

Made By: AB 07/10/14

Version: 1.0

Title – Status channel configuration

(Issue 1)

## User Manual to Configure the Status Sensor for a GPRS Logger using Radwin Advanced Download/Upload/Utilities

Before you begin, you must ensure that:

- The installed Radcom software is at least v4.55.
- The installed Firmware on the Lx Logger is at least v2.23.
- Ensure logger is 'stopped' (not recording)

# **Logger Configuration**

To start programming your logger, select Download Options > Advanced Download/Upload /Utilities and select your Logger type from the drop-down menu, the Baud rate will automatically update.

Select the correct Comm port which the logger is connected to.

Click 'Download Parameter Settings For Last Recording' and click the 'OK' button to continue.

Advanced Download/Upload/Utilities					
Logger Zone Location Type: Connection:	Image: Second Secon	•			
Number:	lities   Signal   eters				
Download Parame     Download Parame     Download Parame	eter Settings For Last Recording				
C Download Last N	Jumber Of Days Data:     30       Memory From Address:     0       Of Length:     0				
	OK Cano	el			

The information will then start downloading from the logger.



Click the 'Location' button to choose a new Location for the logger.



Multilog LX GPRS - v3.27				
Multilog LX GPRS - v Identity Channel Configuration Main Recording Secondary Recording Data Dipolay Configurat GPRS Configuration Status	Identity: Zene: Location: Imme Logger Time: GSM Clock: Comments: Name: Site Info:	_00 _0F 10:23:13 21/01/2013 Error: 0 Minutes 10:23:22 Test Comment. Halma Water Management Ty Coch House Lantarnam Park Way CM/MBRAN UK NP44 3AW	×	
	Load	Save Upload	Cancel	

To create a new Location, select the Zone in which it is to be located, then click the 'Tools' button, and then click 'Create New Location...'.



The Location Configuration screen will open. Enter your new Location number (and comment if required) as highlighted below

	Location Con	figuratio	n13_01 : Radwin All
Configure: Basic Radwin All Manual Call View	Location - Specify the	e location ider	ntity and name. Enter names for each of the logger channels.
Autocal     Data Generator     Export     Alarm Programm     Alarm Receiver     Remote Autocal	Identity Zone: Location: GIS Position:	13 01	Status logger 0" N, 00° 00' 0.00" E
	Channel Names Channel Name A 01 02		Print Save Cancel

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Ref: FAQ0063

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Click the 'Logger' tab, and change the following: Select 'GPRS' from the Connection Type drop down menu. Enter the phone number of the logger in the SMS Voice Number text box **in international format (e.g. for UK +44)**.

Location Configuration TEST101 : Radwin All					
Configure: Configure: Configure: Redwin Al Configure: New New Configure: New New Configure: New Configure: New Configure: New Configure: New Configure: New Configure: New Configure: New Configure: New Configure: New Configure: New Configure: New Configure: New Configure: Configure: New Configure: Config	Logger - Select the logger communicate with the logger Location Logger Statistics Tra Logger Type: Type: Multilog Date Manufactured: Last Battery Change: Connection Connection Type: GSM Data Number: SMS Voice Number:	type and baud rate. Select the connection type (how the computer will erf), and enter telephone numbers if required. The logger manufacture nsducer   Unit/Levels   Meter   Autocal   Memo   Auto Database E + + LX GPRS  Baud:  9600  III/01/1970  Serial: 12434 II/01/1970  Last Known Logger Configuration GPRS +447876344553			
		Print Save Cancel			

Click the 'Transducers' tab, select 'Channel 01' from the Channel drop down menu, and change the following:

Uncheck the 'Apply Logger Calibration' checkbox. Select 'Digital (Flow)' from the Transducer Type drop down menu.

	Location Configuration _12_01 : Radwin All
Configure: Basic Radwin Al Wiew Autocal Data Generator Export Alarm Programm Remote Autocal Remote Alarm Ri	Transducer - Select the transducer type for each channel. Transducers Must be configured for each recording channel in order to calibrate the downloaded data. Select 'Configure' or double
	Print Save Cancel



Change the Sensor Type to 'Open =1 ; Closed =0', by double clicking on 'Sensor Type' (as highlighted above), and choosing " from the Sensor Type drop down menu on the Flow Transducer screen.

Flow Transducer				
Select the units Sen applied to the data.	sor type. This defines the type of units that can be Select a stored transducer from the list, or select user	< >		
Sensor Type:	Count			
Transducer	Volume			
Select: User	Count Frequency Remove	1		
Enter/Edit Transducer-				
Name:				
Units Per Pulse:	1.000000			
Offset:	0.000000			
Data Type:	All Data Values			
Add to Select T	ransducer List Bands			
Export	OK Cance			

Click the 'OK' button to exit the Flow Transducer screen.

Click the 'Save' button to exit this screen, and then double click on the Zone which you have just created.



Click on the 'Main Recording' tab, and set the time and date you wish for the recording to start. Also select the rate which you want the data to be sampled at.

Select Cyclic Memory. (Cyclic Memory continues to record when the memory is full, by overwriting the first stored data stored in the memory.

For initial trialling a Sample Rate of 5 seconds is recommended – this may be extended to suit local requirements.

	a ()	Ref: FAQ0063	Version: 1.0
		Title – Status channel conf	iguration
	PLOCONSCIENTION Systems	Made By: AB 07/10/14	(Issue 1)
	Multilog LX GPR	S - v3.05 - Main Recording	×
Multiog LX GPRS - v Identity Channel Configuration Main Recording Secondary Recording Data Display Configurat GPRS Configuration Status	Record Record Start Time: Record Stop Time: Sample Rate: Enable Stop Logging Mode Channel 1: F En Channel 2: F En Channel 3: En Channel 4: En SMS Message Type: Load Save	12:18:45       28/01/2013         09:33:04       25/01/2013         00       :       05         C Block Memory       Cyclic Memory         abled       Count       Standard         abled       Count       Standard         abled       Count       Standard         vibled       Count       Standard         vibled       Count       Standard         vibled       Count       Standard         Variable sample rate       Upload       Cance	

Click on the 'GPRS Configuration' tab and from the Data drop down select the GPRS method to be used:-

	Multilog LX G	iprs - v3.27 - gprs c	Configuration	×
Multilog LX GPRS - v. Identity Channel Configuration Main Recording Pseudo Recording Secondary Recording Data Display Configurat GPRS Configuration Status	Data: [1] UDP: [2] UDP: Call Times: Enable X01 X02	GPRS UDP ▼ SMS GPRS Email GPRS FTP GPRS FTP + SMS Backup GPRS UDP 00:00:00 00:00:00	Alarms: G SMS Backup Number UDP [1] [1]	PRS UDP
	Stress       GPRS Network Co       Network Name:       APN:       SMTP Server:       Email       Username:	00:00:00  nfiguration  02.wyless.net  Save	[1] Username: Password: Password:	Select Radcom r4dt3ch

Click on 'Edit' and apply your site details (those for HWM Datagate are shown)

	× ()	Ref: FAQ0063		Version: 1.0
V/ V \	nvironmental RADIO-TECH	Title – Status	channel configu	iration
	Fund Conservation Systems	Made By: AB 07	7/10/14	(Issue 1)
	Updat	te UDP Site Details	×	
UDP Configur UDP Configur UDP Addres UDP Port Nu UDP Port Nu I Identity	UDP address ation s: inbound.hwmonli mber: 23024 Multilog LX GPRS Data: GPRS	ne.com OK - v3.27 - GPRS Configuratio	Cancel	
<ul> <li>Channel Configuration</li> <li>Main Recording</li> </ul>		and.nwmonline.com	Edit	
<ul> <li>Pseudo Recording</li> <li>Secondary Recording</li> </ul>	Call Times: Call T	īmes Table 💽 SMS Backup	Number:	
Data Display Configurat GPRS Configuration   Status	Enable T (01 00 (02 00 (03 00 GPRS Network Configura Network Name:	ime         UDP           00:00:00         [1] inb           00:00:00         [1] inb           00:00:00         [1] inb           00:00:00         [1] inb           00:00:00         [1] inb	iound.hwmonline.com iound.hwmonline.com iound.hwmonline.com	
	SMTP Server: Email Username:	Password:	r4dt3ch	

To enable the logger to send the data in, double click on the '01' line (as highlighted above).

	Configure Call Time 01	×
Call Time		
Enable Call		
Call Time:	07 🕶 : 00 💌 :00	
UDP:	[01] inbound.hwmonline.com	•
	OK Cance	

-

Check the 'Enable Call' checkbox, and then select the hours which you want the logger to dial to the modem. The minutes will automatically be generated from the serial number of the logger and cannot be changed (if you change it, it will default back at a later time).

Click the 'Upload' button to upload the parameters to the logger.



The Upload Parameters page will display.

	Upload Parameters	×
Logger00 Location0F Type: Connection: GSM Data Number: SIM Voice Number:	Image: Multilog LX GPRS     ✓     Baud:     Ø 960       Direct (Cable)     ✓     Port:     Ø CON       +447500087128     ✓     ✓	0 🗸
Options Main Recording and Re Update Logger Time Stop Main Recording	estart	
Update Logger Time as:	PC Time  Advar	Cancel

Click the 'Advanced' button. Check the following checkboxes:

- Main Recording Params and Restart
- General Parameters
- Update Logger Time (this will enable the 'Update Logger Time as' drop down menu, where you can choose to set the logger time as the same time as your PC, or +/- up to 24 hours as required).
- SMS Parameters
- SIM Card Voice Number (this will enable the 'SIM Card Voice Number (in '+' international format)' text box where you must enter the phone number of the logger.

	Ref: FAQ0063	Version: 1.0
	Title – Status channel configur	ation
Recording to the second	Made By: AB 07/10/14	(Issue 1)
Uploa	ad Parameters	
Logger         Zone       _0F         Type:	SPRS       ▼       Baud:       9600       ▼         ▼       Port:       ⑦ COM3: AT ▼       0         18       0       0       0         18       0       0       0         18       0       0       0         18       0       0       0         18       0       0       0         18       0       0       0         18       0       0       0         18       0       0       0         18       0       0       0         19       0       0       0         10       0       0       0         10       0       0       0         10       0       0       0         10       0       0       0         10       0       0       0         10       0       0       0         10       0       0       0         10       0       0       0         10       0       0       0         10       0       0       0         10       0       0 </td <td></td>	

Click the 'OK' button to upload the parameters to the logger, and the Uploading box will appear. When this is complete the parameters have been uploaded to the logger.

## **Alarm setting**

To set up alarms for the status sensor open Radwin alarm programmer -



Select Options, Alarm configuration

Select the correct Logger type, Connection by Direct (cable) and 'Enter New Alarm Configuration'. Then 'OK'

	Ref: FAQ0063	Version: 1.0
	Title – Status channel config	guration
RECORD	Made By: AB 07/10/14	(Issue 1)
Downl	oad Configuration	
Location		
Type:	▼ Baud: 27 9600 ▼	
Connection: Direct (Cable)		
GSM Data Number:		
SIM Voice Number:		
C Options		
Enter New or Load Stored Alarm Configuration	ation	
O Download Alarm Configuration		
Alarm Conditions, Leve	els, Telephone Numbers, Comments	
Alarm Profiles		
Alarm Report		
Min/Max Data		
	OK Cancel	

#### You should now see the alarm set up screen -

Ť		Alarm Configuratio	n : Levels		– 🗆 🗙
Multilog LX Levels Profiles Tel Numbers Comments	Channel 01 [Invalid Sensor - ] 02 [Invalid Sensor - ] 03 [Invalid Sensor - ] 04 [Invalid Sensor - ]	Upper L 0.000000 0 0.000000 0 0.000000 0 0.000000 0	.ower 0.000000 0.000000 0.000000 0.000000	Minimum Night 0.000000 0.000000 0.000000 0.000000	Rate Of Change           0.000000           0.000000           0.000000           0.000000           0.000000           0.000000
Load Configuration:	Alarm         Channel           ▲ 01         01           ▲ 02         01           ▲ 03         01           ▲ 04         01           ▲ 05         01           ▲ 06         01           ▲ 07         01           ▲ 07         01	Type: LUAE - Lower or Upper . LUAE - Lower or Upper .	Telephone           01 - "            01 - "            01 - "            01 - "            01 - "            01 - "            01 - "            01 - "	Persiste 1 Out C Uplo	ad

For alarm levels on Channel 1 - leave all the values at Zero. The normal 'Closed' event status event has a value of Zero and the 'Open' event has a value of 1 - so an alarm will trigger directly the

status moves away from Zero. Enable Alarm 01 on Channel 01 with a lower alarm level exceedance and a persistence of 1 out of 1 as below -

	Ref: FAQ0063	Version: 1.0
Palmer environmental RADIO-TECH	Title – Status channel configura	ition
RECONSTRUCTION FILE Conservation Relations	Made By: AB 07/10/14	(Issue 1)
Alarm Con	figuration Update	
Alarm Configuration 01 Status:	larm Level Exceedance	
	OK Cancel	

Apply a phone number for the alarm to be sent to. If the phone number isn't yet in your phone book go to the Tel Numbers tab -

In the Tel Numbers list insert the phone numbers that you want the Alarms to be sent to. Double click on each to insert the numbers.

		Al	arm Configuration : Te	Numbers	_ 🗆	×
Multilog LX Levels Profiles Tel Numbers Comments	Position 01 02 03 04 05 06 07 08 09 09 09 10 11 01 12	Nu +4	mber 4163362780			<
Load Configuration:	Alarm	Channel 01 01 01 01 01 01 01 01	Type: LUAE - Lower or Upper LUAE - Lower or Upper	Telephone           01 - '+44163362780'           01 - '+44163362780'           01 - '+44163362780'           01 - '+44163362780'           01 - '+44163362780'           01 - '+44163362780'           01 - '+44163362780'	Persistence 1 Out Of 1 Occurences 1 Out Of 1	el

Then select 'Upload' to load the alarm configuration to the logger -

	Ref: FAQ0063	Version: 1.0
Palmer environmental RADIO-TECH	Title – Status channel configu	uration
RECEIVICIONS Fluid Conservation Systems	Made By: AB 07/10/14	(Issue 1)
Logger     Zone       Location     Image: Connection:       GSM Data Number:     Direct (Cable)       SIM Voice Number:     Image: Connection:	load Options	
Options Alarm Conditions, Levels, Telephone Numb Alarm Profiles	ers, Comments els v OK Cancel	

And select 'OK' to complete

If you are going to use Radwin to view the graphs of the data at any time you will need to create a Special Transducer type in order for the titles on the Graph axis to appear correct.

To do this go to Radwin Set Up > Options > System Configuration > 'Transducers/Sensors/Units' tab –

System Configuration : Radwin All				
Configure: Basic Radwin All Manual Call View	Database   System   Sele	ors/Units - Select the default ur n Metric and Imperial units. ctions   Startup   Transducers.	nits for sensor types. Base flow units may be selv /Sensors/Units   Statistics   Manual Call   Auto	
	Configuration Path:	C:\Radwin	Edit	
Export Marm Programm Marm Receiver Semote Autocall	Base Flow Units: Transducers Channel Type:	Litres	Edit Transducer Types	
	Sensors/Units			_
	Sensor Type: Pressure Flow Depth Dissolved Oxygen Chlorine Edit Sensor Ty	Units: Metres Head Litres/Sec Metres Base Units Base Units Pase Inits	Missing Data Replacement Value 43.599998 Next Data Value Next Data Value Next Data Value Next Data Value Edit Selected Item	·
			ОК С	ancel

Select Edit Sensor Types -

	Title – Status channel con	figuration
Red Contraction	Made By: AB 07/10/14	(Issue 1)
	Edit Sensor Types	
Allows new Sensor Ty for both pre-defined a Select Sensor Type: Pressure Leak U Noise Spread Noise Level Overflow Duration User Defined Sensor	pes to be created, and new Units to be created and new sensor types. To create a new Sensor Create a new Sensor Remove Create	

From the 'Select Sensor Type' drop down select –User Defined Sensor-

Create a Sensor – Open = 1 ; Closed = 0

Edit Sensor Types		
Allows new Sensor Types to be created, and new Units to be created for both pre-defined and new sensor types. To create a new Sensor		
Current Sensor Types		
Select Sensor Type:	Edit Units	
User Defined Sensor	Remove	
User Defined Sensor		
Sensor Type to Create:		
Open =1; Closed =0	Create	
	ОК	

Then Select OK to save it (see below)

	System Configura	tion : View - Advance	ed	×
Configure: Advanced Radwin All Manual Call View	Transducers/Sensors/Units - Signature to change between Metric and Startup Transducers/Sensors/Units	elect the default units for sens mperial units. Statistics   Manual Call   Gr.	sor types. Base flow units may be aph Options   Graph Colours/Sty	
Autocall Data Generator CR Export CR Alarm Programm CR Alarm Receiver CR Remote Autocall	Configuration Path: C:\Radv Base Flow Units: US Gall Transducers Channel Type: Z Dini	in ons	Edit Transducer Types	
- 🔐 Remote Alarm R	Sensors/Units Sensor Type: Unit Noise Spread dBu Open = 1: Closed = 0 Swpty: 0 Full = 1. Units	x Mis a Nes a Nes Nes Nes	sing Data Replacement Value xt Data Value xt Data Value xt Data Value xt Data Value	
	, Edit Sensor Types	]	Edit Selected Item	Cancel

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In the location Database for the logger you will need to select this Sensor type so that it appears on the Y axis of the graph –

Go to the Radwin Data File, find the logger, right click on it and select 'Location Database' and 'Edit location' and select the transducers tab –



Then select 'Configure' and from the Transducer type drop down select 'Open = 1 ;Closed = 0'

Flow Transducer				
Select the units Sensor type. This defines the type of units that can be applied to the data. Select a stored transducer from the list, or select user				
Sensor Type:	Open = 1; Closed = 0			
Select: Use	r Defined Transducer 🗾 Remove			
Enter/Edit Transducer-				
Name:				
Units Per Pulse:	1.000000			
Offset:	0.000000			
Data Type:	All Data Values			
Add to Select Transducer List Bands				
Export	OK Cancel			

Now when you view the graph the X Axis will show the timescale and the Y axis will show the Open and Closed events –



The Horizontal portions of the graph at level = 1 are the durations of the Open events. The angles in the vertical lines of the graph indicate where the Open event has occurred across one of the 1 minute sample rate boundaries.

#### **Document History:**

Edition	Date of Issue	Modification	Notes
1st	07/10/14	Release	