MAESTRO GPS - APPS NOTE

EE SERVER DOWNLOAD REV 0.1
A DESCRIPTION ON HOW TO DOWNLOAD THE EE FILES FROM THE MAESTRO'S SERVER

Revision history

Rev.	Date	Details	Originated by
0.0	15 March 2011	First issue	Samuel Chereau
0.1	4 April 2011	CSR Approved	Samuel Chereau

This manual is written without any warranty.

Maestro Wireless Solutions Ltd. reserves the right to modify or improve the product and its accessories which can also be withdrawn without prior notice.

Besides, our company stresses the fact that the performance of the product as well as accessories depends not only on the proper conditions of use, but also on the environment around the places of use.

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Chapter 1

Introduction

This document describes the download of Extended Ephemeris (EE) data files from Maestro Wireless Solutions's EE server to another server form where the files are made available to units in the field. The document covers the first part of a complete process of retrieving Extended Ephemeris (EE) data from Maestro Wireless Solutions's EE server, transferring them to the units in the field and then finally loading the receiver with the EE data.

The following picture gives an overview:
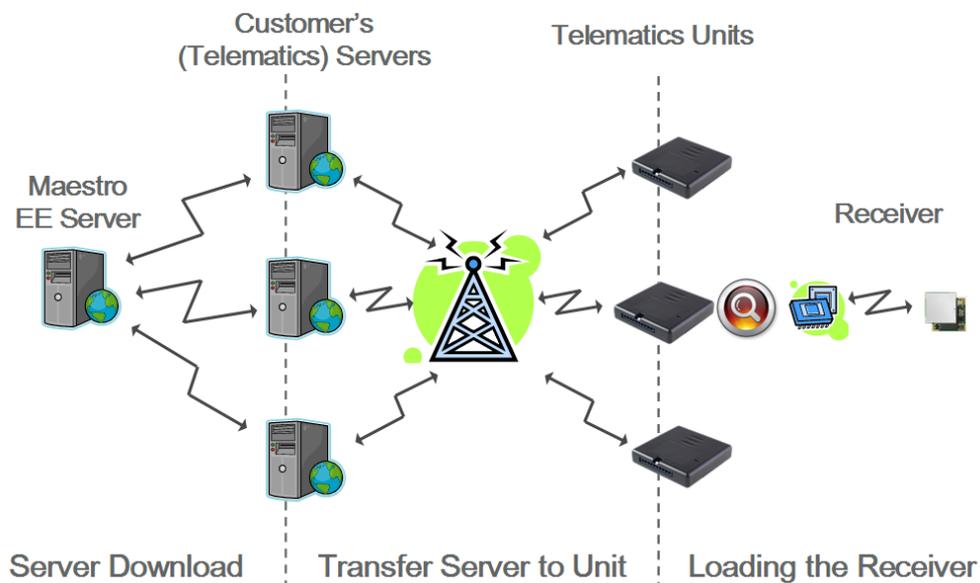
Figure 1.0.1: Overview of EE use

The first part "**Server Download**" is described in the following chapters. The second part "**Transfer Server to Unit**" is a custom specific implementation of a file transfer and storage. The overview shows GSM / GPRS as the transfer medium. Typically FTP could be used to transmit the file from a server to a unit in the field. The file can then be stored in flash, SRAM, on an SD card, with or without file system in the unit. Alternative

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transmission methods could be WLAN or simply via a direct serial connection (e.g. USB connection). The third part "**Loading the Receiver**" is finally covered by the application note "**GPS - Apps Note - EE Receiver Load**" where the complete process is described.

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Chapter 2

Maestro Wireless's EE Server

The access to Maestro Wireless's EE server is protected. In order to gain access to the server and therefore the EE data it is necessary to sign an "**Extended Ephemeris Service Agreement**".

This is available through your sales representative or Maestro Wireless directly (Section 3.1 on page 9). With this in place the customer will receive a Username along with a Password to enable access (Section 2.3).

2.1 Server Access Protocol

Maestro Wireless's EE Server is an HTTP access server. Therefore EE data can be downloaded using any Internet browser or other web download tools like the known free software Wget (GNU Wget from GNU Project).

In order to be able to access the server a Username along with a Password are required.

2.2 EE Files

There are 4 files provided on the server:

- – packedDifference.f2p1enc.ee
- – packedDifference.f2p3enc.ee
- – packedDifference.f2p5enc.ee
- – packedDifference.f2p7enc.ee

The figures 1 through 7 in the file names show the length of the prediction period of the EE data, i.e. one through 7 days. File sizes are accordingly from about 10kBytes to about 70kBytes.

2.3 Access Using HTTP

The EE data are located in `http:///ee.maestro-wireless.com/download/`

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Registered users can download EE data by accessing the above mentioned URL. On accessing the URL a window for user authentication will pop-up.

Another form to access data without a pop-up window is `http://user:password@ee.maestro-wireless.com/download/.`

2.4 Access Using Command Tool Wget

Besides downloading files manually using an Internet browser, a more sophisticated (and automated) way is to use the **Wget** tool. This can be configured to be executed within a script to access data automatically as a scheduled task.

GNU Wget 1.12 is used in the following examples.

2.4.1 Basic Usage

wget [OPTION] [URL]

> **wget –help**
> Print a help message
> **wget –version**
> Display the version of Wget

2.4.2 HTTP Simple Options

–http-user=user

–http-password=password

> Download a file from the location URL using user authentication.
> **wget http://ee.maestro-wireless.com/download/*.ee –http-user=user –http-password=password**
> or another syntax:
> **wget http://user:password@ee.maestro-wireless.com/download/*.ee**

2.4.3 Proxy Options

–proxy-user=local user

–proxy-password=local-password

First set the URL of the proxy server in the **http_proxy** environment variable.

> For a DOS shell command:
> **set http_proxy=http://<proxy_server:port>**
> For another shell it could look like:
> **export http_proxy=http://<proxy_server:port>**

Then access the EE server by including the local authentication as well.

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2.4.4   Recursive Download

GNU Wget is capable of traversing parts of the web in order to download a bunch of files similar if using wildcards.

-r   recursive retrieving

-A   lists of file name suffixes or patterns to be accepted

-nd   no directory hierachy will be created when the files are retrieved from the server

-np   recursive retrieving will not ascend the parent directory

Download all *.ee file from URL:
wget -A ee -r -nd -np http://user:password@ee.maestro-wireless.com/download/

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Chapter 3

Related Information

3.1 Contact

This manual was created with due diligence. We hope that it will be helpful to the user to get the most out of the GPS module.

Inputs regarding errors or mistaken verbalization and comments or proposals to Maestro Wireless Solutions, for further improvements are highly appreciated.

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3.2 Related Documents

– GPS - Apps Note - Receiver Load (Maestro Wireless Solutions)

– GPS - Apps Note - Firmware GSC3 (Maestro Wireless Solutions)

– SiRF_Binary_Reference_Manual (CSR)

– SiRF_NMEA_Reference_Manual (CSR)

– http://en.wikipedia.org/wiki/Wget

– http://www.gnu.org/software/wget/

– http://www.gnu.org/software/wget/manual/html_node/index.html

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