BB5 Easy Service Tool - It is Tool for servicing **Nokia BB5 series phones**.

Features (**v1.03**, **4th public release**) :

- **Flashing** (S40/S60)
- **Backup User Content (pictures, photos and e.t.c. – Gallery**) (S40/S60)
- **Backup SMS/MMS** (S40/S60) (In readable format)
- **Read/Write Phonebook** (S40/S60) (Supports ALL S40 and many S60 phone)
- **Work with Life Timer values** (read/write/reset)
- **Read/Write Calendar** (S40/S60) (Read as Text for S40 *)
- **Read Memory Card Password** (From all S40 and many S60)
- **Read/Write PhoneBook on WD2 smartphones**
- Support DCT4+ (User content/SMS)
- Read/Write PP (Product Profile S40/S60)
- Reset phone setting
- File System format
- Self-Testing (SelfTest, adc, display test, keyboard)
- Read/Reset User code (Depends on model)
- Read/Write PM
- Read info
- Change/Edit some special phone info (S40 Label)
- Some more Flash/Repair/Backup EXCLUSIVE features on way ;)

Supported models:

Data Backup :

- **S40 – All(3ʳᵈ,5ᵗʰ ,6ᵗʰ edition's)**
- **S60:**
    1. **7 edition (WD2)** : 3230,6260,6600... (COM only)

All modification of these models.

    2. **8 edition** : 6630,6631,6680,6681,6682,N90,N70,N72.... (COM/USB)

All modification of these models.

    3. **9 Edition** : E50,E51,E60,E61,E61i,E62,E65,E66,E70,E71,N71,N73,N75,N76,N77,N80,N81 8GB,N82,N91,N92,N93,N93i,N95,N95 8GB,N95 8GB NAM,N95 NAM,6110 Nav,6120c,6121c,6124V,6290,5500s,5700XM..... (COM/USB)

All modification of these models.

    4. Symbian 9.3 и 9.4 (5800,N78,N79,5230....) - now under develop and test (COM/USB)

Supported interfaces :

- **USB**
- **COM (FTDI,PL.... JAF/UFS in com emulation mode)**

Flashing :

S40 :

6233,7370,6300,6270,6280,6288,7390,6500slide,6500classic,7900prism,7500,7120c,7310supernova,

7510s,7610s,5200XM,5300XM,5310XM,5130,2700c,6600slide,3610a,3610fold,6555,6085,6086,6125,

2690,2710navi,6131,6133,3109,3110c,3120c,3500,3600,3710fold,3720classic,5220XM,5610XM,6151,

6267,6303,6303i,6300i,6600fold,7210s,8600luna,8800arte...

All RM-modifications of these models are supported too.

Supported Modes - DEAD USB / Normal Flashing.

S60 : N76,N78,N79,N81,N86,N85,X6,5800,5530,N97,N97Mini,N97i,5230,5500,3250,5700,5710,E63,

E66,E50,E51,E75,6110n,6220c,5330TV,5730XM,6120classic,6121c,6124c,6650,E71,E71x,N81-8gb....

All RM-modifications of these models are supported too.

Supported Modes - DEAD USB / Normal Flashing.

Extended Features - Custom Flashing.

S60 APE : 6630,6680,6681,N70,N72,N73,N75,N77,N90,N91,N92,N95,E90,N93,N93i,E60,E61,E65,E61i,

E70,N80,N95-8Gb...

All RM-modifications of these models are supported too.

Supported Modes - Normal Flashing.

Program can backup data from dead or semi-dead phones (hangs on nokia logo and other software/hardware hangs.

All service operations can be performed on both interface (usb/com).

Flashing supported VIA USB only for now.

First run and setting

For run BEST User need have :

1. **Infinity/ContentExtractorDongle**
2. License

If User have BEST Dongle –

Need internet connection for that operation.

1. Need Start BEST software
2. Fill ASK form and press **Create**.
   If All Ok – Program will download license from server and asks user restart program.
   If exist any problems on receiving license – need send ASK file to support@bb5tool.com

Settings part are very small -

1. Need choose directory, where installed Nokia Firmware Packs
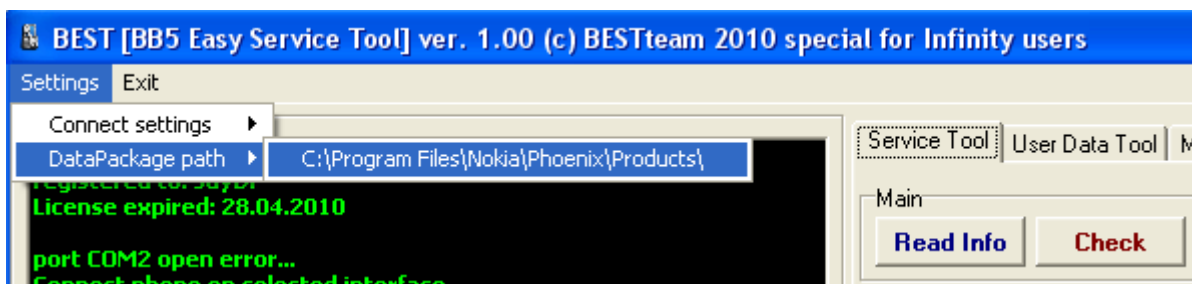
2. Choose a connection mode - **USB/COM**

Program ready for work!

Working with BEST

Connect phone on selected interface.

Better, if phone in LOCAL/TEST. For USB mode that is no matter – if phone detected – You can start work.

Phone found!

Series XX Device detected!

read info... - Ok

That text in log say us – phone is seen by program and we can do what we want.

Interface map :

Service Tool Tab

Read Info – Read phone info – general phone information – FW version, IMEI, hardware, locks and other things.

Check – Checks some phone parameters, like a **Flash ID, SuperDongle info and LiveTest**.

UserCode Read/Reset - Reset/Read USER code (depends on model). In some phones, like E-series and new smartphones – reading now impossible, but we work on it.)

Read ASk – Read ASK file, which consist data for calculate RPL file.

LifeTimer read/write/reset – Work with LifeTimer values .

**Product code read/write –** Change Product code – regional identification code.

PM Read/Write – Work With Permanent Memory. Don't forget do backup!

Factory Settings – Reset settings to factory state (security code, data and other settings)

ProductProfile Read/Write - – Work with product profile – PP consist some settings info, which can be reset by Factory set \User Set (S40/S60)

User Data Tool Tab
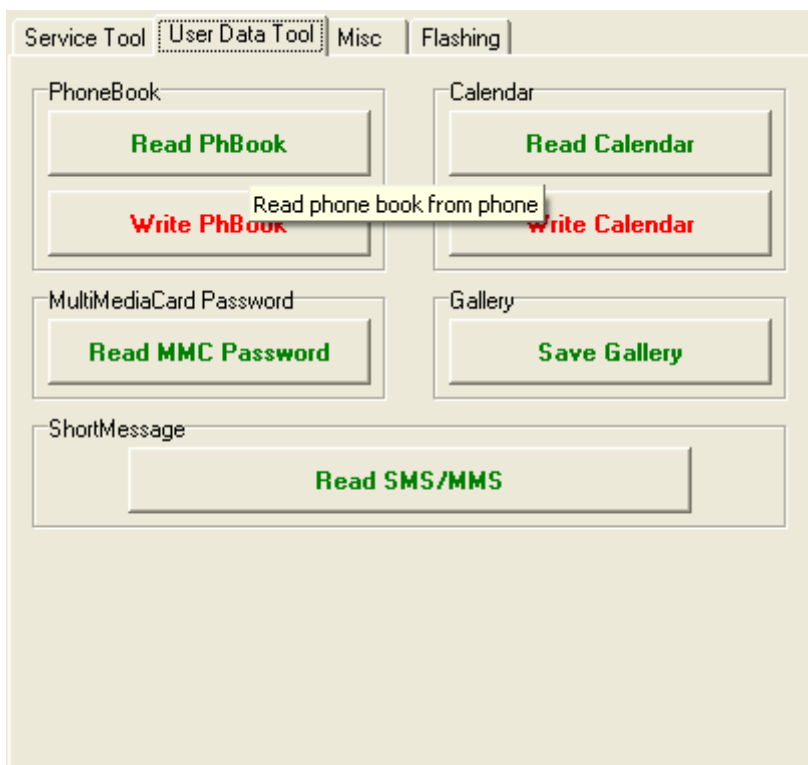
Read PhoneBook – Read phonebook from phone (S60 / S40)

Write PhoneBook – Write phonebook to phone (S60 / S40)

Read Calendar – Read calendar from phone S60 / S40

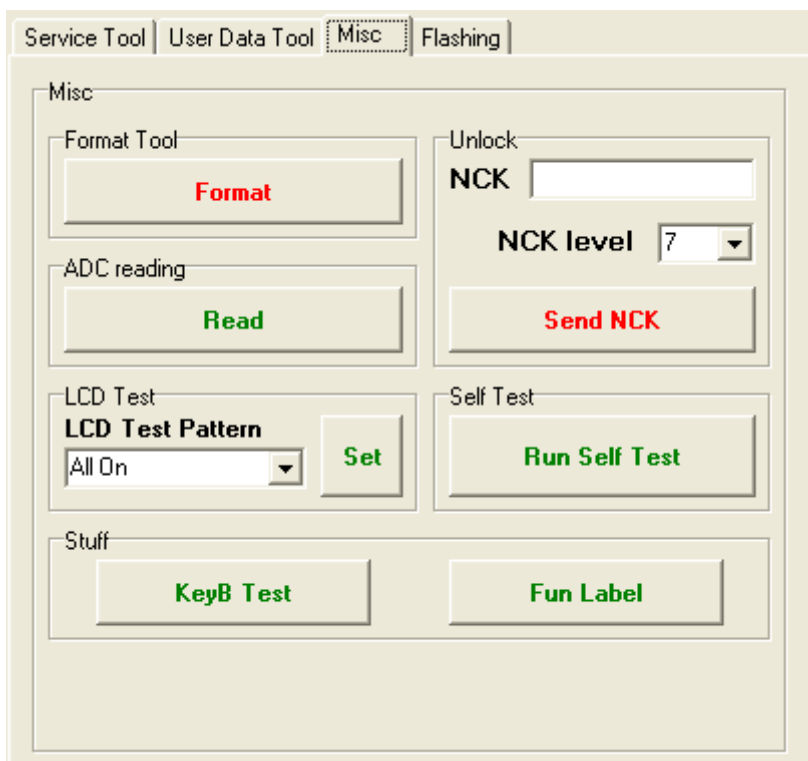**Write Calendar** – Write calendar to phone S60 / S40

Read MMC Password – Reading memory card passwords from phone S60 / S40 (if phone not fullflashed / resetted)

Save Gallery – Backup User Data - Gallery (Music, photos, records and other files) S60 / S40

Save SMS/MMS – Backup SMS and MMS data in readable format S60 / S40

Misc Tab

Format – File System format (automatically , non-touch (on user request) gallery on s40 [1gb] / s60 [4,8...gb] phones)

ADC Read – Reading battery, current eat and other values

SelfTest – SelTest's with extended info

NCK enter – enter NCK (Network) (user requested) code to phone

Display Pattern Test – LCD Test

Keyboard test – Keyboard test feature

FunLabel – Edit labels (S40 by code *#0010# - can write any info, like our organization info, phone number or any, what we want)

Flashing Tab

That tab able you flash and repair your phones.

Flashing support **Normal** and **DEAD USB modes**. About flashing – on next pages.

Work With BEST

After start program – need choose interface, which on we need work.

Program remember last selected interface setting.

After we choose interface – connect phone.

User have two ways for connect :

- **Connect powered up phone in – Test/Local/Normal modes**
- **DEAD USB – revive for fully dead phone (if phone support DEAD usb and can connect in DEAD usb mode)**

1. **On first case need just connect phone.**

When BEST found phone – we can see – Phone found! – on statusbar we can see some connected phone info.
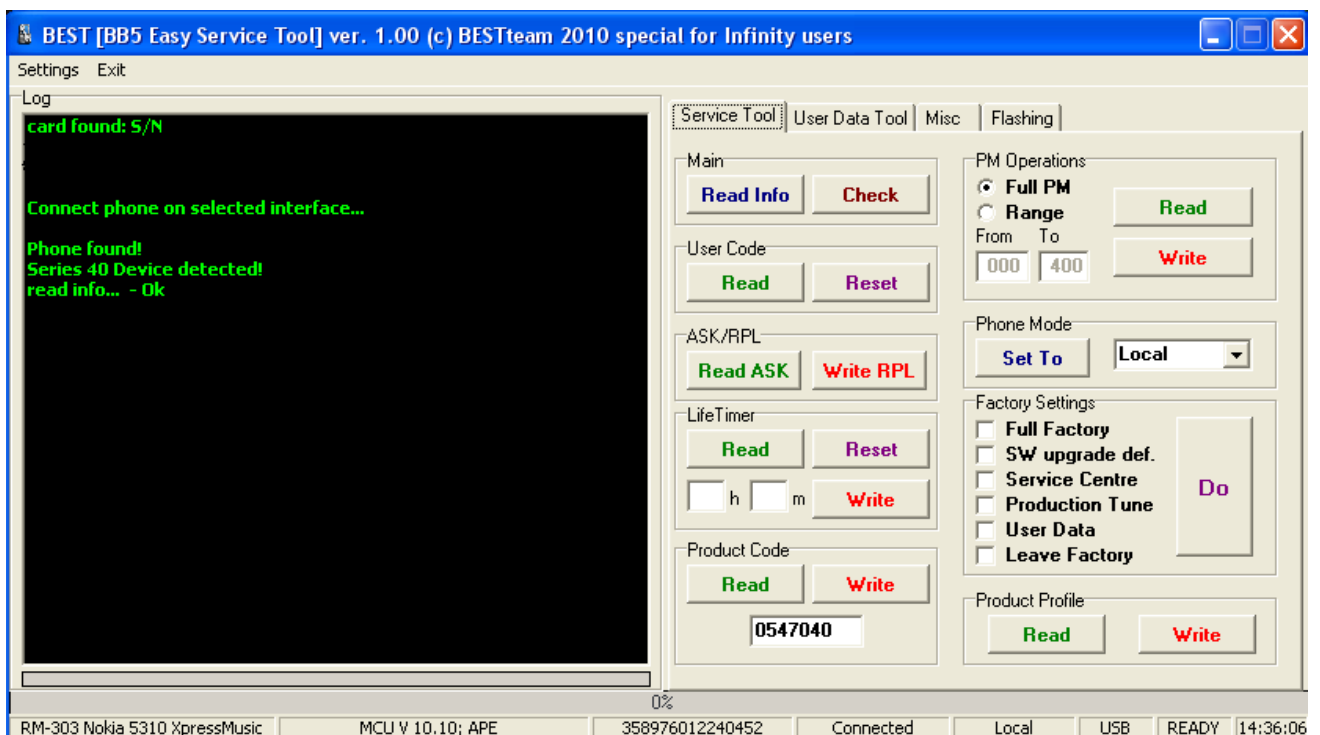
2. **In another variant need Flash phone :**

DEAD USB.

On **Flashing** tab need select **DEAD MODE**
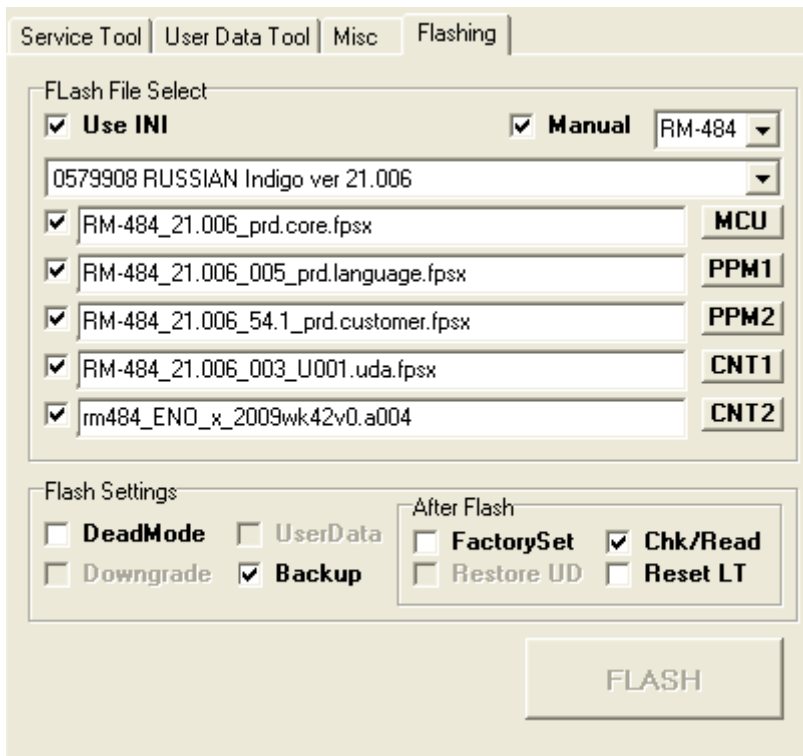
After – select flash files and select **FLASH** after connect phone, shortly press power button. If flashing done – phone power up in TEST mode and we can continue work with phone.

P.S. If need BACKUP USER DATA – DON'T FLASH CONTENT/APE FILES! You destroy USER data in phone permanently! Only – MCU+PPM, in some case – ENO can be flashed too.

Also FOR S60, which supports DEAD USB– BEST can power Up phone in test mode BY DEAD USB REVIVE – Just Unselect all files and press flash – after booting phone will stay in TEST mode.

After phone connected in any mode – we can start work with it.

All operation can be performed without any extra settings and others – press button – program give you result.

- **User Data Backup**

BEST Can extract user data from dead or semi-dead Nokia phones without any problems, expect new S60 models, which will be supported soon.

User data types, which can be extracted :

- Phonebook
- Calendar
- Memory Card Password
- Content (Gallery) (Photo, sound records, pictures, music and other files, stored in gallery)
- SMS/MMS messages

Backup User Content (Gallery) can be done on ALL BB5 phones (S40/S60 – no matter).

Backup PhoneBook, Calendar, Memory Card passwords, SMS/MMS can be done on following phones:

- **Series 40** (**Series 40 – phones**) – Supported **ALL S40** phones.
- **Series 60** (**Series 60 – SmartPhones**) – Following models/series:
  1. **Symbian 8.X** : N70, N72, 6680, 6681 and other BB5 old smartphones and all modifications of these phones.
  2. **Symbian 9.1,Symbian 9.2 :** E50,E51,E60,E61,E61i,E62,E65,E70,E71,N71,N73,N75,N 76,N77,N80,N81,N81 8GB,N82,N91,N92,N93,N93i,N95,N95 8GB,N95 8GB NAM,N95 NAM,6110 Nav,6120c,6121c,6124V,6290,5500s,5700XM and others and all modifications of these phones.
  3. **Symbian 9.3/Symbian 9.4 :** Under developing.
     Support exist, but not work on all phones yet.
  4. **Supported WD2 (Symbian 7.x)** - 3230, 6600, 6260, 7610, 6670 and all modifications of these phones.

  All operation can be performed on both (com/usb) interface types, but better use USB, if phone not fully HW damaged.

More info about data backup :

- **Base**

    In order to successfully retrieve data from a phone, you should enable it to be defined by the program on one of the interfaces - USB / COM. And there are some points for S40/S60 in more explained slightly lower.

    If the program saw it - you can choose the desired operation - if the phone book, calendar, passwords or memory cards - the program will choose a name and place of the saved file, then the program will extract the selected data type.

    If data type is Gallery (**Save Gallery**) or SMS/MMS (**Read SMS/MMS**) program do all without any user conformations – need just wait, when selected operation end's. <u>Backed up data will be save ob main program directory, in folder, named as phone IMEI. In that folder user will find all backed up data.</u>

    Before backup/work with user data – please – REMOVE from phone memory card, if it insert in phone.

    In some case, probably – need reflash MCU / MCU+PPM SW part for run phone (if phone totally dead and can't start even on local/test mode.

    FLASHING OF CONTENT (CNT – UDA, IMAGE, USERAREA….) AND FORMAT – kill user data in phone. Permanently.

- **S40**

    If you need to pull data from S40 phone - need only two conditions -

    >   **1. Phone must see the program**
    >   **2. Phone has not been flashed / erased / not resets (User, Full Factory)**

    If your phone has some user data inside - the program will extract that data without problems.

- **S60**

    For smartphones, there are several limitations

    1. Smartphone must see the program

    2. Smartphone must have alive hardware parts - CMT / APE.

    (This principle is particularly important for older smartphones like the N70 and the like this)

    3.
    For phonebook, calendar, passwords, sms - guaranteed successful data extraction from fully supported models (the list given above). Not supported models - tested only partially. Support for the other will be soon.

4. Possible problems / tips for extracting / recovering data :

- **S40**

   As such - no problem. If your phone has files / data - program extract it.

   1. **PhoneBook**

      If your phone has a book - the program will extract it. No problems here. Supported by a cross-entry phone book from phone to phone among all the phones series 40. You can also combine several phone books from different phones into one - the method of writing files to the phone at a time. Phonebook appended. Constraints - just free slots in the phone book.

   2. **Calendar**

      For S40 3rd generation (6233 and those like him) - the program prompts you to select where to save the file. The format of the text - in all the records from the calendar in the usual text.

      For S40 5nd and 6th generation (6303, 5610, 6500s, and others) - the program will save EVENT - this file can be restored back to the phone. Supported by a cross-entry from the phone to the phone, view the contents. Also, with the data file will be created a text file, which will contain the contents of the calendar in the usual text.

      `Calendar is totaly clear ... : (` And the

      `Calendar is not present in PM: ( -` mean that the calendar is empty.

   3. **SMS/MMS messages**

      Best saving messages to folder with phone imei in name. In that folder after reading user can find file – **SMS.txt**, which contains all messages in readable text format.

   4. **Memory card passwords**

      If the phone has been set passwords on your memory card - the program will show them the list in the log (if you see text like pass[space]word – **[space]** – mean space (blank position)) and save the folder **Backup** PM file with the name - **Name_IMEI_MMC_password_record.pm**
      This file can be written back, if need be, as usual RM - click Write PM.
      If no password is found - the program will inform - **password not set: (**.
      The same password for s40 maps are automatically saved when user try flash phone on any mode, expect DEAD mode.
      Password automatically saving on backup folder on Info button to.

5. **Gallery/SMS**

Maybe if they get broken / damaged files - the program and will miss them, saying in the log -

Error while reading file! Attempt to continue ...

- **S60**

The most important thing is to run the file system and working of the APE part.

Error

```
FS run fail, please, remove SD card first

Change phone mode manualy to local/test and try again

If still no luck - phone have damaged FS/SD-MMC part..

Done with major error... :(
```

This message that you can't run the file system - the program suggests options -

• Remove the memory card if it is worth.

• Try to change the phone mode (test / local)

Otherwise, the necessary software / hardware intervention.

Software intervention is as follows -

• Flashing MCU / MCU + PPM

• Firmware ENO

If it did not help - perhaps due to a defect hardware.

Error

```
 APE Server Run fail! FS breaked... :(
```

Says us about damaged APE part of phone. Repair methods - the same as above. When - if they have not helped - must be the hardware address of the defect.

Smartphones with versions of Symbian 9.3 and 9.4 supported for extracting user content - Gallery.

Extracting SMS / MMS, calendar, notepad and perhaps only a few (eg - 5800 SW to 21 inclusive)

The possibility of pulling out data from them in the development stage (and already have the results)) and will be soon.

1. **PhoneBook**

   If your phone is included in the list of supported - in this case there is no problem. Phone book will be extracted. Then you can write it back to the phone to complete the recovery operations, or to send us to extract the data. Automatic ability to save the standard options will be available shortly.

   If the phone is not included currently in the list of supported - you can try to extract. If it will be unfortunate - it is necessary to inform the model, RM, SW version and program log on the support forum.

   Restoring the phone book can be produced in the same phone from which it was extracted, or you can write a book on any smartphone, which is included in the list of supported.
   Cross-writing supported by Symbian 8.X and Symbian 9.1/9.2.
   User can write phonebook from 9.1/9.2 to 8.x, but can't write from 8.x to 9.1/9.2

   Warning - Record the new phone book in smartphones - deletes the old data - the program will remind you of this recording, and ask how to proceed.

   In some cases - phone book is damaged - if after writing the book in your phone - it freezes when you turn - it was so damaged it. Necessary in this case, send us a backup for retrieval. Ability to be built into the program soon.

2. **Calendar**

   Moments are the same as for phonebook.

3. **Memory Card Password**

   Password of memory cards saved as file and extracting to program log. Moments are the same as for phonebook. Write back are not supported.

4. **Gallery/SMS**

Extracting the gallery is not restricted version of the phone. The program supports all smartphones. If you have any problems - report model, RM, SW version and log on the support forum.

   `Error on CS packet! Skipping ...` indicates the presence of the damaged file.

- **WD2 and phonebook**

This feature is included in the program, though WD2 totally different.

For extract the phone book do next:

• Connect your phone to COM / Fbus interface.

• Force (by pressing the power button) to activate the phone.

In the tests used UFS cable from 3230 and a homemade adapter box Infinity.

Once the program determines the phone - will be available only one button -

- **Read phonebook.**

Press Read PhoneBook file and choose file location. Wait until program find and read phonebook.

```
WD2 mode autoselected...

BackUp UserData : [PhoneBook]

Generation mode : S60 [WD2]

Operating mode is OK, no need change...

Searching for phonebook...

Initialising FS...

Skip check FS...

Use direct acces mode, skip search

Initialise Reading...

1st blk OK....

-> Reading done! :)

Readed : 42 block(s)

Saved to D:\BB5Easy\Best_rel_v1_03\Nokia 6220_353793008284112.WD2pb

Done!

Elapsed: 0:00:05
```

That log say us – all ok. We can format/repair phone and after – write back phonebook to phone.

Error

```
WD2 mode autoselected...

BackUp UserData : [PhoneBook]

Generation mode : S60 [WD2]

Operating mode is OK, no need change...

Searching for phonebook...

Initialising FS...

Skip check FS...

Use direct acces mode, skip search

Initialise Reading...

1st blk OK....

-> Packet CS #2

->Minor read error [damaged data], save collected data

Readed : 122 block(s)

Saved to C:\Nokia 6220_353793008284112.WD2pb

Done!

Elapsed: 0:00:14
```

That error says us about damaged phonebook. You can try after write file to phone and… in most causes – phone just not starts. For extraction from damaged backup – need sent backup to support.

If reading done very fast in log blocks count – **Readed : 3** or similar – phonebook damaged fully or deleted. Recover are not possible. But user can try do next steps :

It may mean the following:

1. Initialization file failed - trying to read more than three or four in a row. In some cases this is enough.

2. Should try to reconnect the phone (completely off the power)

3. It is possible that the phone book is absent - it is the erased / damaged completely.

4. Maybe - corrupted file system - if the phone has a bug Startup Failed. Contact retailer - is likely. In this version of the phone book to save almost unreal. Perhaps, if need be - in the future will be made to address this problem.

In most cases the phone book is read successfully. Also, sometimes it is necessary to flash MCU. No discharges and formatting.

After extraction with errors is necessary to send the phone book for us to retrieve the data. Ability to be built into the program soon.

- **Repairing PhoneBook**

For repair need press Write PhoneBook button and select needed file.

`WD2 mode autoselected...`

`Restoring UserData : [PhoneBook]`

`Generation mode : S60 [WD2]`

`Operating mode is OK, no need change...`

`Starting PhoneBook repair`

`Initialising FS...`

`Skip check FS...`

`Clear data...`

`Clear : Cl_Ok`

`Write done!`

`Done!`

`Elapsed: 0:00:13`

If all ok – user will see log, like that.

Feature of extraction/repair phonebook on WD2 models has been tested on several 3230 and 7610, 6220 and via Infinity UniBox as interface - in all cases the extraction was successful.

- **S40 lite (DCT4 +)**

From version 1.02 adds support to BEST DCT4 + phones.

Interface, of course - COM.

Features:

• Preservation of user content

• Saving sms / mms

• SelfTest, ADC, FunLabel

At the moment support purely a test.

For unlock DCT4++ phone – download DCT4++ Toll from Infinity Box support and use it for unlock.

In the following versions work with DCT4 + will be radically improved.

- **Flashing (Firmware Update and repair)**

Currently BEST supports flashing S40/S60 phones in both modes -

    1. **Normal (normal / test / local mode)**

    2. **DEAD**

Select Files - manual and automatic - if the full package installed firmware.

S40:

You can sew the following combinations of files:

• **MCU**

• **MCU + PPM**

• **MCU + CNT**

• **MCU + PPM + CNT**

For a successful firmware in DEAD mode, you must:

    1. **Choose the correct version of the firmware files (RM for automatic mode)**

    2. **Mark DEAD MODE, select the options and post-flash action.**

    3. **Press FLASH and after - to connect your phone and press the power button briefly.**

      -> **Some phones just need to connect to the cable (7900 and similar)**

    4. **Wait until flashing complete**

    5. **After flashing the phone will be in TEST mode. User will begin operations to save / restore or anything, or anything, what user want.**

To successfully flash in normal mode, you must:

To begin with - the notion of normal - includes all modes - Normal / Test / Local.

    1. **Choose the correct version of the firmware file (If Manual is not marked - and installed the firmware - the program will select files automatically)**

    2. **Press FLASH and wait for the completion of the firmware update.**

    3. **After flashing the phone will be in TEST mode. User will begin operations to save / restore.**

P.S. During the process of firmware you can change the options - namely - to cancel flashing not yet processed files - simply removing the check with the desired item.

S60 :

You can sew the following combinations of files:

- MCU

- PPM

- CNT

- ENO

- APE

- MCU + PPM

- MCU + CNT

- MCU + PPM + CNT

Simply put - you can sew in any quantity and in any combination.

Modes:

- DEAD

- Normal

Terms and necessary steps are similar firmware S40 - select files sew. No differences no longer exist.

Also added to the S60 mode transfer from DEAD to TEST (for phones that support DEAD mode). You must select the correct version of firmware (in principle it is not so important - the important thing to firmware files conform RM phone) and took off all the checkboxes in front of all files, press FLASH. The program will launch the phone in the LOCAL \ TEST mode.

S60 APE smartphones can be flashed only on Normal mode (not test/local/DEAD) and only with next combinations :

  *MCU+PPM

 * MCU+PPM+CNT

If user try wrong flash phone – program will give all needed instructions – how do it.

Flashing tested on :

S40 : 5300, 5200, 3610, 7310, 7210c, 6500c, 6500s, 5610, 6300, 6303, 5310, 5130, 3120c, 6233, 6280, 6270, 6085 and other - no problems.   S60 : X6,N76, N78,N79, N97,5800,5230,5530,6120c,6124c,6110n,6210n,E71,E75,6290,N81,N81-8gb,E51,6220c,3250,E50,5500s...

• Other opportunities

The list of other possibilities include:

• **Read Info** - **Read information about the phone**

• **Check - check Flash ID, SD Key, LiveTest.**

• **UserCode Read / Reset -** Read / Reset user code (depending on the model of the buttons cannot be active)

• **Read ASk -** reading ASK file

• **LifeTimer read / write / reset -** Work with the values of LifeTimer (read, reset, write)

• **Product code read / write -** Read / write product code phone

• **PM Read / Write -** Read and write Permanent Memory (Skip 120/308 skip data blocks during recording)

• **Factory Settings -** Reset the selected types of settings to factory defaults

• **ProductProfile -** Read / Write - Read / write full product profile (S60/S40)

• **Format -** Format the file system (automatic, does not affect the user drives to s40 [1gb] / s60 [4,8 ... gb])

• **ADC Read - Reading** the parameters of consumption, the voltage of the battery

• **SelfTest -** Testing, with extended info

• **NCK enter -** Enter NCK code

• **Display Pattern Test -** Test LCD

• **Keyboard test -** Testing keyboard

• **FunLabel -** Editing tags (S40 by the code `* # 0010 #` write everything, whatever you want (currently only supported by the Latin / s60 by the code * # 06 # soon)

Most opportunities will have no difficulty for the work with them and understanding.

- **SelfTest** works on USB / COM. There are no settings and other things - all parameters are tested at once. You can choose mode manually – test or local – just select need in main service tab. In local mode will be done some more several tests, but in test mode testing procedure are more stable. After testing end program shows a log and post detail in the table - if there are any problems - shows a small hint on the possible elimination.
  Tips are collected exclusively from Nokia documents.
  P.S. : We welcome any additions and clarifications to improve the information part of SelfTest.

- **LifeTimer, ADc, discharges, work with the PM, NCK input** - constraints in the use will not cause.

- **Format** - Formatting is automatic. No need to choose the drives and do something. The program will automatically scan them and format only the system / svapovye. User disks are not affected. For the S40 with the external memory on board the program asks about the formatting of the disc.

- **Keyboard test** - checks the status of the keyboard and show, if there is a problem, after the completion of the test, a list of buttons and their status. Testing can be done in two ways - **click KeyB** Test and within seconds, **click Finish Test** - if the test was successful and there is no loot of pressed button – counter of pressed buttons will be 0. If it closes - the program will tell - what kind of button. The second method - start test - press the right buttons, and after the test in the log to see - all they are pressed or not. It very helps on finding keyboard faults. Also program can check slide working for s40/s60.

- **Fun Label** - **editing tags for code * # 0010 # for S40 phones.**
  Create a text file. Named his heart's desire, and change the extension to. S4lbl. In the file can write anything, what You want. At the moment is only supported by English for writing, we try to add Multilanguage support later.
  After recording the file when enter code from the keyboard *** # 0010 #** We will see what is listed.
  In Best directory, on stuff folder user can find some example of file. It file can be edited by ane text editor, like notepad. Remember – support only English (Latin symbolic) for now.

- **Interfaces**

For better stability and comfort in working with the program in Fbus mode is recommended only FTDI / PL and other UNIBOX / cable.

Setting latency com-port
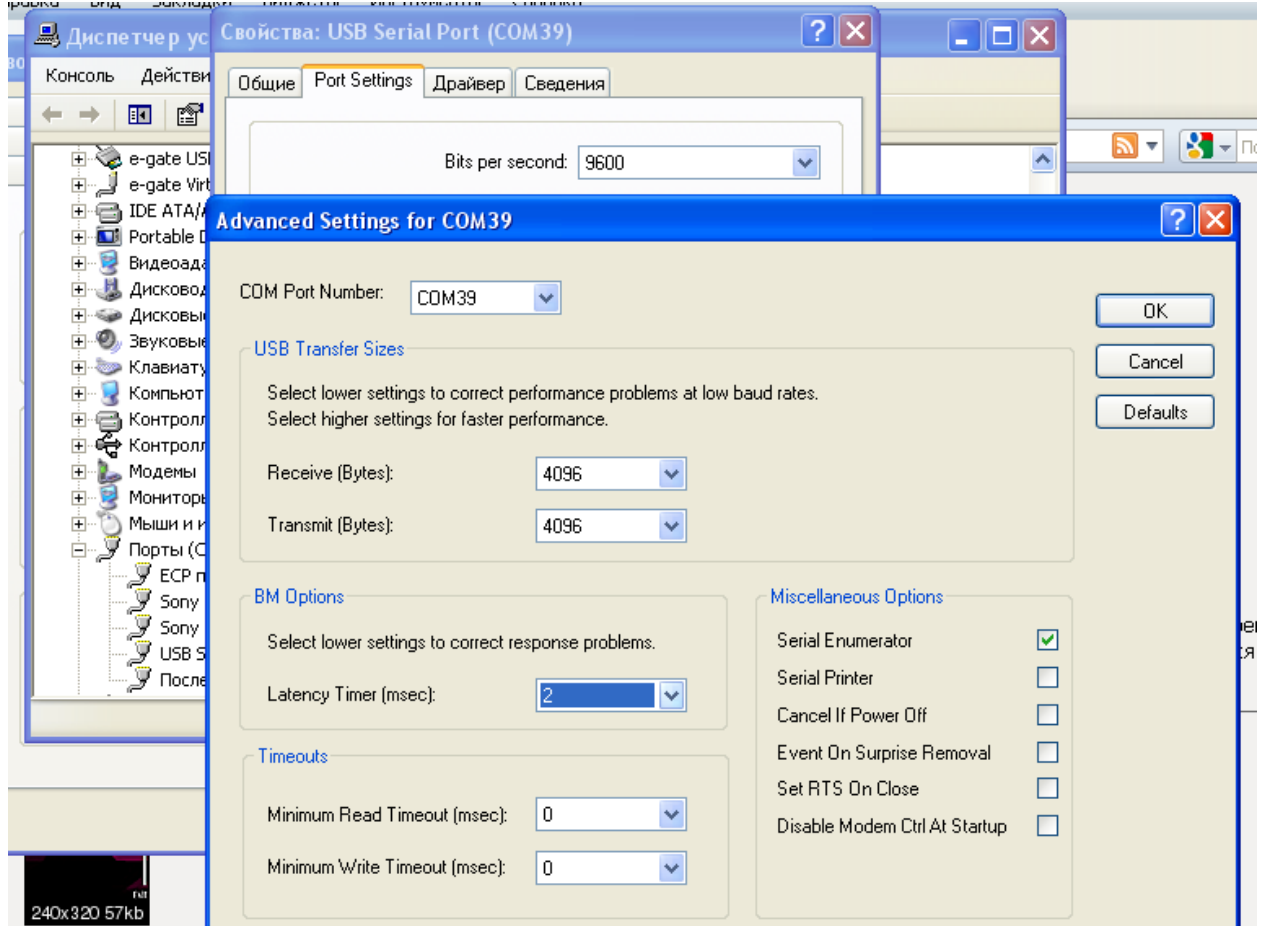
Option 2 - in the settings is the best.

From version 1.02 - BEST supports JAF / UFS / other interfaces in the mode of com emulation better and more stable for user data backup.