

HP iPAQ hw6500 series's ROM update step-by-step

(... without warranty ...)

Since the HP's ROM Update program doesn't show very big stability, therefore lots of people (among others at me) occur that, how between a ROM flashing frozen somewhere – typically at 0,1% -. In the hope that, hw65xx owners haven't to give up, that time while they give machine to service, I created a little description to they. It can try minimize this risk.

The system showed the full crash between a factory ROM flashing at my. Long net fumbling, many-many aid from known (extra thanks to [df]F16falcon ☺) and unknown people drive for creating this little writing. Naturally, neither I didn't make a ROM backup (why have to that?), so I could select 3 possibility: trashcan, service (at weekend?), passion and learn. I selected the last...

If you have this situation, I can cite the motto of The Hitchhiker's Guide to the Galaxy “Don't Panic!”...

But **I attract your attention**, how the line was written by under **everybody do it own responsibility, or put to service if you haven't experience in this things**. Although the line at under worked perfect to me, **I don't have warranty to you to everything**.

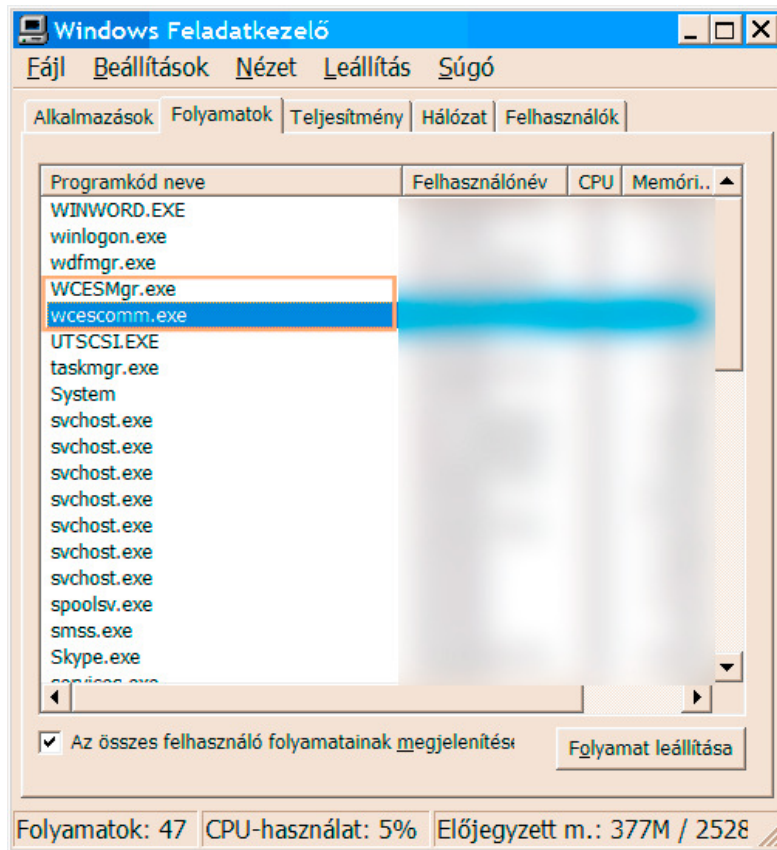
If you agree the with previous lines, let see, how what needed to do this “operation”.

- +1 SD card (64 MB enough)
- SD card reader
- [ROMUpdate.exe](#)
- [ntrw.exe](#)
- patience, patience, patience ...

step-by-step:

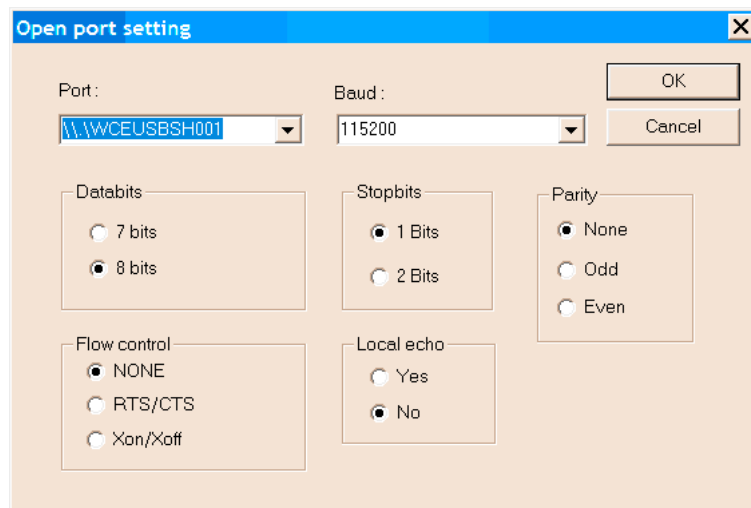
Backup the factory ROM

1. Do a full backup with internal program (iPAQ Backup)
2. hard reset (power + reset 5 sec.), this is not need certainly, but I recommend
3. Stop the ActiveSync processes
 - wcescomm.exe
 - wcesmgr.exeyou can do this with „task manager” (1. picture) easier by <Ctrl+Shift+Esc>



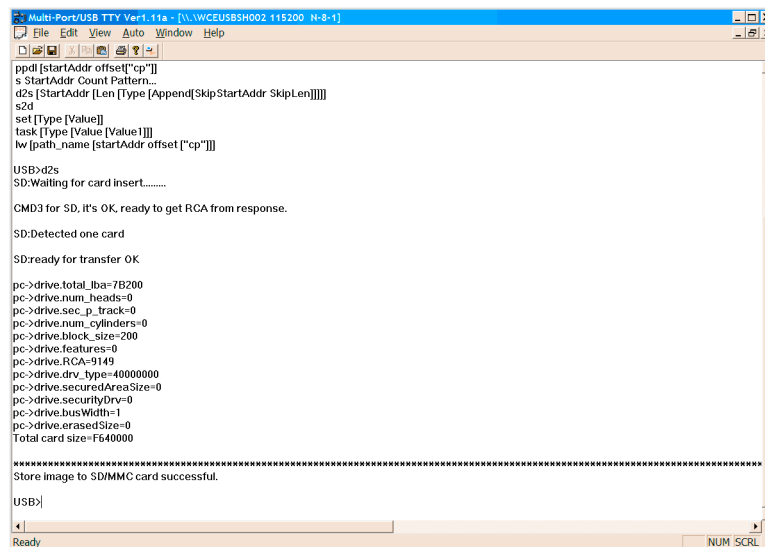
1. picture

4. Get out all SD card from iPAQ device
5. Take it „boot loader” mode <power + joy lefelé + reset 5sec.>. This will look like as failed ROM Flash.
6. Take SD card into device whereof you would want to do a backup
(Caution: The card going to have a special format, all data going to lost, and nothing can know this format, that is want to format it, **DONT LEFT EVER** while you want this ROM image)
7. Start the ROMUpdate.exe, you have to look something this (2. pictures), select the \\.\WCEUSBH00x. If you haven't \\.\WCEUSBH00x port, then you didn't stop the ActiveSync-et, or you haven't USB port in your machine really.



2. pictures

8. Type „d2s” command, and wait while you can see (3. pictures) „USB>”



```
Multi-Port/USB TTY Ver1.11a - [\\.\WCEUSBH002 115200 N-8-1]
File Edit View Auto Window Help
ppdl [startAddr offset["cp"]]
s StartAddr Count Pattern...
d2s [StartAddr [Len [Type [Append[SkipStartAddr SkipLen]]]]]
s2d
set [Type [Value]]
task [[Type [Value1]]]
lw [path_name [startAddr offset ["cp"]]]

USB>d2s
SD:Waiting for card insert.....

CMD3 for SD, it's OK, ready to get RCA from response.

SD:Detected one card

SD:ready for transfer OK

pc->drive.total_lba=7E200
pc->drive.num_heads=0
pc->drive.sec_p_track=0
pc->drive.num_cylinders=0
pc->drive.block_size=200
pc->drive.features=0
pc->drive.RCA=9149
pc->drive.driv_type=40000000
pc->drive.securedAreaSize=0
pc->drive.securityDrv=0
pc->drive.busWidth=1
pc->drive.eraserSize=0
Total card size=F640000

Store image to SD/MMC card successful.

USB>
```

3. pictures

9. Take down device from cradle, and get out a SD card
(**Caution:** Everything going to say, how the card don't formatted, don't to go to this message. DON'T ALLOW to do that)
10. The device going to restart after soft reset.
11. Restore your backup what you did at 1. point.
12. Put the SD card into card reader, and start `ntrw.exe` with next parameters:
`ntrw.exe read <image file name>.NBF <letter of SD card reader>`
ex. '`ntrw.exe read ROM_104.nbf k:`'

You have to see something similar:

```
C:\TEMP>ntrw.exe read test.bin k:
NTRW v2.00
Removeable media
  Cylinders: 0:31
  TracksPerCylinder: 255
  SectorsPerTrack: 63
  BytesPerSector: 512
bufsize is 65536
258211840 bytes written bytes: 0
ReadFile(): test.bin - Not correct parameters.

C:\TEMP>
```

Don't worry about error message, the file going to contain a full ROM image. You have to store this file to two different place, and hold the SD card if you haven't burning exigency, because you can restore the original factory 1.04 ROM.

ROM refreshing according a factory order

I can't add additional information to this part, „read and do it”...

If you have a little mistake

If your device can start with original 1.04 ROM, don't do fore and aft the first steps, stop at the last phase when you see the "tap the screen to continue", don't do it. Take your device into the cradle and listen, how your cradle have to connect directly to the computer. The power must to connect too. If the ActiveSync don't start in your machine automatically, you have to start it manually. It going to detect a PDA and it is enough to configure as "Guest". After this you can start again the factory ROM refreshing.

If you look the situation absolutely hopeless

This is occur in more situations:

- The device can start "boot loader" mode only
- It believe other model from selves (ex. hw6515c, or hw6515 in place of hw6515d)
- The system is being mystically
- Missing or corrupt functions
- ...

In this situation you have to restore the original factory 1.04 ROM.

You can do this as next:

1. put the SD card whereof you did the ROM backup in 6. point.
 - a. If you have hadn't yet, you can restore it to new empty SD card with `ntrw.exe` (pl. `'ntrw.exe write ROM_104_WWE.nbf k:'`).
 - b. If you have had, find it
2. If the device can start, start it in "boot loader" mode.
3. If the device can't start in normal mode, take down the battery cover, wait 10 seconds, put back and switch on the device.
4. It going to write on the display the percent of restore.
5. When everything OK (CRC too), you will have to do a hard reset and you have a device with original factory 1.04 ROM and you can start it again afresh.

Tumbler

First and the most important if you use a customized/modified ROM image, you must to use identical ROM image as your device model else your device will injure physically or missed model type (come to that decreased functionality too) as really have. In addition, it will be many of reason what I don't know...

Comments

If you find a grammar or other language mistake, sorry, but the English isn't my native language. I tried to use my knowledge as best, but... ☺

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