

Ref: FAQ0190

Version: 1.0

Title – Multilog & LX Secondary channels

Made By: AB 17/09/15 (Iss

(Issue 2)

Multilog and LX loggers - How to set up Secondary channels

Main Recording, Secondary Channels and Pseudo Channels

The pseudo channel can be configured to store the minimum or maximum readings of the secondary recording channel at the same sampling rate as the main recording. Example:

Main recording sampling rate = 15 minutes

Secondary Recording Sample rate = 1 Second

The Secondary Recording Sample rate will take 900 readings during the 15-minute sampling period of the main recording. These 900 readings are sorted by highest and lowest values. The highest, lowest or average value of any of the 900 readings can be stored in the pseudo channel. In the case of pressure input it is possible to detect the presence of pressure surges by storing the maximum readings and for digital flow inputs it is possible to give an accurate measurement of Minimum Night Flow by storing the minimum flow rates.

How to configure –

For a Multilog or Multilog LX data loggers use Radwin View for the configuration Go to Download options > Advanced Download/Upload/Utilities –



From the drop down select the correct logger type and 'Download parameter Settings for last recording' then 'OK'

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| RECONSTRUCTION Systems | Made By: AB 17/09/15 | (Issue 2) |
| Advanced Do | wnload/Upload/Utilities × | |
| Logger Zone Location Type: Connection: Number: Multilog LX Multilog Plu Multilog Plu | GPRS Baud: \$9600 T GPRS Port: \$2000 T SMS 18 18 GSM T | |
| Download Parameter Settings For Last He Download Parameter Settings And All Hec | orded Data | |
| Download Last Number Of Days Data: Download Logger Memory From Address: | 30 Of Length: | |
| | OK Cancel | |

The logger will now download -



And will give this screen -

| | М | ultilog LX GPRS - v3.13 | × |
|--|---|---|----------|
| Multilog LX GPRS - v. Identity Channel Configuration Main Recording Secondary Recording Data Display Configurat GPRS Configuration Status | Identity: Zone: Location: Time Logger Time: GSM Clock: Comments: Name: Site Info: | 00 0F 11:54:26 26/04/2013 Error: -55 Minute 11:54:36 Test Comment. Halma Water Management Ty Coch House Llantarnam Park Way CWWBRAN UK NP44 3AW | 25 25 |
| | Load | Save Upload | Cancel |

The Identity tab gives the logger ID information

The Channel configuration tab gives the channels that the logger ids equipped with.

 Image: Second and the second and th

The Main recording tab gives the configuration of the loggers primary channels as below -

| | Multilog L | X GPRS - v3.13 | 3 - Main Reco | rding | | × |
|---|---|--------------------------------------|---|--|--|-------------|
| Multilog LX GPRS - v. Identity Channel Configuration Main Recording Secondary Recording Secondary Recording Data Display Configurat GPRS Configuration Status | Record Start Tr Record Start Tr Record Stop Tr Sample Rate: Enable Stop | me: 11:3 me: 11:2 00 o C Bl | 0:00 • 2 3:43 • 1 : 15 : 00 ock Memory | ⁷⁶ /02/2012 9/01/2012 [°] Cyclic Mem | ▼ ▼ | |
| | Channel 1: Channel 2: Channel 3: Channel 4: | Frabled | Count Count Count Count | V V V V V | Standard Standard Standard Standard | 4 |
| | SMS Message Typ | e: Save | Variable samp | le rate | Upload | ▼ Cancel |

To operate a secondary channel you first go to the pseudo recording tab -

| Multilog LX GPRS - v | Logging Mode | | Mahara . | Discorde | A |
|---|--|----------|--------------------|----------|-----|
| j Jaentty Channel Configuration Main Recording Pseudo Recording Secondary Recording | Channel 1: Channel 2; Channel 3; | Finabled | Maximum: Minimum: | | |
|) GPRS Configuration) Status | Channel 4; | Enabled | Minimum: v | 0 . | 1 - |
| | | | | | |
| | | | | | |
| | | | | | |

The pseudo channel can be configured to store the minimum or maximum readings of the secondary recording channel at the same sampling rate as the main recording. For example:

Main recording sampling rate = 15 minutes

Secondary Recording Sample rate = 1 Second

The Secondary Recording Sample rate will take 900 readings during the 15-minute sampling period of the main recording. These 900 readings are sorted by highest and lowest values. The highest, lowest or average value of any of the 900 readings is then stored in the pseudo channel. In the case of pressure input it is possible to detect the presence of pressure surges by storing the maximum readings and for digital flow inputs it is possible to give an accurate measurement of Minimum Night Flow by storing the minimum flow rates.



Next, go to the Secondary recording tab and configure the settings for what you require the Secondary channel to record -

| Multilog LX GPRS - v | Record | | | | | |
|--|-----------------|------------|-----------------|------------|----------|---|
| Channel Configuration | Record Start 1 | Time: 00:0 | 0:05 | 1/01/2000 | • | |
| Main Recording Pseudo Recording | Record Stop T | Time: 11:2 | 23:43 | 9/01/2012 | - | |
| Secondary Recording Data Display Configurat | Sample Rate: | 00 | : 00 : 05 | | | |
| GPRS Configuration Status | | Ов | lock Memory 📀 📀 | Cyclic Mer | nory | |
| | -Logging Mode - | | | | | |
| | Channel 1: | Enabled | Count | • | Standard | • |
| | Channel 2; | 🗖 Enabled | Count | Ŧ | Standard | - |
| | Channel 3; | 🗖 Enabled | Count | Ŧ | Standard | - |
| | | | | - | Standard | - |
| | Channel 4: | Enabled | Count | | , | |
| | Channel 4; | Enabled | Count | | , | |

If your configuration is now complete select the 'Upload' button

Then select 'Advanced' -

| | Upload Paramet | ers | |
|------------------------|------------------|---------|---------------|
| ogger | | | |
| Type: | Wultilog LX GPRS | - Baud: | a 9600 |
| Connection: | Direct (Cable) | ▼ Port: | 🞜 СОМ11: U |
| GSM Data Number: | | | |
| SIM Voice Number: | +447702504949 | | |
| Update Logger Time | | | |
| Update Logger Time as: | PC Time | Ţ | Advanced |
| | | | |

Tick the boxes as required and then 'OK' to upload the configuration to the logger

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| | U | oload Paramete | ers | |
|---|---|----------------|---------------------------|-----------------|
| ogger | 0 | | | |
| Type: | 💥 Multilog | LX GPRS | - Baud: | a 9600 🔻 |
| Connection: | Direct (Cabl | e) | Port: | 🮜 COM11: U 🔻 |
| GSM Data Number: | | | | |
| SIM Voice Number: | +44770250 |)4949 | | |
| Main Recording Par Secondary Recordi General Parameters Channel Configurat Update Logger Time GPRS Parameters | ams and Restart ng Params and Rest s ion And Stop Recor e | art ding | | ~ |
| Update Logger Time as | : | PC Time | T | Basic |
| SIM Card Voice Number | ('+' format); | +447924872 | 695 | |
| | | | | |

This completes the configuration for the Secondary channels on the logger

Downloading Data

With a telemetry logger you can only get pseudo data sent in by GPRS or SMS (you cannot get the Secondary channel data sent in) and the pseudo data will appear on the graph as Channel 5 and 6 if your primary channels are 1 and 2.

So the graph below shows the pseudo output 5&6 - from a Pressure Ch1 and a flow channel 2.





The data relating to this graph can be viewed by going to Data options and selecting one of the data exports, or Opening the data table or using the Data type menu and selecting one of those.

| Data | a Options | Advanced | Configuration | Start | Window | Help |
|------|-----------|---------------|-------------------|-----------|------------|------|
| MI | Data Typ | e | | | | • |
| ₩. | Units/Lin | nits | | | | |
| | Transduc | ers | | | | |
| | Times | | | | | |
| | Y-Axis Sc | aling | | | | |
| | Logger P | arameters | | | | |
| Υ. | Data Flag | ls | | | | ×. |
| | Export Ta | abular Data | | | | |
| | Export Da | ata Table (Cu | rsor Values) | | | |
| | Open Da | ta Table (Cur | sor Values) as CS | V File (I | VIS Excel) | |
| | Open Da | ta Table (Cur | sor Values) as TX | T File | | |



However if you want to see the Secondary data then you can do this by manually downloading the logger using Manual Call > Options > Advanced Download/Upload/Utilities > Download Parameter settings and all recorded data -

| # | Manual Call Wizard V4.64.4 – 🗖 |
|-----------------------------------|--|
| File Options Configuration | Start Help |
| 🐼 🕄 👰 | Advanced Download/Upload/Utilities |
| | Logger Zone Location Type: Type: Multilog Connection: Direct (Cable) Number: Port Pager Number: Auger CDM9: US |
| | Download/Upload Utilities Signal uction C Enter New Parameters C Call is the logger configuration and download package for Radlog For s. It allows loggers to be configured to using the download package for Radlog For s. It allows loggers to be configured to using the download wizard, and to utilities for displaying meous values, signal strength, and alibration where applicable. OK Cancel |
| I Copyright ©2012 Radcom Techn | ologies Logger Time: 05/03/2013 10:53:09 |

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When you select OK you will be given a choice of which Channel type you want to download -

| Select Recording | × |
|-----------------------|---|
| Select | |
| Main Recording | |
| O Secondary Recording | |
| | |
| OK Cance | 1 |

You will be able to tell the difference because the secondary channel will be at the fast sample rate.

If necessary you can then superimpose the secondary data over the primary (Main) data graph.

You can also remotely download the Secondary recording by using Manual Call to remotely access the logger during a Power window and repeating the above process.

Viewing the data is the same as for the telemetry option above.

Document History:

| Edition | Date of Issue | Modification | Notes |
|---------|---------------|---------------|-------|
| 1st | | Release | |
| 2nd | 17/09/15 | Format update | |
| | | | |