



Tavor ULC/Tavor TD

Software Downloader

Reliable Data Tools User Guide

v0.3

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Document Status

Doc Status: Introduction of CT-Hall IMEI & MEP File Format, IMEI & MEP Generator Tool and Reliable Data Generator & Parser Tools.

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1 About This Document

1.1 Purpose

The purpose of this document is to introduce IMEI & MEP file format and generator, and Reliable Data Generator & Parser Tools of Marvell Software Downloader.

1.2 Abbreviations and Acronyms

Table 1.1: Abbreviations and Acronyms

Acronym	Description
IMEI	International Mobile Equipment Identity
MEP	Mobile Equipment Personalization
SWD	Software Downloader
Tavor	Marvell cellular processor family
Tavor TD	Marvell Tavor chip for TD-SCDMA
UE	User Equipment, mainly Tavor Cellular Phone.
RD	Reliable Data

- Overview
- IMEI is a file that contains a unique number of a target board and must be burned onto the target device in the production line process.
- MEP is a file has data such as the Networks allowed (Orange, Cellcom...), the Access Technology, the SIM number, etc.
- Reliable Data Block is an reliable area in flash, which is used to save important data and fixed data which is unique to each phone, such as the serial number of the product, the strings identifying the vendor of the product, the model of the product, the IMEI number, the RF calibration data and some passwords relate 3GPP mobile equipment personalization (MEP) and some of the product line.
- IMEIGenerator is a IMEI file generation tool and MEPGenerator is a MEP file generation tool.
- RDGenerator and RDParse are two Reliable Data relative utility tools, which are used to generate and parse RD file.

2 Reliable Data Utility Components

Table 2.1: Reliable Data Utility Components Description

Component	Description
IMEIGenerator.exe	Generate IMEI file.
MEPGenerator.exe	Generate MEP file.
RDGenerator.exe	Generate Reliable Data bin file.
RDParse.exe	Parse Reliable Data file

2.1 IMEIGenerator

Figure 2.1: IMEI Generator Main Window

IMEIGenerator 2.1.0.0

Serial Number(SN): 176148

Type allocation number(TAC): 35 - 2099 - 00

Software Version Number(SVN): 23

Manufacturer Code: Marvell

Platform Code: SA

Platform Number: 0067

IMEI Encrypt option: ☐

IMEI:

IMEI File Path: ...

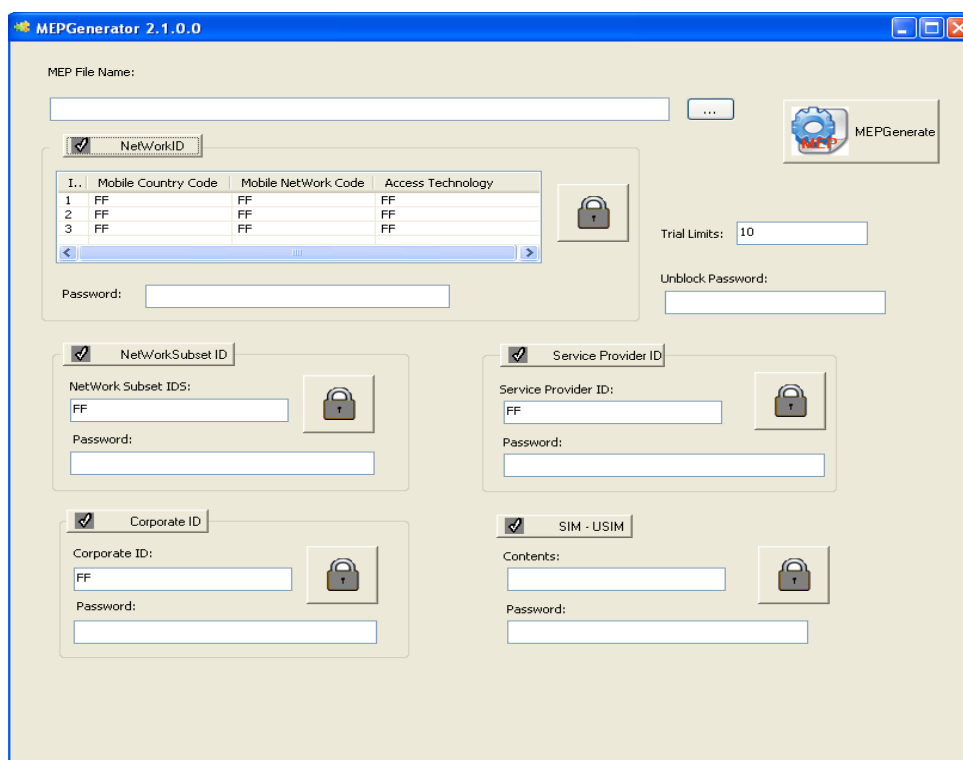
Generate

Table 2.2: IMEI File Fields

Field	Description
Serial Number	The board serial number
Type allocation number (TAC)	Part of the IMEI file format
Software version number (SVN)	Number representing the Software Version on the target board
Manufacturer Code	International Identifying number for Manufacturers
Platform Code	Platform Code such as "SA" for SAAR or "EVB" for Evaluation Board.
Platform Number	Number representing the platform
IMEI Encrypt option	IMEI Encrypt check
IMEI	Unique number of the cellular phone
Generate	Generates the IMEI files
IMEI Path	Path for IMEI bin

2.2 MEPGenerator

Figure 2.2: MEP Generator Main Window



The screenshot shows the MEPGenerator 2.1.0.0 application window. It features a 'MEP File Name' field at the top. Below it, there's a 'NetworkID' section with a table for Mobile Country Code, Mobile NetWork Code, and Access Technology. The table has three rows, all with 'FF' values. To the right of the table is a 'Trial Limits' field set to '10' and an 'Unblock Password' field. Below the 'NetworkID' section are three sub-sections: 'NetworkSubset ID', 'Service Provider ID', and 'Corporate ID'. Each of these sections has a 'Password' field. To the right of these sections is a 'SIM - USIM' section with a 'Contents' field and a 'Password' field. The window also includes a 'MEPGenerate' button with a gear icon.

Table 2.3: MEP Tab Fields

Field	Table Fields	Description
MEP File Path		Path where the MEP file was created
Network IDs		MEP file category
Lock		Indicates whether or not the category is Active
	ID	There are currently 3 networks. This is the Network Index that identifies the network
	Mobile Country Code	MEP file category parameter
	Mobile Network Code	MEP file category parameter
	Access Technology	MEP file category parameter
Password		Password for the MEP file category
Unblock Password		Password saved in the MEP file in case the phone is blocked
Generate button		Generates the MEP file
Network Subset IDs		MEP file category
Lock		Indicates whether or not the category is Active
	Network Subset IDs	Fill in data for the Network Subset ID category
	Password	Password for each category of the MEP file
Service Provider ID		MEP file category
Lock		Indicates whether or not the category is Active
	Service Provider IDs	Fill in data for the Service Provider ID category
	Password	Password for each category of the MEP file
Corporate ID		MEP file category
Lock		Indicates whether or not the category is Active
	Corporate ID	Fill in data for the Corporate ID category
	Password	Password for each category of the MEP file
SIM-USIM		MEP file category
Lock		Indicates whether or not the category is Active
	Contents	Fill in data for the SIM-USIM category
	Password	Password for each category of the MEP file

To generate a MEP file, perform the following:

1. Fill in the Network IDs field
2. Fill in the Mobile Country Code, Mobile Network Code and Access Technology fields.
You can fill in up to three Network IDs.
3. Fill in the Network Subset ID's
4. Fill in the Network Subset IDs field
5. Fill in the Network Subset ID's Password

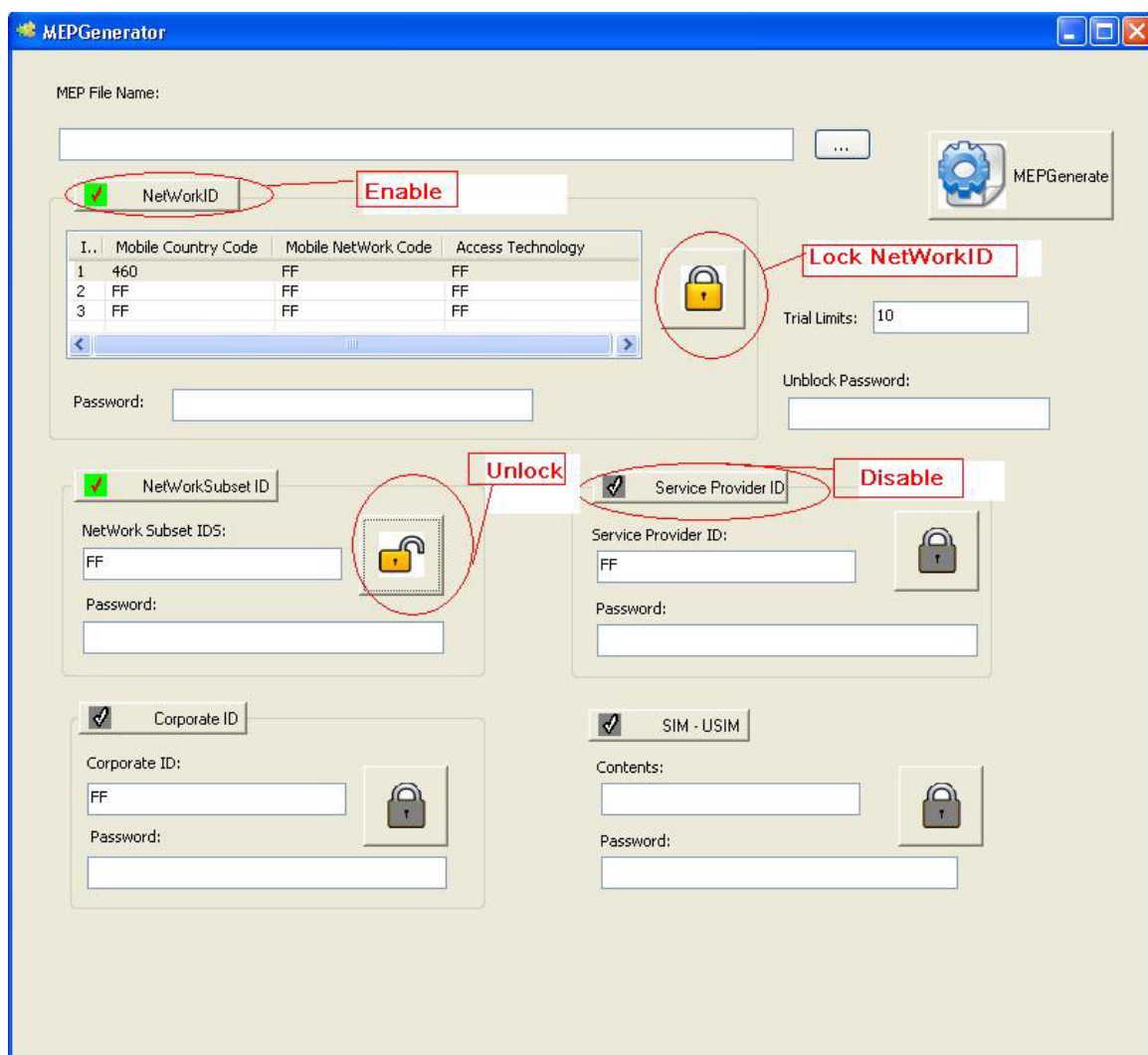
Service Provider ID

6. Fill in the Service Provider ID field
7. Fill in the Password for the Service Provider ID

Corporate ID

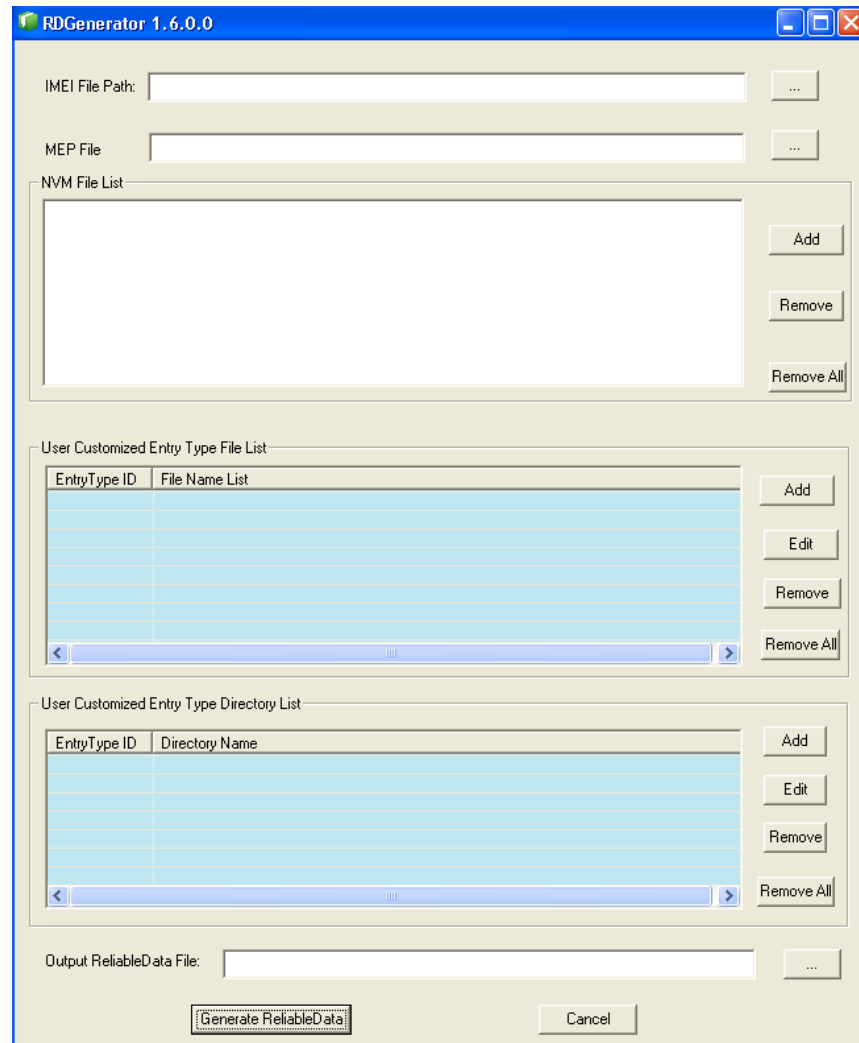
8. Fill in the Corporate ID field
9. Fill in the Password for the Corporate ID
- SIM-USIM**
10. Fill in the SIM-USIM Contents field
11. Fill in the Password for the SIM-USIM
12. Enable or disable any of these fields by clicking on the gray or green button in the field name
13. Lock or unlock any of the fields by clicking the Lock button.
14. Fill in the Unblock Password and Trial Limit fields if applicable.
15. Click the Generate button.

Figure 2.3: Enabling Disabling Locking or Unlocking Fields

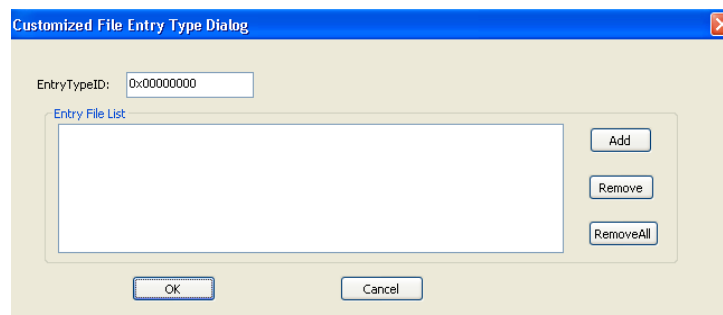


2.3 RDGenerator

Run "RDGenerator.exe", screenshot is as below.



1. Select IMEI and MEP file, you can use IMEIGenerator and MEPGenerator tools to generate IMEI and MEP file.
2. Click “Add” button in “User Customizes Entry Type Directory List”, it will pop up a dialog.



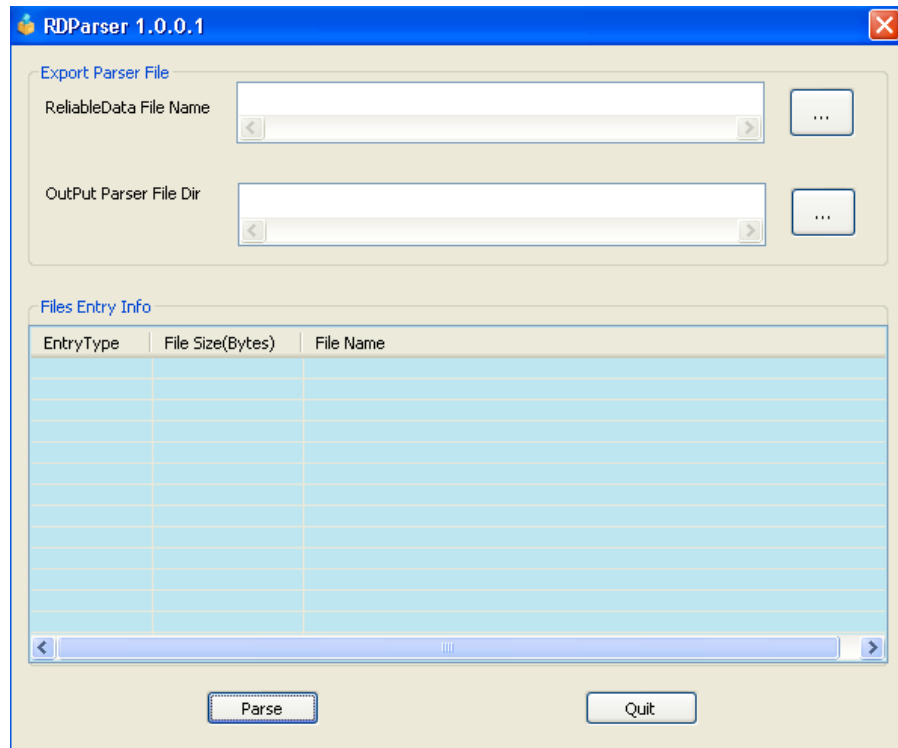
- 1) Set EntryTypeID in edit Box and choose file by clicking “click” button.

3. Set reliable data file name which will be generate in "Output reliableData File", and the suffix must be ".bin".
4. Click "Generator ReliableData" Button to generate Reliable Data file if IMEI and MEP are not empty, or it'll pop-up a message box to prompt "IMEI or MEP is NULL". If successful, it will pop-up a MsgBox "Successfully Generator reliable Data file" .

2.4 RDParse

RDParse is used to parse an exist reliable data file, it will unpack entry files input in RDGenenrator, the screenshot is as below.

Input "ReliabeData File Name" and "Output Parser File Dir" ,then click "Parser" Button to parse Reliable Data bin file, and output files are in the Output Parser File Dir. Files Entry Info List Box will show entry type, File Size, and File Name information of every Entry.



A

Revision History

Table 3.1: Revision History

Document No and Revision	Int Rev	Description	Date
0.1		Draft	3, Sept 2012
0.2		Review	4, Sept 2012
0.3		update	12, Nov 2012



Marvell Semiconductor, Inc.
5488 Marvell Lane
Santa Clara, CA 95054, USA
Tel: 1.408.222.2500
Fax: 1.408.752.9028
www.marvell.com

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