

NV & EFS Restore Tool

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1. Description

This tool supports repairing process for Siemens 3G Platform mobile phones.

2. Preconditions

- PC operating system Windows 2000 or Windows XP,
- USB cable,
- 3GSwupFU package installed,
- QPST 2.7.222 version or newer.
- **the device is in “Software-Download” mode** (see [Usage process](#))

This tool is designed only for mobile phone which crushed during customization process. The main assumption is that DUCK application from 3GSwupFU package was used that phone and DUCK (**version 1.2.5** or greater) made NV items backup into file with ‘.brt’ extension and core name as mobile’s IMEI.

3. Using the tool

Important notes:

1. **Before launching the tool please make sure that all applications using COM/USB connections are turned off. It is especially important in case of applications that are scanning COM/USB ports, searching for connected devices. Such applications can interrupt connection with a mobile. Please be aware that in case of some applications (like Mobile Phone Manager) simple switching off is not sufficient. MPM after closing leaves some additional processes working in the operating system. To make sure that the packet will work in the correct way all these processes need to be disabled.**

List of processes of the MPM that should be killed from the task list:

- PHONES~4.exe
 - SCONTA~1.exe
 - SPHONE~1.exe
 - SCfgSrv.exe
 - DESPROXY.exe
2. **In case of using Windows 2000 please make sure that there is Service Pack 4.0 in your operation system installed.**
 3. **It is not possible to repair mobile phones with less than 128 MB of flash memory.**

The tool is installed within 3GSwupFU package.

4. Graphical User Interface

Upon launching the following GUI will be shown.



Figure 1: The GUI

As the phone is not in normal mode, the tool cannot automatically detect a connected device. User has to choose port with mobile connected to manually. After port choosing the program does not verify whether the mobile is connected or not. User should make sure that phone is on and USB cable is connected in the proper way.

Possible actions:

- user can choose comm. port
- user can start repairing process by clicking "Restore" button,
- user can close application by clicking "Close" button,

5. Usage process

1. Mobile must be in download mode.

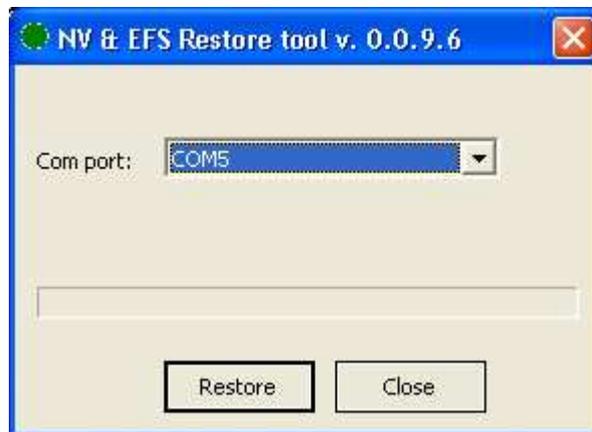
The best way to do it is:

- turn mobile off,
- take off battery,
- disconnect USB cable,
- insert battery,
- press # button,
- keep it pressed and press Power-On key.
- keep both keys pressed simultaneously for at least 5 seconds.

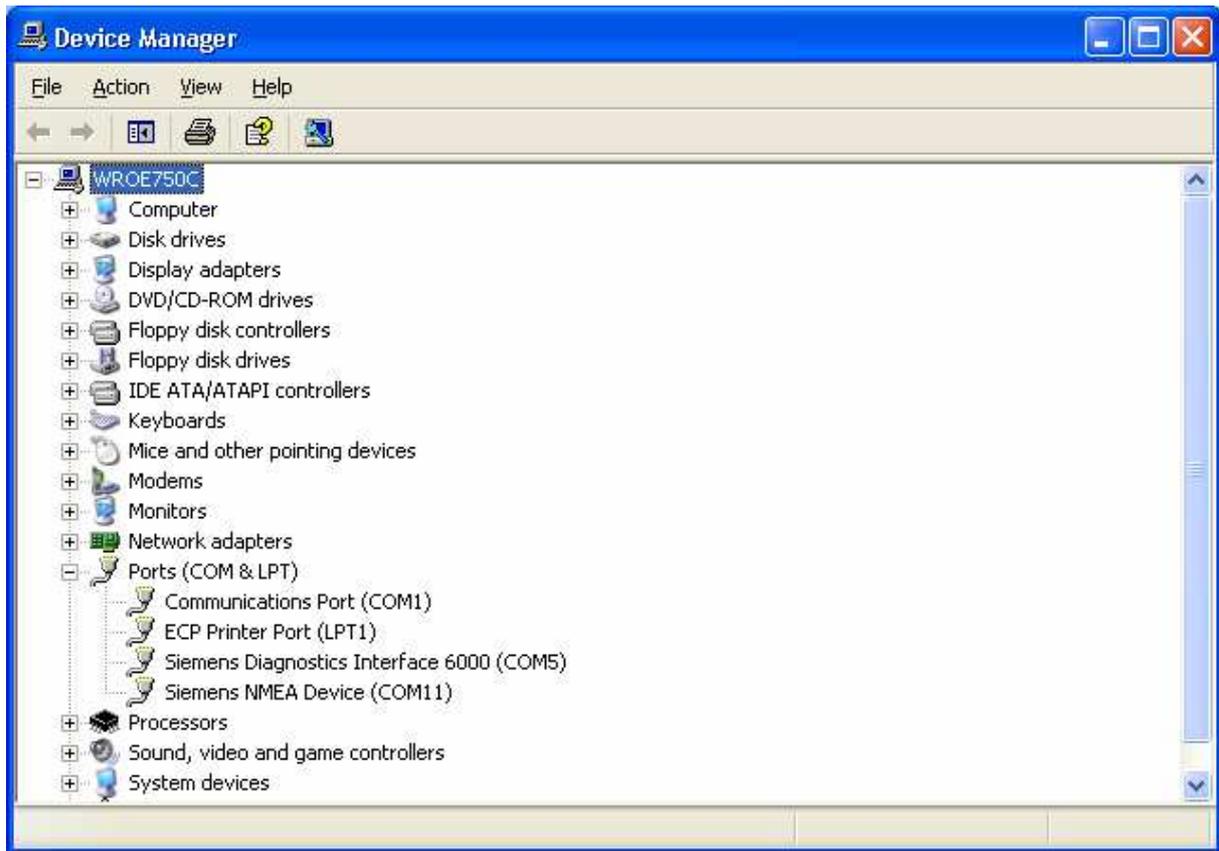
Now mobile should display the Siemens logo splash screen and remain in this state. The mobile is now prepared for restoring.

2. Connect mobile via USB to PC

3. Choose appropriate communication port.



If you find out that there is no proper comm. port on the list then please make sure that there is special device in Control Panel/Device Manager/'Ports(COM&LPT)' like 'Siemens Diagnostics Interface 6000', 'Siemens USB Interface 75 family' or 'Qualcomm Diagnostics Interface 6000'. If it does not appear then mobile is not recognized by Windows and seems be really damaged.



4. Start entire process by click on 'Restore'

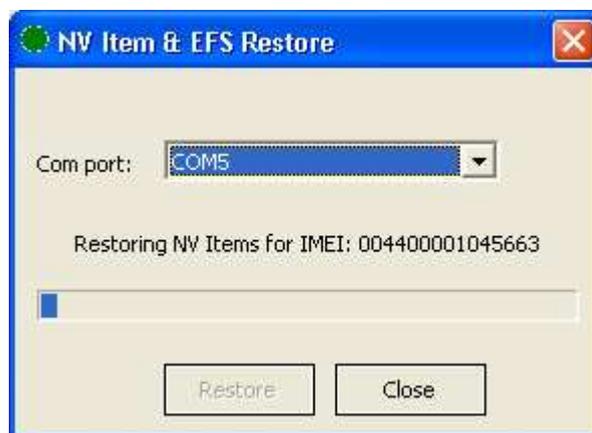
Some messages will be shown and progress bar be moved during the process.

- first step is downloading empty Compact EFS. It takes a very short while. After downloading phone resets itself and user has to wait for completing restarting procedure.





- mobile should show Siemens logo splash screen and next white screen with message "Factory test Mode". It means that Empty Compact EFS download succeed.
- The second step is restoring device specific NV items. Program uses file which has name containing IMEI number and '.brt' extension. IMEI number must fit to the mobile. Program expects that DUCK creates this file before customization. Otherwise the repairing procedure cannot be performed and program stops. In that case user can perform following workaround operation:
 - o take a proper brt file containing NV items that belongs to the mobile and rename it to "IMEI.brt" where IMEI number can be taken from inside of mobile cover (under batteries)
 - o if such file is not reachable then eventually user could use brt file from another mobile and rename it to the form as above: IMEI.brt.
 - Note: This is only a workaround, as the calibration data will exactly fit to the mobile. However, in most cases, this will work



- After succeeded NV Items restoring program restarts mobile and waits for waking up.



- The latest message "NV and EFS restoring succeeded" finished entire process.



In case of any errors or unexpected interrupts, you can just repeat the entire process.