Warning: Rom updating procedure ereases everything in your Storage memory (Phone memory) including contacts, messages (mail, sms, mms), settings ... everything. This is a beta kitchen and rom so it will contain a lots of bugs! It is possible to brick your device with rom upgrading (creating), do it at your own risk!

Blueangel AKU 3.5 Rom kitchen v2

(based on the new version of rom kitchen for Hermes by bepe)

This rom kitchen cooks xplode's AKU 3.5 rom for Blueangel release 4.1

1. **Whats new**

   New folder structure.

   The folder structure of rom is mainly in two folders SYS and OEM. In SYS are located the system packages, in OEM are located OEM packages.

   You can create this structure from a dump of rom (only if the rom contains all of the RGU files) with bepe's package tool which is included

   New BuildOS.exe

   This tool is amazing, it uses option.xml as list of packages which you can edit for your own taste (I will advise you to not edit the one in SYS folder, but you can edit the one in OEM folder for your own OEM packages) – I will explain editing of option.xml later.

   Here is how it looks
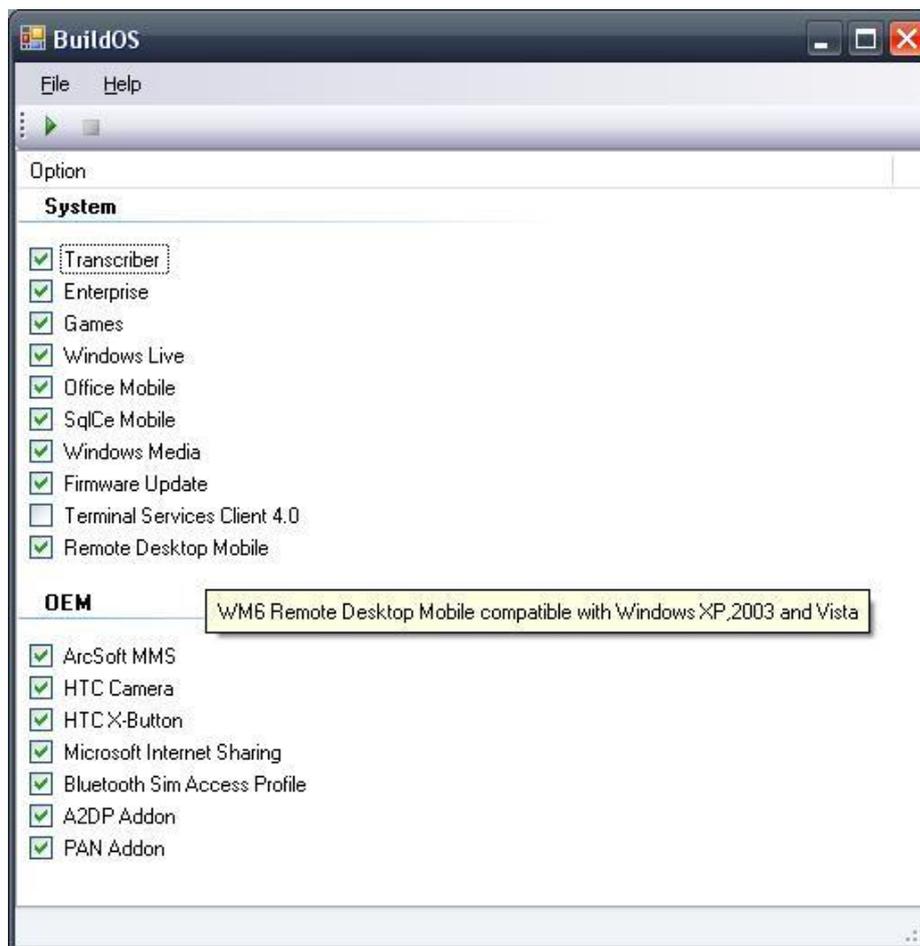
2. Creating rom

Basic:

If you just want the default R4.1 rom just start BuildOS.exe and press the little green " ▶ " button, you will see progress at the bottom of the window. When this operation completes run CreateROM.bat (which is created by bepe and edited by helmi_c). Follow the onscreen instructions, and at this time it is good to put your device in bootloader mode* . At some point the device upgrade utility will start, follow the onscreen instructions there too. Now it flashes the rom. After that you need to perform WM5 Hard Reset*. Then the device is booting and you need to setup screen alignment and al the normal setup stuff (time zone, email, password, stylus)

Advanced:

If you want to customize the rom you have some options, you can remove the packages rom the list and/or add new ones, the easy way is to remove unneeded by unmarking the in the list inside BuildOS.exe. If you want to add packages you need to copy them into OEM folder and if you want them to be selectable/removable you need to edit option.xml located into OEM folder.

Editing option.xml:

Here is my option.xml source

```
<?xml version="1.0" encoding="UTF-16" standalone="yes"?>
<Items>
  <Item name="ArcSoft MMS" group="OEM" checked="true">
    <Tip>ArcSoft MMS version 3.5.1.5</Tip>
    <Guid type="p">98b6dd4c-4709-4ef5-b101-8339ceac7cd5</Guid>
  </Item>
  <Item name="HTC Camera" group="OEM" checked="true">
    <Tip>HTC Camera version 2.21 build 20245 (xplode edition)</Tip>
    <Guid type="p">e33a5360-4340-11db-b0de-0800200c9a66</Guid>
  </Item>
  <Item name="HTC X-Button" group="OEM" checked="true">
    <Tip>HTC X-Button version 1.0 build 27666</Tip>
    <Guid type="p">553d9246-c056-11db-8314-0800200c9a66</Guid>
  </Item>
  <Item name="Microsoft Internet Sharing" group="OEM" checked="true">
    <Tip>Internet sharing software provided by microsoft in newest AKU's</Tip>
    <Guid type="p">4891c3db-5859-4896-a798-d471882960f8</Guid>
  </Item>
  <Item name="Bluetooth Sim Access Profile" group="OEM" checked="true">
    <Tip>Little application created by HTC which enables or disables the access to SIM card over Bluetooth</Tip>
    <Guid type="p">6c9b469e-c054-11db-8314-0800200c9a66</Guid>
  </Item>
  <Item name="A2DP Addon" group="OEM" checked="true">
    <Tip>This addon enables A2DP funcionality for Bluetooth</Tip>
    <Guid type="p">68e46dec-123e-4887-be09-7e31eb8b1634</Guid>
  </Item>
  <Item name="PAN Addon" group="OEM" checked="true">
    <Tip>This addon enables PAN networking for Bluetooth</Tip>
    <Guid type="p">19a7f28b-6bc7-4fe9-b060-76ae3a65ff72</Guid>
  </Item>
</Items>
```

Here is how to add a new package in option.xml:

<Item name="Package name" group="OEM" checked="true">	you should type here the package name, and if you want it to be checked by default type for checked *true*, if you want it to be unchecked by default type for checked *false*
<Tip>Package Description</Tip>	you can type this only if you want description to show as tooltip

<Guid type="p">283b9db7-cb03-4c1b-820e-ca49b2c3b5db</Guid>   type here GUID number of your package, which can be generated at http://www.famkruithof.net/uuid/uuidgen

</Item>   Closes the ITEM tag

How-To build an OEM Package:

An OEM Package is just a simple folder containing files and registry settings for the ROM

First of all you'll need a GUID number for your Package.

Go to http://www.famkruithof.net/uuid/uuidgen to get one.

In my case:

283b9db7-cb03-4c1b-820e-ca49b2c3b5db

Necessary steps:

Create a new folder:

OEM/[Your package name]/

Create a empty text file:

OEM/[Your package name]/283b9db7-cb03-4c1b-820e-ca49b2c3b5db.dsm

(BuildOS.exe will finish this file for you)

If needed:

Create an UNICODE text file:

OEM/[Your package name]/283b9db7-cb03-4c1b-820e-ca49b2c3b5db.rgu

This file could be used to add registry entries to the ROM

First line is:

REGEDIT4

...

and there MUST be a empty line at the end!!

Create an UNICODE text file:

OEM/[Your package name]/initflashfiles.txt

This file could be used to create folders or copy files on the ROM.

Copy all files you need to OEM/[Your package name]/

*Taken from a bepe's post at www.buzzdev.net and edited a little by me

Here is a map where you can find things for customizing (SYS folder of course)

Media Player Skin - Base_DPI_96

Dialer Skin - Phone_DPI_96

.NET Framework – NetCF

Default Ringtones - PhoneRedist_Lang_0409

Welcome and setup screens - Redist_DPI_96, Redist_Lang_0409_DPI_96

Package tool

Package Tool is an extension to Mamaich's imgfs tools

- Main function of this tool is to build packages for a new Rom Kitchen I'm working on

- Using this tool you can also extract the following information after creating a dump folder using viewimgfs.exe:

- **Core OS**
  Value: "Windows Mobile-based Pocket PC" or "Windows Mobile-based Smartphone"
- **Versions**
  Shows the version of the packages
  - **SYS**
    This is the OS version
    The example shows Crossbow, CE 5.2 Build:15341 AKU 0
  - **NET**
    This is the .NET Compact Framework version

- o **OEM**
    This is the version of the OEM packages
    The example shows only one,
    but I've also seen ROMs with different versions for each OEM package.
    In that case there would be multiple OEM entries
- **Language**
  The LANGID and the language of the ROM
- **DPI**
  The DPI (dots per inch) of the resources
  this also depends on the resolution of the device
  Value: 96 or 128 or 131 or 192
- **Certificates**
  List of all certificates used for the packages.
  The OS is signed my Microsoft and the OEM packages are using a certificate from the OEM
- **Missing Manifests**
  This is a list of all packages that are missing inside the dump folder.
  It is normal that there are missing packages, because the packages from the boot section
  (XIP) are missing... don't worry about them
- **Missing Files**
  This lists all missing files.
  Someone edited the ROM or removed files from the dump folder!

Example:
Code:

```
[Selected Path]
  C:\dump

[Core OS]
  Windows Mobile-based Pocket PCs

[Versions]
  SYS: 5.2.15341.0
  OEM: 2.18.0.0
  NET: 2.0.6129.0

[Language]
  0409 - English (United States)

[DPI]
  96

[Certificates]
  CN=Microsoft Windows Mobile PCA, O=Microsoft Corporation, L=Redmond,
S=Washington, C=US
  CN=OEM Sign 2005

[Missing Manifests]
  d92a4f0a-378a-4482-8fd3-bd127a05e4de.dsm
  723fb954-d931-4348-b672-82a188e587b5.dsm
  13cb07c1-20b6-567f-dfcc-39d58b95e374.dsm
```

This tool is very useful for analyzing an unknown ROM, especially to extract the OS version and it will be much more useful after the release of the new ROM Kitchen.

It is also possible to execute the tool using the command line

- **Usage:** PKGTool.exe <path to the dumped ROM> - This would just create packages, without any output
  Because of this usage, you can just drag & drop the dump folder onto the tool
  About the package names
  The names of the packages can be extracted from the dump folders for WM6, but WM5 contains GUIDs instead of names.
  To provide the ease of WM6 "Package Names" for previous (i.e. WM5) ROMs, the tool collects all package names inside map.txt and replaces the GUIDs with the actual Package Names.
  You must let the tool read a WM6 dump to collect the Package Names before it can replace WM5 GUIDs.
  e.g.
  - Building packages from a WM5 dump creates: 1bc57b2f-c0f3-46c6-8c2a-257952317eac
  - Building packages from a WM6 dump creates: OEM_Lang_0409

- Building packages from a WM5 after it was used for a WM6 ROM also creates: OEM_Lang_0409
Extending the map.txt can be disabled by: Menu - Tools - Expand Map

taken from official thread at http://forum.xda-developers.com/showthread.php?t=296861

3. Useful HOWTO's

- **Bootloader mode**
  Press and hold following buttons until "Serial" shows on screen

- **Soft Reset**

- **WM5 Hard Reset**
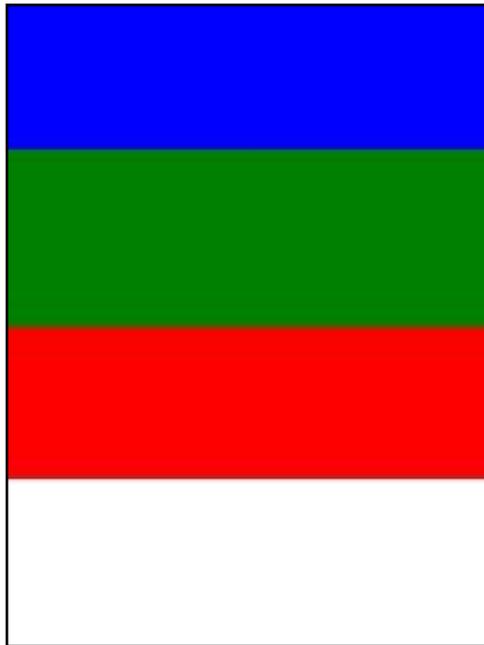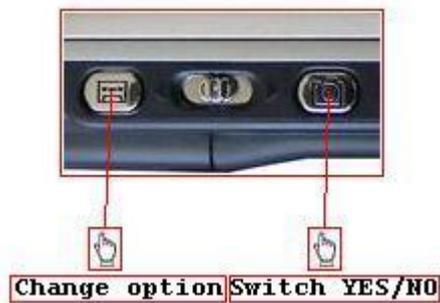
Perform Soft Reset (see up)

On this screen Press and hold following buttons
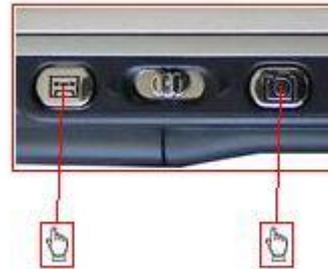
This should appear onscreen

Boot options:

Enable KITL   NO
Clean Registry Hive   NO
Format Storage   NO

R 1.15.00
G 1337.45
D 5.35.04.WWE

Change option | Switch YES/NO

"Enable KITL" must be NO

"Clean Registry Hive" must be YES

"Format Storage" must be YES

After setting values properly press the mail button -

Your screen will be white for a minute, and after that the device will boot to the Welcome Screen

- **Once Again Rom Upgrading Procedure (WM5 only)**
    1. Put your device in Bootloader mode
    2. Place your device to the cradle
    3. Run software upgrade utility and follow the onscreen instructions
    4. Perform WM5 Hard Reset

- **Using MTTY to make your device boot again**

    You can download MTTY from here : http://file2upload.com/file/33883/mtty-rar.html

    We will use this software to instruct the boot loader what to do

    But first we should perform some tasks

    Put your device in bootloader mode (explained it how, see up in the document) and place it to the cradle

    Stop ActiveSync, by Task Manager (press Ctrl + Shift + Escape) kill two processes rapimgr.exe and wcescomm.exe (right click on the process and select "End Process Tree")

    Download MTTY from the link (you can find many mirrors of it, but I am 100% that this one works, also you may find link to it somewhere in xda-developers.com forums)
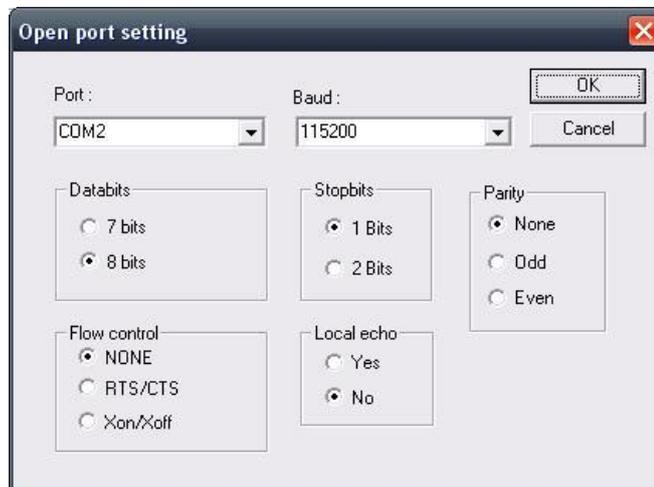
    MTTY is archived in a RAR file, you will need WinRAR or archiver which supports the RAR format to open it (extract it)

    Trial version of WinRAR can be found here: http://rarlabs.com/download.htm
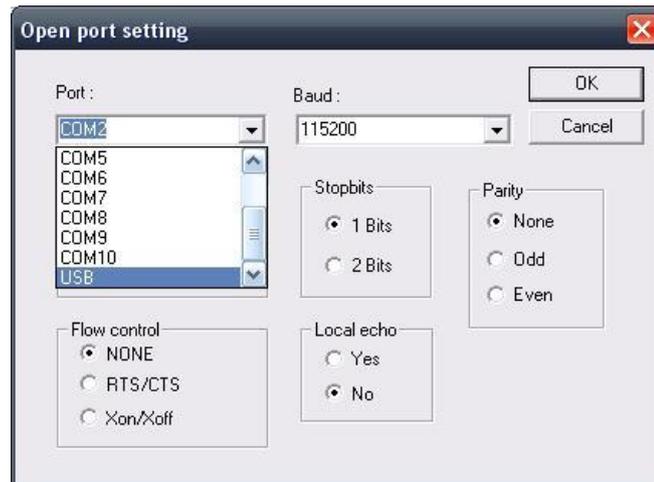
    Then extract the archive to a folder in your PC
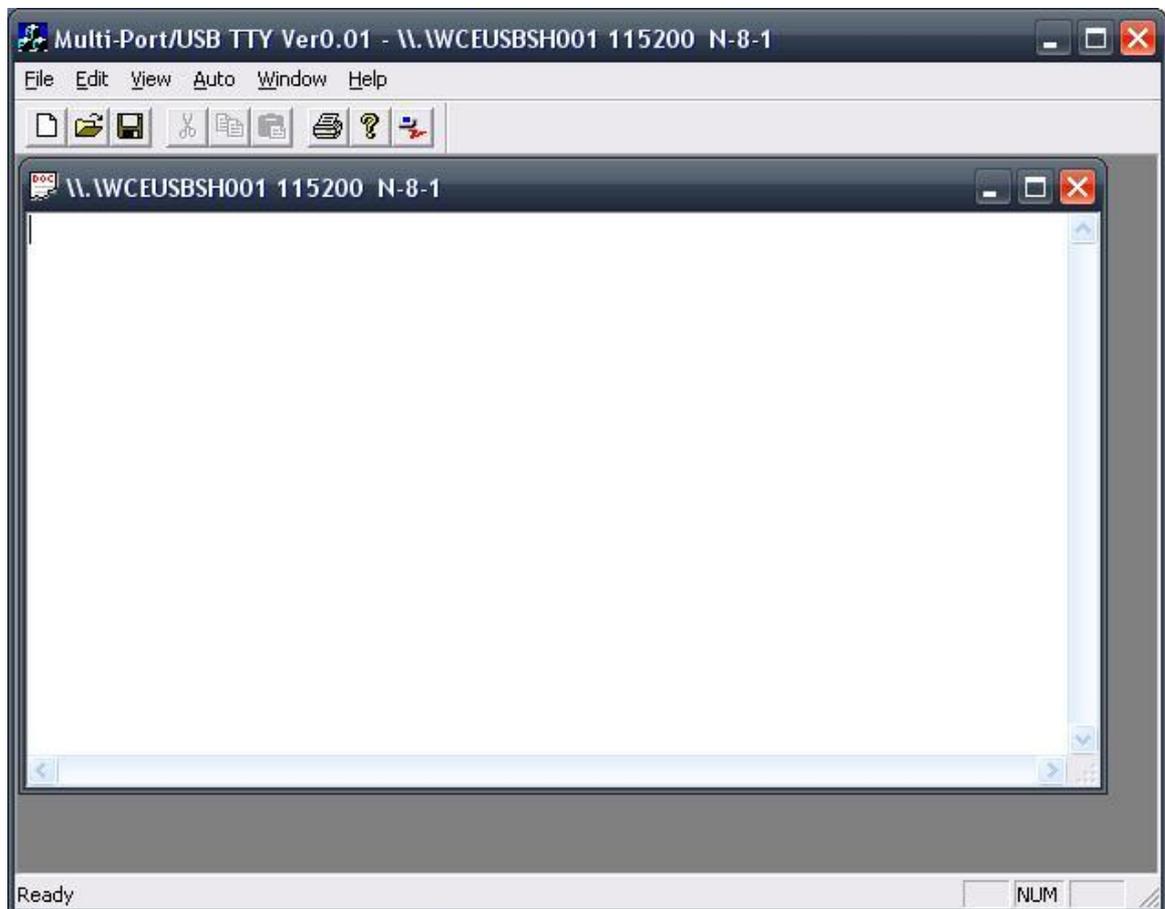
    Run MTTY.exe

    And you will see this screen

    Press the down pointing arrow for Port and select USB from the dropdown menu (or just see next picture) and press OK

    After pressing OK you wull see the following screen

type "set 14 0" without the quotes and press enter to tell bootloader to boot the OS after reset.

type "task 28" without the quotes and press enter to get your device formatted

type "task 0" without the quotes and press enter to ask your device reboot

take the device out of the cradle, and manually reset it if it does not do that already.

4. **Side Notes**

In cooking it is very important to not exceed free sectors of the rom, if you do there are 2 things that may happen if you flash that rom, first is the device will not boot but after flashing good rom it will boot again, and second is the device will never boot again (brick, paperweight, call it whatever you like)

You will ask why not to add more packages from SYS folder to the option.xml located in the same folder – because the produced rom will not boot

You will ask why the Terminal Services Client is unchecked – because they cannot coexist with Remote desktop mobile from WM6, I just left it if someone needs it instead RDM from WM6

With this type of rom kitchen you can made unlimited OEM packages and just select the needed ones for your rom