

User Guide

WaT: Web aided Telemetry



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1. Introduction

WaT stands for web aided telemetry. It is a web server that can serve seamlessly online telemetry content to any browser and any device over any internet connection.

Access to the server is restricted and selected distributors/clients and appropriate login credentials are required.

The server supports Infinite's own telemetry products as well as selected 3rd party devices.

Wat was made using Micorosoft ASP.NET, and the backend database is Microsoft SQL server. The data collection subsystem that performs telemetry data collection is a number of stationary data concentrator applications.

Telemetry data reach the server in a variety of techniques such as SMS, ftp and tcp socket over GSM and fixed ADSL connections.

Metering devices transmit measurement data to the server wirelessly or wired using communication means like SMS, email, ftp, tcp over GSM or CDMA2000 and GPRS.

Server HW server Communication sockets GSM, GPRS, ADSL, Static Database Comunication Backend SMS, email, ftp, TCP Concentrator Web Interface GIS Frontend

The server supports the European specification of open metering systems.

The above diagram illustrates the Servers architecture and subsystems

2. Login Form

infinite	WaT Telemetry Server
	Login to our telemetry server
\bigcirc	User Name :
16-10	George
	Password :
	•••
	Log In >

This is a restricted private server for web aided telemetry applications.

Login is username, password and IP restricted. Failure to any of these credentials might cause account deactivation. Only Infinite Informatics Itd can provide authorisation credentials to access this server. Access by any unauthorised person is strictly prohibited. If you are not authorized to access this server please exit now. If you have come to this login form by mistake and would like to view our public site, please go to <u>www.infinite.com.gr</u> If you have forgotten your username or password please call +30 2310 553545 Mon-Fri 09:00-17:00 or <u>contact us via email</u>.

- Multi session is supported :
 - 1. User can login with a user name and create multi sessions in different tabs in browsers
 - 2. Session expires in 10 minutes. After expiration user login form is showed
- User Name : Case sensitive
- Password : Case sensitive
- Authentication :
 - 1. When user clicks 'Log In' a new authentication cookie is created
 - 2. Cookie expires in 11 minutes. After expiration user login form is showed

3. Menu



Wat Logo.

Main | Map | Chart | Measurements | Alarms | Status | SMS Archive | Error Log

Main :

- Brief presentation of all devices at a glance.
- Display last status of devices
- Last measurements, status and alarms
- Search options by group and device

Map :

- Display devices in a dynamic map object
- If a device has an alarm the point color turns to red
- Zoom, Standard Map, Google Map, Google Hybrid, Google Satellite
- Search options by group and device

Chart :

- Display measurements in a line graph
- Multiple search options :
 - 1. Group and device
 - 2. Last week
 - 3. Date range by date & time
 - 4. Date range by user selection (1d, 2d, 1w, etc)

Measurements :

- Display measurements in database column list
- Search options by group, device, AI channel, date range by date & time

Alarms :

- Display alarm events in database column list
- Search options by group, device, AI channel, date range by date & time

Status :

- Display status in database column list
- Search options by group, device, AI channel, date range by date & time

SMS Archive :

- Display SMS archives (original in database column list)
- Search options by group, device, AI channel, date range by date & time

Error Log :

- Display error log events (original in database column list.
- Search options by group, device, AI channel, date range by date & time.



Log Out :

• Log off Wat Server.

New Version :

- All features and new develops.
- Search options by version description and version number.

Devices | Device Users | Alarm Messages | Groups

Devices :

- Display device list
- Insert, Edit, Delete devices
- Edit channels parameters

Devices Users :

- Display device list
- Insert, Edit, Delete device user

Alarm Messages :

- Display alarm message list
- Insert, Edit, Delete device user

Groups :

- Display groups list
- Insert, Edit, Delete group

4. Footer

User: pratos User Role: Power User Login: 6/12/2013 11:12:04 AM Client: Infinite LTD

- User : User name
- User Role : Administrator, Power User, User
- Login: Login date time
- Client: Client name

Copyright © 2012-2013 Infinite Informatics Itd | www.infinite.com.gr | Versions | Version 1.20_3, 11/6/2013, 12:00

- <u>www.infinite.com.gr</u> contact Infinite
- Versions : Version history list
- Version : Version last develop date & time

5. Main

👩 Main

- Brief presentation of all devices at a glance.
- Display last status of devices
- Last measurements, status and alarms
- Search options by group and device



• Show groups and devices in tree view format



- Refresh list
- Clear Sort : Clear sort options
- Devices : Count devices in list

	<u>Group</u>	<u>ID</u>	<u>Device</u>	Last Status	Signal %	Status	Logging	AI 1	Alarm	RC
Select	Athens	94	BSC-50E	6/11/2013 11:16:20 AM	-	•	•	24.5	•	-
Select	Bregen	85	BSC-50 DEMO T RH R	6/11/2013 6:03:09 PM	100	•	•	26	•	
Select	City Centre	41	BSC-50 DEMO T RH R	7/11/2012 6:36:29 PM	80.6	•		37	•	-
Select	Dordrecht	84	BSC-50 GAS	10/10/2012 12:25:37 PM	96.8	•	•	1.7	•	
Select	Farm	78	BSC-50 IRRIGATION	9/27/2012 12:20:47 PM	100	•	•	3.4	•	-
Select	Milan	62	BSC-50 MASSA 320	5/20/2013 4:31:57 PM	100	•	•	23.2	•	-
Select	Thessaloniki	93	SCOM-100	No Status data	-	-	-	-	•	-

- Select : Select line in list
- Group : Group name
- ID : Device id
- Device : Device name
- Last Status : Last status date time
- Signal % : GSM signal quality

- Status :
 - 1. Green : Device is active
 - 2. Red : Device is inactive
 - 3. Yellow : No status data received yet
 - 4. Grey : Device field 'Status Msg Period (Hours)' is null or zero)
- Logging :
 - 1. Green : Log data on time
 - 2. Red : Log data delayed
 - 3. Yellow : No log data
 - 4. Grey : Device field 'Sending Rate (Hours)' is null or zero)
 - AI 1 : Measurement last value of first AI channel
- Alarm :
 - 1. Green : Acknowledged
 - 2. Red : Alarm
- RC : Remote Control (see below)

Alarm List (Last 50 Recs)

Next Last										
<u>Ch Name AI</u>	<u>Ch Name DI</u>	<u>Rec Date</u>	SMS Date	<u>Contents</u>	<u>Value</u>	<u>Group</u>	<u>Device</u>	<u>1D</u>		
	INTRUDER	6/11/2013 4:15:23 PM	6/11/2013 7:15:14 PM	INTRUDER, ALARM		Bregen	BSC-50 DEMO T RH R	32132		
TEMP		6/11/2013 4:12:13 PM	6/11/2013 7:12:02 PM	TEMP, ABOVE 25oC, 25.6 oC	25.60	Bregen	BSC-50 DEMO T RH R	32131		
	INTRUDER	6/11/2013 2:09:39 PM	6/11/2013 5:09:31 PM	INTRUDER, ALARM		Bregen	BSC-50 DEMO T RH R	32130		
TEMP		6/11/2013 2:09:10 PM	6/11/2013 5:09:00 PM	TEMP, ABOVE 25oC, 27.6 oC	27.60	Bregen	BSC-50 DEMO T RH R	32129		
	INTRUDER	6/11/2013 11:15:42 AM	6/11/2013 2:15:34 PM	INTRUDER, ALARM		Athens	BSC-50E	32128		
TEMP TMP36		6/10/2013 3:22:05 PM	6/10/2013 6:21:58 PM	TEMP TMP36, HIGH, 30.2 oC	30.20	Athens	BSC-50E	32127		
	INTRUDER	5/24/2013 9:12:20 AM	5/24/2013 12:12:06 PM	INTRUDER, POSITIVE ALARM		Thessaloniki	SCOM-100	32070		
	LEVEL	5/24/2013 8:51:55 AM	5/24/2013 11:51:38 AM	LEVEL, ALARM		Milan	BSC-50 MASSA 320	32069		
LEVEL MASSA		5/24/2013 8:51:33 AM	5/24/2013 11:51:13 AM	LEVEL MASSA, HIGH, 2410.7 mm	2410.70	Milan	BSC-50 MASSA 320	32068		
TEMP TMP36		5/23/2013 8:11:26 AM	5/23/2013 11:11:14 AM	TEMP TMP36, HIGH, 32.6 oC	32.60	Athens	BSC-50E	32067		
	Next Last									

- Ch Name AI : AI Channel name
- CH Name DI : DI Channel name
- Rec Date : Database record creation date
- SMS Date : Device SMS send date
- Contents : Channel Name, Alarm Message, Value
- Group : Group name
- Device : Device name
- ID : Alarm events database record ID
- 🛑 Status (Device is active), Logging (Log Data on time)
- Status (Device is inactive), Logging (Log Data delayed)

Status (No Status data), Logging (No Log data)

- Status (Device field 'Status Msg Period (Hours)' in null or zero)
- Logging (Device field 'Sending Rate (Hours)' in null or zero)
 - See above.

Remote Control :

🕙 Remote Control - Mozilla Firefox
😌 192.168.1.5/RemoteControl.aspx?PARAMPASSTXT=ClientID:8,Phone:+306941577075,DeviceID:94,Devic 🏠
Remote Control - Device : BSC-50E(+306941577075)
Command Window
Clear
Ascii Command Enter
Response
The second secon
Device Name SMS Users Signal
Channel : 1 - Al Settings DI Settings
Active IO SM Period SM Idle Period Retry Delay Send Retries
Get Status Sample Delay Sample Period Log Rate Send Period
Set RTC Read RTC

- Send commands to devices remotely
- Get responses from devices through GSM Server remotely

6. Map :

💿 Мар

- Display devices in a dynamic map object.
- If a device has an alarm the point color turns to red.
- Zoom, Standard Map, Google Map, Google Hybrid, Google Satellite.
- Search options by group and device.



• Standard Map.



• Measurements balloon popup



• Alarm balloon.



• Layer selection.



• Google Map.



• Google Hybrid.



• Google Satellite.

General Functions :

- Left, right, up, down.
- Zoom in, zoom out.
- Change map coordinates by dragging map up, down, left and right.
- Change layer selection with options standard map, Google map, Google hybrid, Google satellite.
- Check / uncheck 'Telemetry Stations' : Show / hide devices stations points.

7. Chart :

📄 Chart Viewer

- Display measurements using a line graph.
- Multiple search options :
 - 1. Group and device.
 - 2. Last week.
 - 3. Date range by date & time.
 - 4. Date range by user selection (1d, 2d, 1w, etc).

Expand ± Collapse - Inactive Athens BSC-50E Bregen	Image Image <td< th=""></td<>
BSC-50 DEMO T RH R	◎ Date
► RAIN	
► TEMP	
🗄 🔜 Dordrecht	Plot Last Search: Bregen, BSC-50 DEMO T RH R
🗉 🔜 Farm	
🗉 🔜 Milan	47
 Singapore Airport Thessaloniki 	37.2 - ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~
	27.4 - A
	17.6
	7.8
	-2 -2 -2 -2 -2 -2 -2 -2 -2 -2 -2 -2 -2 -
	— TEMP — RH — RAIN

- Search Options :
 - 1. Range :
 - Range of date selection
 - Last Week : Show graph for the last 7 days
 - All, From Date, To Date : All days, search date period. User can select date from calendar
 - All, From Time, To Time : All times, search time period. User can select date from calendar
 - 2. Date :
 - Custom date user selection
 - User can select date from calendar
 - 1d (1 day), 2d (2 days), 1w (7 days), 2w (14 days), 1m (30 days), 2m (60 days), 3m (90 days), 6m (180 days), 1y (365 days)
- Scale Options :
 - 1. Auto Scale Y :
 - Automatic scale Y axis based on the lowest and highest graph values

- Min : -15% from the lowest graph value
- Max : +15% from the highest graph value
- 2. Min, Max :
 - Min Y axis scale value
 - Max Y axis scale value
- 3. Scale X axis :

Auto
6 Hours
12 Hours
1 Day
2 Days
1 Week
2 Weeks
1 Month

- 4. Alarms / Markers :
 - Show / hide points markers
 - Data points are shown :
 - Green color : AI Channel 1
 - Blue color : Al Channel 2
 - Orange color : AI Channel 3
 - Alarm points are shown in red color and also with a custom label 'A'



- S : Small marker size.
- M : Medium marker size
- L: Large marker size
- 5. Zoom Options :
 - X1 : Default size, H 400, W 660
 - X1.5 : Size H 600, W 900
 - X2 : Size H 800, W 1200
- Plot : Run queries with selected options and plot the graph

8. Measurements

Measurements

- Display measurements in database column list
- Search options by group, device, AI channel, date range by date & time.

Expand + Collapse -							
All Inactive							
🖃 🧾 Athens							
🖃 🌉 BSC-50E							
► AI2							
AI3							
TEMP TMP36							
🗉 🔜 Bregen							
🗉 🧾 Dordrecht							
🗉 🧾 Farm							
🗉 🔜 Milan							
📄 Singapore Airport							
🗉 🧾 Thessaloniki							

All From Date		To Date
All From Time		To Time
Q XI	Last Search Page:1 /	h: Dordrecht, BSC-50 GAS 2, View:50, Total:52

- Search Options :
 - 1. All, From Date, To Date : All days, search date period. User can select date from calendar
 - 2. All, From Time, To Time : All times, search time period. User can select date from calendar
 - ${}^{\bigcirc}$ Send query to server and show records in list
- Export selected records to an excel xls format file

Next Last										
	ID	<u>GroupID</u>	<u>GroupName</u>	DeviceID	<u>DeviceName</u>	IONum	<u>ChannelName</u>	<u>DateTime</u>	<u>Value</u>	<u>File</u>
Select	58268	82	Dordrecht	84	BSC-50 GAS	1	GAS 0-4 bar	10/10/2012 12:19:00 PM	1.7	SMS_ 44442957.txt
Select	58267	82	Dordrecht	84	BSC-50 GAS	1	GAS 0-4 bar	10/10/2012 12:18:00 PM	1.7	SMS_ 44442957.txt
Select	58266	82	Dordrecht	84	BSC-50 GAS	1	GAS 0-4 bar	10/10/2012 12:17:00 PM	1.7	SMS_ 44442957.txt
Select	58265	82	Dordrecht	84	BSC-50 GAS	1	GAS 0-4 bar	10/10/2012 12:16:00 PM	1.7	SMS_ 44442957.txt
Select	58260	82	Dordrecht	84	BSC-50 GAS	1	GAS 0-4 bar	10/10/2012 12:15:00 PM	1.7	SMS_ 44141122.txt
Select	58259	82	Dordrecht	84	BSC-50 GAS	1	GAS 0-4 bar	10/10/2012 12:14:00 PM	1.7	SMS_ 44141122.txt
Select	58258	82	Dordrecht	84	BSC-50 GAS	1	GAS 0-4 bar	10/10/2012 12:13:00 PM	1.7	SMS_ 44141122.txt
Select	58257	82	Dordrecht	84	BSC-50 GAS	1	GAS 0-4 bar	10/10/2012 12:12:00 PM	1.7	SMS_ 44141122.txt

- Select : Select line in list
- ID : Unique ID
- GroupID : Group ID
- GroupName : Group Name
- DeviceID : Device ID
- DeviceName : Device Name
- IONum : AI Channel number
- ChannelName : AI Channel name
- DateTime : SMS date time
- Value : Al Measurement value
- File : SMS source file from GSM Server

9. Alarms

🚺 Alarms

- Display alarm events in database column list
- Search options by group, device, AI channel, date range by date & time

Expand + Collapse -
All Inactive
🖃 🚉 Athens
🖃 🌆 BSC-50E
AI2(AI)
AI3(AI)
TEMP TMP36(AI)
 DI2(DI)
DI3(DI)
DI4(DI)
INTRUDER(DI)
🗄 🔜 Bregen
🗉 📴 Dordrecht
🗉 🔜 Farm
🗄 🔜 Milan
📄 Singapore Airport
🗉 🔜 Thessaloniki

Rec Date Time SMS Date Time	I All I All	From Date From Time		To Date To Time] 📰
्र 🖾 🚔			L	ast Search: BSC-5 Page:1 / 1,	ое, темр тмрз6(AI) View:50, Total:7

- Search Options :
 - 1. Rec Date Time : Search by database record date time
 - 2. SMS Date Time : Search by sms source date time
 - 3. All, From Date, To Date : All days, search date period. User can select date from calendar
 - 4. All, From Time, To Time : All times, search time period. User can select date from calendar
- Send query to server and show records in list.
- Export selected records to xls format file.

	<u>1D</u>	<u>GroupID</u>	<u>GroupName</u>	<u>DeviceID</u>	<u>DeviceName</u>	IONum-AI	<u>ChannelName-AI</u>	<u>IONum-DI</u>	<u>ChannelName-DI</u>
Select	32128	92	Athens	94	BSC-50E			1	INTRUDER
Select	32127	92	Athens	94	BSC-50E	1	TEMP TMP36		
Select	32067	92	Athens	94	BSC-50E	1	TEMP TMP36		
Select	32066	92	Athens	94	BSC-50E	1	TEMP TMP36		
Select	32065	92	Athens	94	BSC-50E	1	TEMP TMP36		
Select	32064	92	Athens	94	BSC-50E	1	TEMP TMP36		
Select	32063	92	Athens	94	BSC-50E	1	TEMP TMP36		
Select	32062	92	Athens	94	BSC-50E	1	TEMP TMP36		
Select	32059	92	Athens	94	BSC-50E			1	INTRUDER
Select	32058	92	Athens	94	BSC-50E			1	INTRUDER

<u>RecDateTime</u>	<u>SMSDateTime</u>	<u>Contents</u>	<u>AlarmValue</u>	<u>File</u>
6/11/2013 11:15:42 AM	6/11/2013 2:15:34 PM	INTRUDER, ALARM		SMS_ 40542199.txt
6/10/2013 3:22:05 PM	6/10/2013 6:21:58 PM	TEMP TMP36, HIGH, 30.2 oC	30.20	SMS_ 55324965.txt
5/23/2013 8:11:26 AM	5/23/2013 11:11:14 AM	TEMP TMP36, HIGH, 32.6 oC	32.60	SMS_ 29485984.txt
5/23/2013 3:26:03 AM	5/23/2013 6:25:51 AM	TEMP TMP36, LOW, -1.1 oC	-1.10	SMS_ 12362765.txt
5/22/2013 10:31:07 PM	5/23/2013 1:30:53 AM	TEMP TMP36, HIGH, 32.6 oC	32.60	SMS_ 81066703.txt
5/22/2013 5:46:04 PM	5/22/2013 8:45:49 PM	TEMP TMP36, LOW, -1.1 oC	-1.10	SMS_ 63964390.txt
5/22/2013 1:00:58 AM	5/22/2013 4:00:48 AM	TEMP TMP36, HIGH, 48.9 oC	48.90	SMS_ 3658406.txt
5/21/2013 10:06:18 AM	5/21/2013 11:55:43 AM	TEMP TMP36, LOW, -20.7 oC	-20.70	SMS_ 36358890.txt
5/16/2013 12:16:34 PM	5/16/2013 3:16:22 PM	INTRUDER, ALARM		SMS_ 44194450.txt
5/16/2013 11:34:27 AM	5/16/2013 2:34:14 PM	INTRUDER, ALARM		SMS_ 41666966.txt

- Select : Select line in list
- ID : Unique ID
- GroupID : Group ID
- GroupName : Group Name
- DeviceID : Device ID
- DeviceName : Device Name
- IONum-AI: AI Channel number
- ChannelName-AI: AI Channel name
- IONum-DI: DI Channel number
- ChannelName-DI: DI Channel name
- RecDateTime : Database record date time
- SMSDateTime : SMS date time
- AlarmValue : Alarm value
- File : SMS source file from GSM Server

10. Status

🛜 Status

- Display status in database column list.
- Search options by group, device, AI channel, date range by date & time.

Expand + Collapse -
All Inactive
🖃 🚺 Athens
BSC-50E
🗉 🔜 Bregen
🗉 🔜 Dordrecht
🗉 🔜 Farm
🗉 🔜 Milan
📄 Singapore Airport
🗉 🔜 Thessaloniki

Rec Date Time SMS Date Time	☑ AII ☑ AII	From Date From Time	To Date To Time] 📰
Q 🖾 🚔			Last Search: Page:1 / 2, View	Athens, BSC-50E :50, Total:100

- Search Options :
 - 1. Rec Date Time : Search by database record date time.
 - 2. SMS Date Time : Search by sms source date time.
 - 3. All, From Date, To Date : All days, search date period. User can select date from calendar.
 - 4. All, From Time, To Time : All times, search time period. User can select date from calendar.
- Send query to server and show records in list.
- Export selected records to xls format file.

							Ne	ext L	<u>ast</u>
	ID	<u>GroupID</u>	<u>GroupName</u>	<u>DeviceID</u>	<u>DeviceName</u>	<u>RecDateTime</u>	<u>SMSDateTime</u>	<u>Orig</u>	<u>TotalSamples</u>
Select	37316	92	Athens	94	BSC-50E	6/11/2013 8:16:34 AM	6/11/2013 11:16:20 AM	\checkmark	1
Select	37314	92	Athens	94	BSC-50E	6/10/2013 11:11:52 AM	6/10/2013 2:11:40 PM	\checkmark	1
Select	37313	92	Athens	94	BSC-50E	6/10/2013 5:12:02 AM	6/10/2013 8:11:38 AM	\checkmark	1
Select	37312	92	Athens	94	BSC-50E	6/8/2013 5:11:55 PM	6/8/2013 8:11:35 PM	\checkmark	1
Select	37311	92	Athens	94	BSC-50E	6/8/2013 11:11:57 AM	6/8/2013 2:11:34 PM	\checkmark	1

<u>SQ Min</u>	<u>SQ Avg</u>	<u>SQ Max</u>	<u>Ber Min</u>	<u>Ber Avg</u>	<u>Ber Max</u>	SQ Error	Ber Error	<u>File</u>
						1	1	SMS_ 29793840.txt
24	24	24				0	1	SMS_ 40311856.txt
15	15	15				0	1	SMS_ 18722453.txt
14	14	14				0	1	SMS_ 61915109.txt
14	14	14				0	1	SMS_ 40316625.txt

- Select : Select line in list
- ID : Unique ID
- GroupID : Group ID
- GroupName : Group Name
- DeviceID : Device ID
- DeviceName : Device Name
- RecDateTime : Database record date time
- SMSDateTime : SMS date time
- Orig : -
- TotalSamples : Signal quality samples taken
- SQ Min : Signal quality min.
- SQ Avg : Signal quality avg.
- SQ Max : Signal quality max.
- Ber Min : Minimum number of errors
- Ber Avg : Average number of errors
- Ber Max : Maximum number of errors
- SQ Error : Signal Quality Error.
- Ber Error : Number of errors
- File : SMS source file from GSM Server

11. SMS Archives

SMS Archives					
Rec Date Time SMS Date Time	II ₪	From Date From Time		To Date	
Q 🖾 🙀			Pa	Last Search: Ath ge:1 / 15, View:50	ens, BSC-50E , Total:722

- Search Options :
 - 1. Rec Date Time : Search by database record date time
 - 2. SMS Date Time : Search by sms source date time
 - 3. All, From Date, To Date : All days, search date period. User can select date from calendar
 - 4. All, From Time, To Time : All times, search time period. User can select date from calendar
- Send query to server and show records in list
- Export selected records to xls format file

	ID	<u>GroupID</u>	<u>GroupName</u>	<u>DeviceID</u>	<u>DeviceName</u>	<u>RecDateTime</u>	<u>SMSDateTime</u>
Select	174688	92	Athens	94	BSC-50E	6/11/2013 11:15:43 AM	6/11/2013 2:15:34 PM
Select	174687	92	Athens	94	BSC-50E	6/11/2013 11:11:23 AM	6/11/2013 2:11:14 PM
Select	174686	92	Athens	94	BSC-50E	6/11/2013 10:11:24 AM	6/11/2013 1:11:14 PM

<u>Next</u> Last	
Contents	<u>File</u>
"REC UNREAD","+306941577075",,"13/06/11,14:15:34+12"->BSC-50E->ALARM MESSAGE->INTRUDER->ALARM	SMS_ 40542199.txt
"REC UNREAD","+306941577075",,"13/06/11,14:11:14+12"->BSC-50E->DATA->160520132129->10,1,26.6,27.7,27.8,27.8,28.0,25.6	SMS_ 40281808.txt
"REC UNREAD","+306941577075",,"13/06/11,13:11:14+12"->BSC-50E->DATA->160520132029->10,1,26.5,26.2,26.5,26.5,26.5,26.3	SMS_ 36682887.txt

- Select : Select line in list
- ID : Unique ID
- GroupID : Group ID
- GroupName : Group Name
- DeviceID : Device ID
- DeviceName : Device Name
- RecDateTime : Database recorded date time
- SMSDateTime : SMS date time
- Contents : Source SMS message
- File : SMS source file from GSM Server

12. Error Log

🛕 Error Log

- Display error log events (original in database column list.
- Search options by group, device, AI channel, date range by date & time.

🗹 All	From Date	To Date
🗹 All	From Time	To Time
🗹 All	Error Code 1	~
🗹 All	Error Description 👻	
Q		Last Search: Athens, BSC-50E Page:1 / 1, View:50, Total:6

- Search Options :
 - 1. All, From Date, To Date : All days, search date period. User can select date from calendar.
 - 2. All, From Time, To Time : All times, search time period. User can select date from calendar.
 - 3. All, Error Code : Search by error code.



4. All, Error Description : Search by error description

Error Description	•
Error Description	
Contents	
File	

- Send query to server and show records in list
 - Export selected records to xls format file

	ID	<u>GroupID</u>	<u>GroupName</u>	DeviceID	<u>DeviceName</u>	<u>ErrorDateTime</u>	ErrorCode	Error Description
Select	434310	92	Athens	94	BSC-50E	6/6/2013 8:17:42 AM	242	There is no device with such 'Phone Number' ("+124") !
Select	434245	92	Athens	94	BSC-50E	5/14/2013 9:32:16 AM	242	There is no device with such 'Phone Number' ("+1265") !
Select	434244	92	Athens	94	BSC-50E	5/14/2013 9:32:10 AM	242	There is no device with such 'Phone Number' ("+1265") !
Select	434243	92	Athens	94	BSC-50E	5/14/2013 9:32:06 AM	242	There is no device with such 'Phone Number' ("+1265") !

- Select : Select line in list
- ID : Unique ID
- GroupID : Group ID
- GroupName : Group Name
- DeviceID : Device ID
- DeviceName : Device Name
- ErrorDateTime : Database record date time
- ErrorCode: Error Code ID
- Error Description : Error Description
- Contents : Source SMS message
- File : SMS source file from GSM Server

13. Devices

It is recommended to consult the respective device's manual for detailed descriptions regarding the functions described below.

Devices

- Display device list
- Insert, Edit, Delete devices
- Edit channels parameters



- Edit : Edit device
- New : Create new device. Duplicate phone number raises an error
- Save : Save changes to database
- Delete : Delete a selected device and all its related tables (measurements, status, etc)
- Copy : Create a clone device using another device's configuration

General Users Digital IN Analog IN DO

- General : Device parameters (Main parameters, Subscription parameters, General parameters, Logging parameters, Data transmission parameters)
- Users : Assign users to devices
- Digital IN : DI channels
- Analog IN : AI channels
- DO : Digital output channels

	Status	Alarm	Group	<u>DeviceID</u>	<u>DeviceName</u>	<u>PhoneNumber</u>	Туре	Latitude	Longitude	Comments
Select	Active	•	City Centre	41	BSC-50 DEMO T RH R	+306972235764	BSC-50-E			
Select	Active	•	Milan	62	BSC-50 MASSA 320	+306972235763	BSC-50-E	45.659362	9.725111	
Select	Active	•	Farm	78	BSC-50 IRRIGATION	+306972235762	BSC-50-E			
Select	Active	•	Dordrecht	84	BSC-50 GAS	+306972235768	BSC-50-E			
Select	Active	•	Bregen	85	BSC-50 DEMO T RH R	+306972235766	BSC-50-E	60.391469	5.321674	Temp, Humidity, Power
Select	Active	•	Thessaloniki	93	SCOM-100	+306972235769	SCOM-100	40.638886	22.936090	
Select	Active	•	Athens	94	BSC-50E	+306941577075	BSC-50-E	37.901779	23.872626	

- Select : Select line in list
- Status : Active / inactive device
- Alarm : Device is in alarm status
- Device ID : Unique device ID
- DeviceName : Device Name
- PhoneNumber : Unique phone number
- Type : BSC, SCOM, iLog, Power Electric
- Latitude : Map latitude
- Longtitude : Map longtitude

• Comments : Notes and comments

Main Parameters										
Device ID	41									
Device Name	BSC-50 DEMO T RH R									
Device Descr										
Phone Number	+306972235764									
Туре	BSC-50-E 🔹									
Latitude										
Longitude										
Client	Infinite LTD 🔹									
Status	Active Insetive									
	 Inactive 									
Alarm	Acknowledged									
Comments										
	H.									

• Client : Client name

Subscription								
Start Date (dd/mm)								
Make Invisible In Days								
End Date (dd/mm)								

- Start Date : Start of subscription date
- Make Invisible In Days : Subscription duration in days. After subscription expires device is hidden from the WaT Server
- End Date : End of subscription date

General Parameters								
Version								
Verbose Response								
Merge Alarms								
Avail SMS Alarm Limit								
SMS Counter Preset								
Retries								
Retry Delay (Sec)								
Status Msg Period (Hours)	24							
Status Idle Time Period (Sec)								
Pin Number								

- Version : Firmware version
- Verbose Response : Detailed responses to commands
- Merge Alarms : Multi alarm SMS messages are merged to one
- Avail SMS Alarm Limit : Available prepaid SMS limit
- SMS Counter Preset : Prepaid SMS preset
- Retries : Number of retries
- Retry Delay (Sec) : Delay between retries
- Status Msg Period (Hours) : Status sending rate period in hours
- Pin Number : SIM card pin number

Logging Parameters								
Analog Input Alarm Deadband (%)								
AI Sampling Delay (Sec)								
AI Sampling Interval (Min)								
Logging Rate (Nr. of AI Samples)								
Sending Rate (Hours)								

- Analog Input Alarm Deadband (%) : Alarm deadband
- Al Sampling Delay (Sec) : Sampling power up time in seconds
- Al Sampling Interval (Min) : Sampling interval in minutes
- Logging Rate (Nr. Of Al Samples) : Logging rate as number logs

• Sending Rate (Hours) : Logged data sending rate in hours.



- Logging Scale : Type of telemetry data structure
- Data Msg Format : Type of telemetry data structure

Assign Device Users

UnAssign Device Users

<u>UserID</u>	<u>UserName</u>		No unassign device users
21	Gareth Hester	UnAssign	
14	test2	UnAssign	

- Assign users to device
- UserID : Unique user id
- UserName : User name
- UnAssign : Delete user from device

Digi	tal In (BSC)		Status	Alarm	<u>10</u>	<u>Channel</u>	Alarm	<u>Alarm</u> Delay
Edit Save (Cancel				Num	Name	<u>Mõde</u>	(<u>Sec</u>)
First Previous <u>Next</u>	Last	Select	Active	•	1	COUNTER	0	
KeyNum	113	Select	Active	•	2	INTRUDER	0	
IONum	1	Select	Active	•	3	Default3	0	
Channel Name	COUNTER	Select	Active	•	4	DI4	0	
Alarm Mode	0 ~		- <u> </u>					
Alarm Delay (Sec)								
M2P 0 > 1 Msg	Select One							
M2P 1 > 0 Msg	Select One 🔻							
M2M 0 > 1 Msg	Select One 🔻							
M2M 1 > 0 Msg	Select One 🔻							
0 > 1 AL Send Data	● Yes ◎ No							
1 > 0 AL Send Data	◎ Yes ◎ No							
Status	ActiveInactive							
Alarm	OnAcknowledged							
First Previous <u>Next</u>	Last							

- KeyNum : BSC DI channel unique id
- IONum : BSC DI channel number.
- Channel Name : BSC DI channel name
- Alarm Mode : 0, 1, 2, 3
- Alarm Delay (Sec) : Alarm delay in seconds
- M2P 0 > 1 Msg : Machine to person alarm message on a low to high transition
- M2P 1 > 0 Msg : Machine to person alarm message on a low to high transition
- M2M 0 > 1 Msg : Machine to machine alarm message on a low to high transition
- M2M 1 > 0 Msg : Machine to machine alarm message on a high to low transition
- 0 > 1 AL Send Data : Send measured data in case of low to high alarm
- 1 > 0 AL Send Data : Send measured data in case of high to low alarm
- Status : Active / inactive
- Alarm : Alarm status

Digit	al In (SCOM)			Status	Alarm	<u>10</u>	<u>Channel</u>	Alarm	<u>Alarm</u> Delay
Edit Save	Cancel			510105		<u>Num</u>	<u>Name</u>	<u>Mode</u>	(Sec)
First Previous Next	Last		Select	Active	•	1	INTRUDER	1	
KeyNum	316		Select	Active	•	2	DI2	0	
IONum			Select	Active	•	3	DI3	0	
Channel Name	INTRUDER		Select	Active	•	4	DI4	0	
Alarm Mode	1	-	Select	Active		5	DI5	0	
Alarm Delay (Sec)			Select	Active		6	DI6	0	
M2P 0 > 1 Msg	ALARM			Action		-	017		
M2P 1 > 0 Msg	Select One		Select	Active	-	/	DI7	0	
Mode	R:Remote Inpu	t 👻	Select	Active	•	8	DI8	0	
Counter Scale Factor			Select	Active	•	9	DI9	0	
Status	Active		Select	Active	•	10	DI10	0	
	Inactive		Select	Active	•	11	DI11	0	
Alarm	On Acknowledge	ed	Select	Active	•	12	DI12	0	
Assign Alarm Recipier	it UnAssigr	n Alarm Recipient	Select	Active	•	13	DI13	0	
No assign alarm rec	pients No una	ssign alarm	Select	Active	•	14	DI14	0	
	recipier	115	Select	Active	•	15	DI15	0	
First Previous Next	Last		Select	Active	•	16	DI16	0	

- KeyNum : SCOM DI channel unique id
- IONum : SCOM DI Channel number
- Channel Name : SCOM DI channel name
- Alarm Mode : 0, 1, 2, 3
- Alarm Delay (Sec) : See device manual
- M2P 0 > 1 Msg : Machine to person alarm message on a low to high transition
- M2P 1 > 0 Msg : Machine to person alarm message on a high to low transition
- Mode : C (Counter), R (Remote input)
- Counter Scale Factor : See device manual

- Status : Active / inactive
- Alarm : Alarm status

Ana	log In (BSC)		Status	Alarm	<u>IO</u> Num	Channel	<u>Mode</u>	<u>Unit</u>	Sensor	Sensor	Alarm	Alarm High	Dela (Min
Edit Save	Cancel	Select	Active	-	1	TEMP	v	oC	-40	93	5	93	1
First Previous Next	Last	Select	Active		2	RH	V	%	0	100			
KeyNum			Activo		-	420				100			
IONum		Select	Active		3	RAIN	V	mm	0	1000			
Channel Name													
Mode	Select One 🔻												
Unit	Select One 💌												
Sensor Low													
Sensor High													
Scale Low													
Scale High													
Alarm Low													
Alarm High													
Delay (Min)													
M2P Low Msg	Select One 👻												
M2P High Msg	Select One 🔻												
M2M Low Msg	Select One 🔻												
M2M High Msg	Select One 🔻												
High AL Send Data	Yes												
	() No.												
Low AL Send Data	No												
Status	ActiveInactive												
Alarm	 On Acknowledged 												
First Previous Next	Last												

- KeyNum : BSC AI channel unique id
- IONum : BSC AI channel number
- Channel Name : BSC AI channel name
- Mode : Current, Voltage
- Unit : Measurement unit. User can select from list or create a new one from the empty text box below unit selection.
- Sensor Low : Sensor low A2D setting
- Sensor High : Sensor high A2D setting
- Scale Low : User scale low limit
- Scale High : User scale high limit
- Alarm Low : Alarm limit low
- Alarm High : Alarm limit high
- Delay (Min) : ?
- M2P 0 > 1 Msg : Machine to person alarm message on a low to high transition
- M2P 1 > 0 Msg : Machine to person alarm message on a high to low transition
- M2M 0 > 1 Msg : Machine to machine alarm message on a low to high transition

- M2M 1 > 0 Msg : Machine to machine alarm message on a high to low transition
- High AL Send Data : Send measured data in case of high alarm
- Low AL Send Data : Send measured data in case of low alarm
- Status : Active / inactive
- Alarm : Alarm status

Anal	og IN (SCOM)		Status	Alarm	<u>IO Num</u>	<u>Channel Name</u>	Mode	Unit	Sensor Low	<u>Sensor</u> <u>High</u>	<u>Alarm</u> Low	<u>Alarm</u> <u>High</u>	<u>Delay</u> (Sec)
Edit Save	Cancel	Select	Active	-	1	TEMP	v	%	2031	3096	2	27	3
First Previous Next	Last	Select	Active	•	2	AI2	v	%					
KeyNum		Select	Active	•	3	AI3	v	%					
IONum		Select	Active	•	4	AI4	v	%					
Channel Name		Select	Active		5	AI5	v	%					
Mode	Select One 🔻	Select	Active		6	AI6	v	%					
Unit	Select One	Select	Active		7	AT7	V	%					
		Select	Active		, 0	A19	v	96					
		Calast	Active		0	AIO	v	<i>/</i> 0					
Sensor Low		Select	Active	-	9	AI9	V	%					
Sensor High		Select	Active	•	10	AI10	V	%					
Scale Low		Select	Active	•	11	AI11	V	%					
Scale High		Select	Active	•	12	AI12	v	%					
Alarm Low		Select	Active		13	AI13	v	%					
Alarm High		Colort	Activo		14	4114	N/	0/					
Delay In Sec		Select	Active	•	14	A114	V	%					
M2P Low Message	Select One 🔻	Select	Active	-	15	AI15	V	%					
M2P High Message	Select One 🔻	Select	Active		16	AI16	v	%					
Status	Active	Select	Active		17	AI17	v	%					
	Inactive	Calast	Antine		10	4110	N.	0/					
Alarm	On Acknowledged	Select	Active	-	18	A118	V	%					
	5												
First Previous Next	Last												

- KeyNum : SCOM AI channel unique id
- IONum : SCOM AI channel number
- Channel Name : SCOM AI channel name
- Mode : Current, Voltage
- Unit : Measurement unit. User can select from a list or create a new one.
- Sensor Low : Sensor low A2D setting
- Sensor High : Sensor high A2D setting
- Scale Low : User scale low limit
- Scale High : User scale high limit
- Alarm Low : Alarm limit low.
- Alarm High : Alarm limit high.
- Delay (Min) : Alarm delay in minutes
- M2P Low Msg : Machine to person low alarm message
- M2P High Msg : Machine to person high alarm message
- Status : Active / inactive
- Alarm : Alarm status

Digital	Output (SCOM)		<u>IO Num</u>	<u>Channel Name</u>	Start Up State	Mode
Edit Save	Cancel	Select	1	DO1	0	R:Remote Output
First Previous Next	Last	Select	2	DO2	0	R:Remote Output
KevNum		Select	3	DO3	0	R:Remote Output
IONum		Select	4	DO4	0	R:Remote Output
Channel Name		Select	5	DO5	0	R:Remote Output
Start Up State	Select One 🔻	Select	6	DO6	0	R:Remote Output
Mode	Select One 🔻	Select	7	DO7	0	R:Remote Output
On Duration Min		Select	8	DO8	0	R:Remote Output
Off Duration Min		Select	9	DO9	0	R:Remote Output
		Select	10	DO10	0	R:Remote Output
		Select	11	DO11	0	R:Remote Output
		Select	12	D012	0	R:Remote Output
		Select	12	0012	0	R:Remote Output
		Colort	14	0013	0	R.Remote Output
		Select	14	D014	0	R:Remote Output
		Select	15	D015	0	R:Remote Output
		Select	16	DO16	0	R:Remote Output
		Select	17	D017	0	R:Remote Output
		Select	18	DO18	0	R:Remote Output
		Select	19	DO19	0	R:Remote Output
		Select	20	DO20	0	R:Remote Output

- KeyNum : SCOM DO channel unique id •
- IONum : SCOM DO channel number •
- Channel Name : SCOM DO channel name •
- Start Up Sate : 0, 1 (NO, NC) •
- Mode : M (Multivinrator), R (Remote output), T (Time Scheduled) •
- Schedule ID : Time schedule ID •
- On Duration Min : On duration in minutes •
- Off Duration Min : Off duration in minutes •
- Status : Active / inactive. •
- Alarm : Alarm status.

14. Devices Users

- Display device list.
- Insert, Edit, Delete device user.

🛐 Device Users

Edit New	Save Cancel Delete		<u>UserID</u>	<u>UserName</u>	<u>Phone</u>	<u>ConfigUsers</u>	ConfigDevice	<u>AlarmRecipient</u>
		Select	14	test2	222	No	No	No
User Name		Select	21	Gareth Hester	07717226166	No	No	No
Phone								
Config User								
Config Device								
Alarm Recipient								
Client	Select One 🔻							

- User ID : Unique device user id
- User Name : Device user name
- Phone : Unique phone number
- Config Users : Device user can configure other users
- Config Device : Device user can configure device
- Alarm Recipient : Device user is an alarm recipient

15. Alarm Messages

- Display alarm message list.
- Insert, Edit, Delete device user.

💽 Alarm Messages

Edit	Save Cancel Delete
Message ID	
Message Name	
Client	Select One 👻

	<u>MessageID</u>	<u>MessageName</u>
Select	9	TEST2
Select	11	ALARM
Select	15	HIGH
Select	16	LOW
Select	17	ABOVE 25oC
Select	18	BELOW 5oC
Select	19	PRESSURE LOW
Select	20	OFF THE RAIL
Select	21	ON SITU
Select	24	FAIL

- Message ID : Alarm message unique id.
- Message Name : Alarm message name
- Client : Client name

16. Groups

📄 Groups

- Display groups list.
- Insert, Edit, Delete group.

Edit New Save Cancel Delete		
Group ID	50	
Group Name	Thessaloniki	
Parent Group	No Parent 🔻	
Center Latitude	40.638886	
Center Longitude	22.936090	
Map Zoom Level	15	
Client	Infinite LTD 🔹	

- Group ID : Group unique id.
- Group Name : Group name
- Parent Group : Parent group name where child group belongs to
- Center Latitude : Latitude to initialize map position when user selects group from Map page.
- Center Longtitude : Longtitude to initialize map position when user selects group from Map page
- Map Zoom Level : Initialize map zoom level
- Client : Client name.

	<u>GroupID</u>	<u>GroupName</u>	ParentGroupID	<u>ParentGroupName</u>	Center Latitude	Center Longitude	<u>ClientName</u>
Select	50	Thessaloniki			40.638886	22.936090	Infinite LTD
Select	57	City Centre	50	Thessaloniki			Infinite LTD
Select	58	Eyosmos	50	Thessaloniki			Infinite LTD
Select	60	Plateia	58	Eyosmos			Infinite LTD
Select	78	Farm					Infinite LTD
Select	82	Dordrecht					Infinite LTD
Select	83	Singapore Airport			1.360975	103.994522	Infinite LTD
Select	88	Bregen			60.391469	5.321674	Infinite LTD
Select	92	Athens			37.982634	23.749695	Infinite LTD
Select	93	Milan			45.465910	9.192810	Infinite LTD

Expand + Collapse -	Assign Devices			UnAssi	UnAssign Devices	
🚞 Athens	DeviceID	DeviceName			No ur	assign devices
Bregen	93	SCOM-100		UnAssign		
Farm	Assign Users UnAssi		JnAssign Us	ers		
Milan Singapore Airport	No assign users				<u>UserID</u>	<u>UserName</u>
🛛 🔄 <u>Thessaloniki</u>				Assign	123	chrisk
City Centre Eyosmos				Assign	115	guest
				Assign	122	intracom
				Assign	108	Oxide

• Assign users to Groups. When a user with rights (User / View Only) logging in should see only Group that he is assigned off

WAT Specifications

1.1.1 Hardware and communications

<u>Hardware</u>

Server	Server (HP Proliant) with 2 X dual core Xeon 2.8 Ghz processors	
Power Supply	Dual Power Supply 220V/300 W	
Memory	8GB	
HDD	2X146 GB SAS	
NIC	2 X gigabit Ethernet cards	
CD	DVD recorder	
Serial port	RS232, 9600 to 115200 bps	
USB	2 USB ports	

Communications

Internet connection	ADSL 24Mbps with Static IP
GSM Modem	Sierra Q2687 Quad band
	(850/900/1800/1900MHz)
	GSM/GPRS MODEM

1.1.2 Software

Server OS	Microsoft Windows 2003 Server
Database	Microsoft SQL Server 2005 Express
Internet Server	Microsoft IIS v6.5
FTP Server	Microsoft IIS v6.5

Microsoft is a registered trademark of Microsoft Corporation USA

Chrome is a registered trademark of Google Corporation USA

Firefox is a registered trademark of Mozilla USA

Safari is a registered trademark of Apple USA

Google Maps is a registered trademark of Google Corporation USA

Open Street Map is registered trademark of Open Street Map organization USA

Sierra Wireless is a registered trademark of Sierra Wireless Canada