

# ProBACK II™

**Remote Programming &  
File Archival Software**

**Accurate**  
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First Printing: June 1997

Software Revision 1.02

ProCASE II Firmware Revision 1.09

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**NOTE:** This manual provides information for both the Deluxe and Freeware versions of this product. Features related to the Deluxe version are identified by an **asterisk (\*)** throughout this document.

## Introduction

ProBACK II is a remote programming and file archiving system for use with the ProCASE II machine setup system. Its primary purpose is to provide a mechanism of sending and receiving setup and configuration information from the ProCASE II automation system.

ProBACK II is a Windows based application that can operate under Microsoft® Windows™ 3.1, Microsoft Windows For Workgroups™, Microsoft Windows 98, or Microsoft Windows 95™.

ProBACK II provides the following features. (A description of each function is provided in the following sections):

- Receiving (downloading) and sending (uploading) of part setup files on a single or multiple file bases.
- Receiving and sending of axis and system configuration files on a single or multiple files bases.
- \*Receiving (downloading) of the ProCASE II event log. The file is saved in standard text format for easy viewing or importing.
- \*Reconfiguration of all ProCASE II system menus and descriptions. Allows the ProCASE II to be configured in languages other than English.
- \*"Virtual Keypad". Provides a graphic representation of the standard keypad used on the ProCASE II and allows operation similar to that provided by the standard keypad.
- Allows files to be stored or retrieved to or from a local hard drive, floppy drive or network drives (if supported).

The ProBACK II system can be used to archive files and event logs from multiple ProCASE II systems by storing files for different machines in different sub-directories. It provides a fast and efficient method for programming, maintaining and archiving vital setup and configuration data of your automation system.

# System Requirements and Installation

## ***Requirements:***

ProBACK II requires the following hardware and software for proper operation:

- PC compatible computer using Intel® 80386, 80486 or Pentium™ processor.
- Microsoft® Windows™ 3.1, Windows for Workgroups or Windows 95/98.
- 4 Megabytes RAM
- Hard Drive
- 3.5" floppy drive
- One RS232 serial port
- Serial converter cable (provided)

## ***General Installation for all Operating Systems***

To install the ProBACK II system:

1. Insert the ProBACK II distribution disk into the floppy drive on the PC.
2. From DOS or a DOS window, type a:install (a: if installing from drive A, or b: if installing from drive B).
3. The installation program will create a sub-directory under C:\ called proback2. The ProBACK II executable and other associated files will be installed in this directory. Additionally, several files will be installed in the c:\windows\system directory.

The next page describes methods that can be used to add a ProBACK II program group to your version of Windows. Use the installation note appropriate to the version of Windows you are currently running.

## ***Platform Specific Installation Notes:***

### **Windows 3.1, Windows For Workgroups:**

A new program group can be added to your system for the ProBACK II application by completing the following:

1. Select the **New** menu item under the **File** pull down menu from the Program Manager.
2. Select the **New Program Group** button from the *New Program Object* dialog and press OK. Enter ProCASE II for the description in the **Program Group Properties**. Leave the **Group File** text box empty. Click OK.
3. Select the **New** menu item under the **File** pull down menu again. Select **New Program Item** from the *New Program Object* dialog box. Click OK.
4. The *Program Item Properties* dialog box will appear. Enter ProBACK II for the **Description**. Select the Browse button to locate the proback2.exe file. The installation batch file installs the proback2.exe file in the c:\proback2 directory. Using the *Browse* dialog box, double click on the c:\ folder and then scroll down to the proback2 folder. Double click on the folder. The proback2.exe file should appear in the file list to the left. Double click on the proback2.exe file name. The *Browse* dialog box will disappear and the **Command Line** text box should be filled in for the *Program Item Properties* dialog box. Click the OK button. A factory icon should now appear in the ProBACK II program group with the name ProBACK II. To execute the program, click on the icon.

## **Windows 95/98:**

Two different methods can be used to allow easy access to the ProBACK II software. The first is to create a shortcut to the application and place the shortcut icon on the desktop. The second method is to add the application to the task bar (Start button) programs group.

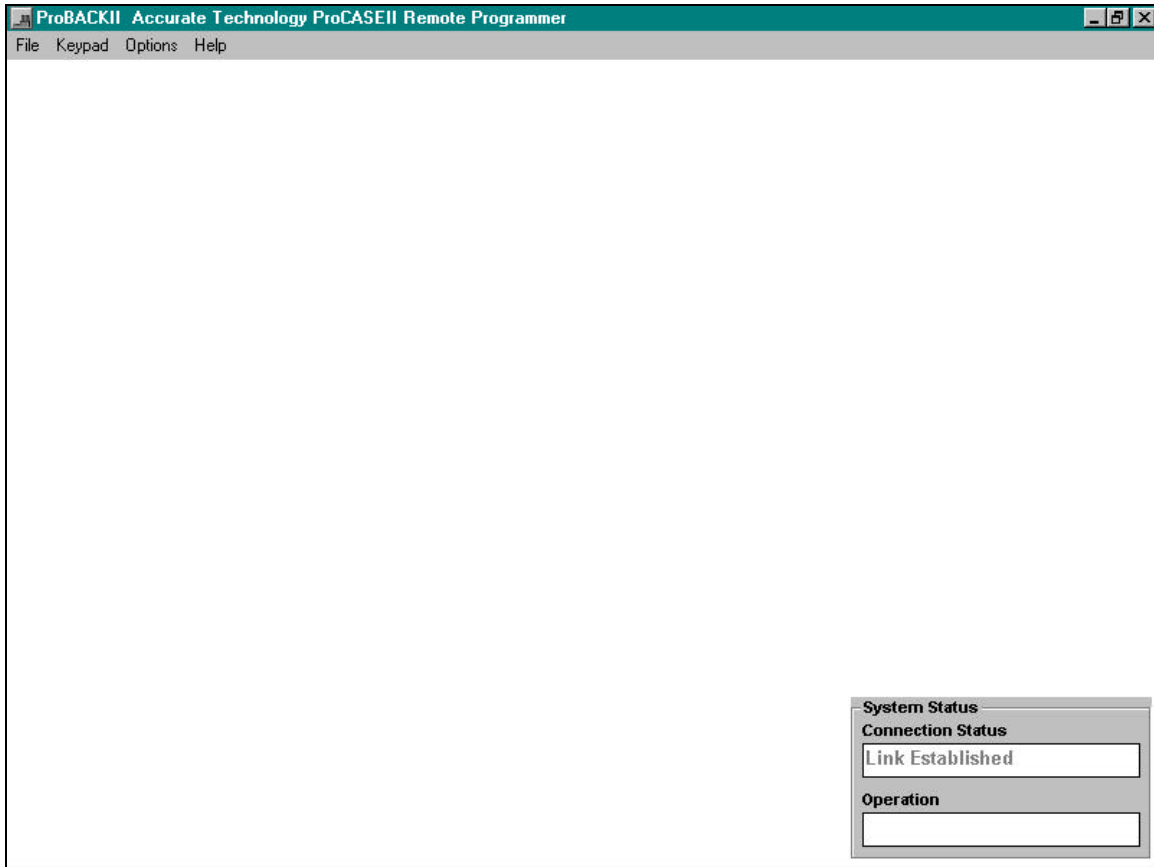
### *Desktop Installation*

1. Use the Windows Explorer and locate the proback2.exe program under the proback2 sub-directory.
2. Click down and hold the mouse button on the application name. Drag the icon onto the desktop area and release the mouse button.
3. Windows 95 will provide a default name "Shortcut to proback2". Clicking on the ProBACK icon will start the application.

### *Task Bar Installation*

1. Click on the Start button and select Settings then Taskbar. Choose Add from the taskbar properties dialog.
2. The Create Shortcut dialog box will appear. Choose the Browse button. Scroll down to the procase2 folder and double click on the folder. Double click on the procase2.exe file.
3. Windows 95 will then prompt for a location of the shortcut. The recommended choice is to create a new program folder called ProBACK. Select the new folder and click the Finish button. A new program group called ProBACK will be created with the ProBACK II application contained within it.

# Starting ProBACK II



Once the installation of the software has been completed, ProBACK II can be started by double clicking on the icon in the program group or desktop. The program should provide a display similar to that pictured above.

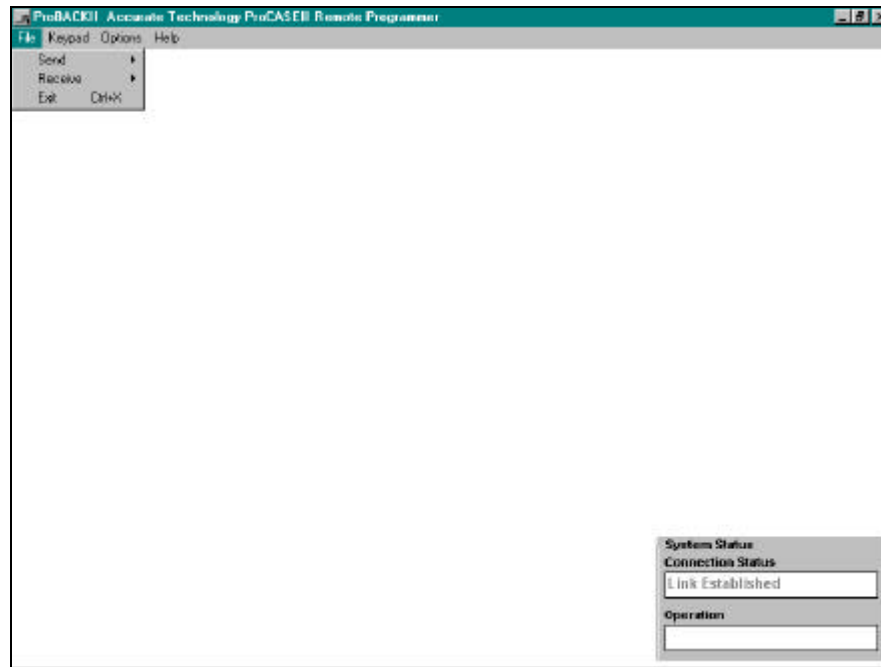
## ProBACK II Main Window (Displayed under Windows 95)

The menu bar consist of four menu selections:

- File
- \*Keypad
- Options
- Help

In addition to the menu bar, the main window includes a **System Status** box in the lower right hand corner of the screen. This information box indicates the current connection status and pending operation of the system.

## File Menu



The file menu consists of three menu items:

- Send
- Receive
- Exit

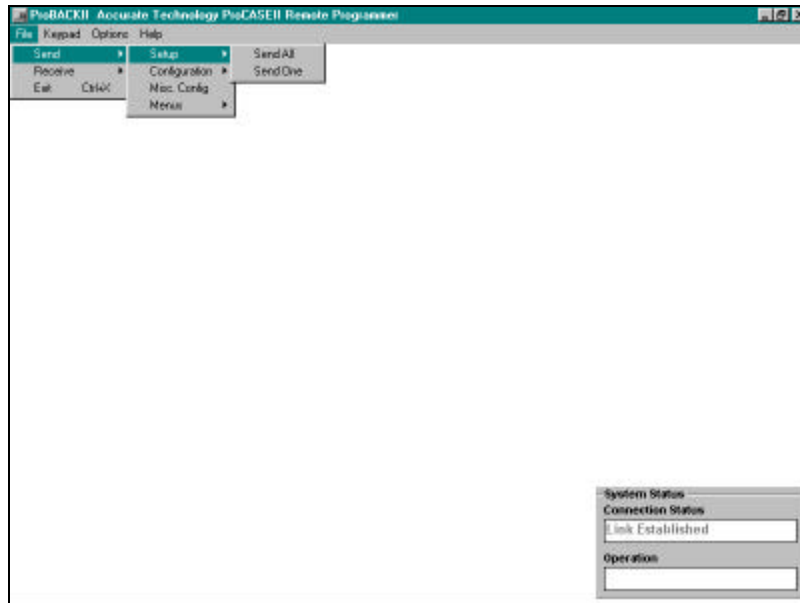
The **Send** menu item enables the ProBACK II software to send setup, configuration and menu files to the ProCASE II automation system.

The **Receive** menu item instructs the ProBACK II software to receive setup and configuration files or the event log from the ProCASE II system.

The **Exit** menu item terminates the communications link with the ProCASE II and causes the ProBACK II application to exit.

The **Send** and **Receive** menu items are described in greater detail on the next several pages.

## File/Send

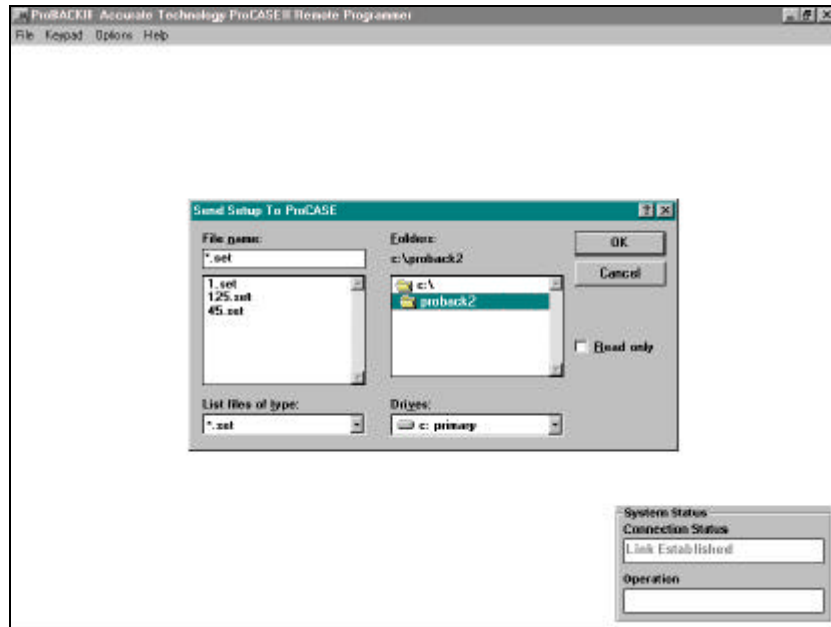


The **File/Send** menu item is used to send setup files, axis configuration files, system configuration files and menus to the ProCASE II. When sending setup or axis configuration files, the user may choose to send an individual setup or configuration file or all of the specified files in a target directory.

Note that the **Setup**, **Configuration** and **Menu** items under the **File/Send** menu show an arrow to the right of each item. This indicates that a sub-menu is available for that item. For the **Setup** and **Configuration** menus, a sub-menu is available to select if a single file or multiple files are to be sent.

The **Menu** file item has a sub menu to choose the type of menu (.mnu) file to send to the ProCASE II. Menu files allow for the customization of the ProCASE II system for languages other than English. See **ProCASE II Menu File Description** on page 16 for details.

## File/Send/Setup/Send One



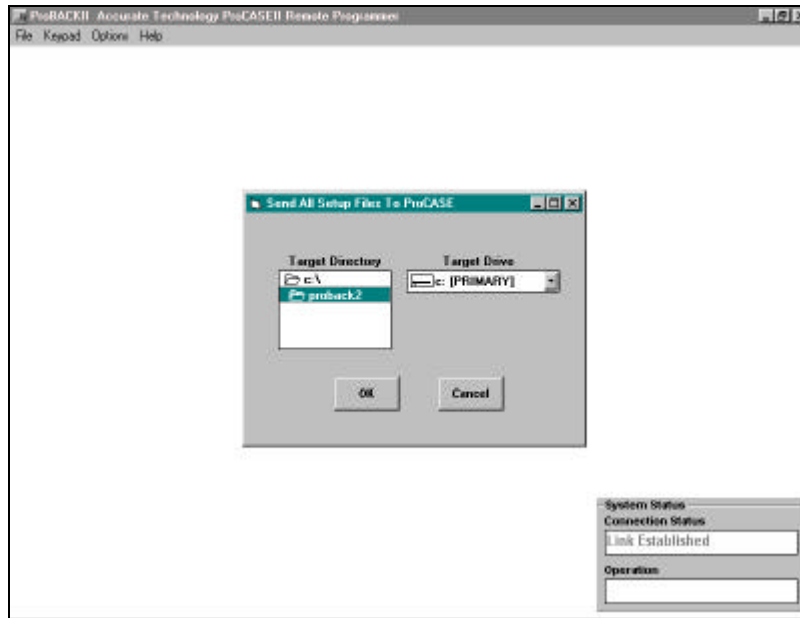
The view above shows the screen if the **Send One** menu option is selected from the **Send Setup** Menu.

To send a single *setup* to the ProCASE II, use the directory list box to select the sub-directory where the desired setup file is located. A different drive may be chosen by using the Drives list box. If a different drive is selected, the directory listing will change reflecting the contents of the new drive.

When the drive and directory have been selected, click on the desired setup file to send and press the OK button. You may also double click on the setup file name without using the OK button.

The **System Status** window will reflect the file upload operation and indicate if the file transfer was completed properly. If an error occurs, an error message will be displayed in the **Operation** window.

## *File/Send/Setup/Send All*

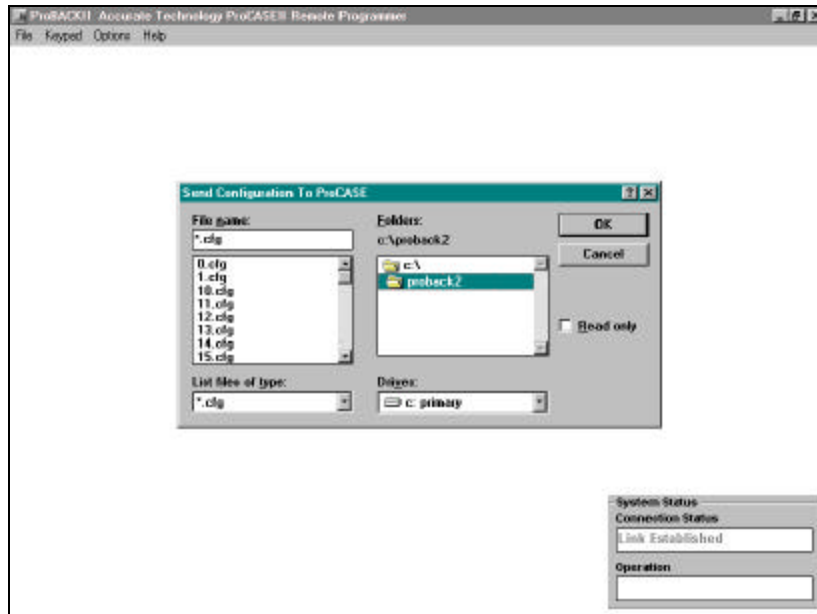


The **Send All** menu is used to send all of the setup files in a particular directory to the ProCASE II. After choosing the **Send All** menu option, the system will provide the **Send All** dialog box shown above. Scroll through the directory list until the desired target directory is found. Click on the directory name to highlight it. Press the OK button to continue. The ProBACK II system will read all of the setup files in the specified directory and send them to the ProCASE II. If an error should occur in the transmission of the data, an error message will be displayed in the operation area of the **System Status** window.

You may choose another drive by selecting the target drive selection box. The system will allow any valid drive to be selected as the target drive. The directory list box will then reflect the new directory tree for the specified drive.

When supporting multiple ProCASE II systems on several machines, store the setup, configuration, log and menu files for each machine in separate directories. This will provide a quick and easy method for organizing setup and configuration information for each machine in the facility.

## File/Send/Configuration/Send One



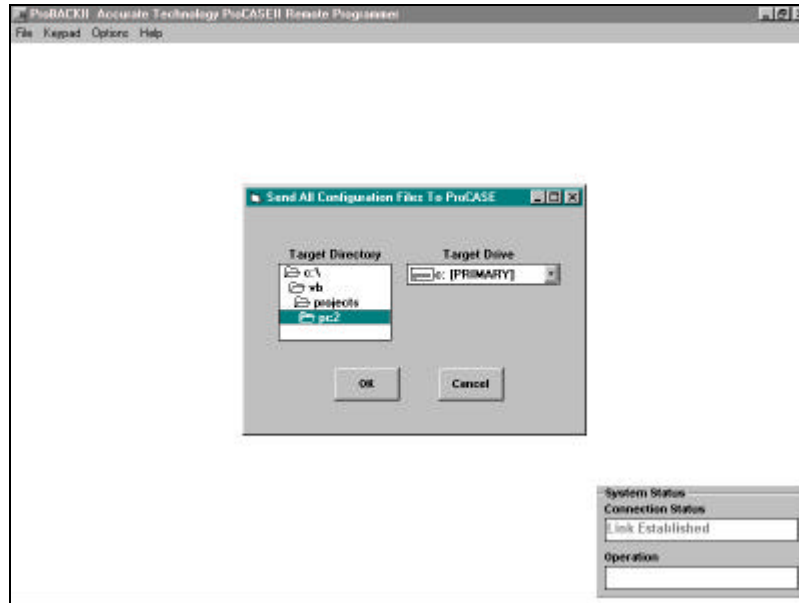
To send a single configuration file to the ProCASE II, select the **Send One** menu item from the **File/Send/Configuration** menu. The system will provide a file dialog box similar to that shown for the **Send One Setup** operation previously described. To send a configuration file, select the desired file from the file selection list on the left. Click the OK button. The ProBACK II system will send the specified configuration file to the ProCASE II unit.

Axis configuration files are named 1.cfg to 48.cfg. The main system configuration file is named 0.cfg. A description of each field in the system and axis configuration files can be found on page 32.

Sending a configuration file to the ProCASE II will overwrite the existing file in the system. The ProCASE II checks for file validity upon receipt and will indicate an error if an invalid data field exists.

Use the **Configuration/Send One** menu item when a single or a few configuration files have been edited. If more than a few configuration files have been changed, it is more efficient to use the **Configuration/Send All** command described on the next page.

## *File/Send/Configuration/Send All*



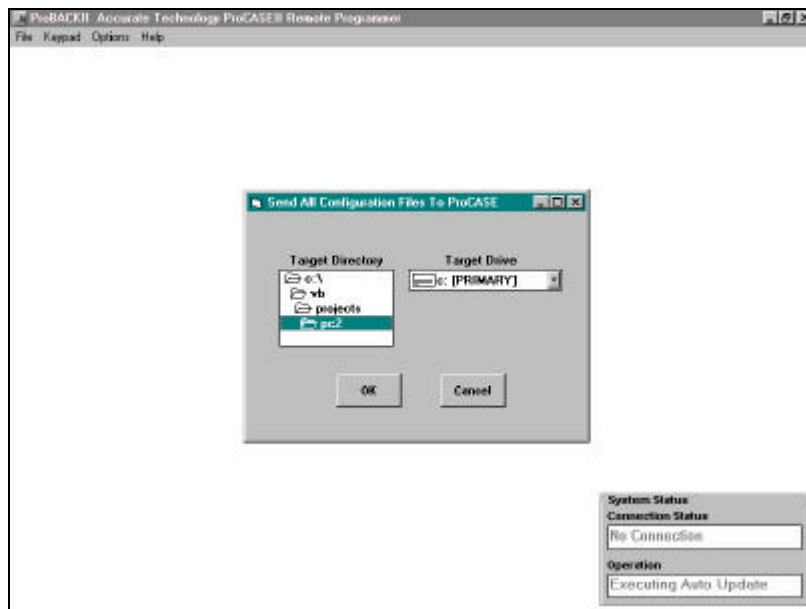
To send all configuration files in a specific directory to the ProCASE II, select the **Send All** menu item from the **File/Send/Configuration** menu. The ProBACK II system will read all of the configuration files from the selected directory and send them to the ProCASE II.

If the files to be sent reside on a different drive, click on the **Target Drive** selection box to select another drive. The **Target Directory** list box will change to reflect the directory list on the new drive. Files can be read from any valid system drive.

Sending a configuration file to the ProCASE II will overwrite the existing file in the system. The ProCASE II checks for file validity upon receipt and will indicate an error if an invalid data field exists.

Use this function when many configuration files have been modified. If multiple ProCASE II systems are to be supported by a single PC running ProBACK II, the files for each ProCASE II should be stored in separate directories.

## File/Send/Misc. Config



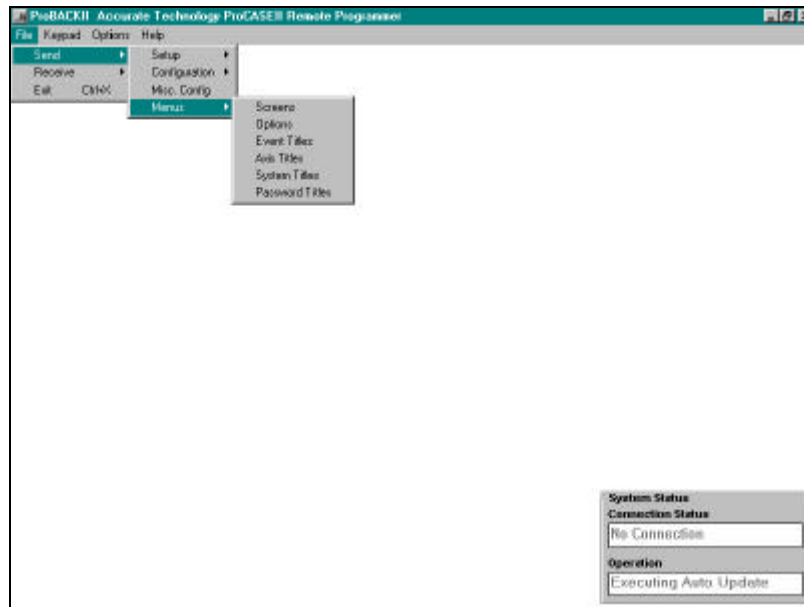
The miscellaneous configuration file contains additional system information for the ProCASE II automation system. Included in this file are system passwords, module address data and input/output mapping information. Unlike setup and configuration files, there is only ONE miscellaneous configuration file for each ProCASE II. The name of this file is called `misc_cfg.sys`. Because it is unique for each ProCASE II, the ProBACK II software looks for the file named `misc_cfg.sys` automatically when sending. The user only has to indicate the directory which contains the miscellaneous configuration file for the targeted ProCASE II currently connected to the PC.

To send the miscellaneous configuration file, select the drive and directory from the dialog box as shown above. Click on the target directory that contains the file as indicated. Click on the OK button. The ProBACK II system will automatically send the file to the ProCASE II. The transmission operation will be displayed in the **System Status** window.

If a directory is chosen that does not contain a `misc_cfg.sys` file, an error box will be displayed indicating that the file cannot be found.

**NOTE:** To aid in file management, store all setup, configuration, log and menu files for different machines in separate sub-directories. Failure to store files in separate sub-directories will result in loss of files due to the overwriting of these files.

## \*File/Send/Menus

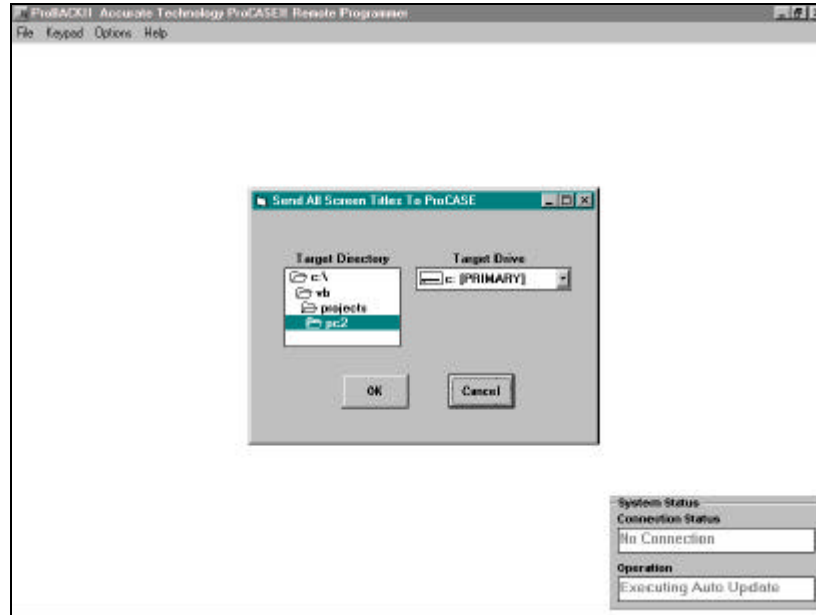


Menus are used to display information and interact with the user of the ProCASE II automation system. Menus can be customized in different languages or can be reworded if desired.

The menu display system for the ProCASE II is divided into different files that can be sent to the system from the ProBACK II software. These include the following:

- Screens
  - Options
  - Event Titles
  - Axis Configuration Titles
  - System Configuration Titles
  - Password Titles
- 
- Screens are the top three lines displayed on the ProCASE II handheld terminal.
  - Options are a collection of lines displayed directly above the 'F' keys in the different display menus.
  - Event Titles are the descriptive messages stored with a system event.
  - Axis Configuration Titles are the descriptive lines that are used to identify each line in the axis configuration file editor used on the ProCASE II.
  - System Configuration Titles are the descriptive lines that are used to identify each line in the system configuration file editor used on the ProCASE II.
  - Password Titles are the descriptive lines used to identify the user information when editing the system passwords.

Each of these files is configured with a fixed name that end with the .mnu extension. To choose a particular menu file to send to the ProCASE II, click on the desired menu item as shown on the previous page.

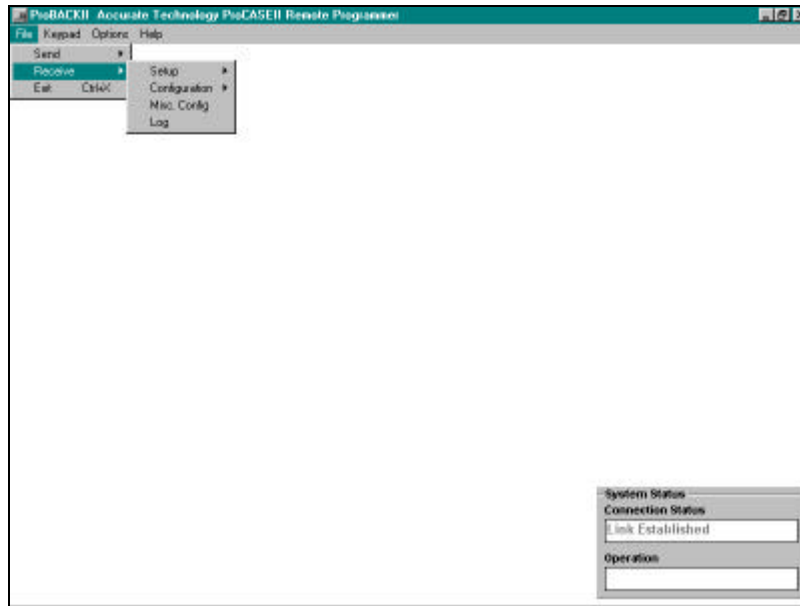


Select the target drive and directory from the file dialog box as shown above. The ProBACK II software will automatically load the correct menu file from disk and send it to the ProCASE II. The **System Status** window will indicate the file transfer status.

If a directory is selected that does not contain the desired menu file, an error box will be display indicating that the file could not be found.

NOTE: Menu files can ONLY be sent (uploaded) to the ProCASE II system. Once a menu file has been sent to the ProCASE II, it will remain in memory even if power is removed from the system. The original menu file can be restored by choosing the **default menus** option in the SYSTEM CONFIGURATION menu of the ProCASE II. Additionally, if new firmware is installed in the ProCASE II, the system will automatically restore the factory menu structure.

## File/Receive



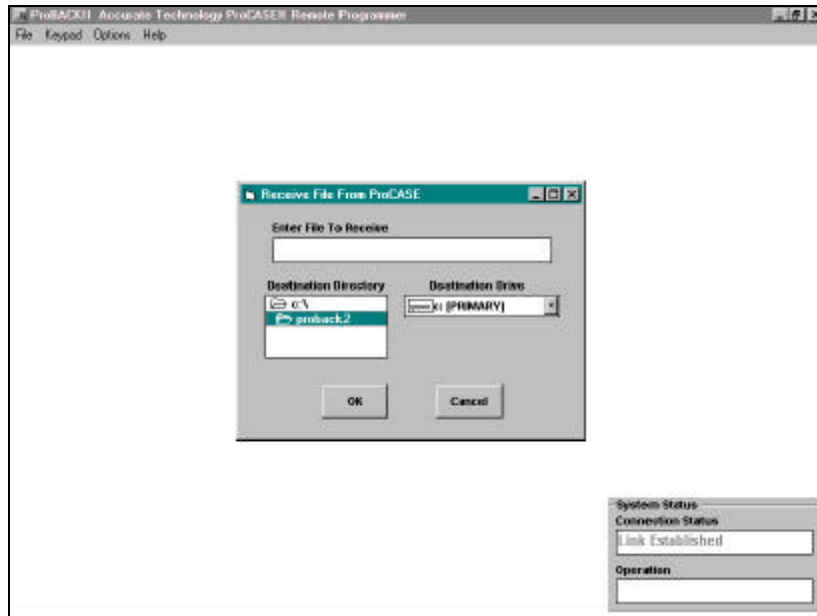
The **File/Receive** menu allows the user to receive (download) setup, configuration and event log files from the ProCASE II.

Setup and configuration files may be downloaded on a single or multiple file bases similar to that in the **File/Send** menu. The miscellaneous configuration file is unique to each ProCASE II system and the data is saved in a file called `misc_cfg.sys` in the desired target directory

The ProCASE II maintains an on-board event buffer that records major system operational functions by time, date and user. This data can be retrieved from the ProCASE II using the **File/Receive/Log** function, then stored to disk.

The following pages describe each of the **File/Receive** menu items in detail.

## File/Receive/Setup/Receive One

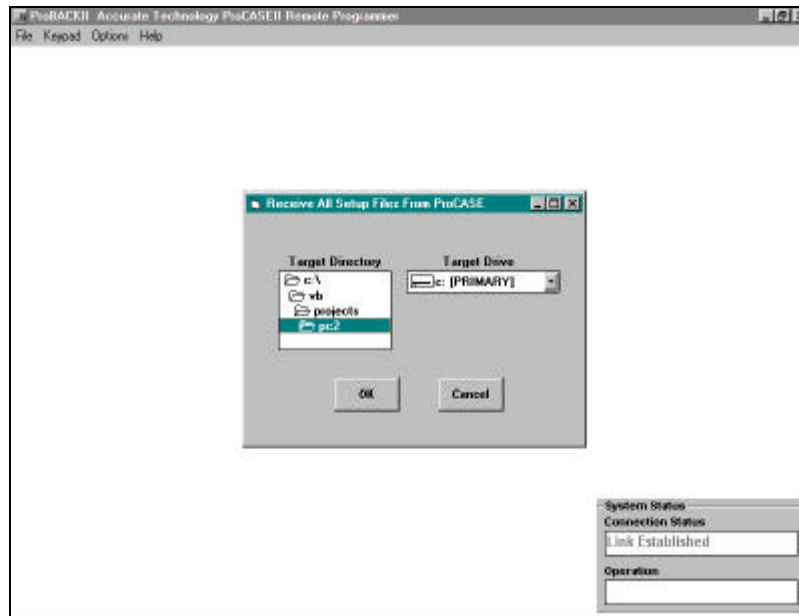


This menu item allows an individual setup file to be received (downloaded) from the connected ProCASE II. When the **Receive One** menu item is clicked, a screen similar to the one above will appear.

To request a setup file from the ProCASE II, enter the setup file name (no extension) into the “**Enter File To Receive**” text box. Click on OK. The ProBACK II software will request the file from the ProCASE II. If it exists, the file will be received and save to disk. If the setup file does not exist, an error message will be displayed.

Setup files that currently exist on disk with the same name as the setup file being downloaded (received) will be **automatically overwritten**. If you wish to preserve the files currently existing in the target directory, either move the files to a different directory or select a different directory for the files to be downloaded into.

## *File/Receive/Setup/Receive All*



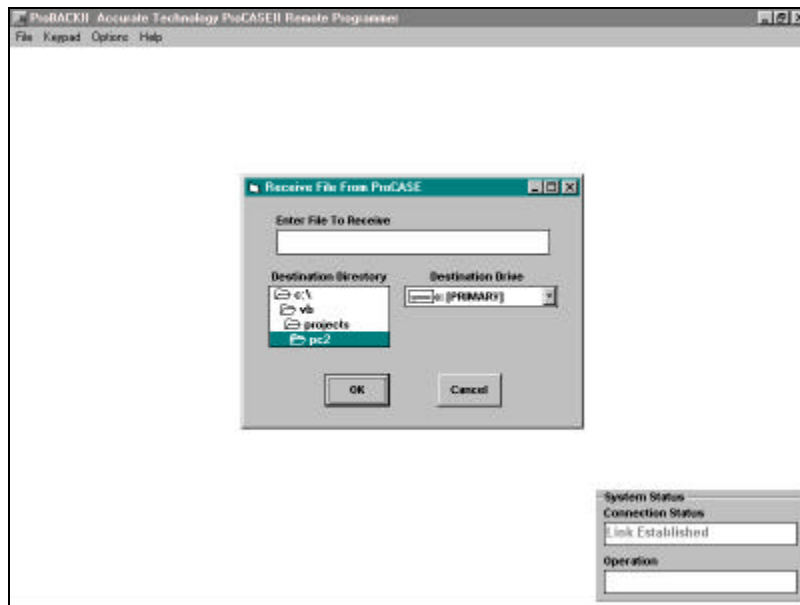
**Setup/Receive All** will instruct the ProCASE II to send all of its setup files currently in memory to the ProBACK II system. The ProBACK II software will store each setup in a file using the setup file name and a .set extension. These files are stored in the target directory specified by the dialog box as shown above.

Select the target drive and directory to store the setup files and click on the OK button. The ProCASE II will begin to download each setup file. The transmission progress will be displayed in the **System Status** window. The ProBACK II software will indicate when all files have been received from the ProCASE II.

To facilitate file management, store setup files from different ProCASE II systems in different directories.

NOTE: Files that currently exist in the target directory with the same name as the files to be downloaded will be **automatically overwritten**. If you wish to preserve the existing files residing on disk, either move the existing files to a different directory or select a different target directory for the file download.

## File/Receive/Configuration/Receive One

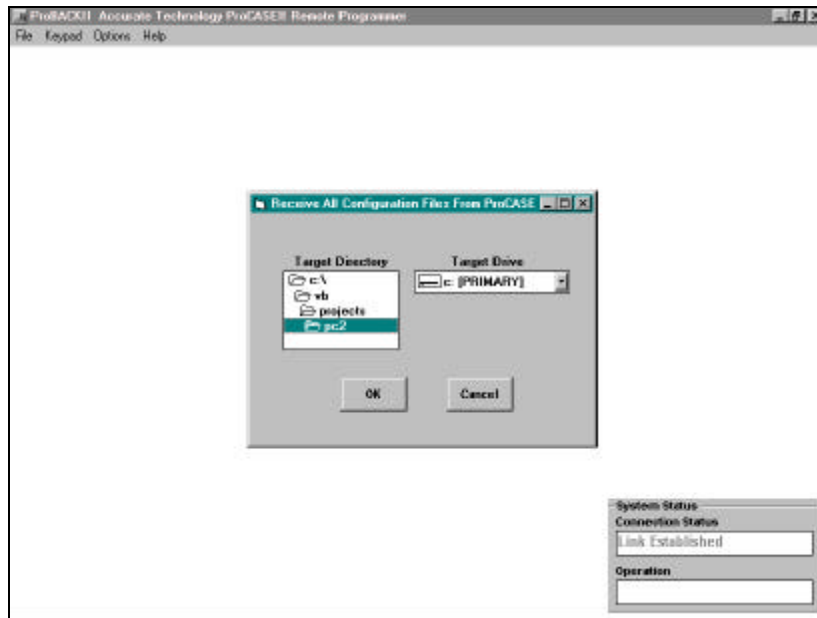


The **Configuration/Receive One** is used to receive (download) a single configuration file from the connected ProCASE II. To download a configuration file, select the target disk and directory and then enter the configuration number you desire to receive.

Axis configuration files are identified by numbers from 1 to 48. Use 1 to download axis 1 configuration file, etc. The main system configuration file is identified by 0. Enter the desired number (no file extension) and click the OK button. The ProCASE II will download the desired file and the transmission progress will be displayed in the **System Status** window.

Each file is saved in the target directory using the ID number and a .cfg file extension. The main system file is saved as 0.cfg. (Axis 1 is save as 1.cfg, etc.)

## *File/Receive/Configuration/Receive All*



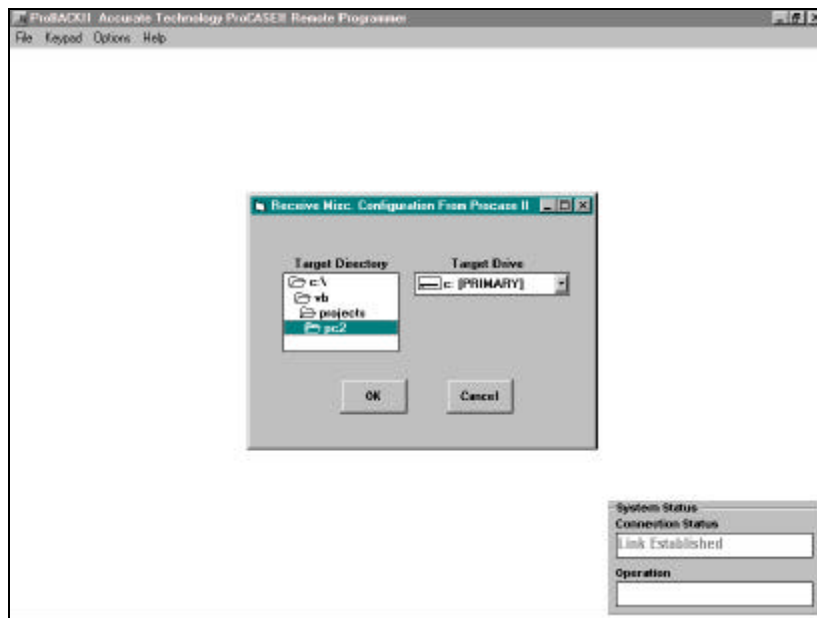
The **Configuration/Receive All** menu is used to receive all of the axis and main system configuration files from the connected ProCASE II.

Select the target drive and directory from the file dialog box as shown above. Click on the OK button to begin the file transfer. The transmission progress will be displayed in the **System Status** window.

Each file is store in the target directory with a .cfg extension. Axis files are identified from 1.cfg to 48.cfg. The main system file is 0.cfg.

NOTE: Existing files currently residing in the target directory with the same names as the configuration files to be downloaded will be **automatically overwritten**. If you wish to preserve the existing files, either move the files to a different directory or choose a different target directory for the file download.

## File/Receive/Misc. Config

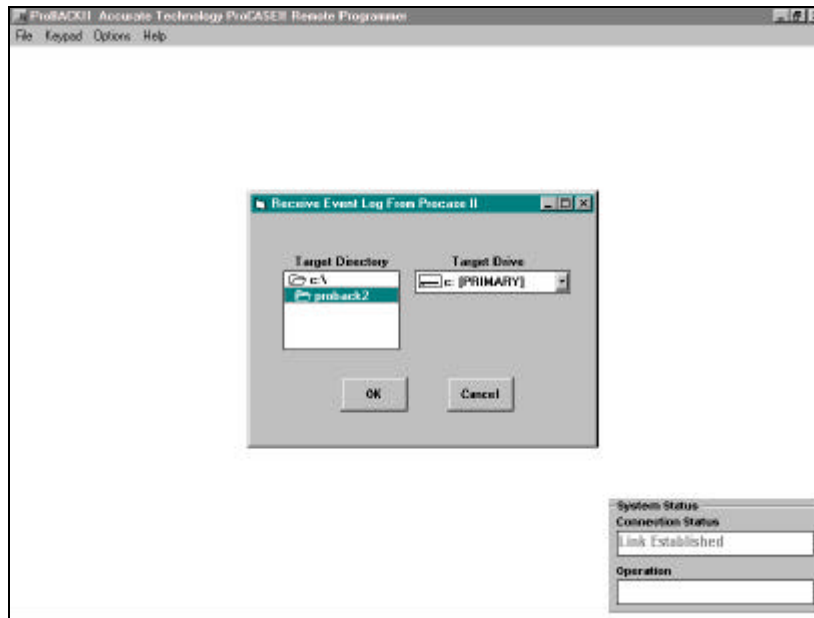


**Receive/Misc. Config** is used to download (receive) the miscellaneous configuration file from the connected ProCASE II. This file is unique to each ProCASE II and is automatically assigned the file name `misc_cfg.sys`.

To download the miscellaneous configuration file from the ProCASE II, select the target drive and directory. Press the OK button. The ProCASE II will download the miscellaneous configuration file and ProBACK II will store the file to disk. The progress of the transmission is indicated in the **System Status** window.

NOTE: Any existing miscellaneous configuration file (`misc_cfg.sys`) will be **automatically overwritten** by the downloaded file. If you wish to preserve the existing file, either move the file to another directory or choose a different target directory for the download.

## \*File/Receive/Log



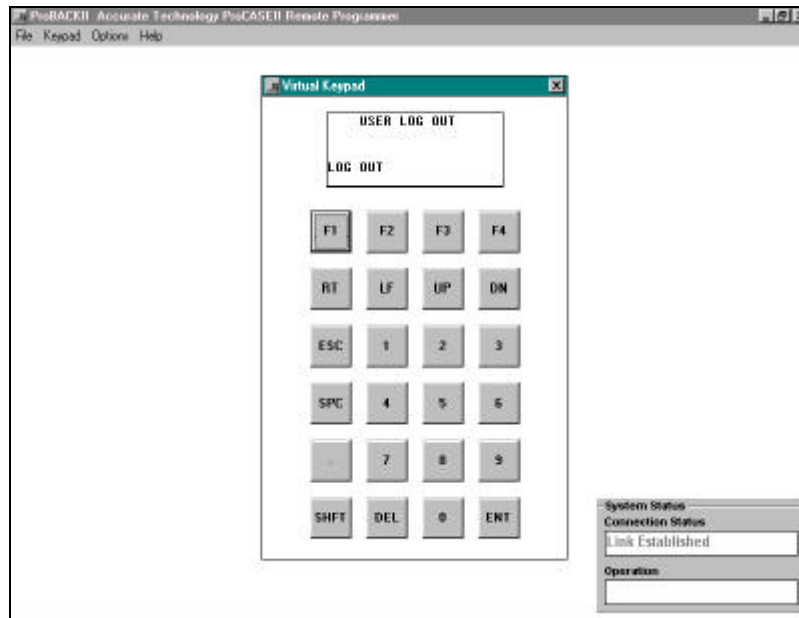
The **Receive/Log** menu allows the user to download the on-board event log from the connected ProCASE II. The ProCASE II records major system operational events and stores the events in memory. Each event is recorded along with the current time, date and user ID. This log can be used by management personnel to monitor machine and operator performance.

To download the event log, choose the target drive and directory from the dialog box as shown above. Click on the OK button.

The transmission progress is displayed in the **System Status** window. The ProBACK II system will indicate when all of the events have been received. The event log is stored in the target directory with the file name event.log.

NOTE: If an event log file currently exists in the target directory, it will be **automatically overwritten** by the download of the new event log. If you wish to preserve the existing event log, rename the file to a new name, move the file to another directory or use a different target directory for the download.

## \*Keypad



The ProBACK II system includes a *virtual keypad* that can be used to do remote programming of the system. While the ProCASE II is connected to the ProBACK II system, normal axis monitoring operation is suspended. Because of this, the FILE SETUP, RUN and MANUAL POSITIONING menus are not operational.

To use the virtual keypad, click on the Keypad menu item on the menu bar. A screen similar to the one shown above will be presented. The keypad layout is similar to that of the real handheld terminal. To execute a function, click on the desired button. The virtual LCD will be updated to reflect the key press. To exit the virtual keypad, click on the keypad window title bar button (located at the left end of the window title bar) and select close.

### Notes Using The Virtual Keypad

The overall responsiveness of the virtual keypad is somewhat slower than that of the real keypad. This is a normal observation and is the result of the data transmission format used by the ProBACK II system.

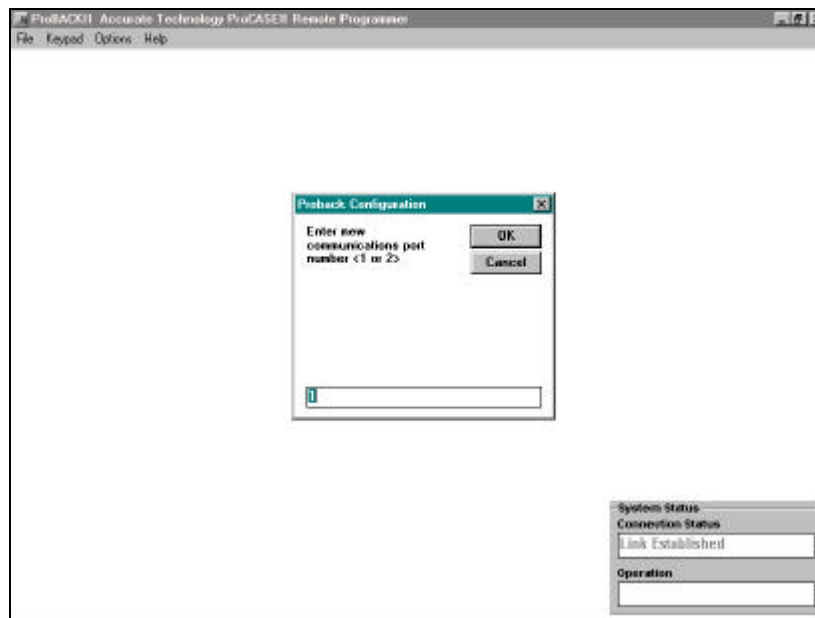
## Options

The Options menu is used to configure the ProBACK II system for proper operation. The options include the following:

- Communications Port Selection
- Intercharacter Transmit Delay

Each of these options is described in the following pages.

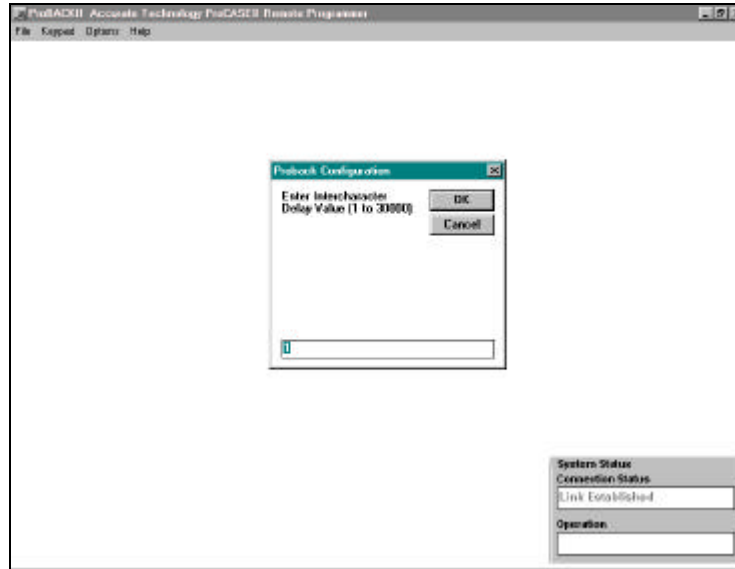
### ***Options/Set Communications Port***



ProBACK II currently supports serial ports COM 1 and COM 2. To configure the system to a communication port, enter 1 or 2 in the dialog box as show above. Click OK when completed. The system will store the communications port setting to disk and re-configure the serial port to the new settings.

Valid port settings are 1 or 2. An invalid setting will cause an error message to appear.

## Options/Intercharacter Delay



This option is used to correct problems that may occur while transmitting data to the ProCASE II. This value is used to cause a delay between each character sent to the ProCASE II and can be used *in some cases* to alleviate **command timeout** errors that may occur.

Typically, this value is 1 and under normal conditions, should not need to be changed. If **command timeout** errors are persistent, this value can be increased to allow more time between transmitted characters. The value for this field is from 1 to 30000. Use increments of 5000 when making changes to this value.

Note: This error typically occurs due to the increasing processor speeds of newer computers. Increasing this value will effectively slow the overall transmission of files to the ProCASE II. This will give the ProCASE II more time to receive and process the received files. Only change this value from the default value (1) if **command timeout** errors occur.

### **\*\*\*IMPORTANT\*\*\***

As of firmware revision 1.03, the ProCASE II system incorporates a similar feature to add a delay between characters transmitted from the ProCASE II to the PC. It has been found that in **most** cases, modifying the HOST XMIT DLY parameter in the menu will alleviate most command timeout errors. If command timeout errors occur and the PC executing the ProBACK II program is an 80486 25MHz or slower, increase the HOST XMIT DLY parameter on the ProCASE II **before** modifying the intercharacter delay in the ProBACK II application.

# Event Descriptions

This section describes each event message that is recorded by the ProCASE II automation system. The event log can be downloaded from the system and is stored in the target directory with the name "event.log".

Events are in the following format:

Time	Date	User ID
	Event Description	
	Event Parameter (Optional)	

Time is in 24-hour format.

Date is in MM/DD/YY or DD/MM/YY format depending on system configuration.

User ID is the user logged in when the event occurred.

Event Description is a brief description of the event.

Event Parameter is additional data recorded for the event. Note: Not all events have an Event Parameter.

## ***Event Descriptions***

**User Logged In** - Indicates that a valid user code was entered into the system and the user was logged in for normal system operation. Parameter = User ID.

**User Logged Out** - Indicates that the current user logged out of the system. Parameter = User ID.

**Setup Started** - Records the start of the machine setup sequence. A saved file has been recalled and the setup procedure has begun. Parameter = Setup file name.

**Setup Completed** - Records the end of the machine setup sequence. A saved file has been recalled and setup is now complete. The elapsed time between this event and the Setup Started event is the amount of time to reproduce the saved setup. Parameter = Setup file name.

**Axis Drifted** - Signifies that an axis drifted out of position while the ProCASE II was in RUN mode. Parameter = Axis drifted.

**Axis Repositioned** - Indicates that a drifted axis has been repositioned to the in-position tolerance during RUN mode. Parameter = Repositioned axis.

**Date Changed** - Records that the system date on the ProCASE II was changed. Parameter = NONE.

**Axis Offset Modified** - Indicates that the current position offset for an axis has been modified. The position offset is used to relate an axis position with a real world reference. Typically, an axis-offset value should ONLY be modified during tooling changes. Parameter = Axis modified.

**Setup File Saved** - Signifies that a setup file has been created and stored to memory. Parameter = Setup file name.

**Setup File Overwritten** - Indicates that a saved setup file was overwritten with new position data. The ProCASE II alerts the operator that a setup file currently exists with the same name. The operator must verify the overwrite before it occurs. Parameter = File name of setup overwritten.

**Axis Encoder Failure** - Indicates that an enabled axis has failed to respond with position information in the allotted amount of time. Parameter = Axis number failed.

**Axis Homed** - Records that an axis has been homed. This process synchronizes the axis position with a real world reference point. Parameter = Axis number homed.

**Axis Segment Altered** - Signifies that the user has modified the position segment offset in the ProCASE II for the specified axis. Parameter = Axis number modified.

**Archive Connect Made** - Indicates that a computer with ProBACK II software has made a successful data connection to the ProCASE II. Parameter = NONE.

**Archive Connect Done** - Signifies that the ProBACK II/ProCASE II communications link has been disconnected normally. Parameter = NONE.

**Files Archived** - Records that one or more files have been downloaded (received) by the ProBACK II software from the ProCASE II. This event DOES NOT record the file names saved to disk. Parameter = NONE.

**Files Retrieved** - Indicates that one or more files have been uploaded (sent) by the ProBACK II software to the ProCASE II. This event DOES NOT record the file names sent to the ProCASE II. Parameter = NONE.

**Event Log Downloaded** - Signifies that the event log on the ProCASE II was successfully downloaded (sent) to the ProBACK II software. Parameter = NONE.

**Event Log Purged** - Records that the event log has been purged (deleted) by the master user. Normally, the event log records events until full and then overwrites the oldest events in memory with the newest events. Parameter = NONE.

**User Code Changed** - Indicates that the user LOGIN code for an operator has been modified by the master user. Parameter = User code ID.

**File Deleted** - Signifies that a saved setup file has been deleted from memory using the FILE DIRECTORY command in the UTILITY section of the SETUP menu. Parameter = Setup file deleted.

**Axis Skipped** - Indicates that an axis was skipped while recalling a saved setup file. (The ProCASE II can be configured to allow an axis to be skipped while recalling a setup file if that axis is not to be used in the setup. Normally, the ProCASE II requires ALL axes in the system to be repositioned to the recorded positions regardless of whether a particular axis is used in a setup.) Parameter = Axis skipped.

**Setup Aborted** - Records that the recalling of a saved setup file has been aborted. This occurs when the operator selects ABORT while recalling a setup file. This event replaces the **Setup Completed** event in this scenario. Parameter = Setup name aborted.

**Run Mode Started** - Indicates that the ProCASE II has been placed into the RUN mode of operation. Entering RUN mode occurs when the user completes the setup of a saved setup file by pressing the DONE key on completion of the setup, or by manually entering the RUN mode from the ProCASE II menu system. Parameter = NONE.

**Axis Cfg File Changed** - Signifies that one or more parameters have been altered in an axis configuration file. This can occur by using the master LOGIN code from the ProCASE II Pendant or by uploading a new configuration file from the ProBACK II software. Parameter = Axis number modified.

**System Cfg Changed** - Records that one or more parameters have been modified in the main system configuration file. This can occur by using the master LOGIN code from the ProCASE II Pendant or by uploading a new configuration file from the ProBACK II software. Parameter = NONE.

**Time Changed** - Indicates that the system time has been modified by the master user on the ProCASE II. Parameter = NONE.

**Module Addr. Mod** - Signifies that the address for a module in the system has been modified by the master user. Parameter = Module number.

**Run Mode Exited** - Records that the RUN Mode on the ProCASE II has been exited. Parameter = NONE.

**Run Mode Aborted** - Indicates that the RUN Mode was exited abnormally while an axis had drifted. Instead of repositioning the faulted axis, the machine operator aborted the RUN Mode. Parameter = NONE.

**AC Power On** - Indicates that the system has been reset, typically because of restored AC power to the system after a power failure.

## File Formats

The following section describes the file formats used by the ProBACK II system. This information can be used to manually edit the setup or configuration file and send (upload) the files to the ProCASE II system. This section outlines the information in the *setup* and *configuration* files.

### Setup Files

Line 1	Setup Note 1
Line 2	Setup Note 2
Line 3	Setup Note 3
Line 4	Setup Note 4
Line 5	Axis 1 Position (In system Units i.e. Inches, MM or Degrees)
Line 6	Axis 2 Position
.	
.	
Line 52	Axis 48 Position

Note: Although the ProCASE II may be configured for fewer than the maximum number of axes, the system always stores files with the maximum number of axes in the setup file. The system stores axes that are not used with the default value of 0.0. The maximum number of axes in the ProCASE II system is 48.

### System Configuration Files

Line 1	Number of axes in system (1 to 48)
Line 2	System Units (0 = Inches, 1 = Millimeters)
Line 3	Use Notepad (0 = No, 1 = Yes)
Line 4	Use Skip (0 = No, 1 = Yes)
Line 5	Date Format (0 = MM/DD/YY, 1 = DD/MM/YY)
Line 6	Use Part Count Match Counter (0 = No, 1 = Yes)
Line 7	Use Log-In Menu (0 = No, 1 = Yes)
Line 8	Use Setup Menu (0 = No, 1 = Yes)
Line 9	Use Manual Menu (0 = No, 1 = Yes)
Line 10	Use Homing Menu (0 = No, 1 = Yes)
Line 11	Use Run Menu (0 = No, 1 = Yes)
Line 12	Use Error Menu (0 = No, 1 = Yes)
Line 13	Use Configuration Menu (Always 1)

Line 14      Host Xmit Delay (1 to 500)

**Miscellaneous Configuration file (misc\_cfg.sys)**

Line 1 Password Comment  
Line 2 Password 1 (Master Password)  
Line 3 Password 2  
Line 4 Password 3  
Line 5 Password 4  
Line 6 Password 5  
Line 7 Password 6  
Line 8 Password 7  
Line 9 Password 8  
Line 10 Module Address Comment  
Line 11 Module 1 address (master) 0 = disabled  
Line 12 Module 2 address (satellite 1)  
Line 13 Module 3 address  
Line 14 Module 4 address  
Line 15 Module 5 address  
Line 16 Module 6 address  
Line 17 Inputs Comment  
Line 18 Part Count Input Title  
Line 19 Part Count Input Module Number (0 = disabled)  
Line 20 Part Count Input Port Number (1 or 2)  
Line 21 Outputs Comment  
Line 22 Drift Output Title  
Line 23 Drift Output Module 1 Number (0 = disabled)  
Line 24 Drift Output Port Number (module 1) (1 or 2)  
Line 25 Drift Output Module 2 Number (0 = disabled)  
Line 26 Drift Output Port Number (module 2) (1 or 2)  
Line 27 Error Output Title  
Line 28 Error Output Module 1 Number (0 = disabled)  
Line 29 Error Output Port Number (module 1) (1 or 2)  
Line 30 Error Output Module 2 Number (0 = disabled)  
Line 31 Error Output Port Number (module 2) (1 or 2)  
Line 32 Enable Output Title  
Line 33 Enable Output Module 1 Number (0 = disabled)  
Line 34 Enable Output Port Number (module 1) (1 or 2)  
Line 35 Enable Output Module 2 Number (0 = disabled)  
Line 36 Enable Output Port Number (module 2) (1 or 2)  
Line 37 Part Count Match Output Title  
Line 38 Part Count Match Output Module 1 Number (0 = disabled)  
Line 39 Part Count Match Output Port Number (module 1) (1 or 2)  
Line 40 Part Count Match Output Module 2 Number (0 = disabled)  
Line 41 Part Count Match Output Port Number (module 2) (1 or 2)

### **Axis Configuration File (1.cfg - 48.cfg)**

Line 1      Axis Name (20 characters max)  
Line 2      Axis Enabled (0 = Not enabled 1 = Enabled)  
Line 3      Axis Type

1. Manual Axis – No Encoder
2. Absolute ProScale™ Encoder
3. Incremental ProScale™ Encoder

Line 4      Module Port Number (1 - 8)  
Line 5      Module Number (1 - 6) 1 = Master  
Line 6      Scale Factor (Greater than 0.0)  
Line 7      Home Offset (In axis units i.e. Inches, MM or Degrees)  
Line 8      Drift Tolerance (In axis units)  
Line 9      In-Position Tolerance (In axis units)  
Line 10     Encoder Direction (0 or 1)  
Line 11     Encoder Units (0 = Linear units Inches or MM, 1 = Degrees)

### **Menu Files (\*.mnu)**

Menu files are used to customize the ProCASE II system menus. There are several menu files for the system, each used for a different portion of the menu structure. The files share a common format shown below.

Line 1	Total number of menu lines to follow
Line 2	Menu item
Line 3	Menu item
.	
.	
Line n	Last menu item

Your ProBACK II system is provided with a group of default menu files for the current version of the ProCASE II firmware. The provided files are exactly the same as the default menu structure currently in the ProCASE II. You may modify the menu item however you wish with the following limitation.

1. The number of menu items must match the current number in the default version. You cannot add additional lines to the file. Line 1 of the file must remain the same for your current version of ProCASE II firmware. The ProCASE II checks this number against an internal number and if a mismatch occurs, the ProCASE II will reject the file.
2. Menu lines cannot be longer than 20 characters.
3. Any printable ASCII character can be used. DO NOT USE tabs within the menu line. Use spaces for padding.

Once you have made changes to the menu file(s), you may send the file(s) to the ProCASE II using the **File/Send/Menus** option. Menu information remains in memory even if power is removed from the system.

Menus can be uploaded to the ProCASE II as often as desired. The original menu system can be restored using the DEFAULT MENUS selection under the SYSTEM CONFIGURATION sub-menu system on the ProCASE II.

NOTE: When installing new firmware into a ProCASE II, the defaulting operation will automatically restore the factory menu system. You will have to upload any modified menu files to the ProCASE II if desired.

## **Error Codes**

The ProBACK II system uses DOS™ and Windows™ error codes to inform the user of errors that occur as the software executes. Please refer to the DOS or Windows reference manuals that came with your system.

The ProBACK II software has one unique error code. When the software is running too fast for the ProCASE II system to receive all the data that is being sent, the ProBACK II software will display a Command Timeout Error. The solution to this error is explained in Options/Intercharacter Delay on Page 27 of this manual.