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WRM Configuration Studio

User's Guide

WRM Configuration Studio User's Guide

User's Guide — Rev 3

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Comments and corrections may be sent to:

Mirion Technologies
Suite 150
5000 Highlands Parkway
Smyrna, Georgia 30082

Revision Log for User's Guide

Index/Date Written by	Modified pages of this document	Origin and designation of the modification(s)
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Revision 0, September 9, 2011 Perry White, Mirion Technologies	All	Document number changed from 16-00132 to 16-00165.
Revision 1, September 9, 2011 Perry White, Mirion Technologies	31 39 51 51-52 53-54	Adjusted instructions on selecting com ports. Changed Appendix A title Updated Diagnostics section. Updated Telemetry section. Updated Settings section.
Revision 2, October 20, 2011 Daniel Mojahedi, Mirion Technologies	19, 21 42	Added information on Configuration Screen. Revised installation instructions.
Revision 3, Mach 20, 2013 Andrey Limonchenko, Mirion Technologies	All	Updated screen captures. Added changes related to the release of the Telemetry Module.

Table of Contents

1. About this Guide

1.1 Purpose

The *WRM Configuration Studio User's Guide* describes how to install, configure and use the WRM Configuration Studio software. It also provides a troubleshooting guide to assist in solving problems, should they occur.

1.2 Audience

The person setting up and configuring the WRM Configuration Studio system is expected to be familiar with desktop PCs and serial communication settings.

1.3 Scope

This guide describes how to install, configure, use and troubleshoot the WRM Configuration Studio.

1.4 Organization of this guide

In addition to this section, the *WRM Configuration Studio User's Guide* contains 4 more sections:

- "Introduction to the *WRM Configuration Studio*"
- "Setup"
- "Operation"
- "Getting Started"
- "Troubleshooting"

2. Introduction

2.1 Introduction

This section discusses the *WRM Configuration Studio* design philosophy. It describes how it is used to read, configure, and verify the transmitter settings. The topics are:

- *WRM Configuration Studio* overview
- *Terminology used in this document*
- *WRM Configuration Studio* Design Philosophy
- *WRM Configuration Studio* components
- *WRM Configuration Studio* Operation Overview
- *WRM Configuration Studio* features

2.2 WRM Configuration Studio overview

The WRM Configuration Studio is a software solution providing the ability to read and write configuration settings for the WRM transmitters and radios.

2.3 Terminology used in this document

In this document:

"Dosimeter" or "DMC" refers to an electronic dosimeter manufactured by and marketed by Mirion Technologies.

“End User” refers to the operator that is using the WRM Configuration software.

"PC" refers to the hardware, running Windows Operating System.

"Profile" refers to a configuration settings file, saved with a .pro extension.

"WRM2" or Wireless Remote Monitoring System 2nd Generation, refers to a system of Radio devices used to transfer dosimeter data wirelessly for monitoring purposes.

"Download" refers to the process of copying or moving a file from one computer system to another.

2.4 WRM Configuration Studio Design Philosophy

The *WRM Configuration Studio's* primary design goal is to provide a method for programming configuration settings in a WRM transmitters and radios using a graphical user interface.

2.5 *WRM Configuration Studio* Components

The *WRM Configuration Studio is a standalone software tool that can be installed on the end-user's computer.*

The software consists of an executable, library, and configuration files. The software is compatible with 32 and 64 bit Windows XP and newer.

2.6 WRM Configuration Studio Operation Overview

The *WRM Configuration Studio* reads and writes configuration which can be saved and loaded to and from a network or a system drive. New firmware version can also be loaded into a transmitter device or WRM2 Radio. Finally, when connected to a receiving telemetry device (i.e. Base) the software can monitor and analyze incoming data.

2.6.1 User Interface

The user interface consists of one main screen with 4 tabs: The main screen is accessible after completing the user login. The first (default) or starting tab is the "Transmitter Configuration" tab. This tab is used to read and write settings to the iPAM devices. The second tab - "Radio Configuration" - is used to read and write configuration settings to any of the WRM2 radios. The third tab - "Settings" - is used to change the serial port settings. The fourth tab - "Diagnostics" - displays a grid of all devices transmitting WRM2 data, and a Data Analysis screen displays statistical analysis of the telemetry data. Admin user has access to the security screen that is used to add or remove system users.

2.6.2 The About Screen

The About Screen displays the Mirion Technologies logo, the application name and the application version number.

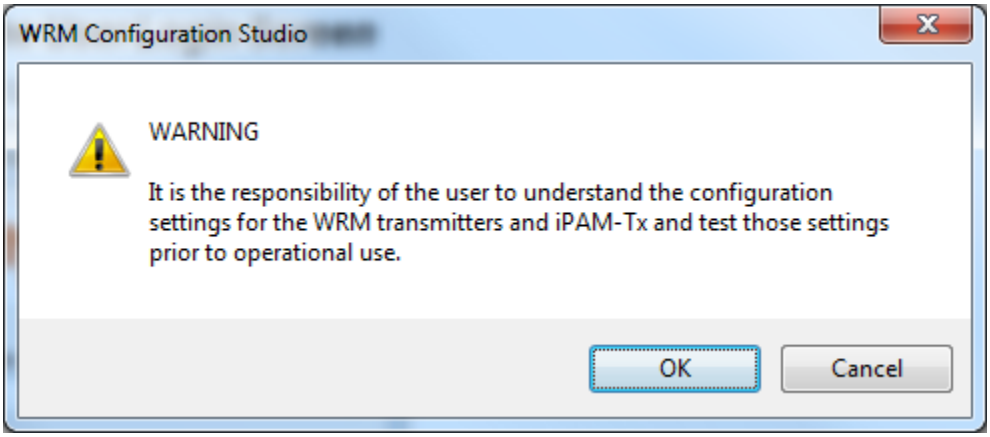
2.6.3 The User Login Screen

The User Login Screen is displayed automatically at startup.

NOTE: The User name is "Admin" and the password field is left blank.

2.6.4 The Warning Pop-up

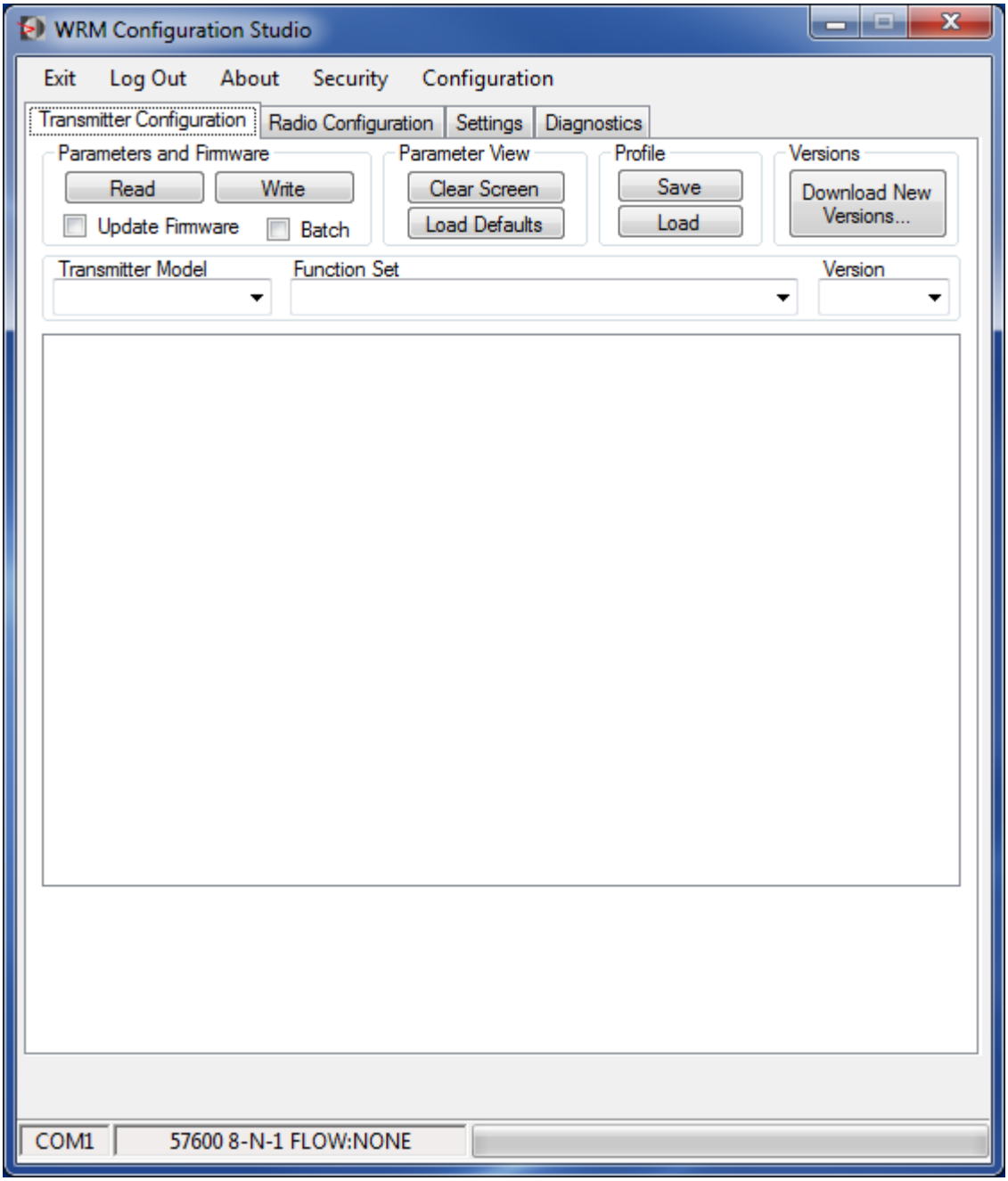
The Warning Pop-up is displayed right after the User Login Screen.



2.6.5 The Main Operation Screen

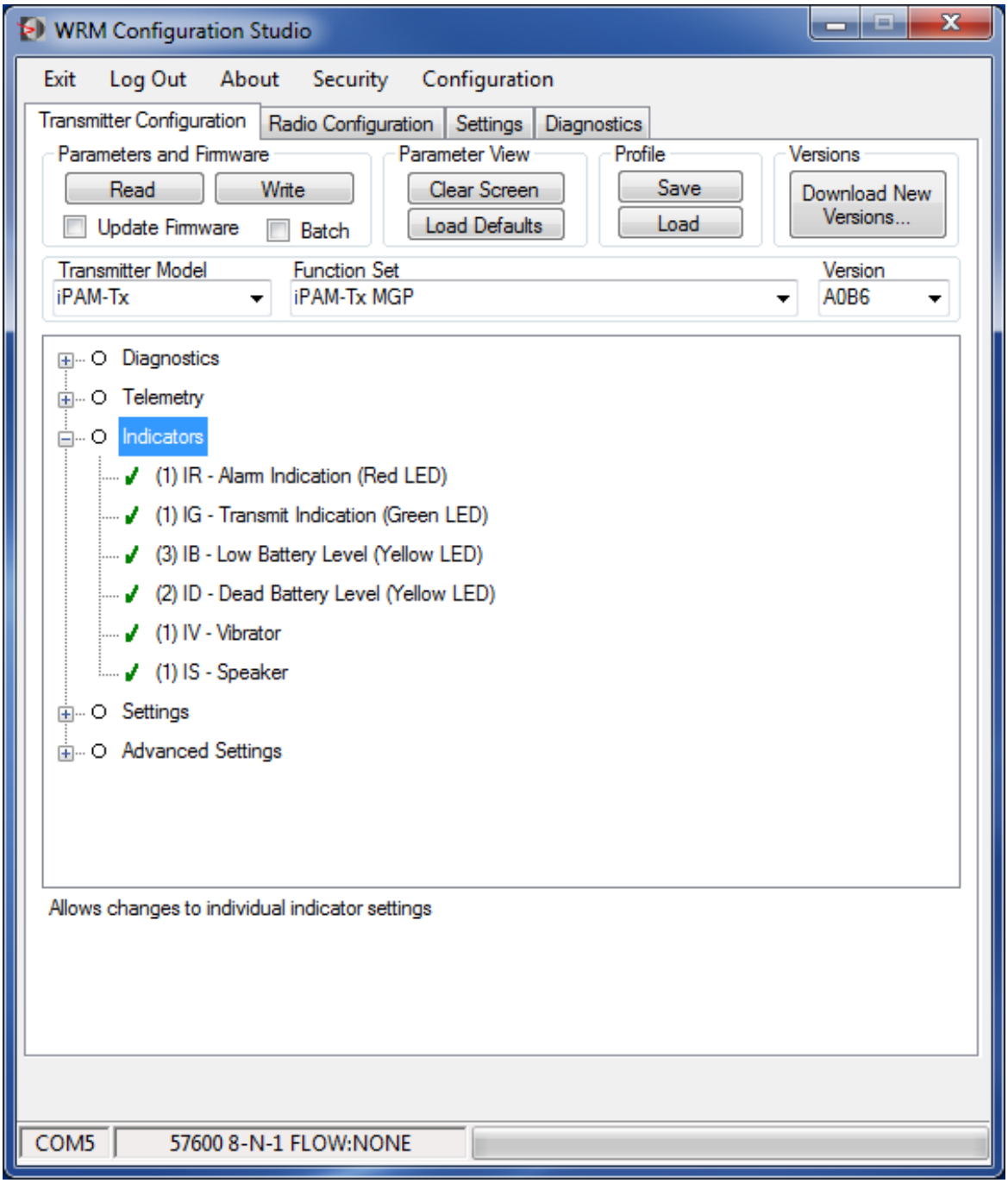
The Main Operation Screen is displayed after login. This screen is where all settings can be view or changed as desired by the end user.

NOTE: The “Security” menu is only visible for admin users.



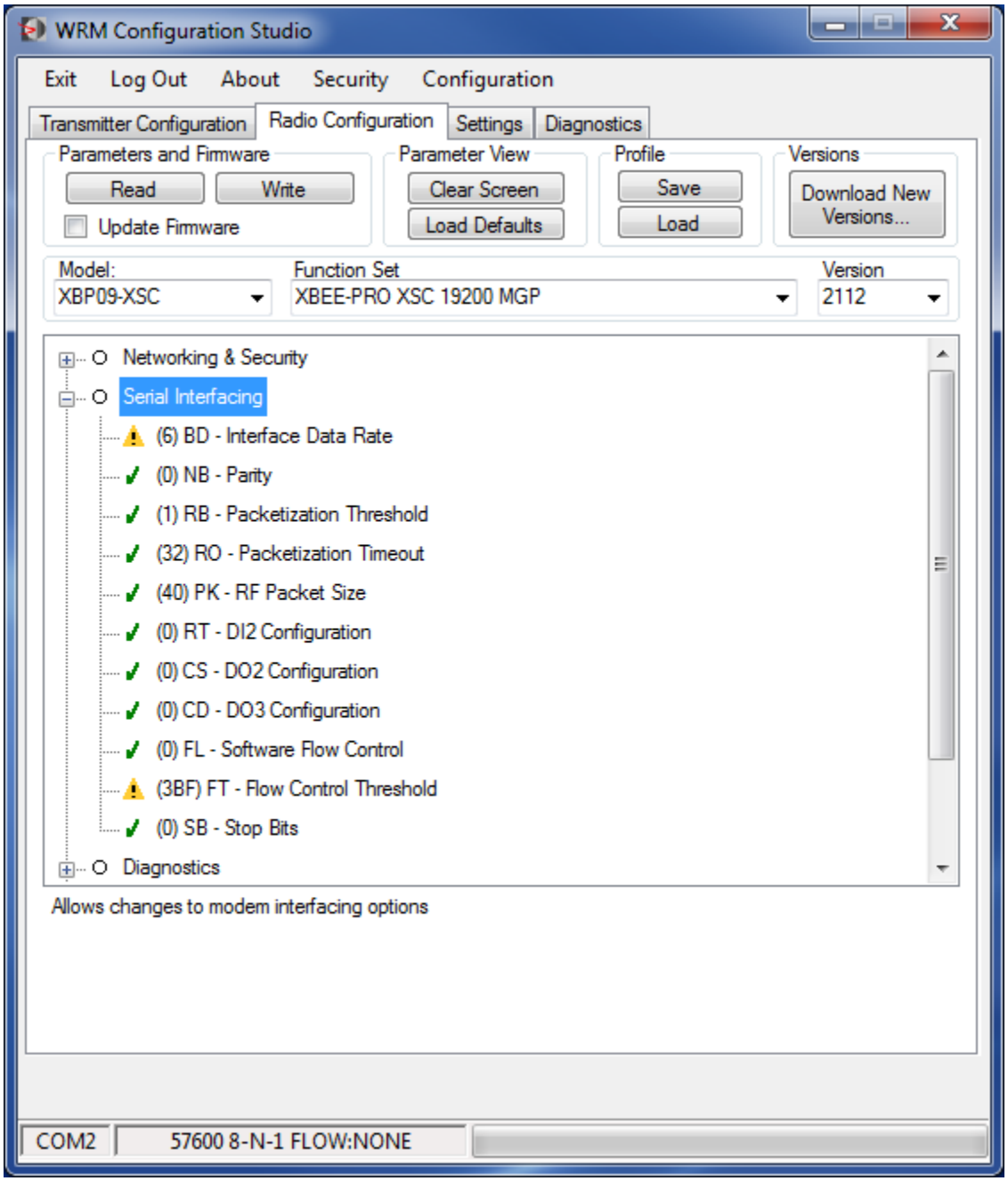
The Transmitter Configuration Tab

The Transmitter Configuration tab displays all of the settings that are available for the currently selected version of the transmitter firmware.



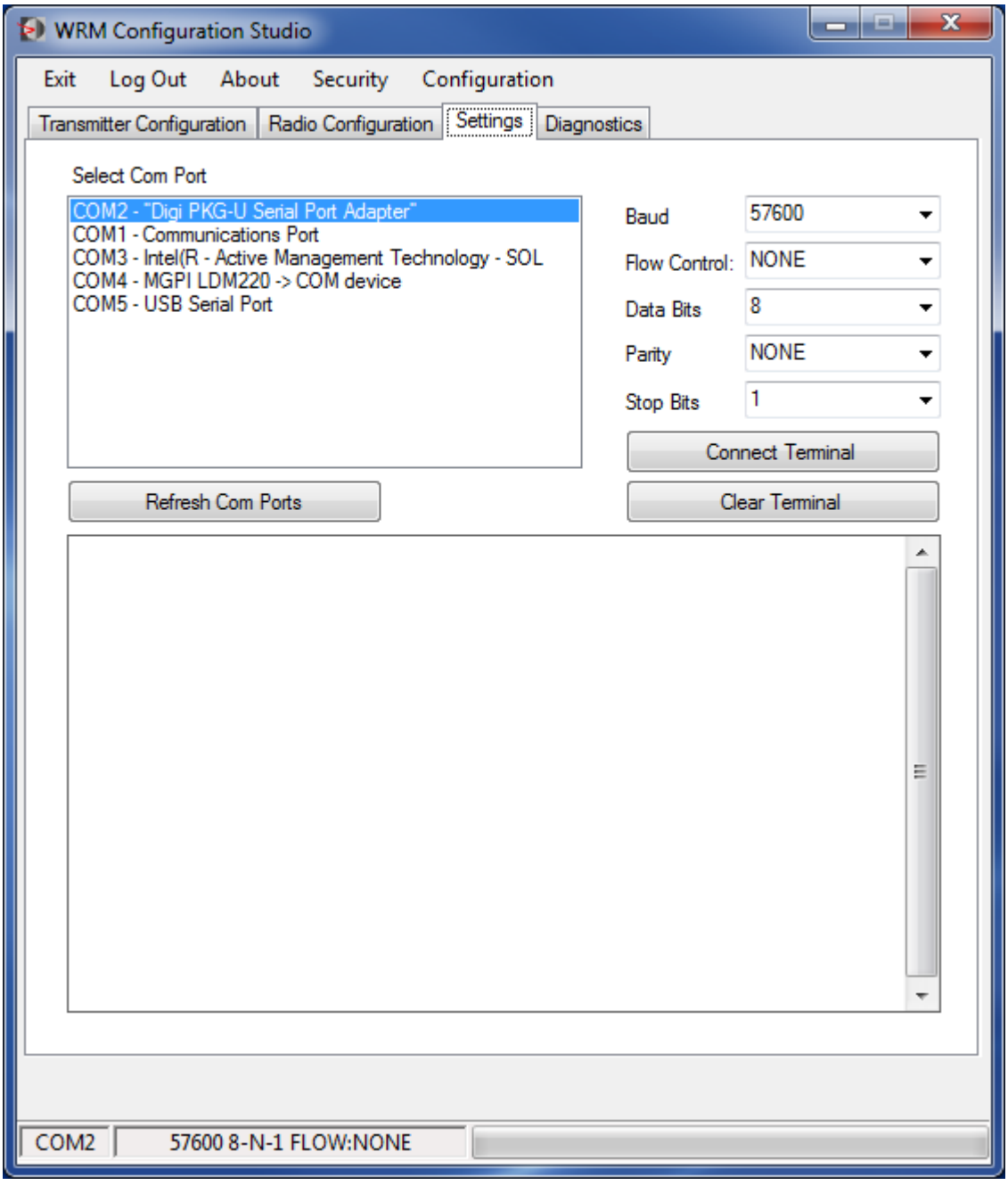
The Radio Configuration Tab

The Radio Configuration tab displays all of the settings that are available for the currently selected version of the radio firmware.



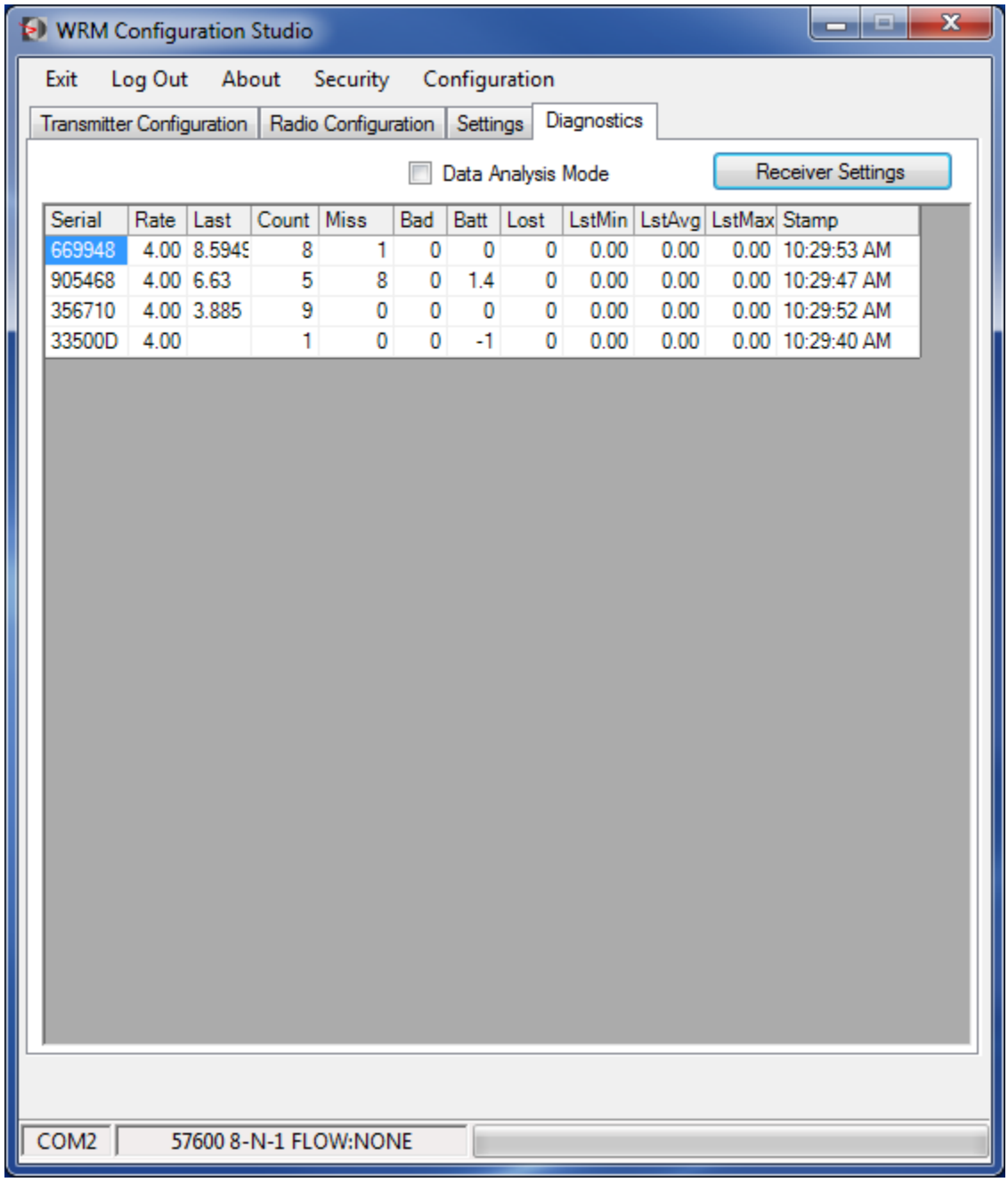
The Settings Tab

The Settings tab is used to change the currently selected communication port settings. *It is recommended that the user have necessary IT knowledge prior to changing serial port settings*.



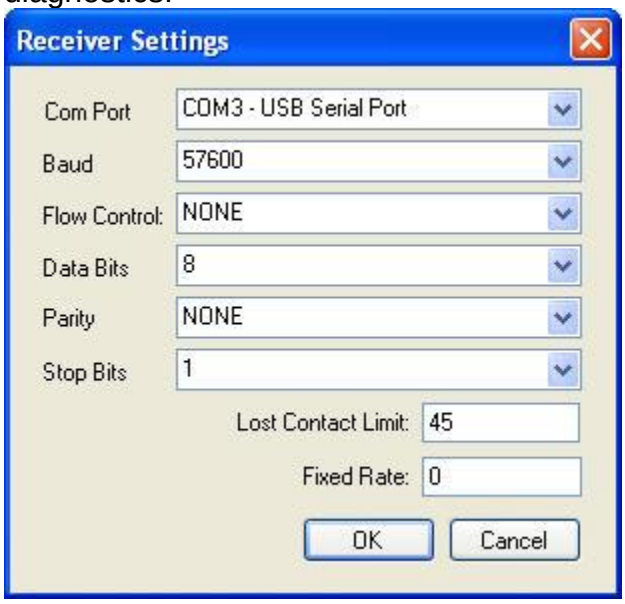
The Diagnostics Tab

The Diagnostics tab is used to display information collected from an attached WRM2 Radio with the receiver enabled.



Receiver Settings

The Receiver Settings window is used to configure com port settings to connect to the receiver and change parameters that will be used for diagnostics.



Data Analysis Mode Screen

The Data Analysis Mode frame displays statistical analysis of the data in the grid.

2.6.6 The Security Screen

The Security Screen is used to configure and assign access rights to users of the WRM Configuration Studio Software.

2.7 WRM Configuration Studio features

WRM Configuration Studio features the following:

- ✓ Transmitter Settings Configuration
- ✓ WRM2 Radio Settings Configuration
- ✓ Security login - Admin or Read Only users
- ✓ Transmitter Batch Update

3. Setup

3.1 Introduction

The *WRM Configuration Studio* is delivered as a Windows installer package on CD or removable media.

The WRM Configuration Studio software is intended to be used by customers that already own the required hardware.

The system has been designed to be fully functional with default settings.

This section will discuss how to install the software.

3.2 Software Installation

3.2.1 Requirements

The WRM Configuration Studio software requires the following:

Minimum Requirements:

- Windows XP compatible PC, 1.2 GHz or better
- Microsoft Windows XP Service Pack 2 (32-bit or 64-bit)

Requirements for software installation:

- A CD-ROM drive or a USB Flash drive with the installation files.

3.2.2 WRM Configuration Studio Software

In the kit, the following software files are needed for installation.

File	Description
InstallWRMConfigStudio.msi	The main setup file of the *WRM Configuration Studio*.
setup.exe	The secondary setup executable

3.2.3 Installation

Run the file “InstallWRMConfigStudio.msi” to install the WRM Configuration Studio software. It will prompt for the installation directory and any other information that may be required.

4. Operation

4.1 Introduction

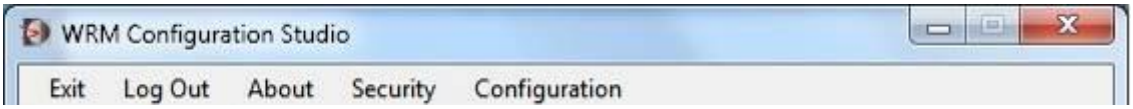
The system is designed to be run at the time the user wants to view or change transmitter or Radio Configuration settings.

4.2 Main Screen

The Main Screen is displayed after the user completes the login process.

4.2.1 Menu

The main screen has five menu items.



Exit - Clicking exit will close the WRM Configuration Studio application.

Log in /Log out - The Login / Log out menu items text will change from “Login” when not logged in to “Log Out” when the user is logged in. Click this option to Login or Log Out as desired.

About - *The About menu item will display the about box.*

Security - *The Security menu item will only be visible for users who have admin rights. Clicking this menu item will display the User maintenance Window.*

Configuration - *The Configuration menu item will allow users to choose the software’s display language (currently only English is available) and unit of measure.*

4.2.2 Security Screen

The security screen is used to add, remove and edit WRM Configuration Studio users.

Users - The Users List is populated with the username for each user already entered in the system. To add a new user, simply type a Username for the new user into the users' list box and enter a password.

Password - The Password text entry field is optional. Enter a password for each user as desired. This field is masked to hide the characters entered by displaying each character as an asterisk "*".

Verify Password - Enter the same password that was entered into the password field. The two passwords must be identical to save the record.

Admin User - The Admin User check box option can be checked for individual users as required.

New Button - The "New" button will replace the name of whichever user is currently selected with the text "<Enter User Name>". Use of this button is not necessary to create a new user.

Delete Button - The Delete Button will delete all information for the currently selected user.

Save & Exit Button - The Save & Exit Button will save the settings for the currently selected user's account and closes the window.

Cancel Button - The Cancel Button will close the window without saving any of the changes that were made.

4.2.3 Configuration Screen

The configuration screen is used to choose what language and unit of measure the software will display.

Language - The Language List is a dropdown menu that allows users to choose what language the software will display (currently only English is available).

Units of measure – The Units of measure List is a dropdown menu that allows users to choose what units of measure the software will display. The following options are available:

- mRem (millirem)
- mSv (millisievert)
- µSv (microsievert)

4.3 Tabs

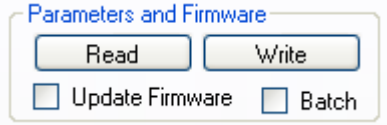
There are four tabs which contain all of the WRM Configuration Studio tools. Functionality for each tab is described in following sections.

4.3.1 Transmitter Configuration Operation Tab

Configuration settings will be displayed in the tree view on the Transmitter Configuration or Radio Configuration tabs once they are read from the device.

Parameters and Firmware

The Parameters and Firmware section contains the controls that are used to read and write the parameters and firmware to and from the transmitter.



Read Button

Pressing the Read Button will read the parameter settings from the transmitter and load the settings for viewing in the tree view.

Write Button

The Write Button will write the parameters setting (as they exist currently in the tree view) to the transmitter.

Update Firmware checkbox

The Update Firmware checkbox is used to direct the WRM Configuration Studio software to run the routine to update the transmitter Firmware on the next write request.

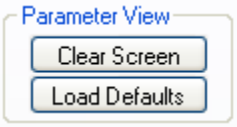
Batch checkbox

The Batch checkbox when selected will direct the WRM Configuration Studio software to run the same write request for multiple transmitters.*

** You will be prompted when to disconnect and reconnect transmitters as necessary.*

Parameter View

The Parameter View Section contains the controls to change all values in the tree view to either the factory default or blank values.



Clear Screen

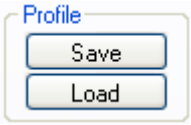
The Clear Screen button will erase values from all of the parameters listed in the tree view.

Load Defaults

The Load Defaults button will populate the factory default values for all of the parameters listed in the tree view.

Profile

The Profile Section contains the controls used to load or save user defined preset values to or from the tree view.



Save Button

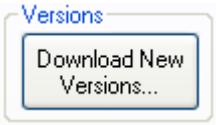
The Save Button will prompt you for where to save the profile and save the values from the tree view into the file so they can be used later.

Load Button

The Load Button will prompt you to select a saved profile file and load the saved values into the tree view.

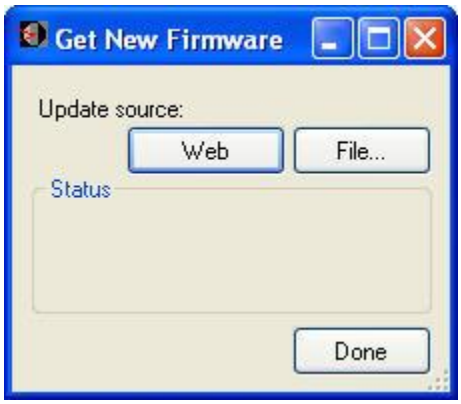
Versions

The Versions section has a button used to load newer firmware into the system as needed.



Download New Versions… Button

The Download New Versions… Button will display the Download screen.



Web Button

The Web Button will direct the WRM Configuration Studio software to search for newer versions of the firmware online.*

**The computer must be connected to the internet for this functionality.*

File Button

The File Button, when pressed, will prompt the user to select the .zip file containing the new firmware. Typically this file will have been supplied to the user by Mirion.

Status

After the update is complete the status will show the count of new firmware versions that were loaded.

Done Button

The Done Button will close the Get New Firmware window and return to the main window.

Firmware Selection

A transmitter firmware version is categorized by the model of the transmitter and the function set. Each model of a transmitter could have several different function sets and each function set could have several firmware versions. When you read the parameters from the transmitter the current model, function set, and firmware version is displayed.

Transmitter Model

The Transmitter Model field displays the currently selected model of transmitter that you are working with. You can select an item from this list. This item will also populate automatically according to the values stored in a transmitter after completing a successful read of the parameters.

Function Set

The Function Set field displays the currently selected Function Set for the model of a transmitter that the user is working with. This item can be selected by the user. This item will also populate automatically according to the values stored in the transmitter after a successful reading of the parameters.

Version

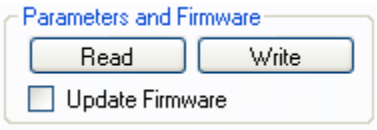
The Version field displays the current firmware version for the model of a transmitter that the user is working with. This item can be selected by the user. This item will also populate automatically according to the values stored in the transmitter after a successful reading of the parameters.

4.3.2 Radio Configuration Tab

Configuration settings will be displayed in the tree view on the Radio Configuration tab once they are read from the radio.

Parameters and Firmware

The Parameters and Firmware section contains the controls that are used to read and write the parameters and firmware to and from the radio.



Read Button

The Read Button will read the parameter settings from the radio and load the settings for viewing in the tree view.

Write Button

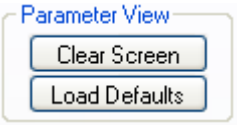
The Write Button will write the parameters settings, as they exist currently in the tree view, to the radio.

Update Firmware checkbox

The Update Firmware checkbox is used to direct the WRM Configuration Studio software to run the routine to update the radio firmware on the next write request.

Parameter View

The Parameter View Section contains the controls to change all values in the tree view to either the default or blank values.



Clear Screen

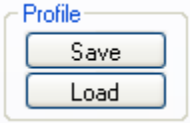
The Clear Screen button will erase values from all of the parameters listed in the tree view.

Load Defaults

The Load Defaults button will populate the default values for all of the parameters listed in the tree view.

Profile

The Profile Section contains the controls used to save or load user defined values to or from the tree view.



Save Button

The Save Button will prompt the user where to save the profile and save the values from the tree view into the file so they can be used later.

Load Button

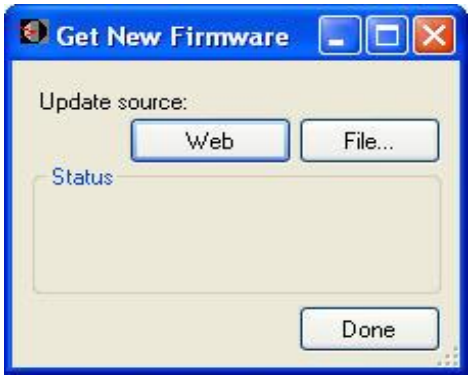
The Load Button will prompt the user to select a saved profile file and load the saved settings into the tree view.

Versions

The Versions section has a button used to load newer firmware into the system as needed.

Download New Versions… Button

The Download New Versions… Button will display the Download screen.



Web Button

The Web Button will direct the WRM Configuration Studio software to search for newer versions of the firmware online.*

**The computer must be connected to the internet for this functionality.*

File Button

The File Button when pressed will prompt the user to select the .zip file containing the new firmware. Typically this file will have been supplied to the user by Mirion Technologies.

Status

After the update is complete the status will show the count of new firmware versions that were loaded.

Done Button

The Done Button will close the Get New Firmware dialog and return to the main window.

Firmware Selection

The firmware version of the radio is categorized by the model of a transmitter and the function set. Each model of the radio could have several different function sets and each function set could have several firmware versions. When you read the parameters from the radio the current model, function set and firmware version is displayed.

Model

The Model Field will display the model for the radio after a successful reading of the parameters. This displays the currently selected model of radio that the user is working with. Selecting a model will cause the Function set list to be populated with the function sets available for that model of radio.

Function Set

The Function Set field will display the current function set found in the radio after a successful reading of the parameters. The Function Set field displays the currently selected function set for the model of radio that the user is working with. Selecting a function set will cause the Version list to be populated with the versions available for the selected function set.

Version

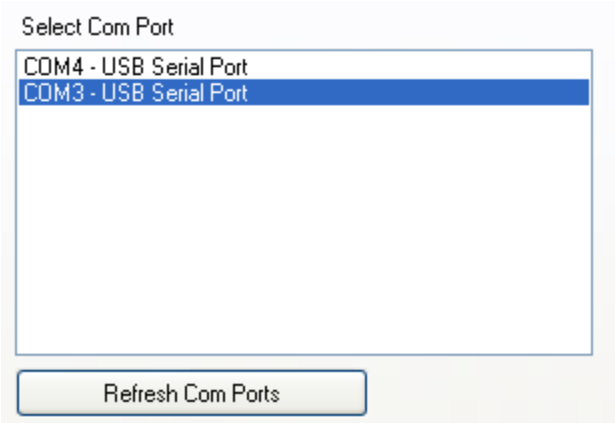
The Version field will display the version found in the radio after a successful reading of the parameters. The Version field displays the current firmware version for the model of radio that the user is working with.

4.3.3 Settings Tab

The Settings Tab contains the settings for setting up the serial communication with the transmitters or radios.

Select Com Port List

The Com Port List shows all of the currently functional com ports as reported by the Windows® operating system. Select the com port that is associated with the serial connection to your device.



Refresh Com Ports Button

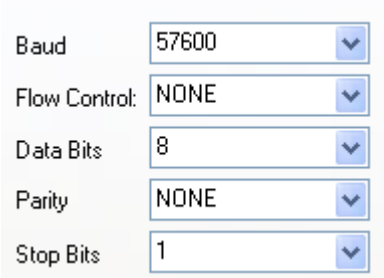
Refresh Com Ports Button can be used to refresh the list of available com ports. This will cause the WRM Configuration Studio to scan the system for newly connected com ports. *Most widely applicable to USB serial ports.*

Serial Port Settings

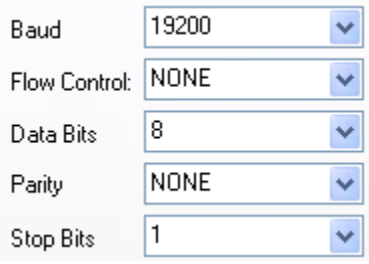
Select the appropriate Baud rate, Flow Control, Data Bits, Parity and Stop Bits settings from the selection lists that match your serial device.

Default values are:

- *Transmitter*



- *WRM2 Radio*



Connect Terminal Button

Click this button to open the serial port connection. This will activate the terminal window. *Terminal commands are virtually all "device specific". Commands used by the transmitter are discussed in Appendix B of this manual.*

Clear Terminal Button

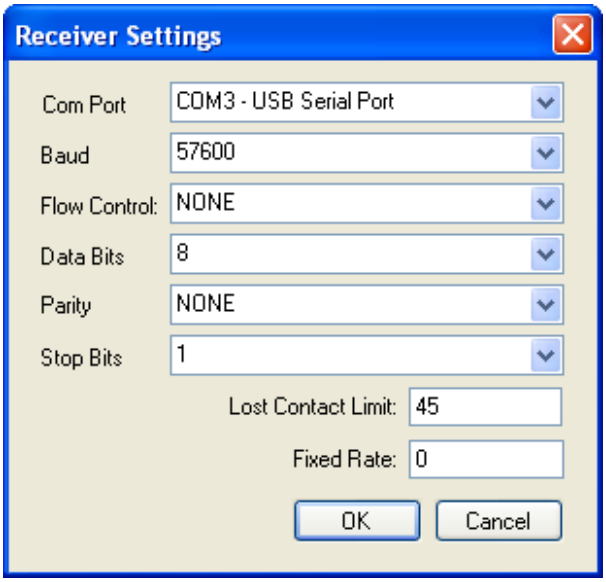
Click this to clear the terminal window.

4.3.4 Diagnostics Tab

The Diagnostics Tab displays telemetry diagnostics. The intention is to give the user statistical data about the functionality of the telemetry network (e.g. how many transmissions are successfully being received).

Receiver Settings Button

Loads the following Receiver settings window:



Select the correct serial port settings for your WRM2 receiver.

Lost Contact Limit

Lost Contact is defined as the maximum number of seconds without receiving a transmission from the device. This number is used to calculate lost contact intervals.

Fixed Rate

Fixed Rate is the number of seconds expected between transmissions. This should be used if all of your devices are transmitting at the same constant rate. Otherwise set this value to "0" to calculate the transmission interval real time.*

**The value is the middle value of the last 3 intervals*.

Data Analysis Mode

Selecting this mode will hide the data grid and display only statistical analysis of the collected data.

Data Grid

The data grid shows information about the data transmissions that are being received by the WRM2 Radio.

Serial	Rate	Last	Count	Miss	Bad	Batt	Lost	LstMin	LstAvg	LstMax	Stamp
662989	3.89	3.906	1321	21	0	1.1	0	0.00	0.00	0.00	12:11:06 PM
662988	3.91	4	1323	19	0	1.2	0	0.00	0.00	0.00	12:11:08 PM
012898	3.89	3.906	1312	26	0	0	0	0.00	0.00	0.00	12:11:06 PM

Serial – The Serial number of the Dosimeter.

Rate – The transmission rate. *Calculated or Fixed rate.*

Last – Time interval between the last two transmissions

Count – The number of received transmissions

Miss – The number of perceived missed transmissions.

Bad – The number of incomplete packets received

Batt – The Battery level of the transmitter (if feature is available)

Lost – The count of lost contact intervals

LstMin – The minimum amount of time that the device was in lost contact

LstAvg – The average amount of time that the device was in lost contact

LstMax – The maximum amount of time that the device was in lost contact

4.3.5 Status Bar

The Status bar is displayed at the bottom of the main screen. The status bar displays information that is relative to the whole form. The status bar consists of the following three sections:

Current Port - This section of the status bar displays which com port is currently selected, eg: COM16.

Port Settings - This section of the status bar displays the currently selected serial port connection parameters.

Progress Bar - This section of the status bar displays a progress bar that is updated during time consuming processes to so the user can judge how much time is remaining.

5. Getting Started

5.1 Introduction

If you have read through this manual to get to this point then you will certainly know the purpose for each button, list and checkbox in this application and how it functions. If you jumped straight to this chapter, then you now know that you can always look at the previous chapters to find that information. This Section in the user guide is designed to get you started configuring transmitters with the WRM Configuration Studio.

5.2 Device Configuration overview

WRM configuration is performed by reading and writing settings to and from the individual devices connected through a serial port. You also have the ability to save those settings as a profile (.pro file) to disk as well as loading saved profile settings from those .pro files into the configuration studio software, so they can be written to the device.

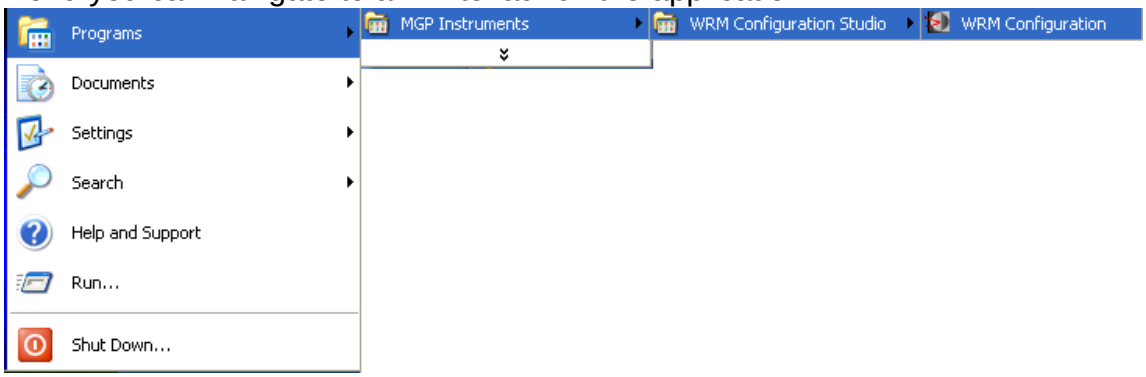
5.3 Connecting a Transmitter

Making a connection to a device is a two step process. First you have a physical connection, the wire that connects from the computer's serial/USB port to the WRM hardware, and then you have the serial port settings that have to be setup correctly.

- Connecting the device should be fairly straight forward. Remember that your device came with the connection cable you will need.
- In order to configure the serial port settings for your connection you will need to open the WRM Configuration Studio application.

5.4 Launching the Application

If you have not installed the WRM Configuration Studio application yet please follow the setup instructions in Section 3 Setup on page 17 of this manual. From your start programs menu you can navigate to a link to launch the application.



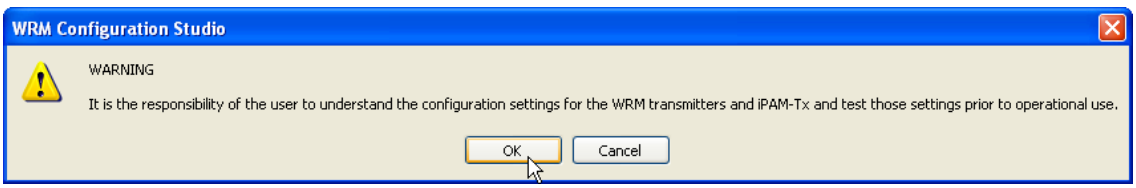
5.5 Login

The WRM Configuration Studio is equipped with a simple user security feature. The default login is: User name "Admin" and leave the password field blank, just click OK.

NOTE: to add or change users please refer to Section 4 Operations on page 19 of this manual.

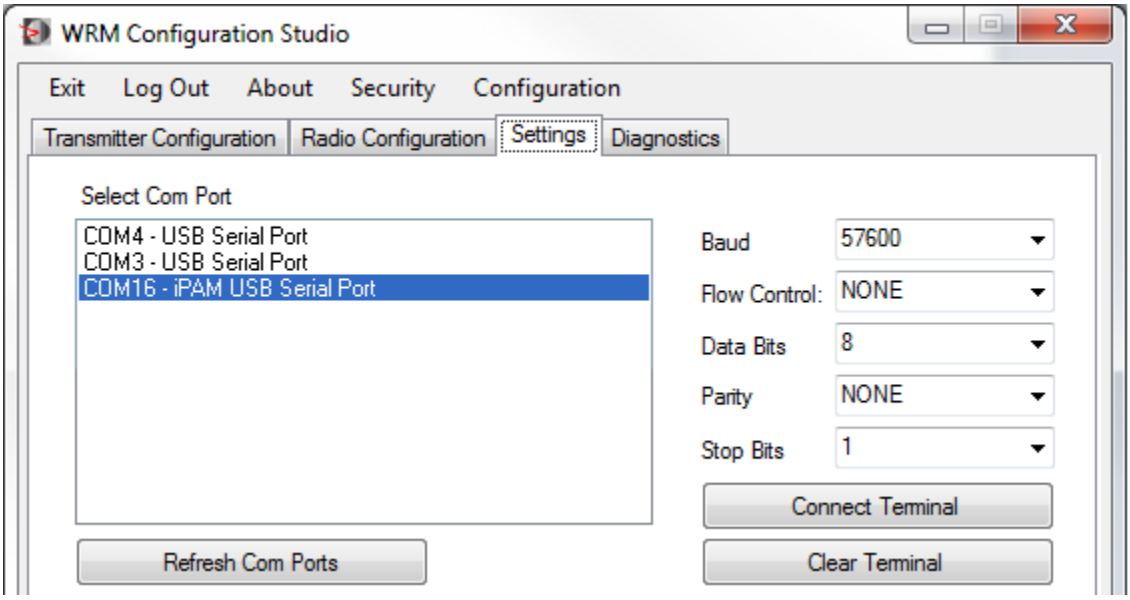
5.6 Warning Message

Please read the warning message and then press OK to continue.



5.7 Serial Port Properties

The current serial port settings will be visible in the status bar at the bottom of the main screen. If you know these settings are all correct for your connection then you are ready to read and write settings to your device, skip ahead to Section 5.8 Reading Parameters. If you are not sure these settings are correct, navigate to the settings tab.

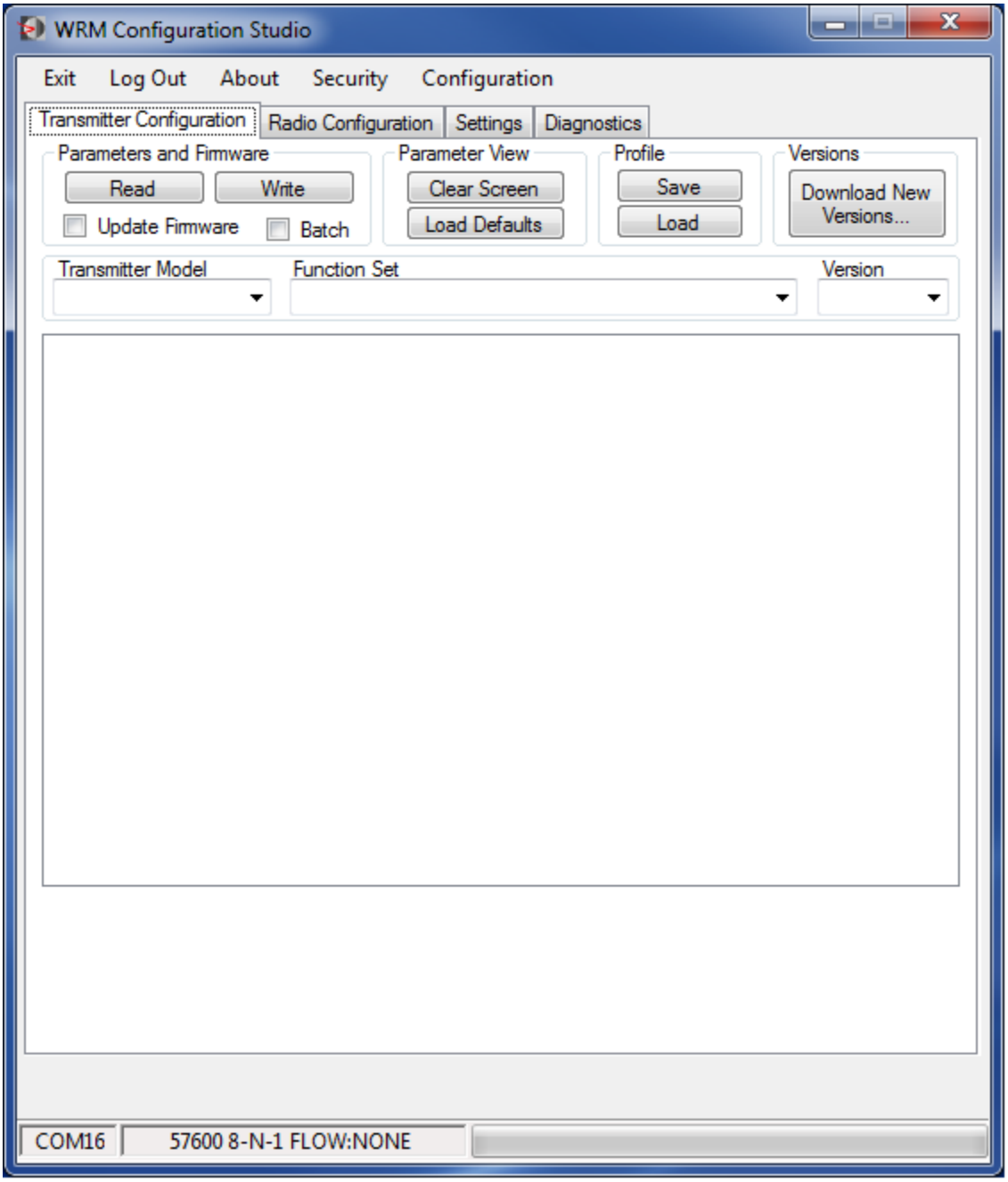


- Select Com Port - Select the correct port from the list. The same serial port will not be applicable for every computer. If you do not see the serial port you expect, click the refresh button to refresh the list.
- Select the appropriate baud rate for the device that you will be programming. Typical settings are: 57,600 for iPAM-Tx and Telemetry Module; 19,200 for Base. Certain devices may be configured at 9600 baud. For an appropriate baud rate refer to the WRM2 User Manual.
- All of the other serial port settings are the same for all of the Mirion Technologies WRM devices as shown above None, 8, None,1.

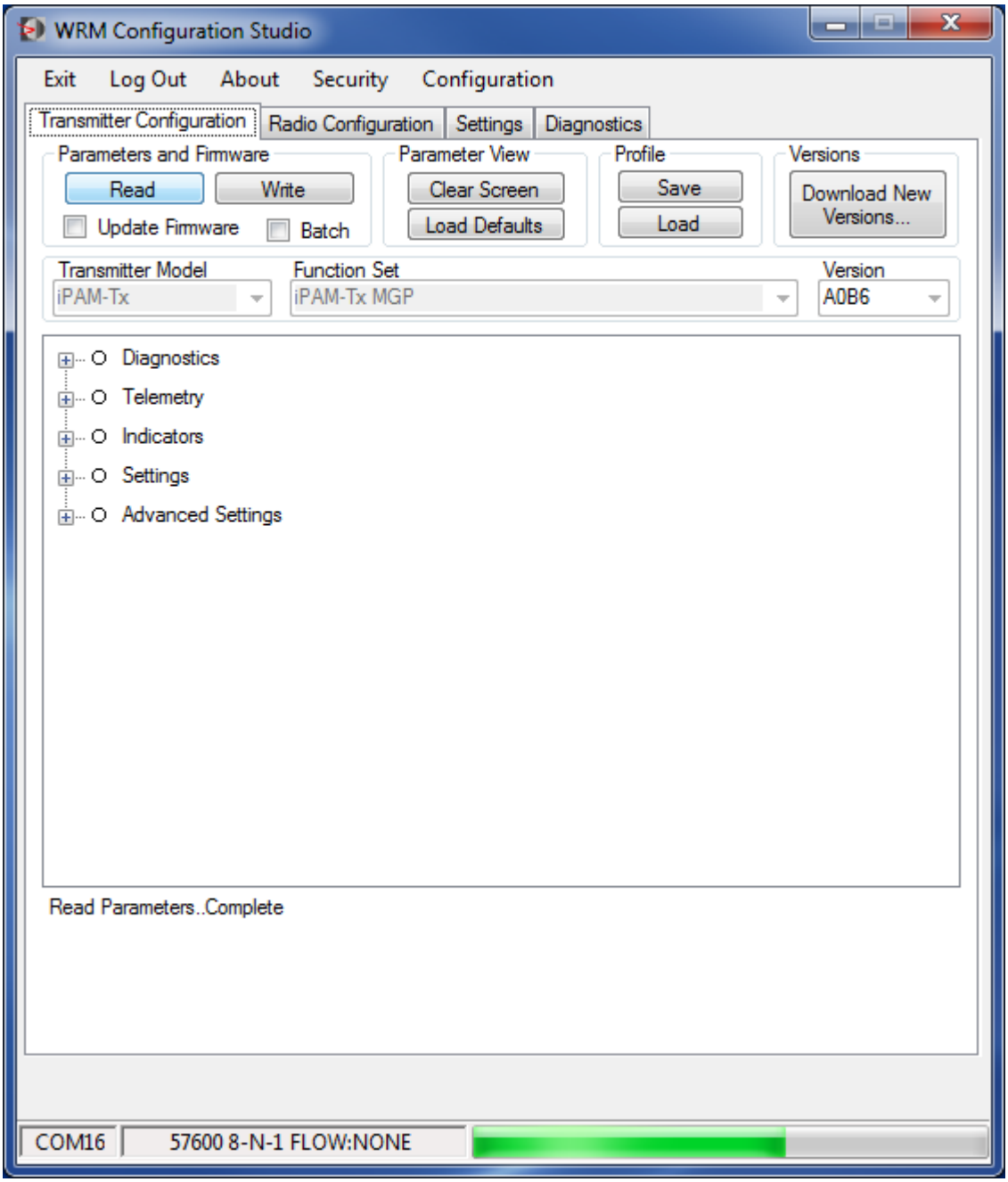
Once all of your settings are entered you will want to test the connection settings by navigating to the appropriate tab and selecting to read the values from the device.

5.8 Reading Parameters

In order to read parameter values from one of the WRM devices, you will need to be on the appropriate tab. To read and change settings in the transmitter you will need to be on the "Transmitter Configuration" tab. For all other WRM devices choose the "Radio Configuration" tab.



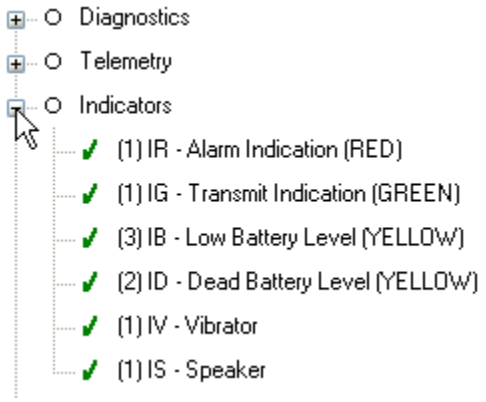
Look at the bottom of the screen to double check that the correct port settings are in use, and then click the Read button.



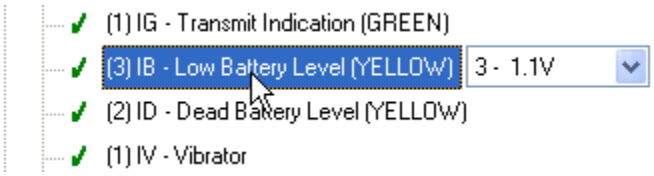
Wait for the progress bar to fill completely and then the status will say "Read Parameters..Complete".

5.9 Selecting a parameter

Click the plus sign in the tree view to open that branch.



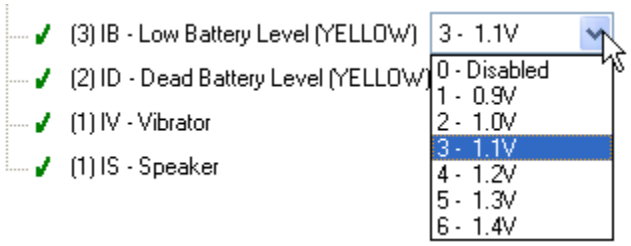
Then click on the item to access the parameter settings.



Notice the drop down list is now available, with current setting selected.

5.10 Changing a parameter

Click the drop down box to show the available settings.



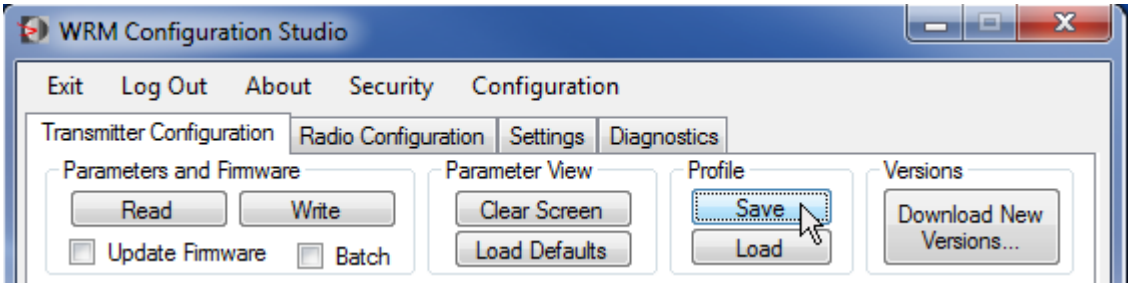
Select from the list of available settings to change the value in the tree.

Note: Icon images

- The green check icon says the value selected is the default value for this parameter.
- The caution icon says the value selected is not the default.
- The red x icon means the value entered is not in the range of acceptable values.

5.11 Saving Parameters

Once a configuration and/or verification of all of the parameters has been completed, those parameter values can be saved as a profile for retrieval at a later time.

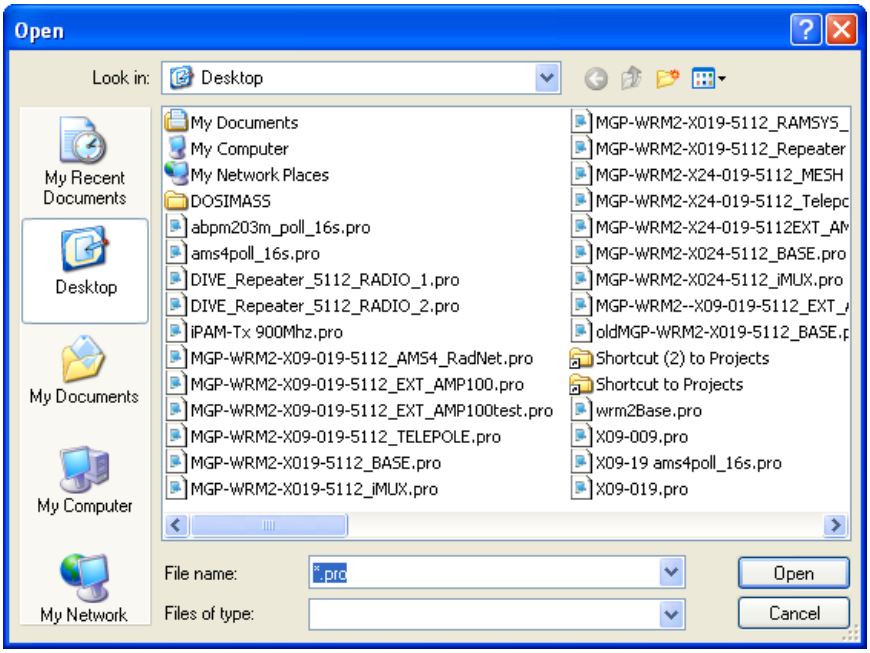


The Save button will allows saving the values currently in the tree to a profile (.pro file). Click Save and the "Save As" dialog will open. Choose the directory and enter a descriptive filename for the profile and click the "Save" button on the dialog window.

Look at the status area toward the bottom of the configuration tab and "Save Complete!" will indicate a successful save. A file path showing where the file has been saved to is also displayed.

5.12 Loading Parameters

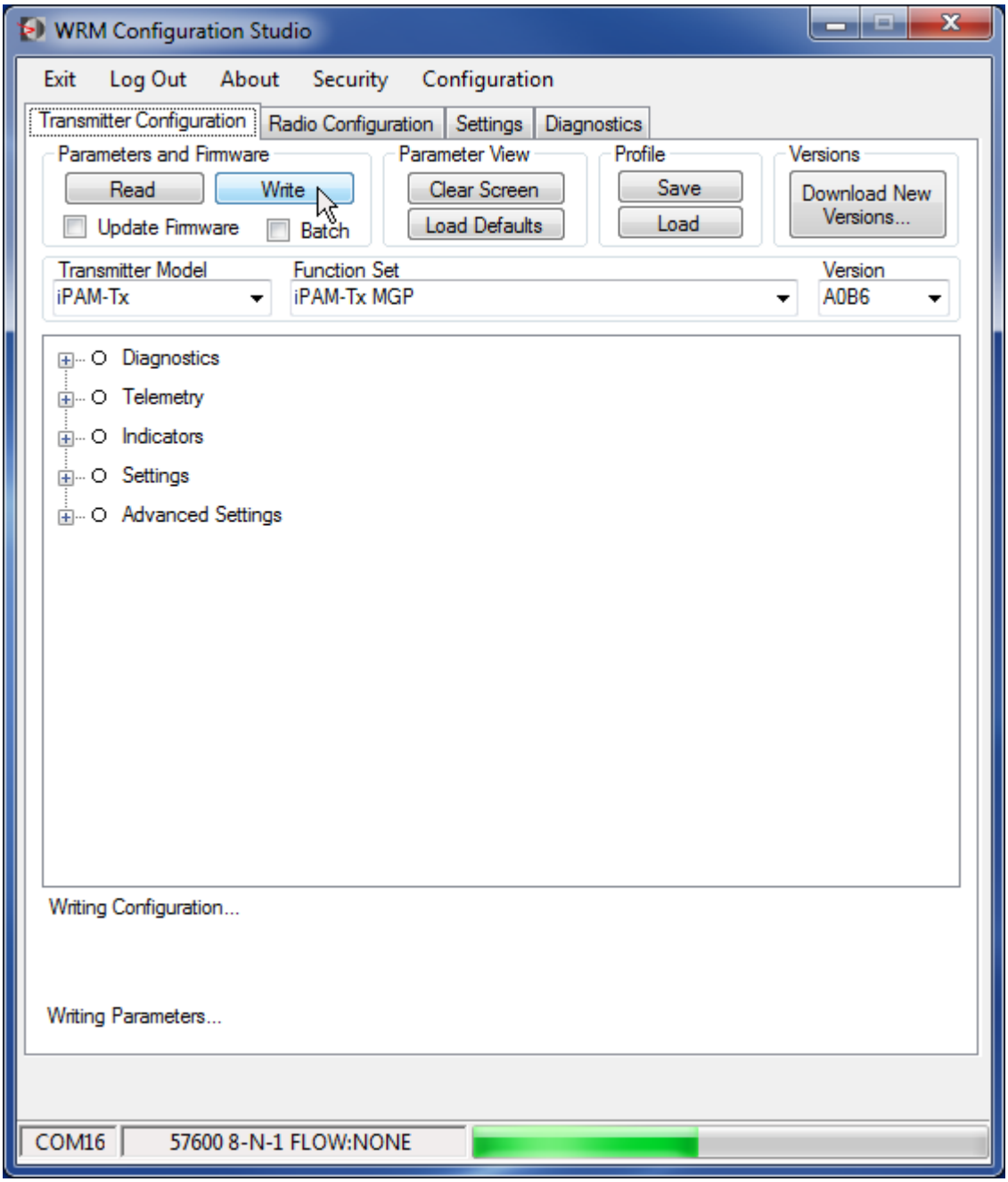
If a previously saved profile already exists, loading can be performed by selecting the "Load" button. Clicking the Load button will cause the Open dialog window to appear. Browse for the directory with a desired profile (.pro file) and select it from the list then click the "Open" button on the dialog window.



At the status area toward the bottom of the configuration tab "Load profile parameters…Complete!" indicates successful loading of a profile.

5.13 Writing Parameters

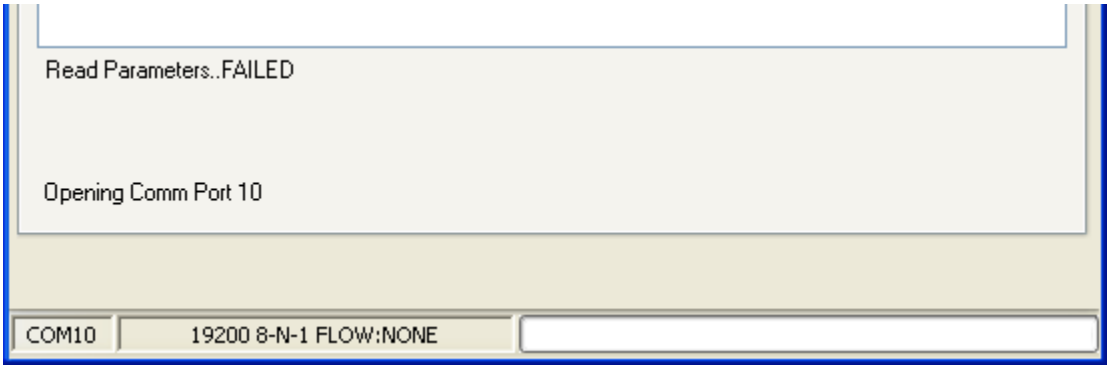
Once all of the planned parameter value have been loaded, those values need to be written to the the transmitter or radio. Click the "Write" button. Once the values are written to the device the functionality of the device should change based on the new parameter values.



Wait for the progress bar to fill completely and the status should read "Writing Configuration…Complete!".

6. Troubleshooting

There is a status message area on the lower portion of the Main Operation Screen to indicate error conditions as shown below:



Certain errors are normal due to the nature of serial communications. Other errors may arise if the firmware of the transmitter or WMR2 radio is not installed in the WRM Configuration Studio.

Errors displayed here should be a typical problem impairing normal operation. In this case please follow these steps:

- Check to be sure the correct serial port and port settings are selected.
- Check if you have the right version of the Firmware installed on the PC.
- Disconnect and reconnect your transmitter and try your operation again.
- Report the information collected to Mirion Technologies.

Appendix A

iPAM Quick Start Guide

Mirion Technologies

A1. Preparation

A1.1 Remove battery from a transmitter

A1.2 Connect the iPAM

- Connect the iPAM to your computer's USB port with the supplied cable.

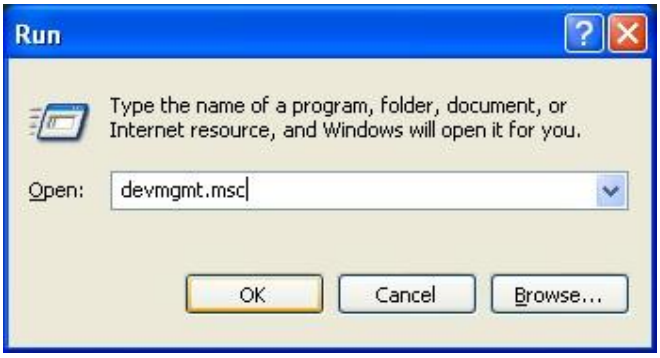
A1.3 Install USB Driver

- *Windows XP and newer Windows operating systems do not require a separate USB Driver for a transmitter. However, it is recommended that you install an iPAM USB driver so that it is easier to recognize.*
- *The driver only needs to be installed once for each individual USB port. If the same port is utilized all the time for the purpose of configuring a transmitter than it will appear under the same Com Port number.*
- *For Windows 2000 and earlier versions of Windows operating systems, a Hardware Update Wizard will be automatically displayed. Otherwise, follow the following steps:*

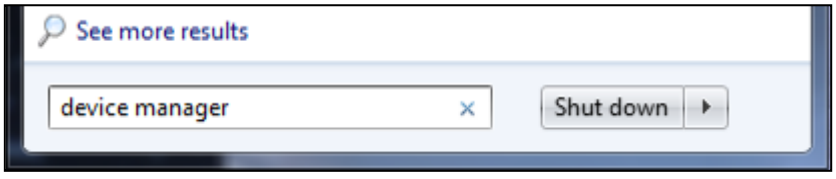
  For Windows 2000 and earlier skip to Step C.

Step A. *Navigate to the Device Manager (**Windows XP**: Start→ Run. Type "devmgmt.msc" and click OK / **Windows Vista or Windows 7**: Start→Search Menu. Type "Device Manager" and Enter).*

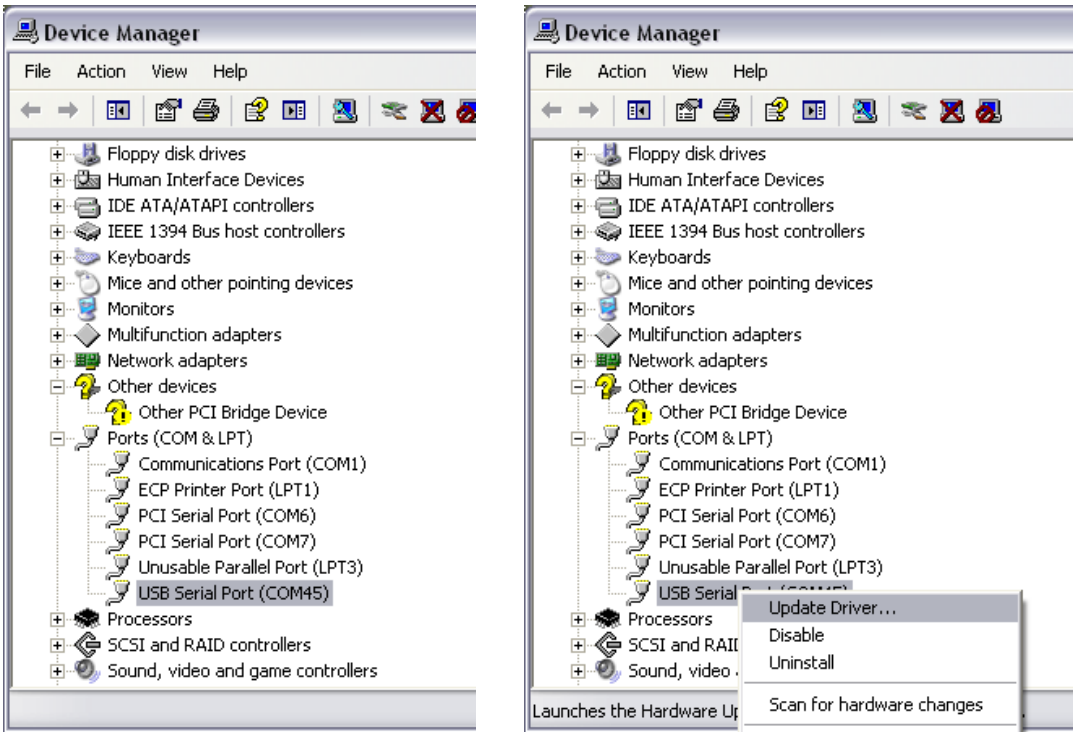
Windows XP



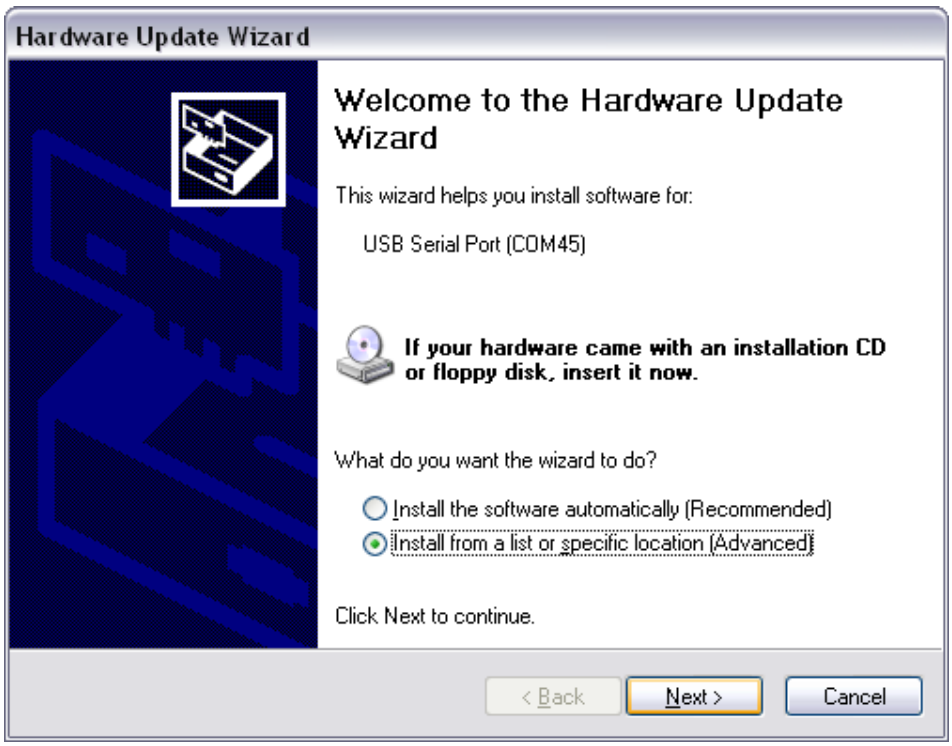
Windows Vista or Windows 7



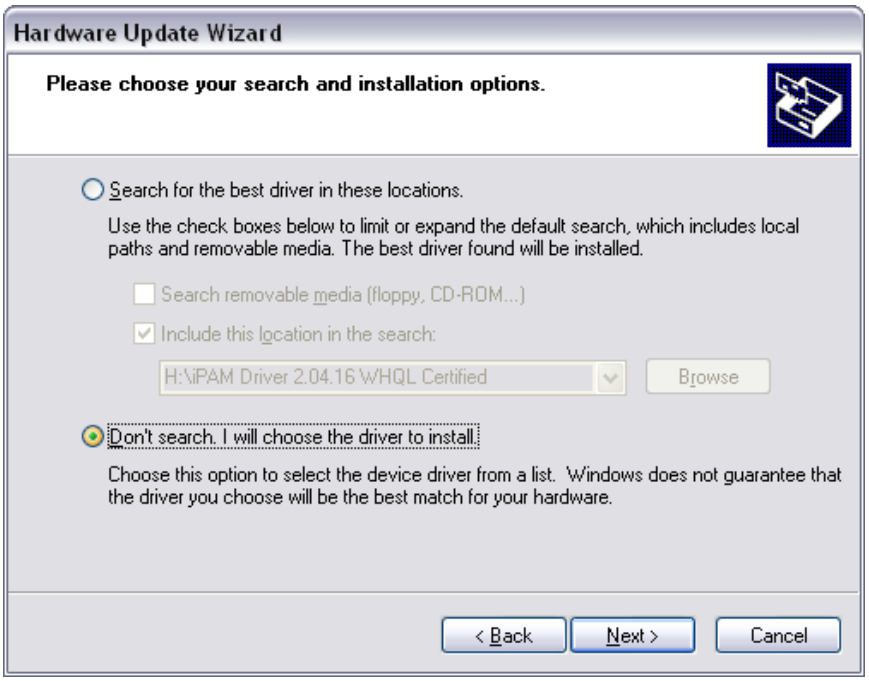
Step B. *Right-Click on the USB Serial Port, and select Update Driver…*



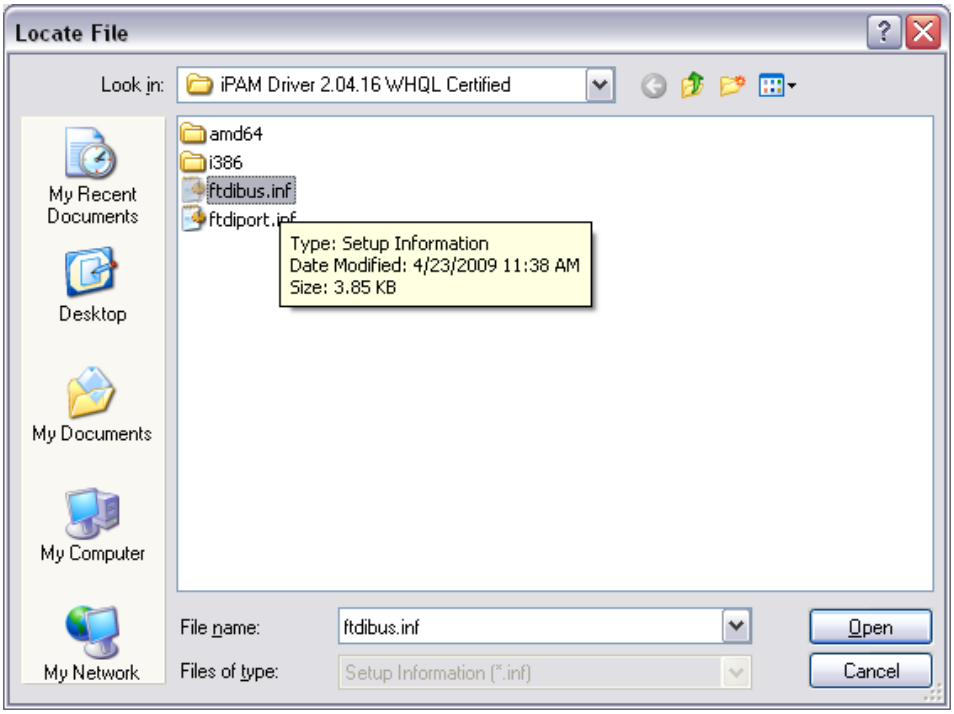
Step C. *Select Install from a list or specific location, click Next.*



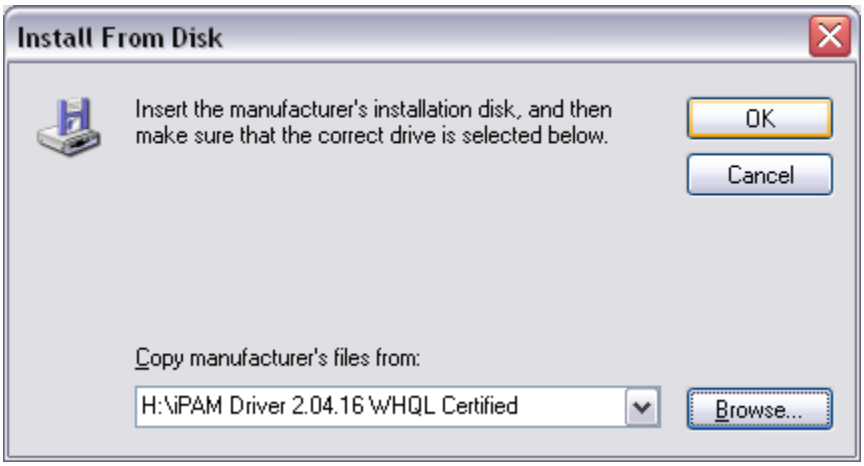
Step D. *Select "Don't search. I will choose the driver to install."*



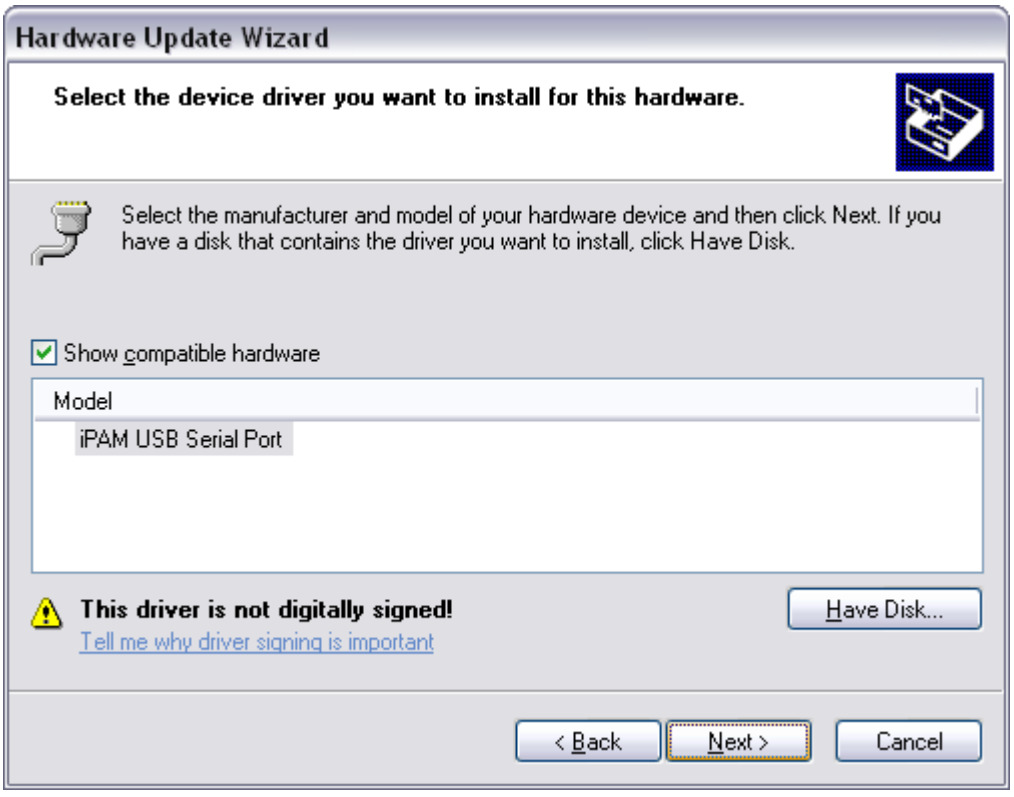
Step E. *Click on Have Disk, navigate to the provided driver folder and select "ftdibus.inf".*



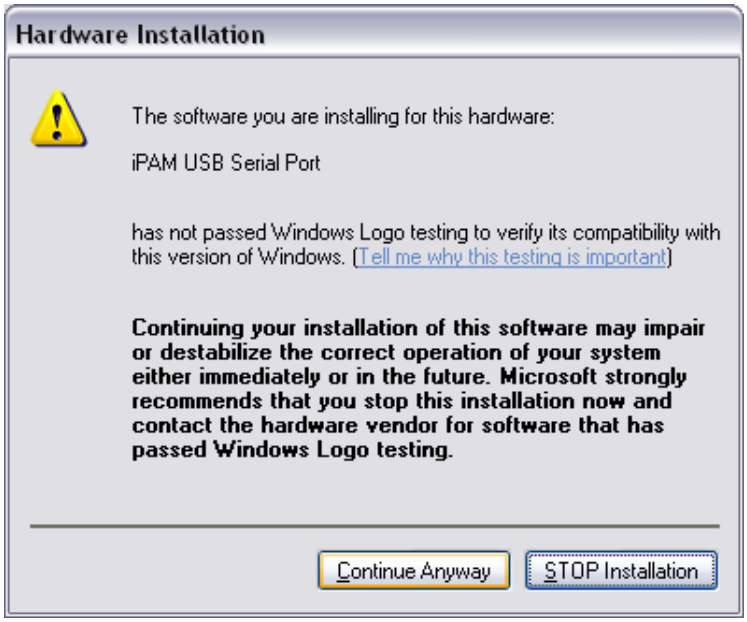
Step F. *Click OK.*



Step G. *Click Next.*



Step H. *Click Continue Anyway (if prompted).*



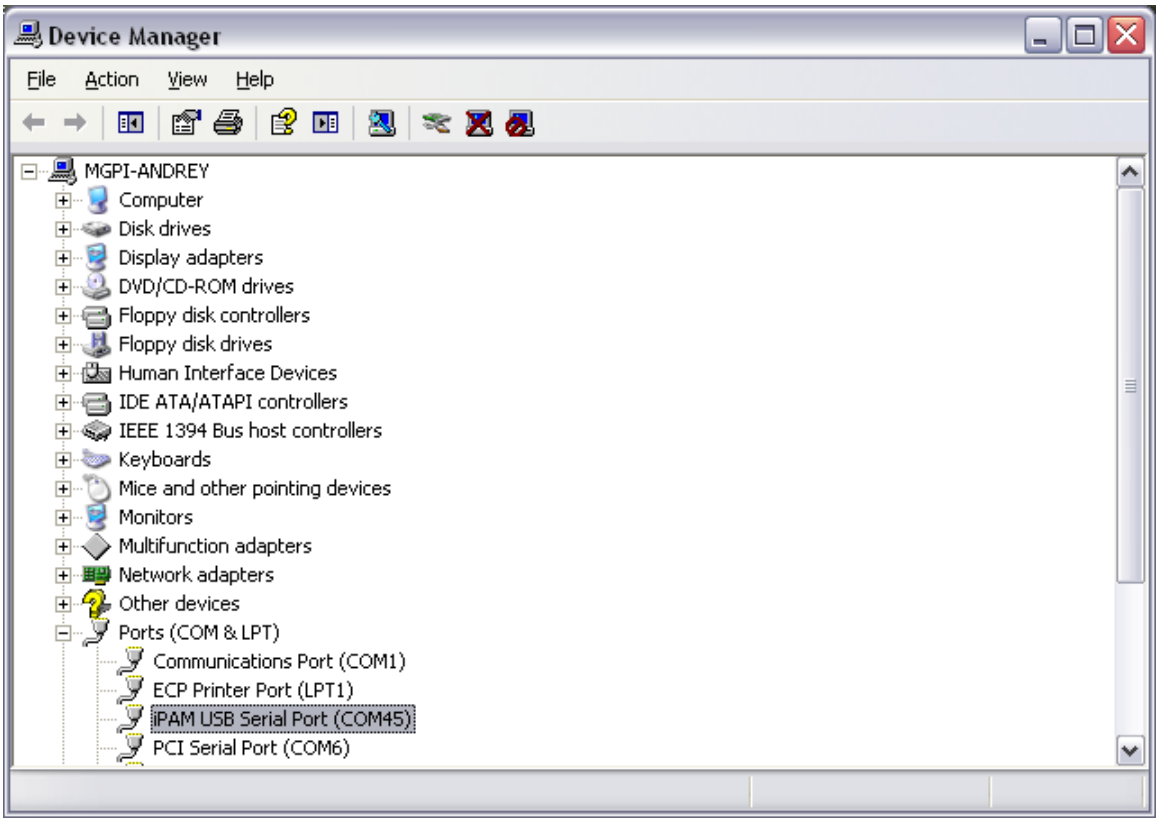
Step I. *Click Finish.*

Note: In some instances another dialog box will come up. To specify an additional driver go back to Step C, and in Step E specify "ftdiport.inf".

A1.4 Install WRM Configuration Studio Software

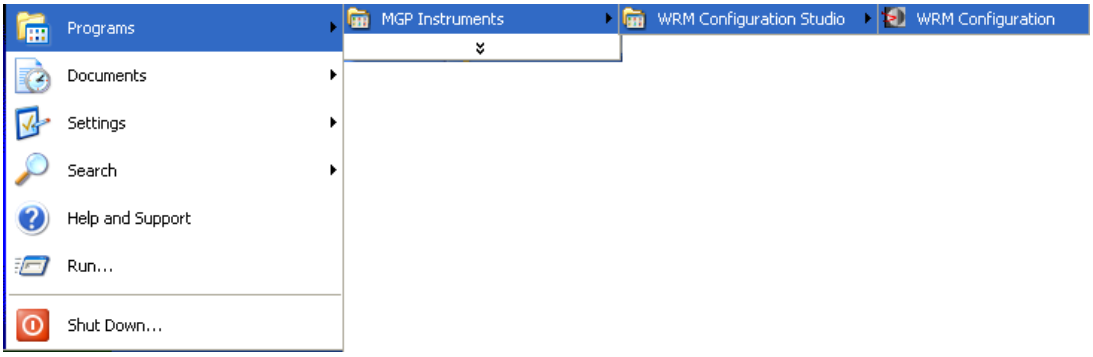
A1.5 Identify Serial Communication port number.

- In the Device Manager locate the iPAM USB Serial Port, and the COM port # associated with it.



A1.6 Launch the WRM Configuration Studio application.

- Select WRM Configuration from the Start menu.

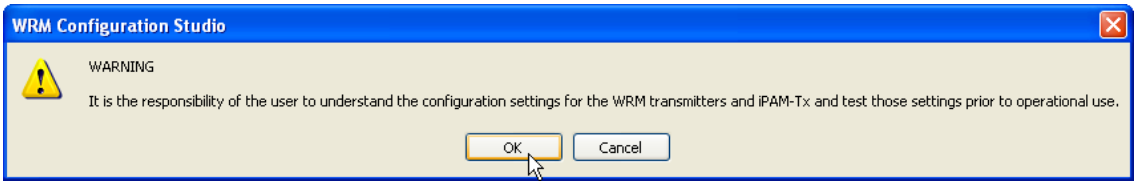


A1.7 Initial Login Procedure

- At the login screen the User name is Admin and leave the password field blank.
- Select OK to login.

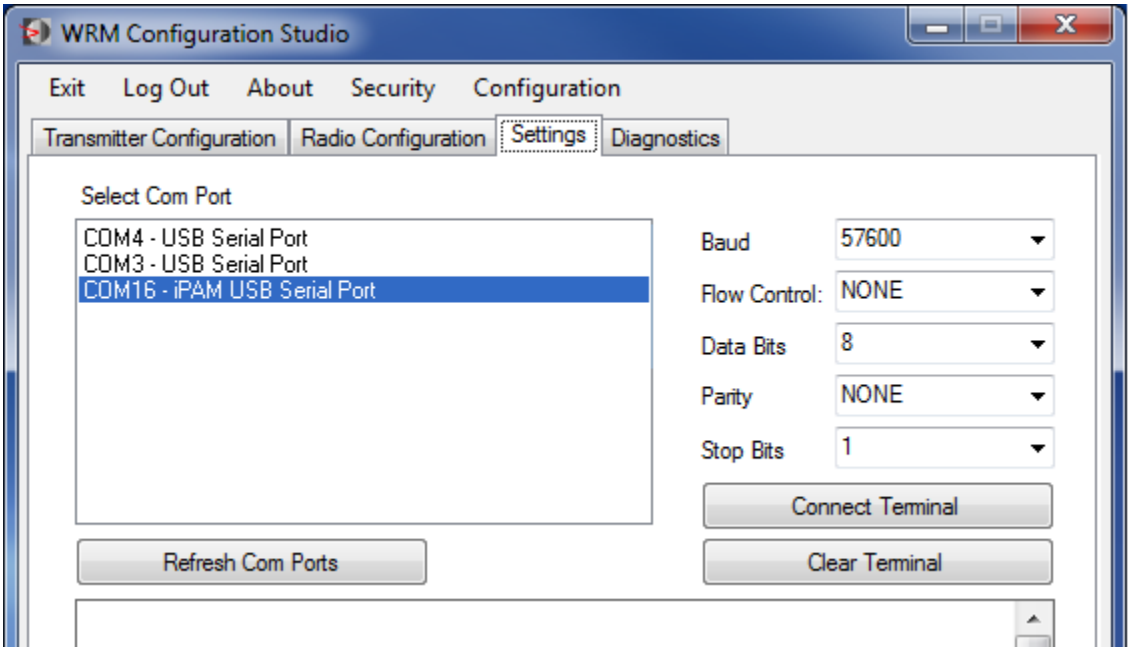
A1.8 Warning Screen

- Read the warning screen and select OK to continue.



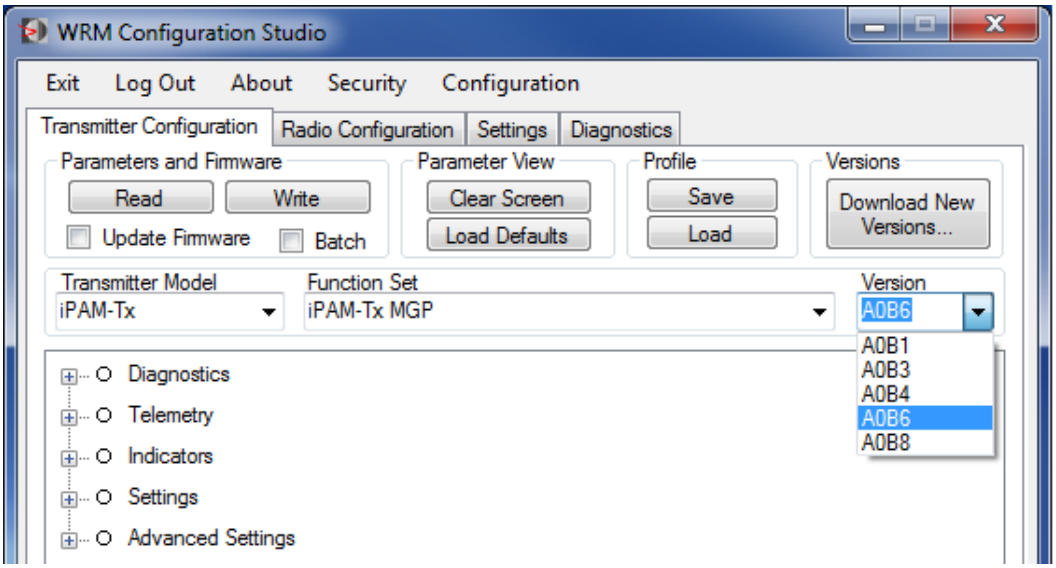
A2. Set-up for Firmware Loading

A2.1 Open Settings Tab and select the iPAM USB Serial Port from the list.

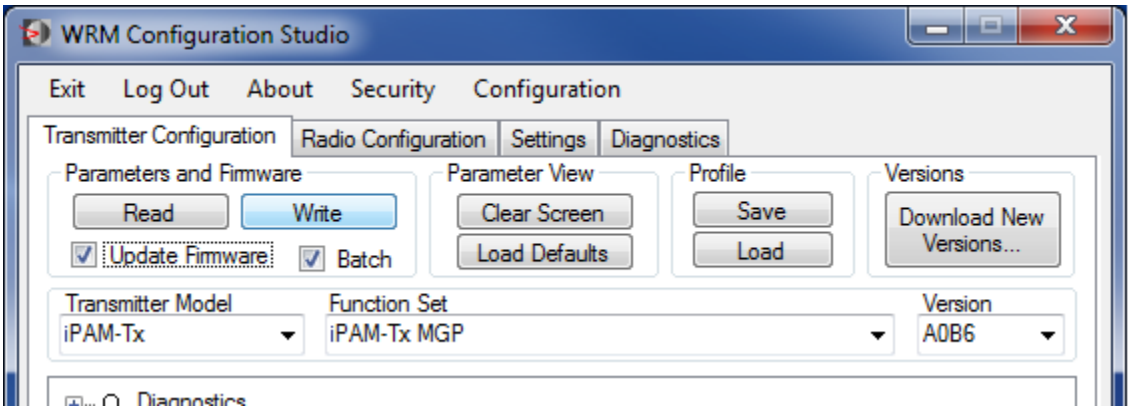


A2.2 Go to Transmitter Configuration tab and click Read. Verify that the Parameters were read successfully.

A2.3 From the version drop down list, select the appropriate firmware for the type and revision of the transmitter.



A2.4 Under Parameters and Firmware check Update Firmware and check Batch.



A3. Initiate Firmware Loading Sequence

A3.1 Click Write.

A3.2 Follow on-screen Instructions.

***Note**: You will be prompted to disconnect and connect each iPAM to complete programming. Only one disconnect/reconnect should be required.*

A3.3 Upon completion of the programming you will be prompted to connect the next transmitter. Click Stop Batch when finished.

Note: Each time you connect the iPAM to the USB cable, the iPAM should do a Power-On self test. If the test does not occur as expected, disconnect and reconnect the iPAM, at which time you can expect a successful self test.

Appendix B

For a list of the iPAM Parameters refer to document #15-00109

Appendix C

For a list of Telemetry Module Parameters refer to document #15-00108

Document No. 16-00165
Rev 3
March 20, 2013

WRM Configuration Studio

User's Guide

	Prepared by:	Reviewed by:	Approved by:
Name	Andrey Limonchenko	Jim Kost	Jim Lohr
Date			
Signature			

MIRION TECHNOLOGIES Health Physics Division

Suite 150
5000 Highlands Parkway
Smyrna, GA 30082