConfigEd session, such as:

- Loading, saving, installing, and deleting configurations.
- Reporting any errors between your database and the *LINK* network.
- Recording all SAM commands, including *Get* and *Set* actions.

When you close the program for the first time, ConfigEd automatically saves the contents of the **Scratch Pad** to a file called **CONFIGED.TEX**. This **TEX** file is saved to the as specified by the ConfigEd icon (typically **C:\SSD\_LINK\TOOLS\TOOLS\WIN3**). At the close of each subsequent ConfigEd session, the contents of the current **Scratch Pad** is appended to this existing file. If for some reason the **TEX** file does not exist, ConfigEd will create a new one and save the contents of the **Scratch Pad**. The **TEX** file format is standard ASCII characters and may be edited or printed using any word processing program. In most Windows installations, the accessories **NOTEPAD.EXE** (smaller files) and **WRITE.EXE** (larger files) are available to edit/print this file.

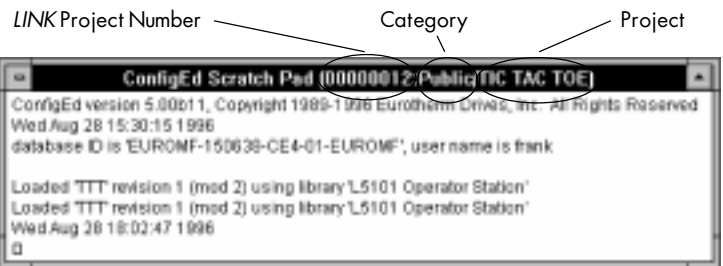
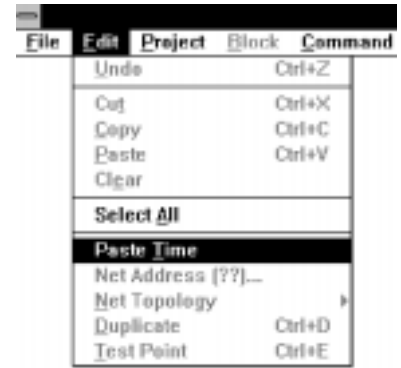
To print the **CONFIGED.TEX** file's contents using **Write**:

1. Launch **Write** from the **Accessories** program group in Windows.
2. Select **Open** from the **File** menu.
3. When the **Open** dialog box appears, choose *All Files (\*.\*)* for the *List files of Type:* selection and use the *Directories:* window to locate the **CONFIGED.TEX** file (typically in the **C:\SSD\_LINK\TOOLS\WIN3** directory). Once the file is visible in the *File Name:* window, choose the **CONFIGED.TEX** file by clicking once on the filename. Finally, click on the **OK** button.
4. A **Write** window will now appear asking "Do you want to convert this file to write format?". Click on the **No Conversion** button.
5. To print the file's contents, select **Print** from the **File** menu. When the **Print** window appears, confirm your printer's settings and click on the **OK** button.

After launch, ConfigEd automatically records the tools version number, current date and time, database ID, and user name in the **Scratch Pad**. If during commissioning or startup of a *LINK* system you would like to note the current date and time in the **Scratch Pad**, you can manually insert the current date and time at any point by selecting the **Paste Time** command in the **Edit** menu.

**NOTE.** The title bar of **Scratch Pad** always displays the currently selected project's unique serial number, category, and title. If you change projects during a session, the title bar shows only the *active* project.

In addition to the information automatically recorded in the **Scratch Pad**, you can add your own comments to supplement ConfigEd's recording features. To add text, simply click in **Scratch Pad** where you want to add text and type at the blinking cursor.



You can also clear the visible text in **Scratch Pad** by clicking on the **Scratch Pad** window and then choosing **Save** from the **File** menu. After clearing the window, ConfigEd appends all text from the **Scratch Pad** to the **CONFIGED.TEX** file.

The contents of the **TEX** file can be a valuable record of commissioning and troubleshooting activities; however, since it is continuously updated, the file can get relatively large consuming considerable hard disk space. Therefore, it is recommended this file periodically be moved (or deleted) from ConfigEd's working directory (remember, if the file does not exist, it is recreated by ConfigEd). A good time to perform maintenance of this type is immediately following the commissioning or servicing of a particular **LINK** system where all of the file's contents are associated with a specific project.

## THE PROJECT MENU

The **Project** menu is used to manipulate the projects on your database. Selectable options in this menu include: **Select**, **Manage...**, **Compact**, **Duplicate...**, **Update...**, **Document...**, and **Print...**



## The Project-Select Command

The **Select** menu pick is a list of the last 50 projects accessed on your computer in prior ConfigEd sessions (the list is stored in the **CONFIGED.RCT** file). This menu pick allows you to quickly switch between frequently accessed projects and categories. To use this feature, click on on the **Select** menu pick. Categories on your database will then be displayed. An additional single click on each category lists the projects most recently accessed in that category. To select a project from the list and make it active, simply click on the project title. Note, the **Scratch Pad**'s title bar changes with the execution of the **Select** menu pick.

## The Project-Manage Command

Click the **Manage** menu pick to open the **Project-Manage** dialog box. You can use the **Project-Manage** features to do the following:

1. Create new categories and projects
2. Select an existing project (not in the **Select** pick).
3. Move projects between categories.
4. Protect project categories by designating them category as *Read-Only*
5. Sort the configurations inside a project by their **LINK** network address.
6. Enter project data used by ConfigEd's documentation features.

NOTE. The **Manage** menu pick only manages projects for the **LINK** database installed on your computer. To manage projects between multiple computers, use the separate **LINK Tool Manager** (see the **Manager User Manual** (RG352101)).



## Create a New Category

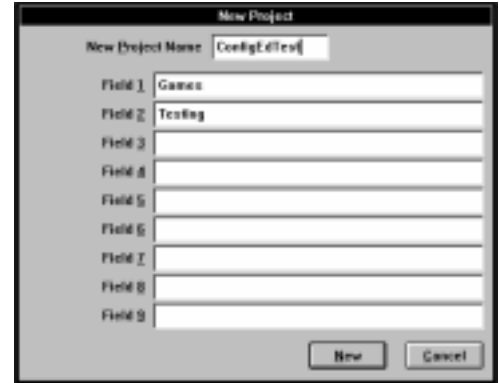
To create a new category, click on the **New Category** button in the dialog box. Type in the desired name (up to 12 characters) for the category and click OK. The new category now appears in the *Destination Category* column. Projects may now be moved into the new category as described later in this chapter. Click on the **Done** button to close the dialog box.

Although you cannot directly delete a category, empty categories are automatically deleted by ConfigEd.

## Create a New Project

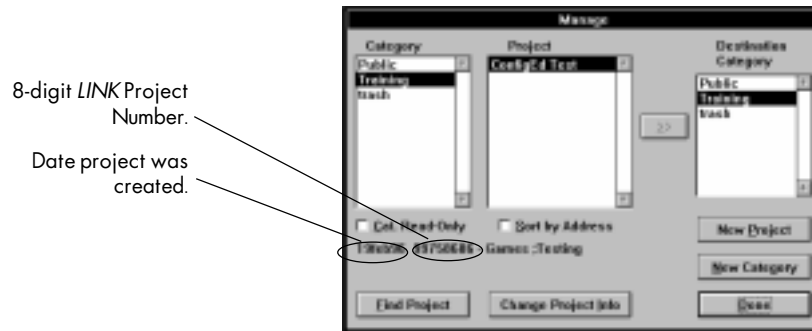
To create a new project, select the appropriate category from the *Category* box and single click the **New Project** button. A *New Project* window will appear with data entry fields for the **New Project Name** and **Fields 1-9**.

The new project's title is entered in the **New Project Name** field (up to 20 characters) and specific project data is entered in **Field 1** through **Field 9**. The generic forms supplied with ConfigEd use the data in the **Fields** to automatically enter title block information when printing your configurations (see *Chapter 5 Documenting, Printing & Displaying Configurations* for details). Enter the appropriate project title and any desired field data then click on the **New** button to create the project.



After clicking the **New** button, your project title will appear in the category you selected with both the category and project highlighted. Click **New** to close the **Manage** dialog box and create the project. At this point, ConfigEd assigns the project a unique 8-digit number corresponding to a sub-directory under the `SSD_LINK\CONFIGS` directory on your computer. All files related to the new project will be stored in this directory (see the *LINK Overview Manual* (HA350678) for an in-depth discussion of the *LINK* database directory structure).

**NOTE.** ConfigEd actually uses the 8-digit project number NOT the category and project title to access the files on your database. Therefore, it is possible to have two projects within a category with the exact same title; however, it is not recommended.



All of the **Field** data, the project's creation date, and its unique 8-digit project number now appear in the **Manage** dialog box. You may modify the project title **Field** data by clicking the **Change Project** button. The *Change Project* window (identical to the *New Project* window) will appear and the data may be modified.

**NOTE..** Project numbers are a limited resource as each new user of ConfigEd is assigned a limited range of unique 8-digit numbers. Whenever possible, you should use the **File-Delete** menu pick to empty obsolete projects of all configurations and reuse the project number in lieu of creating new projects. The **Project-Manage** menu pick may be used to move obsolete projects to an appropriate category (e.g., Spares) until required.

**NOTE.** Once created, a project CANNOT be deleted directly from ConfigEd. If the project is to truly be deleted, the *LINK* Tool Manager will allow the project to be exported to floppy diskettes with its Read/Write token making the copy on your computer *Read-Only*. Once in a *Read-Only* state, the Manager will permit you to delete the project (see the **Manager User Manual** (RG352101)).

## Select a Project

To select an existing project using the **Project-Manage** menu pick, click on the appropriate category and then click on the desired project.

To select the project and close the **Manage** dialog box, click on the **Done** button. Note, the **Scratch Pad**'s title bar changes to the selected project with the execution of the **Done** command.

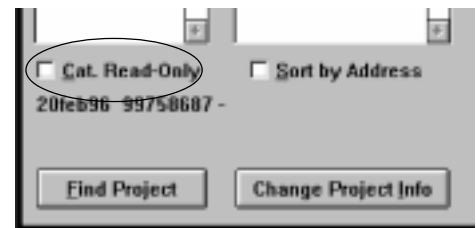
## Move a Project

To move an existing project from one category to another using the **Project-Manage** menu pick, click on the project's existing category in the *Category* list then click on the appropriate project title in the *Project* list. Now, click on the desired category under the *Destination Category* list on the right. If satisfied with your selections, click on the double-arrow (>>) box between *Project* and *Destination Category* boxes to move the project. When executed, the project move at the right will transfer the project **junk** from the **Public** to the **Training** category.



## Cat. Read-Only

To prevent modification of any projects in an entire category using the **Project-Manage** menu pick, click on the category to be protected and then click on the box labeled *Cat. Read-Only*. Each click of the mouse will toggle the state of the box. (checked is protected, blank is unprotected). For LAN installations, this lockout is private for each user and stored in the **CONFIGED.RCT** of their icon's working directory.



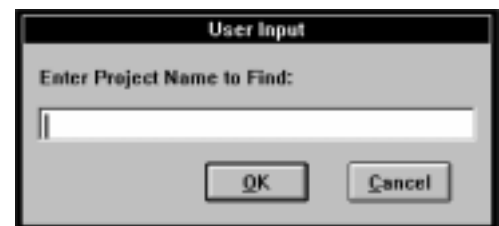
## Sort by Address

To sort the configurations in a project by their *LINK* network address using the **Project-Manage** menu pick, click on the project title in the *Project* box and then click on the box labeled *Sort by Address*. Each click of the mouse will toggle the state of the box. (checked is sorted by address in ascending order, blank is sorted alphabetically by configuration name). This box affects the order in which configuration names are presented in the **File-Open** menu pick, as well as, the order in which configurations are printed in the **Project-Print** menu pick. Lastly, activating the *Sort by Address* feature properly configures your computer to use the **Index** configuration under the **File-New** menu pick (see *Chapter 5 Displaying, Documenting & Printing*).



## Find Project

If you cannot recall a project's category and/or title, the **Find Project** button in the **Project-Manage** menu pick allows you to locate the project using either the project's title or its unique 8-digit project number. To find a project, click on the **Find Project** button. When the *User Input* dialog box appears, type in either the exact name or unique 8-digit project number for the missing project and click on the **OK** button (the *User Input* is not case-sensitive). If the project exists on your database, its category and project title will be highlighted in the *Category* list and *Project* list, respectively. If multiple projects have the same title, the first matching title ConfigEd encounters will be selected. If you determine the highlighted project is not the missing project, simply repeat the command.



## Change Project Info

To change project information using the **Project-Manage** menu pick, click on the **Change Project Info** button in the dialog box. A *Change Project* window exactly like the *New Project* window previously described will appear with data entry fields for the **Project Name** and **Fields 1-9**. Change the project information as required, then click on the **Change** button to accept the data or the **Cancel** button to leave the project information unchanged.

NOTE. It is possible to have the labels in the *Change Project* window for **Fields 1-9** display meaningful descriptions of how the data in these boxes are actually used in your forms by creating a file called **FIELDS.TXT** in working directory for the ConfigEd icon (see the section on *Creating Forms* in Chapter 5 for more details.)

## The Upgrade Command

Since the first generation *LINK* products were released, SSD Drives has continued to develop newer, more powerful versions of our function blocks, as well as, create new function blocks. Accordingly, the programming code associated with these function blocks has grown on the **SSD\_LINK** database. Since all *LINK* modules have a finite amount of memory, if a user built a configuration years ago which barely fit inside the module, without any protections, the same configuration may not fit with current versions of the function blocks.

ConfigEd protects you from this growing project dilemma by freezing the database at the level at which it was created. When you create a new project, ConfigEd records the level of the current **SSD\_LINK** database in the project directory. To the project, the database never looks as if it has been updated. No new or revised function blocks (or *LINK* module types) will be accessible from the *frozen* project.

An upgrade will bring a project up to the current database levels making all current revisions of function blocks and *LINK* modules available. In effect, it is like the project was created on the day of the upgrade.

---

### Caution

Do not use the **Upgrade** command unless you are certain that you need to replace existing function blocks with a newer revision or you need access to previously unreleased function blocks. You cannot undo an **Upgrade** once it has been performed.

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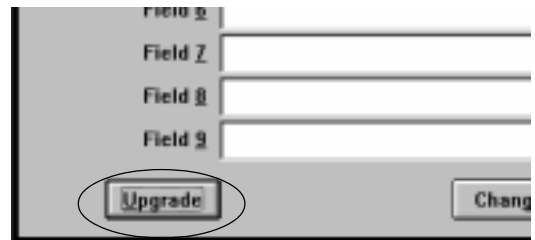
NOTE. Prior to upgrading, you should export to floppy a *Read-Only* copy of any project with Manager. This copy will retain all the original project's properties and, with direction from SSD Drives, may be restored to your *LINK* database.

To upgrade a project, select the project you want to upgrade from the **Project-Manage** menu pick's window and then click on the **Change Project Info** button. When the *Change Project* window appears, click on the **Upgrade** button to upgrade the project. Prior to actually performing the upgrade, a *ConfigEd* confirmation window will appear providing you the last opportunity to cancel the upgrade.

After upgrade, you will immediately have access to any new function blocks currently available on your database; however, obsolete function blocks will have to be replaced using the following procedure:

1. Delete the original function block.
2. Place a new copy from the **Block** menu.
3. Reconnect all the inputs and outputs of the function block.
4. Set all the function block's parameters appropriately.
5. Reinstall the revised configuration into the *LINK* module.

Obsolete function blocks in your configurations will be highlighted by a number of asterisks (\*) adjacent to their name (e.g., CPW \*) indicating the original function block has been replaced by another function block with a different part number (i.e., one asterisk indicates the block has been replaced once, two asterisks indicates the block has been replaced twice, etc.).



## The Project-Duplicate... Command

The **Project-Duplicate...** menu pick allows you to copy the currently selected project (see the **Scratch Pad** title bar) to a new unique 8-digit number within the same category. All configuration names in the duplicate project will match the original, but will have their revision numbers reset to .001. Also note, the duplicate project's database level will remain at that of the original unless an **Upgrade** is performed. The **Duplicate** command can be a valuable time saver on *LINK* systems which are identical (or similar).

NOTE. The **Duplicate** command is for entire projects **only**. To copy individual configurations, use the **File-Save** menu pick.

To duplicate a project, click on on the **Project-Duplicate...** menu pick. A *New Project* window identical to the window displayed when creating a new project appears.

A *New Project* window will appear with data entry fields for the **New Project Name** and **Fields 1-9**.

Fill in the **New Project Name** and **Fields 1-9**, then click on on the **New** button. Your new project title will now be listed in both the **Project-Select** and **Project-Manage** menu picks. The duplicate project resides in the same project category as the original. Use the move feature in **Project-Manage** to move the duplicated project to a different category.

NOTE. Do not use **Project-Duplicate** to back up your project. In the background, ConfigEd *only* recognizes projects by their unique 8-digit number see the duplicate project as a completely separate entity.. Use the export feature of Manager to make copies/backups of your work (see the Manager User Manual (RG352101)).



## The Project-Update... Command

Once you have used the SAM functions to fine tune function block and system parameters for a ConfigEd project installed in a *LINK* network, you can use **Update** to automatically revise the parameter settings in the project's configuration files to match the real world SAM settings. This is a convenient feature, since you can often only approximate many parameter settings when you originally set them in ConfigEd and arrive at optimum values through trial and error when you performance tune the control system. This also puts field tuned parameter values into the source configuration file so that future installations will not overwrite the field tuned parameter values in the *LINK* network modules.

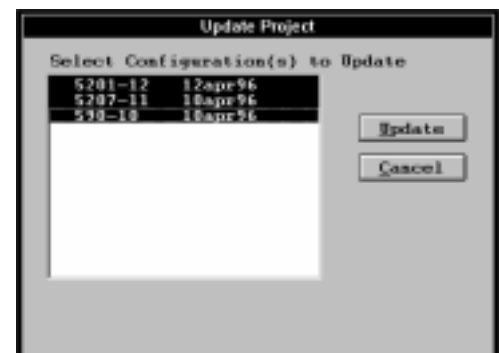


NOTE. You must have access to the project's configuration files to perform an **Update** on a *LINK* network using first generation *LINK* modules. This means that either:

- The configuration files for the project must be resident on your PC hard drive or local network, or
- You must be able to use the **Extract Selected** command and reconstruct the original configuration source files from the first generation *LINK* modules. To do this, the configuration must have been installed with the **Install Source** option selected under the **File-Open-Open** command in the **File** menu (see the discussion on **Install Source** later in this chapter).

Update overwrites all the parameter values in a project's configuration files with those of the *LINK* modules, even values changed during normally system processing. These include all setpoint and feedback values of function blocks and drives, regardless of data type. In effect, **Update** takes a snapshot of all values and parameters of all modules at the moment you execute the **Update**.

To **Update** your configuration, you must first close all open configurations; ConfigEd prevents you from updating configurations unless all configurations are closed. Then click on **Update** in the **Project** menu. From the selection box that appears, select those configurations



you wish to update. Use the Shift-click or Ctrl-click combination to select multiple modules. Once you have selected the configurations, click the **Update** button.

**NOTE.** ConfigEd cannot update modified configuration files, or those configurations to which you have made functional modifications, but have not installed. ConfigEd marks these files in the Update configuration selection box with an asterisk (\*).

ConfigEd then automatically refreshes or opens a **CE Module List** and overwrites the parameters and value settings of configuration files on your PC with those from the configurations installed within the *LINK* modules. The configurations update in the order in which they are arranged in the project. A status bar monitors and the **Scratch Pad** records the progress of your **Update** and any errors (such as a communications error or missing/revised configuration files). Configurations on which errors are reported are not updated.

**NOTE.** Performing an **Update** does not change the modification level of a configuration since it only changes the parameter values, not the functionality of a configuration. However, an **Update** does change the revision level of the updated configurations (see page 4-14 for a discussion on Modification versus Revision level).

---

### Caution

Executing **Update** adds extra communications loading on *LINK* network modules, particularly the one to which the PC is connected, creating a slight chance that a *LINK* module may halt on a L-Error processing fault (or Low-Level Error). It is therefore recommended to stop all machinery the *LINK* network controls before executing the **Update** command.

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## The Project-Compact Command

**Compact** removes all configuration revisions of a project, except the currently installed revision and the highest (i.e. latest) revision. This saves disk space on your PC.

---

### Caution

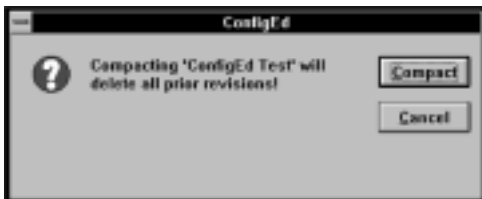
Compact deletes early configuration file revisions. Do not compact a project until you have completed installing and commissioning your *LINK* system and you are certain that all parameters are optimally set and no more configuration changes are required.

---



To compact an installed and fully commissioned project, close all open configurations and select **Compact** from the **Project** menu. A dialog box first warns you that ConfigEd will delete early configuration revisions. Click **Compact** to proceed.

A status bar reports and the **Scratch Pad** records the progress of the **Compact**. When completed, select **Open History** from the **File** menu to view the remaining file revision. Only the currently installed version and its last revision of each configuration should remain, leaving at most two files per configuration. These are the most current configurations.



## The Project-Document... & Project-Print... Commands

These features are discussed in *Chapter 5 Displaying, Documenting & Printing Configurations*.

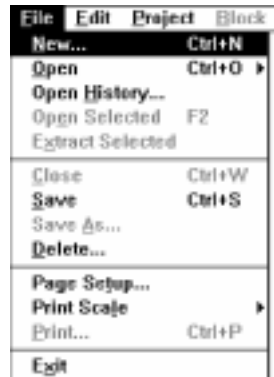
## THE FILE MENU

The **File** menu manages the configuration files of a ConfigEd project.

NOTE. Although you may have multiple configurations from different projects open on your monitor screen, ConfigEd allows you to work on only one configuration within one project at a time. The title bar of the **Scratch Pad** window always indicates the active project.

Use the commands in the **File** menu to:

- Create, save and copy configurations.
- Open, close, and delete current (or past) revision configurations.
- Print open configurations and adjust your printout parameters.
- Exit ConfigEd.



### The File-New... (Ctrl+N) Command

This command creates a new configuration file within the ConfigEd project you have selected. The title bar of **Scratch Pad** indicates the currently selected ConfigEd project. To create a configuration, click **New...** in the **File** menu, or use the keyboard combination **Ctrl+N**, then select the type of configuration you want to create from the listing that appears. *The Select New Configuration* window lists all available types of first generation *LINK* and *LINK2* modules by model number. The table also lists the date the module type was entered into the ConfigEd database. All begin with the letter L, which is the SSD Drives model number designation for a *LINK* module.

NOTE. The type of configuration you create must match the first generation *LINK* or *LINK2* module in which you will install the configuration. Generally, you cannot install a configuration designed for one type of module into another type of module.

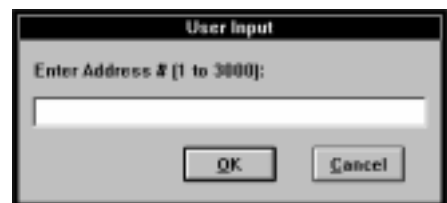
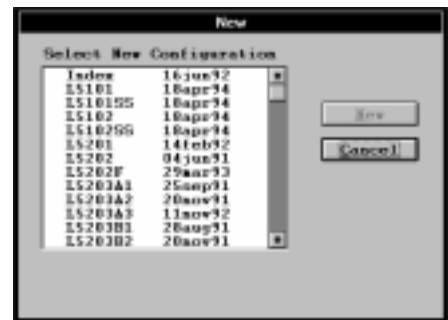
For example, if you have a three-node *LINK* system which includes a 590SPL DC drive, a L5207 processor module, and a L5201 analog module, you must create a L590SP configuration for the 590SPL DC drive, a L5207 configuration for the processor module, and a L5201 configuration for the analog module.

NOTE. The exception to the rule are cases where new *LINK* modules have been released to replace older *LINK* hardware. For example, you can install the configuration for a first generation L5101/L5102 *LINK* operator station into a L5390/L5391 *LINK2* operator station.

The *Select New Configuration* window lists different versions of some configuration types (usually drive configurations). Select the version that matches the firmware of the module or drive within your *LINK* system. For example, select L590v2 when creating the configuration for a 590 *LINK* DC drive with Version 2.x firmware and L590v3 for a 590 *LINK* DC drive with Version 3 firmware.

Once you have selected the correct configuration type for your *LINK* module, click the New button. ConfigEd creates the configuration then prompts you to assign the configuration an address between 1 and 3000, inclusive. This address is the node address for the module within your *LINK* system.

NOTE. You can assign the same address to different configurations within the same project. However, each *LINK* module or drive within the same fiber optic network **must** have a unique address.



ConfigEd then prompts you to name the configuration. This name appears on the title bar of the configuration when opened in ConfigEd. It also serves as the MS-DOS file name for the configuration, which is stored under the 8-digit project subdirectory in **SSD\_LINK/CONFIGS** directory on your hard disk. For a discussion on the complete file structure of the ConfigEd database, refer to the *LINK* Overview Manual.

NOTE. As restricted by the MS-DOS, configuration names are limited to 8-character file names. The 3-character MS-DOS file extension is reserved for revision numbers (001 through 999).

## The File-Open (Ctrl+O) Command

Use **File-Open** to open the latest revision of a configuration within a project. When you choose **File-Open**, highlight the configuration file from the menu that appears and click on it to open it. Picking the **Open...** selection at the top of the box allows you to set display and installation options for each individual configuration.

NOTE. A check mark (Ö) indicates that the configuration is not write-protected (in the Read-Only status), as set through the **File-Open-Open** command.

## The File-Open-Open Command

If you choose the second **Open** command at the top of the **File-Open** selection box (or **File-Open-Open**) a second selection box appears which gives you more control options for your configurations. You can open configurations from the same list **File-Open** offers (the latest revision of the project's configuration files) but you can also individually change a configuration's Read-Only status, designate a file's source information to be installed into the *LINK* module when loading, and select a graphical format.

To open a configuration from the **File-Open-Open** dialog box, highlight the configuration, then click **Select**. An asterisk (\*) next to the file name in the **File-Open-Open** selection box indicates that the configuration functionality has been modified since last installed.

## Configuration Read-Only Mode

The **File-Open-Open** dialog box gives you the option to designate a configuration as Read-Only protecting it from inadvertent or accidental modification. This selection only provides limited protection as any user may change the Read-Only designation (assuming they have Guest Rights to the project). Those configurations you designate as read/write (or not Read-Only) are marked with a check (Ö) in the **File-Open** command list.

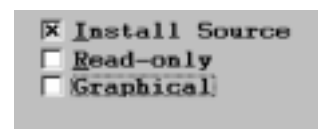
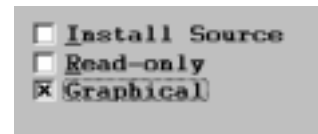
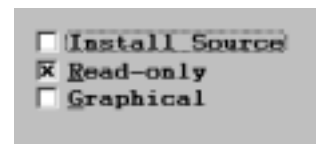
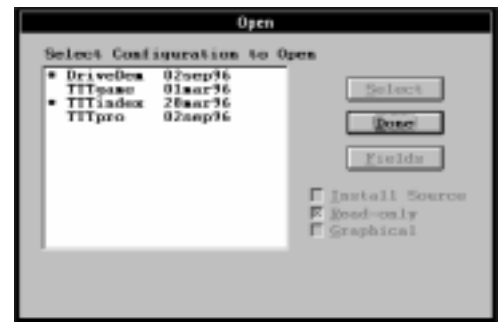
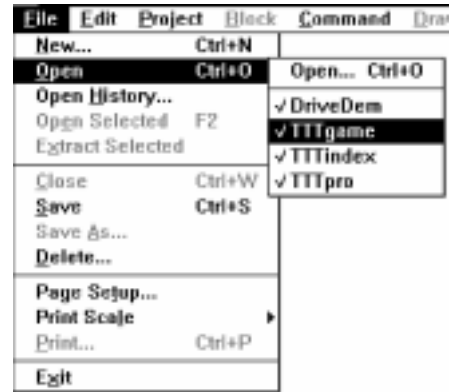
## Graphical Mode

This selection determines how your computer displays configurations on your screen. Checking the box sets the display to a graphical format; unchecking the box sets the display to the earlier text-based format of ConfigEd.

NOTE. Graphical mode is recommended for all projects created with ConfigEd Versions 3.x and higher.

## Install Source

Checking the **Install Source** box prior to installing configurations will cause ConfigEd to load information into the *LINK* module which will enable the software tool to extract the configuration from the module's memory (i.e., without the project files on your computer). In order to use the **Extract Selected** function on first generation



*LINK* modules, the option must be enabled. For *LINK2* modules, ConfigEd installs the configuration's source file information regardless of the status of this box.

**NOTE.** The source file information for a configuration consumes processor memory and limits the amount of free memory usually reserved for configuration data in first generation *LINK* modules. To avoid running out of configuration memory, it is recommended to enable the **Install Source** option only when installing small sized configurations into first generation *LINK* modules.

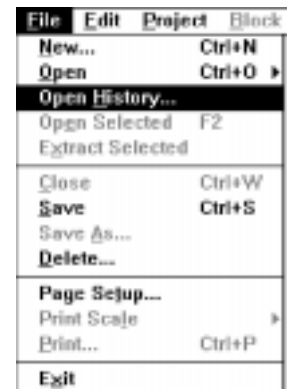
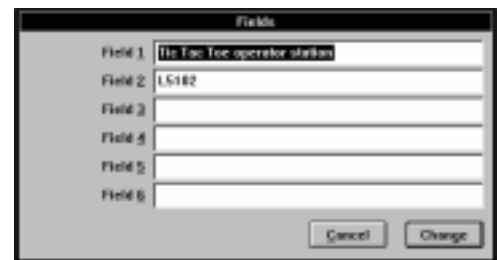
## Configuration Description Fields

The **File-Open-Open** dialog box also gives you access to separate data entry fields for each configuration within a project. These fields provide standard information about the configuration that often appears on engineering drawings such as the configuration name, the type of module, as well as, the project designer. The data from these fields can be included in your forms (see the sections on *Forms and Automatic Data Entry* in Chapter 5).

To enter or change configuration description information, highlight the configuration in the list, then click **Fields**. When the *Fields* dialog box appears, scroll through the different fields using the mouse or the **Tab** key. Enter the required information, then click the **Change** button. Click on **Cancel** button, if you decide not to make any changes.

The default names for these data entry fields are **Field 1** through **Field 6**. You may change the names of these fields to more relevant names by creating a **FIELDS.TXT** file in ConfigEd's working directory using a Windows text editor such as **NOTEPAD.EXE**. Prior to using the fields, it is a good idea to determine a standard format for this information to allow you to enter the information for each configuration consistently (e.g., assign **Field 1** to the configuration name, **Field 2** to the *LINK* module type, etc.).

**NOTE.** The **FIELDS.TXT** file also contains the names for the descriptive fields found in the *Change Project Info* dialog in the **Manage-Project** menu pick.



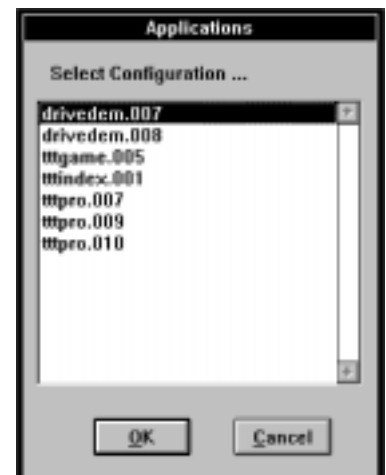
## The File-Open History... Command

ConfigEd sequentially saves each configuration revision to a new file whenever a save is executed. This occurs regardless of whether you save manually using the **Save (Ctrl+S)** command in the **File** menu or whether ConfigEd performs the save automatically (e.g., during either the execution of an install command or when you close the configuration window).

When you select **File-Open History...**, a dialog box listing all of the saved revisions of each configuration in the active project appears. From this list, you may open an earlier revision of a configuration. The suffix number appended to the configuration file name indicates the revision level. The highest revision number corresponds to the latest revision and matches the revision level of the configuration listed in the in the **File-Open** dialog box. You can set the number of revisions ConfigEd will save under **Revisions (#)...** in the **Command** menu.

ConfigEd allows you to open only one revision of a configuration at a time. When you open a configuration, the **Scratch Pad** indicates the revision level which was opened.

**NOTE.** A file revision differs from a file modification. The distinction is discussed in the *Modification Level vs. Revision Level* portion of the **File-Save** section.



## The File-Open Selected Command (F2)

The **Open Selected** command opens the configuration file for the *LINK* module selected in the **CE Module List**. Since this is usually the same revision of the configuration you installed in the module, it is a quick, convenient way of opening a configuration for making modifications while commissioning a *LINK* system.

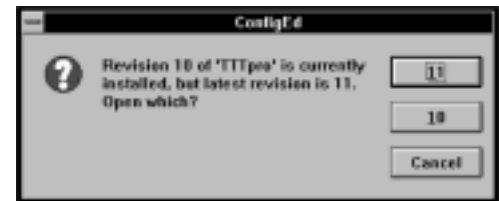
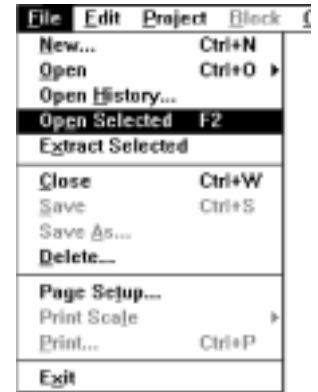
**NOTE.** You must have the *LINK* project and the *LINK* module's configuration files on your database in order to use **Open Selected**.

To use **Open Selected**, open or update the **CE Module List** and select the *LINK* module whose configuration file you want open. Then, click on **Open Selected** in the **File** menu (or press the function key **F2**).

In some cases, the modification level of the configuration file downloaded into a *LINK* module may not match the latest modification level of the configuration file within the *LINK* project on your database. This often happens when you make a functional modification to a configuration and close it, thus saving it, before downloading the modified file into the *LINK* module. When this file mismatch occurs, a dialog box asks you which revision of the configuration you wish to open: the modification in the module, or the latest modification on your database. ConfigEd allows the user to select the appropriate revision.

### Caution

Be careful when modifying earlier revisions of configurations as ConfigEd skips all used revision numbers when saving. If you open earlier revisions and make any changes, any work done in intermediate revisions be lost.

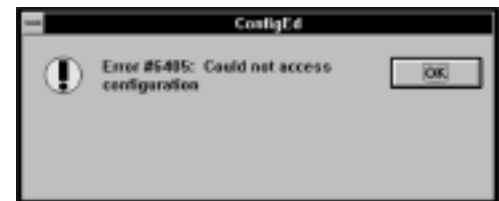
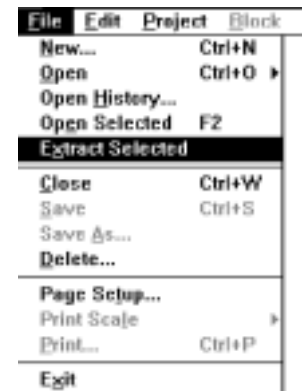


## The File-Extract Selected Command

Use the **Extract Selected** command to reconstruct the original configuration file from the configuration installed in a *LINK* module. Unlike the **Open Selected** command, you do not need the original project and configuration files on your hard disk to reconstruct the file. However, the configuration must have been installed with the **Install Source** option selected in the **File-Open-Open** dialog box (done by default for *LINK2* modules).

This command is often used when you need to make modifications to a *LINK* configuration which are outside the parameter change capability allowed by the SAM features, such as adding function blocks to a configuration, or sending/receiving signals to/from other modules on the *LINK* network. After extracting, you can use ConfigEd to modify and reinstall the reconstructed configuration file, just as with the original configuration file.

Using **Extract Selected** is similar to using **Open Selected**: select the *LINK* module whose configuration file you want to reconstruct from the **CE Module List** and click **Extract Selected** from the **File** menu. If the module does not contain source information, ConfigEd reverts to performing an **Open Selected** on the *LINK* module assuming the project and configuration files reside on your database. If the project does not exist on your database, ConfigEd cannot reconstruct the original files and will generate the error message noted below.



### Caution

Once you have used **Extract Selected** and then modified and reinstalled the configuration(s), it is still recommended you transfer a copy of the reconstructed and revised configuration file(s) to the hub managing the *LINK* project. Otherwise, you can risk losing configuration data since the hub does not have the modified configuration file(s) as stored in the *LINK* module(s).

## The File-Close Command (Ctrl+W)

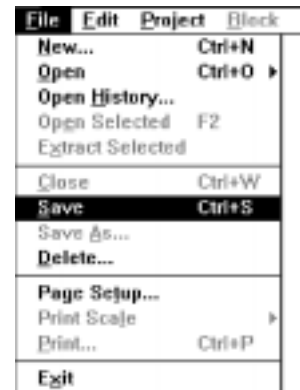
The **Close** command closes the active configuration window. Prior to closing the window, ConfigEd saves any changes to the configuration to a new revision number on your database.

## The File-Save Command (Ctrl+S)

If there are any changes to a configuration, the **Save** command immediately writes the active configuration window to your database. Configuration changes may be functional in nature (e.g., adding/deleting *LINK* input/output slots, function blocks, or connections) or merely appearance related (e.g., rearranging function blocks, adding/deleting text, or adding/deleting drawing elements).

ConfigEd automatically saves modified configurations in the following situations:

- Upon exit, using the **Exit** command in the **File** menu.
- On closing the configuration, using the **File** menu **Close** command (**Ctrl+W**).
- On installing the configuration, using any of the install options in the **Command** menu.



### Caution

ConfigEd has no autosave feature. It is recommended to periodically save while you are designing configurations to avoid losing data in case of a power failure.

## Modification Level vs. Revision Level

ConfigEd keeps track of both the quantities and types of change. Changes that alter the appearance of a configuration, in any way, are revision changes. Revision changes involve any of the following:

- Moving functions blocks and connections.
- Drawing or removing shapes using the **Draw** menu.
- Placing or deleting annotation text using the **Text** tool.
- Changing function block parameter values manually through ConfigEd.
- Updating function block parameters via the **Update** command.
- Adding/deleting function blocks or function block connections.
- Adding/deleting *LINK* input and outputs.

Any and all changes made to a configuration since a previous revision (either automatic or through the **File-Save** command) causes ConfigEd to save the configuration in a new file on the next save. For each file save, the configuration's 3-digit **MS-DOS** file extension is incremented indicating the configuration's revision level. You can set the number of configuration file revisions ConfigEd keeps through the **Revisions (#)...** in the **Command** menu.

Modification changes are concerned with functional changes within a *LINK* configuration. ConfigEd increases the modification level of a configuration on the next save (if you make functional changes) not when just the appearance of the configuration is changed. Functional changes to configurations include:

- Adding and deleting function blocks or function block connections.
- Adding and deleting *LINK* input and outputs.

The modification level of a configuration is stored in each configuration file revision. This means that two revision levels of a configuration are functionally identical if they have the same modification number.

**NOTE.** Making a functional change to a configuration increments its modification level while creating a new revision file. Executing a save after adding or deleting annotation text and drawing objects, executing an **Update** or moving function blocks and connections also creates a new revision file, but leaves its modification level unchanged.

ConfigEd uses the modification number to perform operations between the source configuration and the configuration installed in a *LINK* module. In general, any operation that uses both the source configuration and the configuration installed in a *LINK* module requires both to have the same modification number to prevent data corruption. The two features most affected by the modification issue are the *SAM* and the **Update** functions.

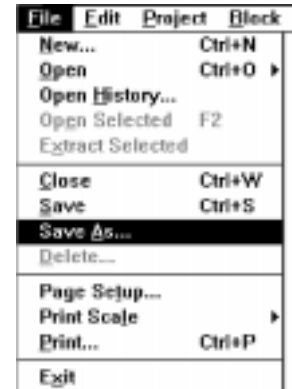
If you create an index using the **File New** menu pick (see *Chapter 5*), the index lists both the revision and the modification level of each configuration in a project. Additionally, when you open a configuration, the **Scratch Pad** indicates both the revision and modification level. You can use the **Get Info** command in the **Command** menu to find out the modification level of a configuration previously installed into a *LINK* module.

### **Saving Scratch Pad Text**

You can also use the **Save** command to save the text within the **Scratch Pad**. To save the text, make the **Scratch Pad** window active by clicking on it with your mouse, then execute a **Save**. This appends the **CONFIGED.TEX** file with all information currently displayed in the **Scratch Pad** window and clears the window. After the save, the **Scratch Pad**. window will continue to record commands/actions during the current ConfigEd session.

## The File-Save As Command

The **Save As** command is used to copy a configuration from one project to another, or to make a copy of a configuration within the same project.



**NOTE.** Use the **Duplicate...** command in the **Project** menu to copy entire projects. Use **Duplicate** in the **Edit** menu to copy individual function blocks within a configuration.

Open the configuration you wish to copy, then click on **Save As** in the **File** menu. A dialog box will appear asking you for the new configuration name and the category and project in which you want to save it. If you are saving the copy of a configuration to a new project or category, you must have first created the new project or category through the **Manage** dialog under the **Project** menu. Give your configuration a name and then select the project and category in which you want to save it. Then click **OK**.

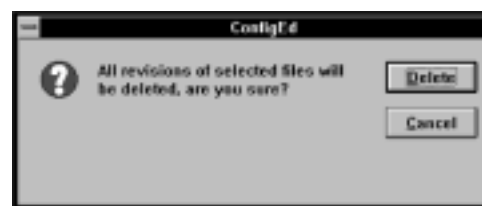
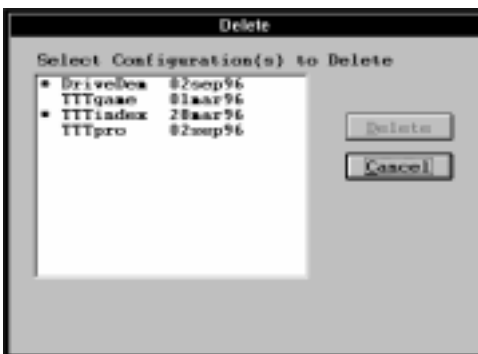
**NOTE.** The **Save As** command copies all aspects of a configuration, including its address. If you copy a configuration into the same project (a feature typically used when configuring a similar section for a *LINK* system controlling many drive sections) remember to change the address of the new configuration using the **Net Address...** function in the **Edit** menu before installing.



## The File-Delete Command

To delete a configuration, select **Delete** from the **File** menu, highlight the configurations you wish to delete from the list in the dialog box that appears.

ConfigEd will warn you that a delete will permanently remove all revisions of that configuration. Click **Delete** to erase all revisions of that configuration from your PC's hard disk.



### Caution

You should delete configurations if they become obsolete or if you wish to make major changes and begin a new configuration from scratch.

## The File-Page Setup..., File-Print Scale, and File-Print... Commands

These commands are covered in *Chapter 5 Displaying, Documenting & Printing Configurations*.

### The File-Exit Command

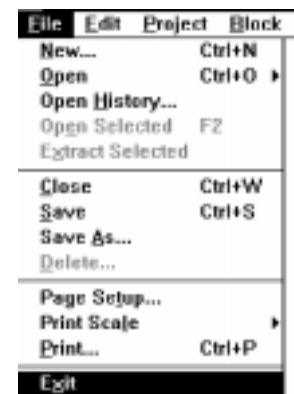
The **Exit** command ends your current ConfigEd session. All open configurations that you have altered since you began the ConfigEd session are closed and saved on exiting and the **Scratch Pad** text is appended to the **CONFIGED.TEX** file in the ConfigEd icon's working directory.

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#### Caution

Do not turn power off to your PC until ConfigEd has completely closed and you have returned to the Windows Program Manager. Turning the power-off while ConfigEd is closing could cause an irrecoverable loss of data.

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## THE EDIT MENU

The commands in the ConfigEd Edit menu pertain only configuration files and the **Scratch Pad**. Those commands that apply to configurations are only active when a configuration window is open and active. Similarly, those commands relevant to the **Scratch Pad** are active only when the **Scratch Pad** is active.

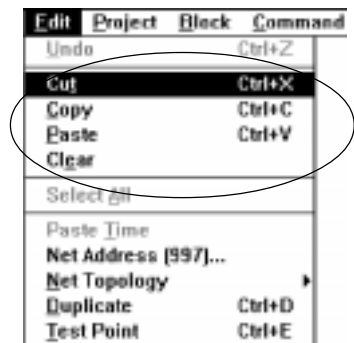
Use commands in the Edit menu to:

- Duplicate and move function blocks.
- Change the address and topology of a configuration.
- Select and time-stamp information in the **Scratch Pad**.
- Create SAM test points.

## The Edit-Cut, Edit-Copy, Edit-Paste & Edit-Clear Commands

Use these **Edit** menu commands to duplicate or move a single function block or a group of function blocks. The commands operate identically to the **Cut**, **Copy**, and **Paste** of many Windows software applications. Highlight the item you wish to copy (or move) and click on **Copy** (or **Cut**). If you wish to move or copy a group of items, hold down the **Shift** key and click and drag the mouse cursor over an area that includes all the items. Or, select multiple items individually by highlighting them while holding down the **Shift** key.

**Copy** writes a duplicate of the element(s) into the Windows clipboard buffer. **Cut** removes the selected item(s) and writes it to the same buffer. Prior to executing a **Cut** command, a ConfigEd dialog box warns that you are deleting the selected elements. Use the **Paste** command to retrieve items from the clipboard. An outline of the elements to be pasted is attached to your cursor allowing you to place the blocks appropriately. To drop the blocks in the configuration, click on white space within the configuration window's borders.



**NOTE.** You can also move groups of items by selecting them and dragging them to a new location directly with the mouse (see *Chapter 6*).

You can use **Copy/Cut** and **Paste** to move a group of function blocks with connections (or text) to another sheet of the same configuration (for details on sheet selection, see the discussion on the **Sheet** commands in *Chapter 6 Displaying, Documenting & Printing* section). Or, you may use these commands to move a group of function blocks with connections to other configurations of the same project (or a different project).

**NOTE.** Only function blocks supported by the module for which they are destined will be pasted when performing the **Cut** or **Copy** command (e.g., the Display Handler is only supported by *LINK* Operator Stations and is peculiar for each type of operator station (i.e., L5101, L5102, L5390, or L5391) while the System Control block is unique for every *LINK* module).

ConfigEd increments the suffix number of duplicated items, just as with the **Duplicate** command (see below). Rename duplicated items by double clicking on the item while holding down the **Ctrl** key.

### Caution

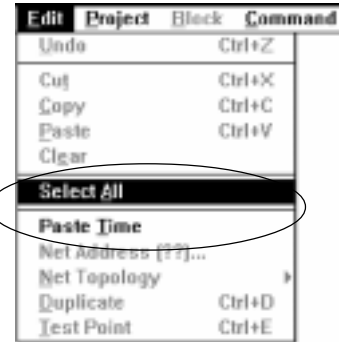
The **Cut/Copy** buffer handles elements from only one action at a time. Be careful not to overwrite elements stored in the buffer from a prior action when initiating a **Cut/Copy**.

The **Clear** command deletes all selected function blocks, annotation text, and drawing entities. It mimics the functions of the **Delete** and **Backspace** keys for a group of items.

## The Edit-Select All and Edit-Paste Time Commands

These commands are associated with the **Scratch Pad**. **Select All** selects the entire contents of the **Scratch Pad**. Use this command in conjunction with the **Backspace** key to delete the contents of the **Scratch Pad** (see **Scratch Pad** below).

The **Paste Time** command records the current date and time in the **Scratch Pad** window. This command is useful to record actions when troubleshooting a **LINK** system.

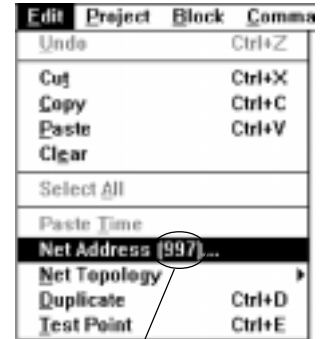


## The Edit-Net Address(##)... Command

**Net Address...** allows you change the address of the active configuration. Its current address, usually assigned to the configuration when it was created, is shown in the parentheses.

To reassign a configuration's address, click on **Net Address(##)...** in the **Edit** menu. When the **User Input** dialog box appears, type in the new address and click on the **OK** button.

NOTE. The range of permissible **LINK** addresses is currently restricted to the range from 1 to 3000, inclusive.

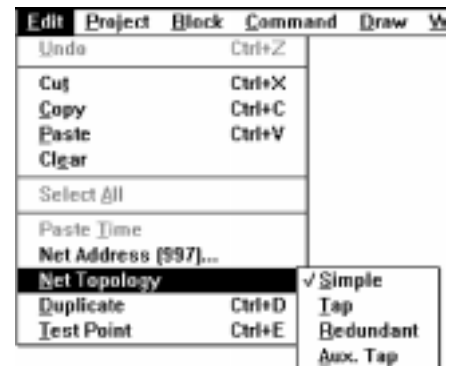


Current Network Node  
Address of Selected  
Configuration

## The Edit-Net Topology Command

You can change the network topology of a configuration by selecting the **Net Topology** command in the **Edit** menu and clicking on the desired network topology (either Simple, Tapped, Redundant, or Auxiliary Tapped). The currently selected topology of the configuration is marked with a check mark (✓) while the default setting is a Simple topology.

For an explanation of **LINK** network topologies, refer to the **LINK** Overview Manual.



## The Duplicate (Ctrl+D) Function Block Command

The **Duplicate** command copies selected function blocks and *LINK* inputs/outputs within a configuration. This feature only copies individual function blocks or *LINK* inputs/outputs within the same configuration and not to/from other configurations. The **Duplicate** command will not copy annotation text or drawing shapes.

**NOTE.** To duplicate entire configurations, use the **Save As** command in the **File** menu. To duplicate entire projects, use the **Duplicate...** command in the **Manage** menu.

To use **Duplicate**, first highlight the original function block or *LINK* input/output within your configuration, then click on **Duplicate** in the **Edit** menu. When duplicated, the highlighted item should change to a reverse video image on your monitor and be attached to your cursor. If you select **Duplicate** before selecting a function block, ConfigEd generates an error dialog box.

| Edit                 | Project | Block | Command |
|----------------------|---------|-------|---------|
| Undo                 |         |       | Ctrl+Z  |
| Cut                  |         |       | Ctrl+X  |
| Copy                 |         |       | Ctrl+C  |
| Paste                |         |       | Ctrl+V  |
| Clear                |         |       |         |
| Select all           |         |       |         |
| Paste Time           |         |       |         |
| Net Address (997)... |         |       |         |
| Net Topology         |         |       |         |
| Duplicate            |         |       |         |
| Test Point           |         |       |         |



An outline of the duplicate item will follow your cursor around the screen until you click on your mouse at the location where you would like to place the item. If the selected item was a function block, ConfigEd gives the new function block a name identical to the block's original name, except for adding a suffix number. The suffix number increments for each duplicated function block. You can rename the block by using the **Ctrl** double-click feature of ConfigEd.

You can duplicate a function block quickly by highlighting the item simply hitting the **Ctrl** and **D** keys simultaneously.

## The Edit-Test Point Command

This command is related to the SAM features of ConfigEd. Refer to *Chapter 6 SAM Functions*.

## THE BLOCK MENU

You can access the *LINK* software function blocks in the **SSD\_LINK** database through the **Block** menu. Function blocks are pre-configured software elements used for designing custom configurations for your *LINK* control application. Once you place the function blocks you need in your configuration, you can change the blocks' parameter values and connect them to other function blocks within the same configuration or to function blocks in other network locations.

### Placing Function Blocks

The **Block** menu lists the **SSD\_LINK** database categories used to store the function blocks. A distinct category exists for each type of function block. Among the function blocks categories are: **Logic** and **Logic Gate** (which store all logic-type function blocks), **Ordinal** (which store all ordinal data-type function blocks), **SignalP** (which stores all value data-type function blocks), and **OpStn** (which stores all *LINK* operator station blocks).

**NOTE.** The **Help** menu lists a data sheet for each function block. Refer to it for a functional description, technical information, and data types required for the particular *LINK* function block. You can also quickly access the on-line data sheet for a function block by holding down the **Shift** key before selecting it from the **Block** menu.

To place a function block into your configuration, select it with your mouse from the category listed in the **Block** menu. Once selected, an outline of the function block will be attached to your cursor. Click on the mouse in the area where you wish to place the block. The picture to the right shows the placement of a two input OR gate (**Logic Gate/OR-2**).



| Block       | Command  |
|-------------|----------|
| Link Input  | 2A2-02   |
| Link Output | 202-A2   |
|             | A2-02    |
| 590SP       | A2-02-A2 |
| 620L        | A2-03    |
| Alarms      | A3-02    |
| Custom      | AND-2    |
| DH+ Gateway | AND-3    |
| Digital     | AND-4    |
| FSM         | Generic  |
| Function    | Inverter |
| G Profiler  | MAJ-3    |
| Generic Gwy | MUX      |
| H1 Gateway  | O2-A2    |
| L5203 L     | O2-A2-O2 |
| L5203 M     | O2-A3    |
| L5203 S     | O3-A2    |
| L5210 MB+   | OR-2     |
| Line Drive  | OR-3     |
| Logic       | OR-4     |
| Logic Block | XOR-2    |
| Logic Gate  |          |
| OpStn       |          |
| Ordinal     |          |
| Recipe      |          |
| Sampler     |          |
| Sender      |          |
| SignalP     |          |
| Utility     |          |
| VME         |          |
| Winders     |          |

### Renaming Function Blocks

ConfigEd gives the block a standard, default name. You can rename the block by double-clicking on the block while holding down the **Ctrl** key. The dialog box that appears shows the original name and prompts you for a new name.

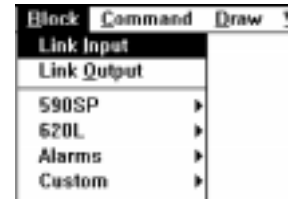
### Deleting Function Blocks

To delete a function block from your configuration, simply highlight the function block, and then press the **Backspace** or the **Delete** key (or click on **Clear** from the **Edit** menu).



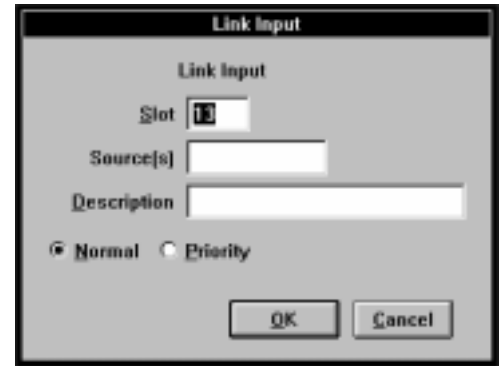
## Configuring *LINK* Inputs and *LINK* Outputs

To configure a *LINK* input, click on the *LINK* Input selection at the top of the **Block** menu. An outline of *LINK* input slot appears and follows your mouse cursor. Click in your configuration in the area you wish to place the input. ConfigEd automatically assigns the input slot a number, beginning at one. The slot numbers increment for each new input slot. To change the slot number or to add annotation text, double click on the slot after placing it. A dialog box appears asking you to define the input's slot number, source address, and description.



**NOTE.** You must assign a unique slot number between 1 and 4095, inclusive. Duplicates are not allowed within a configuration; however, you may use the same slots numbers in another configuration within the same project. Descriptions and source addresses are optional.

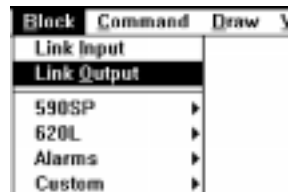
The *LINK* output from the source configuration sending the signal defines the receiving *LINK* input source address. ConfigEd automatically fills in the source address when you execute the **Project-Document...** or **Project-Print...** commands with the **Save Sources** option toggled on (see *Chapter 5*).



### Caution

ConfigEd automatically saves your configuration whenever you close it or exit ConfigEd. It will not save inputs unless they are connected to function blocks or *LINK* outputs within the configuration. Do not close or save your drawing until you have made at least one connection for each *LINK* input; otherwise, you will have to recreate these inputs after reopening the file.

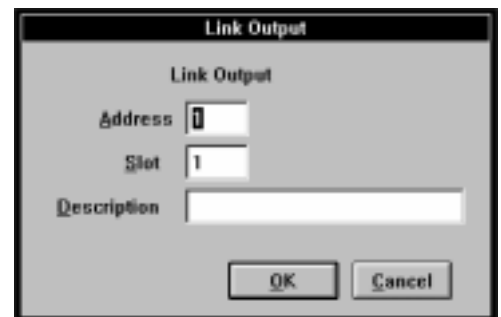
To configure a *LINK* output, open the **Block** menu and select *LINK* Output and click the area within your configuration window where you wish to place the output. Fill in the information in the dialog box that appears. ConfigEd automatically assigns a destination address and slot number, beginning at one. To change the destination address, slot number, or description, double-click on the *LINK* output.



**NOTE.** You must assign the output slot a destination slot number in the range 1 to 4095 (inclusive) and an address in the range 1 to 3000 (inclusive). Descriptions are optional.

### WARNING!

Assigning *LINK* outputs to non-existent slots in valid destination addresses will cause problems if those slots are subsequently defined by changes to your *LINK* system. Additionally, assigning *LINK* outputs to slots in non-existent destination addresses will cause unnecessary network traffic (Address Matches) and may cause the destination module to halt processing and enter the **L-Error** state.

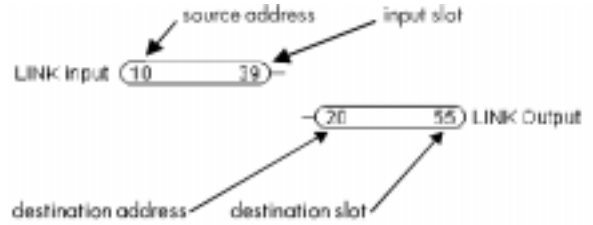


### WARNING!

ConfigEd allows you to assign the same slot and address to different *LINK* outputs. This acts as a “wired-or” at the destination *LINK* module slot, and can cause the *LINK* module to behave in unexpected ways. Although this may be desirable in certain circumstances, be sure you understand fully the implications of assigning duplicate slots and addresses.

Once you have created the *LINK* input or outputs you need, connect them to the function block inputs and outputs you wish to send messages to or from other *LINK* modules over the *LINK* fiber optic network.

Source addresses for *LINK* inputs are shown on the left of the input. Input slots numbers are shown on the right. For *LINK* outputs, destination addresses are shown on the left of the output and destination slot numbers are shown on the right, as indicated in the graphic to the right.

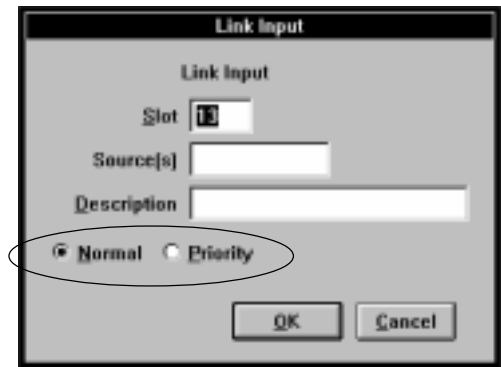


Notice that *LINK* outputs and function block inputs have left handed connection points. You will also notice that *LINK* inputs and function block outputs have right handed connection points. This suggests a general left to right data flow within configuration drawings. It is therefore recommended to align *LINK* inputs on the left side of configuration drawings and *LINK* outputs on the right. This makes your configuration drawings easy to read and gives them a neat, professional appearance.

### Normal & Priority Inputs

Once you have placed *LINK* inputs in a configuration, you can set how the *LINK* module will handle the incoming message using the Normal/Priority settings located in the *LINK* input's dialog box. Double-click on the *LINK* input to open its dialog box.

A module processes a Normal *LINK* inputs at the same priority as other module processing- first in, first out. Priority *LINK* inputs are processed immediately upon receipt, jumping ahead of previously scheduled module processing already in the *LINK* module's event processing queue.



**NOTE.** Leave the majority of *LINK* inputs set to **Normal**, the default setting, and use **Priority** only for time-critical parameters (e.g., feedback trigger inputs for winder blocks or when control processing is distributed between two or more *LINK* modules, but must act as a single function block). Refer to the ***LINK* Overview Manual** for additional details concerning Normal and Priority inputs.

### Working With DC *LINK* Drive

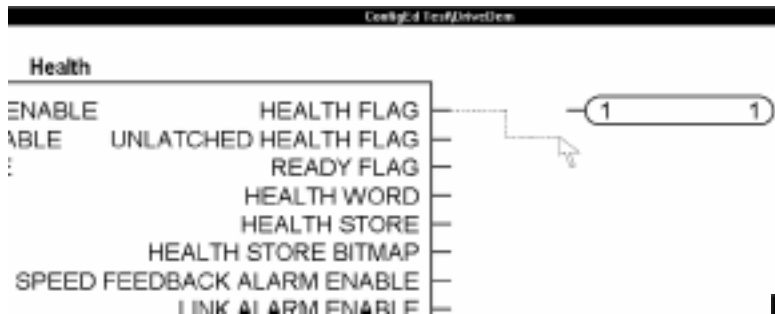
The configurations for 570 *LINK*, 590 *LINK* and 590SP *LINK* DC drives are created and configured in much the same way as other modules in a *LINK* system. You create a *LINK* DC drive configuration just as you would for any other *LINK* module: by executing the New command from the File menu, selecting the type of *LINK* DC drive configuration and giving it a name and an address (Drive Dem, a L590v3 — or 590 version 3 software *LINK* drive with an address of 999, in our example here). However, there are a few important differences in working with DC drive configurations:

1. All DC drive configuration function blocks are predefined and fixed — you cannot delete or modify existing DC drive function blocks.
2. You cannot add function blocks to a DC drive configuration. When a *LINK* DC drive configuration window is active, ConfigEd disables all function block categories in the Block menu, except *LINK* Input and *LINK* Output.
3. All the input slots of each DC drive configuration function block are prearranged, so configuring inputs slots is unnecessary.
4. *LINK* DC drives do not have a RTNX serial communications port. Consequently, you cannot directly communicate to a *LINK* DC drive with your PC using ConfigEd. You must communicate to a module with a RTNX port that is connected to the same *LINK* fiber optic network as the DC drive, then select the *LINK* DC drive from the **CE Module List**.
5. All DC drive configurations span more than one sheet. If you cannot see a function block on your monitor, use the Sheet commands at the top of the Draw menu to page through the configuration and locate the function block. (Refer to Chapter 5 Displaying, Documenting & Printing for instruction on the Sheet commands.)



## Configuring DC *LINK* Drive Outputs

To configure drive outputs for DC *LINK* drives (L570, L590 or L590SP), open a *LINK* drive configuration you have created, select *LINK* Output from the Block menu and move it to the right of the drive function block which contains the output you wish to transmit to another *LINK* module in your *LINK* project. As with configuring any other *LINK* output, a dialog box then appears prompting you for the destination Address and Slot. The same slot and address range restrictions apply and the description field is optional. Once you fill in the information, click OK to place the *LINK* output slot.



You must now connect the DC drive function block output to the *LINK* output slot, just as you would with any other configuration. (In the screen shot above, the Health Flag output of the *LINK* 590SP drive configuration DriveDem is being transmitted to slot one of a *LINK* module whose address is one.) Once you make this connection, a dialog box appears prompting you to designate the connection type — Fast, Medium, Slow, or Special. This sets the speed of the output signal over the *LINK* fiber optic network.

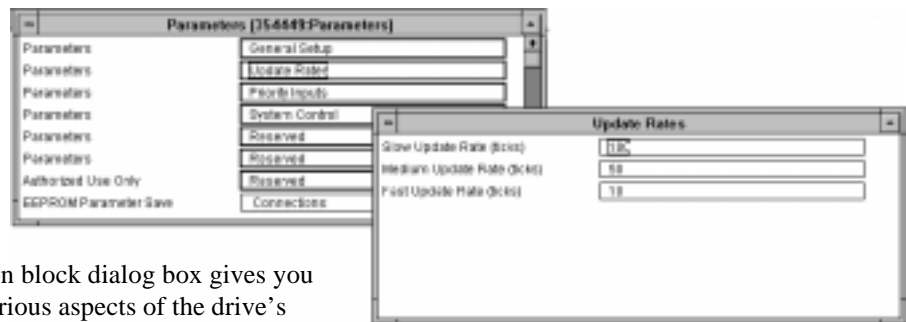
You should send most drive output signals at a medium or slow speed. Reserve the Fast setting for critical signals, such as Health Flag and Composite Program Stop. Sending too many signals at a fast rate to the same destination address can overload the processor event queue of the destination *LINK* module. This can cause the *LINK* module to crash, or stop processing.



### Caution

The Special setting is used to identify messages that need to be sent at extremely high speeds, generally between DC drives. Do not use the Special setting without consulting SSD Drives.

The speed settings for Fast, Medium, Slow and Special are set in the Parameters function block of the DC drive configuration. To change these rates, locate the function block (you may need to page to other sheets within the drive configuration) and double click on it. The Parameters function block dialog box gives you access to sub-menus controlling various aspects of the drive's performance. The Update Rates category contains the speed settings for Fast, Medium and Slow. The units for these settings are in ticks, a unit of processing time related to how frequently the drive's microprocessor executes its current control loop. This varies from model to model and depends on the processor's computation loading. Refer to the appropriate drive manual for more information on drive processing speed and the ***LINK* Overview Manual**.



**NOTE.** It is recommended to leave the Update Rates settings at their default values.

## Working With L620 Vector *LINK* Drives

The L620 Vector *LINK* drive has features which make configuration and design with the drive different than its DC *LINK* drive counterpart.

First, the L620 Vector *LINK* drive has more available memory than the DC *LINK* drives. This allows you to place function blocks for processing the drive start/stop logic and speed and current inputs and outputs directly in the drive configuration rather than elsewhere in the ConfigEd project in which the drive operates.

When you first create and open a L620 Vector *LINK* drive, notice that the first configuration sheet is empty and that the drive function blocks initially exist on sheets two and three. This is done to reserve the first sheet for function blocks related to processing the drive's input and output signals.

**NOTE.** At the very least, the L620 Vector *LINK* drive — and, in general, all *LINK* drives — should have a Drive Start Logic block (located in the Logic Block category of the Block menu) to properly control the drive's start/stop sequencing.

Second, the L620 has digital and analog input and output terminals as well as *LINK* capability. This allows you to control the drive externally by applying voltage signals to the input terminals, or to configure the drive with ConfigEd and control it through the *LINK* fiber optic network.

**NOTE.** To keep system design consistent, it is recommended to always control the L620 Vector *LINK* drive through the *LINK* network if you are using the drive in a project with other *LINK* modules

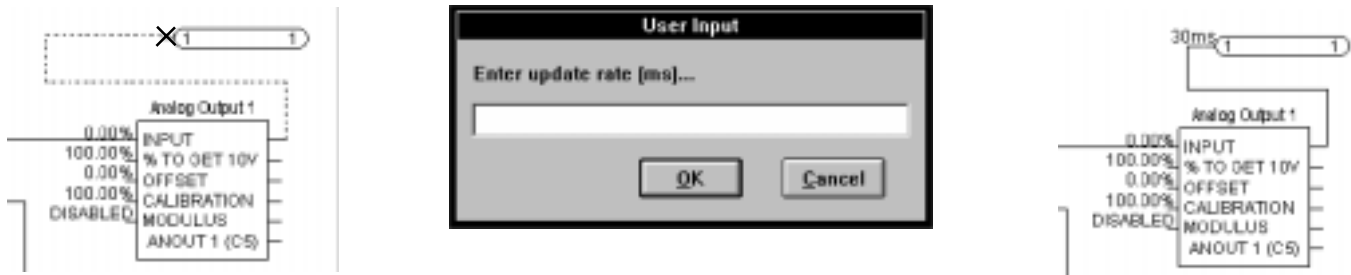
You create a L620 Vector *LINK* drive as you would any other new configuration: by executing New from the File menu and selecting L620 from the list of *LINK* modules that appears in the pop-up window list, then assigning it a name and node address.

### Configuring L620 Vector *LINK* Drive Inputs & Outputs

Unlike DC *LINK* drives, L620 Vector *LINK* drives do not have preassigned *LINK* inputs. To configure an input, you must place an *LINK* input in the L620 configuration and connect it to the desired input function block. Use the sheet feature to connect the input to the drive input block if you placed the *LINK* input on the first sheet of the configuration drawing.

L620 *LINK* Vector drive outputs are configured in much the same way as DC *LINK* drive outputs: place a *LINK* output in the L620 configuration and connect the desired drive output to the *LINK* output. Once you make this connection, a dialog box appears prompting you to specify the update rate, in milliseconds. Enter the update rate as an integer, using the recommended settings listed below:

|   |        |
|---|--------|
| Recommended Analog Outputs Update Rate  | 30 mS  |
| Recommended Digital Outputs Update Rate | 200 mS |



## THE COMMAND MENU

The ConfigEd Command menu allows you to:

- Install a configuration.
- Halt, restart and poll information from a *LINK* module.
- Gain access to the ConfigEd SAM functions.
- Set the communication settings between your PC and a *LINK* module.
- Change the number of revisions ConfigEd automatically saves.
- Change the address of *LINK* modules.

| Command             | Draw | Window | F |
|---------------------|------|--------|---|
| Install at Address  |      | Ctrl+T |   |
| Install at Selected |      | Ctrl+G |   |
| Install Changes     |      | F3     |   |
| Restart             |      |        |   |
| Halt                |      |        |   |
| Get Info            |      |        |   |
| SAM                 |      |        | ▶ |
| Comms               |      |        | ▶ |
| Revisions (3)...    |      |        |   |
| Beaddress...        |      |        |   |

Except for **Revisions (#)...** and **Comms**, all these commands require communication between your PC and the *LINK* network. Before you install a configuration into a first generation *LINK* or *LINK2* module, you must first open a **CE Module List**. Refer to Appendix A, Communications and the section Opening a **CE Module List** in this chapter.

### WARNING!

Do not install a configuration to a *LINK* network module unless all equipment controlled by the network is in a stopped and safe condition. Configuration errors may cause an unexpected or dangerous system response. Have a qualified engineer check or test all configurations before installing them and putting the *LINK* network into service.

## The Command-Install at Selected Command (Ctrl+G)

This command installs the configuration you have selected in ConfigEd (the active window) into the *LINK* module you have highlighted in the **CE Module List**. The new address of the configuration file you install overwrites the existing address of the *LINK* network module.

**NOTE.** ConfigEd does not allow you to download the configuration designed for one type of *LINK* module into a different type of *LINK* module. In general, the *LINK* hardware and configuration type must be compatible. (However, you can install the configuration for one type of *LINK* module into a newer model *LINK* module designed to replaced discontinued hardware.)

To use Install at Selected, you must first open a **CE Module List**. If none is currently open, run either Update Partial or Update Full to open a **CE Module List** window, then select the destination *LINK* module from the **CE Module List**.

Make sure the configuration you are installing is open and that it is the active window, then choose Install at Selected from the Command menu.

A status dialog monitors the progress of the installation. The upper left corner of the status dialog shows the elements being installed as they are loaded. A bar chart graphically represents the progress of ConfigEd as it loads the various blocks and other elements of the configuration into the module. All ConfigEd status dialog boxes include an Abort button. Click Abort to cancel an action and return to the previous running status any time during the execution of that action.

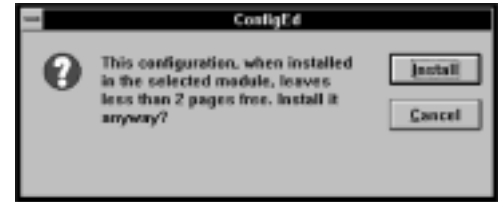


**NOTE.** Pressing Abort during installation may result in a “no configuration” status for the module. When this occurs, a No Config message appears in the **Scratch Pad** and you will need to reinstall the configuration or install a different configuration if the original configuration again fails to install.

The **Scratch Pad** records all actions you perform with ConfigEd and confirms the installation of the configuration in the *LINK* network module you have selected.

**NOTE.** When designing a configuration, keep in mind the amount of module memory the configuration requires. For first generation *LINK* modules, it is recommended to reserve at least two free pages of memory. This memory overhead may be necessary for installing larger revision configurations in the future or to accommodate an increase in function block size in case you upgrade the project with the Upgrade function at a later date.

ConfigEd will generate the warning message to the right in case the configuration size exceeds the minimum two page memory reserve. To check the amount of configuration space available in a *LINK* module, highlight the module in the **CE Module List** and select Get Info from the Command menu. The **Scratch Pad** will report the amount of free space remaining in the module.



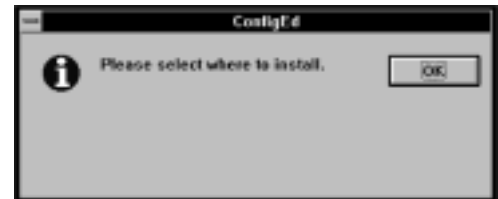
## The Command-Install at Address Command (Ctrl+T)

You can install the currently selected configuration (active window) at a matching *LINK* network module address by choosing Install at Address from the Command menu. The *LINK* network module type must be compatible with the configuration module type, unless you are installing a configuration into a module designed to replace discontinued *LINK* hardware. Install at Address attempts to install your selected configuration (the active configuration window on your screen) to the *LINK* module on the network having a matching node address.

Install at Address is convenient when you want to quickly install revised or replacement configurations to *LINK* modules containing the same network address in an established network. You do not need to first open the **CE Module List** — ConfigEd automatically generates a new list if it is initially closed.

If the selected configuration does not have a matching network address, ConfigEd will ask you to specify where to install the configuration. If this occurs, either:

- Use Install At Selected (see above) to install the configuration.
- Open or select a configuration with an address that is present on the ring and try executing Install At Address again.
- Change the address of the active configuration using Net Address in the Edit menu.
- Change the address of the *LINK* module to match the configuration files address using the Readdress... command (see below).



## The Command-Install Changes Command (F3)

A third way of installing configurations is by using **Install Changes**. This automatically polls the network and performs an **Install at Address** for all *LINK* network modules whose configurations have been revised, but not yet installed in the currently selected project. Configurations that are revised but not yet installed are marked with an asterisk (\*) in the **File-Open-Open** dialog box.

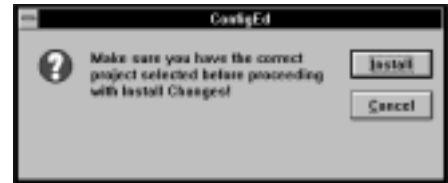
**NOTE.** You must first close all open configuration windows before using Install Changes.



When using Install Changes, ConfigEd recognizes which *LINK* network modules it needs to install a changed configuration to by its address only, not its ConfigEd project number.

### Caution

Because ConfigEd allows configuration addresses to be the same from project to project, you can potentially download the wrong configurations to a network using Install Changes, which can have catastrophic results. Be certain you have the correct project selected before using Install Changes.



The program generates the message shown at the right warning you to double check the *LINK* project before proceeding. If you are using this feature to install configurations for a project into its *LINK* network modules for the first time, use the **Readdress...** command (see below) to correctly preset all node address in the network before using Install Changes. Used together, these features can cut down on the installation time for a *LINK* project, especially for large *LINK* networks.

## The Command-Halt, Command-Restart, and Command-Get Info Commands

These commands operate on any *LINK* module you select from an open **CE Module List**.

| Command             | Draw | Window | F# |
|---------------------|------|--------|----|
| Install at Address  |      | Ctrl+T |    |
| Install at Selected |      | Ctrl+G |    |
| Install Changes     |      | F3     |    |
| Restart             |      |        |    |
| Halt                |      |        |    |
| Get Info            |      |        |    |
| SAM                 |      |        | >  |
| Comms               |      |        | >  |
| Revisions (3)...    |      |        |    |
| Readdress...        |      |        |    |

### The Command-Halt Command

Halt stops the *LINK* module you select from running its configuration. Executing Halt switches the *LINK* module from the “run” or OK state to the “halted” state. The way other *LINK* modules will react to a halted module on the same network depends on their setting of Restart on reconfiguration in the System Control block. If Restart on reconfiguration is enabled (the default setting), the *LINK* module reacts by switching from the OK state to the **Peer Halted** state; if it is disabled, the module ignores the event.

### Caution

Any *LINK* module in the Halted or Peer Halted state cannot run its installed configuration and, consequently, ceases to control any drives or equipment connect to it.

### The Command-Restart Command

Use the Restart command to request a restart of a *LINK* module in the halted state. The module may have entered the halted state due to a processing fault or because of a previous halt command. To restart a *LINK* module, first select it in **CE Module List**, then click on Restart in the Command menu.

NOTE. You must restart only the *LINK* module in the halted state to bring a halted *LINK* network back on line and processing data over its fiber optic network. The network returns to its “run” or OK state if all other peer halted *LINK* modules are healthy. Executing Restart on a peer halted *LINK* module will not restart *LINK* network processing; the *LINK* module will remain peer halted until the original halted *LINK* module any other modules on the network in the halted state are restarted.

| Command             | Draw | Window | F# |
|---------------------|------|--------|----|
| Install at Address  |      | Ctrl+T |    |
| Install at Selected |      | Ctrl+G |    |
| Install Changes     |      | F3     |    |
| Restart             |      |        |    |
| Halt                |      |        |    |
| Get Info            |      |        |    |
| SAM                 |      |        | >  |
| Comms               |      |        | >  |
| Revisions (3)...    |      |        |    |
| Readdress...        |      |        |    |

When you restart a *LINK* module, persistent parameters within your configurations return to their saved values, sending an initializing signal to other modules on the *LINK* network. This can change the state of *LINK* operations and function blocks which, consequently, can cause unexpected motor motion and alter the state of *LINK* system outputs. As a caution, ConfigEd prompts you to confirm the restart whenever you execute the Restart command on a halted module.

### WARNING!

Unexpected motion and injury could result when restarting *LINK* modules. Make certain no possibility of damage or injury can result before confirming a **Restart** command. Be certain that you interlock critical signals such the start input to the drive configurations with physical, external operator controls.

### The Command-Get Info Command

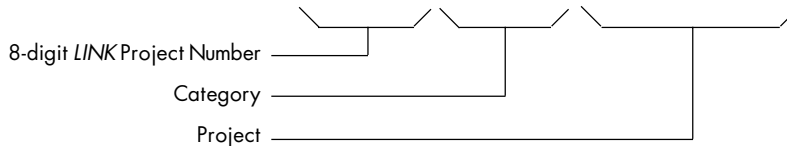
Use Get Info to acquire detailed information about a *LINK* module on a *LINK* network. The command is useful in troubleshooting (see Chapter 8 Troubleshooting and Section 8 of the *LINK* Overview Manual). To use Get Info, highlight the *LINK* module from the **CE Module List**, then click Get Info in the Command menu. The **Scratch Pad** then lists information about the module.

The two screen shots below shows the module information reported to the **Scratch Pad** after executing Get Info on a first generation *LINK* module (shown below left) and a *LINK2* module (shown below right). The list below the screen shots explains this information.



**Serial Number:** This number is assigned to each *LINK* module during manufacturing. The serial number shown in **Scratch Pad** should match the number on the module label (for example, 9145-US-C-0022 for a first generation *LINK* L5207 processor module).

**Project:** Gives the *LINK* project number, its category and project name to which the configuration is associated.



99758686:Training/ConfigEd Test

**Configuration:** The name of the configuration currently installed in the *LINK* module.

**Type:** The type of *LINK* module — for example, processor, Analog I/O, Digital I/O or operator station, and whether it is a *LINK* or *LINK2* module — as well as its microprocessor type (for example, the *LINK* processor module has a type MTID 13 microprocessor; the *LINK2* operator station has a type MTID 2305).

**Modification:** The modification level of the installed configuration. The modification number increments each time a configuration is functionally changed (see Modification Level vs. Revision Level under the section on The Save Command in this chapter).

**Perm. Address:** The permanent network address assigned to the *LINK* module (996 for the *LINK* processor, 3 for the *LINK2* operator station).

**Working Address:** The current network address of the module. Normally, it matches the permanent address. They will differ only when you install two or more configurations with the same address into *LINK* modules connected in the same *LINK* network. When this occurs, ConfigEd assigns a temporary address to the first module whose permanent address duplicates a permanent address already encountered on the network during a **CE Module List** update. This allows you to open full module list and communicate to all *LINK* modules on the *LINK* network even though the network contains duplicate addresses.





































































































































































