



Tavor ULC/Tavor TD

Software Downloader

Reliable Data Tools User Guide

v0.3

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Document Status

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Table of Contents

| | | |
|-----|--|----|
| 1 | About This Document | 4 |
| 1.1 | Purpose | 4 |
| 1.2 | Abbreviations and Acronyms | 4 |
| 2 | Reliable Data Utility Components | 5 |
| 2.1 | IMEIGenerator | 5 |
| 2.2 | MEPGenerator..... | 6 |
| 2.3 | RDGenerator | 8 |
| 2.4 | RDParse r..... | 10 |
| A | Revision History | 11 |

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

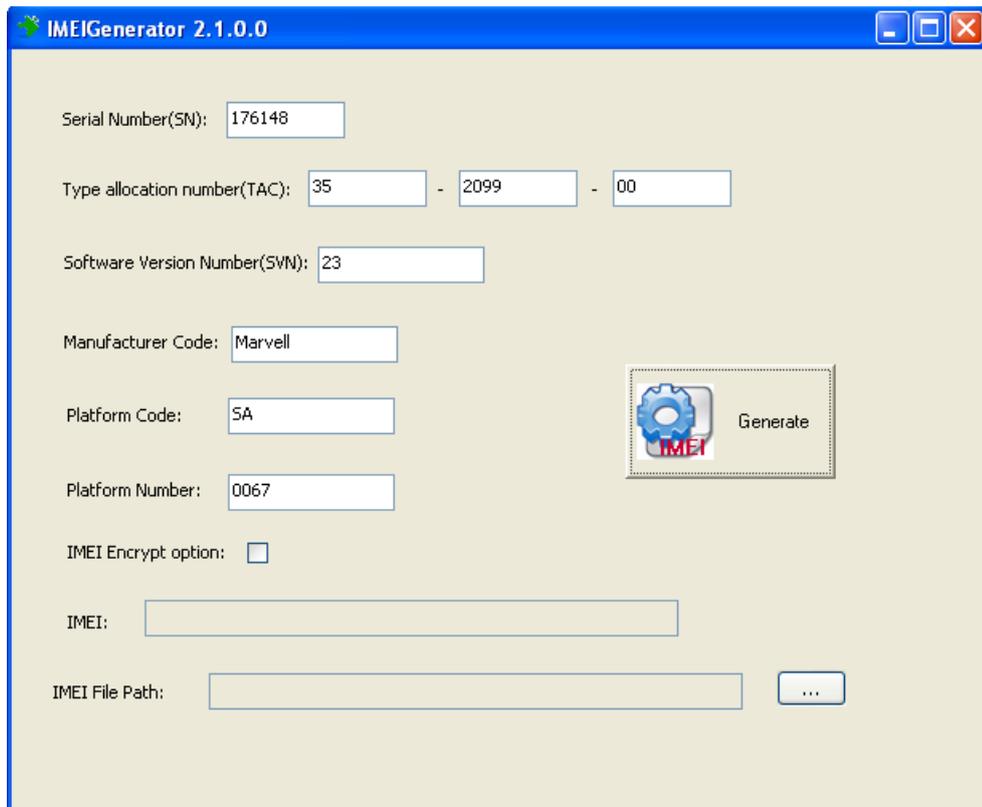


Table 2.2: IMEI File Fields

| 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

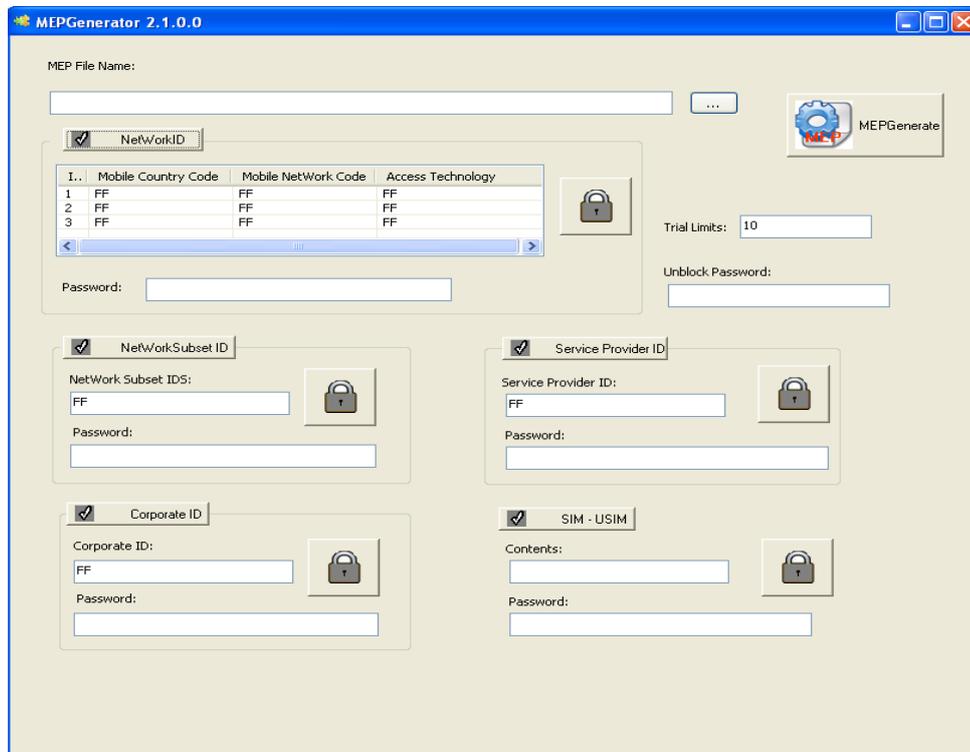


Table 2.3: MEP Tab Fields

| 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

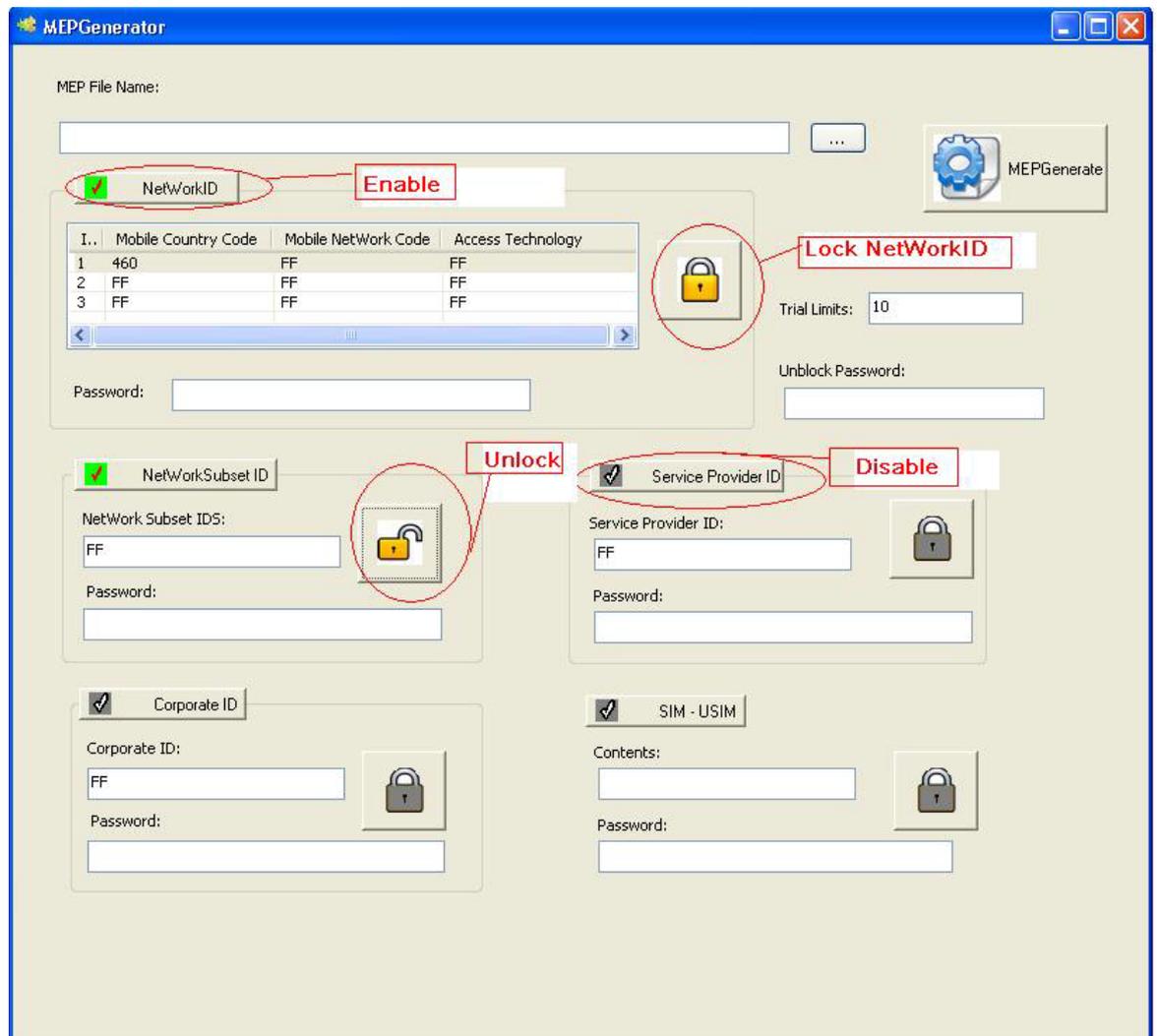
Service Provider ID

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

Corporate ID

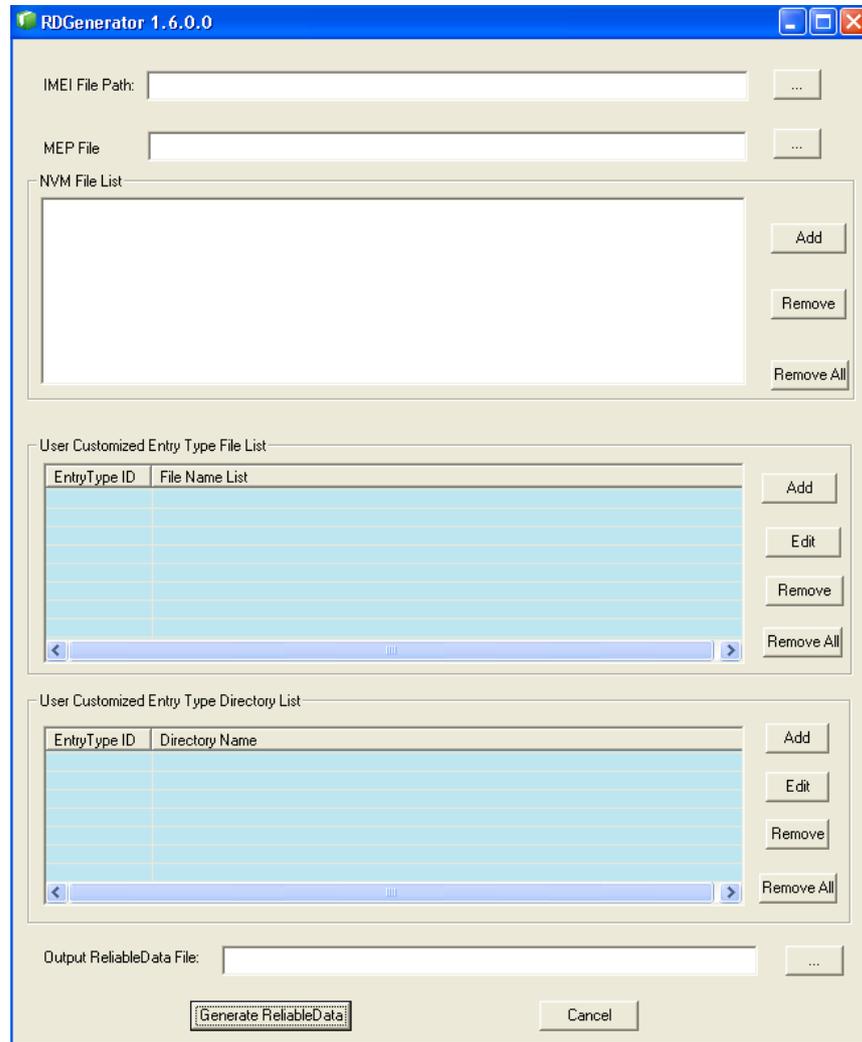
8. Fill in the Corporate ID field
9. Fill in the Password for the Corporate ID
- SIM-USIM**
10. Fill in the SIM-USIM Contents field
11. Fill in the Password for the SIM-USIM
12. Enable or disable any of these fields by clicking on the gray or green button in the field name
13. Lock or unlock any of the 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

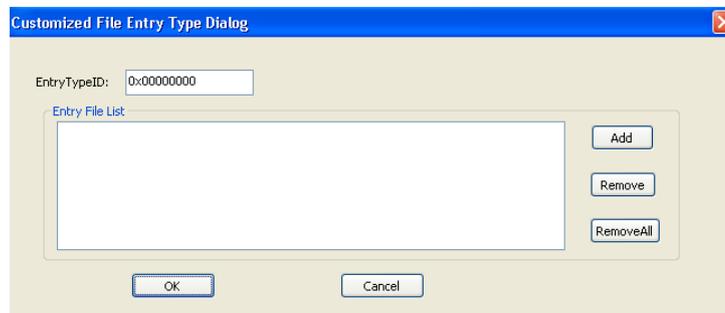


2.3 RDGenerator

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.



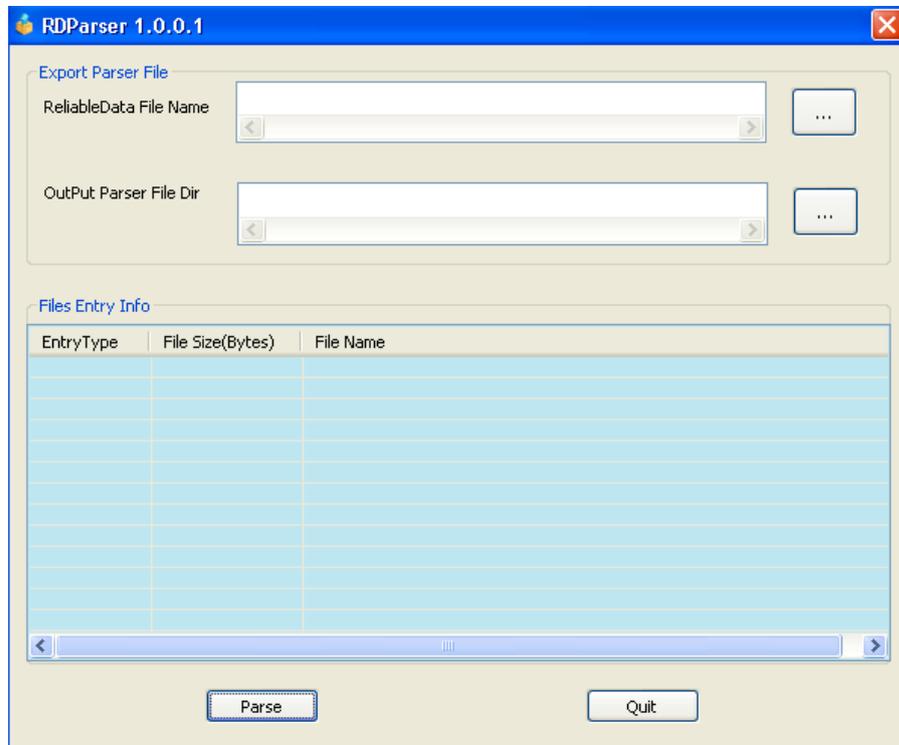
- 1) Set EntryTypeID in edit Box and choose file by clicking “click” button.

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 RDGenerator, 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 |
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