GPRS Data Logger

Centre Software Guide

UDP / TCP



Revision 100820 [v1.0.2A]

Contents

1.	How to get data from GPRS Data Logger?
2.	Server Version Comparison
3.	Before Installation
4.	About Server IP7
5.	Start Up [UDP]
6.	Install the "GS828_Centre (UDP)" software9
7.	Centre [UDP] Setup
_	
8.	Receiving Data [UDP] 11
8. 9.	Receiving Data [UDP]
8. 9. 10.	Receiving Data [UDP] 11 Start Up [TCP] 12 Install the "GS828_Centre (TCP)" software 13
 8. 9. 10. 11. 	Receiving Data [UDP]11Start Up [TCP]12Install the "GS828_Centre (TCP)" software13Centre [TCP] Setup14

1. How to get data from GPRS Data Logger?

Data can be live and historical.

There are 4 different modes of getting data from GPRS Data Logger.

- "GS828_Centre" is the Standard version of server software.
- "GS828_Server" is the Premium version of server software.

This manual is mainly describing the use of "GS828_Centre" software in getting live data via Internet.

- A) Via SMS by Mobile Phone:
 - Please refer the command list to the operation manual of GPRS Data Logger.
 - User sends SMS command to GPRS Data Logger which will reply a SMS message with detail live data
 - User receive the data on the SMS message by the mobile phone



This method is inefficient and seldom used. But it provides an easy check of operation status of GPRS Data Logger with user mobile phone.



B) Via SMS by GSM Modem connecting to PC:

- "GS828_Server" software supports receiving data from GPRS Data Logger via SMS.
- The software will keep receiving data via SMS from a number of GPRS Data Loggers, and storing into the server database
- Data will be saved in xml files and Access/MySQL/SQL/Oracle database for user development.

- C) Via RS232 Port connecting to PC:
 - Both "GS828_Setup" and "GS828_Server" software support receiving the data from GPRS Data Loggers via RS232 port.
 - Data will not be saved using "GS828_Setup" software.
 - Data will be saved in database using "GS828_Server" software

This method is usually for on-site application.



D) Via Internet:

- Both "GS828_Centre" & "GS828_Server" software support receiving the data from GPRS Data Loggers via Internet.
- "GS828_Centre" software will save data in text file.
- "GS828_Server" software will save data in XML and other Database files.

This method is the most common way of receiving and managing the data.

However, there are two data communication protocols:

- 1) UDP
- 2) TCP



2. Server Version Comparison

Below is the comparison table of two different versions of Server Software:

Edition	Standard	Premium
[A] Server Software Name	GS828_Centre	GS828_Server
Receive Data via SMS	—	Yes
Receive Data via GPRS Data	Yes	Yes
Receive Data via RS232 Port	—	Yes
Live Data Display	Yes	Yes
Database	Daily text	Access / MySQL
		SQL / Oracle
XML	—	Yes
Data Export to Excel	—	Yes
Remote Command via SMS	—	Yes
Remote Command via Internet	_	Yes
Schedule Command	_	Yes
Batch Command	_	Yes
Temperature & Humidity Alert	—	Yes
Send Alarm Alert via TCP network	—	Yes
Send Alarm Alert via email	—	Yes
Send Alarm Alert via SMS	—	Yes
Alert Users Grouping	—	Yes
Alert Emails Grouping	—	Yes
Client Software support	—	Yes
Max. Data Loggers simultaneous support	99	9999
Data Loggers Management	—	Yes
User Authentication & Management	—	Yes
Network Client Authentication & Management	—	Yes
Web Based Access support	—	Yes
SDK for user development	—	Yes
[B] Client Software	N.A.	Bundled
Live Data Display	—	Yes
Alarm Alert	_	Yes
Graphic Display of Temperature & Humidity	_	Yes
Temperature & Humidity Hi/Low Alert	_	Yes
Historical Data Access	_	Yes

3. Before Installation

Hardware Requirements:

Server PC:

- Intel Core2 Duo CPU E6550 or above
- 2GB RAM, 100GB hard disk
- Windows XP Professional/Vista Premium/7
- Min. 1024 x 768 display
- Public fixed IP must be available [either configured in Server computer or Network Router]

SIM card

- GPRS service is activated
- Call ID service is activated
- PIN code must be removed (disabled, but not 0000)

Start Up Steps

- (1) Get the GPRS Data Logger ready
- (2) Get the PC hardware ready
- (3) Install "GS828_Centre" software

4. About Server IP



Please check carefully your local network and router configuration:

In the example case of this manual:

A) GPRS Data Logger configuration should be setup as below.

 GPRS Server IP:
 210.3.133.88

 Server Port::
 9050

B) Computer running the GS828_Centre Software should have the following local IP as below.

GS828 Centre IP: 192.168.0.12

Local Port: 9050

5. Start Up [UDP]

- Using "GS828_Setup" software to configure GPRS Data Logger properly
- Using "GS828_Centre [UDP]" to receive the data from GPRS Data Logger

				C	Command Success 🛛 🌖
prinection Set	up:		Read Paramete	#2 Octature O	Patch
K5232	Port: COM4 👻 🔍 Disco	nnect 🥚 Connection: 222111	▼	#3 Q Status Q	GS828_Setu
GSM Modem			₩ #2 9	Ver 🥥 Clear 🥥	Init Version 3.1
Phone Book	GS828 H/H2 (Versio	n 6) 💠 Data Logs			
Device Setup	Analog Channel	Digital/Pulse Channel Relay Outp	ut AD Alarm Message	IN Alarm Message	Data Record Batch Setu
Device Prope	rties		GPRS Network	CEM Modulo CIM (Cord CDRS Notwork
64	Station ID	222111	Modulo Chatura	GSM MODUle SIM C	
	Station is		Module Status:		
	Enquiry Password	999999	Network Signal S	trength:	
Q		Reset			
	Setup Password	888888	Network Connec	tion Type: 🛛 🌖 Fixe	ed IP 🌑 Domain
Q.	Date/Time	1005290117			
	bace, mile		Alarm Phone Numbe	r	
	Data Logging Interval	05 Minute 👻		Alarm Phone 1	
GPRS Upload	Setup			Alarm Phone 2	
	GPRS Upload Interval	15 Minute	ModBus Address Set	tup	
and a state			<u>e</u>	ModBus Address	001
9	GPRS Data Format	Live Data 🔹	GPRS Network Setur)	
	Record Count	01 👻	Q.	Access Point	CMNET
			200		
SMS Upload S	Setup			GPRS Server IP	210 · 3 · 133 · 88
G	SMS Upload Interval	00 •	<u>s</u>	Server Port	9050
100	Control Centre Number		Q.	Domain Name	
1-6-					
			<u></u>	Protocol	UDP 🔻
Initializatio	n Completed!		ġ.	Acknowledge Interval	0120

Following parameters must be configured in GPRS Data Logger:

- GPRS Upload Interval
- Protocol: UDP
- Access Point
- Server Port
- GPRS Server IP

(i) GS828_Centre only supports fixed IP connection.



6. Install the "GS828_Centre (UDP)" software

• Run GS828_Centre (UDP), and follow the instructions



7. Centre [UDP] Setup

Following parameters should be configured in GS828_Centre software:

- Local IP (depending on the LAN setup) will be automatically detected
- Server Port must be same as configured in GPRS Data Logger
- Click [Listen] to start receiving the data
- Green LED will be ON

GS828_Centre	JDP)			×
Local IP: Live Data Dis	92 . 168 . 0 . 12 Port: 9050	Close 9 2	GPRS Dat Data Recei	a Logger ving Centre V1.0.2
06/17/2010 :	2:34:03 Buffer Clear C	:\Program Files\DataLogger\GS828_Centr	re(UDP)\Data_logs.log	Save Path
S/ GS828_Centre(UDP)				
Local IP: 192 . 168 .	0 . 12 Port: 9050	Listen	GPRS Data Logger Data Receiving Centre	V1.0.2
Live Data Display	C:\Drogram E	ilon/Datal aggor/GS929_Contro/UDD/\Dat		Deth
06/17/2010 12:33:54	Buffer Clear C: (Program P	ies (DataLogger (65828_Centre(ODP) (Data	a_logs.log Save	Path
	595G			

8. Receiving Data [UDP]

- Data will be saved in the "Data_Logs.log" text file
- Only one day data will be saved, and overwritten on another day

GS828_Centre(UDP)		
ocal IP: 192 . 168 . 0	. 12 Port: 9050 Close	GPRS Data Logger Data Receiving Centre V1.0
ve Data Display		
6/17/2010 12:50:36	Buffer Clear D:\GS828_Centre_0617\Data_logs.log	Save Path
2010-06-17 12:48:11	117.136.12.196: #STA:123456;L:310;TM:100617124802;D:5;T:01;C:42;A00:0.041;A01:0	00000;A02:00000;A03:00000;A
2010-06-17 12:47:53	117.136.12.196: @888123456	
2010-06-17 12:47:18	117.136.12.196: @888123456	
2010-06-17 12:46:44	117.136.12.196: @888123456	
2010-06-17 12:46:10	117.136.12.196: #STA:123456;L:310;TM:100617124600;D:5;T:01;C:41;A00:00000;A01:	00000;A02:00000;A03:00000;/
2010-06-17 12:45:53	117.136.12.196: @888123456	
2010-06-17 12:45:19	117.136.12.196: @888123456	
2010-06-17 12:44:45	117.136.12.196: @888123456	
2010-06-17 12:44:11	117.136.12.196: #STA:123456;L:310;TM:100617124402;D:5;T:01;C:40;A00:00000;A01:	00000;A02:00000;A03:00000;
2010-06-17 12:43:41	117.136.12.196: @888123456	
2010-06-17 12:41:17	117.136.12.196: @888123456	
2010-06-17 12:40:43	117.136.12.196: @888123456	
2010-06-17 12:40:09	117.136.12.196: #STA:123456;L:310;TM:100617124000;D:5;T:01;C:38;A00:00000;A01:	00000;A02:00000;A03:00000;,
2010-06-17 12:39:53	117.136.12.196: @888123456	
2010-06-17 12:39:19	117.136.12.196: @888123456	
2010-06-17 12:38:44	117.136.12.196: @888123456	
2010-06-17 12:38:10	117.136.12.196: #STA:123456;L:310;TM:100617123801;D:5;T:01;C:37;A00:00000;A01:	00000;A02:00000;A03:00000;
2010-06-17 12:37:52	117.136.12.196: @888123456	
2010-06-17 12:37:18	117.136.12.196: @888123456	
2010-06-17 12:36:43	117.136.12.196: @888123456	
2010-06-17 12:36:09	117.136.12.196: #STA:123456;L:310;TM:100617123600;D:5;T:01;C:36;A00:00000;A01:	00000;A02:00000;A03:00000;,

Don't forget to click [Close] before exiting the software. It will release the network port for other applications.

9. Start Up [TCP]

- Using "GS828_Setup" software to configure GPRS Data Logger properly
- Using "GS828_Centre [TCP]" to receive the data from GPRS Data Logger

apportion Cat	100			Road Darren	tora	C	ommand Succ	cess 🌖
RS232 GSM Modem	Port: COM4 🔻 🐓 Disco	nnect 🌖 Connectio	on: 222111 🔻) #1 #2	#3 G Ver G	Status 📿 E Clear 🥥	Batch Init	GS828_Set Version 3.1
Phone Book	💠 GS828 H/H2 (Versio	n 6) 💠 Data Logs						
Device Setup	Analog Channel	Digital/Pulse Channel	Relay Output	AD Alarm Messag	e IN Alarm	Message	Data Record	Batch Set
Device Prope	rties			GPRS Network	CEM Modu		ard CDP	5 Notwork
Q.	Station ID	222111		Module Status:				
	Enquiry Password	999999	Reset	Network Signa	Strength:			
	Setup Password	888888		Network Conne	ection Type:	🌖 Fixe	d IP 🍈 🗊	Domain
9	Date/Time	1005290117		Alarm Phone Numl	per			
	Data Logging Interval	05 Minute	•		Alarm Pho	ne 1		
GPRS Upload	Setup				Alarm Pho	ine 2		
	GPRS Upload Interval	15 Minute	•	ModBus Address S	etup			
Q.	GPRS Data Format	Live Data	•	¥:	MOGBUS A	aaress	001	
	Bernel Court		_	GPRS Network Set	up			
	Record Count	01	_	<u></u>	Access Poi	int	CMNET	
SMS Upload S	Setup			<u>ġ</u>	GPRS Serv	ver IP	210 · 3	· 133 · 88
a	SMS Upload Interval	00	•	ý.	Server Por	rt	9050	
	Control Centre Number			e.	Domain Na	ame		
					Drotocol		ТСР	
Info					Protocol			
Info Initializatior	n Completed!				Acknowled	lae Interval	0120	

Following parameters must be configured in GPRS Data Logger:

- GPRS Upload Interval
- Protocol: TCP
- Access Point
- Server Port
- GPRS Server IP

(i) GS828_Centre only supports fixed IP connection.



10. Install the "GS828_Centre (TCP)" software

• Run GS828_Centre (TCP), and follow the instructions



11. Centre [TCP] Setup

Following parameters should be configured in GS828_Centre software:

- Local IP (depending on the LAN setup) will be automatically detected
- Server Port must be same as configured in GPRS Data Logger
- Click [Listen] to start receiving the data
- Green LED will be ON

GS828_Centre(TCP)	
Local IP: 192 . 168 . 0 . 12 Port: 9050 Close 2 Dat	RS Data Logger a Receiving Centre V1.0.2
06/17/2010 12:11:49 Buffer Clear C:\Program Files\DataLogger\GS828_Centre(TCP)\Data_logs.log	Save Path
S GS828_Centre(TCP)	
Local IP: 192 . 168 . 0 . 12 Port: 9050 Listen GPRS Data Log Data Receiving to	iger Centre V1.0.2
Live Data Display	Save Bath

12. Receiving Data [TCP]

- Data will be saved in the "Data_Logs.log" text file
- Only one day data will be saved, and overwritten on another day

GS828_Centre(TCP)		
Local IP: 192 . 168 . 0	. 12 Port: 9050 Close 6 Data Re	Data Logger :ceiving Centre V1.0.2
Live Data Display		
06/17/2010 12:43:51	Buffer Clear D:\GS828_Centre_0617\Data_logs.log	Save Path
2010-06-17 12:43:04	117.136.12.196: #STA:123456;L:310;TM:100617124200;D:5;T:01;C:67;A00:0.041;A01:00000;A02:0	00000;A03:00000;A
2010-06-17 12:42:05	117.136.12.196: #STA:123456;L:310;TM:100617124101;D:5;T:01;C:66;A00:00000;A01:00000;A02:	00000;A03:00000;
2010-06-17 12:41:06	117.136.12.196: #STA:123456;L:310;TM:100617124002;D:5;T:01;C:65;A00:00000;A01:00000;A02:	00000;A03:00000;,
2010-06-17 12:40:04	117.136.12.196: #STA:123456;L:310;TM:100617123900;D:5;T:01;C:64;A00:00000;A01:00000;A02:	00000;A03:00000;
2010-06-17 12:39:04	117.136.12.196: #STA:123456;L:310;TM:100617123800;D:5;T:01;C:63;A00:00000;A01:00000;A02:	00000;A03:00000;
2010-06-17 12:38:05	117.136.12.196: #STA:123456;L:310;TM:100617123701;D:5;T:01;C:62;A00:00000;A01:00000;A02:	00000;A03:00000;
2010-06-17 12:37:06	117.136.12.196: #STA:123456;L:310;TM:100617123602;D:5;T:01;C:61;A00:0.041;A01:00000;A02:0	00000;A03:00000;A
2010-06-17 12:36:04	117.136.12.196: #STA:123456;L:310;TM:100617123500;D:5;T:01;C:60;A00:00000;A01:00000;A02:	00000;A03:00000;
2010-06-17 12:35:05	117.136.12.196: #STA:123456;L:310;TM:100617123401;D:5;T:01;C:59;A00:00000;A01:00000;A02:	00000;A03:00000;
2010-06-17 12:34:05	117.136.12.196: #STA:123456;L:310;TM:100617123301;D:5;T:01;C:58;A00:00000;A01:00000;A02:	00000;A03:00000;,
2010-06-17 12:33:04	117.136.12.196: #STA:123456;L:310;TM:100617123200;D:5;T:01;C:57;A00:00000;A01:00000;A02:	00000;A03:00000;,
2010-06-17 12:32:04	117.136.12.196: #STA:123456;L:310;TM:100617123100;D:5;T:01;C:56;A00:0.041;A01:00000;A02:0	00000;A03:00000;A
2010-06-17 12:31:06	117.136.12.196: #STA:123456;L:310;TM:100617123001;D:5;T:01;C:55;A00:00000;A01:00000;A02:	00000;A03:00000;,
2010-06-17 12:30:07	117.136.12.196: #STA:123456;L:310;TM:100617122903;D:5;T:01;C:54;A00:00000;A01:00000;A02:	00000;A03:00000;
2010-06-17 12:29:04	117.136.12.196: #STA:123456;L:310;TM:100617122800;D:5;T:01;C:53;A00:00000;A01:00000;A02:	00000;A03:00000;
2010-06-17 12:28:04	117.136.12.196: #STA:123456;L:310;TM:100617122700;D:5;T:01;C:52;A00:00000;A01:00000;A02:	00000;A03:00000;
2010-06-17 12:23:05	117.136.12.196: #STA:123456;L:310;TM:100617122201;D:5;T:01;C:50;A00:0.041;A01:00000;A02:0	00000;A03:00000;A
2010-06-17 12:22:05	117.136.12.196: #STA:123456;L:310;TM:100617122100;D:5;T:01;C:49;A00:00000;A01:00000;A02:	00000;A03:00000;
2010-06-17 12:21:04	117.136.12.196: #STA:123456;L:310;TM:100617122000;D:5;T:01;C:48;A00:00000;A01:00000;A02:	00000;A03:00000;,
2010-06-17 12:20:05	117.136.12.196: #STA:123456;L:310;TM:100617121901;D:5;T:01;C:47;A00:00000;A01:00000;A02:	00000;A03:00000;,
2010-06-17 12:19:06		

Don't forget to click [Close] before exiting the software. It will release the network port for other applications.