UPG Runtime

User's Manual

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-END-

Getting Started

Chapter 1 Contents

Installing UPG Runtime

UPG Runtime System Requirements

UPG Runtime runs with the minimum requirements listed below, but for maximum performance, install UPG Runtime onto a computer with a higher speed processor and more memory than the minimum requirements.

Hardware

- Processor - 80486/50MHz (Pentium recommended)
- Memory - 16MB (32 recommended)
- Hard Disk - 10MB
- Video - VGA

Operating Systems

- Windows® 98 (SP 5)
- Windows® ME (SP 5)
- Windows® NT (SP 6)
- Windows® 2000
- Windows® XP

Supported Portables

UPG Runtime supports the PSC Falcon, and some other DOS portables as listed below. A compatible docking station or communications cable is required for the portable data collection unit to work with UPG Runtime. Contact a portable data collection supplier to obtain the necessary portable accessories.

PSC

- Falcon 31x
- Falcon 32x
- Falcon 33x
- Falcon 34x
- Falcon 51x

Brady

- Brady DLT
- Brady DLT16

LXE

- 2325
- MX2

NOTE

Visit PSC's website at www.pscnet.com for up-to-date information on system requirements and a list of currently supported portables.

UPG Runtime Installation

Complete the following steps in the installation utility to install UPG Runtime:

1. Select **RUN** from the Windows **START** menu.
2. Type **a:\rtsetup.exe** in the **OPEN** field and press the **OK** button, using the appropriate drive letter for the CD disk drive.
3. Select **Next** on the **Welcome** screen to continue the installation.
4. Select **Yes, I Accept** to accept the UPG Runtime license agreement at the **UPG License Agreement** screen.
5. Select the UPG Runtime destination directory; it installs to the **C:\UPG** directory by default. Select or create another directory if preferred.
6. Select the installation destination for installation of the UPG startup icon.

NOTE

By default, the UPG Runtime startup icon is placed in the Universal Program Generator program group. If preferred, select or create another startup group.

7. Reboot the computer.
8. Launch the UPG Runtime.

Uninstalling UPG Runtime

To uninstall the UPG Runtime from the computer, complete the following steps:

1. Press the Windows **START** button.
2. Select **PROGRAM**.
3. Select **Universal Program Generator**, or the program group specified during installation.
4. Select **UPG Runtime UNINSTALL**.
5. Press the **NEXT** button to begin uninstalling UPG. This removes all of the installed components of UPG from the computer.
6. Reboot the computer to complete the uninstall process.

The **UPG** directory may remain after uninstallation. Any projects that may have been built using UPG are saved in the **\Projects** subdirectory of UPG. In this case, the **UPG** directory is not removed to protect existing projects.

Launching UPG

1. Press the Windows **START** button.
2. Select **PROGRAM**.
3. Select **Universal Program Generator** (or the program group specified in step 6).
4. Select **UPG Runtime**.

Overview of UPG Runtime

Welcome to the UPG Runtime User's Guide. This manual explains how to program a portable and transfer data using UPG Runtime.

UPG Runtime allows end users of Universal Program Generator (UPG) generated programs to download programs, UPG Runtime Projects and data files to the Falcon PDT family portables without having UPG. More knowledgeable users can also use UPG Runtime to create and edit program UPG Runtime Project files, and parameter files used by the generated **EXE** and the PDT.

You can run UPG Runtime with or without command line parameters:

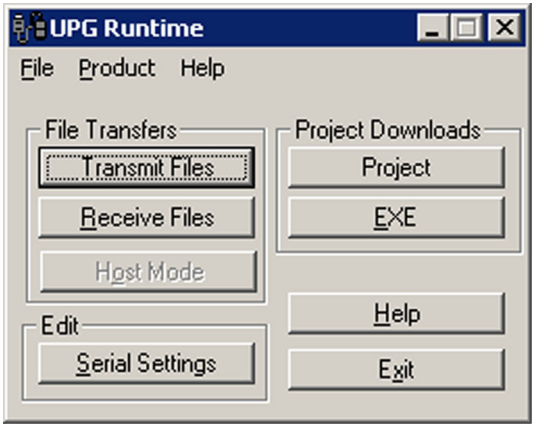
- You can download UPG Runtime projects, UPG Generated **EXE** files, and data files without command line settings. (Refer to UPG Runtime User Interface on page 6.)
- Knowledgeable users can create and edit UPG Runtime project files and parameter files used by the generated **EXE** with **/E** command line settings. (Refer to UPG Runtime User Interface on page 6.)
- Running UPG Runtime with the **/?** or **/H** command line settings displays the UPG Runtime help file.
- Running UPG Runtime with a project filename automatically loads the project and starts the project file download process. (For example: **upgrun sample.prj**). (Refer to Figure 7 on page 11).
- Other override commands include:
  - **B#** = **Baud Rate**
  - **/#** = **Serial Port Number**
  - **/I** = **Product ID** (1-5=31x=1, 32x=2, 33x=3, 51x=4, 34x=5).

UPG Runtime User Interface

UPG Runtime downloads UPG created programs and support files to the PDT. You may download an application, a project, or project files using UPG or by UPG Runtime. UPG Runtime can also transfer files between the host PC and the PDT.

UPG Runtime is a menu system. Main menu functionality is visible through command buttons.

Figure 1: UPG Runtime User Interface



File Transfers & Project Downloads

Chapter 2 Contents

Overview

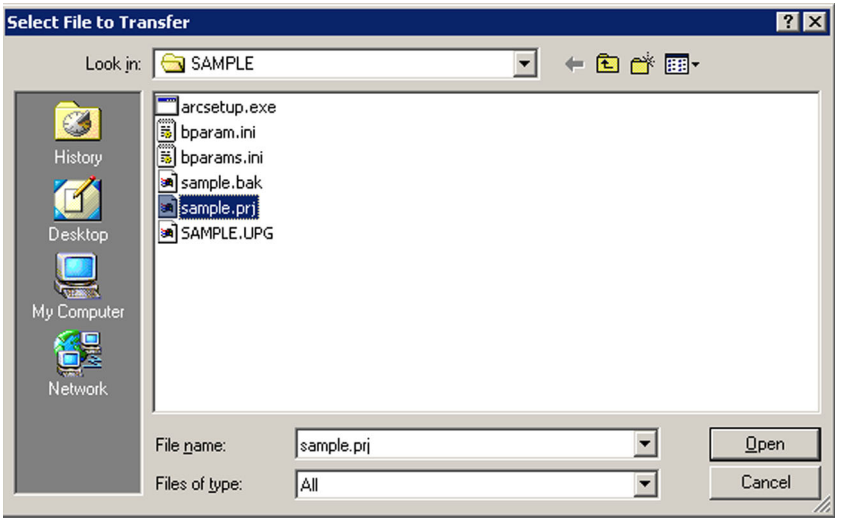
This section covers the most used features of UPG Runtime: **File Transfers** and **Project Downloads**. Access these features with the command buttons in the UPG Runtime user interface.

File Transfers

Transmit Files

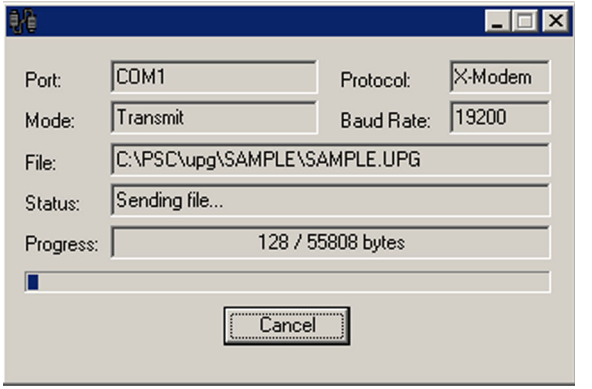
1. Click on the **Transmit Files** button to send files to the portable.

Figure 2: Select File to Transfer Window



2. Select a file to transfer and press **Open**.
   - The **File Transfer** window opens.

Figure 3: File Transfer Window

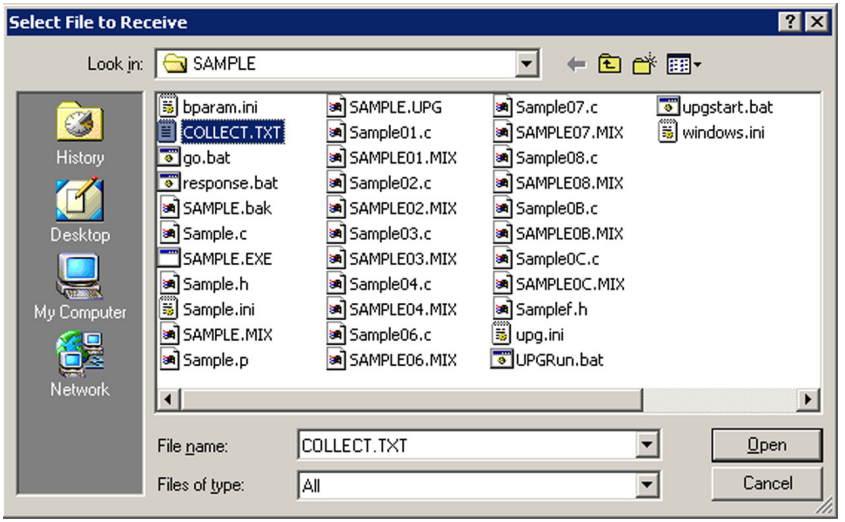


   - After the file has been transmitted, the **File Transfer** window closes.

Receive Files

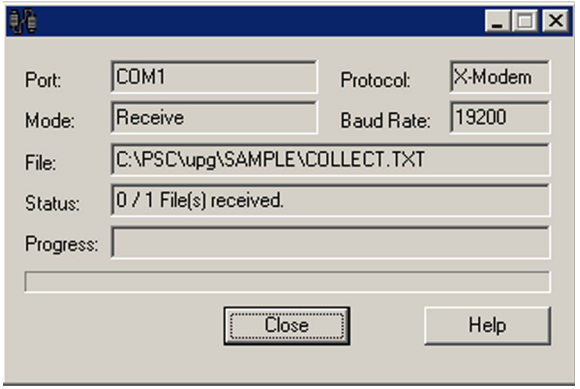
1. Click on the **Receive Files** button to receive files on the portable.

Figure 4: Select File to Receive Window



2. Select a file to receive and press **Open**.
   - The **Receive File** window opens.

Figure 5: Receive File Window

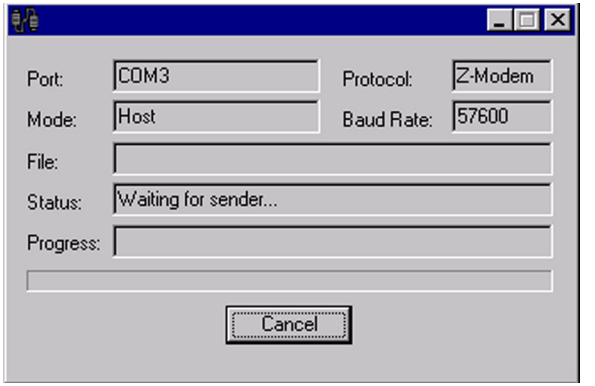


   - After the file has been received, the **Receive File** window closes.

Host Mode

Host Mode is a method of receiving files using the Z-Modem protocol. It continuously waits for files and receives them using the filenames specified by the sender. Once files have been received, it goes back to waiting for additional files. Click **Cancel** to quit **Host Mode**.

Figure 6: Host Mode Window



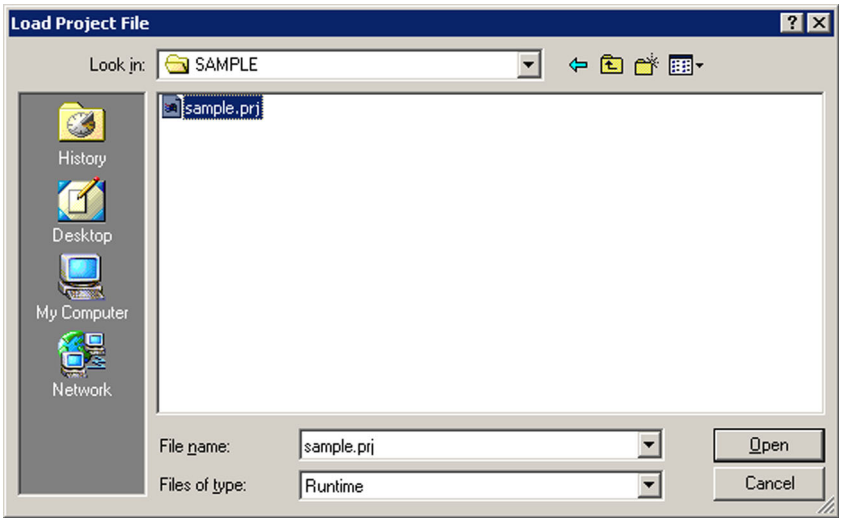
Project Downloads

Project

Use **Project Downloads** to download **EXE** and support files (***.INI** or ***.TXT**) to the PDT.

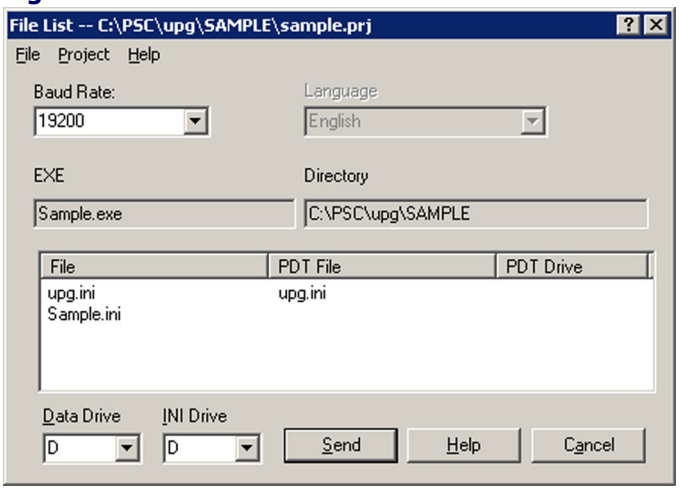
1. Press the **Project** button to open the **Load Project File** window.

Figure 7: Load Project File Window



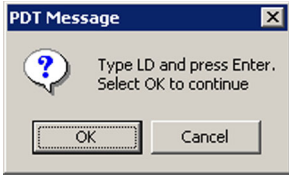
2. Select a project file (***.prj**) and press **Open**.

Figure 8: File List Window



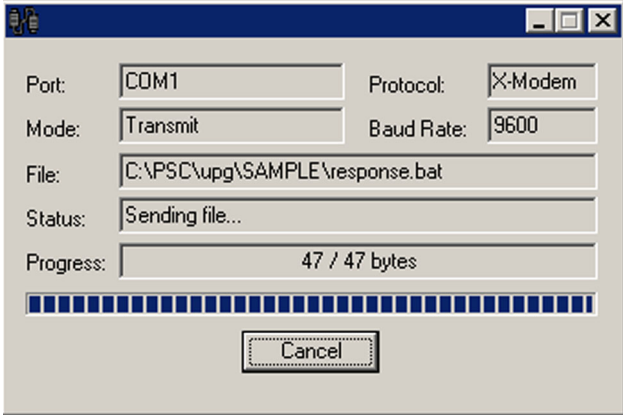
3. The downloadable **EXE** file and directory are displayed with a list of files to download.
   - Press **Send**.
   - A dialog appears for actions to be performed on the PDT.

Figure 9: PDT Message Dialog Box



4. Type **LD** on the PDT and press **Enter** once.

Figure 10: Transmit File Window



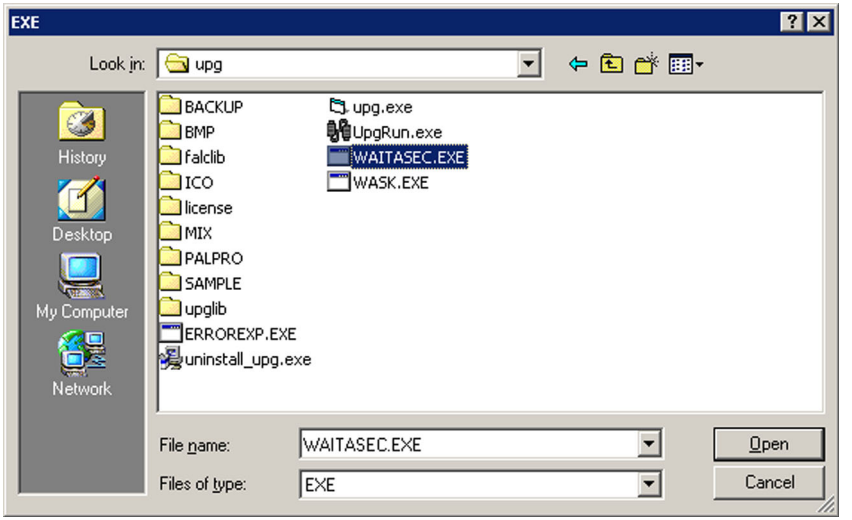
Each file in the list and the EXE is downloaded.

EXE

If a UPG DOS EXE program does not have a project file, download the **EXE** directly by completing the following steps:

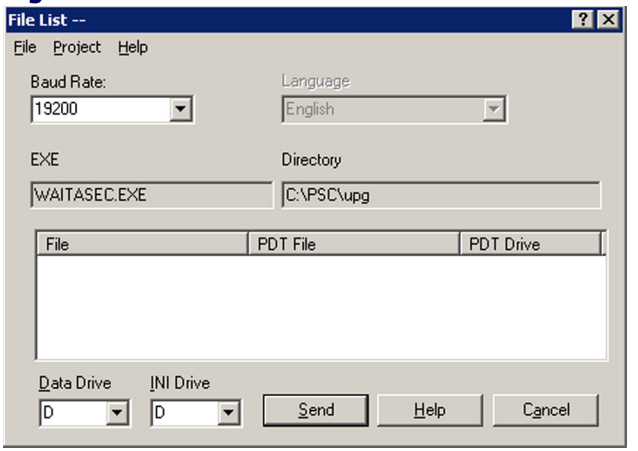
1. Press the **EXE** command button.
   - A **Download an EXE** window opens.

Figure 11: Download an EXE Window



2. Select an **EXE** file to download.

Figure 12: File List Window

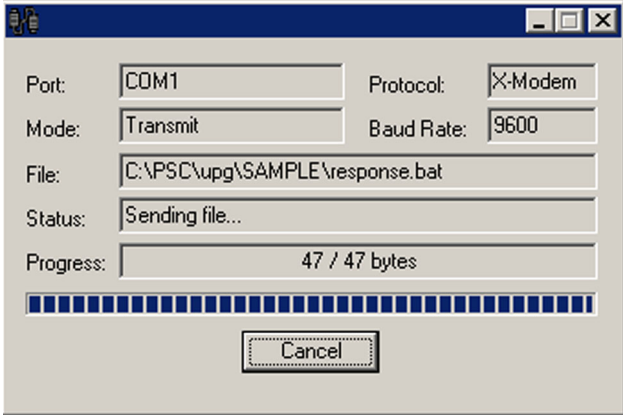


3. The downloadable **EXE** file and directory are displayed with a list of files to download.
   - Press **Send**.
   - A dialog appears for actions to be performed on the PDT.

Figure 13: PDT Message Dialog Box

4. Type **LD** on the PDT and press **Enter** once.

Figure 14: Transmit File Window



The EXE and each file in the list are then downloaded.

Help

To access online **Help**, click on the **Help** button or press **F1**.

Exit

To exit UPG Runtime, click on the **Exit** button.

Serial Settings

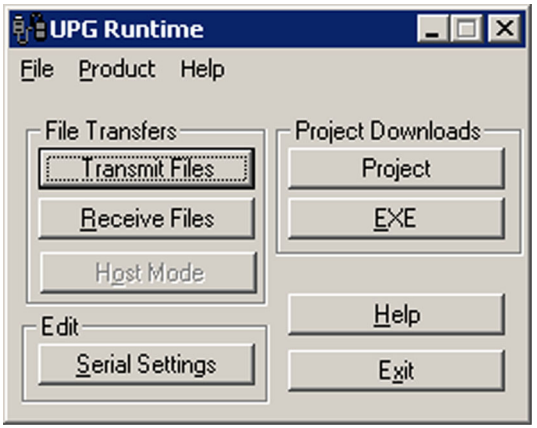
Chapter 3 Contents

Edit Serial Settings Button

Before beginning to program or send data to and from the portable, open the **Setup** form to establish the communication settings for the host PC. Select **Edit > Serial Settings** from the menubar to open the form.

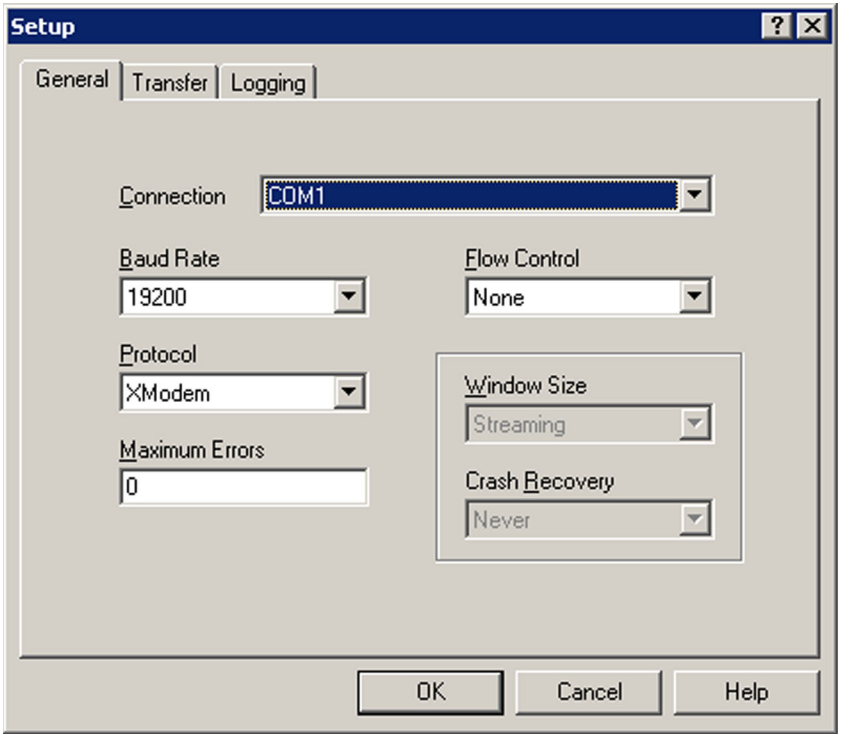
The **Serial Settings** form contains three tabbed sections: **General**, **Transfer**, and **Logging**. Detailed descriptions of each tabbed section follow.

Figure 15: UPG Runtime User Interface



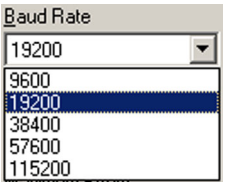
General Tab

Figure 16: File Transfer Setup Definition Form: General Tab

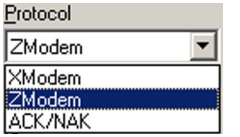


Connection Enter the **Connection** port for file transfers. Select from the list of detected serial ports or modems.

Baud Rate Select a **Baud Rate** for serial communications from the pull-down list. The default value is **19200**.



Protocol Select the file transfer **Protocol** to use for sending and receiving files. The **Protocol** depends upon what the Host system requires. The default value is **ZModem**.



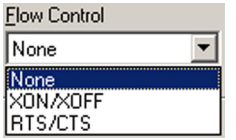
XModem — **XModem** does not allow multiple file transfers.

ZModem — **ZModem** allows multiple file transfers.

ACK/NAK — **ACK/NAK** does not allow multiple file transfers. Do not use **ACK/NAK** with PSC Falcon DOS units.

Maximum Errors — Enter the maximum number of **Errors** permitted before a file transfer is aborted. Range: **1** to **50**. **0** specifies no limit to the number of file transfer errors.

Flow Control — Select the mechanism used to control the flow of data. Sender and receiver must agree on the flow control method.

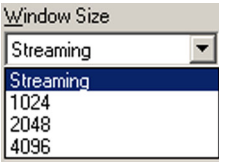


None — No flow control used.

XON/XOFF — Software flow control using **XON** and **XOFF** characters to communicate when to suspend and resume data transfer. Only available with Z-Modem protocol.

RTS/CTS — Hardware flow control that uses **Ready to Send** (**RTS**), and **Clear to Send** (**CTS**) serial port lines to communicate when to suspend and resume data transfer.

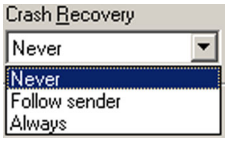
Window Size — Specifies the amount of data transmitted before receiving a response from the receiver.



Streaming — Sender does not wait for a response before sending all the data.

1024-4096 — Causes the sender to wait for a response after sending the specified amount of data.

Crash Recovery — Specifies whether or not an attempt is made to complete a file transfer at the point of failure.



Never — Never attempts to recover from a file transfer.

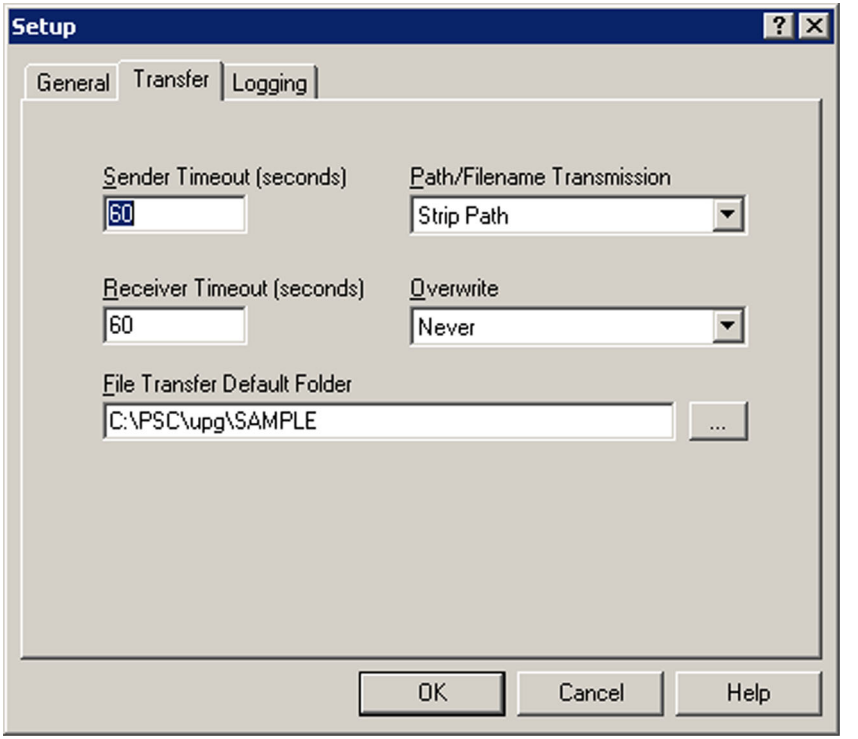
Follow Sender — Follows the sender's **Crash Recovery** and **Overwrite** options.

Always — Forces an attempt to recover from a file transfer.

Transfer Tab

This tab establishes file transfer settings. Select the **Transfer** tab.

Figure 17: Transfer Tab of the File Transfer Utility



Sender Timeout (Seconds)	Enter the maximum number of seconds to wait for a connection when sending files. A value of **0** waits indefinitely.
Receiver Timeout	Enter the maximum number of seconds to wait for a connection when receiving files. A value of **0** waits indefinitely.
Path/Filename Transmission	Enter a **Path/Filename Transmission** to control how the sender processes the paths and filenames of files to be sent. Only applies to Z-Modem.
Strip Path	Sends only the filename (no path) to the receiver.
Send Path	Sends the filename with path to the receiver.
Specify Receiver's File Path/Name	Allows both the filename and path for each file to be altered prior to being sent to the receiver.

Overwrite — Select to determine the action the receiver takes when a received file already exists.

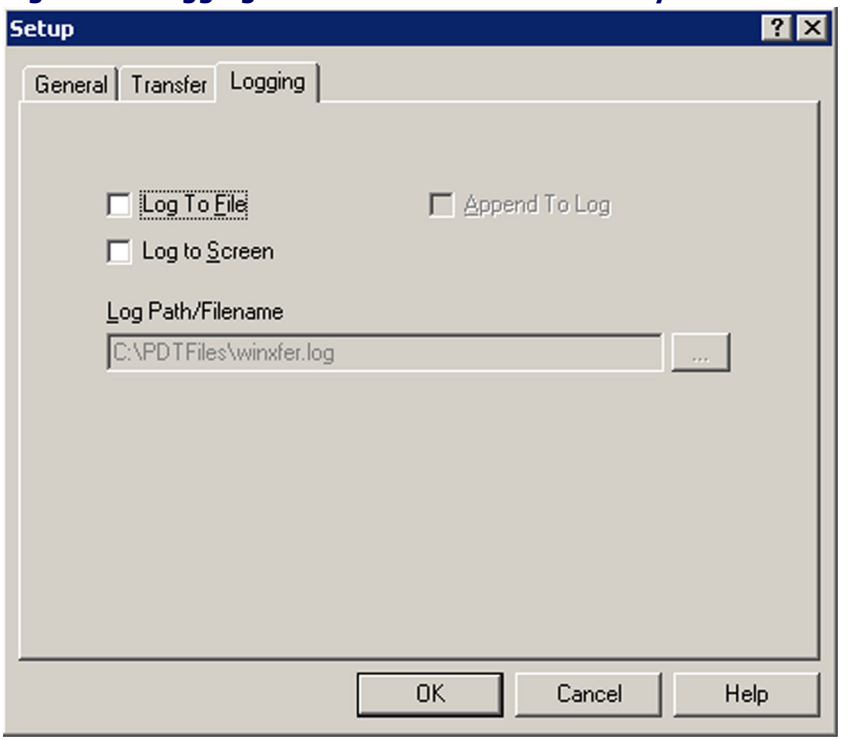
- **Source Longer or Newer** — Overwrites the existing file if the received file is longer or newer.
- **CRCs Don't Match** — Overwrites the existing file if the CRCs of both files don't match.
- **Append** — Appends the received file to the existing one.
- **Always** — Overwrites the existing file with the one received.
- **Source Newer** — Overwrites the existing file if the received file is newer.
- **Date/Length Don't Match** — Overwrites the existing file if the dates or lengths of both files don't match.
- **Never** — Skips the transfer if the received file already exists.

File Transfer Default — Enter the **File Transfer Default** folder for storing received files. Use the **Browse** button to locate a new location.

Logging Tab

This tab establishes settings for the communications log. Click the **Logging** tab.

Figure 18: Logging Tab of the File Transfer Utility



Log To File	Specifies that the log is to be written to a text file.
Log To Screen	Specifies that the log is displayed on screen.
Append to Log	This option becomes available when you select **Log to File**. When enabled, **Append to Log** adds log information to the end of the log file. If not enabled, new log information replaces the previous log file.
Log Path/ Filename	Specify the location for storing the communications log. If a path is not given, the file is stored in the **Default File Transfer** folder.
Browse	Use the **Browse** button to locate a new log file.

Menus

Chapter 4 Contents

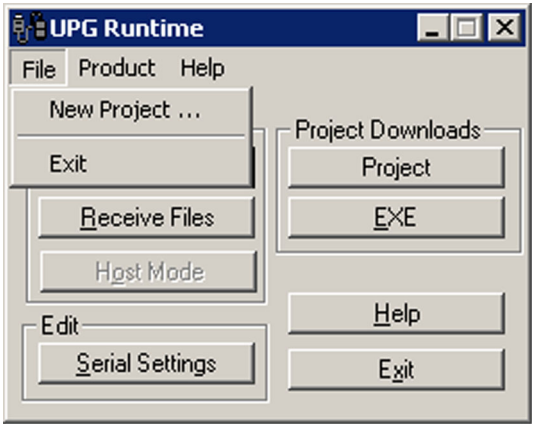
Menubar Overview

The menubar is located just under the top border of the UPG Runtime window. It consists of **File**, **Product**, and **Help** pull-down menus, which are each described in the following sections.

File Menu

Select **File** from the menubar.

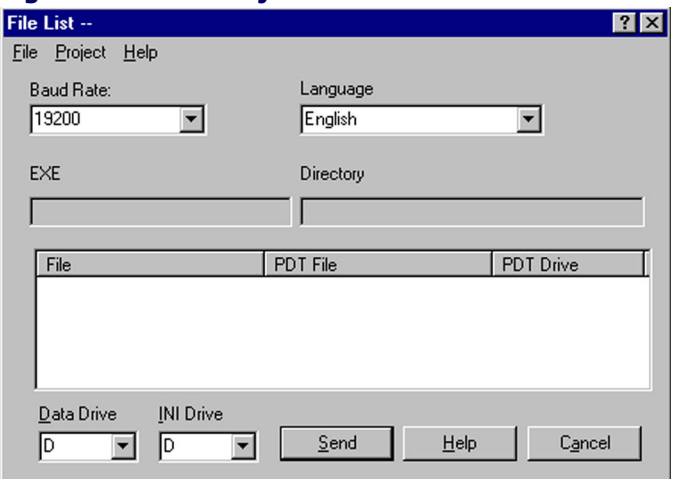
Figure 19: UPG Runtime File Menu



New Project

The **New Project** option is available when the edit switch is activated. Select **File > New Project** to create a new project. This opens a blank **Project** window.

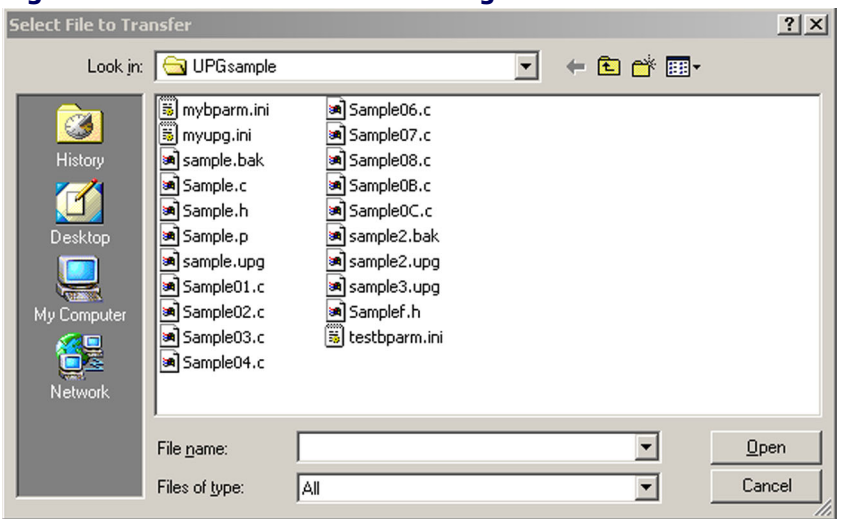
Figure 20: New Project to Build



Editing a File List or Filename

From the main menubar, select the **File** to modify the project file list. Files in the list can be edited, added, and deleted from the list.

Figure 21: Add Files Windows Dialog Box



Select one file from the file list and change the **Send As** name or destination drive.

File menu Select **File** from the menubar.

Add File Select **Add File** to display a standard Windows file dialog. Select multiple files to add. When the download window is redisplayed, the selected files appear the **File** column of the file list.

Edit File Select a file in the file list. Select **File > Edit** to edit the settings of the selected file. Refer to Edit Drive Window on page 26.

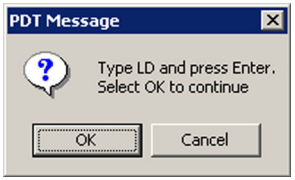
Delete File Select a file in the file list. Select **File > Delete** to delete the file from the list.

Get EXE Select **File > Get Exe** to create or modify a UPG project file from UPG Runtime. If running UPG Runtime, create new project. **File > Get EXE** becomes available. Use **Get Exe** to select a UPG generated **EXE** file using the standard Windows file dialog. The selected file will parse into the **EXE** and directory settings.

Exit Saves settings, closes the **File List** form, and returns the user to the UPG application.

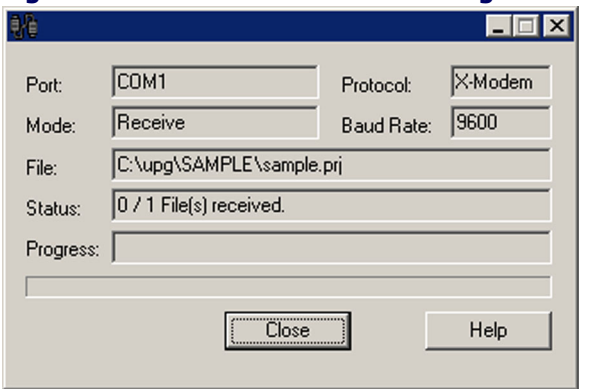
1. Select a file to download to the portable.
   - Press the **Open** button.
   - Press **Cancel** to cancel the operation.
   - A dialog appears for actions to be performed on the PDT.

Figure 22: PDT Dialog message



2. Type **LD** on the PDT and press **Enter** once.

Figure 23: Receive File Status Dialog Box



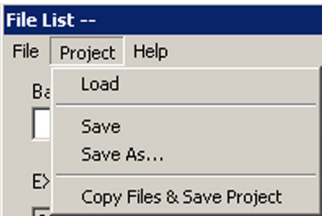
3. The **Send File Status** dialog box opens.
   - Press **Close** to stop the download.
   - Press **Help** for more information.

Project Menu

The Project file format is

```
; Comment
/E Program Name
/D Default Text Drive Letter
/I App INI file location
/F Falcon Drive, delimiter (|), Filename
/P Falcon Port
/L Language exe,
```

Project menu Select **File** from the menubar.



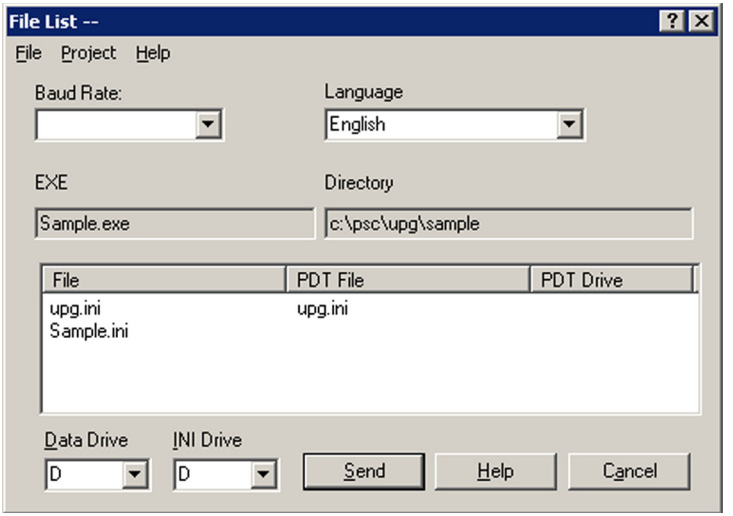
Load Select **Load** to load another project file. Use this to download the **`EXE`** with non-standard **`INI`** or text files. The first time you download the **`EXE`**, add the extra files and save the project. During subsequent downloads, load the previously saved project file rather than adding the files individually.

Save Saves the current settings to the currently opened project file. If the project file has not been previously saved, the **Save As** dialog box opens

Save As... Saves the current settings as a specified filename. A standard windows dialog box opens so that you can choose or enter a new project filename.

Copy Files & Save Project Saves the current settings into a project file and then copies the project file, **EXE**, and support files to a new selected project file directory.

Figure 24: File List Definition Form



Baud Rate Baud rate to transfer the EXE and files in file list. The first time it is activated it will be the current baud rate from **Host Settings**. After first download view, the **Host Settings** baud rate changes will not affect download baud rate. This allows separation of baud rate transfers for downloading generic data files VS downloading of projects.

Language Shows what language is currently selected to run downloaded **EXE**. You can change the selection, however you should normally use UPG to set setting. Runtime users may need to use setting

EXE Name of program being downloaded.

Directory Directory where program is located.

File List of files to download. If path is not included then files are located in the same directory as the program.

PDT File Name of file on PDT. Some file names are automatically generated and cannot be changed by the user, specifically: (**BPARAMS.INI**, **UPG.INI**, **<app>P.INI**, and **<app>.INI**, if they are present on the list. If **PDT File** is left blank, the name becomes the filename (minus path).

PDT Drive	Name of drive the data file will reside on. Blank setting leaves the file at the default drive specified for the file type. **INI** files must the **INI** **Drive** setting.
Data Drive	This is the default drive for the data files. It is also the drive from which the **EXE** is ran (the **EXE** is not stored on this drive).
INI Drives	This is the drive location for all **INI** files, with the exception of **BPARAMS.INI** (the Falcon **autoexec** looks for this file on the **C** drive).
Send	Sends files.
Cancel	Select to cancel changes to current settings and return to the UPG application.

NOTES

UPG will not let the name or drive of certain INI support files to be changed (For example: BPARAMS.INI, UPG.INI, <app>.INI, and <app>P.INI).

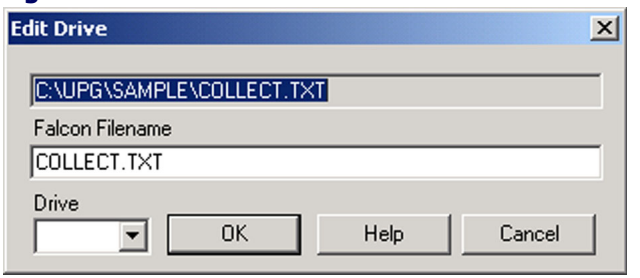
INI files cannot have the drive target changed file by file.

INI files can not be changed or have the INI drive overridden.

All files in the file list can be added or edited, not just INI files.

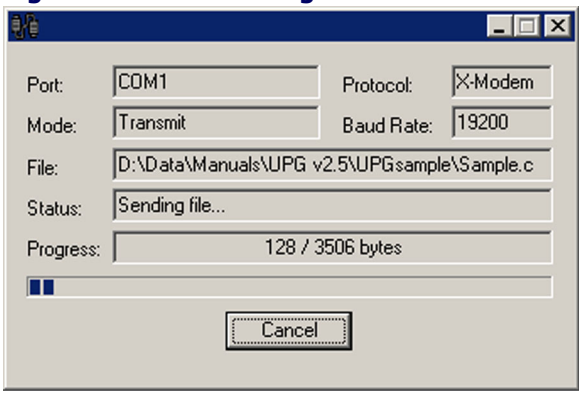
To edit a non-**INI** file and open the **Edit Drive** form, double-click on the file.

Figure 25: Edit Drive Window



Filename	Enter a new path and filename. If the path is in the directory as the project, entering a path is optional
PDT filename	Enter a new PDT filename for the file on the PDT.
Drive	Click on the pull-down menu to edit the drive. Drive on PDT the file is to automatically be downloaded to. If left blank then the data or **INI** data drive controls where the file is downloaded.

Figure 26: Transferring File



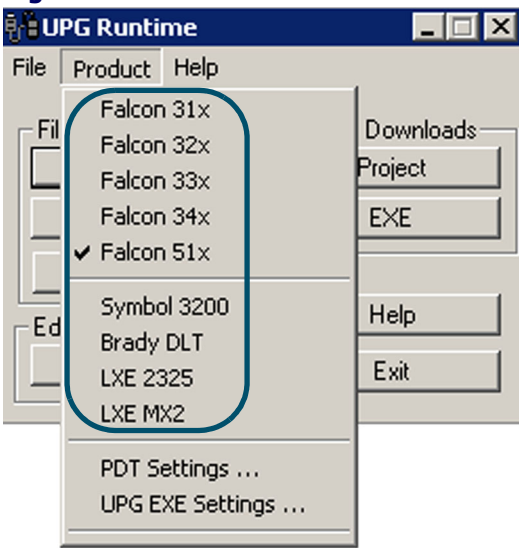
Exit

To quit UPG Runtime, select **Exit** from the **File** menu.

Product Menu

1. Select **Product** from the menubar.

Figure 27: UPG Runtime Product Menu



2. Select a **Portable Type**, **PDT Settings**, or **UPG EXE Settings** to modify from the pull-down menu.

Portable Type

These are the known portables that UPG Runtime will correctly work with.

Falcon 31x (PSC) Default portable (PDT).
Falcon 32x (PSC)
Falcon 33x (PSC)
Falcon 34x (PSC)
Falcon 51x (PSC)
Symbol 3200
Brady DLT
LXE 2325
LXE MX2

PDT Settings

Refer to PDT Settings on page 29 for a complete description of PDT Settings.

UPG EXE Settings

Refer to UPG EXE Settings on page 53 for a complete description of UPG EXE Settings.

Help Menu

Help

The Help menu accesses the on-line help provided with the UPG Runtime application.

About UPG Runtime

This menu item provides information regarding the version of UPG Runtime and copyright information.

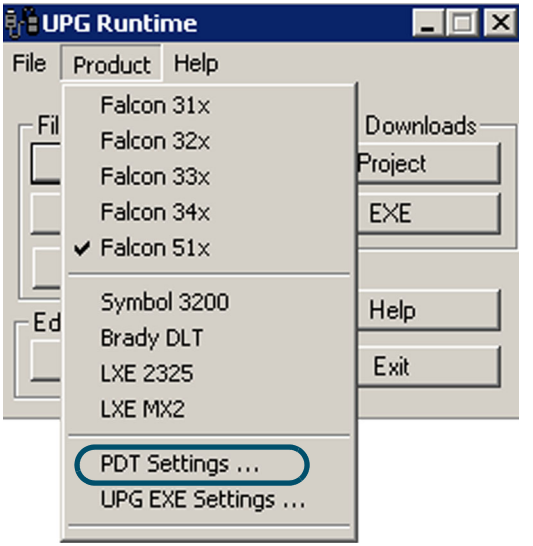
PDT Settings

Chapter 5 Contents

Overview

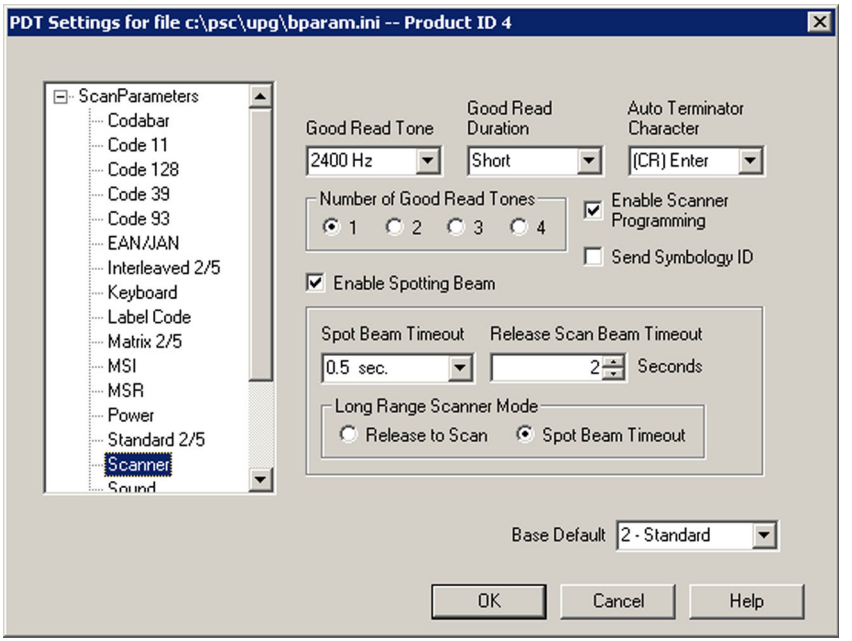
Select **Product > PDT Settings** from the menubar.

Figure 28: UPG Runtime Product Menu



Base Default Setting for all ScanParameters

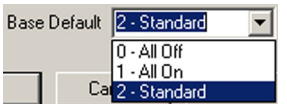
Figure 29: ScanParameters Definition Form



The setting controls the values for all the scan parameters in the **PDT Settings** definition form. Changing the value of this setting will update all fields in all scan parameters views to the new base default selected.

Base Default Select an option from the **Base Default** pull-down list at the bottom right side of the form.

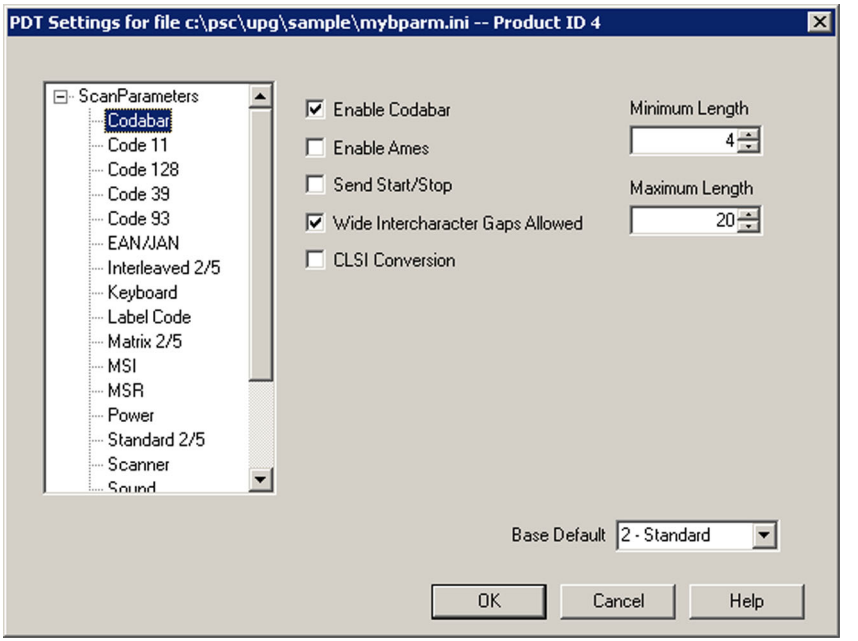
0 - All off
1 - All On
2 - Standard (default)



Descriptions and a view of each of the **PDT Settings Definition** form follow in the order they appear in the **ScanParameters** list.

ScanParameters: Codabar

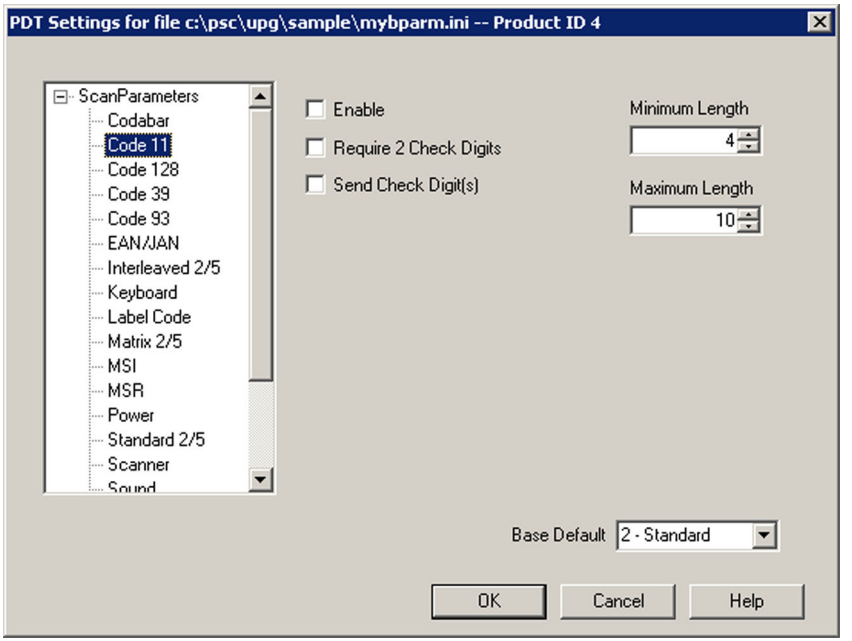
Figure 30: ScanParameters: Codabar



Enable Codabar	Enables on all checkbox fields.
Enable Ames	Enables on all checkbox fields.
Send Start/Stop	Enables on all checkbox fields.
Wide Intercharacter Gaps Allowed	Enables on all checkbox fields.
CLSI Conversion	Enables on all checkbox fields.
Minimum Length	Minimum length for the bar code in order for it to scan. Click the **up/down** arrows or enter a whole integer into the field.
Maximum Length	Maximum length for the bar code in order for it to scan. Click the **up/down** arrows or enter a whole integer into the field.

ScanParameters: Code 11

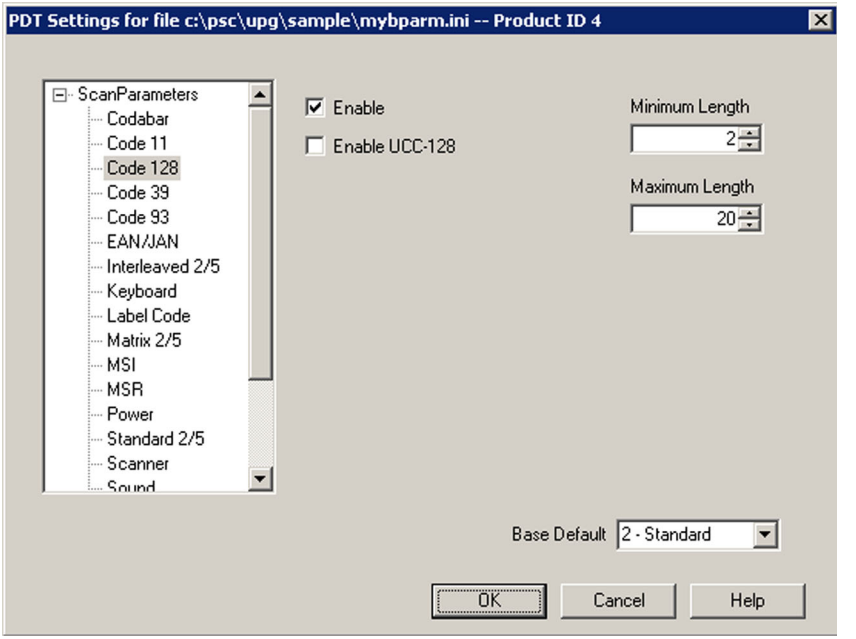
Figure 31: ScanParameters: Code 11



Enable	Enables on all checkbox fields.
Require 2 Check Digits	Requires two check digits for the bar code to scan.
Send Check Digits	Includes the check digit in the scan string.
Minimum Length	Minimum length for the bar code in order for it to scan. Click the **up/down** arrows or enter a whole integer into the field.
Maximum Length	Maximum length for the bar code in order for it to scan. Click the **up/down** arrows or enter a whole integer into the field.

ScanParameters: Code 128

Figure 32: ScanParameters: Code 128



Enable — Enables on all checkbox fields.

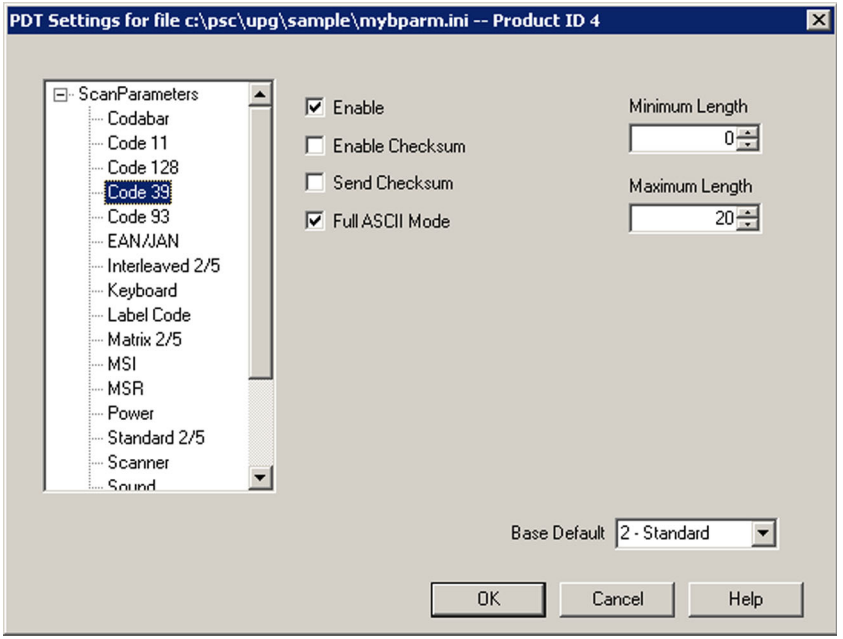
Enable UCC-128 — Enables on all checkbox fields.

Minimum Length — Minimum length for the bar code in order for it to scan. Click the **up/down** arrows or enter a whole integer into the field.

Maximum Length — Maximum length for the bar code in order for it to scan. Click the **up/down** arrows or enter a whole integer into the field.

ScanParameters: Code 39

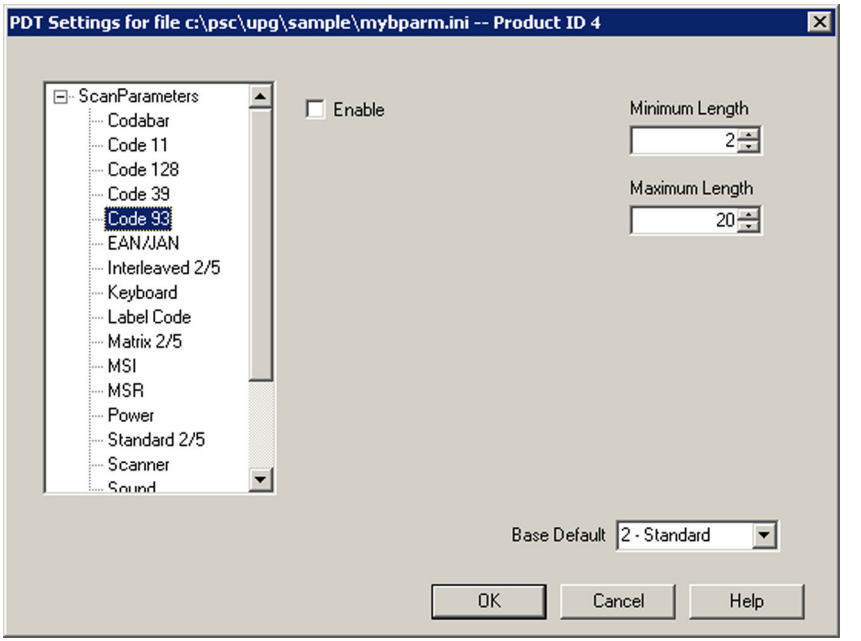
Figure 33: ScanParameters: Code 39



Enable	Enables on all checkbox fields.
Enable Checksum	Enables on all checkbox fields.
Send Checksum	Enables on all checkbox fields.
Full ASCII Mode	Enables on all checkbox fields.
Minimum Length	Minimum length for the bar code in order for it to scan. Click the **up/down** arrows or enter a whole integer into the field.
Maximum Length	Maximum length for the bar code in order for it to scan. Click the **up/down** arrows or enter a whole integer into the field.

ScanParameters: Code 93

Figure 34: ScanParameters: Code 93



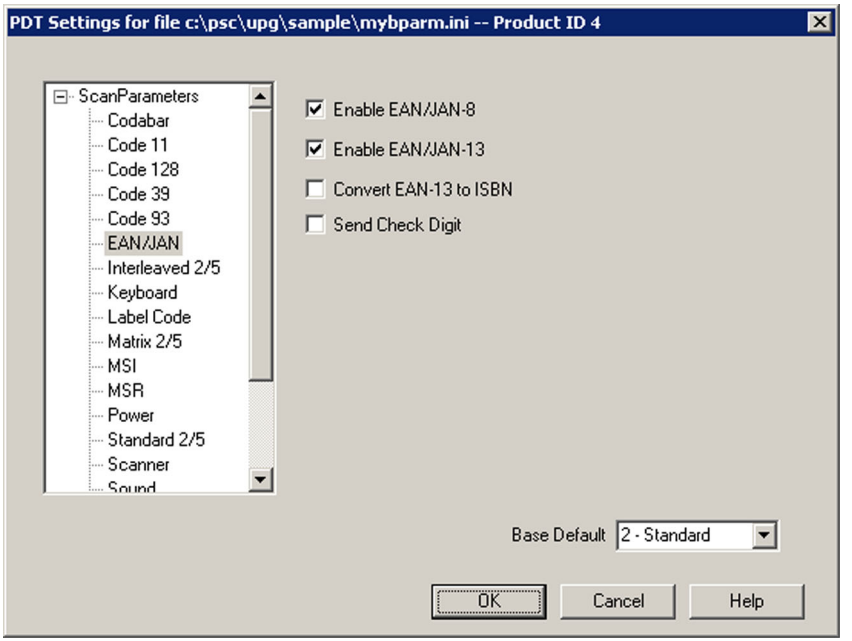
Enable — Enables on all checkbox fields.

Minimum Length — Minimum length for the bar code in order for it to scan. Click the **up/down** arrows or enter a whole integer into the field.

Maximum Length — Maximum length for the bar code in order for it to scan. Click the **up/down** arrows or enter a whole integer into the field.

ScanParameters: EAN/JAN

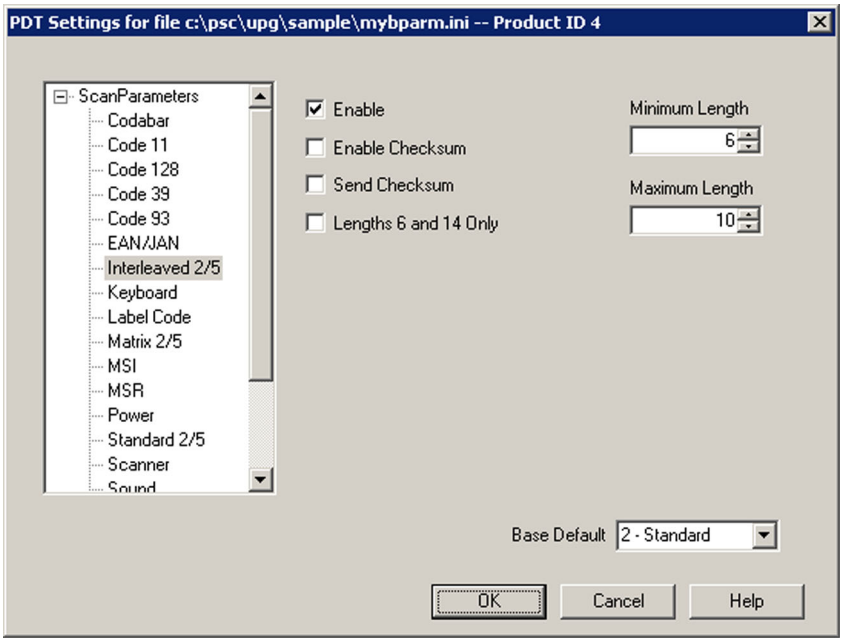
Figure 35: ScanParameters: EAN/JAN



Enable EAN/JAN	Enables on all checkbox fields.
Enable EAN/JAN 13	Enables on all checkbox fields.
Convert EAN-13 to ISBN	Enables on all checkbox fields.
Send Check Digit	Enables on all checkbox fields.

ScanParameters: Interleaved 2/5

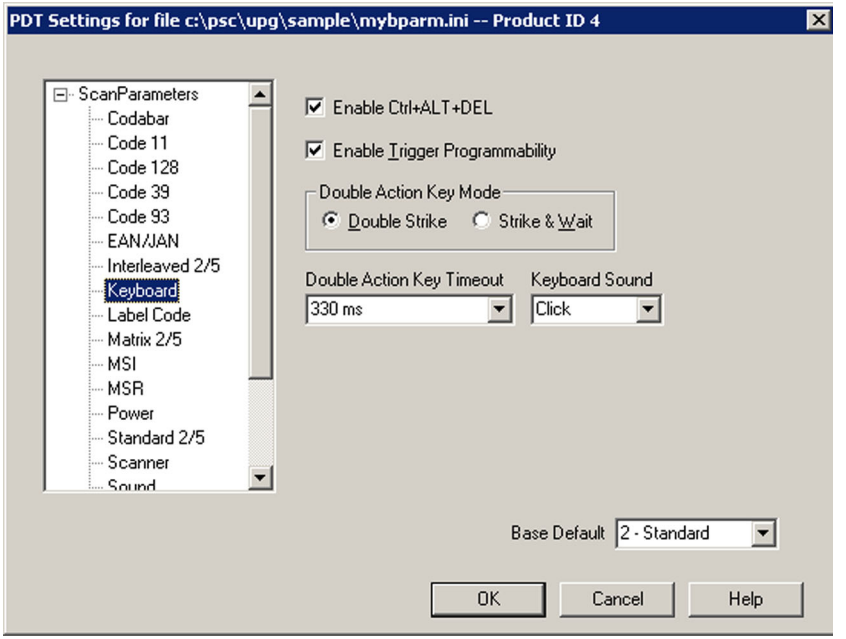
Figure 36: ScanParameters: Interleaved 2/5



Enable	Enables on all checkbox fields.
Enable Checksum	Enables on all checkbox fields.
Send Checksum	Enables on all checkbox fields.
Lengths 6 & 14 only	Enables on all checkbox fields.
Minimum Length	Minimum length for the bar code in order for it to scan. Click the **up/down** arrows or enter a whole integer into the field.
Maximum Length	Maximum length for the bar code in order for it to scan. Click the **up/down** arrows or enter a whole integer into the field.

ScanParameters: Keyboard

Figure 37: ScanParameters: Keyboard



Enable Ctrl+ALT+DEL — Allows the user to use **<CTRL>+<ALT>+<DEL>** key combination to reboot the portable. Enables on all checkbox fields.

Enable Trigger Programmability — Enables on all checkbox fields.

Double Action Key Mode — Select one of the following:

`Double Strike`
`Strike & Wait`

Double Action Key Timeout — Select from the pull-down list:

`330 ms.` (default)
`385 ms.`
`440 ms.`
`495 ms.`

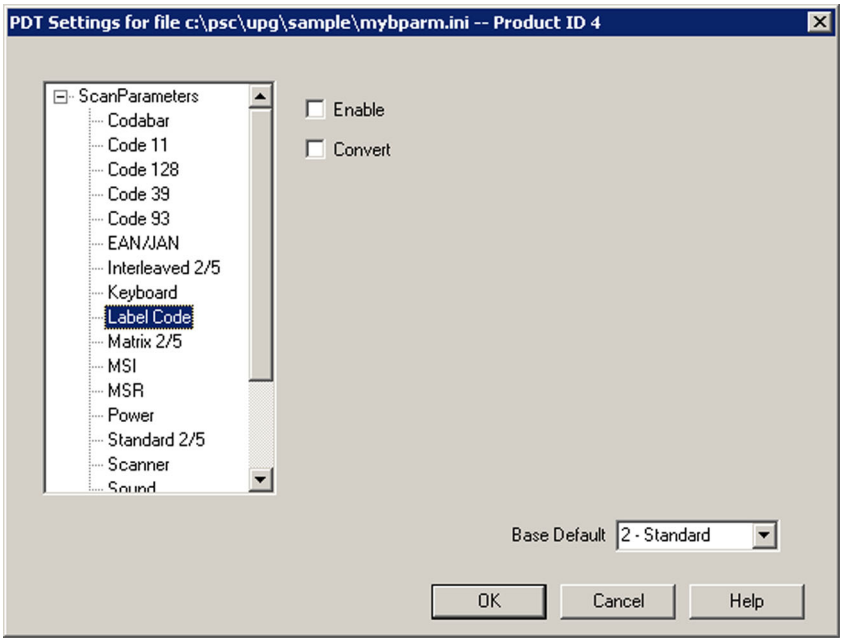
NOTES

Double Action Key Mode and Double Action Key Timeout are both used to control keyboard entry on the Falcon 33x and 34x portables.

For more information on Double Action Key Mode and Double Action Key Timeout, refer to the Falcon *Portable DOS Terminal User's Guide* and the *Falcon Portable DOS Terminal Advanced User's Guide.*

ScanParameters: Label Code

Figure 38: ScanParameters: Label Code

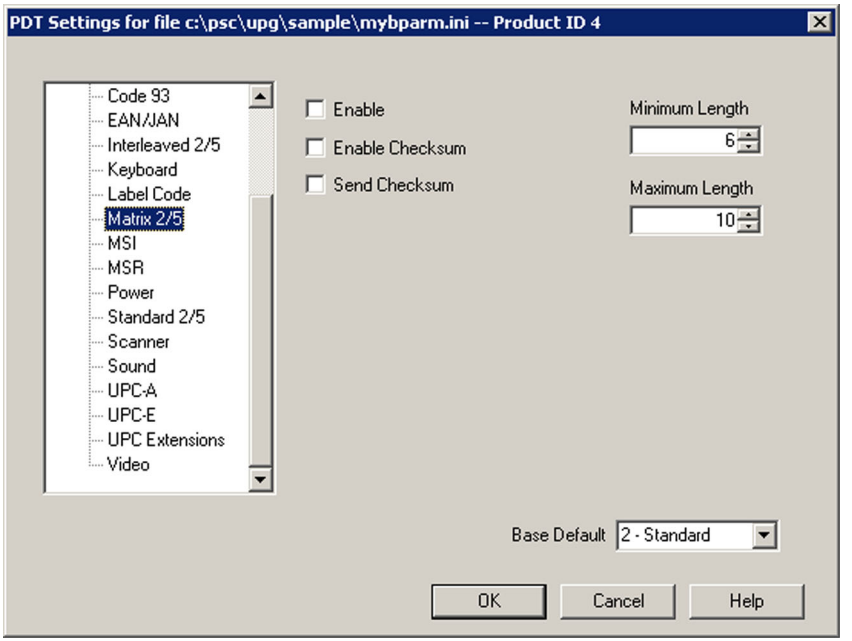


Enable Enables on all checkbox fields.

Convert Enables on all checkbox fields.

ScanParameters: Matrix 2/5

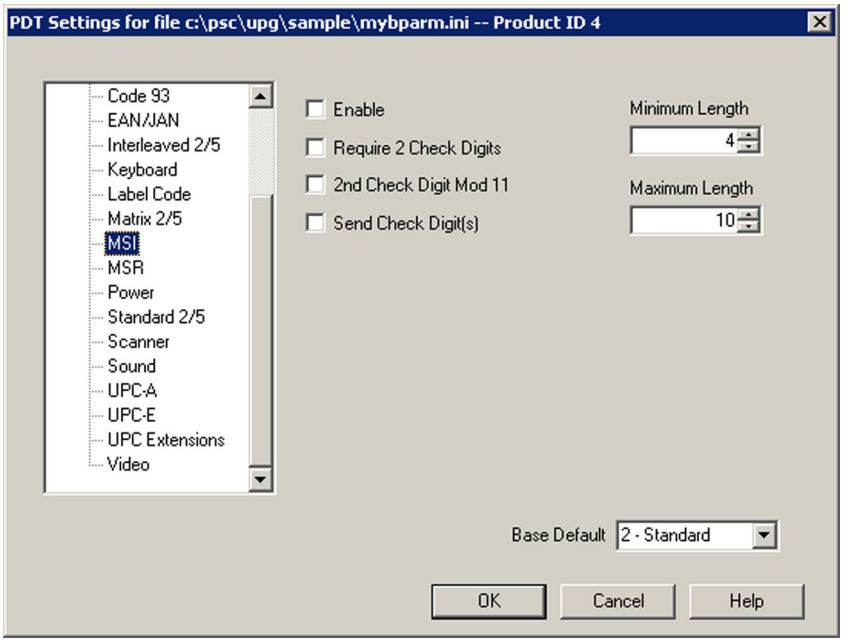
Figure 39: ScanParameters: Matrix 2/5



Enable	Enables on all checkbox fields.
Enable Checksum	Enables on all checkbox fields.
Send Checksum	Enables on all checkbox fields.
Minimum Length	Minimum length for the bar code in order for it to scan. Click the **up/down** arrows or enter a whole integer into the field.
Maximum Length	Maximum length for the bar code in order for it to scan. Click the **up/down** arrows or enter a whole integer into the field.

ScanParameters: MSI

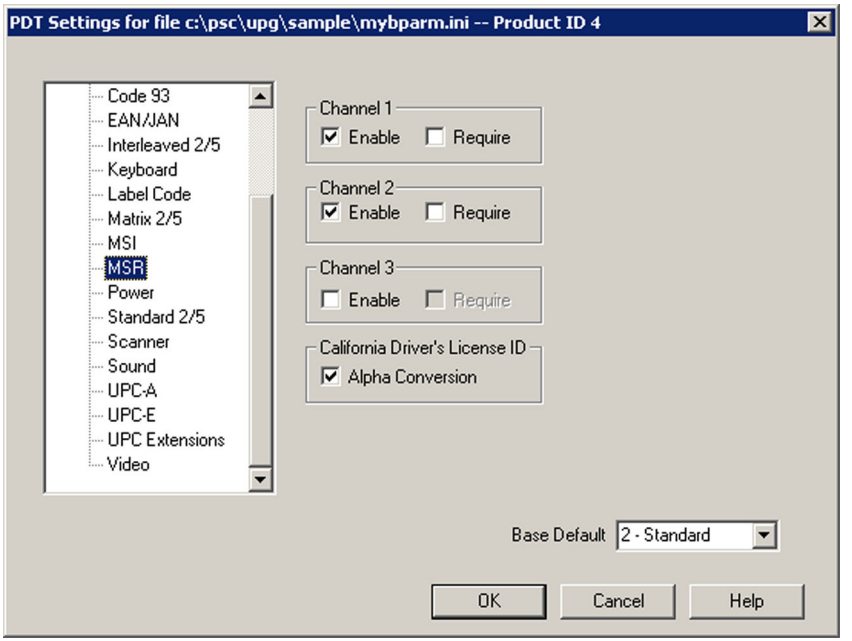
Figure 40: ScanParameters: MSI



Enable	Enables on all checkbox fields.
Require 2 Check Digits	Requires two check digits for the bar code to scan.
2nd Check Digit Mod 11	Enables on all checkbox fields.
Send Check Digit(s)	Includes the check digits in the scan string.
Minimum Length	Minimum length for the bar code in order for it to scan. Click the **up/down** arrows or enter a whole integer into the field.
Maximum Length	Maximum length for the bar code in order for it to scan. Click the **up/down** arrows or enter a whole integer into the field.

ScanParameters: MSR

Figure 41: ScanParameters: MSR



Channel 1 Select one or both checkboxes to enable:

- **Enable** Select to enable **Channel 1**.
- **Require** Select to require **Channel 1**.

Channel 2 Select one or both checkboxes to enable:

- **Enable** Select to enable **Channel 2**.
- **Require** Select to require **Channel 2**.

Channel 3 Select one or both checkboxes to enable:

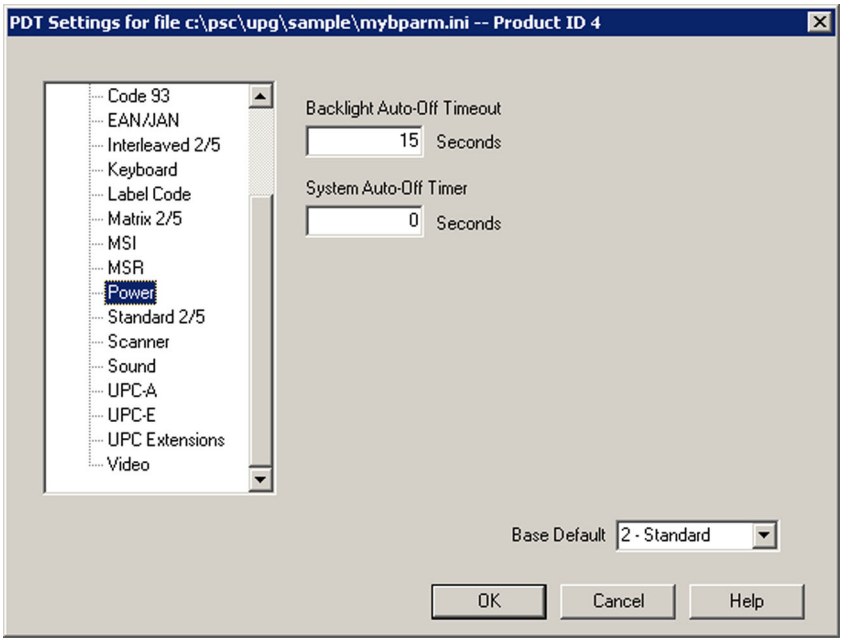
- **Enable** Select to enable **Channel 3**.
- **Require** Select to require **Channel 3**.

California Driver's License ID

- **Alpha Conversion** Select to enable **Alpha Conversion**.

ScanParameters: Power

Figure 42: ScanParameters: Power

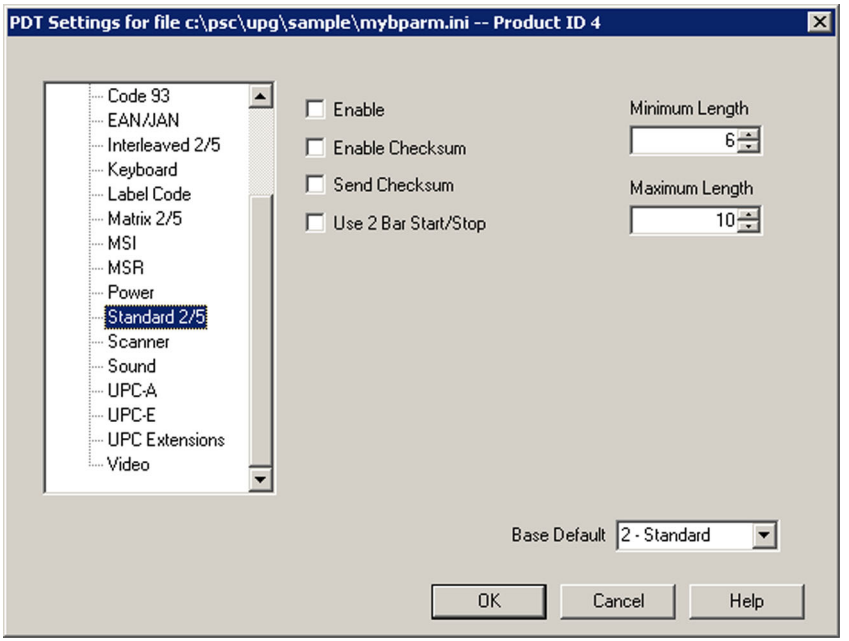


Backlight Auto-Off Timeout — Number of seconds the backlight stays on if there is no other entry is made.

System Auto-Off Timer — Number of seconds unit stays on with no activity. After the time has expired, the unit will shut off automatically.

ScanParameters: Standard 2/5

Figure 43: ScanParameters: Standard 2/5



Enable — Enables on all checkbox fields.

Enable Checksum — Enables on all checkbox fields.

Send Checksum — Enables on all checkbox fields.

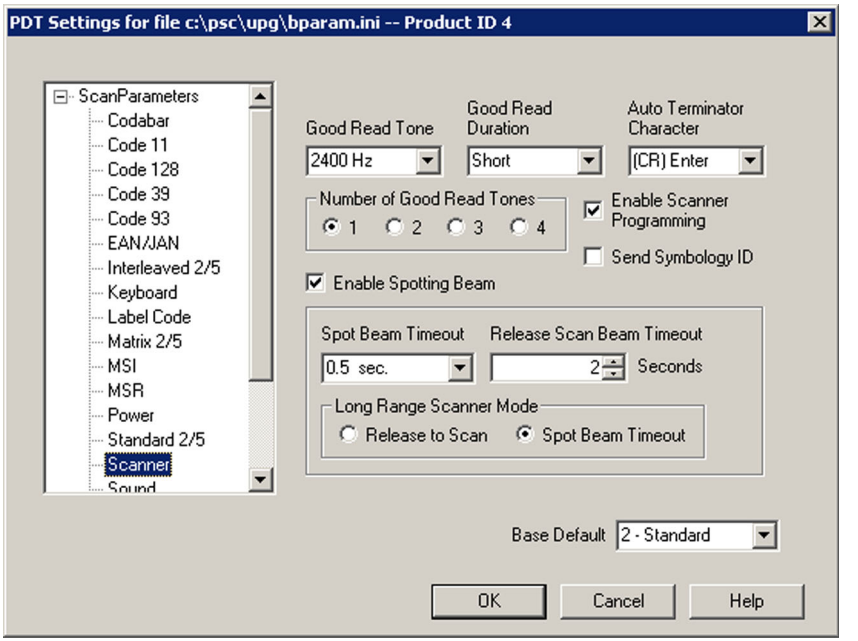
Use 2 Bar Start/Stop — Enables on all checkbox fields.

Minimum Length — Minimum length for the bar code in order for it to scan. Click the **up/down** arrows or enter a whole integer into the field.

Maximum Length — Maximum length for the bar code in order for it to scan. Click the **up/down** arrows or enter a whole integer into the field.

ScanParameters: Scanner

Figure 44: ScanParameters: Scanner



Good Read Tone — Select the frequency for the tone that will sound when a barcode is scanned successfully. Select from the pull-down list: **`2400 Hz`** (default), **`2600 Hz`**, **`2800 Hz`**, **`3000 Hz`**, **`3200 Hz`**, **`3400 Hz`**, **`3600 Hz`**, **`3800 Hz`**.

Good Read Duration — Select how long the good read tones will sound. Select from the pull-down list: **`short`** (default), **`medium short`**, **`medium long`**, **`long`**.

Auto Terminator Character — Select the character to append to scanned data. Select from the pull-down list: **`(CR) Enter`** (default), **`Tab`**, **`None`**.

Number of Good Read Tones — Select the number of times to sound the good read tone when a bar code is scanned. Select one of the following: **`1`** (default), **`2`**, **`3`**, or **`4`**

Enable Scanner Programming — Allows user to change parameter settings using bar codes provided in the *Falcon Users' Guide*.

Send Symbology ID — Includes symbology indentifying character as a prefix on scanned data.

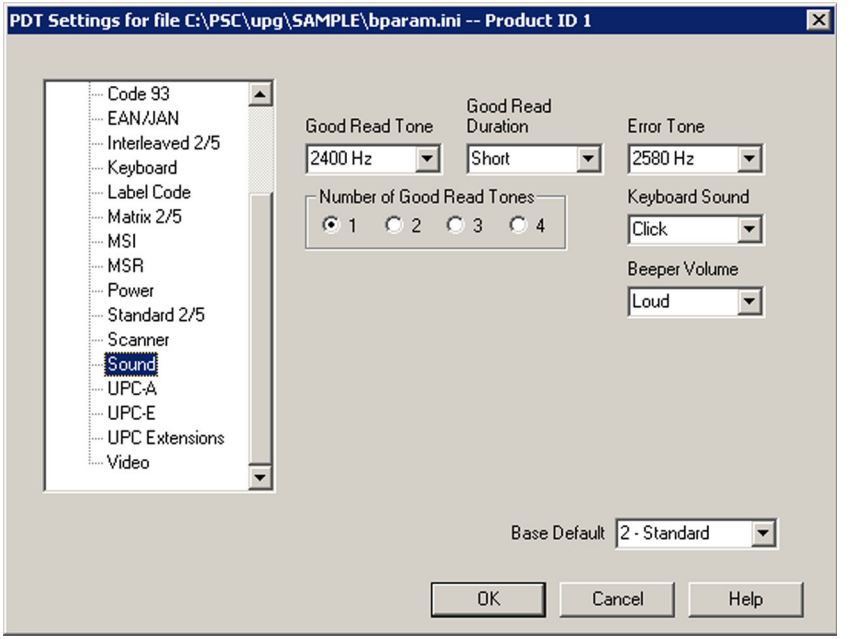
Enable Spotting Beam	Allows the scanner to produce a spot (instead of a scan line) in order to aim the scanner. This is used for long range scanners.
Spot Beam Timeout	Number of seconds the spotting beam stays active before changing to a scan line. Select from the pull-down list: `0.25`, `0.50` (default), `1.0`, `1.5`, `2.0`.
Release Scan Beam Timeout	Number of seconds the scan beam will continue without a good read before it shuts off.
Long Range Scanner Mode	Controls how scanning is done when using a long range scanner. Select one of the following: `Release to Scan`: Press the trigger to get a spotting beam. Release the trigger to scan. `Spot Beam Timeout`: Press the trigger to get a spotting beam. Unit automatically scans after spot beam timeout expires.

NOTE

If the portable does not have a long range scanner, the spotting beam and other long range scanner settings are ignored.

ScanParameters: Sound

Figure 45: ScanParameters: Sound



Good Read Tone — Select the frequency for the tone that will sound when a barcode is scanned successfully. Select from the pull-down list: **2400 Hz** (default), **2600 Hz**, **2800 Hz**, **3000 Hz**, **3200 Hz**, **3400 Hz**, **3600 Hz**, **3800 Hz**.

Good Read Duration — Select how long the good read tones will sound. Select from the pull-down list: **short** (default), **medium short**, **medium long**, **long**.

Number of Good Read Tones — Select the number of times to sound the good read tone when a bar code is scanned. Select one of the following: **1** (default), **2**, **3**, or **4**

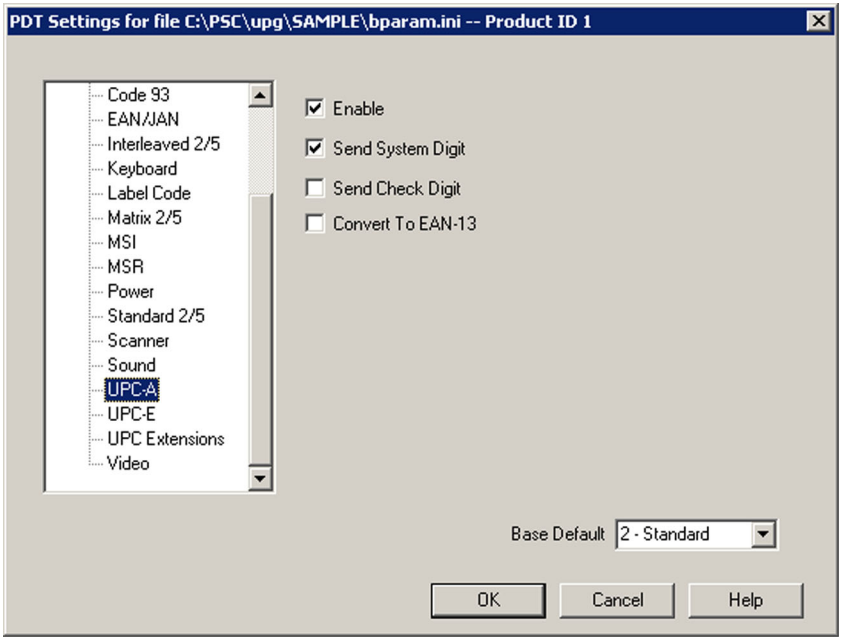
Error Tone — Select the frequency for the predefined error tone. Select from the pull-down list: **2400 Hz**, **2580 Hz** (default), **2770 Hz**, **3000 Hz**, **3270 Hz**, **3600 Hz**, **3600 Hz**, **4000 Hz**, **4520 Hz**.

Keyboard Sound — Select the sound to be emitted when a key is pressed. Select from the pull-down list: **Off**, **Click** (default), **Beep**.

Beeper Volume — Select the volume level for the PDT speaker. Select from the pull-down list: **`Off`**, **`Quiet`**, **`Low`**, **`Medium Low`**, **`Medium`**, **`Medium High`**, **`High`**, **`Loud`** (default), **`One level higher`**, **`One level lower`**

ScanParameters: UPC-A

Figure 46: ScanParameters: UPC-A



Enable — Enables on all checkbox fields.

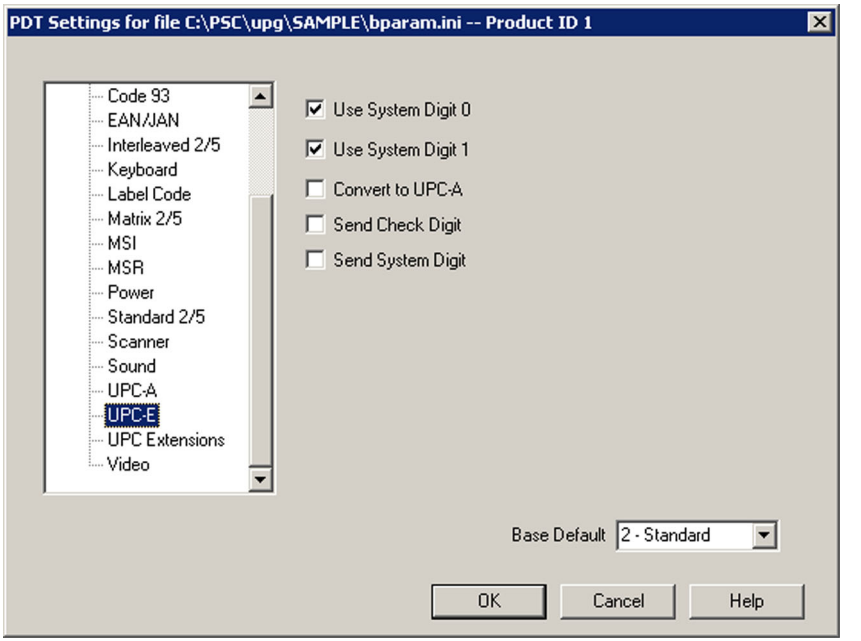
Send System Digit — Enables on all checkbox fields.

Send Check Digit — Includes the check digits in the scan string.

Convert to EAN-13 — Enables on all checkbox fields.

ScanParameters: UPC-E

Figure 47: ScanParameters: UPC-E



Use System Digit 0 Enables on all checkbox fields.

Use System Digit 1 Enables on all checkbox fields.

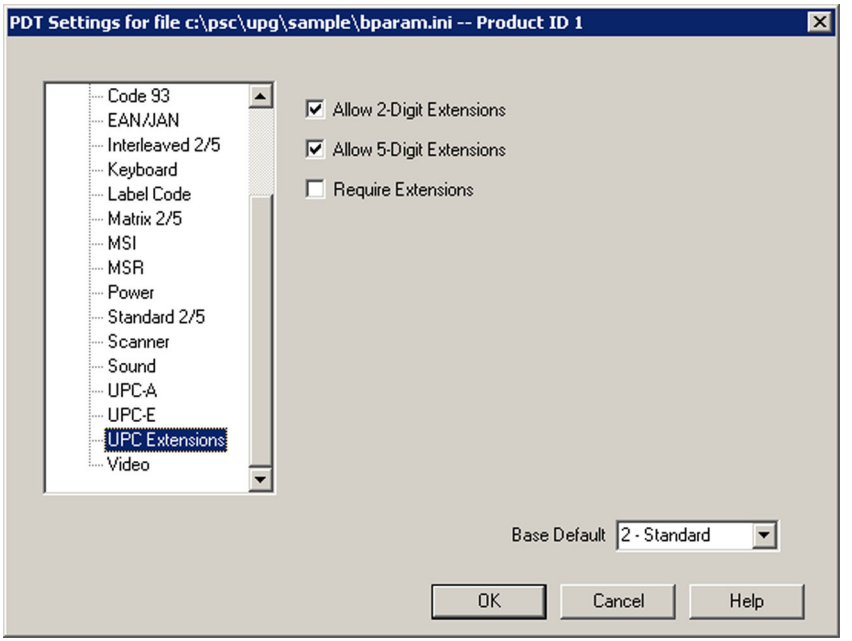
Convert to UPC-A Enables on all checkbox fields.

Send Check Digit Includes the check digit in the scan string.

Send System Digit Enables on all checkbox fields.

ScanParameters: UPC Extensions

Figure 48: ScanParameters: UPC Extensions



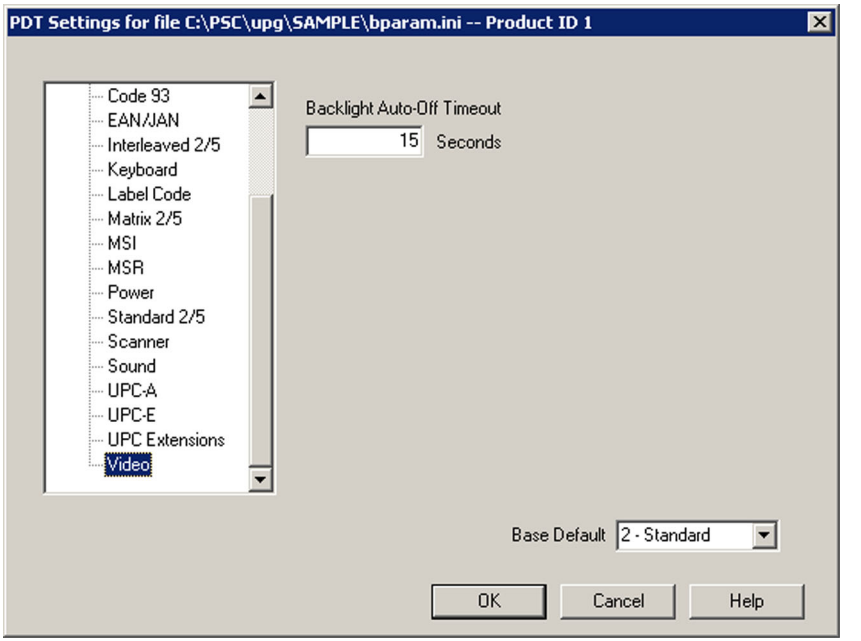
Allow 2-Digit Extensions Select checkbox to enable.

Allow 5-Digit Extensions Select checkbox to enable.

Require Extensions Select checkbox to enable.

ScanParameters: Video

Figure 49: ScanParameters: Video



Backlight Auto-Off Timeout Number of seconds the backlight stays on if there is no other entry is made.

Click **OK** after defining each **ScanParameter**. Or, click **Cancel** to exit without saving changes.

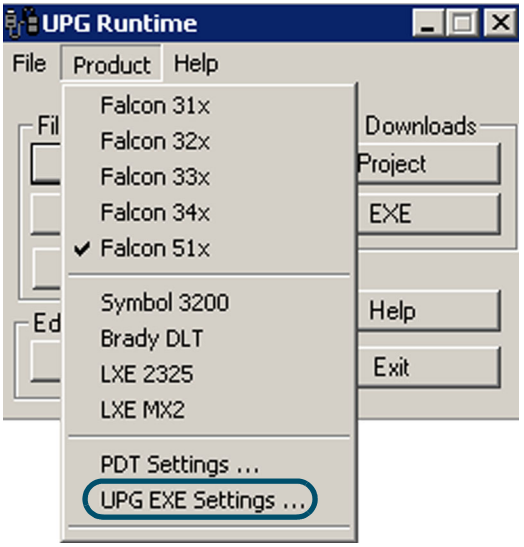
UPG EXE Settings

Chapter 6 Contents

Overview

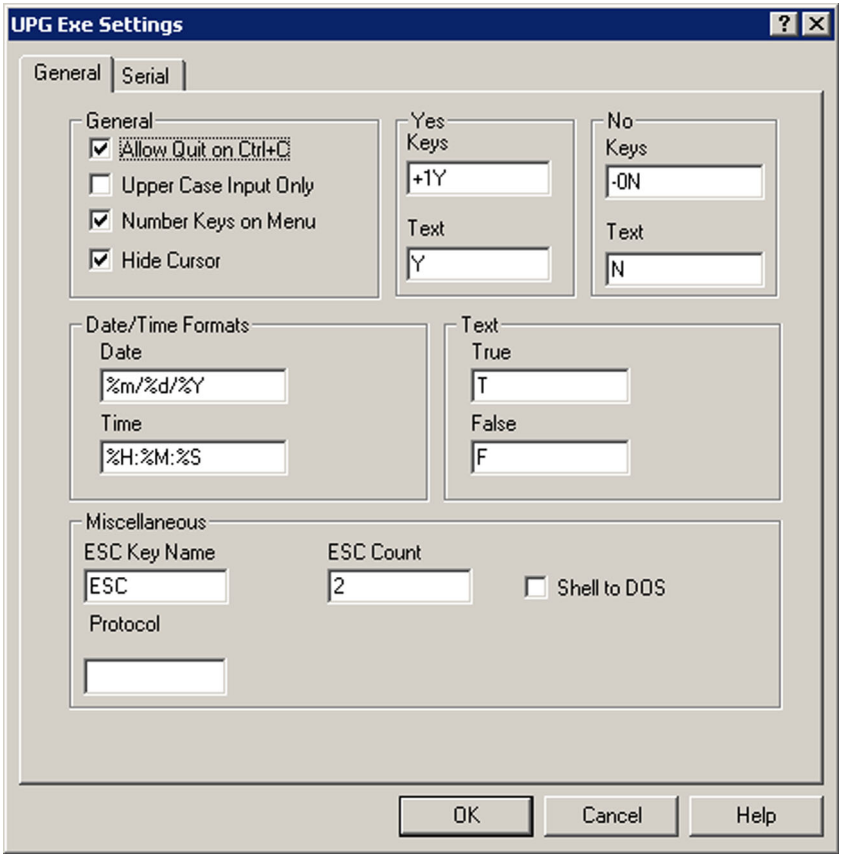
Select **Product > UPG EXE Settings** from the menubar.

Figure 50: UPG Runtime Product Menu



General Tab

Figure 51: UPG EXE Settings Definition Form: General Tab



General — The **General** section controls the basic or general properties of the UPG application.

Allow Quit on Ctrl+C — Select to allow user to press **<CTRL>+<C>** to exit from DOS from any location when running on the portable.
When running in a Windows DOS box, this setting is ignored and **<CTRL>+<C>** is always allowed.
Enable this setting when testing the application on the portable. Disable it when distributing the application.

Upper Case Input Only — Select to force all alpha characters to upper case everywhere in the **EXE** program. The default is disabled.

	Number Keys on Menu	Specifies whether or not the number keys on the portable can function as **<F>** keys on menus. For example, if the menu has an **<F8>** hotkey, instead of pressing **<F8>** on the portable, press **8** on the number pad to execute the **<F8>** feature. This also allows single letter to function as **<CTRL>** letter combination. For example: if the menu has a **<CTRL>+<M>** hotkey, instead of pressing **<CTRL>+<M>**, press **<M>** alone. Select to enable allowing number keys on the menu in the **EXE** program.
	Hide Cursor	Select to hide the blinking cursor in the **EXE** program.
Yes	**Keys**	Specify which keys can be pressed to enter a **Yes** value at a **Yes/No** prompt. UPG defaults to **+1Y**, which means the user can either press the **<+>**, **<1>**, or **<Y>** keys to enter a **Yes** value. Edit **Yes Keys** to modify which keys can be pressed for a **Yes** value.
	Text	Enter a value to display when the user receives a **Yes** prompt, such as when confirming an operation. Default value is **Y**.
No	**Keys**	Specify the keys to press to enter a **No** value at a **Yes/No** prompt. UPG defaults to **-0N**, which means the user can either press the **<->**, **<0>**, or **<N>** keys to enter a **No** value. Edit **No Keys** to modify which keys can be pressed for a **No** value.
	Text	Enter a value to display when the user receives a **No** prompt, such as when declining an operation. Default value is **N**.
Date/Time Formats		Allows definition of 10 character date and time formats.
	Date	Sets the date format used within the portable application (affects both entered values and time stamping). UPG defaults to the Standard US date format (**%m/%d/%y**). To use European date formats, change to **%d/%m/%y**. Use an uppercase **Y** to specify a 4-digit year (**%m/%d/%Y**).
	Time	Enter the **Time** format. Sets the time format used with the portable application (affects both entered values and time stamping). UPG defaults to **%H:%M:%S**. To exclude the seconds from the time format, edit to: **%H:%M**.
Text		No longer in use.
	True	No longer in use.
	False	No longer in use.
Miscellaneous		

ESC Key Name No longer in use. A hold-over from when **<ESC>** was not labeled: **<ESC>**.

ESC Count Enter the number of times **<ESC>** must be pressed in order to exit the form. Use this option to provide a hidden mechanism for developers and administrators to exit forms that you do not wish users to be able to exit. A value of **0** disables the **<ESC>** key.

Protocol Defines what protocol to use for a transfer session. **-z** is used for ZModem and **-x** is used for XModem.

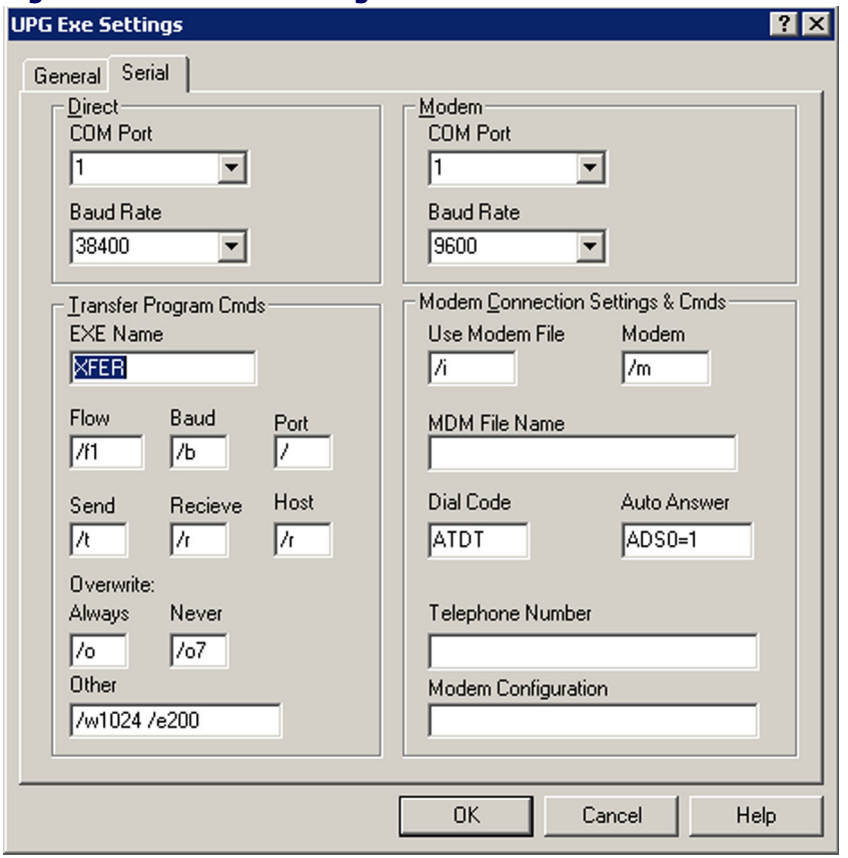
Shell to DOS This option controls how the file transfer application (**XFER.EXE**) is executed.

Enable this checkbox to temporarily unload the application before executing the file transfer. This may be necessary with large applications if there is insufficient memory to run the file transfer with the application still loaded into memory.

Serial Tab

By default, UPG uses the transfer program **XFER** on the Falcon PDT. However, there are situations when the user must use property transfer programs. Along with the transfer program name, UPG must know the command line flags in order for the program to function.

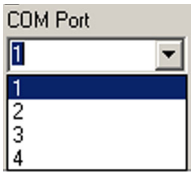
Figure 52: UPG EXE Settings: Serial Tab



Direct

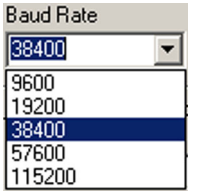
The **Direct** section of the **UPG.INI** file contains information about direct serial communications (using a cable instead of a modem). Select a value from the pull-down list:

COM Port



Sets the portable **COM** port to be used for direct connect file transfer sessions between the portable and host.

Baud Rate

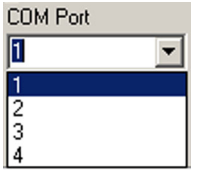


Sets the baud rate for file direct connect transfer sessions between the portable and host PC. UPG defaults to the most reliable transfer rate based on the target portable selected in the **Portable** menu. If this entry is modified, check the portable hardware documentation for supported baud rates.

Modem

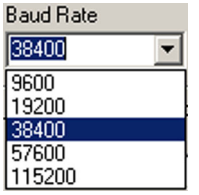
The **Modem** section contains information about modem communications.

COM Port



Sets the COM port to be used for modem file transfer sessions between the portable and host.

Baud Rate



Sets the baud rate for modem file transfer sessions between the portable and host PC. Defaults to the most reliable transfer rate based on the target portable selected in the **Portable** menu. Check the portable hardware documentation for supported baud rates.

Transfer Program Cmds

Enter the option as it would be entered on the DOS command line.
The default settings are those used by **XFER**. Refer to the *Falcon Portable Data Terminals Advanced User's Guide* (available at www.pscnet.com) for more information on **XFER** and applying transfer program flags.

EXE Name Specifies the name of the communications utility to be used for transferring files between the portable and host PC. UPG defaults to **XFER**. (Extension not required.) Change the **XFER** Program entry according to an added transfer utility: **XFER** supports **ZModem** and **XModem**.

Flow This flag specifies the flow control to be used. It is ignored if XModem is being used. **`/f1`** (default).

Flow control is a mechanism by which the sender and receiver of serial data coordinate their communication. The receiver has to let the sender know when it is ready to receive data. This can be done in software (XON/XOFF) or in hardware (RTS/CTS). Software flow control uses two characters - XON and XOFF. When the receiver cannot accept data because buffers are full or other activities are taking precedence, it transmits an XOFF character to tell the sender to stop. When the receiver is ready to accept data again, it transmits an XON character to tell the sender to resume sending data. Hardware flow control uses two lines (RTS and CTS) in the serial cable. When the sender wishes to send data it activates the Request to Send (RTS) line. If the receiver is ready to receive data it activates the Clear to Send (CTS) line.

The Falcon 33x and 34x portables do not have RS-232 serial ports with RTS and CTS lines. Therefore, RTS/CTS flow control is not available to these portables.

Baud Do not include the baud rate in this field. The baud rate will be appended to this option when the command line is created.

`/b` (default)

Port **`/`** (default)

Send The send flag used for the communications utility. **`/-t`** (default).

Receive The receive flag for the communications utility. **`/-r`** (default).

Host The host mode flag. **`/-r (default`**).

Overwrite This specifies the overwrite flag.

Always This flag specifies that a file will overwrite an existing file. **`/o`** (default)

Never This flag specifies that a transferred file will not overwrite an existing file. **`/o7`** (default)

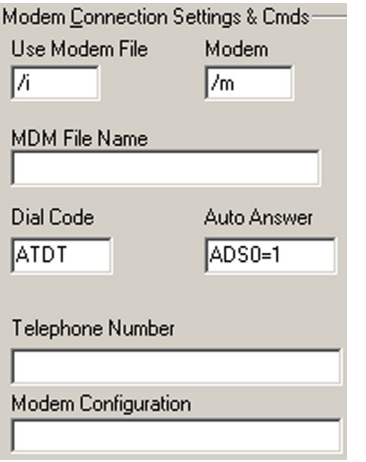
Other This parameter is used to specify additional parameters.

`/w1024 /e200` (default)

Modem Connection Settings & Cmds

The default settings specify a **1024** byte window size and specify a maximum error count of **200**.

Enter the options as it would be entered on the DOS command line.



NOTE

Modem connections depend upon modem speed and are usually much slower than a direct connection. Achievable modem baud rates may be much lower than the rate selected based upon telephone line conditions (static or "noise" causes the modem to lower the baud rate to compensate for poor line conditions).

Use Modem File This parameter indicates that a modem configuration file will be used. Enter the name of the file in the **MDM File Name** field. If no modem configuration file is specified, this parameter is ignored. Default = **/i**

Modem This flag enables modem communications. XFER uses **-m** to activate the modem.

MDM File Name Enter the name of the modem configuration file you wish to use.

Dial Code Enter the dialing string (using standard AT commands) that the portable application should use to initiate a modem connection with a host PC. Defaults to **ATDT**.

Auto Answer Enter the answer string (using standard AT commands) that the portable application should use to receive a modem connection with a host PC. Defaults to **ATS0=1**.

Telephone Number Enter the phone number that will be dialed by the portable when using a modem to initiate a communications session to a host PC.

Modem Configu-ration Enter AT modem control codes if you don't wish to use a modem configuration file. Refer to your modem's user's manual.

NOTE

If only a direct connection is used, it is not necessary to modify any of the modem settings.

For more information on **XFER**, refer to **`XFER.EXE`** in the *Falcon Portable DOS Terminal Advanced User's Guide.*

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