

MiniMon Help

Table Of Contents

Introduction	1
System Requirements	1
Supported Devices	2
Destron-Fearing FS-1001 Stationary ISO Transceiver	2
Destron-Fearing FS-2001 Portable ISO Transceiver	2
Firmware Upgrade	3
RocketPort PCI Multiport Serial Cards	3
Allen-Bradley SLC 5/03 Programmable Controller	3
Serial GPS Devices	4
Specification	4
Automatically Start MiniMon	4
Device Configuration Guide	7
Configuring Devices in MiniMon	7
Interrogation File Settings	7
Log File Settings	8
Configuring Devices	9
Device Settings	10
Device Settings for SLC 500	12
Terminal Window (MiniTerm)	14
Serial Port Settings	15
Terminal Window Settings	15
Commands	15
Connect/Disconnect	15
Security	16
Interrogation Process	17

Interrogation Process	17
Overview	17
Interrogation Status	17
Other Interrogation Utilities	17
Device Status	17
Shortcuts for Configuring Devices.....	19
• Configure... this will invoke the Device Settings dialog for the selected devices. Changes to these settings take effect immediately during if there is an active interrogation process.....	19
Interrogation Data Status.....	19
Clipboard	20
Logging Data Status	20
Clipboard	21
Interrogation File	21
Remote Interrogation	21
What is Remote Interrogation?.....	22
Configuring Remote Interrogation.....	22
Remote Commands	22
Download Wizard	26
Initiating the Download Process.....	27
Upload Process	29
Upload Process	29
Overview of the Upload Process.....	29
General Upload Configuration	30
Data Section:	31
Upload Section:	31
Configuring a Connection for Upload Process.....	32

Connection Section - this section describes how MiniMon will connect to the internet. 33

PTAGIS Section - this section designates the PTAGIS user account to use for establishing a connection to PTAGIS. You must have a valid PTAGIS user account to upload data..... 33

- User Name: the user name for a PTAGIS account. The name is case sensitive. 33

NOTE: due to security issue, MiniMon requires users to contact PTAGIS to get the name of this account for submitting data..... 33

Upload Diagnostics 33

Manual Upload Process 34

Other Features 37

Tag Data Report 37

System Information..... 38

Index 41

Introduction

ONLINE HELP MiniMon



Overview of the MiniMon Application

MiniMon provides unattended, around the clock monitoring for fish marked with an ISO PIT Tag. MiniMon can collect data from 16 or more ISO transceivers simultaneously. The collected data is transformed into [interrogation files](#) which are partitioned by a specified time interval. MiniMon provides [visual diagnostic information](#) about the current [interrogation process](#) in addition to robust [logging features](#).

In addition to real-time interrogation, MiniMon supports the following features:

- [Remote interrogation](#)
- [Automated data upload](#) to [PTAGIS](#)
- [Tag report](#) for data analysis

System Requirements

MiniMon runs on computers using the Microsoft Windows 98 SE, NT 4.0, Win2000 or WinXP operating systems. Performance of the system is dependent on the speed of the machine and the amount of RAM memory installed. The minimum hardware requirements for MiniMon are as follows:

- Processor Type: Pentium
- Processor Clock Speed: 100 MHz
- Memory: 32 Megabytes RAM
- Hard Disk Space: 100 Megabytes free space
- Operating System: Windows 95, 98, NT 4.0, Win2000 or WinXp
- Monitor capable of 800 x 600 resolution or higher
- 16550 UART standard serial port

For optimal performance additional memory (64 Megabytes or greater), disk space (150 Megabytes), and greater processor speed (200 MHz or faster) are highly recommended, as is the use of a mouse or other pointing device.

To use the [automated upload](#) capability, you must have a modem or LAN internet connection. Also, Remote Access Services must be installed on the PC's network configuration.

Supported Devices

MiniMon supports two types of ISO transceiver devices:

Destron-Fearing FS-1001 Stationary ISO Transceiver

- Supports ASCII and BPA protocol.
- Supports standard 5.x firmware versions for the following types of stationary readers:
 - FS1001 (Juvenile)
 - FS1001A (Adult)
 - FS1001M (Multiplexor)
- Capable of 115k baud rate.
- Provides a fiber optic/RS-232 Data port (BPA Protocol) and a RS-232 maintenance port (ASCII).
- Provides robust diagnostics.



Stationary Reader

Destron-Fearing FS-2001 Portable ISO Transceiver

- Supports standard 5.x firmware versions.
- Capable of 56k baud rate.
- With a firmware upgrade, supports [Remote Interrogation](#) without a PC.
- Water resistant and portable.
- DC power supply.



2001 Portable Reader

Firmware Upgrade

Included in the installation of MiniMon are the firmware upgrades for both of the Destron transceivers. Also included is the VbFlash program to install the firmware. See the document *"Instructions for using VbFlash"* for more information. This information can be located in the `..\PTAGIS\MiniMon\Destron` subdirectory.

Serial multiports extend the number of "native" COM ports available on the PC. The following serial multiports have been tested with MiniMon:

RocketPort PCI Multiport Serial Cards

Each RocketPort adds 4 to 32 "native" COM ports to your PC server or PC client using only a single PC slot - and no IRQs. The PCI models are recommended for NT/9x platforms. USB models will work with Win98, Win95b and Win2000 platforms. See www.rocketport.com for more information.



Allen-Bradley SLC 5/03 Programmable Controller



MiniMon supports Allen-Bradley SLC 5/03 programmable controller enabling/disabling transceivers with remote commands. See Device Settings for SLC 500 for more information on configuring this type of device.

Serial GPS Devices

MiniMon supports any serial GPS device that communicates with a standard NMEA-0183 protocol. See Device Settings for more information for configuring this type of device.

Specification

The following is the functional specification the MiniMon application was developed from:

1. *The end-product is built to be a throw away prototype.*
2. *Needs to be small/simple/light-weight.*
3. *Needs to be production robust by March, 2000.*
4. *Needs to be able to read FS1001 or FS2001 transceivers.*
5. *Needs to be able to read 'date/time' firmware or tagging firmware in FS2001 reader.*
6. *Does NOT need master/slave redundancy.*
7. *Needs to be able to read transceiver data from two comm ports on a PC.*
8. *USB multi-plexing capability will be explored for two weeks. Based upon findings a decision will be made to incorporate mux capability into the throw away prototype.*
9. *Insure that the mux delivers data in the proper sequence.*
10. *Provide simple, two way communication between PC and transceiver*
11. *Incorporate e-mail data submission capability.*
12. *Open/Close current file manually.*
13. *Stop data collection should be password protected.*
14. *Run a stick tag report for tag analysis (outside program).*

Automatically Start MiniMon

This topic describes how to configure MiniMon application to automatically start when the system reboots. This is useful for unattended installations. The following steps will create a special shortcut to the MiniMon.exe and place it in the system startup folder.

To start the MiniMon program each time Windows starts:

1. Click **Start**, and then point to **Settings**.
2. Click **Taskbar**, and then click the **Start Menu Programs** tab.
3. Click **Add**, and then click **Browse**.
4. Locate the MiniMon.exe file in the installation directory, and then double-click it.
5. The MiniMon.exe file path will be displayed in the Command Line. Append the word *AutoInterrogate* to the end of the path:

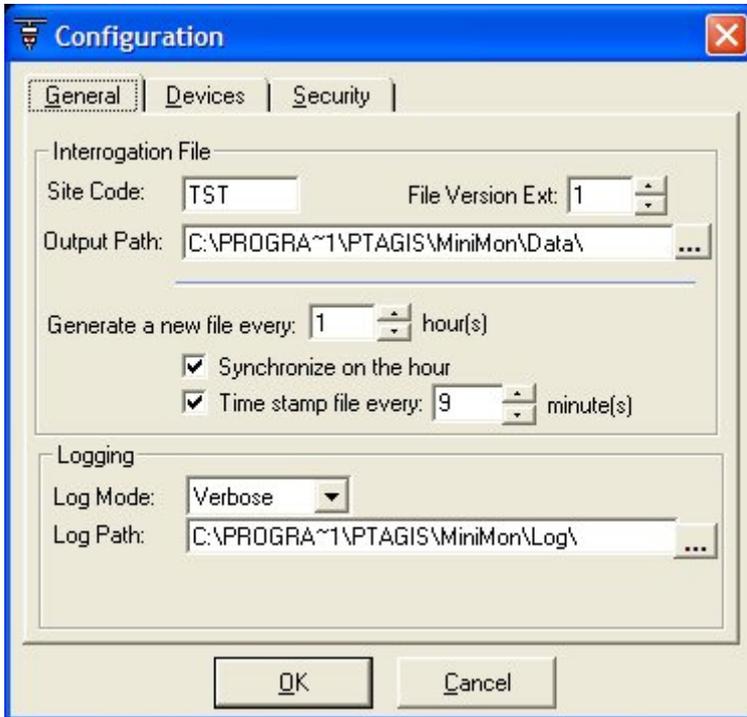
"C:\Program Files\PTAGIS\MiniMon\MiniMon.exe"
AutoInterrogate

6. Click **Next**, and then double-click the StartUp folder.
7. Type the name that you want to see on the StartUp menu, and then click **Finish**.
8. If Windows prompts you to choose an icon, click one, and then click **Finish**.

Device Configuration Guide

Configuring Devices in MiniMon

To access the configuration settings for MiniMon, select the Configure button from the tool bar and the following window will appear:



Pressing the *OK* button will save any changes made to the settings. MiniMon permits changes to the configuration during the [interrogation process](#), however, the new settings will not take effect until after the next file change. Devices can also be configured using [shortcut keys](#) from the [Device Status window](#).

Click on the sections below for more detail on how to configure MiniMon:

- [Interrogation File](#)
- [Logging](#)
- [Devices](#)
- [Security](#)

Interrogation File Settings

To access the settings for the [interrogation file](#), open the [configuration dialog](#); the settings are located in the top section of the General tab page.

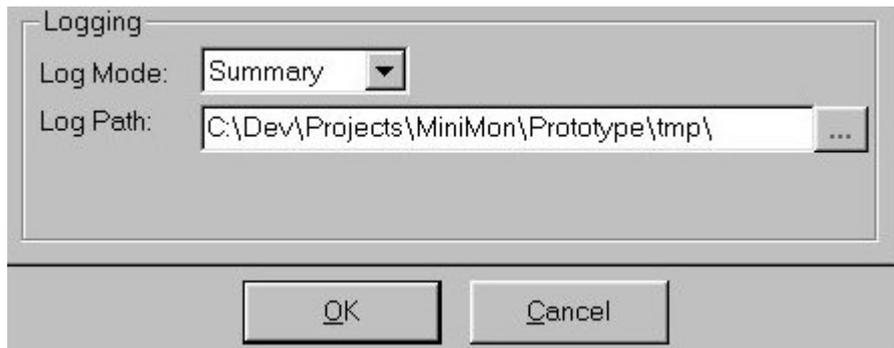
This section contains the following settings:

- **Site Code:** a three character field that designates the site of interrogation. This code is used as a prefix for all interrogation files.
- **File Version Ext.:** this is a single digit, 0-9, that can be optionally appended to the end of the interrogation file name. Use this feature to distinguish data files when multiple installations of MiniMon are used for redundancy.
- **Output Path:** designates a location where all [interrogation files](#) will be stored. Click on the button to the right for browsing. Also, to create a new folder, type in the name at the end of the path and the application will prompt you to create the folder on exit.
- **File Generation Interval:** Determines how often a new [interrogation file](#) will be created. It is a good idea to partition your interrogation data among several files. MiniMon automatically appends a unique file extension (A-ZZZ) for each file created. The range for the interval is 1 - 24 hours. Note: MiniMon will create a new file at midnight if the interval spans this hour.
- **Synchronize on the hour:** If this setting is checked, MiniMon will synchronize the file change to the closest hour interval. For example, if the current time is 10:45 AM, and the file generation interval is set for every 2 hours, the next file change will be at scheduled at 12:00 PM if this setting is checked, otherwise, it would occur at 11:45 AM.
- **GPS/Time Stamp:** this feature writes a generic comment message into the current interrogation file each time the specified time interval expires. This is a useful diagnostic tool to indicate normal operation for sites that don't collect much data. The range for the interval setting is 1 - 60 minutes. Additionally, if a [GPS Device](#) is configured, the most current GPS coordinate will be inserted into the interrogation file whenever the time interval expires.
- **Append Milliseconds to tag records:** if this option is selected, MiniMon will append the millisecond value of the time that a tag code was read from a reader onto a tag data record in an interrogation file.

Log File Settings

MiniMon contains robust logging capabilities for creating diagnostic information about connected devices and internal processes. Logging information is saved to a separate file from interrogation data, and is automatically partitioned by MiniMon based upon a fixed size constraint. The log file has a naming scheme of a 'LOG' prefix, followed by the Julian date, followed by a unique partition identifier (A-ZZZ) and completed with text file extension i.e. LOG0047B.txt.

To access the settings for the log file, open the [configuration dialog](#); the settings are located at the bottom of the General tab page.



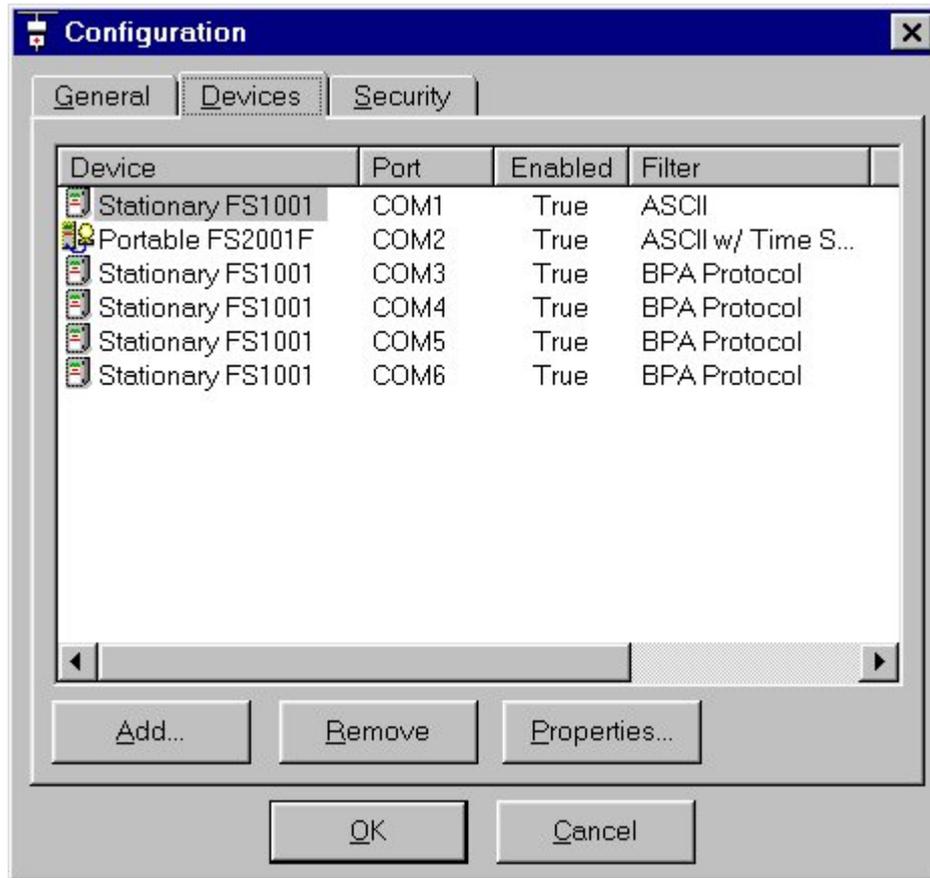
This section contains the following settings:

- **Log Mode** - this setting has the following three options:
 - *None*: no logging will occur.
 - *Summary*: only essential information is logged to a file. This is the default setting and recommended for normal interrogation.
 - *Verbose*: detailed process information in addition to essential information is logged. Use this setting to help diagnose specific problems.
- **Log Path**: designates a location where all log files will be stored. Click on the button to the right for browsing. Also, to create a new folder, type in a new name at the end of the path and the application will prompt you to create the folder on exit.

Sometimes it's useful to be able to close the current log file and create a new one. To do this, select the *Open Next Log File... (Ctrl-L)* menu command located under the *Edit* menu heading.

Configuring Devices

To configure one or more devices to be used with MiniMon, from the [configuration dialog](#), choose the *Devices* tab and the following dialog will appear:



From this dialog you can do the following:

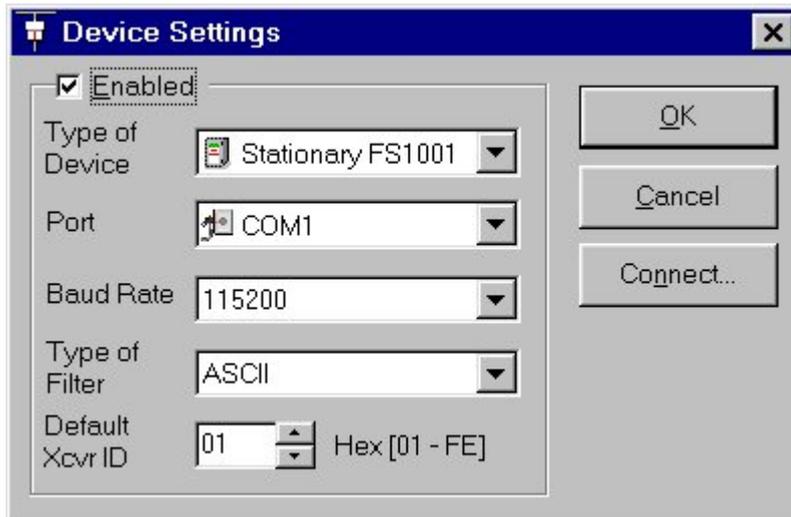
- **Add a New Device** - pressing the *Add...* button will display the [dialog settings](#) window to create a new device configuration. MiniMon can support up to sixteen or more devices for simultaneous interrogation. However, this number can be limited to the [available system resources](#) on the PC and the existing hardware. Each device corresponds to a specific serial port on the PC.
- **Remove an Existing Device** - highlight an existing device configuration and press the *Remove* button. This will remove the device from MiniMon's configuration.
- **Change the properties of an existing device** - highlight an existing device and press the *Properties...* button. This will display the [device settings](#) window to change the behavior of that device.

Note - if MiniMon is presently interrogating, changes to the device will not occur until the interrogation file is changed. Devices can also be configured directly from the [Device Status](#) viewer using [shortcut keys](#).

See the [device settings](#) section for more detail on configuring devices.

Device Settings

This dialog is accessed from the [Device Configuration](#) when the user wants to add a new device or change the settings of an existing device. This dialog is also accessed via [shortcut keys](#) from the [Device Status viewer](#).



Once the settings are complete, press the *OK* button to save these changes or press the *Cancel* button to disregard the changes. Pressing the *Connect...* button will launch a [MiniTerm \(terminal\) window](#) that will automatically connect to the device. This feature is not available for the BPA protocol.

A device has the following settings:

- **Enabled:** this determines if the device is enabled during the [interrogation process](#). This is useful for situations where there are devices that are used temporarily - they can be disabled without losing their configuration. See [Shortcut keys](#) for doing this from the main window.
- **Type of Device:** designates which [supported transceiver or GPS device](#) is connected to the serial port.
- **Port:** designates which serial port the device is connected to. Only one device can be connected to a serial port at a time. MiniMon does not support a multiplexed configuration.
- **Baud Rate:** this should match the baud rate setting on the device. This is the only configurable serial port setting for the supported transceivers devices since the other settings are fixed at N-8-1. The range of values for this setting are 2400-115200 baud.
- **Type of Filter:** determines which data filter to use on the incoming data. This is dependant upon the type device and other considerations outlined in the table below:

Device	Filter	Use When
FS1001	BPA Protocol	Connected to COM2 high-speed port. This is a binary protocol.
FS1001	ASCII	Connected to COM1 maintenance port.
FS1001A	Adult BPA Protocol	Connected to COM2 high-speed port of an Adult FS-1001A transceiver. This is a binary protocol.
FS1001A	Adult ASCII	Connected to COM1 maintenance port of an Adult FS-1001A transceiver.
FS-1001M	ASCII SSR Mux	Connected to COM1/COM2 ports of Small Stream Multiplexor reader.

FS-2001	ASCII w/TimeStamp	Upgrade transceiver firmware 1.5 or ISO 3.8 and Time Tag setting is set to YES.
FS-2001	ASCII	Standard transceiver firmware 2.1; or timestamp firmware 1.5 or ISO 3.8 and Time Tag setting is set to NO.
Allen-Bradley PLC	SLC-500 Protocol	Connected to a SLC 5/03 PLC.
GPS Device	NMEA	Connected to any serial GPS device that supports the NMEA-0183 protocol.

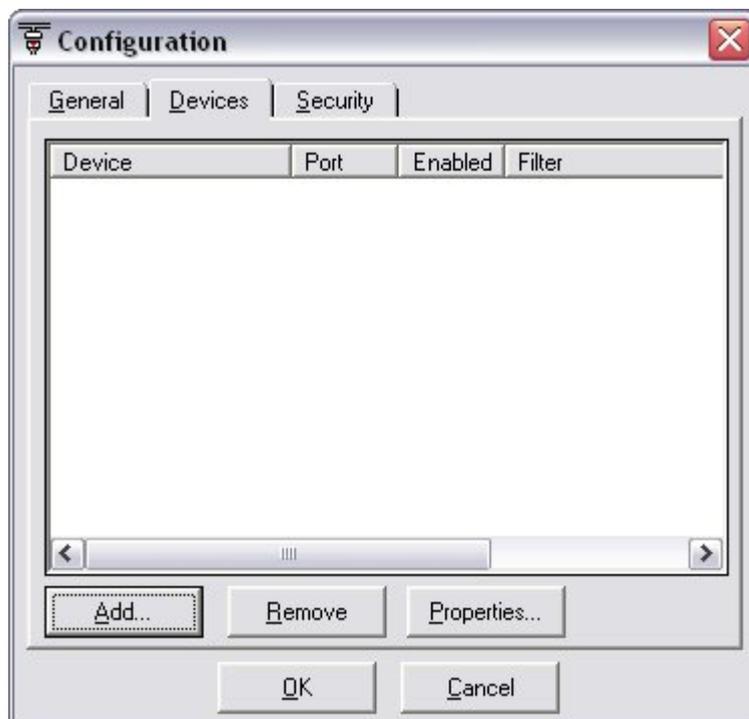
*400 kHz stationary transceiver is not shown

- **Default Xcvr ID:** this correlates data and device within the interrogation file. Each Xcvr (transceiver) id should be unique and defaults to the serial port number.

Important: The FS-1001 device overwrites this setting with an internal Xcvr ID which is transmitted in the BPA protocol data only. The internal device Xcvr ID and this setting should correspond to the same identifier.

Device Settings for SLC 500

SLC 500 is added and configured from Configuration Window. Open Configuration Window and click add:



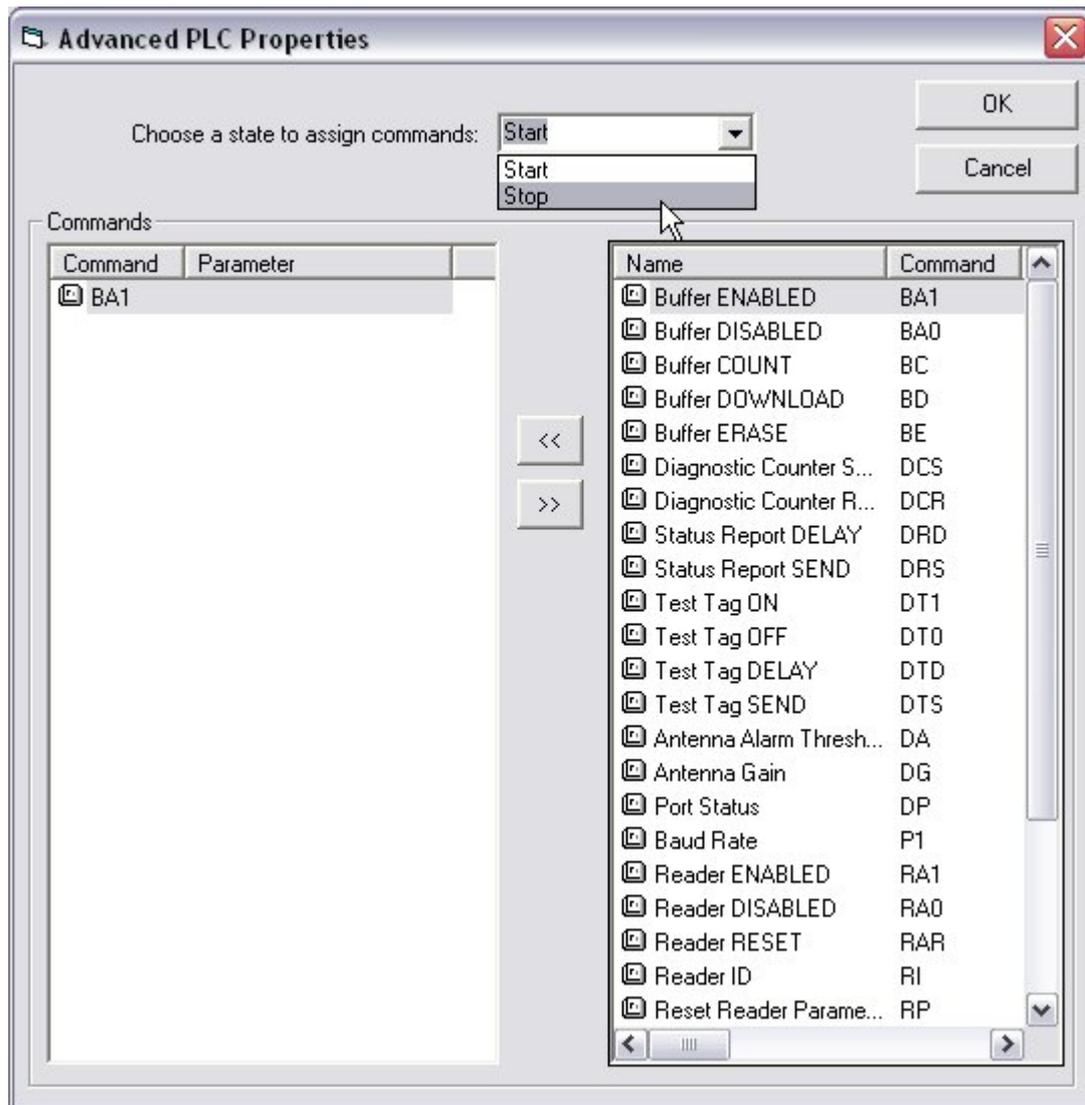
Add New Device Window will open. Choose SLC 500 device.



When SLC 500 device is chosen, button Connect will change to button Advanced.



Advanced button will take you to the Advanced PLC Properties Window where you can add commands to be sent to all readers when the PLC state changes from Start to Stop.



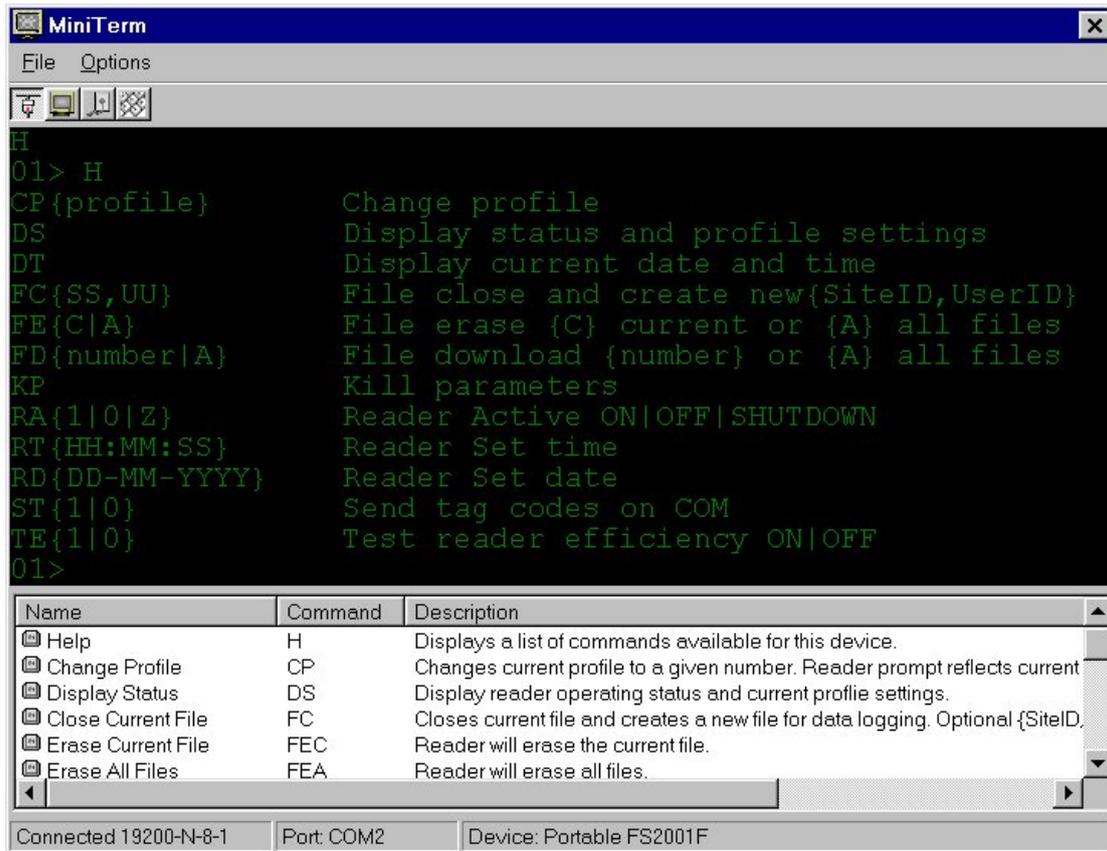
Choose the state to which you want to assign commands from the drop-down list at the top. The list of commands on the right is the list of all commands available to be assigned to a state. The list on the left contains commands assigned to the current state. Add and remove commands using buttons at the center of the window.

When finished, click **OK** and the program will take you back to the Add New Device Window. Click **OK** to exit and save changes.

PLC actions are logged to Logging Data tab of the Main Window.

Terminal Window (MiniTerm)

MiniMon contains an interactive terminal tool (MiniTerm) to connect to a device directly. This tool provides raw data from the connected device and contains a set of commands to perform remote configuration. This tool is accessed from the [Device Settings](#) dialog and does not support the BPA protocol. This tool can also be accessed from [shortcut keys](#) on the [Device Status](#) viewer.



Below outlines features of MiniTerm:

Serial Port Settings

Use this tool to override default serial port settings. When MiniTerm is launched it automatically connects to the device using the standard N-8-1 serial port settings and the selected baud rate and serial port from the [Device Settings dialog](#). If it cannot connect to the device or garbage characters appear, most likely the baud rate or serial port settings are incorrect and need to be adjusted. The serial port settings can be configured without leaving MiniTerm by selecting this *Port Settings...* button from the tool bar.

Terminal Window Settings

Select the *Terminal Settings* button to change the dimension of the terminal window or change the font size and color.

Commands

Pressing this button on the tool bar will show/hide the commands list at the bottom of the terminal window. This list contains most commands for the given device type. Double-Click any command in the list and it will automatically be sent to the device. The same command can be manually typed into the terminal window, followed by a carriage return.

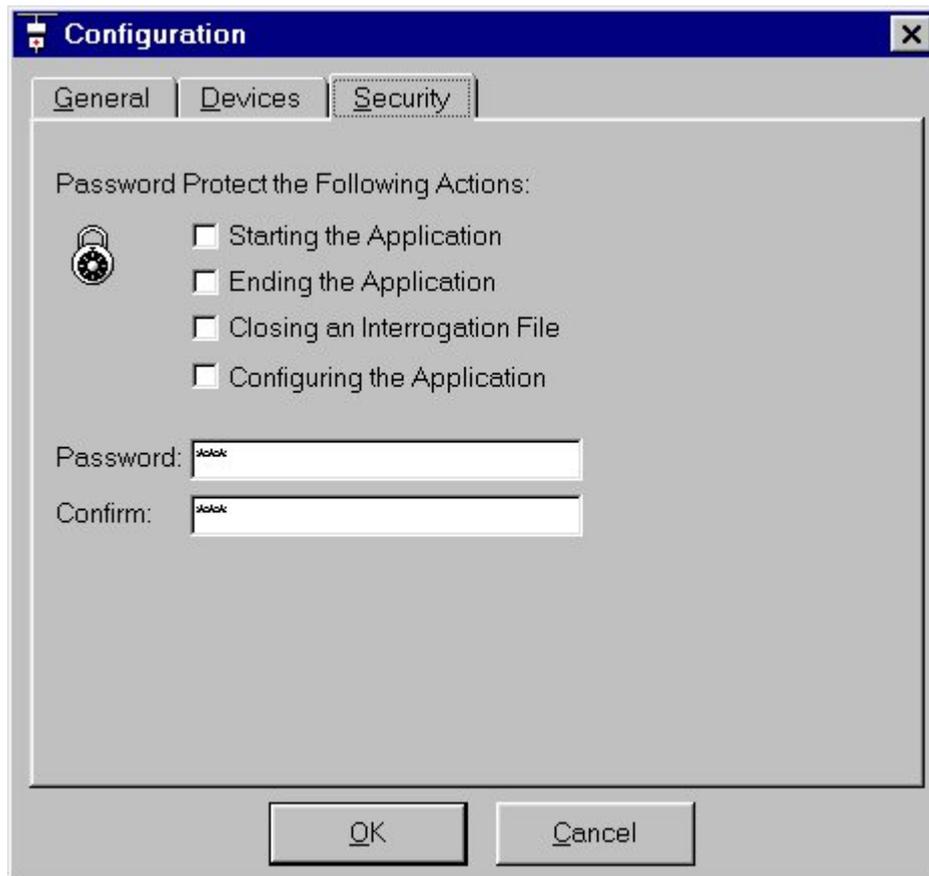
Connect/Disconnect

Pressing this button on the tool bar will connect/disconnect the terminal to/from the device.

Security

MiniMon provides optional, high level security to protect against unauthorized access which can result in the loss of data. If a particular action is secured, the user is prompted to supply a correct password before continuing the operation.

To access the security settings, choose the Security tab page from the [configuration dialog](#).



The following MiniMon actions can be secured:

- **Starting the Application:** the user must supply a password to start the application.
- **Ending the Application:** user must supply a password to close the application.
- **Closing an Interrogation File:** user must supply a password to change the current file.
- **Configuring the Application:** user must supply a password to access the [configuration settings](#).

To set the password, enter the same password in both boxes, to provide confirmation. This will change the password the next time a secured action is encountered by the user.

Interrogation Process

Interrogation Process

Overview

The interrogation process refers to when MiniMon is actively collecting data from the connected devices and translating it into an interrogation file. The user controls this process using the *Start* and *Stop* buttons located on the main window's button bar. When the process is stopped, no data is being collected. Once started, MiniMon connects to the [configured devices](#), creates an [interrogation file](#) and begins collecting data. MiniMon keeps track of how long the current process has been running, and after the [interrogation file interval](#) expires, closes the current file and opens another. All data collected from the devices is written to the interrogation file, including status and timer tag information.

Interrogation Status

MiniMon provides real-time display of status information about the current interrogation process. There are three tab pages that display this information located on the main window:

- [Device Status](#) - provides current information about each connected device
- [Interrogation Data](#) - contains a subset of the current interrogation data collected from all devices.
- [Logging Data](#) - contains a subset of logging information, regardless of the [log mode setting](#).

All of the above status information can be reset using the *Clear Data* menu command located under the *View* menu heading.

Other Interrogation Utilities

The following utilities are located on the button bar of MiniMon's main window. As with all buttons, they have an equivalent menu command.



Next File - clicking this button will manually close the current interrogation file and open the next. This is useful to force configuration changes without stopping the interrogation process. MiniMon will reschedule the next automated file change.

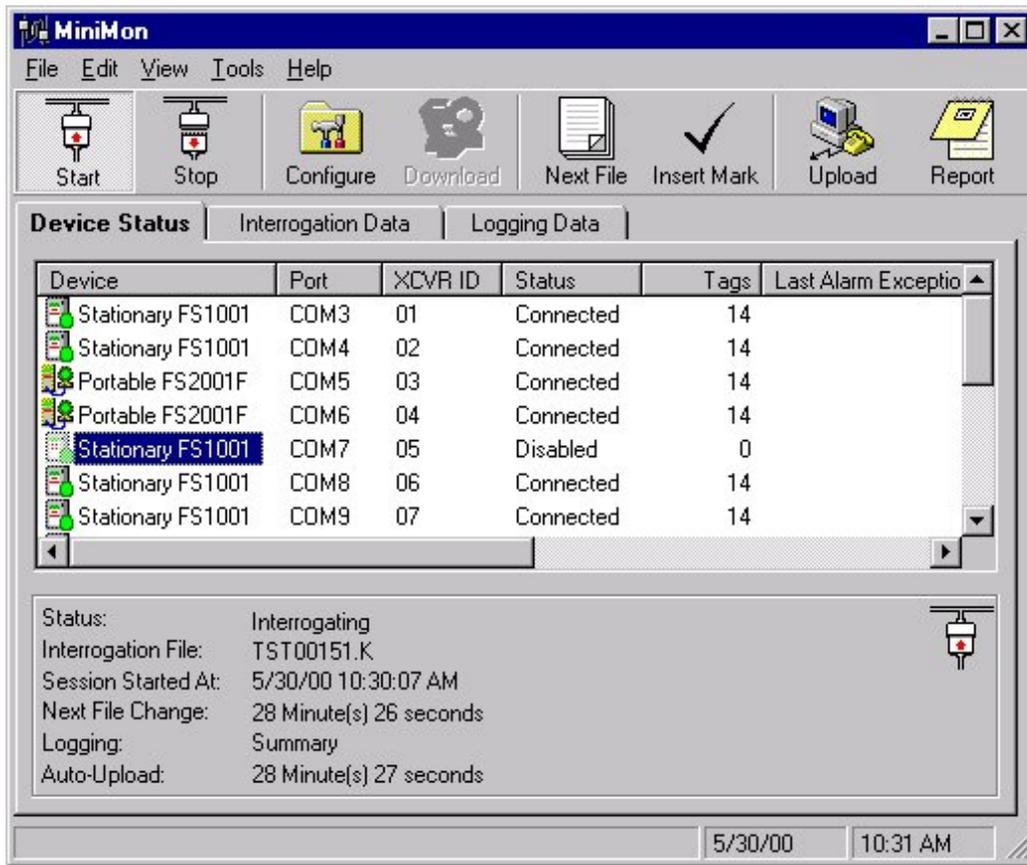


Insert Mark - clicking this button will insert a generic marker into the current interrogation file with the current date and time. The Data and Log status viewers will display a visual marker. This is useful for marking external events for analysis.

Insert GPS Coordinate - (menu command only) this will insert a GPS coordinate into the interrogation file if a [GPS device](#) is properly configured.

Device Status

MiniMon displays real-time status information about each device:

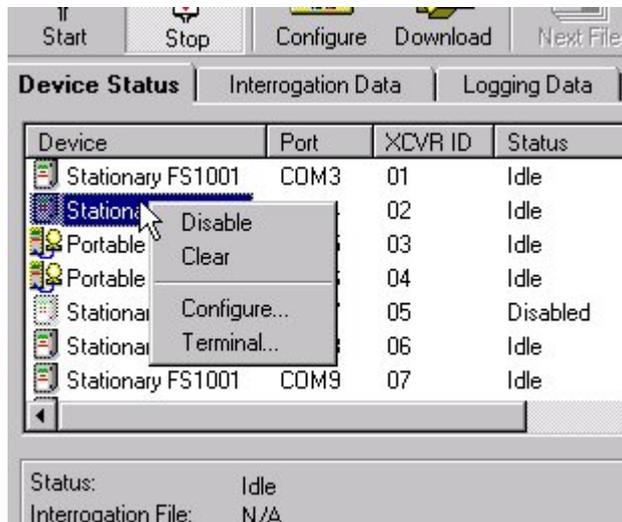


The device status page contains the following information:

- **Device:** type of [device](#).
- **Port:** the physical serial port the device is connected to on the PC.
- **XCVR ID:** the transceiver id assigned in the [device settings](#).
- **Status** - the current state of the device which can contain three values:
 - *Connected* - collecting interrogation data.
 - *Idle* - interrogation process is not running.
 - *Disabled* - the user has [disabled this device](#) from collecting interrogation data.
 - *Error* - usually represents a communication error, see Last Alarm Exception below.
- **Tags:** counts the number of tags read by this device. This value is reset when [status information is cleared](#).
- **Last Alarm Exception** - represents the last alarm exception sent from the particular device. If the exception is considered severe, the Status will be set to the Error state.
- **Global Information** - in addition to status information about each device, global status information is displayed at the bottom of the page. This includes the status of the process (Idle or Interrogating), current interrogation file name, when the [process was started](#), when the next file change is scheduled to take place, the [logging mode](#) and when the next data [upload process](#) is scheduled.

Shortcuts for Configuring Devices

A right mouse click on any listed device in the status viewer will display a pop-up menu with shortcut commands.

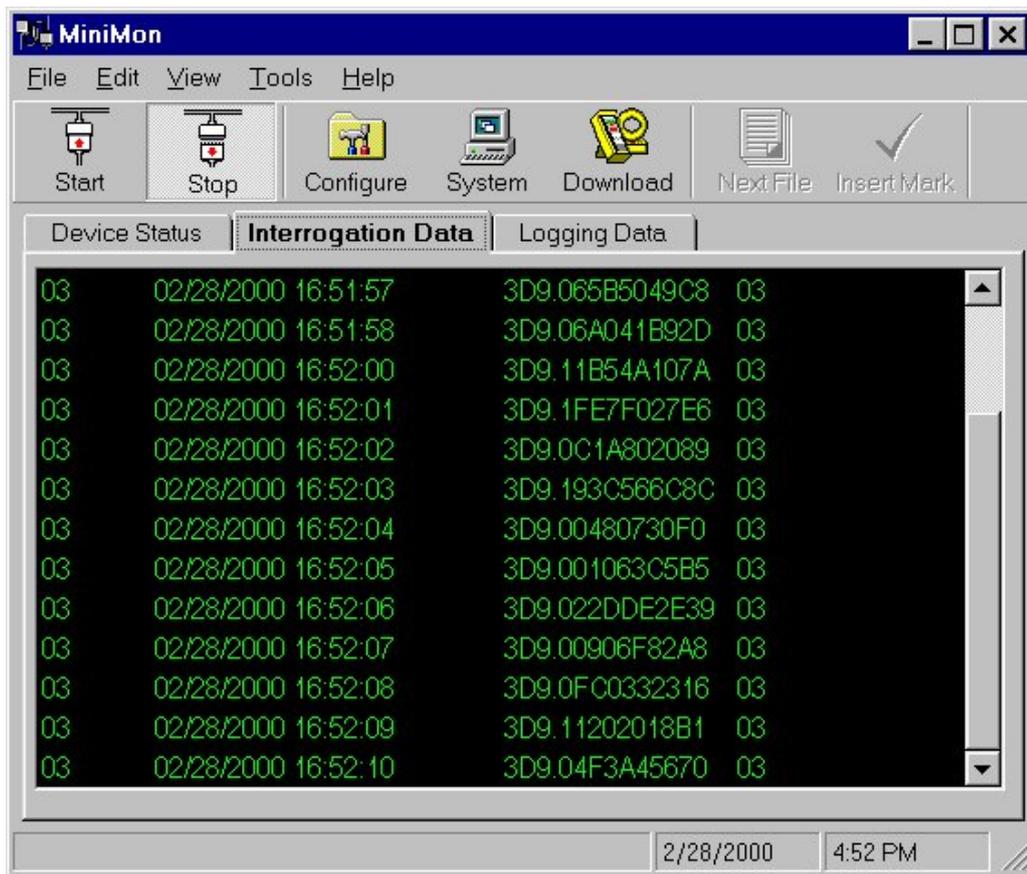


These shortcut commands can be invoked during an active [interrogation process](#). Changes to the device configuration are made immediately, offering a more powerful alternative than having to wait for the [next file change](#). The following describes each shortcut:

- **Enable/Disable:** this will toggle a selected devices status from enabled (collecting data) to disabled (not collecting data). This is useful for collecting data from temporary installations without having to restart the interrogation process.
- **Clear:** this will clear the status information for the selected device only.
- **Configure...** **this will invoke the Device Settings dialog for the selected devices. Changes to these settings take effect immediately during if there is an active interrogation process.**
- **Terminal...** this command will invoke the [terminal window](#) for the selected device. Warning, this will disable the device temporarily while the terminal window is active. Once the terminal window is closed, the device will begin collecting data again if it is enabled.

Interrogation Data Status

During the [interrogation process](#), a subset of all interrogation data is displayed on the Interrogation Data tab page in chronological order.



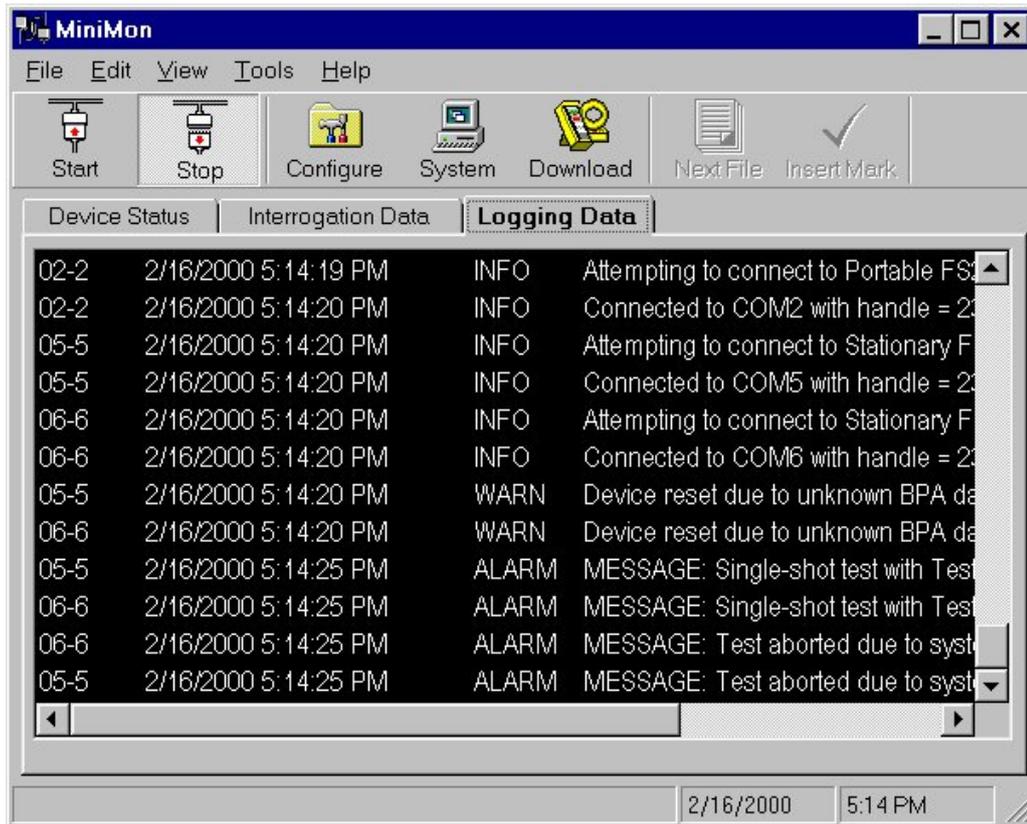
Only the last one hundred lines or so of data are displayed. This status data can be cleared using the *Clear Data* menu command located under the *View* menu heading. This view can be locked by toggling the menu command *Display Interrogation Data (Ctrl-I)* located under the *View* menu heading. If the display is turned off, MiniMon is still capturing data to file, it's just not displaying it in the viewer.

Clipboard

If the [interrogation process](#) is not active, or the *Display Interrogation Data* is toggled off, selected rows of this data can be copied to the Window's Clipboard using the *Copy (Ctrl-C)* menu command located under the *Edit* menu heading.

Logging Data Status

During the [interrogation process](#), a subset of all logging data is displayed within MiniMon's main window on the Logging Data tab page, in chronological order, and regardless of the [log mode setting](#).



This status display is limited to 100 lines of information. This status data can be cleared using the *Clear Data* menu command located under the *View* menu heading.

Clipboard

If the interrogation process is not running, selected rows of this data can be copied to the Window's Clipboard using the *Copy* (Ctrl-C) menu command located under the *Edit* menu heading.

Interrogation File

An interrogation file contains all data collected during the [interrogation process](#). The format of this file is specified in the PIT Tag Specifications Document. Interrogation data is partitioned into several files for a given day based upon the [file generation interval](#) setting. The [Output Path](#) configuration setting determines the location of these files.

Interrogation files have a naming scheme of a 3 character [Site ID](#) followed by the current Julian date and ending with a unique partition id extension (A-ZZZ), *i.e.* ABC00042.AA. An optional [File Version Ext.](#) can be configured to be appended to the file name to help manage redundant data collection sites.

Remote Interrogation

What is Remote Interrogation?

Remote interrogation means data is collected into a portable transceiver's internal buffer, then downloaded to a PC at a later time. The Portable FS-2001 Transceiver has an optional [firmware upgrade](#) (FS-1001A 1.2 or ISO 3.8) that has a "Time Tag" setting which associates a date and time when a tag is detected. The detected tags and their timestamps can be stored in the transceiver's internal buffer for downloading into MiniMon at a later time using the Download Wizard.

Configuring Remote Interrogation

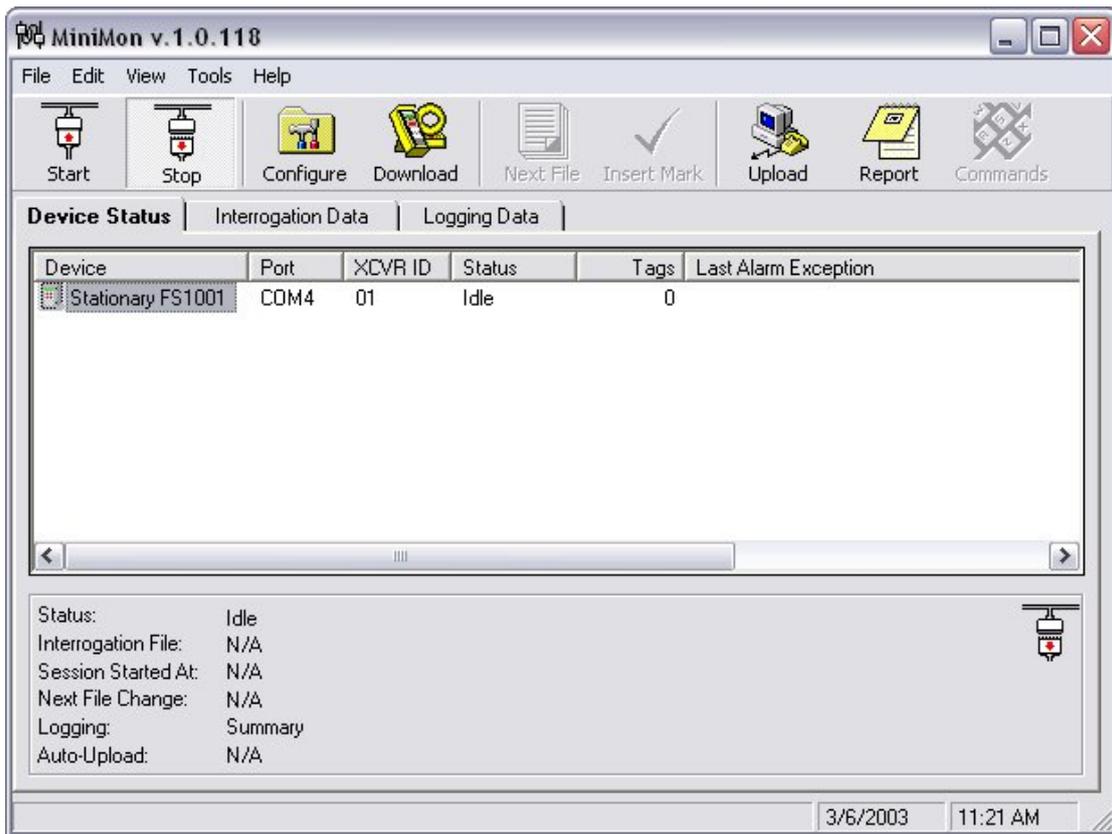
1. Install firmware upgrade on the [Portable FS-2001 transceiver](#) (Firmware version 1.5 or ISO).
2. From a new or existing [device configuration](#), connect to the transceiver using [MiniTerm](#).
3. Once connected via MiniTerm, verify the date and time setting on the portable transceiver using the "Display Current Date and Time" (DT) command. **Note- the date and time format is dd-mm-yyyy hh:mm:ss - the day precedes the month.** Date and time can be set using the "Set Current Date" (RD) and "Set Current Time" (RT) device commands. The date and time settings can also be changed directly from the transceiver menu.
4. From the transceiver menu, set the "Time Tag" setting to "Yes", and verify the "Decimal Tag" setting is set to "No" and "Send to CommPort" is set to "Yes". Read a tag and you should see the date and time precede the tag code within MiniTerm.
5. Create a new file on the transceiver using the "Close Current File" command. The program will prompt for an optional SiteID, UserID codes - these codes are written to the [interrogation file](#) for informational purposes only.
6. The portable transceiver is now ready for remote interrogation. Once the remote interrogation has completed, use the [Download Wizard](#) to import the interrogation data into MiniMon.

Note: The internal storage capacity of the portable FS-2001 transceiver is 6,400 tags.

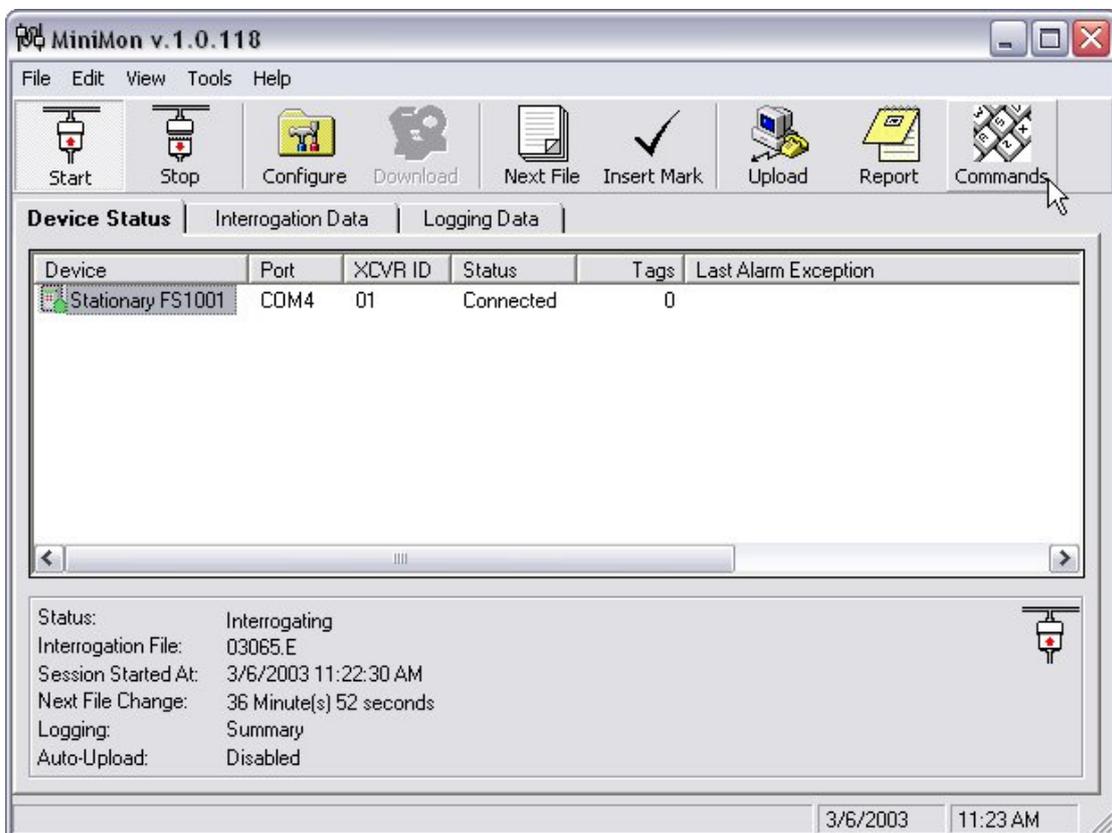
Remote Commands

Remote Command Window provides means for communication with a device while it is in interrogation mode. A command is sent to a device and device response, if any, is displayed in the Logging Data tab of the Main Window.

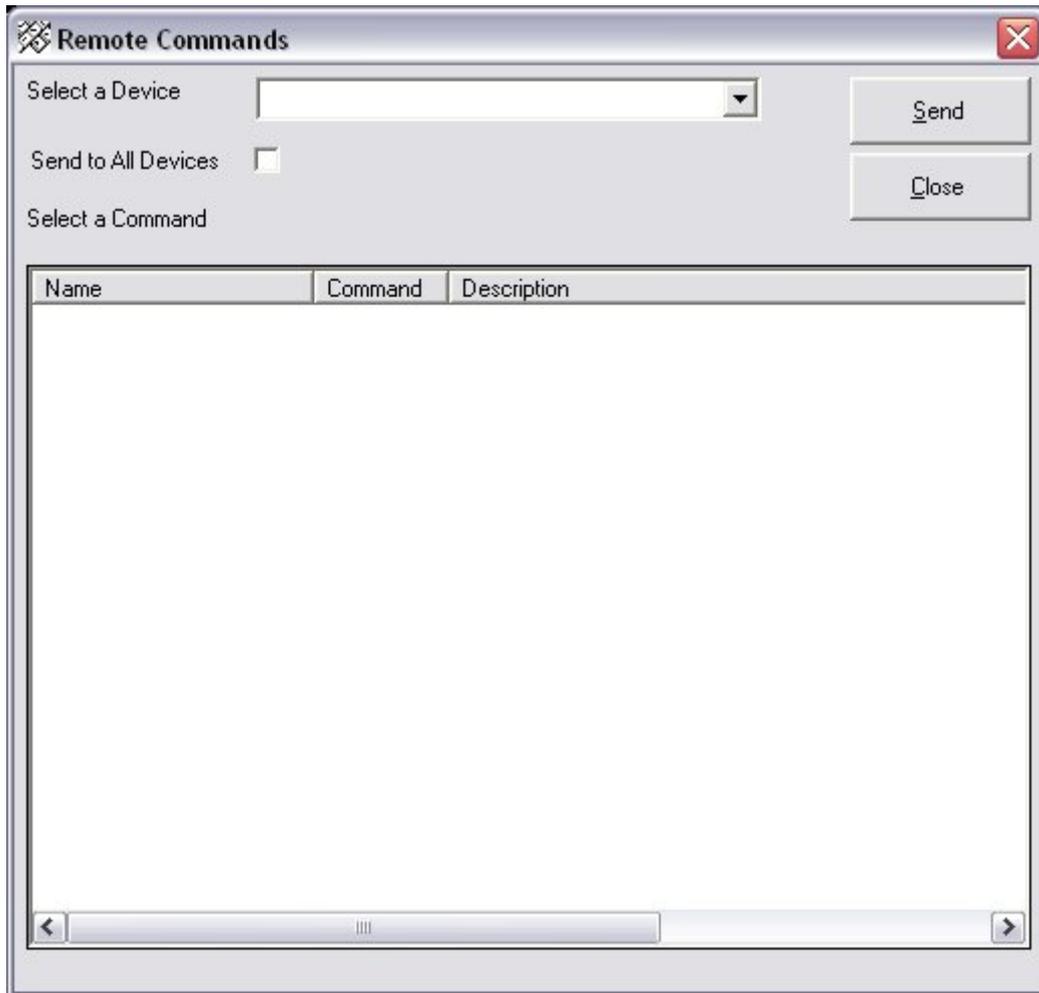
Remote Command Window button is located on the right on the toolbar of the Main Window. It is also available from the Tools menu when device is connected. While available devices are idle, Remote Command Window button and the option of the Tools menu are disabled.



To connect devices, lick button Start. When the devices are connected, the button and the option on the menu are enabled.



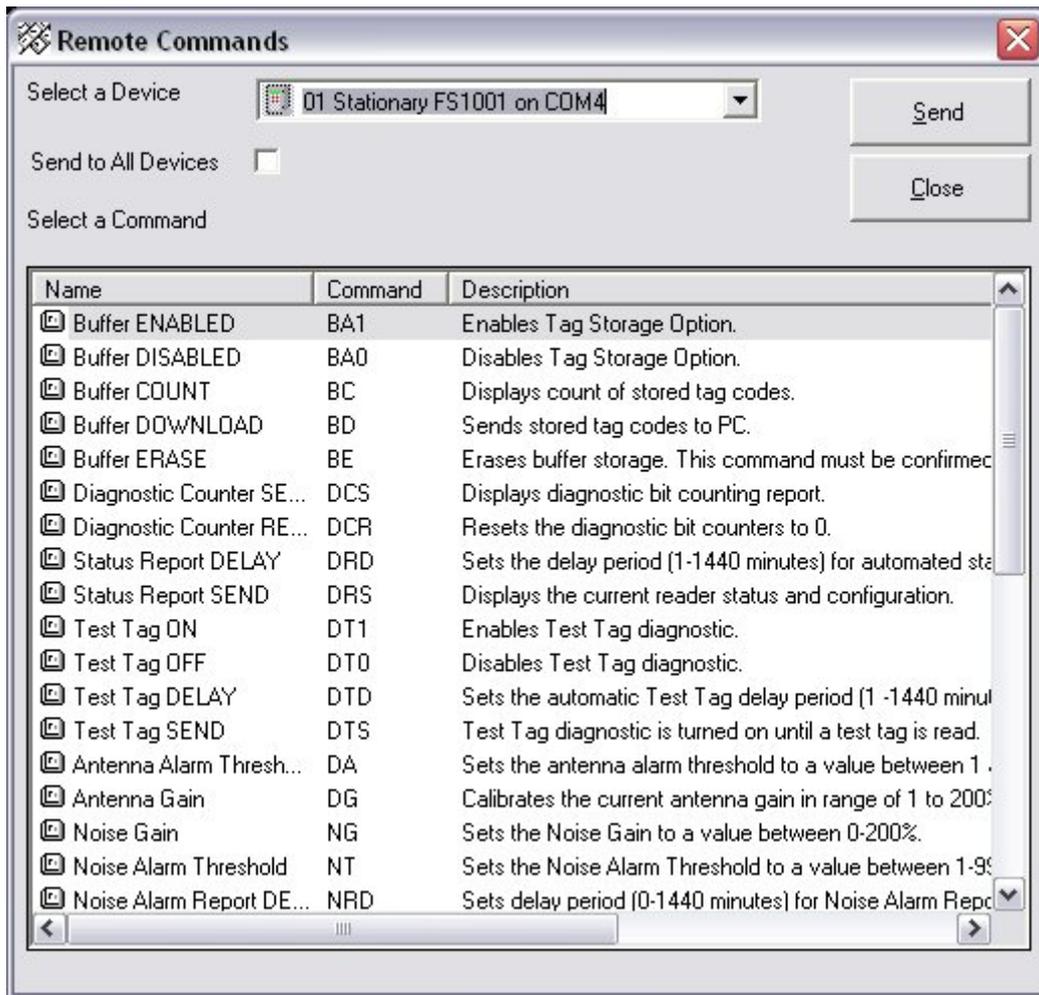
To send a command, click on Commands button. Remote Commands Window will open.



The following options are available on the Remote Commands Window:

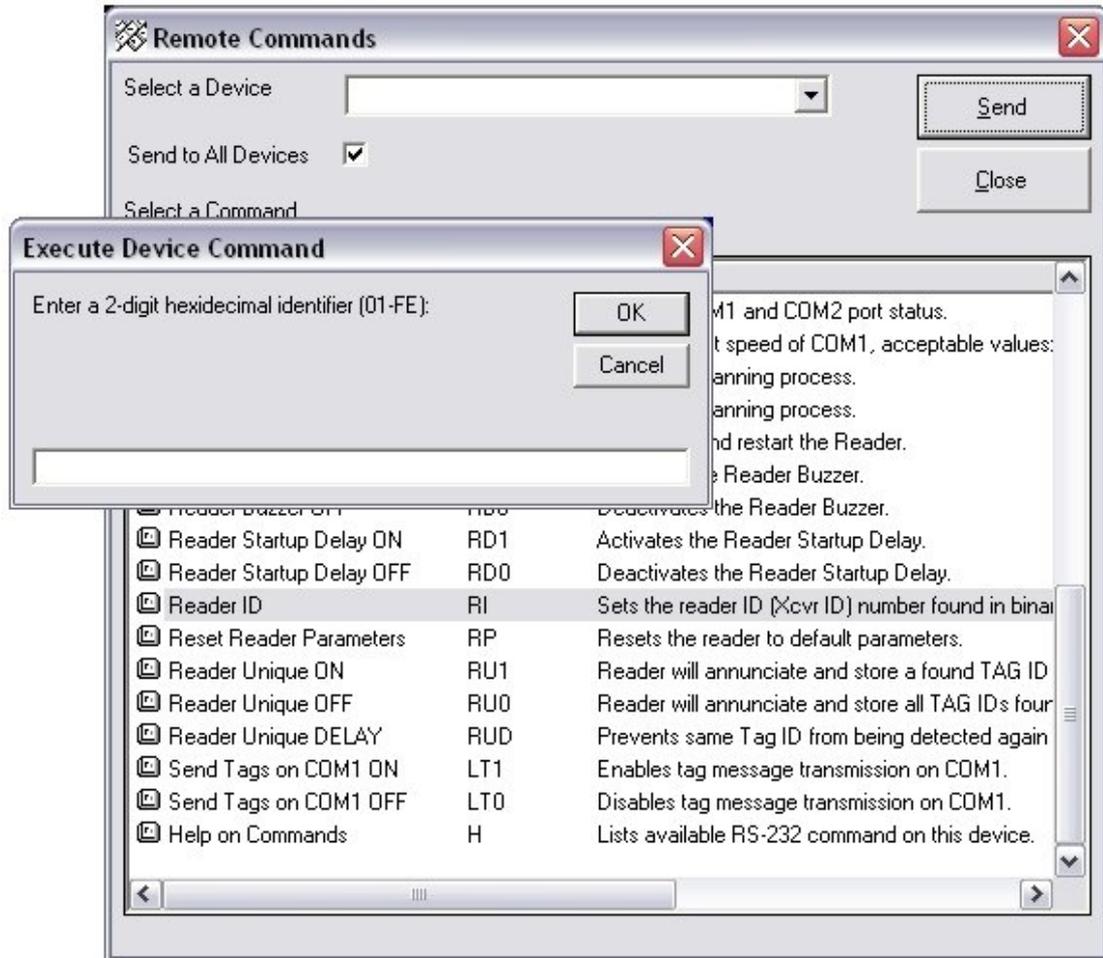
Select a Device. When a device is selected from the drop-down list, commands appropriate for the selected device are displayed in the commands list.

Send to All Devices. Click the check-box to select Send to All Devices. This option allows you to send the command to all available devices. When the option is selected, the commands list displays intersection of commands of the available devices – commands common to all devices.



When a device or Send to All Devices option is selected and the list of available commands is displayed, select a command you want to send by clicking on it once, and click Send button. Alternatively, you can double click the command in the list.

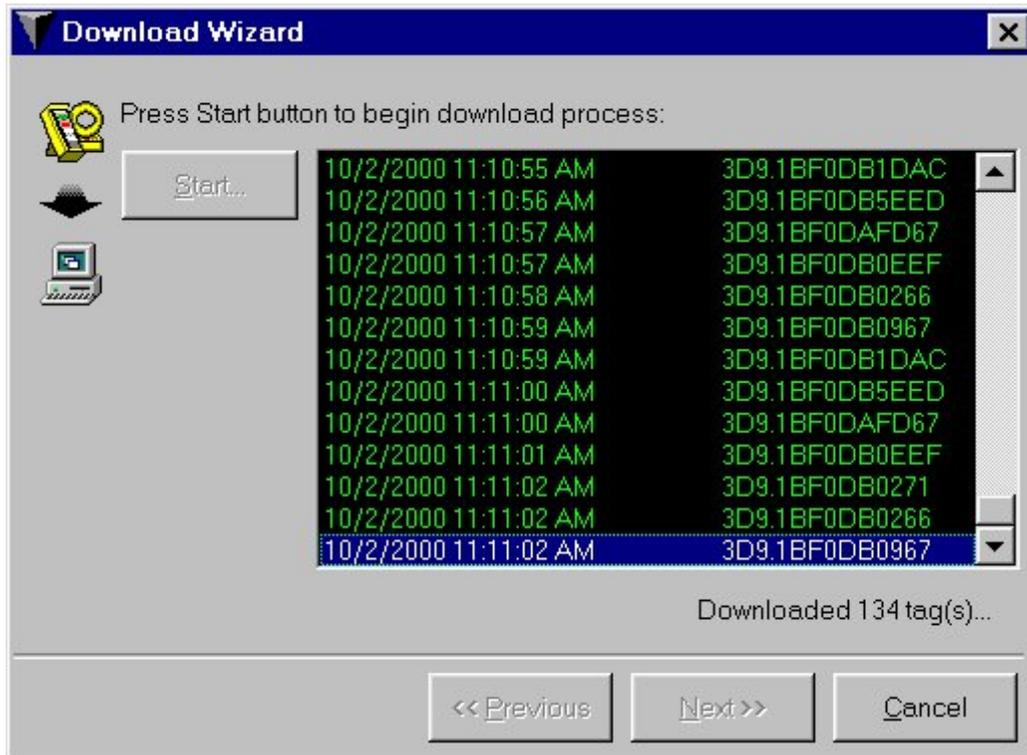
The command is sent to the selected device or to all available devices if Send to All Devices option is selected. If the command requires user input, Execute Device Command prompts you for the input.



The command and the device response to the command are displayed in the Logging Data tab of the Main Window.

Download Wizard

The Download Wizard provides step by step instructions for downloading a stored file from a portable FS-2001F transceiver operating in [remote interrogation](#) mode, or a FS-1001 SSR Mux reader. The result of the operation is a complete interrogation file containing tag codes with date and time of the detection from the stored file on the transceiver.



The Download Wizard prompts for the following information:

- **Device to Download From** - must be a [Portable FS-2001](#) transceiver with [filter mode](#) = 'ASCII w/ Timestamp'.
- **Begin and End date/time of interrogation** - enter the date and time interrogation was started and stopped.
- **Which File to Download** - the FS-2001 reader supports multiple storage files. There are two options: download all of the file or designate a single file number to download.
- **Interrogation File** - provide a name and a location for the new [interrogation file](#).
- **Append to this File** - will append to the selected file instead of overwriting or creating it. If the selected file is an interrogation file, the FILE CLOSED interrogation file line is overwritten with the **End Date** time entered on the previous page; the original FILE CREATED date is not effected from this operation.

Initiating the Download Process

Once this information is complete, press the start button to create the interrogation file. The Download Wizard will time out after a short period of time if transceiver fails to respond. If the download was successful, a prompt will display the number of tags downloaded into the new interrogation file. Press the **Close** button to close the Download Wizard.

Upload Process

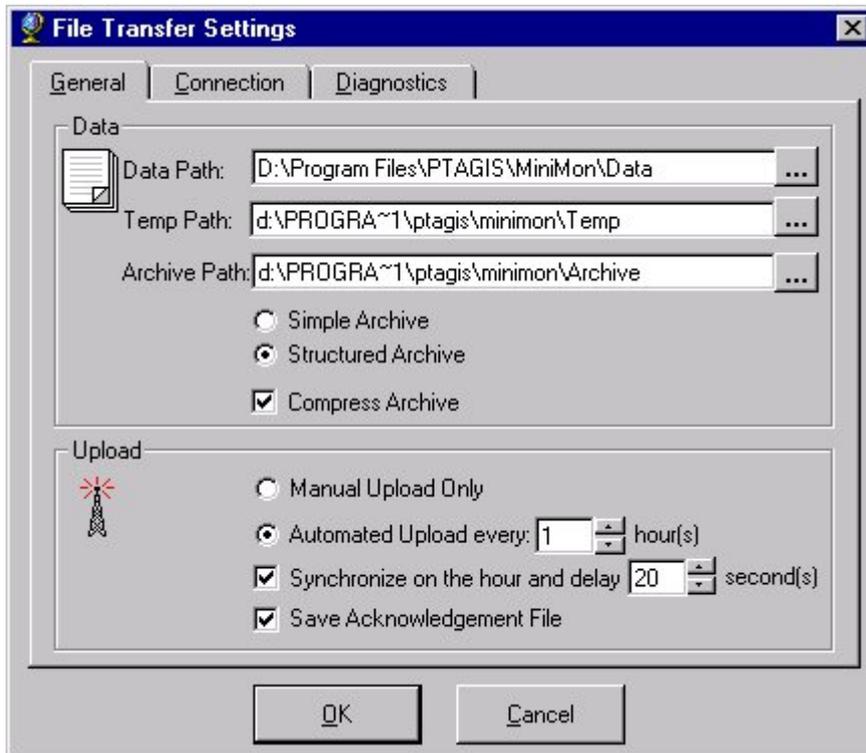
Upload Process

MiniMon has the optional capability to automatically transfer [data files](#) to the PTAGIS system using a modem or LAN TCP/IP connection. Once the data is successfully transferred to PTAGIS, it is then archived on the local PC.

What you need to use this feature:

- You must have a registered PTAGIS account to upload data. See details on the [PTAGIS](#) website for more information.
- Your PC must be able to connect to the Internet - either through the LAN (Local Area Network) or a dial-up connection via modem to a local ISP (Internet Service Provider).

To access the configuration settings for this utility, select the *File Upload Settings...* menu command located under the *Tools* menu heading. The following window will appear:



The configuration for this utility is separated into three tab pages, detailed below:

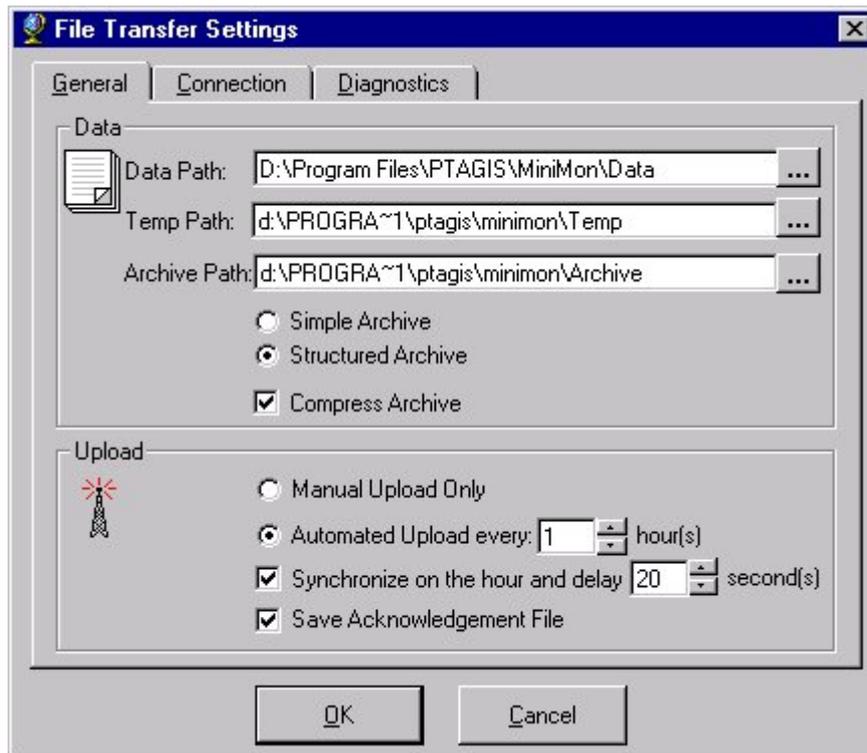
- [General](#) - describes where the data is, how to archive it and when to upload.
- [Connection](#) - determines the connection type to use for the upload.
- [Diagnostics](#) - useful tool for testing the current configuration settings.

Overview of the Upload Process

1. If the automated upload feature is enabled - the upload process is started when the designated interval has expired. The upload process can also be started manually by the user.
2. If the PC is not connected directly to the Internet via LAN (Local Area Network) then a designated dial-up connection is launched. MiniMon will make several attempts to establish the dial-up connection. If the connection cannot be established (i.e. busy phone line) and the automated process is enabled, MiniMon will attempt the connection again when the next interval has expired. Any data that was not submitted in this aborted session will be submitted in the next upload.
3. Once an Internet connection has been established, MiniMon will make a FTP (File Transfer Protocol) connection to the PTAGIS server using the designated user account settings. You must have a registered account with PTAGIS to upload data.
4. Once the FTP connection is established, MiniMon will compress all the data files into a single file and attempt to transfer the compressed file to a STAGE subdirectory under the user account's home directory on PTAGIS; the STAGE will be created if it does not already exist.
5. Once the compressed data file has been completely transferred, PTAGIS will automatically detect the file and begin distributing the compressed data files for loading.
6. PTAGIS will respond with an acknowledgement file which contains the status line that describes if the distribution process was successful or not.
7. If the process was started automatically, the results of the submission can be viewed in the [log file](#). If the process was started manually, results are displayed both in the upload window and in the log file.

General Upload Configuration

The General tab page contains information about where the data is to be uploaded, where and how to archive the data and when to upload this information. To access this dialog, run the *File Upload Settings...* command from the *Tools* menu heading.



Each section on the General page of this dialog is described below.

Data Section:

- **Data Path** - contains the path where MiniMon [interrogation process](#) is storing the [data files](#). The value should always match the Output Path setting in the [General Device Configuration](#) settings for normal operation.
- **Temp Path** - contains the path used by MiniMon for storing temporary files during the upload process.
- **Archive Path** - contains the path where MiniMon will archive data files after they've been successfully uploaded to [PTAGIS](#).
- **Simple Archive** - if this option is set, after the transfer has completed, the data files will be moved from the Data Path to the Archive path. This option is recommended if the number of data files for a given installation is relatively small.
- **Structured Archive** - if this option is set, a subdirectory will be created for each day an interrogation has taken place. This directory will be identified by the [site code](#) and a julian date. Once the data files have been transferred, the [data files](#) will be copied to their corresponding directory matching the 8 character file name. This option is recommended for installations that produce a large number of data files.
- **Compress Archive** - if this feature is checked, when the data files are moved to the archive, they will be compressed to a common file matching the 8 character file name (site code + julian date). The compressed file is PKZIP compatible. This feature significantly reduces the amount of hard disk space needed for the archive and is recommended for unattended installations.

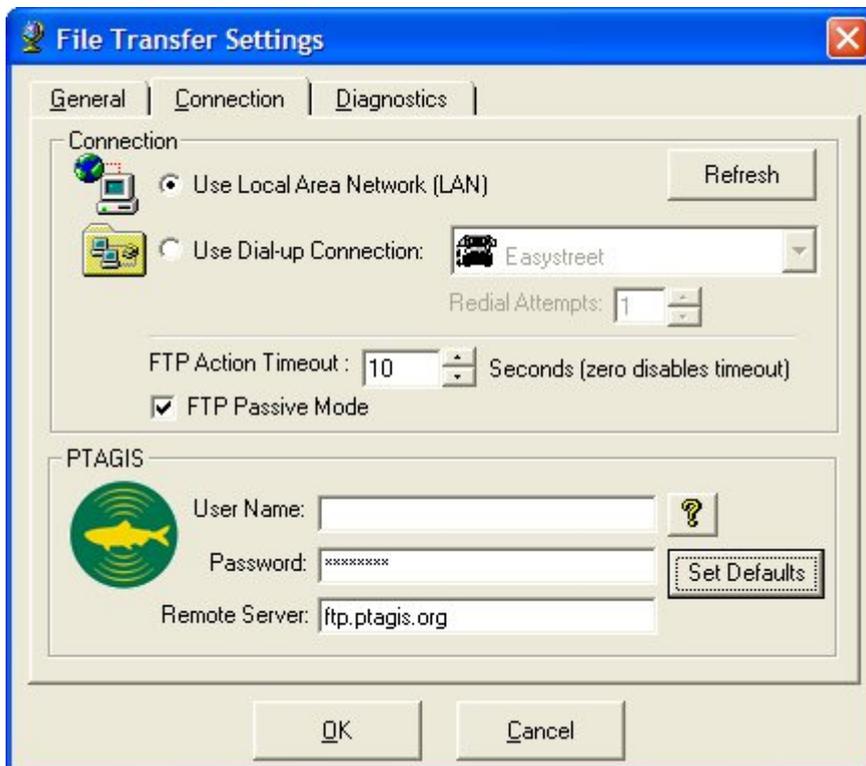
Upload Section:

- **Manual Upload Only** - if this option is set, data will *not* be automatically uploaded on a periodic basis. It will be up to the user to execute a manual upload to transfer data to PTAGIS.
- **Automated Upload** - if this option is set, data will be automatically uploaded to PTAGIS on a periodic basis. The interval is determined by the **hour** setting. If the **Synchronize on Hour** feature is checked, the interval will round up or down to the nearest hour. The **Synchronize Delay** period will add an additional number of seconds before the launching the upload process. This is useful for synchronizing with the [interrogation generation period](#) so that data will be transferred to PTAGIS as soon as it's available. The next schedule upload is displayed on the [Device Status](#) viewer.
- **Save Acknowledgement File** - if this feature is checked, the acknowledgement file returned by PTAGIS on a successful or unsuccessful transfer will be saved in the Temp path. This feature is useful for troubleshooting the upload process; it's recommended to leave this feature off for normal operation.

Configuring a Connection for Upload Process

In order to submit [data files](#) to [PTAGIS](#), a connection to the Internet and the PTAGIS server must be established. This topic describes the various settings used to establish this connection.

To access this dialog, run the *File Upload Settings...* command from the *Tools* menu heading, then choose the *Connection* Tab page.



Each section of this dialog is described below.

Connection Section - this section describes how MiniMon will connect to the internet.

- **Use Local Area Network (LAN):** If your PC is already connected to the Internet through your network, choose this option.
- **Use Dial-up Connection:** If you connect to the Internet using a modem and a dial-up connection use this option. Select the appropriate phonebook entry to establish this connection. If you do not have any phonebook entries - see Windows help to create one. The **Refresh** button will refresh the drop-down list of phonebook entries. In order to use this feature, you must have Remote Access Services (RAS) installed; see your network settings for more information.
- **Redial Attempts:** this setting designates the maximum number of attempts to establish a dial-up connection. If MiniMon is unable to establish a dial-up connection after *N* attempts, it will abort the current upload process. If the automated upload feature is enabled, MiniMon will attempt to establish the connection again when the next interval expires.
- **FTP Action Time out:** this setting, in seconds, determines how long an FTP client connection should wait for the FTP server to respond. If zero is used, this feature is disabled and the system default value is used instead (typically it is 15 minutes).
- **FTP Passive Mode:** use this setting *only* if the network is constrained to allow only FTP to operate in 'passive mode'.

PTAGIS Section - this section designates the PTAGIS user account to use for establishing a connection to PTAGIS. You must have a valid PTAGIS user account to upload data.

- **User Name:** the user name for a PTAGIS account. The name is case sensitive.

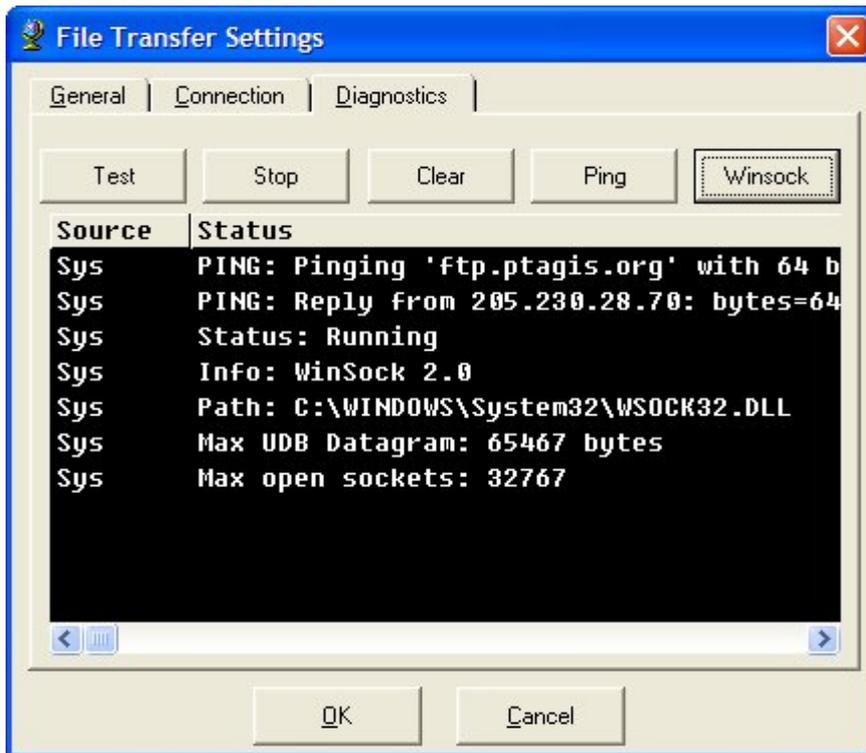
NOTE: due to security issue, MiniMon requires users to contact PTAGIS to get the name of this account for submitting data.

- **Password:** the password associated with the PTAGIS account.
- **Remote Server:** the server name or IP address for the PTAGIS FTP server. **Set Defaults** button will default this field to '*ftp.ptagis.org*'.

Upload Diagnostics

The Diagnostics for Upload Settings will submit a test file to PTAGIS. This is useful for testing the current configuration settings and troubleshooting problems. The test process will display detail information for each step in the process.

To access this dialog, run the *File Upload Settings...* command from the *Tools* menu heading, then choose the *Diagnostics* Tab page.



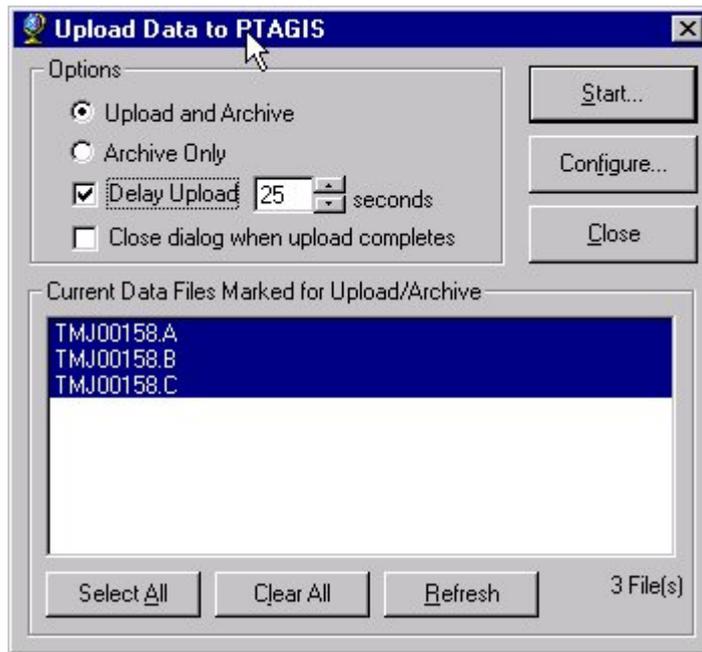
To start a test upload process, press the **Test** button and the rest is automatic. The Status viewer will display detail information for each step of the process. Use the **Stop** button to cancel the process at anytime. There are certain points in the upload process that cannot be stopped; a message will appear in this situation. Also, you cannot close this dialog while an upload process is active. Use the **Clear** button to clear the messages from the status viewer.

The **Ping** button will use a standard network utility to verify the [Remote Server](#) setting is pointing to a valid host. The **Winsock** button will display the version of the winsock library for diagnostic purposes.

Manual Upload Process

At anytime, the upload process can be run manually from MiniMon's main window, even if there is an automated upload scheduled. An active [interrogation process](#) will function normally during an upload process. You must configure the [upload settings](#) before running this process. Each step of the process is displayed to the screen and written to the [log file](#).

To start a manual upload process, choose the *Manual Upload...* command located under the Tools menu. The following dialog will appear:



This dialog contains options for the upload process. Each option is described below:

- **Upload and Archive:** this option will upload the data files to [PTAGIS](#) and then archive them according to the [archive settings](#).
- **Archive Only:** this option will only archive the data files. No data will be uploaded to PTAGIS.
- **Delay Upload:** the upload process will delay for the configured number of seconds. This feature is useful if you are connected remotely to the PC and need to log out to allow the process to continue.
- **Close Dialog when Upload Completes:** this feature will close the window upon completion of the upload process. This is useful when the process is unattended.

Below the options is a list of data files corresponding with the *Data Path* setting from the [General Upload configuration](#). Only the selected data files will be processed. If no data files are selected, or none exist, the *Start...* button will be disabled. Use the ctrl/shift keys to select multiple files.

Pressing the *Start...* button will launch the upload/archive process and the following window is displayed:



The overall status of each step of the process is displayed. Use the **Hide/Show Detail** button to toggle the detail view of processing status. Use the **Cancel** button to stop the process. There are certain steps in the process that will not cancel immediately. Please wait patiently and the process will eventually stop.

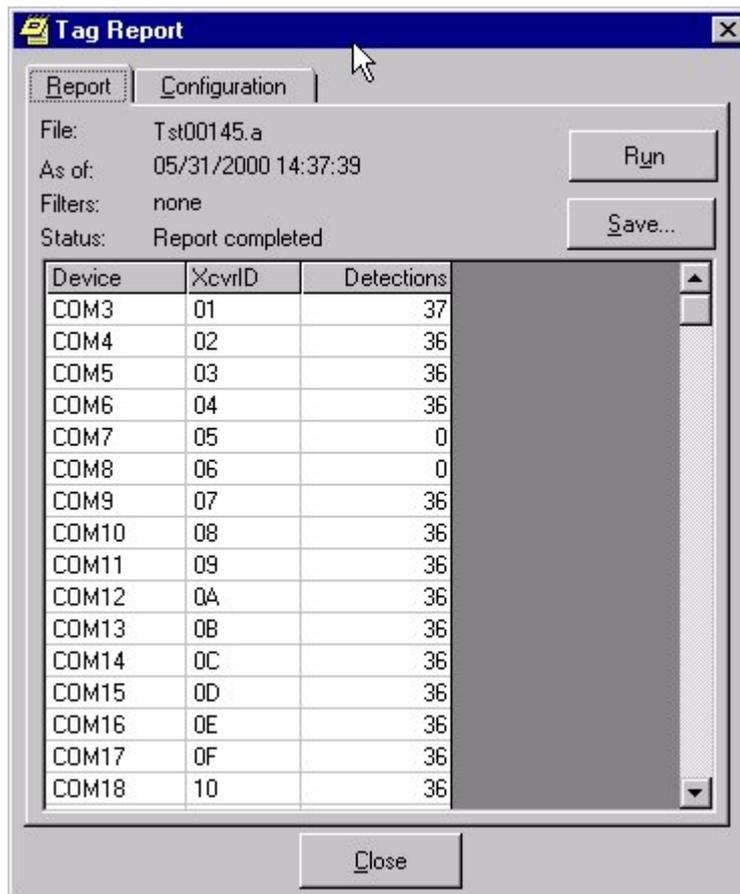
The **Close Window on Completion** feature will automatically close the window when the process has completed (successfully or not). This is useful when the process is left unattended.

Other Features

Tag Data Report

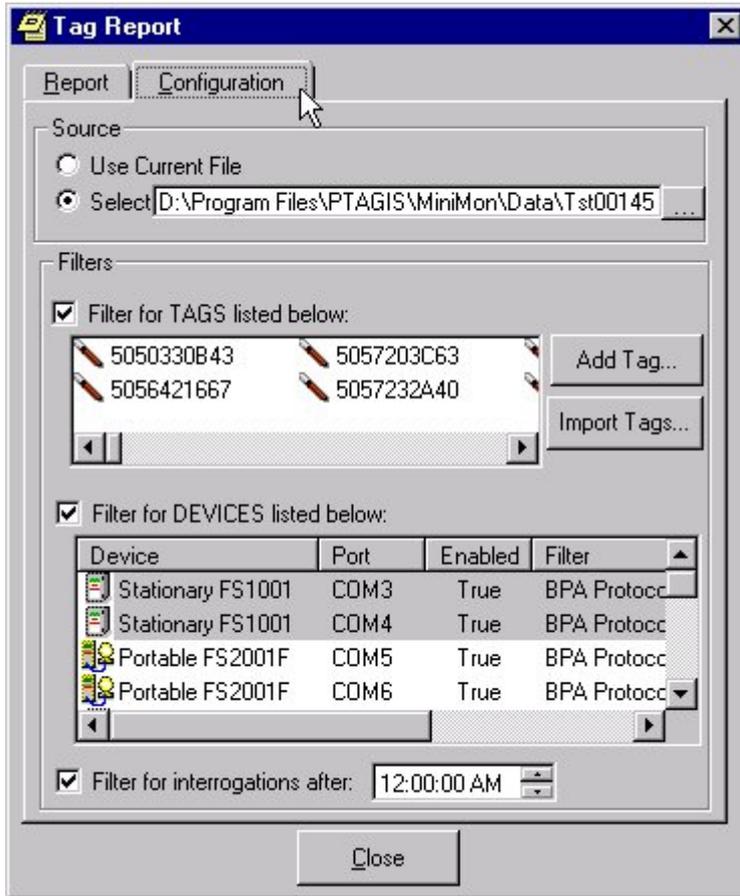
The tag data report provides detail information about how many times a particular tag was detected on a particular device. This information is useful for testing operation of the physical transceiver device.

To access this report, select the *Tag Report...* menu command located under the *Tools* menu heading.



Pressing the **Run** button will execute the report based upon the current configuration and display the results in the viewer. The **Save...** button will prompt to save the contents of the report to a file.

To change the report settings, select the configuration tab and the following will appear:

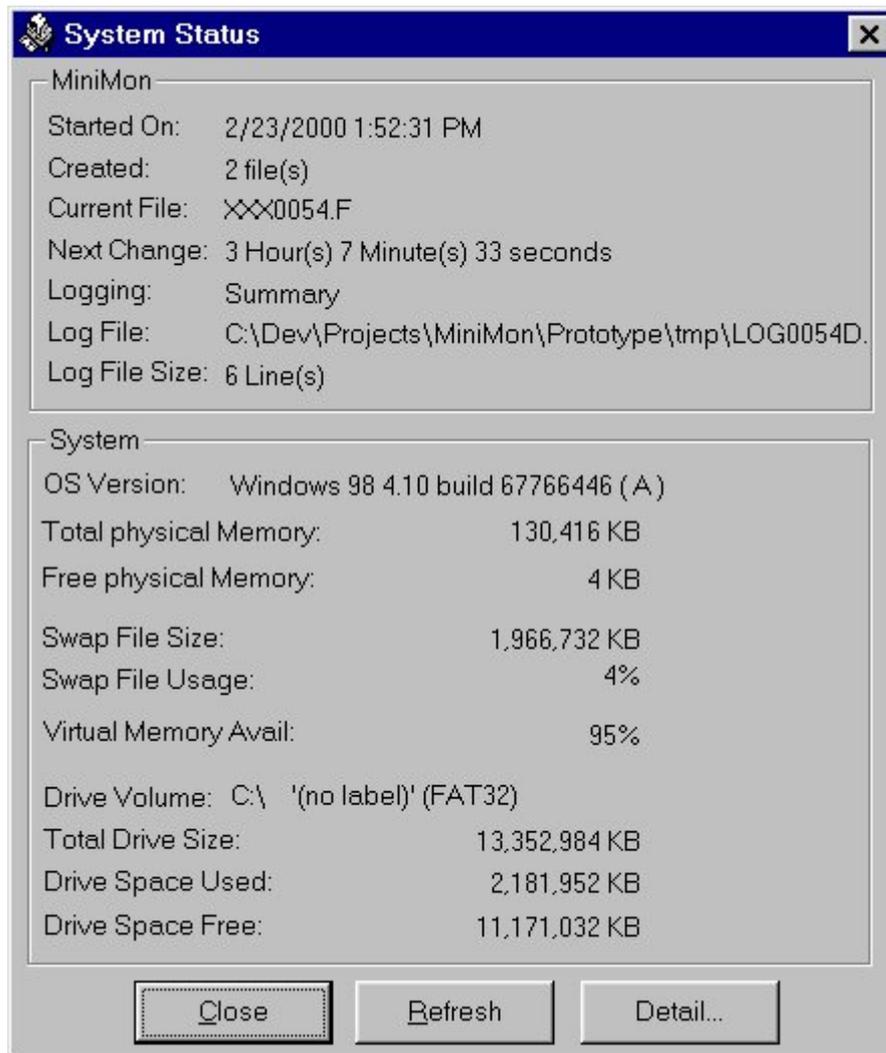


Below lists each setting for a Tag Report:

- **Use Current File:** if this option is set, the current interrogation file will be used as a data source for the report. This option is only available if the [interrogation process](#) is active.
- **Select (File):** use this option to select an existing [data file](#) as a data source for the report.
- **Filter for TAGS:** if this feature is selected, only the listed tag codes will be tallied in the report. This is useful for identifying *stick tag* detections. Use the **Add Tag...** button to manually enter each tag code, or **Import Tags...** button to import an existing file of tag codes into the list. If this option is *not* selected then all tags will be tallied for each device.
- **Filter for DEVICES** - if this feature is selected, only the selected devices will be displayed in the report.
- **Filter for Interrogations After** - if this option is selected, only detections after the designated time will be counted in the reports. This is useful for identifying separate *stick tag* events within the same data file.

System Information

System Information window provides a snapshot of detail summary about the current [interrogation process](#) and system resources. Use the *Refresh* button to get the most current information.



This window is comprised of two sections:

MiniMon Process Information

- **Started On:** the date and time the current [interrogation process](#) was started.
- **Created:** number of [interrogation files](#) created since process was started.
- **Current File:** name of the current interrogation file that is open (the actual physical file will have a tmp extension appended to the file name until it is closed).
- **Next Change:** when the next scheduled file change will occur.
- **Logging:** which [log mode setting](#) is in use.
- **Log File:** the physical file name and path used for logging to.
- **Log File Size:** number of lines written to the active log file.

* Some of the above information is displayed in real-time on the [Device Status](#) summary.

System Information

MiniMon Help

System information section contains a snapshot of generic system resource information, such as physical memory, virtual memory and disk space usage. To see more detail on this information, click the *Detail...* button.

Index

A

Adding a Device 9

Analyzing Data 39

B

Baud Rate 10

C

Changing File 7, 23

Clear Data 19, 21, 22

Commands 14

Configuration 7, 8, 9, 10, 16, 21

Connect Devices 14

D

Device Configuration Shortcuts... 21

Device Filter 10

Device Type 10

Disable a Device 10, 21

Display Interrogation Data Command
..... 21

F

File Generation Interval 7, 23

Filter 10

Functional Specification 4

I

Insert Mark 19

Interrogation Process 19

L

Log File 8

M

Manual Upload 36

MiniTerm 14

N

Next File 19

O

Open Next Log File 8

Output Path 7

P

PLC Properties 12

R

Remote Commands 24

Remote Interrogation 24, 29

Removing a Device 9

Report 39

S

Security 16

Send Commands 24

Serial Port 9, 10, 14

Site Code 7

SLC 500 12

Start Interrogation 19

Status Information 19, 21, 22

Stop Interrogation 19

MiniMon Help

Supported Devices 2

Synchronize on the Hour 7, 32

System Requirements 1

System Resource Information 40

T

Terminal 14

Time Interval 7, 23

Time Stamps 7

Transceiver 2

X

Xcvr ID 10