



# **WireLEX PC Configuration Tool**

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# **INTRODUCTION**

The FDW2W (Wire to Wireless) device (TRANSLATOR MODULE) enables an existing Wireless InterActive fire detection system to be extended with minimum disruption for the end user. All field device programming can be undertaken prior to integration on to the existing system, thus minimising system down time. It is recommended that a comprehensive site survey be undertaken prior to starting any work to help determine optimum siting arrangements.

System coverage can be increased by the using EXPANDER MODULES which act as signal boosters to extend range. These modules must be locally powered from suitable standard compliant 12-24VDC Power Supply Units. Note that it is also possible for additional devices to be directly associated with these EXPANDER modules, creating sub-cells that communicate with the panel via the loop TRANSLATOR.

The TRANSLATOR is wired directly to, and powered by, a chosen fire detection loop with all associated Wireless devices then connected via a secure wireless network.

This guide details how to program a TRANSLATOR with or without extension EXPANDER Modules and associated field (child) devices prior to connecting them to the hard wired Fire Detection Control Interface Equipment (Panel) loop. If only a small number of wireless devices are to be linked to a Translator it may be easy to use the local programming facilities of the Translator without the need for a PC on site (refer to the FDW2W Translator Instruction Manual for more details). With a larger number of wireless devices, and certainly if Expander Modules are involved, then the WireLEX software should be used, and it is recommended that modules and devices be pre-programmed to aid efficient operations on site.

The guide also details some of the auxiliary processes available to assist the engineer diagnose potential causes and solutions for problems directly related to the wireless equipment.

The Commissioning/Installation Engineer must ensure they have the WireLEX software installed on a portable computer prior to commencing this procedure, together with having a suitable serial interconnect cable.

#### LOADING SOFTWARE

The WireLEX software is supplied to approved customers on a dedicated CD-ROM.

Insert the CD-ROM in to the laptop CD drive. The programme should "autostart", however otherwise simply navigate to the "WSetupEngxxx.exe" and double click on the application. The following window will appear:



Click on "Next" to move to the next stage of the Installation Wizard for the WireLEX Configuration software. The following window will appear:



Install the software in the selected default folder on the computer or modify if required by selecting "Browse". Once you are satisfied that the destination folder is correct, select "Next".

The following window will appear:

😼 Setup - WirelEx Fire 📃 🗖 🗙
Select Start Menu Folder Where should Setup place the program's shortcuts?
Setup will create the program's shortcuts in the following Start Menu folder. To continue, click Next. If you would like to select a different folder, click Browse.
WirelEx Fire 4.3 EU Browse
< Back Next > Cancel

This will add a line for the programme in the Start Listings so that the application can be selected from Main Shortcuts.

Change the folder name if required.

If the folder name is correct, select "Next"

The following Window will appear:

😼 Setup - WirelEx Fire	
Select Additional Tasks Which additional tasks should be performed?	
Select the additional tasks you would like Setup to perform while installing W then click Next. Additional icons: ✔ Create a desktop icon	ïrelEx Fire,
< Back Next >	Cancel

Checking the box for "Create a desktop icon" will ensure a shortcut icon will be placed on the Desktop window allowing the application to be accessed easily from the Desktop. Select "Next". The following Window will appear:

🚱 Setup - WirelEx Fire	
Ready to Install Setup is now ready to begin installing WirelEx Fire on your computer.	
Click Install to continue with the installation, or click Back if you want to review or change any settings.	
Destination location: C:\Program Files\WirelEx Fire	
Start Menu folder: WirelEx Fire 4.3 EU	
Additional tasks: Additional icons: Create a desktop icon	
	<ul> <li>✓</li> <li>&gt;</li> </ul>
< Back Install	Cancel

This Window provides a summary of the information just entered by the user. Select "Install" to start the installation process and display the following Window:

🚱 Setup - WirelEx Fire	
Installing Please wait while Setup installs WirelEx Fire on your computer.	
Registering files	
	a
	Cancel

After completion of the application installation, remove the CD-ROM from the CD drive and store in a safe place. Follow the procedure on the following pages regarding the correct use of the software.

# **TO START**

Connect the computer to the Translator via an RS232 Serial Cable fitted with a standard 9 pin male D type connector.

Open the WireLEX software by double clicking the cursor over the WireLEX icon located on the computer desktop.

عاله

At the Main Menu page, select *File* and *New System*.

New system Open system Open last sys	tem				
5ave system 5ave system Exit	as Get all	Filter			
Time	Event		EXP n	Pa Detecto	Туре

The System properties window will appear. If required, change the System code and the RF Channel shown and press *OK*. (There is normally no requirement to change the System code)

System code 🛛 🗖 **	
Operating frequency Frequency 434 MHz range 368 MHz Channel 5	External jamming criterion
Long range mode	Turn on definition 30 Level, un. RSSI 5 Duration, sec

At the Main Menu page, select the **Configuration** tab. Right click the mouse over the System icon located in the "Radiosystem topology" area. Select "**Add VW2W**" from the drop down list.

& WirelEx Fire	e, Ver. 4.3 EU - 1	lew						
ile Options To	ools Help							
Events Configu	ration Status Link	quality						
Radiosystem to	opology		Child dev	ices				
🏠 Syst	New webse		<u>*</u>	Address	Туре	Partit	Prog.	Comments
	Add W2W							
	Callack all available							
	Collect all system p	ropercies						
	Properties							
Devices quan	hity: 0							
Expanders: 0	)							
Fire detector:	ectors: 0 s: 0							
Dredict traffi	ic: 0.000 %							
Freuitt, tram	10,000 78	1						

A window will appear with FDW2W properties detailed.

Expander address 0.0.0.0.0 Expander access password	Supervisory signals period	~
Current password	Child expanders' supervision period	3 min 💌
New Confirmation		

It is possible to change the access password (this is only used with the PU-R Wireless Keypad so is not normally changed). The only other parameter that can be changed is the "*Child Expanders' Supervision Period*".

This value is changed by placing the cursor over the arrow: a single left click will reveal the drop-down options available. Select an alternate time period if required and the window will close.

Expander access password	Supervisory signals period
	supervision period 3 min V 1.5 min 3 min V 9 min V
Confirmation	[ <u>15 min</u> ]

Once all parameters are acceptable, press "**OK**" to confirm the Translator values.

A new Translator has now been added to the System configuration and the related icon appears in the "Radiosystem topology" tree. The associated window has been updated to reflect the addition of the Translator.

Options Tools Help						
	ale averality of					
	nik qualicy					
ladiosystem topology	Child de	vices				
🖃 🍌 System	Device 🔺	Туре	Partit	Prog.	Comments	
	🔍 CN (W2W 0)	0	Translator		-	
$\mathbb{R}$						
-						
Devices quantity: 0						
Expanders: 1						
Security detectors: U Fire detectors: 0						
Due diet, twoffier 0,000 04						
Predict, traffic: 0.000 %						

To add comments - device location, etc., right click the mouse in the menu box and select *Comments* - up to 31 alphanumeric characters can now be entered. Press *OK* on completion to return to the Main Menu.

🍁 WirelEx Fire, Ver. 4.3 EU - Ne	w					
File Options Tools Help						
Tuesta Configuration Chatus Usland						
Events Configuration Status Link qu	Jailty					
Radiosystem topology	Child de	evices				
🖃 🦓 System	Device 🔺	Address	Туре	Partit	Prog.	Comments
	SCN (W2W 0)	Program expande Read expande	nder er properties		-	
		Restore expar Delete expano Reset expand	nder to factory setting ler from the system er	s (clear)		
		Comments Properties				
	User's C	comments Reception Area				
Devices quantity: 0 Expanders: 1 Security detectors: 0 Fire detectors: 0 Predict. traffic: 0.000 %		ОК	Cancel			
	<					

To add a device to the Translator, right click the mouse over the Translator's icon and select "Add child device"

Options Too	ls Help						
. Castinum	No.						
ents Conrigura	status L	ink quality					
adiosystem top	ology	Child d	evices				
🖃 🦾 System	ı	Device 🔺	Address	Туре	Partit	Prog.	Comments
	Add expande	r					
	Add child dev	ice N					
	Program tran	slator 🗟					
	Read translat	or properties					
	Restore trans	lator to factory settings (	clear)				
	Delete transla	ator from the system					
	Reset transla	tor					
	Properties						
L							
Devices quantil	by: 0						
Expanders: 1							
Security detect	tors: 0						
- ine decectors:							
Predict, traffic:	: 0.000 %						
		1					

A window with the list of selectable child devices now appears. Select the device and quantity required and press *Add* on completion.

Fire Devices
Aurora-DTR (Multicriteria Detector)
Aurora-DR (Photo Detector)
Aurora-TR (Thermal Detector)
CP-R (Fire Call Point)
👷 RIG (Input Module)
1 TOM-R (Output Module)
N/ Sirena-R
Quantity 📑 🗢
, in the second s
Add Cancel

A window will appear allowing the engineer to amend the device operating parameters. **Note:** The Supervisory Signal Period may be adjusted down to 12 seconds if necessary to assist during commissioning but generally it is acceptable to leave at 1 min to avoid overloading channel traffic. Left click on the down arrow and select the appropriate time option. If the device quantity is >1, only the first device address will appear in the parameter window but all devices of the type selected will have the same operational parameters.

eral	
Detector address	Supervisory signals period Supervision period 32 sec
	Indication 2 min Price Batteries
	Send analogue values of smoke/temperature
	Sensitivity

On completion the Radio system topology chart will be updated to reflect the number of child devices added.

Options Tools Help						
the Configuration Chatter II	( ) and ( )					
adiosystem topology	INK QUAIICY	evices				
🖃 🦓 System	Device 🔺	Address	Туре	Partit	Prog.	Comments
🖳 🧶 CN (W2W 0) -	Aurora-DR	0.0.0.0.0:1	Fire smoke dete	1	- (radi	
N	Aurora-DR	0.0.0.0.0:2	Fire smoke dete	1	- (radi	
43	Aurora-DR	0.0.0.0.0:3	Fire smoke dete	1	- (radi	
	🐛 Aurora-DR	0.0.0.0.0:4	Fire smoke dete	1	- (radi	
	🕹 Aurora-DR	0.0.0.0.0:5	Fire smoke dete	1	- (radi	
	CP-R	0.0.0.0.0;6	Fire manual	1	- (radi	
	CP-R	0.0.0.0.0:7	Fire manual	1	- (radi	
	📢 Sirena-R	0.0.0.0.0:8	Sounder	1	- (radi	
	👘 🗐 Sirena-R	0.0.0.0.0:9	Sounder	1	- (radi	
Devices quantity: 9						
Expanders: 1	-					
Security detectors: 0 Fire detectors: 7						
The detectors, 7						
Predict. traffic: 0.790 %						
	<					

To add an Expander module, right click the Translator icon and select the *Add Expander* option and confirm the parameters before selecting OK.

Options Tools	Help	-w						<u>الا</u>
ents Configuratio	n Status Link o	juality						
adiosystem topolo	ogy	Child de	vices					
🖃 🦾 System		Device 🔺	Address		Туре	Partit	Prog.	Comments
🧶 CN (V	2000 oN Add evpapder	- Ør		1	Fire smoke dete	1	- (radi	
	Add child devic	- h		2	Fire smoke dete	1	- (radi	
	Program trans	lator		3	Fire smoke dete	1	- (radi	
	Read translate	n properties		4	Fire smoke dete	1	- (radi	
				- 5	Fire smoke dete	1	- (radi	
	Restore transl	ator to factory setting:	s (clear)	6	Fire manual	1	- (radi	
	Delete transla	tor from the system		7	Fire manual	1	- (radi	
	Reset translat	or		8	Sounder	1	- (radi	
	Properties			9	Sounder	1	- (radi	
Devices ever the								
Expanders: 1	9							
Security detector	s: 0							
Fire detectors: 7								
Predict, traffic: 0	.790 %							
		1						

Right click on the Expander that has been added and select "Properties".

Under the General tab displayed go to "Expander's Supply" and ensure that the two tick boxes are deselected to disable external power supply monitoring. The facility may be enabled later if PSU functionality allows and the appropriate connection schematic implemented. In most cases it is recommended to use a monitor module to signal PSU fault conditions.

Expander address 1.0.0.0.0	Supervisory signals period	12 sec 💉
Current password	Child expanders' supervision period	3 min 💌
New Confirmation	[PR0]	P events link with
Expander's supply Allow bypass of ac Main PS control Manual Standby PS conl	Idresses	1 R1 R2
Arming prohibition		R3 .A 5A

When the properties have been checked and accepted return to the Configuration tab, right click on the Expander again and select "Program Expander". Programming will commence and confirm when completed.

nts Configuration	Status Link quality						
adiosystem topolo	ду	Child devices					
🖃 🦾 System		Device 🔺	Address	Туре	Partit	Prog.	Comments
😑 🥌 CN (W	2W 0)	🐛 Aurora-DR	1.0.0.0.0:1	Fire smoke dete	1	+	
	Add expander	- AR -	1.0.0.0.0:2	Fire smoke dete	1	+	
	Add child device		1.0.0.0.0:3	Fire smoke dete	1	+	
	Program expander N		1.0.0.0.0:4	Fire smoke dete	1	+	
	Read expander probyr	ties	1.0.0.0.0:5	Fire thermal det	1	+	
			1.0.0.0.0:6	Fire smoke dete	1	+	
	Restore expander to fa	actory settings (clear)	1.0.0.0.0:7	Fire smoke dete	1	+	
	Delete expander from t	he system					
	Properties						
Devices quantity:	14						
Expanders: 2							
Security detectors	:0						
ne decectors, 14							

nts Configuration Status Li	ok quality					
adiosystem topology	Child d	evices				
🖃 🦓 System	Device 🔺	Address	Туре	Partit	Prog.	Comments
🖃 🧶 CN (W2W 0) -	SEXP 1	1.0.0.0.0	Expander			
🧼 🕘 EXP 1 -	🐛 Aurora-DR	0.0.0.0.0:1	Fire smoke dete	1	- (radi	
	🐛 Aurora-DR	0.0.0.0.0:2	Fire smoke dete	1	- (radi	
	🐛 Aurora-DR	0.0.0.0.0:3	Fire smoke dete	1	- (radi	
	🐛 Aurora-DR	0.0.0.0.0:4	Fire smoke dete	1	- (radi	
	👢 🐛 Aurora-DR	0.0.0.0.0:5	Fire smoke dete	1	- (radi	
	CP-R	0.0.0.0.0:6	Fire manual	1	- (radi	
	CP-R	0.0.0.0.0:7	Fire manual	1	- (radi	
	Sirena-R	0.0.0.0:8	Sounder	1	- (radi	
	🔹 🔍 Sirena-R	0.0.0.0.0:9	Sounder	1	- (radi	
Devices quantity: 9						
Expanders: 2						
Security detectors: 0						
rire detectors; /						
Predict. traffic: 0.918 %						
	7					176

To add devices on to the new Expander Module, follow the same procedure as for the Translator Module, ensuring the child device parameters are the same as for the Translator Module.

Once initial programming of the Translator and any associated Expanders has been undertaken it may be more convenient to add and programme all devices first to the lowest level Expander, then the next level Expander and finally the Translator, at which stage final programming of the Translator prior to the "Load" operation can be undertaken. This can be termed a "Bottom Up" programming strategy.

Options Tools	Help						
ents Configurati	on Status Li	nk quality					
adiosystem topol	ogy	Child	devices				
🖃 🦾 System 🖃 🌰 CN (\	W2W 0) -	Device 🔺	Address	Туре	Partit	Prog.	Comments
L	Add expani	der					
	Add child de	evice					
	Read expa	nder properties					
	Restore ex Delete exp	pander to factory settin ander from the system	gs (clear)				
	Properties						
Devices quantity Expanders: 2	:9						
Security detector Fire detectors: 7	rs: 0						
Predict. traffic: 0	.918 %						
		<					

WirelEx Fire, Ver. 4.3 EU - N	lew					
Options Tools Help						
vents Configuration Status Link	quality					
Radiosystem topology	Child de	vices				
General System	Device 🔺	Address	Туре	Partit	Prog.	Comments
	🐛 Aurora-DR	1.0.0.0.0:1	Fire smoke dete	1	- (radio!)	
	CP-R	1.0.0.0.0:2	Fire manual	1	- (radio!)	
Devices quantity: 11						
Expanders: 2 Security detectors: 0						
Fire detectors: 9						
Predict, traffic: 0.969 %						
	1					

This procedure needs to be repeated for every Expander Module that needs to be added to the system.

### **PROGRAMMING THE SYSTEM**

Once system configuration is complete, the Translator will need to be programmed. Right click the mouse over the Translator icon selecting the "*Program Expander*" option from the drop down menu.

ents Configuration	Status Link	quality					
tadiosystem topolo	YC	Child	devices				
🖃 🚯 System		Device 🔺	Address	Туре	Partit	Prog.	Comments
🖃 🥮 CN (W	Add expande	er		Expander	ii i	14	
EXI	Add child dev	/ice		Fire smoke dete	1	- (radio!)	
Program transla Read transla		islator N	2	Fire smoke dete	1	- (radio!)	
		ator propervies		Fire smoke dete	1	- (radio!)	
Restore train Delete train Reset trains		<u></u>	}	Fire smoke dete	1	- (radio!)	
	Restore tran	slator to factory sett	ings (clear)	Fire smoke dete	1	- (radio!)	
	Delete transl	ator from the system	) j	Fire manual	1	- (radio!)	
	Reset transla	ator		Fire manual	1	- (radio!)	
	Properties		3	Sounder	1	- (radio!)	
			0.0.0.0.0.9	Sounder	1	- (radio!)	
Devices quantity: Expanders: 2 Security detectors Fire detectors: 9	11						
Predict. traffic: 0.969 %							

A sub-window appears indicating that Expander programming is taking place

adiosystem topology	chine quality	Thild devices					
System	Device 🔺	Address	Туре	Partit	Prog.	Co	
P	rogramming prog	gress of expan	ler O				
	Expander program	mina					
	evbarao bragram						
	93%						
			Cancel				
-							
Devices quantity: 1 Expanders: 1	1						
Security detectors: 0 Fire detectors: 0							

On completion of programming, the user is advised that programming is complete by the appearance of a further sub-window:

nts Configuration Status	Link quality					
adiosystem topology	(	Child devices				
■ ♣ System ● CN (W2W 0) -	Device 🔺	Address	Туре	Partit	Prog.	Cor
	and the second second second					
	<b></b>	Successful proc	gramming!			

Once complete the Translator Module will become **BOLD** in appearance indicating programming is complete.

WirelEx, Ver. 3.0 - New	h				l.	
e Options Tools Help						
vents Configuration Status	Link quality					
Radiosystem topology	Chile	d devices				
🖃 🦾 System	Device 🔺	Address	Туре	Partit	Prog.	Com
🧠 🌖 CN (W2W 0)	🔷 CN (RRP-240 0)	0	Expander		+	
Devices quantity: 1 Expanders: 1						
Security detectors: 0						
Fire detectors: 0						
	<					>

NOTE: In certain situations (e.g. multiple wrong parameter entries) there may be a requirement to clear the Translator memory and restore it to factory default. Right click the mouse on the Translator icon and select the "**Restore expander to factory settings (clear**)" option.

nts Configurati	on Status Link o	uality							
adiosystem topo	logy	Child devices							
🖃 🔏 System		Device 🔺	Address		Туре	Partit	Prog.	Comments	
	Add expander	1		1	Expander				
E CONTRACTOR	Add child devic	e		:1	Fire smoke dete	1	- (radio!)		
	Program transl	- stor		:2	Fire smoke dete	1	- (radio!)		
	Read translato	r properties		:3	Fire smoke dete	1	- (radio!)		
	-	5.5		:4	Fire smoke dete	1	- (radio!)		
	Restore transla	itor to factory settin	gs (clear)	:5	Fire smoke dete	1	- (radio!)		
Molete transla Reset translat Properties	or from the system		:6	Fire manual	1	- (radio!)			
	or			Fire manual	1	- (radio!)			
			:8	Sounder	1	- (radio!)			
		Manager (	0.0.0.0.0	:9	Sounder	1	- (radio!)		
Devices quantity: 11 Expanders: 2 Security detectors: 0									
rire decettors: 9									
Predict. traffic: 0	).969 %	-							
Predict, traffic: 0	<del></del>	<							

If this step is necessary, **ALL** assigned devices will need to be reprogrammed on to the system again (see Programming Child Devices).

(For info - this indicates that although the System has been configured through the Translator/Expander, the child device still needs to have the operational parameters loaded). The Translator should be initially programmed before any additional Expander Modules, although all devices may not have been allocated at this stage. After all devices have been allocated and implemented to any linked Expanders and direct to the Translator the Translator will need to be finally programmed before the "Load" operation.

#### **PROGRAMMING CHILD DEVICES**

# A child device can be programmed via its associated Translator/Expander or from the main Translator using the "Remote Programming" feature if all Expanders have been initially programmed.

With the computer connected to the relevant Translator/Expander, right click the mouse over the first associated child device. Select "*Local Programming (RS232) > Program child device*".

Child devices	ddress 1 0.0.0.0 E amming (R5232) 0.0.0.0:6 F 0.0.0.0:7 F 0.0.0.0:8 S 0.0.0.0:8 S	Type Expander Delete chil joke dete Fire manual Fire manual Sounder Sounder	Partit hild device d device 1 1 1 1 1	Prog. 	Comments
Acc 1.0 Local progra Comments Properties 0.0 -R 0.0 -R 0.0 -R 0.0	ddress 1 0.0.0.0 E amming (R5232) 0.0.0.0:6 F 0.0.0.0:7 F 0.0.0.0:8 S 0.0.0.0:9 S	Type Expander Program c Delete chi joke dete Fire manual Fire manual Sounder Sounder	Partit hild device d device 1 1 1 1 1 1 1	Prog. 	Comments
Local progra Comments Properties 0.0 R 0.0 R 0.0 R 0.0	D.0.0.0 E amming (R5232) D.0.0.0:6 Fi D.0.0.0:7 Fi D.0.0.0:8 S D.0.0.0:9 S	Expander Program c Delete chil joke dete ioke dete Fire manual Fire manual Sounder Sounder	hild device d device 1 1 1 1 1 1 1 1	- radio!) radio!) - (radio!) - (radio!) - (radio!) - (radio!) - (radio!) - (radio!) - (radio!)	
Comments Comments Properties 0.0 -R 0.0 -R 0.0	0.0.0.0.0 F 0.0.0.0:6 F 0.0.0.0:7 F 0.0.0.0:8 S 0.0.0.0:9 S	Program c Delete chil joke dete oke dete Fire manual Fire manual Sounder Sounder	hild device d device 1 1 1 1 1 1 1 1	radio!) radio!) - (radio!) - (radio!) - (radio!) - (radio!) - (radio!) - (radio!) - (radio!)	
Comments Properties 0.0 -R 0.0 -R 0.0	0.0.0.0:6 F 0.0.0.0:7 F 0.0.0.0:8 S 0.0.0.0:9 S	ive dete ioke dete ioke dete ire manual fire manual founder founder	d device 1 1 1 1 1 1 1 1 1	radio!) radio!) - (radio!) - (radio!) - (radio!) - (radio!) - (radio!) - (radio!)	
Comments Properties 0.0 0.0 -R 0.0	0.0.0.0:6 F 0.0.0.0:7 F 0.0.0.0:8 S 0.0.0.0:9 S	Delete chi joke dete joke dete Fire manual Fire manual Sounder Sounder	d device 1 1 1 1 1 1 1 1	radio!) - (radio!) - (radio!) - (radio!) - (radio!) - (radio!) - (radio!)	
Properties 0,0 0,0 -R 0,0 -R 0,0	0.0.0.0:6 F 0.0.0.0:7 F 0.0.0.0:8 S 0.0.0.0:9 S	ioke dete ioke dete Fire manual Fire manual Sounder Sounder	1 1 1 1 1 1 1	- (radio!) - (radio!) - (radio!) - (radio!) - (radio!) - (radio!)	
-R 0.0	0.0.0.0:6 F 0.0.0.0:7 F 0.0.0.0:8 S 0.0.0.0:9 S	ioke dete Fire manual Fire manual Sounder Sounder	1 1 1 1 1	- (radio!) - (radio!) - (radio!) - (radio!) - (radio!)	
0.0 0.0 -R 0.0 -R 0.0	0.0.0.0:6 F 0.0.0.0:7 F 0.0.0.0:8 S 0.0.0.0:9 S	Fire manual Fire manual Sounder Sounder	1 1 1 1	- (radio!) - (radio!) - (radio!) - (radio!)	
0.0 -R 0.0 -R 0.0	D.0.0.0:7 Fi D.0.0.0:8 S D.0.0.0:9 S	Fire manual Sounder Sounder	1 1 1	- (radio!) - (radio!) - (radio!)	
-R 0.0	D.0.0.0:8 5 D.0.0.0:9 5	5ounder 5ounder	1	- (radio!) - (radio!)	
-R 0.0	D.O.O.0;9 S	5ounder	1	- (radio!)	
				Contraction of the	

Once selected a sub-window will appear indicating that the Translator / Expander is searching for the device to be programmed:

nts Configuration Status Link quality	1						
adiosystem topology	Child device	85					
🗟 🔗 System	Device 🔺	Address	Туре	Partit	Prog.	Comments	
🧠 (w2w U)	aurora-DR	0.0.0.0.0:1	Fire smoke dete	1	- (radi		
	Programmi	ng progress of	detector 1 EXP 0				
	The second			7			
	Available Activate r	devices searching. adio transmission .					
			Cano	:el			
				1			
Devices quantity: 1							
Expanders: 1 Security detectors: 0	2						
Fire detectors: 1							
Predict. traffic: 0.0256 %							

The secondary (stand-by) disc battery should already be fitted in the device to be programmed.

Ensure the programming switch on the back of the device is in the **ON** position. Insert the Primary Battery (CR123A) into the device observing correct polarity.

When the primary battery is installed, the child device LED should flash **RED** four times indicating the device is in programming mode. Once seen, set the programming switch back to position 1. The device LED will now flash **GREEN** to indicate programming is complete. On the WireLEX configuration display, a sub-window will appear indicating programming is complete.

ts Configuration Status Link	quality						
idiosystem topology	Device A	Address 0.0.0.0.0:1	Type Fire smoke dete	Partit	Prog. - (radi	Comments	
	Program	Depropress of Depration succes	sful programming!	:e]			
evices quantity: 1 xpanders: 1 iecurity detectors: 0 ire detectors: 1							

Press **OK** and repeat in sequence for the other child devices assigned directly to the Translator.

On completion of programming the Translator, re-connect the RS232 lead to the first Expander Module in the system. In the Radio topology section select the first Expander Module and repeat the above programming process for devices assigned to that module. Repeat for all Expander Modules.

When the Translator, Expander Modules and child devices have been programmed, the system configuration needs to be loaded in to the internal CPU of the Translator.

# THE LOAD PROCESS

# NOTE: The next action is extremely important!!

At the Translator, using the P3/P4 buttons, scroll up/down until **FF** is displayed in the LCD window. Select **EHP** using the P2 button.

Use P3/P4 to scroll through this menu until is displayed. Select using the P2 button.

Using the P3/P4 buttons, scroll through until **LORd** is displayed. Select using the P2 button. **ConF** will be displayed. Confirm using the P2 button.

If correct, **done** will be displayed. Press the P1 button until the LCD display is blank.

# NOTE: Only after the system has been loaded in to the Translator CPU will the system work correctly with the Control Panel.



Once all programming is complete, connect the RS232 Serial Cable to the Translator Serial Connector. Select the *Events* tab and check the "*Turn on data exchange*". This allows the computer to communicate with the Translator/Expander and provide the User with a history of system events.

nts Configuration Protocol Image Turn on data exchange	Status Link quality  Get all  Clean  Settings	114: 114			
Time	Event	EXP number	Partition	Detector/User	Туре
28 Aug 14:34:40	Expander access password change	0	- arcidon	20000001/0301	W2W
20 Hog 11:01:10	Expander access passiver a change	0			W2W
	Expander turning on	0			W2W
	Expander turning on	0			W2W
	Expander turning on	0			W2W
28 Aug 15:25:52	Body opening	0	1	1	Aurora-R (Fi
20 AUG 13:20:30	buy closed		1	1	Aurora-K (Fi

Now it is possible to control and manage the whole system from the Translator(s).

When all Translators, Expanders and wireless field devices are operational with acceptable signal levels they can be integrated to the wired Wireless fire detection system by simply using the panel configuration software and performing an "auto-learn" to recognise the additional devices (refer to the panel programming manual for specific details).

# ADDITIONAL WIRELEX FACILITIES

The application was originally designed for use by both the Security and Fire Detection sectors. Thus some features are not applicable to Fire Detection systems. However two additional sections – under *Status* and *Link Quality* tabs – provide additional information that may be useful for the engineer:

Graphical display of RF quality of each child device

Graphical display of RF quality history

Communication control between the Translator and Expanders within a cluster

Fault and fire indication in a partition

Fault and fire indication of each device

Reset faults and fires within a partition

Power output attenuation control

### **USE OF STATUS TAB**

Select the Status tab on the Windows Configuration tool. The following window will be displayed.

🝁 WirelEx Fire, Ver. 4.3 EU - New	
File Options Tools Help	
Events Configuration Status Link quality	
Global partitions GLOB. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 Expanders' local partitions	Legend (by priority increasing) No devices Normal Fault/tamper Alarm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 EXP 0 EXP 1	
	Status Fault Tamper Alarm
	Fire
Put the mouse cursor to the square and double-click this square!	

The legend on the right hand side displays various alarm/fault/stats indications. These are:

Normal Fault / Tamper Alarm Fire

Further information can be obtained from this page can by moving the cursor over the dark grey box: Under the Global partition heading, the engineer is provided with confirmation of the local partitions available.

Status of devices	X
Partitions status	Status of devices
Glob. 1	0.1 Aurora-R
EXP 0	Norm
- 0.1 Aurora-DR	
0.3 Aurora-DR	
0.5 Aurora-DR	
0.6 CP-R	
0.7 CP-R	
0.9 Sirena-R	
	Update Automatically (5 sec)
	Cancel
	Carcor

Under the Expander / local partitions heading, the number of devices allocated to each Translator or Expander will be displayed

🝁 WirelEx Fire, Ver. 4.3 EU - New	
File Options Tools Help	
Events         Configuration         Status         Link quality           Global partitions         GLOB.         1         2         3         4         5         6         7         8         9         10         11         12         13         14         15         16           Expanders' local partitions         1         2         3         4         5         6         7         8         9         10         11         12         13         14         15         16           EXP         0         0         11         12         13         4         5         6         7         8         9         10         11         12         13         14         15         16           EXP         0         0         11         12         13         14         15         16	Legend (by priority increasing) No devices Normal Fault/tamper Alarm Fire
	Status Fault Tamper Alarm Fire
Put the mouse cursor to the square and double-click this square!	

If the partition is showing any other colour than dark grey, double-clicking over the square will reveal:

Status of all devices.

Faulty device

Device in a fire condition.

### **USE OF LINK QUALITY TAB**

Select the Link Quality tab on the Windows Configuration tool. The following window will be displayed:

ents Configuration	Status	Link quality						
Expanders			Child devices					
Device	^	Device	Address	Quality, RSSI	Quality, dB	Mark.	Comments	Additional
CN (W2W 0)		EXP 1	1.0.0.0.0	0/0		(i <del>n</del> )(		
EXP 1								
43								
		Aurora-DR	1	0/0	-1	( <b>-</b> )		Smoke-0
		Aurora-DR	2	0/0		(H)(		Smoke-0
		Aurora-DR	3	0/0	3	1.20		Smoke-0
		Aurora-DR	4	0/0		20		Smoke-0
		Aurora-DR	5	0/0		1.4.1		Smoke-0
		CP-R	6	0/0		(H)(		
		CP-R	7	0/0	(i)	123		
		Sirena-R	8	0/0	-	120		
		Sirena-R	9	0/0		1.4.1		
	100							
Level, RSSI								
Current - 2								
Average - ?								
Traffic - ?								
Av. traf ?								
Pow control ?								
Levels sending -	7							

The following information is displayed on the page:

**Expanders:** The Translator and the associated Expanders in the cluster are displayed here. Highlighting the Expander you wish to investigate will display the associated Child devices in the right-hand area. Right clicking the cursor over the highlighted Translator/Expander will give two further options that will reveal in turn further options for each:

nts Con	figuration Status	Link quality						
Expar	nders		Child devices					
Device	^	Device	Address	Quality, RSSI	Quality, dB	Mark	Comments	Additionall
CN (W2)	Automatic power	control in the s	ystem	Turn on		( <b>H</b> )		
EAPI	-			Turn off				
	Sending signal le	els between all	expanders	NO 1/0		141		Smoke-0
		Aurora-DR	2	0/0	-	1000		Smoke-0
		Aurora-DR	3	0/0		A TRACE		Smoke-0
		Aurora-DR	4	0/0	20	120		Smoke-0
		Aurora-DR	5	0/0	42	141		Smoke-0
		CP-R	6	0/0	-	()#()		
		CP-R	7	0/0		1.0		
		Sirena-R	8	0/0	28	140		
		Sirena-R	9	0/0	42	-		
		10 10 10 10 10 10 10 10 10 10 10 10 10 1		11222				
	*							
Laval DS	ST.							
Curi	rent - ?							
Ave	rage - ?							
Iran	TIC - /							
my.								
Pow	control ?							
Levi	els sendina - ?							
1000	1999 (1997 ( <b>1</b> 993)							

The "*Automatic Power Control in the System*" allows the engineer to turn on/off the automatic power attenuation facility within the Translator cluster. This is normally left on as the system uses complex algorithms to determine the best power level between the Translator/Expander and the associated child devices.

The **"Sending Signal Levels Between All Expanders"** option allows the engineer to turn on/off the display of signal level communication between the Translator and the Expanders. In a system using Expanders this <u>may</u> be turned on during commissioning to aid visibility of device signal conditions at the Translator. It is not essential during normal operation since it substantially increases system traffic volume. All key information still passes freely between the Translator and Expanders within the cluster so that all device faults, tamper faults, fire activations can be acted upon by the system Control Interface Equipment.

ents Configuration	Status	Link quality						
Expanders			Child devices					
Device	~	Device	Address	Quality, RSSI	Quality, dB	Mark	Comments	Additional
CN (W2VLOV		EVD 4		-9/0	-	( <b></b> )		
EXP 1 Automa	atic power	control in the s	ystem					
Sendini	signal lev	els between all	expanders	Turn on				Caroline O.
		Aurora-DP	2	Turn off	-	1.		Smoke-0
		Aurora-DR	3	0/0				Smoke-0
		Aurora-DR	4	0/0	1	120		Smoke-0
		Aurora-DR	5	0/0	42	-		Smoke-0
		CP-R	6	0/0	-	(s <del></del> )(		
		CP-R	7	0/0	7.5	-		
		Sirena-R	8	0/0	22	121		
		Sirena-R	9	0/0		-		
	-	-						
Level, RSSI								
Current - ?								
Average - ?								
Traffic - ?								
Av. trat ?								
Pow control	2	_						
Levels sending	1-7							
	5365							

In the Child device section of the page, the following information is displayed:

**Device:** The device type is displayed in the first column.

*Address:* The device address is displayed in the next column. This address is allocated to the device by the associated Translator/Expander.

*Quality, RSSI:* The signal level from each RF modem is displayed here – the first is from the Primary modem, the second figure is the value from the Secondary modem. This level is measured in Standard Units giving the Signal/Noise ratio of the link.

*Quality, dB:* The signal level here is shown as a dB level.

*Mark:* This is an indication of the link quality based on a five point rating scale:

QUALITY MARK	LINK INDICATION
2	Unacceptable – interrupted connection or very weak <10 dB
3	Becoming Marginal – Link margin is 10 - 20 dB should be >15dB
4	Good – robust communication with a link from 20 - 30 dB
5	Excellent – Robust communication with a link margin > 30dB

Comments: This is the comment added about the device from the Configuration tab

Link: This is the time lapsed between communications between the device and its associated Translator/Expander

Expanders		Child devices						
Device	Device	Address	Quality, RSSI	Quality, dB	Mark	Comments	Additionally	
CN (W2W 0)								
	Aurora-DR	1	15/0	23 dB	4		Smoke-31	
Level RSST								
Current - 15								
Average - 16 Traffic - 0% Av. traf 0.5%								
Pow control: + Levels sending: -								

By highlighting a single device, moving the cursor over it and right clicking, two options are displayed:

Evpanders		Also and a second secon					
Experience		Child devices					
Device	Device	Address	Quality, RSSI	Quality, dB	Mark	Comments	Additionall
CN (W2W 0) EXP 1	EXP 1	1.0.0.0.0	0/0	-	(. <b></b> )		
	Aurora-DR	1	0/0		-		Smoke-0
	Aurora-DR	2	0/0 NS	now history	14-11	11	Smoke-0
	Aurora-DR	3	0/0 25	100000	1000		Smoke-0
	Aurora-DR	4	0/0 C	lean history	120		Smoke-0
	Aurora-DR	5	0/0	142	19 <del>4</del> 11		Smoke-0
	CP-R	6	0/0		( <b></b> )		
	CP-R	7	0/0	24			
	Sirena-R	8	0/0	20	120		
	Sirena-R	9	0/0	£1.	-		
Level, RSSI							
Current - ? Average - ? Traffic - ? Av. traf ?							
Dave as a busined							
Pow control ?							
Levels sending - ?							

# Show History: Clean History:

Selecting this option will display the RF link quality graph.

This will clean all RF link quality information

(Shortcut - By double-clicking the device the RF link quality history graph will be displayed)



The GREEN waveform indicates the RF link quality history for each device. The graph will provide the user with as many as 8192 segments. This is the equivalent of a sample every 5 seconds over a 12 hour period.

The user can zoom in on specific areas within the graph for better analysis of the RF Quality history. This is achieved by holding down the left mouse button and creating a dashed box around the interested area and then releasing the left mouse button



The graph will now zoom in on that area providing the user with an enhanced view of the area. This can be repeated until the area is clear enough for the user to take a reading.

Once the desired level of analysis has been reached, holding the cursor over the area will produce a box giving an indication of the segment number under investigation along with a dB level.

To return to the normal screen level, the user must select a further box opening from bottom right to top left – this will return the graph to its normal appearance.

The ORANGE dot seen above some of the readings indicates that during the communication process, the primary modem was unable to communicate with the device. In instances such as this, the primary modem will continue to attempt to communicate with the device on the original operational channel. However, the secondary modem will then start a frequency hopping sequence on the other operational channels until communication is achieved. Once communication is achieved, both modems return to the original operating channel and wait for the next communication signal handshake. Should the device not respond on the next signal handshake, the process is repeated.

Each time communication is successful, both modems return to the original operating frequency. The dot gives the engineer an indication of this process occurring.

### **USE OF THE RFANALYZE PROGRAMME**

Access the programme from the "Tools" Menu whilst the PC remains connected to a powered Translator or Expander module. A new window will open. Ensure that the correct COM port is selected and the "Connect" box is selected.

The display will illustrate on a moving timebase activity within the radio spectrum for the selected channels (choose by simply selecting the tick boxes alongside the channels of interest).

This survey check on site can help identify channels that may be overloaded due to other nearby radio emissions and hence assist in selecting a primary channel for the installation that is less likely to suffer interference. The tool may also prove useful in troubleshooting a system that is forced to continuously channel hop or is generating monitoring faults after a clear period of running.

Extended period checks can be carried out by selecting the "Save to Log-File" option when the data will be saved to disk, however note that file sizes may be substantial thus storage capacity should be checked.



## **USE OF THE CLONING UTILITY**

There may be occasions when a Translator or Expander have to be replaced. To avoid the need to re-programme all devices linked to them the CloneEx Cloning Utility may be used. Access this by selecting the Tools Menu and click on "CloneEx utility" which will open the screen shown below. Follow the on-screen instructions and all programme data will be transferred from one Translator / Expander to the new interface.

**Note:** The data being transferred is not stored permanently on PC thus the sequence must be completed in one process to avoid data loss, thus ensure all components are readily available before starting.

🕸 Cloning utility CloneEx 📃	
Start	
The utility program "Clone Ex" for expanders cloning is designed for creation an exact copy of properties of Strelec''s expander (cloning an expander''s properties). A cloning operation can be employed in order to replace an expander. Cloning operation is executed in two stages: 1 stage. A PC is connected to an expander and reads all its settings (the expander 1). While settings of the expander 1 are being read, the expander is being cleared off.	'n
PC is being connected with an expander, into which all the settings previously imported will be exported. (the expander 2). Imported settings a being loaded into the expander 2.	re
Attention! While the operation of reading in the progress, do not turn the power of the expander off or disconnect it from a PC. It leads to total or partial loss of the settings.	
To start the cloning process?	
Cloning utility CloneEx	
Cloning utility CloneEx  Stage 1  Reading and further clearing of the expander 1"s settings are to be done, the settings the expander contains will be deleted after the reading is completed. Do not turn the expander power off or disconnect it from a PC during reading of settings! It leads to loss of the expander"s settings. Link the expander 1 to the chosen COM-port of your PC and push the button "Next".	all
Comparing the expander of the expander 1"s settings are to be done, the settings the expander contains will be deleted after the reading is completed. Do not turn the expander power off or disconnect it from a PC during reading of settings! It leads to loss of the expander"s settings. Link the expander 1 to the chosen COM-port of your PC and push the button "Next".	all 🔨