# ADPRO<sup>®</sup> PRO <u></u>

Passive-Infrared Perimeter Intrusion Detection Systems (PIR PIDS)

System Setup Manual

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## **Document Conventions**

The following typographic conventions are used in this document:

Convention	Description
Bold	<b>Used to denote:</b> emphasis Used for names of menus, menu options, toolbar buttons
Italics	<b>Used to denote:</b> references to other parts of this document or other documents. Used for the result of an action.

The following abbreviations are used in this document.

Abbreviation	Description
AA	Aperture Angle
CZ	Creep Zone
DR	Detection Rate
ESD	Electrostatic Sensitive Device
FAR	False Alarm Rate
GND	Ground
QSG	Quick Setup Guide
PID	Perimeter Intrusion Detector
PIDS	Perimeter Intrusion Detection System
PIR	Passive-Infrared

The following icons are used in this document:

Convention	Description
$\wedge$	<b>Caution:</b> This icon is used to indicate that there is a danger to equipment. The danger could be loss of data, physical damage, or permanent corruption of configuration details.
$\bigwedge$	<b>Warning:</b> This icon is used to indicate that there is a danger of electric shock. This may lead to death or permanent injury.
	<b>Warning:</b> This icon is used to indicate that there is a danger of inhaling dangerous substances. This may lead to death or permanent injury.
$\overline{\mathbb{N}}$	<b>Danger!</b> This icon is used to indicate that there is a danger of falling down! There is acute danger, when working with unsecured ladders. Unsecured ladders can slip and cause a fall that can lead to serious injuries. Additional information: refer to local "Safety at Work Act".
	<b>Note!</b> This icon is used to highlight useful advice and recommendations as well as information for an efficient and trouble-free operation.

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# 1 PRO E-Tool Software



# 1.1 Software Installation

The ADPRO<sup>®</sup> PRO E-Tool for Windows<sup>®</sup> (XP, Win 7, Win 8) is available for download through www.xtralissecurity.com. It connects to PRO/PRO E-detectors through RS-232/USB/IP (through bus converters or virtual COM ports) and is used for setting up detectors during commissioning , optimizing the settings and monitoring detectors in use. It can be used for all types of detectors.

The Software shows all current operation parameters and real time sensor signals of the selected detector. This is useful in various situations, such as realignment of the detector, adapting certain parameters or blanking out objects in the detection area causing unwanted alarms.

The ADPRO PRO E-Tool for Windows<sup>®</sup> installation wizard allows you to easily install the Software by providing you with direct and easy-to-follow steps whether installation is made on an XP or Windows 7/8 platform.

This section discusses how to install the Software on Windows 7/8 and XP platforms, in addition to configuring the communication port.

### 1.1.1 Installation on Windows 7/8

To install the Software on a Windows 7/8 platform, do the following:

- 1. Unzip the file "Setup\_PROXX.zip",
- 2. Rename the file "Setup\_PROXX.txt" to "Setup PROXX.exe",
- 3. Double click the file "Setup PROXX.exe", a security warning window appears,
- 4. Click "Run", a user account control window appears,
- 5. Click "Yes", the ADPRO PRO E-Tool setup installation wizard starts and the following window appears:



If you want to cancel the installation process, click "Cancel", the following message appears:



Click "Yes" to cancel the installation process, or "No" to resume it. You can reinstall the software later.

6. Click "Next", the following window appears:

j <sup>[2]</sup> Setup - ADPRO	
Select Destination Location Where should ADPRO be installed?	
Setup will install ADPRO into the following folder. To continue, click Next. If you would like to select a different f	folder, dick Browse.
C:\ADPRO	Browse
At least 6.2 MB of free disk space is required.	
< Back	Next > Cancel

You can save the ADPRO PRO E-Tool for Windows<sup>®</sup> in the selected folder or specify another one by clicking "Browse" then selecting it.

7. Click "Next", the following window appears:



The window shows where the software's shortcuts will be created, if you want to specify another folder, click "Browse..." and select it.

You can return to the previous window to make the changes you want by clicking "Back". This button is available in all windows.

8. Click "Next", the following window appears:

j- Setup - ADPRO	
Ready to Install Setup is now ready to begin installing ADPRO on your computer.	
Click Install to continue with the installation, or click Back if you want to change any settings.	review or
Destination location: C:\ADPRO Start Menu folder: ADPRO-SW	*
4	* 4
< Back Install	Cancel

The window shows the destination location and start menu folder you specified.

9. Click "Install", the following window appears:



10. Wait till the installation is complete, the following window appears:

引 Setup - ADPRO	
	Completing the ADPRO Setup Wizard Setup has finished installing ADPRO on your computer. The application may be launched by selecting the installed icons. Click Finish to exit Setup.
	Finish

11. Click "Finish".

# 1.1.2 Installation on XP

To install the Software on an XP platform, follow these steps:

- 1. Unzip the file "Setup\_PROXX.zip",
- 2. Rename the file "Setup\_PROXX.txt" to "Setup PROXX.exe",
- 3. Double click the file "Setup PROXX.exe", the ADPRO PRO E-Tool Software setup wizard starts and the following window appears:



4. Click "Next", the following window appears:

Setup - ADPRO	
Select Destination Location Where should ADPRO be installed?	
Setup will install ADPRO into the follow	ing folder.
To continue, click Next. If you would like to sele	ct a different folder, click Browse.
C:\ADPRO	Browse
At least 6.2 MB of free disk space is required.	

You can save the ADPRO PRO E-Tool for Windows<sup>®</sup> in the selected folder or specify another one by clicking "Browse" then selecting it.

5. Click "Next", the following window appears:

Setup - ADPRO	
Select Start Menu Folder Where should Setup place the pr	rogram's shortcuts?
Setup will create the pr	ogram's shortcuts in the following Start Menu folder.
To continue, click Next. If you w	ould like to select a different folder, click Browse.
ADPRO-SW	Browse
-	

The window shows where the Software's shortcuts will be created, if you want to specify another folder, click "Browse" and select it.

6. Click "Next", the following window appears:

r BSetup - ADPRO	
Ready to Install Setup is now ready to begin installing ADPRO on your computer.	
Click Install to continue with the installation, or click Back if you want to review change any settings.	or
Destination location: C:\ADPRO Start Menu folder: ADPRO-SW	
	×
< Back Install	Cancel

The window shows the destination location and start menu folder you specified.

7. Click "Install", the following window appears:

15 Setup - ADPRO	
Installing Please wait while Setup installs ADPRO on your computer.	
Extracting files C:\ADPRO\PRO.exe	
	Cancel

8. Wait till the installation is complete, the following window appears:



#### 9. Click "Finish".

The ADPRO PRO E-Tool for Windows<sup>®</sup> is now installed in your computer in the specified directory and the following structure is created:

Organize 🔻 🛛 Include	in library 👻 Share with 👻 Bu	rn New folder		H · 🗍 🤇
Favorites	Name	Date modified	Туре	Size
Desktop	BMP	5/28/2012 10:24 AM	File folder	
🚺 Downloads	CFG	5/28/2012 10:24 AM	File folder	
💹 Recent Places	🔒 DAT	5/28/2012 10:24 AM	File folder	
E	退 INI	5/28/2012 10:21 AM	File folder	
😹 Libraries	PRO.CFG	11/15/2011 9:40 AM	CFG File	1 K
Documents	_s <sup>™</sup> PRO.exe	11/14/2011 1:29 PM	Application	1,200 K
J Music	unins000.dat	5/28/2012 10:21 AM	DAT File	4 K
Pictures Videos	뤵 unins000.exe	5/28/2012 10:21 AM	Application	699 K
Computer	_			

Each sub-folder is responsible for a specification action as follows:

BMP	Contains all images taken using the Software.
CFG	Contains all detector configuration files.
DAT	Contains all statistics and debugger files.
퉬 INI	Contains all detectors definition files. Each detector model requires its specific INI file.
PRO.CFG	Contains specific data relevant to the display structure such as logo on images, etc. This file must not be deleted.
PRO.exe	Installation program for setup and signal display.

# 1.1.3 Configuration of Communication Port

It is important to configure the communication port that will be dedicated to the Software before you start using it.

If you are using a Windows 7/8 platform, follow these steps to configure the port:

- 1. Connect the "IFM-485-ST" to the available port,
- 2. Right click "My Computer",
- 3. Click "Manage",
- 4. Click "Device Manager",
- 5. Click "Ports (COM and LPT)", a list of available ports appears as shown below:



- 6. Right click "USB Serial Port (COM3)" to update its driver software,
- 7. Click "Update Driver Software...", the following window appears:

问 🗓 Update Driver Software - USB Serial Port (COM3)	
How do you want to search for driver software?	
Search automatically for updated driver software Windows will search your computer and the Internet for the latest driver software for your device, unless you've disabled this feature in your device installation settings.	
Browse my computer for driver software Locate and install driver software manually.	
	Cancel

8. Select "Search automatically for updated driver software", the following window appears:

🚱 🗕 Update Driver Software - USB Serial Port (COM3)	×
Searching online for software	
	Cancel

9. Wait for the search to complete, the following window appears:



#### 10. Click "Close".

If you are using an XP platform, follow these steps to configure the communication port:

- 1. Right click "My Computer",
- 2. Click "Manage",
- 3. Click "Device Manager",
- 4. Click "Ports (COM and LPT)",
- 5. Right click "Communications Port (COM1)", the following menu appears:

🖃 🝠 Ports (COM)	& LPT)
🕺 — 🍠 Commun	ications Port (COM1)
ECP Pr	Update Driver
🕀 \Re Processors	Disable
🗉 🧐 Sound, vid	Uninstall
主 🥪 Storage vo 主 😼 System de	Scan for hardware changes
🗄 🚔 Universal S	Properties

6. Click "Update Driver...", the following window apppears:

Hardware Update Wizard	
	Welcome to the Hardware Update Wizard
	This wizard helps you install software for:
	Communications Port (COM1)
	If your hardware came with an installation CD or floppy disk, insert it now.
A DECEMBER OF	What do you want the wizard to do?
	<ul> <li>Install the software automatically (Recommended)</li> </ul>
	<ul> <li>Install from a list or specific location (Advanced)</li> </ul>
	Click Next to continue.
	< Back Next > Cancel

- 7. Select "Install the software automatically (Recommended)",
- 8. Click "Next", the following window appears:



9. Wait while the wizard searches for the update, the following window appears:

Hardware Update Wizard	
	Cannot Continue the Hardware Update Wizard The wizard could not find a better match for your hardware than the software you currently have installed. Choose what you want to do. To keep the current software, click Finish. To search again in another location, click Back.
	< Back Finish Cancel

#### 10. Click "Finish".

Notes:

- If your computer features a RS232 data bus, you can directly connect it to the IFM-485-ST via COM1 or COM2 without any additional drivers.
- Every time you change the communication port you are using, you need to reconfigure its driver software.
- Port number varies depending on the system you are using.

For more information on how to associate the communication port with the Software, refer to "Select Communication Port).

# 1.2 Use of ADPRO PRO E-Tool Software

As mentioned earlier, the Software helps you to optimize the settings and monitor the detector(s) in use. After you have successfully mounted the detector and configured the settings you need, you can start using the Software.

Once installed, a shortcut for PRO 9.x is created and can be accessed through the applications menu, it appears as follows:



The ADPRO PRO E-Tool for Windows<sup>®</sup> provides various tools and features that allow you to control and monitor the detectors and maximize their benefit. They are categorized into menus for easier access.

Symbol	Action
	Open Detector INI (legacy feature, please do not use)
<i>d</i> *	Search Detector
<b>t</b>	Up/download settings
*	Debugger
r	Statistics
	Scope
	View picture
Þ	Run
	Stop
1	Take picture

In addition, you can access any tool or feature through the buttons that appear in the toolbar as follows:

As a general preference you can set the language and audible alarm indication.

#### Language Selection

The Software provides the settings and parameters in various languages displayed in this menu.

To switch between the available languages, follow these steps:

- 1. Click "Options", then "Language",
- 2. Select the language you want.

Parameters and settings are now displayed in the selected language, but as for the interface language itself it is only available in English.

#### Audio ouput; Beep

Click "Options", then "Beep"

If this option is checked, whenever the detector detects something, you'll hear a beep.

Moreover, the Software provides shortcuts through the keyboard for faster access to the required tool, as follows:

Shortcut	Action
<f1></f1>	About the Software
<f2></f2>	Open detector definition file window.
<f3></f3>	Search for a detector.
<f4></f4>	Up/Download
<ctrl> + B</ctrl>	Веер
<f5></f5>	Run scope
<ctrl> + <f5></f5></ctrl>	Stop scope
<f6></f6>	Change scroll direction, "right to left" or "left to right"
<f7></f7>	Hide/ show grid
<f8></f8>	Increase signal speed
<ctrl> + <f8></f8></ctrl>	Decrease signal speed
<f9></f9>	Clear scope
<f10></f10>	Delete all triggers
<ctrl> + <k></k></ctrl>	Open scope window
<ctrl> + <p></p></ctrl>	Take picture
<ctrl> + <v></v></ctrl>	View picture
<ctrl> + <a></a></ctrl>	Picture auto
<ctrl> + <o></o></ctrl>	Picture memo
<ctrl> + <m></m></ctrl>	Open statistics window
<ctrl> + <t></t></ctrl>	Test
<ctrl> + <d></d></ctrl>	Open debugger window

The following sections discuss all the actions you can perform, the available tools and how to use them.

# 1.2.1 Connect to Detectors

#### 1.2.1.1 File

Please note: This is a legacy feature, do not use it during normal operation.

This option allows you to select the detector type to be expected by the software by preloading the respective INI file. If this selected type does not match the connected detector there will be this kind of error message:

×	Configurat not equal 1. Load co 2. Try aga	ion error PRO 30 X.XX to PRO 483 2.0 ! rrect INI-File in	
		<u>K</u>	

If you do not load any INI-File before selecting a detector, the software will automatically select the correct INI-File for you. If the error message above appears anyway, you're software is not compatible with the detector, please connect our tech support for a software update.

#### 1.2.1.2 Select Communication Port

First select the communication port which is connected to the RS-485:

- 1. Click "Option",
- 2. Click "Com Port", a menu listing the available ports appears,
- 3. Select the port you want; it will be marked with a ( 🗸 ) sign.

**Note:** Communication ports' numbers vary according to the system you are using and available ports.

#### 1.2.1.3 Select detector

Before you start using the ADPRO PRO E-Tool for Windows<sup>®</sup>, you need to select the detector to be used. The Software normally finds the detector's definition file automatically. This step is only required if there is no automatic loading of the detector.

There are two methods for selecting the detector in use in order to load its definition file and connect it to the RS-485 bus.

- 1. Click "Option",
- 2. Click "Search Detector",
- 3. Click "Start", or press keys <ALT> + <S>, a list of found detectors appears as shown below:

ange		
	30	
	Search list	
1	2> PRO	E-45 1.0
	3> PRO	E-45 1.0
	4> PRO	45H 2.7
	5> PRO	100 3.0
	6> PRO	E-100H 1.1
Start	7> PRO	E-100H 1.1
1.141.08	9> PRO	E-100H 1.1
	Detector	

**Note:** Detectors are given IDs (addresses) in the range of 1 to 254. It is recommended to narrow down the range when searching for a detector so as not to take time and retrieve the connected detectors more quickly.

Each detector must have a unique address. If more than one detector is given the same address

and is connected to the same bus, none of them will appear on the Software. To resolve this problem, disconnect all detectors and configure each one separately. This will ensure that no detector uses the same ID of another one.

The number on the left of the ">" sign is the detector's ID. The type of the detector and the firmware version number are on the right of the ">" sign.

You can stop the search process by pressing <ALT> + <S> or clicking "Stop".

To close the search window, click "ESC".

If no detectors are found, the following message appears:

Sorry no Detector found I	
1 Check COM Port	
2 Chock coarch range	
2. Check search range	
J. Try again	

Make sure you've selected the correct COM port (in which case the TX LED of the bus interface module should be blinking during the search and the RX LED should be blinking if a detector is found) and that the search range covers the detectors' addresses. Click "OK", check for errors, and repeat the search.

- 4. Select the detector you wish to use, or enter its address in "Choice" field,
- 5. Click "OK".

### 1.2.2 Up/Download Settings

The Software simplifies the process of detector configuration and allows you to save time spent in setting other detectors values. You can configure a detector and use the same settings for other detectors of the same type connected to the Software.

You can manage setting options, upload a detector's settings, download them from a definition file, and save them to a new definition file, etc.

The Up/Download window has the following functions:

	•			
2		Sensitivity CZ	1.0	
ON	•	Sensitivity IR Zone 1	1.0	
01	•	Compass function	01	-
ON	•	Out 1 Alarm Inverse	OFF	-
ON	*	Out 2 Tamper Inverse	OFF	•
ON	•	Out 3 Fault Inverse	OFF	•
2500		Legacy mode	OFF	-
2500		CZ coverage	ON	
2500	_	Reset alarm counter	OFF	
		Reset vandal position		
		Reset anti mask		•
	2 ON ON ON ON 2500 2500	▼ 2 0N ↓ 0N ↓ 0N ↓ 0N ↓ 0N ↓ 2500 2500 2500	2       Sensitivity CZ         ON       Sensitivity IR Zone 1         ON       Compass function         ON       Out 1 Alarm Inverse         ON       Out 2 Tamper Inverse         ON       Out 3 Fault Inverse         ON       Out 3 Fault Inverse         ON       Coverage         2500       Reset alarm counter         Reset vandal position         Reset anti mask	2       Sensitivity CZ       1.0         ON       Sensitivity IR Zone 1       1.0         ON       Compass function       ON         ON       Out 1 Alarm Inverse       OFF         ON       Out 2 Tamper Inverse       OFF         ON       Out 3 Fault Inverse       OFF         ON       Out 3 Fault Inverse       OFF         2500       C2 coverage       ON         2500       Reset alarm counter       OFF         Reset anti mask

Content and layout are detector-model-dependent and primarily designed to review and change the detector's parameters. These include address, sensitivity, output functions, etc.

It also shows the actions you can perform where each one is represented with a certain button as follows:

Symbol	Action
<b>t</b>	Upload settings to detector
•	Download detector's settings
	Сору
æ	Insert
	Save to configuration file
<b>1</b>	Load from configuration file

Also, the above actions can be accessed by clicking "Setting", the following menu appears:

Setting					
Up Load	Ctrl+U				
Down Load	Ctrl+D				
Factory	Ctrl+F				
Сору	Ctrl+C				
Insert	Ctrl+V				
Save	Ctrl+S				
Open	Ctrl+O				

The following sections discuss all the actions you can perform, the available tools and how to use them.

**Note:** Setting options depend on detector model. Displayed positions and displayed terms of option may vary depending on detector model.

To select a detector to load its settings, you can:

- Select the detector from the drop-down menu then click (
- Press <F3> and search for it by following the same steps mentioned in (Select detector), then click (1).

To close the Setting window after making, click (

**Note:** If you attempt to close the Settings window before saving the changes you make, the following message appears:

Question		
🤈 Lea	ve without saving	?
•	YES	NO

If you are sure you want to exit the window without saving, click "Yes"; otherwise, click "No" then save the changes you made.

#### **Upload Settings**

To upload settings to detector, follow these steps:

- 1. Make the changes you want to the fields you can change,
- Click (
   ). Successful upload is represented with (
   ).
- **Note:** Make sure to click ( to save the changes you made; otherwise, they are lost.

#### **Factory Settings**

You can reinstate the factory default configuration to the detector instead of the changes you made in the following cases:

- The detector does not seem to work properly.
- A previous version of the ADPRO PRO E-Tool for Windows® was used on the same detector.

To display and use the factory default settings, follow these steps:

1. Click "Factory", the following message appears:



- 2. Click "Yes" to replace the values with the factory ones,
- 3. Click ( 1) to save them in the detector's configuration file.

#### **Download Settings**

To download the detector's settings, follow these steps:

- 1. Make the changes you want,
- 2. Select the detector,
- 3. Click ( 💇 ).

The configuration status is represented with the following symbols:

Uploading configuration
Changed configuration
Communication problem
Downloading configuration

#### **Copy Settings**

To copy the settings of a detector and use them in another one, follow these steps:

- 1. Select the detector which settings you want to copy,
- 2. Click ( 🗎 ),
- 3. Select the detector to which you want to apply the copied settings,
- 4. Click (🕮 ),
- 5. Save Settings to CFG File.

To save the configuration in the "CFG" sub-folder accessed through the ADPRO PRO E-Tool for Windows<sup>®</sup> folder saved in the computer, follow these steps:

- 1. Make the changes you want,
- 2. Click (), the following field appears:

Confi	guration		
?	Input filename		
	<u>о</u> к	Abort	

- 3. Enter file name,
- 4. Click "OK" to save, or "Abort" to cancel the action.

#### Load Settings from CFG File

To load the configuration saved in a CFG file, follow these steps:

1. Click (🔛), the following window appears:

CFG-File	
PR0_45DH-Setting	I.CFG
<u>O</u> pen	Cancel

- 2. Select the file,
- 3. Click "Open", the configuration appears in the Settings window so you can make sure you are using the desired configuration.
- 4. Click ( 1) to upload settings to detector.

#### 1.2.2.1 Setting Options for PRO E and PRO E-RF Detectors

The Setting window displays the setting options for the selected detector where each field represents a certain value as follows (e.g. PRO E-100H).

Setting					- 23
Setting					
🛨 🕁 🐚 📖 🛤 📲					
Detector			Communication address of th detectors connected on the sa from each other.	e detector. The address o ame bus need to be differ	of all 🦟
Adresse	8		SW Range	max	1
no o o c	0		on na.ge	Imax	-
ATD	ON	<u> </u>	Sensitivity CZ	1.0	
Vandal protection	ON	*	Sensitivity MainZones	1.0	
Compass function	ON	•			
Out 1 Alarm	ON	-	Out 1 Alarm Inverse	OFF	÷
Out 2 Tamper	ON	-	Out 2 Tamper Inverse	OFF	-
Out 3 Fault	ON	•	Out 3 Fault Inverse	OFF	•
Out 4 Config1	ON	•	Out 4 Config1 Inverse	OFF	•
Out 5 Config2	ON	•	Out 5 Config2 Inverse	OFF	*
Delay Out 1 Alarm [ms]	2500		Legacy mode	OFF	•
Delay Out 2 Tamper [ms]	2500		CZ coverage	ON	-
Delay Out 3 Fault [ms]	2500		Reset Alarm Counter	OFF	-
Delay Out 4 Config1 [ms]	2500		Reset Vandalposition		-
Delay Out 5 Config2 [ms]	2500		Reset Anti Mask		

List of settings for PRO E-detectors				
Choice	Selectable allows for	Selectable list of all detectors connected to the same bus (i.e. COM port), which allows for convenient copy/paste-ing of common settings between the detectors.		
Address	1-255	Set detector's identification bus address (1-255, default 1).		
		<b>Note:</b> Make sure that each and every detector has an individual address from 1-255 before connecting them to a common bus.		
ATD	ON	Enables "Adaptive Threshold Determination".		
	OFF	Disables "Adaptive Threshold Determination".		
		<b>Note:</b> Disable ATD function prior to walking test to optimize performance of detector.		
Out x <sup>1</sup>	ON	Enables respective output relay.		
	OFF	Disables respective output relay.		
Delay Out x <sup>1</sup>	OFF	adds a turn-off delay in ms, from 1/10s (100ms) to 1min (60000ms), (default 2500).		
Sensitivity CZ/Zone x/Main	0.5-1.	Sets sensor sensitivity in creep zone (360PROtect) / in the main IR detector zone or in the different zones 1-3 or 1-6, (depending on number of available channels) from 50% (0.5) to 150% (1.5), (default 1.0).		
Out x inverse <sup>3</sup>	OFF	Relay opens upon alarm, normally closed (default off).		
	ON	Relay closes upon alarm, normally open.		
Legacy mode	OFF	Disables legacy mode (default off).		
	ON	Enables legacy mode, which allows alarm management with PRO detector protocol without the PRO E enhancements. This means, that new events, like 360PROtect alarm and anti-masking alarm are assigned to existing events.		
CZ coverage	ON	Enables the 360PROtect sensor (default on).		
	OFF	Disables the 360PROtect sensor.		

Pulse count <sup>2</sup>	0 - 10	Number of additional pulses $(0 - 10)$ before an alarm is generated.
	OFF	Triggers alarm on first pulse.
Reset alarm counter		Select "on" to resets internal alarm counter.
Reset Vandal position		Select "on" to write new alignment position into non-volatile RAM as baseline for tamper protection in case of incorrect alignment of the detector.
Reset anti masking		Select "on" to writes new anti masking sensor reading into non-volatile RAM as baseline for masking protection in case of masking the front of the detector.

<sup>1</sup> Standard PRO E-detectors have 3 outputs, while H-versions have 5 and PRO E-RF detectors have 1, thus each output related setting (activation, delay, reversal) occurs once, 3 or 5 times respectively.

<sup>2</sup>Only for volumetric detectors, curtain detectors have no pulse count feature.

<sup>3</sup> Does not apply to PRO E-RF detectors.

#### 1.2.2.2 Setting Options for PRO Detectors

This software is also fully compatible with all PRO detectors which have the following settings: (screenshot example shows a PRO-45DH in hardware configuration mode).

Setting					X
Setting					
🛃 🛃 🖻 🖻 📴 🔛					
<b></b>			Communication address of th all detectors connected on the different.	e detector. The addresses of same bus need to be	^
Choice 1> PRO 45DH 2.0		-			-
Address	1		SW Test	OFF	Ŧ
Configuration	Hardware 40%	•	SWATD	OFF	Ŧ
			Directional detection	Right-left	v
Channel right	ON	•	Channel left	ON	•
SW Sensitivity right [%]	100		SW Sensitivity left [%]	100	
SW vandal function	OFF	Ŧ	Reset vandal position	-	Ŧ
Output function [Relay   Transistor]	IR   VAN	•			
Relay function	ON	•	Relay output logic	Inverted	•
Reset alarm counter	-	•	Transistor output logic	Normal	•

Note: Several of the PRO detector settings have the prefix "SW". This indicates, that they can be set here in software, but also in hardware through DIP switches. If the detector is set to software installation mode (DIP 1 and 2 both "ON") these settings can be adjusted using this tool, if the detector is in hardware mode (DIP 1 and 2 in any other combination) those settings are greyed out and are controlled by DIP switch settings. See details in PRO detector manual "ADPRO PRO-Series EN, document no. (20780)".

List of settings for PRO detectors				
Choice	Selectable list of all detectors connected to the same bus (i.e. COM port), which allows for convenient copying / pasting of common settings between the detectors.			
Address	1-255	Set detector's identification bus address (1-255, default 1).		
		<b>Note:</b> Make sure that each and every detector has an individual address from 1-255 before connecting them to a common bus.		
Configuration	HW/SW	Displays current operation mode: Hardware or Software.		
		Note:	Operation modes can only set by DIP-switches 1 and 2 on connector board of detector.	

Channel L/M/S <sup>1)</sup>	ON	Long, medium and short range channels may be enabled individually by selecting "ON" from drop-down menu.				
	OFF	Long, medium and short range channels may be disabled individually by selecting "OFF" from drop-down menu.				
Output function [Relay   Transistor]	If relay function down menu:	is set to "ON", the following two options are available in the drop-				
	<ol> <li>"IR + VAN intrusion al</li> <li>"IR + VAN" transistor c alarms.</li> </ol>	IR + VAN": Using relay and transistor open collector to signal arms and tamper alarms. : Using only relay to signal intrusion alarms and using only pen collector to signal tamper alarms. This allows identifying				
Output [OC1   OC2] <sup>5)</sup>	This feature is o	only available with intrinsically safe detectors.				
	These detectors have two open collector outputs, which have to be connected v the recommended ex-barriers and through which two relay outputs can be used.					
	The following options can be accessed via a drop-down menu:					
	<ol> <li>"IR   VAN": This serves to issue intrusion alarms on relay 1 and vandalism alarms on relay 2 at the ex-barrier, which serves to clearly distinguish the alarms. This is the factory setting.</li> </ol>					
	2. "IR + VAN This setting vandalism distinguish	IR + VAN": g is used to issue both alarms at the same time for intrusion and on relays 1 and 2 at the ex-barrier. Therefore it is not possible to the alarms.				
Relay function	OFF Disa	bles output function of relay.				
	ON Ena	bles output function of relay.				
Relay output logic	Normal Rela	ay opens when in alarm.				
	Inverted Rela	ay closes when in alarm.				
Transistor output	Normal OC	opens when in alarm.				
logic	Inverted OC	closes when in alarm.				
Channel right/left <sup>2)</sup>	ON/ OFF Ena	bles/ Disables right/ left channel.				

List of settings for PF	RO detectors
SW sensitivity right/left [%] <sup>2)</sup>	Modifies sensitivity of right/left channel within bandwidth 20 % - 140%. Reduction of overall sensitivity changes alarm threshold but leaves coverage of right/left channel unchanged.
SW range <sup>4)</sup>	Detection range can be individually set, . pre-set values vary depending on model. Reduction of nominal range affects only coverage of long-range channel.
SW sensitivity [%]	Modifies the overall sensitivity within a bandwidth 50% - 150% for long range (multichannel) detectors or 20%- 140% for mid-range (single channel) detectors. Reduction of overall sensitivity changes alarm threshold but leaves coverage of long-range channel unchanged.

SW ATD	ON	Enables "Adaptive Threshold Determination".			
	OFF	Disables "Adaptive Threshold Determination".			
		Note: Disable ATD function prior to walking test to optimize performance of detector. When putting "SW Test" to "ON", ATD function is disabled automatically in Software mode.			
SW Test (legacy feature)	OFF	Regular operation, Do NOT enable unless using legacy walk tester CT-45 (default off).			
	ON	Enabled to perform walking test with legacy walk tester CT-45, do NOT enable it for current walk tester CT PRO/ CT PRO 2.			
SW Vandalism protection	ON/ OFF	Enables/ Disables "Anti-Tamper Protection".			
SW Mounting height	HIGH	Mounting height above than 3 m (10 ft).			
")	LOW	Mounting height less than 3 m (10 ft).			
Reset vandal position	ON	Writes new alignment position into non-volatile RAM as baseline for anti-tamper protection in case of misalignments.			
	OFF	Upload of settings to control device happens always automatically in "OFF".			
	-	Not selected.			
Reset alarm counter	ON	Resets alarm counter to "zero" at next download of settings to detector.			
	OFF	No resetting of alarm counter to "zero" at next download of settings to detector.			
	-	Not selected.			
SW pulse count <sup>3)</sup>	0 - 10	Number of additional pulses (0 - 10) before an alarm is generated.			
	OFF	Triggers alarm on first pulse.			

#### Notes:

 $^{1)}$  Applies only to long-range curtain detectors PRO-100/ PRO-100H and PRO-250H

<sup>2)</sup> Applies only to directional detectors PRO-45 and PRO-45H

<sup>3)</sup> Applies only to volumetric detectors

<sup>4)</sup> Applies only to long range detectors PRO-100/ PRO-100H and PRO-250H

<sup>5)</sup> Applies only to intrinsically safe detectors

# 1.2.3 Output settings (PRO E-detectors only)

The detector allows to freely assign different output events to all available output relays.

Enter the output setting mode via top menu "Settings"  $\rightarrow$  "Output Settings".



#### Notes:

- Accessing the Output Settings on a PRO detector will result in an empty window.
- The output settings will be deactivated (grey) if connected to a PRO E-RF detector.

The "output setting window" allows to match 3 or 5 output relays (5 for H models) with any kind of event or alarm the connected detector can create.

**Example one**, default settings, three outputs available, standard PRO E-detector, (screenshot below: PRO E-45, single zone; thus out 4 and 5 greyed out, one zone, no pulse count event; default settings).

	Out-1 Alarm	Out-2 Tamper	Out-3 Fault	Out-4 Config-1	Out-5 Config-2
larm Events Creep Zone	<b>u</b>	_	Г	Г	Г
Zone 1	<u>,</u>	Γ	Γ	Г	Г
/andalism Events					
Tamper Bracket		<b>V</b>		Г	
lamper cover Alignment		V V		Г	
Antimasking	V	Γ	V	Г	Γ.
Fault Events					
Fault	Г	Г	<b>v</b>	Г	Г

- 1. Alarm: 360PROtect<sup>™</sup> (creep zone and behind detector) and main zone trigger output 1. Anti-masking triggers output 1 as well, but together with output 3.
- 2. Tamper: tamper switch in main housing and in bracket and any misalignment trigger output 2.
- 3. Fault: Power supply or outside temperature outside of specified range (e.g. supply voltage too low, outside temperature too high) failure or if the outside temperature is out of range of the specified operational range. Anti-masking triggers output 3 as well, but together with output 1.

**Example two**, using all five relays available on a PRO E H-detector: (screenshot below: PRO E-100H, three zones, no pulse count event; default settings).

ng 17 隆 🖺 🗎 🖻					
	Out-1 Alarm	Out-2 Tamper	Out-3 Fault	Out-4 Config-1	Out-5 Config-2
Alarm Events Creep Zone Zone 1 Cone 2	য য				
/andalism Events Famper Bracket Famper Cover Alignment Antimasking	г г г	া য য		기 기 되	Г
ault Events ault	Г	Г	<b>N</b>	Г	Г

- 1. Alarm: Zones 1-3 (here: L, M, S) trigger output 1.
- 2. Tamper: tamper switch in main housing and in bracket and any misalignment trigger output 2.
- 3. Fault: Power supply or outside temperature outside of specified range (e.g. supply voltage too low, outside temperature too high) failure or if the outside temperature is out of range of the specified operational range.
- 4. Config1: Anti masking triggers output 4.
- 5. Config2: 360PROtect (creep zone) triggers output 5.

**Example three**, alarm localisation, each zone triggers its own alarm.

	Out-1 Alarm	Out-2 Tamper	Out-3 Fault
Alarm Events			
Creep Zone	Г	E	E
Zone 1		E	Г
Zone 2	F	1	F
Zone 3	Г	Г	~

**Example four**, Legacy-mode, using only 2 Outputs: In case the PRO E-detector replaces an older PROdetector in an existing installation, you need to bundle the 5 Outputs into 2 Outputs to maintain all functions of PRO E-detectors without changing the existing cabling.

	Out-1 Alarm	Out-2 Tamper
Alarm Events		
Creep Zone	2	E
Zone 1	2	5
Zone 2	×	-
the deliver Proveds		
Vandaism Evencs		
Tamper Bracket	-	
Alanment	-	
Antimasking	-	
ninumeaning		
Fault Events		

## 1.2.4 Oscilloscope View (Scope)

The Scope view is the most powerful feature of the software.

The software starts up in the scope view and will re-enter it at any time pressing the scope icon (key) or through the "tool" menu, clicking "scope view".

It shows in real-time the signal strength of each zone, if the monitored detector features multiple detection zones. Simultaneously, it shows the actual alarm threshold, the general alarm status, and various parameters such as total alarm count, strongest signal level received, and current settings of the DIP switches in the detector, etc.

Through this menu you can manage the Scope view by stopping or running it, selecting the view mode, increase or decrease signal speed, etc.

Scope menu appears as shown below:

•	Run	F5
	Stop	Ctrl+F5
<b>v</b>	Scroll Mode	F6
1	Grid	F7
	Step up++	F8
	Step down	Ctrl+F8
	Clear	F9
	Trigger Delete ALL	F10

Scope view appears as follows (example PRO E-45):

File Options	Scope Tools Settings In	fo	Ő						0	
						No. Pa	rameter	Value	Unit	
						1 1	ipe .	PRO		
						2 M	odel	E-45		-13
						3 V	ersion	1.0		
						7 5	vstem readv	Yes		
						8 C	over status	Cover closed		
						9 A	ntimask status	Area free		
						10 V	andal status	In operation		
						11 A	TD	ON		
						1 Ti	ipe	PRO	-	
						Detecto	r type			*
CZ ALM				******						
Alarm - Alignmen	t (Y) - Cover (R) - Bracket (	8)								
Out 1 - (General Out 2 - (Tamper Out 3 - (Fault)	Alarm: Alarm) )					FLD<0	x1820,5,2,2>		▶ Com4<2	δ
Scope F	Run PRO_E-	45_X.XX.INI 17.0	6.2014 9	9600e   C:\Users\dapostol.XT	RALISCORP\Dropbox\Xtralis\Sof	ftware\PR0	)_9V25\			

The Scope view illustrates the cause/response relationship between inputs and output. The view shows all signals and their levels on a time axis; it allows for a detailed analysis of the detector's operation.

The Scope view appears automatically after a detector has been selected from the search list. The signals on the screen represent the current readings of the detector and are helpful for resolving problems as well as managing certain installation features.

The Scope window is divided into the following parts:

- Scope view (black, left): Scope view is used to for signal monitoring; it shows IR amplitude, alarmthreshold and other vital parameters in real-time. In addition, it shows a varying amount of lines as follows:
  - Green (Sensor Signal): shows the signal levels of the PIR sensor.
  - Red (IR Alarm): shows the IR event caused by the sensor signal.
  - Purple (output alarms): shows the actual output signal at relay, depending on model and setup up to 5 signals, General, Sabotage, Fault, Config1 and Config 2.
  - Blue (Alarm threshold).
  - Yellow (Vandalism Alarm). Shows the detector has been misaligned.

Note: Alarms appear on Scope view only if the alarm generating detector is selected.

• **Table of Settings (top-right)**: This table shows the current settings of the selected detector; it consists of the detector's parameters such as sensitivity, desired detection range, their values and unit.

To view the values of a certain parameter, click it, its values appear as shown below:

#### PRO E-100H

#### PRO-100H



The selected parameter's values appear in view-mode only. Any changes made to the settings are directly reflected on this table and the threshold. At the bottom is the firmware ID (FLD<>) and the used COM port number with address of current detector.

**Note:** Information displayed in table varies depending on detector model. PRO detector also show the real time status of their DIP switches in the lower right corner.

Action	Button	Shortcut
Run the Scope	Run	<f5></f5>
Stop the Scope	Stop	<ctrl> + <f5></f5></ctrl>
Select Scope view mode	Scroll Mode	<f6></f6>
	Grid	<f7></f7>
Increase signal speed	Step up++	<f8></f8>
Decrease signal speed	Step down	<ctrl> + <f8></f8></ctrl>
Clear Scope view	Clear	<f9></f9>
Delete all triggers	Trigger Delete ALL	<f10></f10>

You can control the Scope view through the following:

As shown in the table above, there are two scope modes:

• Scroll Mode: If checked, the signal is continuous and its direction is from right to left. If unchecked, the signal's direction is from left to right and each time <F6> key is pressed the signal starts from the beginning.

To switch between scroll modes press <F6>.

• Grid: If selected, horizontal and vertical lines appear on the Scope in addition to the signals.

### 1.2.5 Further features

#### 1.2.5.1 Screen shot

This tool enables you to take pictures of the Scope view and save them in the "BMP" sub-folder accessed through the ADPRO PRO E-Tool for Windows<sup>®</sup> folder. You can use them to compare readings, monitor readings on certain times, etc.

To take a picture and save it, follow these steps:

1. Click "tool" menu" and "Picture take" or press the screen shot icon ( 📸 ) and the following field appears:

In	out for commont (10)	) charactore)	
		(Indiacters)	
	1 22		

- 2. Enter your comment,
- 3. Click "OK".

The picture is saved as a BMP and as a PNG file and given a name according to the following naming convention:

"Model-yymmdd\_nnn.txt" where

уу	Year
mm	month
dd	Day
nnn	sequential number (1 - 999)

e.g. PRO\_E-100H-140624\_001.png

To view a picture, open it from the computer, it appears as follows:

PRO 9.25.4 [PRO_E-100H_X.XX.INI	E-100H 1.	1 (OA78) F	LD<0x1850,	5,2,2> COM	4<7> s=9]		A xt	
	1		1		1	1	I I	
,	/   				<b>                                      </b>	(= = = = = = = = = = = = = . 1 /	     	
		ו ו   ו	    	 	: L :	   	    	 
		   	J	   	L	   	   	
			 		1	1		
Long ALM		1 1 1	) 			   		
		I	I					
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			1 		   	   		   
/		r	/		r	i I 1	   	r
	( 	, , , , ,	4 2			 	 	
Medium ALM		1			1			
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Short ALM		1	1		I I	I. I.	1	1
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· · · · · · · · · · · · · · · · · · ·		 	) 	 	 	 	 	 
Creen zone ALM					   	l I I		
	1	   	/   		   	   		
Out 1 - (General Alarm: Alarm	ı)				, 	,   		
Out 2 - (Tamber) 1 Out 3 - (Fault)	l		I				   	
Out 4 - (Config 1: AM)			1			   		
Out 5 - (Config 2: CZ)					   	1 1 1		
Alarm - Alignment (Y) - Cover	r (R) - Bracket	(B)	 		' r '	 	 	
Memo: a								
Parameter 1> IR CZO max		1		11> Sens	itivity CZ	. 7	1.	0
2> IR C21 max 3> IR 2 Short max 4> IR 3 Medium max 5> IP 4 Long max		1 0 0 5		12/ Sens 13/ 14/ 15/	ltivity ma	1nzones	1.	U
6> Alarm counter Ou 7> Alarm counter Ou 8> Alarm counter Ou		16> Antimask actual level 2508 17> Antimask target level 2511 18>						
9> Alarm counter Ou 10> Alarm counter Ou	t 4 t 5	530 530		19> Cove 20> Cove	r switch a r switch t	ctual leve arget leve	# 680 # 680	5 6
PRO_E-100H-140624_00	1.bmp >1	7:17:59						1

The image shows the scope, comment, and settings at the time that picture was saved.

The screenshots can also be viewed from the software itself as explained in the next section.

#### 1.2.5.2 Picture View

You can view the pictures directly from the Software for easier access by clicking "Picture view". The following window appears:



The window is divided into two parts: the left one lists all the pictures and the right a preview of the selected picture.

To delete a picture, follow these steps:

- 1. Select the picture, its name is displayed in the field,
- 2. Click "Delete". It is immediately deleted from this window and from the "BMP" folder as well.

To close the window, click (

#### Picture Auto

If this feature is checked, each time the detector reads a signal or detects a movement, a picture is automatically taken and saved in the "BMP" folder.

#### **Picture Memo**

If this feature is checked, the "Picture take" tool is activated and you can take pictures of the Scope.

#### 1.2.5.3 Statistics

Through this feature you can view data the detector transmits to the controller. The Statistics view logs the actual alarm status of all detectors that have been discovered during the initial "Search for Detectors" process. In addition to general alarm information, the view details the zone that issued the alarm. It also shows warnings and detector's status under the system column. Every status change from every detector adds a line in this log view.

This information is stored in text files on a daily basis, one file per detector. Files are saved in the "DAT" subfolder accessed through the ADPRO PRO E-Tool for Windows<sup>®</sup> folder.

Click "Statistics", the following window appears:

PRO 9.25.4	none Taole Settions Info	
Statistics Name Type	etedor Ulli  TA1 Reset	< <u>m</u>
		•
Statistics	op IPRO_E-45_X.XX.INI I 24.06.2014 [9 9800e   C:\Users\dapostol.XTRALISCORP\Dropbox\Xtralis\Software\PRO_9V25\	

The window is divided into the following sections:

- Connected Detectors (1): displays all connected detectors with information about identification number, firmware version number and alarm counters.
- Type (2): Each symbol indicates a status as follows:
  - (O): connected.
- (): not connected.
  Log (3): displays the actual log.

To generate a statistics file and save it, follow these steps:

1. Enter file name,

2. Click (D) to start the viewing the transmitted data, it appears as in the example on the next page:

Note: A line is created for each detected event, along with the date and event description.

- PRO 925.4	
File Options Scope Tools Settings Info	
🗁 🚧 🏂 🚵 🔛 🔜 🗈 💼	
Statistics Multi	
Name STA1 Reset	
Type ● * 4.5PR0 45H 2.7 AIM01 GA:0000 T:01 P:00 * 5:PR0 100 3 0 AIM02 GA:0000 T:01 P:00 AS:000 AN:000 AI:000 VS:000 VM:000 VI:00 • 7:PR0 E-100H 1.1 AIM13 GA:0000 CZ:0000 T:00 P:00 AS:000 AM:000 AI:000 VS:000 VM:000 VI:0	00
Alernmenegement Adr : time : alarm info :	
+ 4; PRO 45H 2.7 ALH01 + 5; PRO 100 3.0 ALH02 + 7; PRO E-100H 1.1 ALH13 4;17:18:49; 1000 Alarm*(-> ;System*-V 512:018 49; 1000 Alarm*(-> ;Variable-v Variable-v Variable-v	
tatistics Run  PRO_E-100H_XXX.INI  24.06.2014  9  9600e C\Usei \Dropbox\Xtralis\Softw	are\PRO_9V25\

List of all connected detectors, their types, Firmware version and number of alarms since beginning of recording. This example shows three Detectors connected, 4 and 5 have one Temper (T: 01) Alarm in the counter ("T: 01") The events are listed real time below (4 and 5 "System=-V" for Vandal).

Abbreviation	Event
GA	General Alarm
Т	Temper
Р	Power faults
CZ	Creep zone (PRO-E only)
Ax	Alarm in respective Zone S, M or L
Wx	Warning in respective Zone S, M or L
V	Vandal
Wx	Warning in respective Zone S, M or L

3. Click ( ) to stop the process and save the file.

The file is saved in the "DAT" folder and named according to the following naming convention:

"STAz-yymmdd\_nnn.xxx"

z	number of statistics file
уу	year
mm	month
dd	day
nnn	sequential number (1 - 999)
ххх	address number

#### 1.2.5.4 Debugger

**Note:** This feature of PRO E-Tool offers no benefits for commissioning, maintenance and fine tuning. The debugger is specifically meant for software developers to debug their protocol implementation by giving the opportunity to view, analyse and record the whole data stream of the RS 485 bus.

The debugger helps record all communication made between the detector and computer and save this information in files stored in the computer. These files are saved in the "DAT" sub-folder accessed through the ADPRO<sup>®</sup> PRO E-Tool for Windows<sup>®</sup> folder.

Click "Debugger" to open the Debugger window, it appears as follows:

Clear       NewElle       Communication         >       Debug Informationen          ErrorZS       ErrA       :       0 ErrW       :       0         ErrorCom chkSum:       0 Tmo       :       0 Buf       :       0         >       >       >       >       >       >       >         >	a <sup>0</sup> Debugger					- • ×
> Debug Informationen ErrorZS ErrA : 0 ErrK : 0 ErrW : 0 ErrorCom chkSum: 0 Tmo : 0 Buf : 0 > > > <	Clear New <u>File</u>				Communication	^
Debug Informationen ErrorZS ErrA : 0 ErrK : 0 ErrW : 0 ErrorCom chkSum: 0 Tmo : 0 Buf : 0 > > > > 	>					
Error2S ErrA : 0 ErrK : 0 ErrW : 0 ErrorCom chkSum: 0 Tmo : 0 Buf : 0 > > > > > > > > > > > > > > > > > > >	Debug Informationen				-	
ErrorCom chkSum: 0 Tmo : 0 Buf : 0	ErrorZS ErrA :	0 ErrK :	O ErrW :	0		
	ErrorCom chkSum:	0 Tmo :	0 Buf :	0		Ξ
	>					
	>					
	>					
	>					* ≡
	< [		m			•

To start recording of data traffic and save this information in the computer, follow these steps:

1. Click the checkbox next to "Communication", the window appears as follows:

🖵 Debugge	er																					E	-	) [ G		×
<u>C</u> lear	New <u>F</u> ile		_	_	_	_	_	_	_	_	_	_	_	_		<b>v</b>	Comr	nuni	catio	n						^
>																										
Debug In:	formation	len -																								
ErrorZS	ErrA :		0	Errk	K :		0	) E1	rrW	2		0														
	ErrP :		0																							
ErrorCom	chkSum:		0	Tmo		:	0	) Bi	ıf			0														E
>																										
Interrupt	t Count:	3041	.7	Len	(akt	t/f:	ree/	mai	K):		2	493	3	27												
>																										
>																										
1.																										-
12:22:20	:004;A>01	AB	01	00																						
12:22:20	:050;A<01	AB	16	00	00	00	00	00	00	00	00	10	00	00	01	00	00	00	74	56	0B	98	0A	07	00	
12:22:20	:082;A>01	AB	01	10																						
12:22:20	:128;A<01	AB	0C	00	00	B2	C9	00	00	B2	C9	00	19	00	00		#47									
12:22:20	:160;A>01	AB	01	00																						
12:22:20	206;A<01	AB	16	00	00	00	00	00	00	00	00	10	00	00	01	00	00	00	74	56	0B	98	OA	07	00	
12:22:20	238;A>01	AB	01	15																						
12:22:20	269:A<01	AB	09	01	00	00	00	00	00	00	00	00		#31												
12-22-20	300:A>01	AB	01	00																						
12-22-20	347:A<01	AB	16	00	00	00	0.0	0.0	0.0	0.0	0.0	10	00	00	01	00	0.0	0.0	74	56	OB	98	0A	07	00	
12-22-20	378:A>01	AC	00											20	1											-
12-22-20	425-2<01	AC	10	49	52	34	38	33	32	28	30	31	01	01	42	06	02	02	01		+46					- <b>+</b>
4	. 120, A-01	no	10	12	02	01	00	00	02	1	1	01	-	01			02	02		-	-10					

2. Click "New File".

Data is saved in the file; you can create another file by clicking "NewFile".

To stop recording of data, click "Clear".

Files are named according to the following naming convention:

"DBG-yymmdd\_nnn.txt" where

уу	year
mm	month
dd	day
nnn	sequential number (1 - 999)

The following abbreviations are used in data recording:

Abbreviation	Error
ErrA	Error counter
ErrK	Error counter configuration
ErrW	Error counter working
ErrP	Error counter synchronisation
ChkSum	Error counter check sum
Tmo	Error counter timeout
Buf	Error counter buffer

# 1.3 Uninstall Software

You might need to uninstall the ADPRO PRO E-Tool for Windows<sup>®</sup> for any reason; the Software enables you to do so by providing you with a user-friendly wizard.

To uninstall the Software, follow these steps:

- 1. Open the folder in which you have installed the Software,
- 2. Double click on "unist000.exe", the following message appears:



3. Click "Yes", the following window appears:

ADPRO Uninstall	23
Uninstall Status Please wait while ADPRO is removed from your computer.	1
Uninstalling ADPRO	
	Cancel

4. Wait till the uninstallation process is complete, the following message appears:



5. Click "OK".

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# 2 iCommission

iCommission is a unique one-man-commissioning tool which helps to vertically align a PRO E detector from a distance of up to 220 meters.

It consists of:

- The iCommission unit, which hooks onto the vertical alignment screw on the detector.
- The iCommission iOS app for compatible iOS devices (Apple iPhone, iPad, iPod touch).



Front view with user panel

Rear view with WiFi antenna, 4mm Allen/Hex key driver and clamps

# 2.1 Front User Panel Overview



1	<b>RP-SMA-connector</b> Use to install included WiFi antenna
2	Power LED Lit when unit is switched on
3	Charge LED Lit while unit is being charged
4	Motor LED Lit while detector is moving up or down

5	Mini-USB port Charge iCommission with USB charger
6	<b>ON/OFF button</b> Press to switch iCommission on/off
7	DOWN button Press to lower detector
8	UP button Press to raise detector

# 2.2 iOS App Overview



1	<b>WiFi indication</b> Shows connection status between iOS device and iCommission unit
2	<b>Speed selection</b> Roll to select speed of movement from slow (1) to fast (10)
3	Battery indicator Shows charge level of iCommission battery
4	<b>UP button</b> Tap for brief or hold for continuous raising of the detector
5	<b>Down button</b> Tap for brief or hold for continuous lowering of the detector

# 2.3 iCommission Installation and Alignment

To install the tool and align the detector, follow these steps:

1. Search for "Xtralis" in the App Store, scroll to the iCommission app and tap "GET" to install it.



2. Make sure that the iCommission unit is fully charged, using an USB charger and a mini USB cable, place it on the vertical alignment screw of the PRO E detector as shown below:



- 3. Make sure that the 4mm hexagon driver connects inside the alignment screw and the outside clamps lock properly on the bracket.
- 4. Switch on the unit by pressing the left button until the LED switches on. After a few seconds, the iCommission creates its own WiFi hotspot with the following details:

SSID: iCommission-by XTRALIS

Password: 12345678

Settings Wi-Fi	<b>≁</b> 95% <b>■</b> •	Can	Teleko Ente cel	m.de 4 In the pa	G asswor En	17 d for "i iter Pa	≃25 Comm <b>assw</b>	ission-I ord	by XTR	≁ 95 ALIS*	Join	••••○ Telekom.de      ♥     17:25	-
Wi-Fi								•				Wi-Fi	2
CHOOSE A NETWORK $\frac{1}{2}$		Pa	sswu	ru •			-					✓ iCommission-by XTRALIS ● 令 (	D
ALIBERT	₽ ≑ ()											CHOOSE A NETWORK	
FRITZIBox 7312	ê ≑ (Ì)											Other	
FRITZ!Box Fon WLAN 705	0 🕯 후 🚺												
iCommission-by XTRALIS	<b>●</b> 🗢 (j											Ask to Join Networks	
tatiana 🔒 🗢 🥡												Known networks will be joined automatically. If no known networks are available, you will have to manually select a network.	
zaccc	ê ≑ (j)												
Other													
Ask to Join Networks		1	2	3	4	5	6	7	8	9	0		
Known networks will be joined automa networks are available, you will have to	tically. If no known o manually select a	-	1	:	;	(	)	\$	&	0	"		
network.		#+=		•	,	1	?	1	,		•		
		ABC				sp	ace			Joi	n		

5. Use the up/down buttons on the front panel to rough-align the detector (see the ADPRO PRO E PIR Installation Manual, document no. (27386), section "Alignment with the help of the telescope").



6. Perform walk test at  $\frac{1}{4}$ ,  $\frac{1}{2}$  and full nominal range.

 Use CT PRO 2 (see the ADPRO PRO E PIR Installation Manual, document no. (27386), section "CT PRO – wireless walk tester"), iPIR app with FastTrace 2 or remote controlled PC running PRO SW to determine performance and fine tune sensitivity.

If performance is still unsatisfactory, start the iCommission app and remotely change the vertical alignment up or down until the required performance is reached.



When the detector has full performance across the desired range, the vertical alignment is done and the iCommission unit can be removed. Continue with the commissioning process.

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# 3 PRO E-IPM (IP Module)



ADPRO PRO E detectors have RS-485 interfaces which allow for remote maintenance and full alarm management via up to 1000 m long field bus connection. (see the ADPRO PRO E PIR Installation Manual, document no. (27386), section "Multiple detectors at interface module IFM-485-ST").

Using the IP Module (IPM) converts this RS-485 bus to Ethernet and makes it available remotely through the IP address of the module.

The following instructions show how to set up and prepare the IP Module and how to create a Virtual COM Port (VCP) on a PC in order to access the detector connected to the IPM.

# 3.1 System Overview



This overview shows all three parts of the system: the workstation, the PRO E detector and the data infrastructure in-between.

#### Workstation:

The ADPRO software (see "PRO E-Tool Software" on page 3) needs to connect to a serial COM port to access the detectors. Normally this is a regular RS-232 COM port, which then gets converted to RS-485 and can directly communicate to detectors on the bus. If there is a USB connected RS-485 converter, the COM port used is a Virtual COM Port (VCP) which is created by a driver (VCP driver from FTDIchip.com) to direct the data stream from the USB port to the PRO Software.

When using the IP Module, you need a driver (com2tcp) to create a VCP from the IP address. This VCP cannot be same as the one the PRO software connects to, so another VCP should be created and then connected to the other VCP through a Virtual Null Modem Cable (com0com driver).

#### Detector:

The IP Module should be configured to have a known IP address (using the Lantronix DeviceInstaller) and then connected to a Power over Ethernet (PoE) enabled switch.



# 3.2 xPico Module Setup (PRO (E) Series Detector)

The main component of the IPM is an xPico module which should be configured, to do so follow these steps:

- Install the "Lantronix DeviceInstaller" software (follow the steps available on: <u>http://ltxfaq.custhelp.com/app/answers/detail/a\_id/644</u> or via the Lantronix website: <u>http://www.lantronix.com</u>)
- 2. Switch the network card over to the network where the xPico module is located.
  - **Note:** To locate the network, start the DeviceInstaller and press <F5> to refresh the environment.

Internet Protocol (TCP/IP) Propertie	<u>-</u> s <u>?</u> ×
General	
You can get IP settings assigned autor this capability. Otherwise, you need to the appropriate IP settings.	natically if your network supports ask your network administrator for
Obtain an IP address automatical	ly
IP address:	192168 31 33
Subnet mask:	255.255.255
Default gateway:	· · ·
C Obtain DNS server address autor	natically
⊢	dresses:
Preferred DNS server:	· · ·
Alternate DNS server:	•
	Advanced
	OK Cancel

When xPico module and PC are on the same network, the device appears in black letters in the configuration screen, while if the module is on another network (e.g. if the subnet is different), it appears in red letters.

If the network on which the xPico is located cannot be accessed, you can use the **Assign IP** button to switch the xPico module to another network. In case this fails, try connecting the PC and xPico module via a standalone network switch without connection to other networks and set the PCs network settings according to the existing network configured in the xPico module.



3. Double-click the xPico module, the configuration screen appears as shown below:

File Edit View Device Tools Help				
	- 22			
🤍 Search 🤤 Exclude 👒 Assign IP 👹 Up	grade			
El Lantronix Devices - 1 device(s)	Device Details   We	h Configuration L Telnet Configurati	lan	
E 💑 LAN-Verbindung (192 168 31 33)		b configuration Transcooringarati	50	
	Reload Details			
Pico - firmware v6 8 0 2	~	Property	Value	
192 169 31 220		Name	value vPice	
	L 323////	DHCP Device Name		
	1000	Group		
		Comments		
		Device Family	xPico	
		Туре	xPico	
		ID	×6	
		Hardware Address	00-80-A3-93-7A-E7	
		Firmware Version	6.8	
		Extended Firmware Version	6.8.0.2	
		Online Status	Online	
		IP Address	192.168.31.220	
		IP Address was Obtained	Statically	
		Subnet Mask	255.255.255.0	
		Gateway	0.0.0.0	
		Number of COB partitions suppo	6	
		Number of Serial Ports	2	
		TCP Keepalive	45	
		Telnet Supported	True	
		Telnet Port	9999	
		Web Port	80	
		Maximum Baud Rate Supported	921600	
		Firmware Upgradable	True	
		Supports Configurable Pins	True	
		Supports Email Triggers	False	
		Supports AES Data Stream	True	
		Supports 485	True	
		Supports 321K Baud Hate	True	
		Supports HITTD Calve	True	
		Supports 220K Paud Pate	True	
		Supports 230K badd Hate	True	
		supports un to	THE	

If you receive a new xPico module, the connection mode may not be configured correctly. To fix this, connect via the telnet interface as shown next:



4. Press **Enter** within the first 5 seconds after connecting to enter the device setup mode as shown below, otherwise the telnet server on the xPico module will disconnect and should be connected again:

💯 Lantronix DeviceInstaller 4.4.0.1		×
File Edit View Device Tools Help		
🔎 Search 🤤 Exclude 🔌 Assign IP 🚷 Up	grade	
🖃 👼 Lantronix Devices - 1 device(s)	Device Details Web Configuration Telnet Configuration	
E-Se LAN-Verbindung (192.168.31.33)	IP Address: 192.168.31.220 Port: 9999 Sisconnect Clear	
E theo E were 192168.31.220 S 192168.31.220	MAC address 0000A3937AE7 MAC address 0000A3937AE7 Software version V6.8.0.2 (120628) XPICO AES library version 1.8.2.1 Press Enter for Setup Mode	
Ready		-

Upon successful connection to setup mode on the xPico module, an option menu appears.

5. Choose "1" to change channel 1 settings as shown next:

Search	
Search → Exclude Assign P → Upgrade Lantonix Devices - 1 device() Lantonix Devices - 1 device() Port 10201 Connect Mode : C0 Send '+++' in Modem Mode enabled Show IP addr after 'RING' enabled Auto increment source port disabled Remote IP Adr: none, Port 00000 Disconn Mode : 00 Flush Mode : 00 TCP Reetransission timeout: 500 ms Alternate MAC: disabled	
Lantonik Devices 1 device(s)     Lovice Details Web Configuration Tehet Configuration     webco     whice     w	
PAddress: 192.168.31.220 Port: 9999  Disconnect  Clear Paddress: 192.168.31.220 Port: 9999  Disconnect Clear Paddress: 192.168.31.220 Port: 10001 Connect Mode : C0 Send '+++' in Modem Mode enabled Show IP addr after 'RING' enabled Auto increment source port disabled Remote IP Adt: none, Port 00000 Disconn Mode : 00 Flush Mode: 00 K*** Expert TCP Keepalive : 450 ARP cache timeout: 6005 CPU performance: Regular Monitor Mode @ bootup : enabled HTTP Port Number : 80 NTU Size: 1400 TCP Re-transmission timeout: 500 ms Alternate MAC disabled	
<pre>**** Wico-finware v6.8.02 **** Channel 1 Baudrate 9600, I/F Mode 7F, Flow 00 Port 10001 Connect Mode : C0 Send '+++' in Modem Mode enabled Show IP addr after 'RING' enabled Auto increment source port disabled Remote IP Adr: none, Port 00000 Disconn Mode : 00 Flush Mode : 00 *** Expert TCP Keepalive : 45s ARP cache timeout: 600s CPU performance: Regular Monitor Mode &amp; bootup : enabled HTTP Port Number : 80 NTU Size: 1400 TCP Re-transmission timeout: 500 ms Alternate MAC disabled</pre>	
<pre>*** Channel 1 Baudrate 9600, I/F Mode 7F, Flow 00 Port 10001 Connect Mode : C0 Send '+++' in Modem Mode enabled Show IP addr after 'RING' enabled Auto increment source port disabled Remote IP Adt: none, Port 00000 Disconn Mode : 00 Flush Mode : 00 *** Expert TCP Keepalive : 45s ARP cache timeout: 600s CPU performance: Regular Monitor Mode 0 bootup : enabled HTTP Port Number : 80 NTU Size: 1400 TCP Re-transmission timeout: 500 ms Alternate MAC: disabled</pre>	
Baudrate 9600, I/F Mode 7F, Flow 00 Port 10001 Connect Mode : C0 Send '+++' in Mode mode enabled Show IP addr after 'RING' enabled Auto increment source port disabled Auto increment source port disabled Remote IP Adr: none, Port 00000 Disconn Mode : 00 Flush Mode : 00 *** Expert TCP Keepalive : 455 ARP cache timeout: 600s CCPU performance: Regular Monitor Mode 0 bootup : enabled HTTP Port Number : 80 MTU Size: 1400 TCP Re-transmission timeout: 500 ms Alternate MAC: disabled	
Port 10001 Connect Mode : CO Send '+++' in Modem Mode enabled Show IP addr after 'RING' enabled Auto increment source port disabled Remote IP Adr: none, Port 00000 Disconn Mode : 00 Flush Mode : 00 *** Expert TCP Keepalive : 45s ARP cache timeout: 600s CPU performance: Regular Monitor Mode 0 boctup : enabled HTTP Port Number : 80 NTU Size: 1400 TCP Re-transmission timeout: 500 ms Alternate MAC: disabled	
Connect Mode : CO Send '+++' in Modem Mode enabled Show IF addr after 'RING' enabled Auto increment source port disabled Remote IP Adr: none, Port 00000 Disconn Mode : OO Flush Mode : OO *** Expert TCP Keepalive : 45s ARP cache timeout: 600s CCPU performance: Regular Monitor Mode 0 bootup : enabled HTTP Port Number : 80 NTU Size: 1400 TCP Re-transmission timeout: 500 ms Alternate MAC: disabled	
Send '+++' in Moder Mode enabled Show IP addr after 'RING' enabled Auto increment source port disabled Remote IP Adr: none, Port 00000 Disconn Mode : 00 Flush Mode : 00 *** Expert TOP Keepalive : 45s ARP cache timeout: 600s CCPU performance: Regular Monitor Mode 0 bootup : enabled HTTP Port Number : 80 MTU Size: 1400 TCP Re-transmission timeout: 500 ms Alternate MAC: disabled	
Show IP addr after 'RING' enabled Auto increment source port disabled Remote IP Adr: none, Port 00000 Disconn Mode : 00 Flush Mode : 00 *** Expert TCP Keepalive : 45s ARP cache timeout: 600s CCPU performance: Regular Monitor Mode 0 bootup : enabled HTTP Port Number : 80 NTU Size: 1400 TCP Re-transmission timeout: 500 ms Alternate MAC: disabled	
Auto increment source port disabled Remote IP Adr: none, Port 00000 Disconn Mode : 00 Flush Mode : 00 *** Expert TCP Keepalive : 45s ARP cache timeout: 600s CCPU performance: Regular Monitor Mode 0 bootup : enabled HTTP Port Number : 80 NTU Size: 1400 TCP Re-transmission timeout: 500 ms Alternate MAC: disabled	
Remote IP Adr: none, Port 00000 Disconn Mode : 00 Flush Mode : 00 *** Expert TCP Keepalive : 45s ARP cache timeout: 600s CCPU performance: Regular Monitor Mode 0 bootup : enabled HTTP Port Number : 80 NTU Size: 1400 TCP Re-transmission timeout: 500 ms Alternate MAC: disabled	
Disconn Mode : 00 Flush Mode : 00 *** Expert TCP Keepalive : 45s ARP cache timeout: 600s CPU performance: Regular Monitor Mode 0 bootup : enabled HTTP Port Number : 80 MTU Size: 1400 TCP Re-transmission timeout: 500 ms Alternate MAC: disabled	
Flush Mode : 00 *** Expert TCP Keepalive : 45s ARP cache timeout: 600s CCPU performance: Regular Monitor Mode 0 bootup : enabled HTTP Port Number : 80 MTU Size: 1400 TCP Re-transmission timeout: 500 ms Alternate MAC: disabled	
*** Expert TCP Keepalive : 45s ARP cache timeout: 600s CCPU performance: Regular Monitor Mode 0 bootup : enabled HTTP Port Number : 80 NTU Size: 1400 TCP Re-transmission timeout: 500 ms Alternate MAC: disabled	
<pre>*** Expert TCP Keepalive : 45s ARP cache timeout: 600s CPU performance: Regular Monitor Mode 0 bootup : enabled HTTP Port Number : 80 MTU Size: 1400 TCP Re-transmission timeout: 500 ms Alternate MAC: disabled</pre>	
TCP Keepalive : 45s ARP cache timeout: 600s CPU performance: Regular Monitor Mode 0 bootup : enabled HTTP Port Number : 80 MTU Size: 1400 TCP Re-transmission timeout: 500 ms Alternate MAC: disabled	
ARP cache timeout: 600s CCPU performance: Regular Monitor Mode 0 boctup : enabled HTTP Port Number : 80 MTU Size: 1400 TCP Re-transmission timeout: 500 ms Alternate MAC: disabled	
CPU performance: Regular Monitor Mode 0 bootup : enabled HTTP Port Number : 80 MTU Size: 1400 TCP Re-transmission timeout: 500 ms Alternate MAC: disabled	
Monitor Mode 9 bootup : enabled HTTP Port Number : 80 MTU Size: 1400 TCP Re-transmission timeout: 500 ms Alternate MAC: disabled	
NTU Size: 1400 NTU Size: 1400 TCP Re-transmission timeout: 500 ms Alternate MAC: disabled	
TCP Re-transmission timeout: 500 ms Alternate MAC: disabled	
Alternate MAC: disabled	
Ethernet connection type: auto-negotiate	
Fortane of the action of the state	
Change Setup:	
0 Server	
1 Channel 1	
5 Expert	
6 Security	
7 Defaults	
8 Exit without save	
9 Save and exit Your choice ?	

6. Press **Enter** to select the default settings and enter "C0" in "ConnectMode" option as shown below: Note that most settings can be left according to default values.

💯 Lantronix DeviceInstaller 4.4.0.1		
File Edit View Device Tools Help		
🔎 Search ( Exclude 🔇 Assign IP 🚷 Up	grade	
🖃 💼 Lantronix Devices - 1 device(s)	Device Details Web Configuration Telnet Configuration	
🖻 💑 LAN-Verbindung (192.168.31.33)	TD Address: 192 168 31 220 Port: 9999 Disconnect Clear	
E C xPico		
xPico - firmware v6.8.0.2	Show IP addr after 'RING' enabled	-
192.168.31.220	Auto increment source port disabled	
	Remote IP Adr: none, Fort 00000	
	Flush Mode: 00	
	Tubh houe . oo	
	*** Expert	
	TCP Keepalive : 45s	
	ARP cache timeout: 600s	
	CPU performance: Regular	
	Monitor Mode 0 bootup : enabled	
	HTTP Port Number : 80	
	MTU Size: 1400	
	TCP Re-transmission timeout: 500 ms	
	Alternate MAC: disabled	
	Ethernet connection type: auto-negotiate	
	Change Setup:	
	0 Server	
	1 Channel 1	
	5 Expert	
	6 Security	
	7 Defaults	
	8 Exit without save	
	9 Save and exit Your choice ? 1	
	Baudrate (9600) 2 9600	
	I/F Mode (7F) ?	
	Flow (00) ?	
	Port No (10001) ?	
	ConnectMode (CO) ?	
🗹 Ready		

- 7. Proceed with the settings. When done, the main menu appears,
- 8. Select "9" to Save and exit the new settings then press Enter.

The Telnet configuration is now done. You can configure the other settings using the Web Configuration Tools.

To configure the settings, follow these steps:

💯 Lantronix DeviceInstaller 4.4.0.1		
File Edit View Device Tools Help		
🔎 Search 🤤 Exclude 🔌 Assign IP 💊 Up	grade	
Search ≥ Exclude Assign IP Up to Lantonix Devices -1 device(s) Lantonix Devices -1 device(s) AN-Vetindung (192.168.31.33) An-Vetindung (192.168.31.33) An-Vetindung (192.168.31.32) An-Vetindung (192.168.31.32)	prode  Pevice Details Web Configuration Telnet Configuration  Address: http://192.168.31.220:80	Nevigate to http://192.168.31.2
	Navigate to http://192.168.31.220.80	
🗹 Ready		

1. Enter the username and password which are left blank then click **OK**, as shown below:

💯 Lantronix DeviceInstaller 4.4.0.1		
File Edit View Device Tools Help		
🔎 Search 🤤 Exclude 🔌 Assign IP 💊 Up	rade	
🖃 🚰 Lantronix Devices - 1 device(s)	Device Details Web Configuration Telnet Configuration	
English LAN-Verbindung (192.168.31.33)	G → Address: http://192.168.31.220:80	- 🖸 🖓 🔇   😳 🖼
Break xPico Break xPico - firmware v6.8.0.2		
192.168.31.220	Verbindung herstellen mit 192.168.31.220	
	Der Server "192.168.31.220" an "(null)" erfordert einen Benutzernamen und ein Kennwort. Warnung: Dieser Server fordert das Senden von Benutzernamen und Kennwort auf unsichere Art an (Basisauthentifizierung ohne eine sichere Verbindung). Benutzername: Kennwort: Kennwort speichern OK Abbrechen	
	Auf http://192.168.31.220/secure/ltx_conf.htm wird gewartet	
Ready		

2. Press Enter.

The Device Server Configuration Manager can also be accessed via regular web browser as shown next:



3. Configure the xPico Serial Settings using the values mentioned in the below image:



4. Click **OK** to save the configurations locally. This does not transmit the settings to the xPico, this process is explained in the next step.

File Edit Verw Devke Tools       Asign IP       Uggete         Second Control:       Device Device 1       Device Device 1         LANV-Verbridung (192:18:31:32)       Device Device 1       Device Device 1         Price - Innuware vG. 80.2       Device Device 1       Device Device 1         Server       Disable Serial Port       MacAderse: 00-80-A3:93:7A-E7         Disable Serial Port       None       MacAderse: 00-80-A3:93:7A-E7         Disable Serial Port       None       Server         Protocol:       R5485-2 wire       Flow Control:         None       Server       Protocol:       R5485-2 wire         Protocol:       R5485-2 wire       Flow Control:       None         Configurable Port       It 65485       Data Bits       Parity: Even Istop Bits: 1         Server       Server       Flow Control:       None       None         Consection       Configurable Port       It 628 Group       Send Frame Immediate: Pres Istop Bits: 1       Server         Server       Server       Yes Istop Bits       It fortalits       Mach Bytes: 000       Send Frame Immediate: Pres Istop Bits: 1         Server       Server       Yes Istop Bits       Yes Istop Bits       It fortalits       With Advise Connect C Yes Istop Bits       Yes Istop Bits </th <th>🕿 Lantronix DeviceInstaller 4.4.0.1</th> <th></th> <th></th>	🕿 Lantronix DeviceInstaller 4.4.0.1		
Service Devices: 1 device(s) Service Detail: Web Configuration Device Detail: Web Configuration Defaults Match Bytes: @ No Server Server Server Server Protocol: R5485-2 wire  Protocol: R5	File Edit View Device Tools Help		
Example 2 Section 2 Sector	🔎 Search 🤤 Exclude 👒 Assign IP 🛯 🚷 Upgrad		
Apply Defaults     Who connect C Yes © No     Match Bytes: C Yes     Match Bytes: C Yes     Match Bytes: C Ye	Lantronix Devices - 1 device(s) LAN-Verbindung (192.168.31.33)	Device Details Web Configuration Telnet Configuration	
Metwork       Fri Settings         Server       Protocol: RS485-2 wire         Serial Tunnel       Protocol: RS485-2 wire         Hobbits       Baud Rate: 9600 • Data Bits: 8 • Parity: Even • Stop Bits: 1 •         Channel 1       Stop Bits: 1 •         Sorial Settings       Connection         Connection       Enable Packing         Lide Gap Time: 12 msec       Match 2 Byte Sequence: • Yes • No         Match Bytes: 0000       ow000         Send Trailing Bytes: • None • One • Two         Hexting of Disconnect: C Yes • No         With Active Connect: C Yes • No         With Passive Connect: C Yes • No	i → xPico i → w xPico - firmware v6.8.0.2 i → w 192168.31.220		Firmware Version: V6.8.0.2 MAC Address: 00-80-A3-93-7A-E7
Senial Settings       ck Control         Configurable Pins       Enable Packing         Apply Settings       Idle Gap Time: 12 msec         Watch 2 Byte Sequence:  () Yes () No       Send Frame Immediate: () Yes () No         Apply Defaults       Match Bytes: 0x000       ox000         Send Trailing Bytes:  () None () One () Two       Hote () Hexitory         Ish Mode       Flush Input Buffer         With Active Connect:  () Yes () No       With Active Connect:  () Yes () No         With Passive Connect:  () Yes () No       At Time of Disconnect:  () Yes () No         At Time of Disconnect:  () Yes () No       At Time of Disconnect:  () Yes () No		Arr         Endotroit           Network         vrt Settings           Server         Protocol:           RS485 - 2 wire           Hostlist         Baud Rate:           D600 -	e Flow Control: None Data Bits: 8 Parity: Even Stop Bits: 1
Apply Defaults       Watch 2 Byte Sequence: <sup>C</sup> Yes <sup>C</sup> No Match Bytes: <sup>O</sup>		Serial Settings Connection Configurable Pins Apply Settings Idle Gap Time: 12	9 msec 💌
Jsh Mode       Flush Input Buffer       Flush Output Buffer         With Active Connect: C Yes © No       With Active Connect: C Yes © No       With Passive Connect: C Yes © No         With Passive Connect: C Yes © No       At Time of Disconnect: C Yes © No       At Time of Disconnect: C Yes © No         OK       Done!		Apply Defaults Match 2 Byte Sequence:  Apply Defaults Match Bytes: 0400 (Hex	Yes ● No Send Frame Immediate: ● Yes ● No ○ 0x <sup>00</sup> Send Trailing Bytes: ● None ● One ● Two x)
OK Done!		Jish Mode Flush Input Buffer With Active Connect. C Y With Passive Connect. C Y At Time of Disconnect. C Y	Flush Output Buffer           Yes © No         With Active Connect: C Yes © No           Yes © No         With Passive Connect: C Yes © No           Yes © No         At Time of Disconnect: C Yes © No
		۲ <sup></sup>	OK Done!

5. Configure network settings of the xPico module. If the Detector is on the same network as the attached control system (e.g. computer running ADPRO software), enter a Gateway IP of all "0"s to disable routing as shown below:

🕿 Lantronix DeviceInstaller 4.4.0.1					_ 8 ×
File Edit View Device Tools Help					
🔎 Search   🤤 Exclude 🛭 🗞 Assign IP 🛛 🚷 Upgra	de				
E Lantronix Devices - 1 device(s)	Device Details Web Cont	figuration Telnet Configuration			
E-State LAN-Verbindung (192.168.31.33)	🔁 🔁 🛞 Address: ht	ttp://192.168.31.220/secure/ltx_conf.htm		🔁 🎅 🔘 🛛	<b>9</b> 🖾
⊟ ≪ #Pico - firmware v6.8.0.2	LANTR	SNI <mark>X</mark> °	Firmware Version: V6.8.0.2 MAC Address: 00-80-A3-93-7A-E7		
	<i>ය</i>		Network Settings		-
	Network Server Serial Tunnel Hostlist Channel 1 Serial Settings Connection Configurable Pins Apply Settings Apply Defaults	Network Mode: Wired Only IP Configuration O Obtain IP address: Auto Configuration BOOTP: DHCP: DHCP: AutoIP: DHCP Host Name: © Use the following IP Address: Subnet Mask: Default Gateway: DNS Server: Ethernet Configuration I Auto Negotiate	s automalically n Methods @ Enable @ Disable @ Enable @ Disable @ Enable @ Disable IP configuration: 192.168.31.220 255.255.265.0 0.0.0 0.0.0		
		Sneed	@ 100 Mbos @ 10 Mbos		
	Fertio				

- 6. Click **OK** at the bottom of the page to save the configuration parameters locally.
- 7. Click "Apply Settings" from the left menu to transmit the saved settings to the xPico.



When the transmission is complete, the detector connected with the xPico module can be accessed via Serial-over-Ethernet connection as explained in the next section.

# 3.3 PC Setup (com0com with com2tcp)

After installing the com0com software, configure the virtual COM ports, this step and changing the com0com settings are done through the com0com Setup screen as shown below:



#### Notes:

- The "emulate baud rate" checkbox is optional, as the baud rate will be controlled by com2tcp.
- The only required connections are "RX" and "TX", each of them is crossed to the other on the second port. Other connections can be left as they are or configured according to the above image (should a different setting exist).

After configuration is done and the system is set up, start the batch file "PoE\_SoE\_startcom2tcp.bat".

**Note:** If different parameters are used in the xPico Module setup (e.g. IP address or port number), make sure to change those parameters in the batch file too.



This connects the workstation virtual COM1 port to the xPico module, so that the ADPRO software (or any other control software) can access the detector via COM2.

Alternatively, you can use any other TCP serial tunnel software in raw data mode (not telnet mode). If telnet connection mode is desired, change the xPico settings accordingly.

When the setup is finished successfully, you can access the detector for example via the ADPRO software:



# 3.3.1 Connecting Multiple Detectors

When connecting more than one detector, the number of virtual serial ports in the workstation should be adjusted since every detector needs two virtual serial ports, one network-sided and another one linked to the application. For example, if you have 3 detectors connected via Ethernet, you will need 3 pairs of linked virtual ports in com0com as shown below:



To configure com2tcp (network-) connection details, modify the corresponding parameters in the "PoE\_SoE\_ start\_com2tcp.vbs" file:

Once the configuration is done, start the "PoE\_SoE\_start\_com2tcp.vbs" file. When the connections are successfully established, start the ADPRO Software and select the corresponding COMx port for the detector you want to access.

# Notes

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