WaT Server

User Guide

WaT: Web aided Telemetry

infinite

Contents

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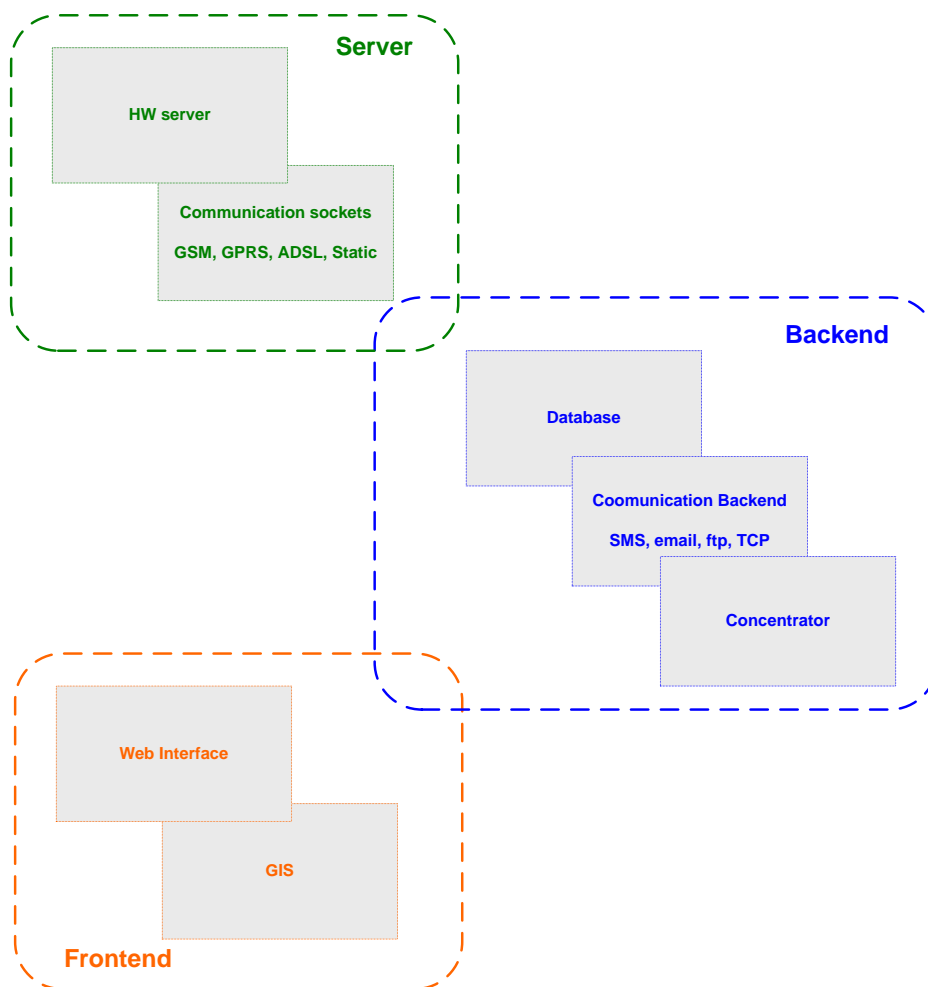
The server supports Infinite's own telemetry products as well as selected 3rd party devices.

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.

The server supports the European specification of open metering systems.

Server

HW server

Communication sockets

GSM, GPRS, ADSL, Static

Backend

Database

Coomunication Backend

SMS, email, ftp, TCP

Concentrator

Web Interface

GIS

Frontend

The above diagram illustrates the Servers architecture and subsystems

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2. Login Form

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 ltd 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 www.infinite.com.gr
If you have forgotten your username or password please call +30 2310 553545 Mon-Fri 09:00-17:00 or contact us via email.

- 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 20 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 20 minutes. After expiration user login form is showed

3. Menu

Wat Logo.

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, device, channel, chart template (selection of different channels).
    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 (treeview), device (by phone or description), channel, date range by date & time.

Alarms :
- Display alarm events in database column list.
- Search options by group, device (treeview), device (by phone or description), channel, date range by date & time.

Alarm ACK :
- Display alarm acknowledge events in database column list.
- Search options by group, device (treeview), device (by phone or description), date range by date & time.

Status :
- Display status records in database column list.

- Search options by group, device (treeview), device (by phone or description), date range by date & time.

GPS :
- Display gps route records in database column list.
- Search options by group, device (treeview), device (by phone or description), date range by date & time.

File Archives :
- Display file archives records in database column list.
- Search options by group, device (treeview), device (by phone or description), AI channel, date range by date & time.

TCP Archives :
- Display tcp archives records only for SCOM devices in database column list.
- Search options by group, device (treeview), device (by phone or description), AI channel, date range by date & time.
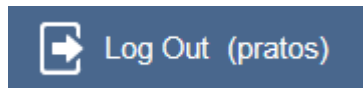
Log Out :
- Log off Wat Server.

On mouse over login detail information is showed :
1. User Role : Administrator, Power User or View Only User
2. Login date time.
3. Client : Client name.
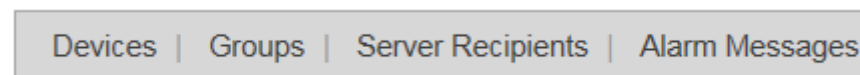
Devices :
- Display devices list.
- Insert, Edit, Delete devices.
- Edit channels parameters.

Groups :
- Display groups list.
- Assign / Unassign devices and users to groups.
- Insert, Edit, Delete group.

Server Recipients :
- Display server recipients list.
- Insert, Edit, Delete server recipient.
- Server recipients can handle alarm acknowledge and also send commands to Wat through get commands.

Alarm Messages :

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

4. Footer

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- Download manual.
- www.infinite.com.gr contact Infinite
- 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

Expand +   Collapse -

☐ All

- ⊞ 📁 ADU-500
- ⊞ 📁 Athens
- ⊞ 📁 Bregen
- ⊞ 📁 Crack Pilot
- ⊞ 📁 Demo
- ⊞ 📁 Dordrecht
- ⊞ 📁 Farm
- ⊞ 📁 Milan
- ⊞ 📁 New Zeland
- ⊞ 📁 Teledyne Isco
- ⊞ 📁 Temp
- ⊞ 📁 Thessaloniki
- ⊞ 📁 Zagreb

- Show groups and devices in tree view format

◉ Name ○ Phone [   ] 🔍 📄 *Devices:25*

Sort: Group (ASC), Device (ASC)

Group	ID	Device

- 🔍 Search specific device by phone or device name.
- 📄 Clear variables and display records by previous treeview selection.
- Devices : Count devices in list
- Sort : Last sort criteria (which column is sorted).

|	Group	ID	Device	Last Status	Signal %	Status	Logging	AI 1	Alarm	Ack
Select	ADU-500	201	⚲ ADU-500-TU4	12/03/2015 11:03	100	🟥	🟥	21.3	🟩	
Select	Athens	145	⚲ SCOM-100_VIC 📧	No Status Data		⬜	🟥		🟩	
Select	Bregen	85	⚲ BSC-50 DEMO T RH R	No Status Data	-	🟧	🟥		🟩	
Select	City Centre	41	⚲ BSC-50Ee	No Status Data	-	🟧	🟥		🟩	

- Select : Select line in list
- Group : Group name
- ID : Device id
- Device : Device name
- 📍 SCOM-100_VIC : On mouse over the geolocation pic point it shows the detail address of the device (address, postal code, location – state – province – town).
- 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
- ACK :
  1. If the device is in alarm mode it shows a button with label 'ACK'. When clicked it changes the alarm mode to normal (alarm acknowledge).
- SCOM-100_VIC 🖳 :
  1. Remote control of SCOM devices.
  2. TCP Mode :

Control Panel

Device : SCOM-100 TG1D(1111111a)
Group : Thessaloniki

TCP SMS
AI, DI, DO, CNT ↻

	Type	ID	TagType	Module	Index	Last DT	Last Value	#
Select	AI	728	0	0	1	-	-	
Select	AI	729	0	0	2	-	-	
Select	DI	1114	1	0	1	-	● On ○ Off	
Select	DI	1115	1	0	2	-	● On ○ Off	
Select	DI	1116	1	0	3	-	● On ○ Off	
Select	DI	1117	1	0	4	-	● On ○ Off	
Select	DO	221	2	0	1	-	○ On ● Off	Cancel
Select	DO	222	2	0	2	-	○ On ○ Off	Send
Select	DO	223	2	0	3	-	○ On ○ Off	Send
Select	DO	224	2	0	4	-	○ On ○ Off	Send
Select	CNT	710	3	0	1	-		Send

3. Commands can be send for DI, DO and CNT through tcp socket protocol.
4. DI and DO : On / Off
5. CNT : Numeric value
6. SMS Mode :

7. Commands can be send through sms asci file and gsm server.

Alarm List (Last 50 Recs)

Sort: SMSDate (DESC), Group (ASC), Device (ASC)

Ch AI	Ch DI	Ch CNT	SMS Date	Contents	Value	Group	Device	ID
Temp-C201			13/07/2015 13:34:41	Temp-C201, HIGH			ADU-COPY	79976
Temp-C201			13/07/2015 13:34:41	Temp-C201, HIGH			ADU-COPY	79978
Temp-C201			13/07/2015 13:34:41	Temp-C201, HIGH			ADU-COPY	79980
Temp-C201			13/07/2015 13:34:41	Temp-C201, HIGH			adu-COPY	79982

- Ch AI : AI channel name
- Ch DI : DI channel name
- Ch CNT : CNT channel name.
- SMS Date : Device SMS send date and time
- 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)
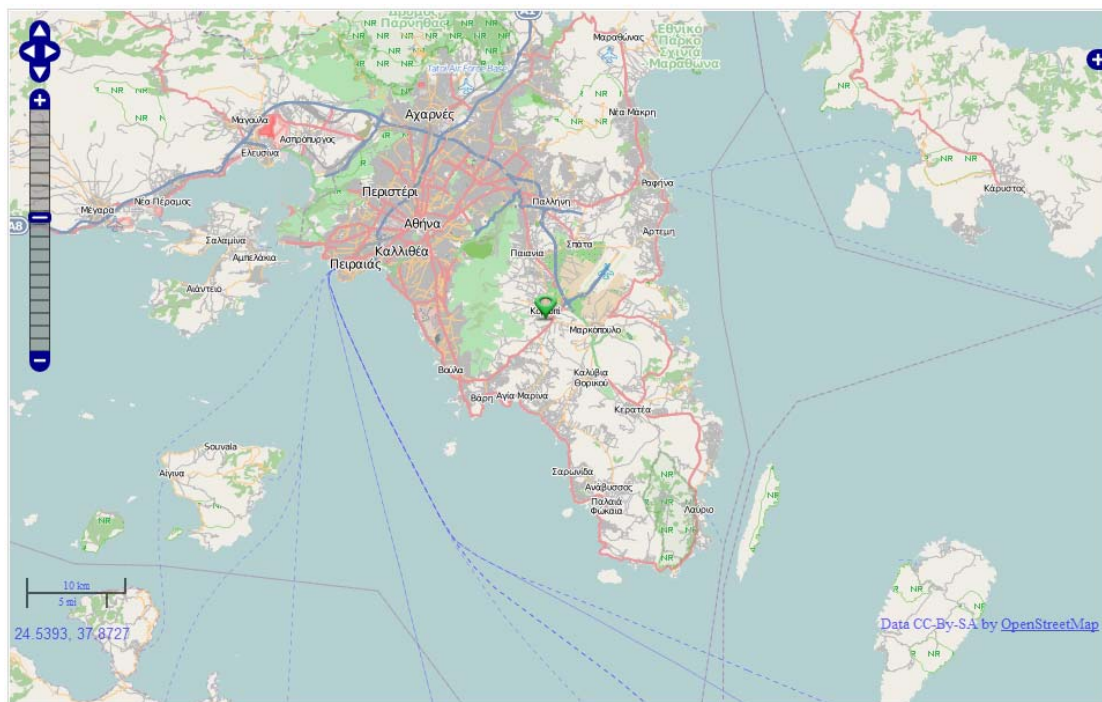
- See above.

6. Map :

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 (selection by treeview or by name / phone).
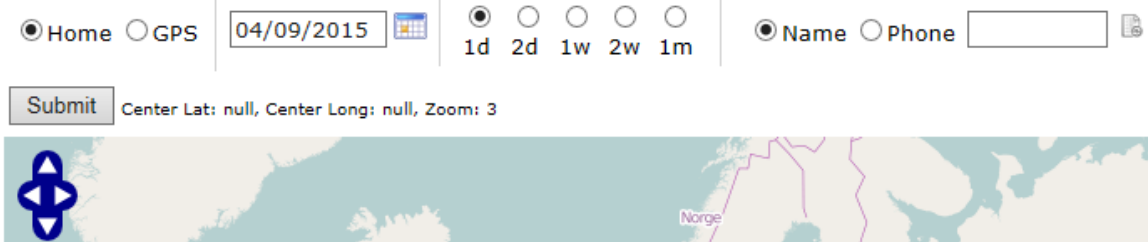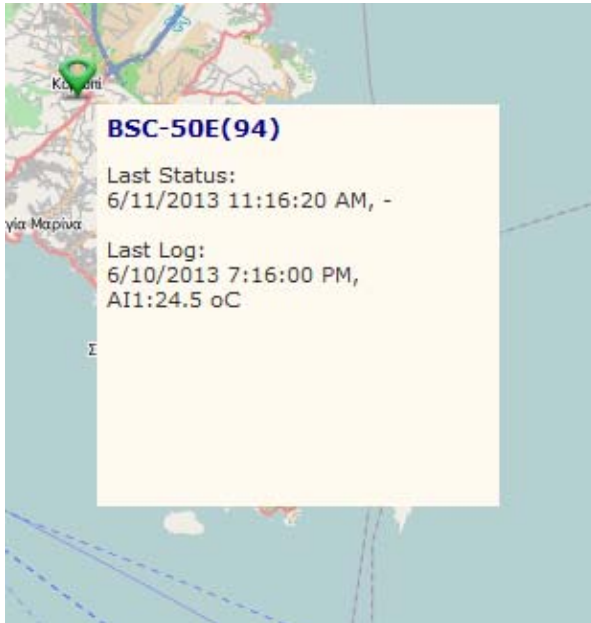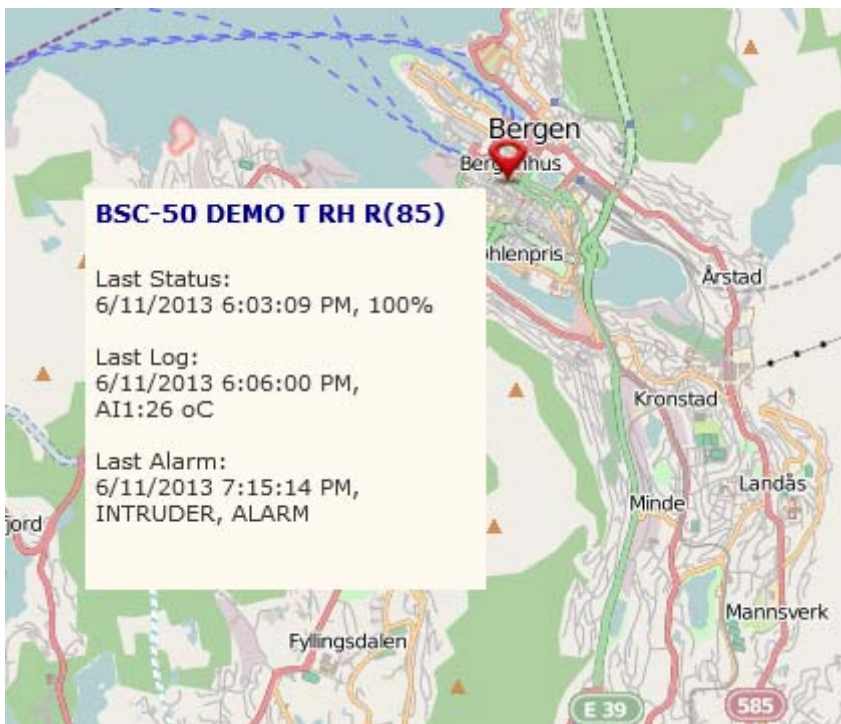

Home Mode :
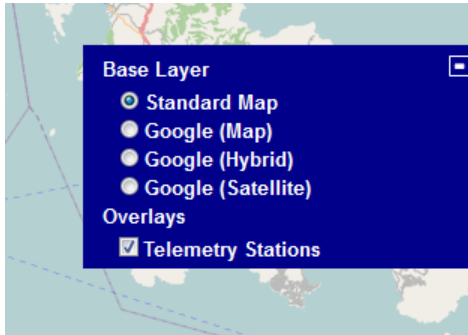
It shows the geographical location of the device on the map.
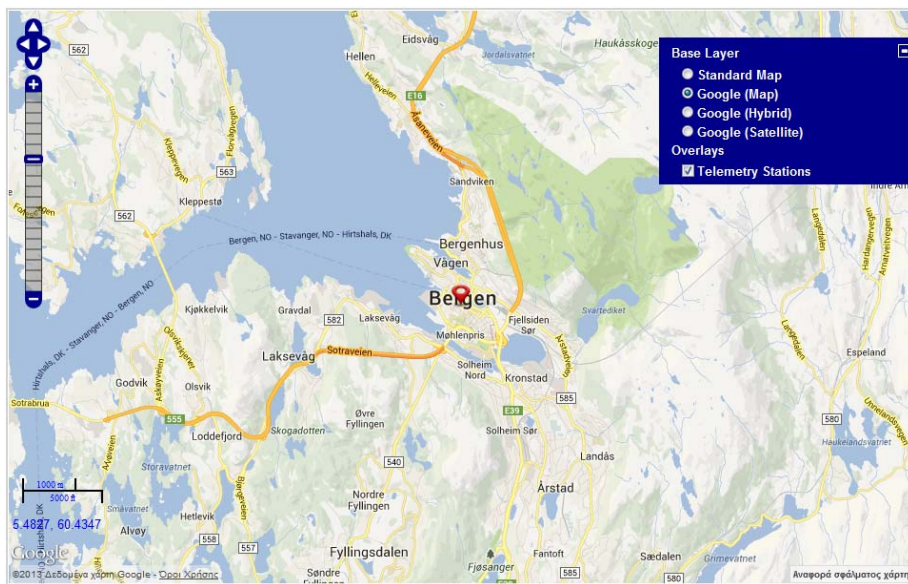

- Standard Map.

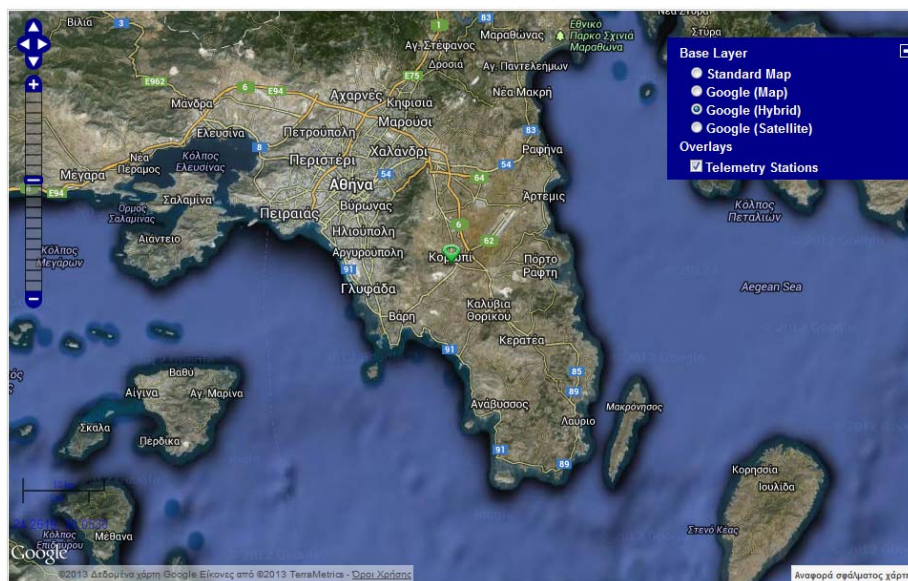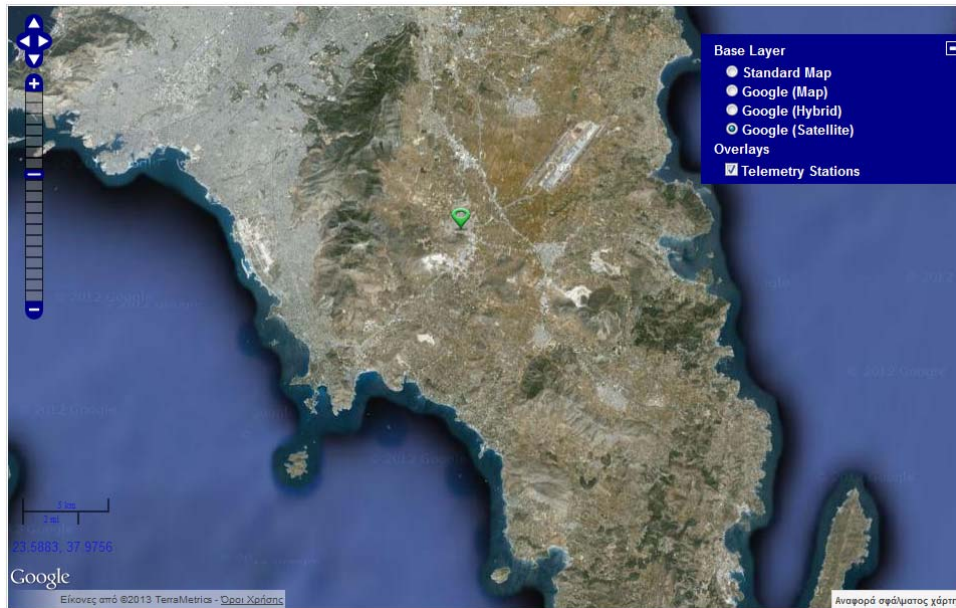- Measurements balloon popup

- 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.

GPS Mode :

If the device is a vehicle It shows the device gps route on the map.

General functions and layer selection is the same as above.

The selection can be made for one day or for a period of time (1 day, 2 days, 1 week, 2 week, 1 month where the start date is selected by the user).
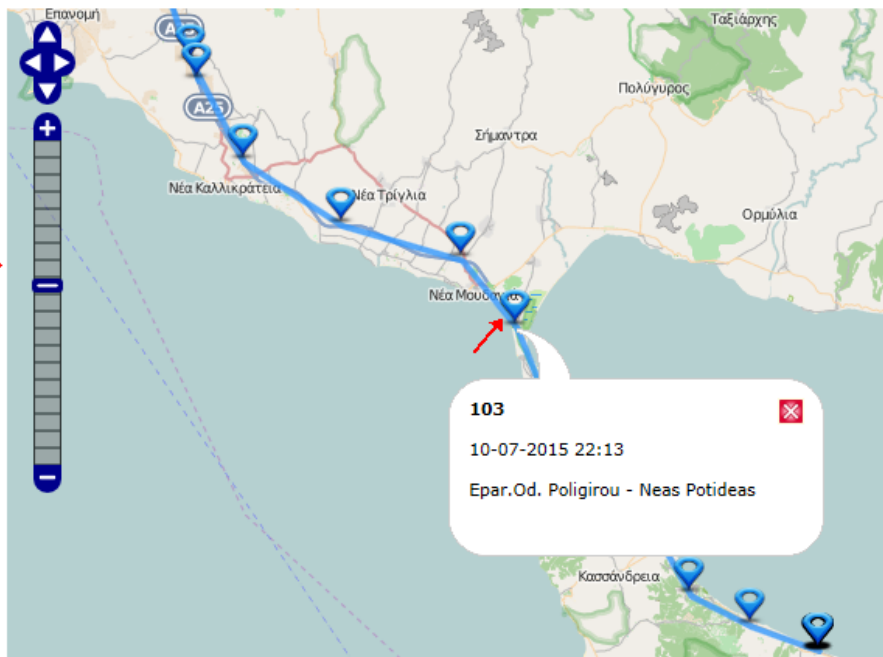
When a ballon gps route point is clicked it shows a ballon with the specific address of the location :
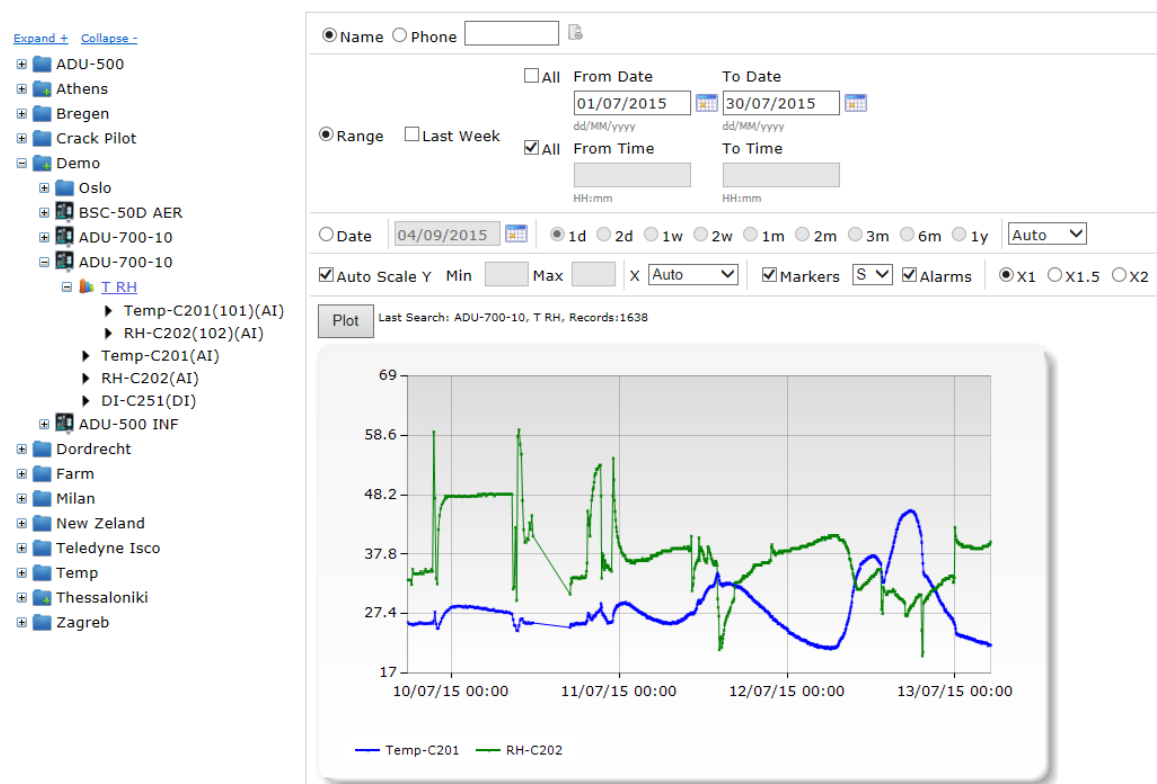
1. 103 : Increment num of the gps route point.
2. 10-07-2015 22:13 : Date time.
3. Address.

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).

- 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 :

  4. Alarms / Markers :
     - Show / hide points markers
     - Data points are shown :
       - Green color : AI Channel 1
       - Blue color : AI Channel 2
       - Orange color : AI Channel 3
     - Alarm points are shown in red color and also with a custom label 'A'
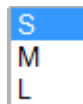
     - S : Small marker size.
     - M : Medium marker size
     - L: Large marker size
  5. Zoom Options :
     - X1 : Default size, H 400, W 660
     - X1.5 : Size H 600, W 900
     - X2 : Size H 800, W 1200
- Plot : Run queries with selected options and plot the graph

Chart Templates :

User can select specific channels to show in chart. For example 2 AI channels, 1 DI channel and 1 CNT channel.

Chart templates can be created in devices page :

Chart Templates

[Edit] [New] [Save] [Cancel] [Delete]

First Previous Next Last

#				#	TemplateID	TemplateName	Inactive
Template ID	13		Select	1	13	**T RH**	Active
Template Name	T RH						

#: 1

Inactive: ● Active   ○ Inactive

Assign Channels

#	Type	IONum	ChannelName	
1	AI	1	Temp-C201(101)	UnAssign
2	AI	2	RH-C202(102)	UnAssign

UnAssign Channels

	#	Type	IONum	ChannelName
Assign	1	DI	1	DI-C251

Assign Channels : Channels to show in chart.

UnAssign Channels : Available channels to show in chart.

Chart templates are shown in treeview selection in Chart :

⊟ ADU-700-10
  ⊟ T RH
      ▶ Temp-C201(101)(AI)
      ▶ RH-C202(102)(AI)
    ▶ Temp-C201(AI)
    ▶ RH-C202(AI)
    ▶ DI-C251(DI)

8. Measurements

Measurements

- Display measurements in database column list
- Search options by group, device (treeview), device (by phone or description), channel, date range by date & time.

- 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

- Send query to server and show records in list

- Export selected records to an excel xls format file

- Delete selected records (only for administrator & power user).

- Select : Select line in list

- ID : Unique ID

- Group : Group Name

- DeviceID : Device ID

- Device : Device Name

- Type : Channel type (0 AI, 1 DI, 2 DO, 3 CNT, 4 SDI, 5 RS485).

- IONum : Channel number
- Channel : Channel name
- SMSDate & SMSTime : SMS date time
- Value : Measurement value
- File : SMS source file from GSM Server. File link opens browser tab - window with file contents.

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9. Alarms

- Display alarm events in database column list.
- Search options by group, device (treeview), device (by phone or description), channel, date range by date & time.

Channel	SMSDateTime	Contents	AlarmValue	File
Temp-C201	13/07/2015 13:34:41	Temp-C201, HIGH		SMS_38095984.txt
Temp-C201	13/07/2015 09:24:41	Temp-C201, HIGH		SMS_23093531.txt

- 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. Name / Phone : Search specific device by phone number or device name.

- Send query to server and show records in list.

- Export selected records to xls format file.

- Delete selected records (only for administrator & power user).
- Select : Select line in list
- ID : Unique ID
- Group : Group Name
- DeviceID : Device ID
- Device : Device Name
- Type : Channel type (0 AI, 1 DI, 2 DO, 3 CNT, 4 SDI, 5 RS485).
- IONum : Channel number
- Channel : Channel name
- SMSDate & SMSTime : SMS date time
- AlarmValue : Alarm value
- File : SMS source file from GSM Server. File link opens browser tab - window with file contents (see picture above in measurements).

10. Alarm ACK

 Alarm ACK

- Display alarm events acknowledge in database column list.
- Search options by group, device (treeview), device (by phone or description), channel, date range by date & time.

Sort: CreateDateTime (DESC), Group, Device

		ID	Group	DeviceID	Device	CreateDateTime	RecipientName
☐	Select	658	ADU-500	201	ADU-500-TU4	12/03/2015 11:47:18	George Pratos
☐	Select	658	ADU-500	201	ADU-500-TU4	12/03/2015 11:47:18	George Pratos

Next   Last

SendingTypeName	Alarm	PIN Counter	ACK	ACK DateTime	File
+306974438080	Alarm:TEMP, LOW	656	No		SMS_42434296.txt
+306974438080	Alarm:TEMP, LOW	656	No		SMS_42434296.txt

- Search Options :
  1. Create DateTime : Search with field CreateDateTime.
  2. ACK DateTime : Search with field ACKDateTime.
  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.
  5. Name / Phone : Search specific device by phone number or device name.

- Sending Type :

- Sending Type Name :
    1. The user can type any part of the recipient dynamic sending type name which is phone number or email address.
    2. For example +306945 will search any records have this text inside the field.
- Recipient : The user can type any part of the recipient name. For example 'George'.
- Alarm : The user can type any part of the alarm description. For example 'LOW'.
- Pin Counter : Search by pin counter number.
- Send query to server and show records in list.
- Export selected records to xls format file.
- Delete selected records (only for administrator & power user).
- Select : Select line in list
- ID : Unique ID
- Group : Group Name
- DeviceID : Device ID
- Device : Device Name
- CreateDateTime : Datetime when alarm has been send to the recipient.
- RecipientName : Recipient name.
- SendingTypeName : If sending type is sms it shows phone number or if sending type is email it shows email address.
- Alarm : Alarm description.
- PIN Counter : Unique id. It used to enable alarm acknowledge through sms. The recipient can send an sms to the gsm server phone with pin number as the message. Wat procceses the pin and finds the correct record in alarm ack table. Than it changes device alarm mode to true and updates the fields ACK and ACK DateTime.
- File : SMS source file from GSM Server. File link opens browser tab - window with file contents (see picture above in measurements).

11. Status

- Display status in database column list.
- Search options by group, device (treeview), device (by phone or description), channel, date range by date & time.

- 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. Name / Phone : Search specific device by phone number or device name.

- Send query to server and show records in list.

- Export selected records to xls format file.

- Delete selected records (only for administrator & power user).
- Select : Select line in list
- ID : Unique ID
- Group : Group Name

- DeviceID : Device ID
- Device : Device Name
- SMSDateTime : SMS date time
- 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. File link opens browser tab - window with file contents (see picture above in measurements).

12. GPS

GPS

Expand + Collapse -

☐ All
⊞ 📁 ADU-500
⊞ 📁 Athens
⊞ 📁 Bregen
⊞ 📁 Crack Pilot
⊟ 📁 Demo
   ⊞ 📁 Oslo
      📟 BSC-50D AER
      📟 ADU-700-10
      📟 ADU-700-10
      📟 ADU-500 INF
⊞ 📁 Dordrecht
⊞ 📁 Farm
⊞ 📁 Milan
⊞ 📁 New Zeland
⊞ 📁 Teledyne Isco
⊞ 📁 Temp
⊞ 📁 Thessaloniki
⊞ 📁 Zagreb

◉ Name ○ Phone [＿＿＿＿＿] 📄

☑ All From Date   To Date
[＿＿＿＿＿] 📅   [＿＿＿＿＿] 📅

☑ All From Time   To Time
[＿＿＿＿＿]   [＿＿＿＿＿]

Address [＿＿＿＿＿＿＿＿＿＿＿＿]

FileName [＿＿＿＿＿＿＿＿＿＿＿＿]

🔍 📊 ❌   Last Search: Demo, ADU-700-10
Page:1 / 19, View:50, Total:905

Sort: RouteDateTime (DESC), Group, Device

							Next Last
☐		ID	Group	DeviceID	Device	RouteDateTime	CreateDateTime
☐	Select	1200	Demo	222	ADU-700-10	13/07/2015 13:55:05	13/07/2015 10:55:24
☐	Select	1199	Demo	222	ADU-700-10	13/07/2015 12:54:19	13/07/2015 09:54:36
☐	Select	1198	Demo	222	ADU-700-10	13/07/2015 11:54:19	13/07/2015 08:54:37

Latitude	Longitude	Address	FileName
40.638580	22.936500	Αριστοτέλους Βαλαωρίτου,2,546 26,Thessaloniki,Greece	SMS_39319828.txt
40.655044	22.911236	Par. Agias Paraskevis,37,561 22,Menemeni,Greece	SMS_35672421.txt
40.578661	22.973408	Posidonos,,555 35,,Greece	SMS_32072109.txt

- 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. Name / Phone : Search specific device by phone number or device name.
- Address : The user can type any part of the address.
- FileName : The user can type any part of the filename.

- 🔍 Send query to server and show records in list

- 📊 Export selected records to xls format file

- ❌ Delete selected records (only for administrator & power user).

- Select : Select line in list
- ID : Unique ID
- Group : Group Name
- DeviceID : Device ID
- Device : Device Name
- RouteDateTime : Route gps location date time.
- CreateDateTime : Database record created date time.
- Latitude : Location Latitude.
- Longitude : Location Longitude.
- Address : Detail address of the gps location (address, number, postal code, state – province – town, country).
- File : SMS source file from GSM Server. File link opens browser tab - window with file contents (see picture above in measurements).

13. File Archives

FileName	Type
SMS__39319828.txt	STATUS
SMS__38095984.txt	ALARM
SMS__35672421.txt	STATUS

- 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. Name / Phone : Search specific device by phone number or device name.
- Type :

- FileName : The user can type any part of the filename.

- Send query to server and show records in list

- Export selected records to xls format file

- Delete selected records (only for administrator & power user).

- Select : Select line in list
- ID : Unique ID
- Group : Group Name
- DeviceID : Device ID
- Device : Device Name
- CreateDateTime : Database record created date time.
- File : SMS source file from GSM Server. File link opens browser tab - window with file contents (see picture above in measurements).
- Type : see above in type search option.

14. TCP Archives

- 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. Name / Phone : Search specific device by phone number or device name.
- Type :

- FileName : The user can type any part of the filename.
- Socket ID : The user can type any part of the socket id.

- Send query to server and show records in list

- Export selected records to xls format file

- Delete selected records (only for administrator & power user).
- Select : Select line in list
- ID : Unique ID
- Group : Group Name
- DeviceID : Device ID
- Device : Device Name
- CreateDateTime : Database record created date time.
- File : SMS source file from GSM Server. File link opens browser tab - window with file contents (see picture above in measurements).
- Type : see above in type search option.

15. 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

Main Tab :

Expand + Collapse -

Main Parameters Alarming Map Chart | Digital Analog Output Counters SDI RS-485

☐ All

New Delete Copy   Devices:10   ● Name ○ Phone

⊟ 📁 ADU-500
    📠 ADU-500-TU4
⊞ 📁 Athens
⊞ 📁 Bregen
⊞ 📁 Crack Pilot

	#	Status	Alarm	Group	DeviceID	DeviceName	PhoneNumber
Select	📂	Active	■	**ADU-500**	**201**	**ADU-500-TU4**	**+306972235766s**
Select	📂	Active	■	Athens	145	SCOM-100_VIC	+306941577075we
Select	📂	Active	■	Bregen	85	BSC-50 DEMO T RH R	+306972235766rt

Type	Latitude	Longitude	ZoomLevel	ShowInTree	EDI	#
ADU 500 B	**40.638878**	**22.936221**		Yes	☐	
SCOM-100	38.004103	23.884974		Yes	☐	📧
BSC-50-E	60.391469	5.321674		Yes	☐	

- New : Create new device. Duplicate phone number raises an error
- Delete : Delete a selected device and all its related tables (measurements, status, etc)
- Copy : Create a clone device using another device's configuration
- Devices : Selection records.
- Search specific device by phone or device name.
- Select : Select line in list
- Status : Active / inactive device
- Alarm : Device is in alarm status
- Group : Group the device is assigned.
- Device ID : Unique device ID
- DeviceName : Device Name
- PhoneNumber : Unique phone number
- Type : BSC, SCOM, iLog, Power Electric, ADU.
- Latitude : Map latitude
- Longtitude : Map longtitude
- ZoomLevel : Map zoom level.
- EDI : Enable export records from measurements.
- # : Send commands to SCOM device through sms or tcp socket.

Remote control of SCOM devices.

TCP Mode :

Commands can be send for DI, DO and CNT through tcp socket protocol.

1. DI and DO : On / Off
2. CNT : Numeric value
3. SMS Mode :

Commands can be send through sms asci file and gsm server.

Parameters Tab :

- Edit : Update record.
- Save : Save record.
- Cancel : Cancel edit and return to main tab.

- Descr : Device description 2.
- Status : If a device is inactive in Wat it cannot receive dynamic data (measurements, alarms, status).
- Show In Tree : If set to 'No' device is not showed in treeview selection.
- Comments : Remarks.

- 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

Other	
Version	
Verbose Response	☐
Merge Alarms	☐
Avail SMS Alarm Limit	
SMS Counter Preset	
Retries	
Retry Delay (Sec)	
Status Msg Period (Min)	
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	
AI Alarm Deadband (%)	
AI Sampling Delay (Sec)	
AI Sampling Interval (Min)	
Log Rate (Nr. of AI Samples)	
Sending Rate (Min)	5
SCOM Log Rate	--Select One--

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

Data Transmission

| Logging Scale | ● User |
| | ○ Raw |

| Data Msg Format | ○ Compressed |
| | ● Normal |

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

AI BSC

Analog (BSC)

Edit   Save   Cancel

First Previous Next Last

KeyNum	
IONum	
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	● Yes / ○ No
Status	● Active / ○ Inactive
Alarm	○ On / ● Acknowledged
Show In Tree	● Yes / ○ No

First Previous Next Last

	Status	Alarm	IO Num	Channel Name	Mode	Unit
Select	Active	■	1	TEMP	V	oC
Select	Active	■	2	RH	V	%

Sensor Low	Sensor High	Alarm Low	Alarm High	Delay (Min)	ShowInTree
0	4095	-50	45		Yes
0	3276	0	100		Yes

- 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

AI SCOM

		Status	Alarm	IO Num	Channel Name	Mode
Analog (SCOM)						
Edit Save Cancel		Select	Active	■	1	T0	V
First Previous Next Last		Select	Active	■	2	AI2	V
KeyNum		Select	Active	■	3	T1	V
IONum		Select	Active	■	4	T2	V
Channel Name		Select	Active	■	5	RH	V
Mode	--Select One--	Select	Active	■	6	LEVEL	V
	--Select One--	Select	Active	■	7	AI7	V
Unit		Select	Active	■	8	AI8	V
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		Select	Active	■	14	AI14	V
Delay In Sec		Select	Active	■	15	AI15	V
M2P Low Message	--Select One--	Select	Active	■	16	AI16	V
M2P High Message	--Select One--	Select	Active	■	17	AI17	V
Status	⦿ Active / ○ Inactive	Select	Active	■	18	AI18	V
Alarm	○ On / ⦿ Acknowledged						
Show In Tree	⦿ Yes / ○ No						
First Previous Next Last							

Unit	Sensor Low	Sensor High	Alarm Low	Alarm High	Delay (Sec)	ShowInTree
oC	2031	3085	0	40		Yes
%						No
oC	2031	3030	0	40		Yes
oC	0	3890	0	40		Yes
%	0	3917	10	90		Yes
mm	819	4095	100	2450		Yes
%						No
%						No
%						No
%						No
%						No
%						No
%						No
%						No
%						No
%						No
%						No
%						No

- 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

DI BSC

	Status	Alarm	IO Num	Channel Name	Alarm Mode	Alarm Delay (Sec)	ShowInTree
Select	Active	■	131	INTRUDER	0		Yes
Select	**Inactive**	■	132	DI132	1		**No**
Select	**Inactive**	■	133	DI133	0		**No**

Digital (BSC)

Edit Save Cancel

First Previous Next Last

KeyNum
IONum
Channel Name
Alarm Mode --Select One--
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 ● Active ○ Inactive
Alarm ○ On ● Acknowledged
Show In Tree ● Yes ○ No

First Previous Next 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) : 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
- 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
- Status : Active / inactive
- Alarm : Alarm status

DI SCOM

	Status	Alarm	IO Num	Channel Name	Alarm Mode	Alarm Delay (Sec)	ShowInTree
Select	Active	■	1	INTRUDER	0		Yes
Select	Active	■	2	DI2	0		Yes
Select	Active	■	3	DI3	0		Yes
Select	Active	■	4	DI4	0		Yes
Select	Active	■	5	DI5	0		No
Select	Active	■	6	DI6	0		No
Select	Active	■	7	DI7	0		No
Select	Active	■	8	DI8	0		No
Select	Active	■	9	DI9	0		No
Select	Active	■	10	DI10	0		No
Select	Active	■	11	DI11	0		No
Select	Active	■	12	DI12	0		No
Select	Active	■	13	DI13	0		No
Select	Active	■	14	DI14	0		No

Digital (SCOM)

Edit   Save   Cancel

First Previous Next Last

KeyNum
IONum
Channel Name
Alarm Mode: --Select One--
Alarm Delay (Sec)
M2P 0 > 1 Msg: --Select One--
M2P 1 > 0 Msg: --Select One--
Mode: --Select One--
Counter Scale Factor
Status: ● Active ○ Inactive
Alarm: ○ On ● Acknowledged
Show In Tree: ● Yes ○ No

First Previous Next Last

- 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

DO SCOM

	Digital Output (SCOM)			Status	IO Num	Channel Name
	Edit Save Cancel		Select	Active	1	GENERATOR
	First Previous Next Last		Select	Active	2	AC
KeyNum			Select	Active	3	LIGHTS
IONum			Select	Active	4	DO4
Channel Name			Select	Active	5	DO5
Start Up State	--Select One--		Select	Active	6	DO6
Mode	--Select One--		Select	Active	7	DO7
Schedule ID			Select	Active	8	DO8
On Duration Min			Select	Active	9	DO9
Off Duration Min			Select	Active	10	DO10
Inactive	● Active ○ Inactive		Select	Active	11	DO11
Show In Tree	● Yes ○ No		Select	Active	12	DO12

Start Up State	Mode	ShowInTree
0	R:Remote Output	Yes
1	R:Remote Output	Yes
0	R:Remote Output	Yes
0	R:Remote Output	Yes
0	R:Remote Output	**No**
0	R:Remote Output	**No**
0	R:Remote Output	**No**
0	R:Remote Output	**No**
0	R:Remote Output	**No**
0	R:Remote Output	**No**
0	R:Remote Output	**No**
0	R:Remote Output	**No**

- 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.

CNT – Counters

Scale Low	Scale High	Alarm Low	Alarm High	ShowInTree
				Yes
				Yes
				Yes
				Yes
				No

- KeyNum : CNT channel unique id
- IONum : CNT channel number
- Channel Name : CNT channel name
- Scale Low : User scale low limit

- Scale High : User scale high limit
- Alarm Low : Alarm limit low
- Alarm High : Alarm limit high
- Status : Active / inactive
- Alarm : Alarm status

RS485

- KeyNum : RS485 channel unique id
- IONum : RS485 channel number
- Channel Name : RS485 channel name
- Status : Active / inactive
- Alarm : Alarm status

16. Groups

Groups - Thessaloniki(50)

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

Main Tab

| Edit | New | Save | Cancel | Delete |

Group ID	50
Group Name	Thessaloniki
Parent Group	--No Parent--
Status	● Active ○ Inactive
Show In Tree	● Yes ○ No
Center Latitude	40.638886
Center Longitude	22.936090
Map Zoom Level	11
Client	Infinite LTD

	GroupID	GroupName	ParentGroupID	ParentGroupName
Select	**50**	**Thessaloniki**		
Select	57	City Centre	50	Thessaloniki
Select	78	Farm		
Select	82	Dordrecht		
Select	83	Singapore Airport		
Select	88	Bregen		
Select	92	Athens		
Select	93	Milan		

Status	ShowInTree	Center Latitude	Center Longitude	MapZoomLevel
Active	Yes	**40.638886**	**22.936090**	**11**
Active	Yes	40.638886	22.936090	15
Active	Yes			
Active	Yes			

- 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.

Devices & Users Tab

Assign Devices

DeviceID	DeviceName	
93	SCOM-100	UnAssign
205	SCOM-100 TG1D	UnAssign

UnAssign Devices

No unassign devices

Assign Users

UserID	UserName	
176	deh	UnAssign

UnAssign Users

	UserID	UserName
Assign	123	chrisk
Assign	172	Federico
Assign	115	guest
Assign	179	infinite
Assign	147	mark
Assign	160	Oliver
Assign	177	timo

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

---

17. Server Recipients

Server Recipients

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

Main Tab

Phone Number	Email	Twitter	Sending Type
+306974438080	pratos@indinf.gr		Email & SMS
+306945338700	ctriada@gmail.com		Email & SMS

- Recipient ID : Unique recipient id
- Recipient Name : Recipient name
- Phone Number : Unique phone number
- Email : Recipient email address
- Twitter : Recipient twitter account
- Sending Type :

○ Email

○ SMS

◉ Email & SMS

○ Twitter

Devices Tab :

George Pratos (1)

Assign Devices

Group	DeviceID	DeviceName	
Temp	149	ADU-500-TU2	UnAssign
ADU-500	201	ADU-500-TU4	UnAssign
City Centre	41	BSC-50Ee	UnAssign
			3

UnAssign Devices

	Group	DeviceID	DeviceName
Assign	Crack Pilot	146	ADU-400 CRK
Assign	New Zeland	112	ADU-500
Assign	Demo	224	ADU-500 EST
Assign	Temp	153	ADU-500 GRB

18. Alarm Messages

Alarm Messages

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

| Edit | New | Save | Cancel | Delete |

Message ID	
Message Name	
Client	--Select One--

	MessageID	MessageName
Select	9	TEST2
Select	11	ALARM
Select	15	HIGH
Select	16	LOW
Select	17	ABOVE 25oC

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

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WAT Specifications

Hardware and communications (1.1.1)

Hardware

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

Software

Server OS	Microsoft Windows 2008 Server
Database	Microsoft SQL Server 2012 Express
Internet Server	Microsoft IIS v6 (SP2)
FTP Server	Microsoft IIS v6 (SP2)

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

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