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S-911 Bracelet Locator Protocol 1.0 Analyzer

User Manual

Version 1.1

Jan 12, 2011

LAIPAC TECH

Release History

Revision	Date	Content
1.0	2009/05/09	Initial release
1.1	2011/01/12	Update chapter “Introduction” and 2.2

Content

Introduction

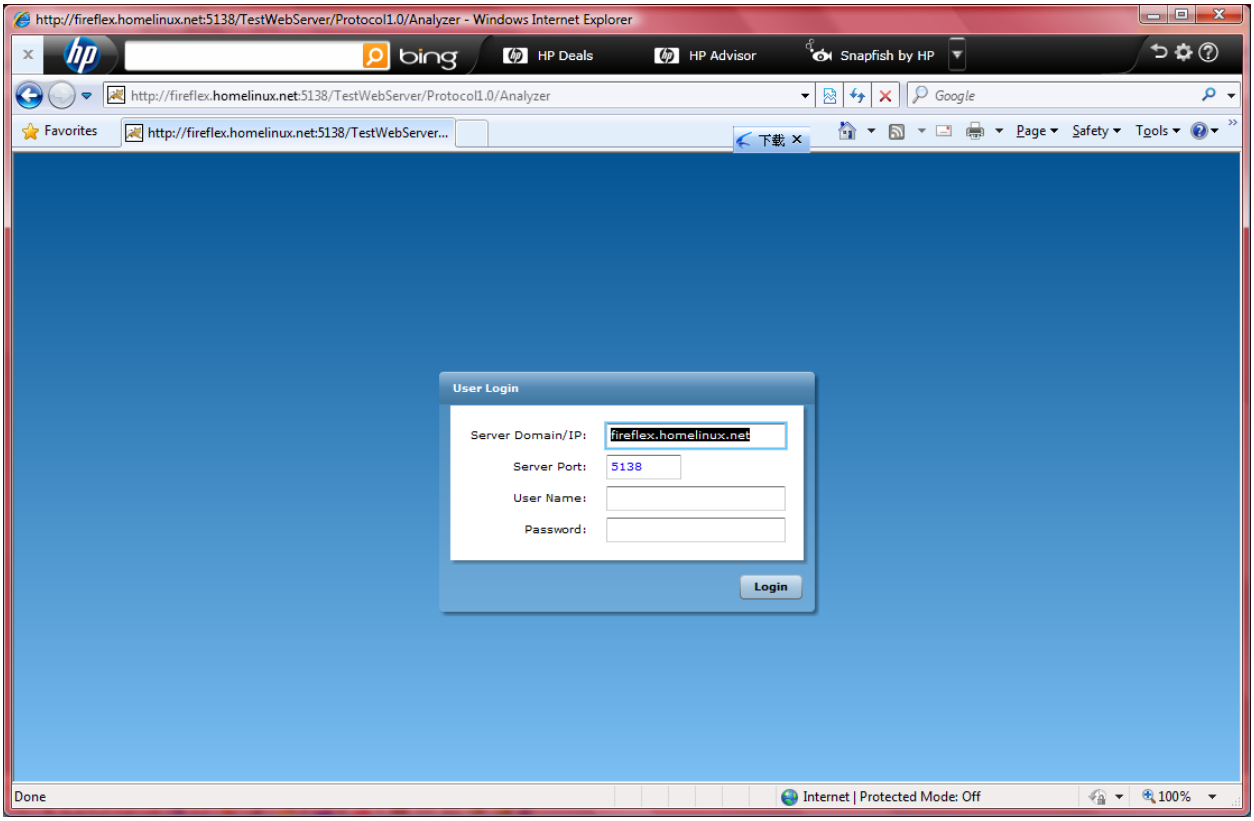
S-911 Bracelet Locator Protocol 1.0 Analyzer, namely, Protocol 1.0 Analyzer, is a RIA (Rich Internet Application) based on Client/Server structure. Its Client end is running on user's PC with MS-Windows or Linux O.S., as prerequisite, this PC should install Adobe Flash Player 10 or later version. The server is set on Laipac side.

Currently, the communication protocol being used by S911 Bracelet Locator is **"Protocol for S911 Series of GPS Tracking Product (ver. 100)"**

This tool aims to help program developer understand how this protocol is being used between S-911 Bracelet unit, with v1.xx firmware, and Location Based Service Server.

1. Start Protocol 1.0 Analyzer

Access the web site http://fireflex.dyndns.info:5138/TestWebServer/Protocol1.0/Analyzer. You will see the following page which has a login window. You should use the username and password which Laipac assigned for you to login.



Start Protocol 1.0 Analyzer

Protocol 1.0 Analyzer login window

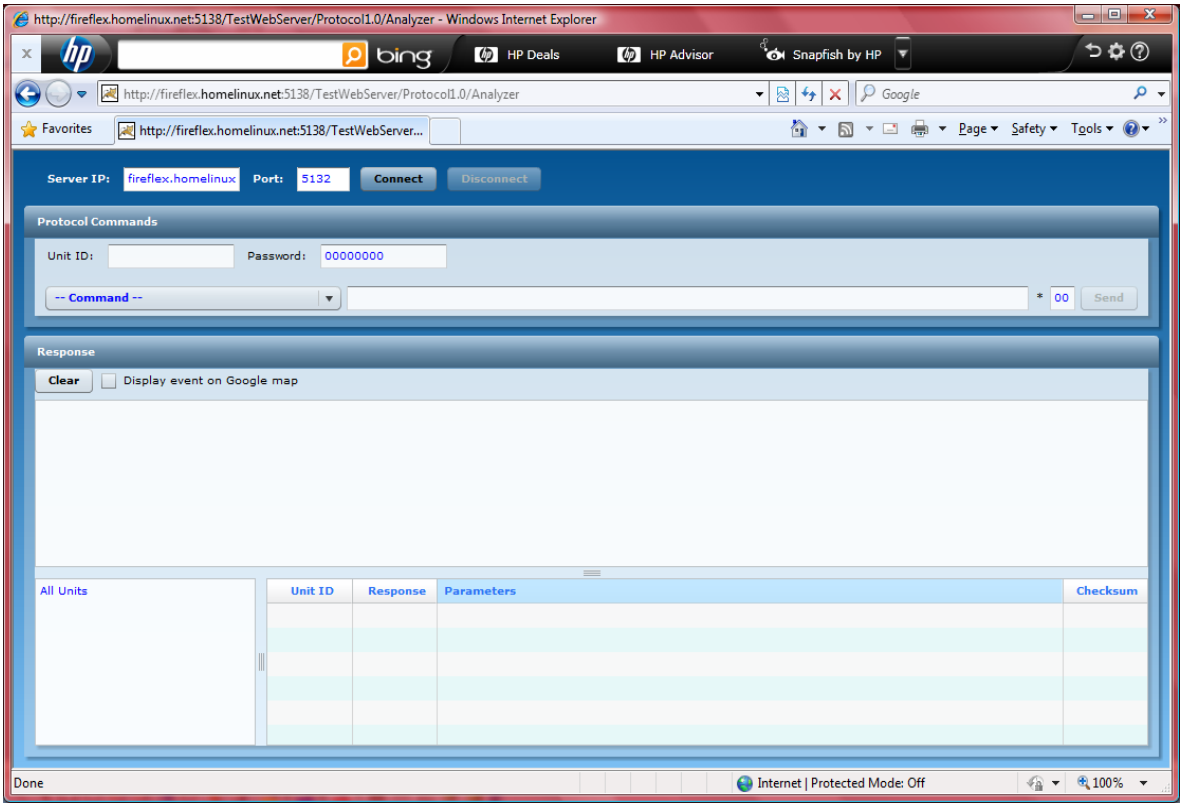
Server Domain/IP: The domain name or IP address for Test Server. As Default, it is "fireflex.dyndns.info".

Server Port: The service port.

User Name: The user name which is used to identify user and available units for the user.

Password: Check if the user is valid.

In login window, please keep the default setting of the Server Domain/IP and Server Port and only type username and password which had been assigned to user by Laipac. After validating the user's register information, user will login the main window below



2. Main Command Interface and its operation

Protocol 1.0 Analyzer is a tool to send commands, analyze the response from units and monitor system information.

Its main command interface is divided into three areas: Server Setting, Command Editor and Monitor.

2.1 Server Setting

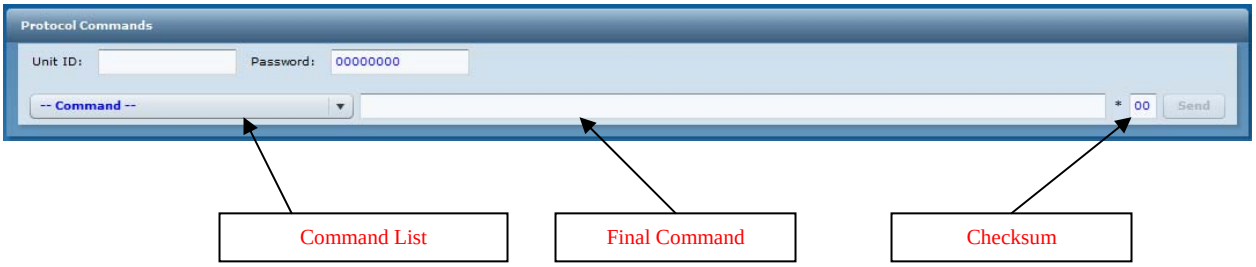
Server IP Address: Set the IP address of Test Server. The IP address is 208.124.224.42 now. Here, you can input domain name yet, such as fireflex.dyndns.info.

Port: Set the port number of Protocol Test service on Test Server. The default port is 5132 now.

Connect: This button is used to connect with Test Server.

Disconnect: This button is used to shut down the connection.

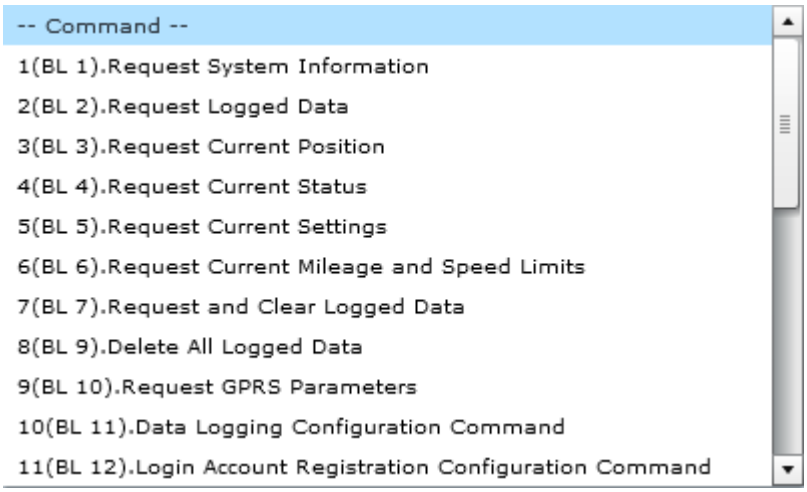
2.2 Command Editor



Unit ID: This is an identification number of unit. This field is used to indicate which unit will receive the commands. This text box has read-only access, which can be change by selecting the unit from Existing Unit List.

Password: This field is used for unit to check if the operator have right to control it. The default password is eight 0s(00000000).

Command List: this combo box will list all commands related to Laipac Protocol. Among them, you will find parentheses following the command index, in which there is the command index for BL Protocol 1.0.



Final Command: This box includes the final command that will be sent to unit(s). The content of it comes from packaging procedure or input by users.

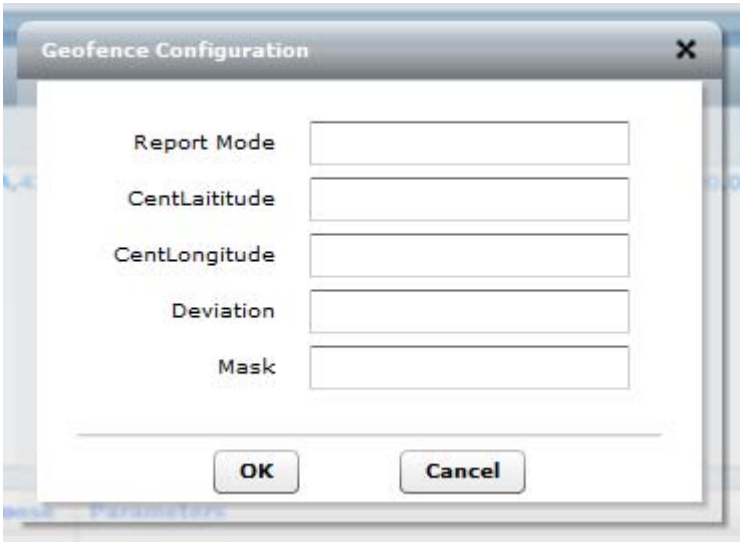
Checksum: This box includes the checksum whose value is changed with the command input.

This area shows whole packaging procedure. Most commands can be created by it. The normal flow is following steps.

Step 1: Select a unit from existing device list in Monitor area.

Step 2: Set password for the selected unit.

Step 3: Select a command. When you select a command, normally the Final Command Box will be filled with correspondent data. If more parameters need setting, the parameters dialog will be popped up, such as following one for Geo-fence Configuration.



Note:

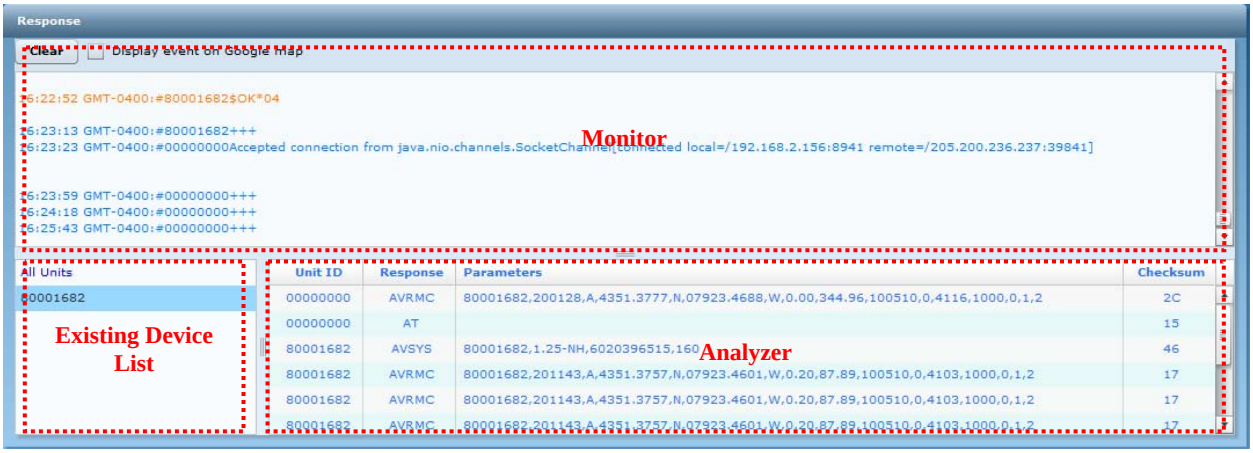
For BL units with V1.3x firmware and upper, it implements the multi-geo-fence function, which uses the new Geo-fence setting command. The example of step 3 will not be supported by those units.

If you want to send the command which does not appear in **Commands List**, you can type it directly in Final Command Box. For command itself, refer to "**Protocol for S911 Series of GPS Tracking Product (Ver. 1.00)".**

For time being, not all the responses from unit can be parsed by Protocol 1.0 Analyzer. In this case, the following dialog will be shown to tell user that a unknown response has been received.

Step 4: Press Send button. The command will be sent to selected unit.

2.3 Monitor



Monitor: This area is used to display the log message.

Existing Device List: This area is used to display all active units related to current user. The ID 00000000 is a special one that is used to broadcast commands to all unregistered units. It is very useful when you debug protocol.

Analyzer: This area is used to display response from all active units. Double click the line, it will display a dialog like the figure “Request Current Position” which extract data from packet and transform them to readable format.

If you check the “Display event on Google Map”, when you double click the line about event log (“AVRMC”), the dialog like the figure “Fig: Event Point on Google Map” will be displayed. It indicates the location the event takes place.

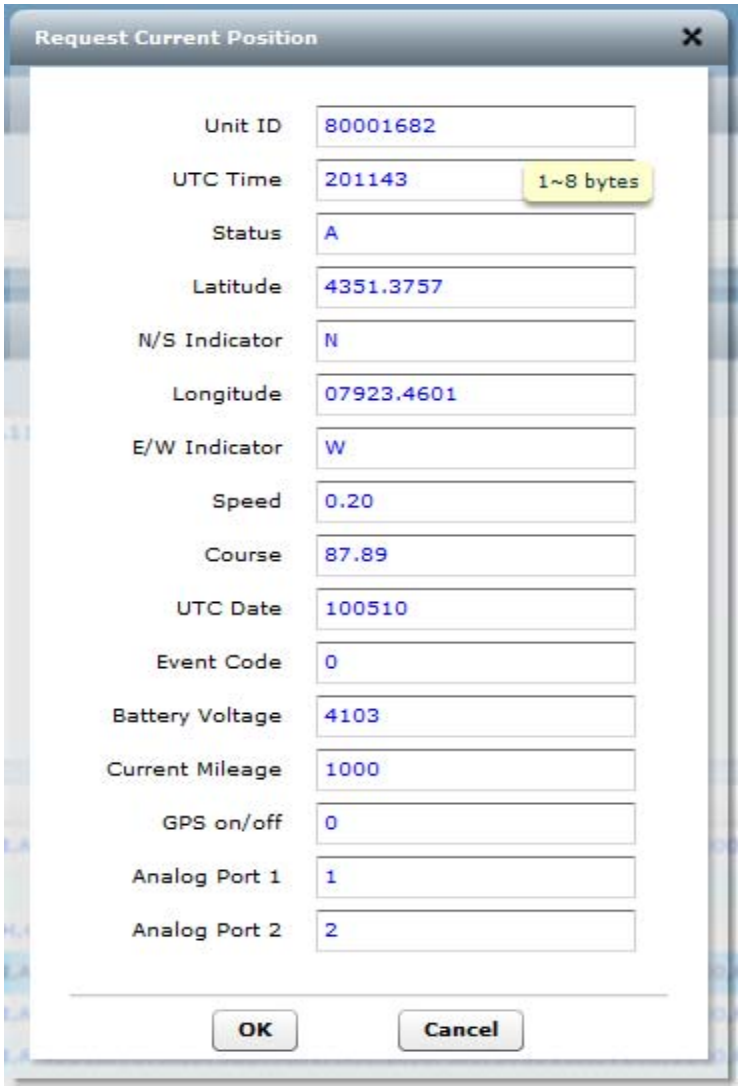
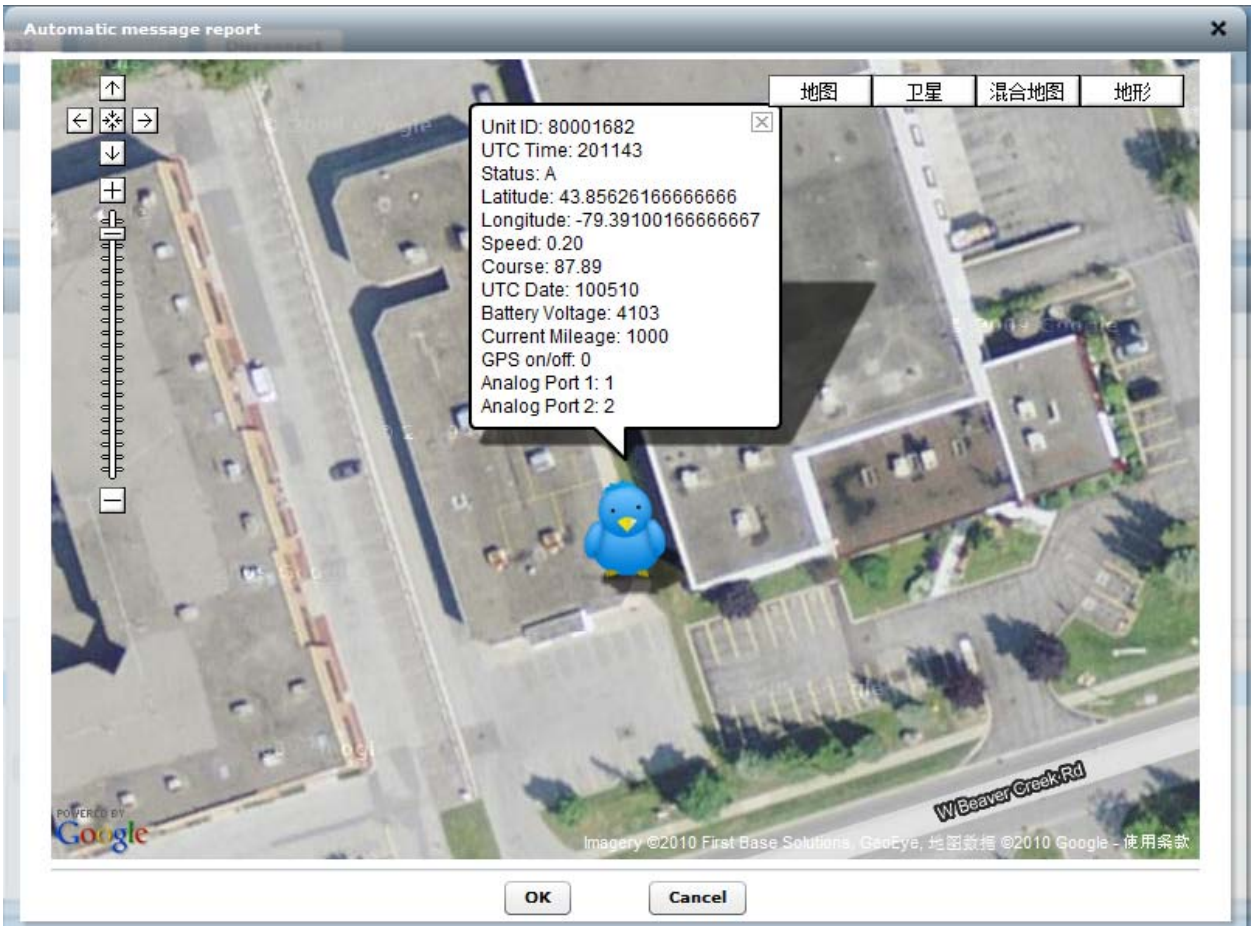


Fig: Request Current Position


Automatic message report
地图
卫星
混合地图
地形
Unit ID: 80001682
UTC Time: 201143
Status: A
Latitude: 43.85626166666666
Longitude: -79.39100166666667
Speed: 0.20
Course: 87.89
UTC Date: 100510
Battery Voltage: 4103
Current Mileage: 1000
GPS on/off: 0
Analog Port 1: 1
Analog Port 2: 2
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