Vortex86SX/DX/MX Windows CE BSP Note

2010-07-23

After installing BSP, please read below note to get start of Windows CE development.
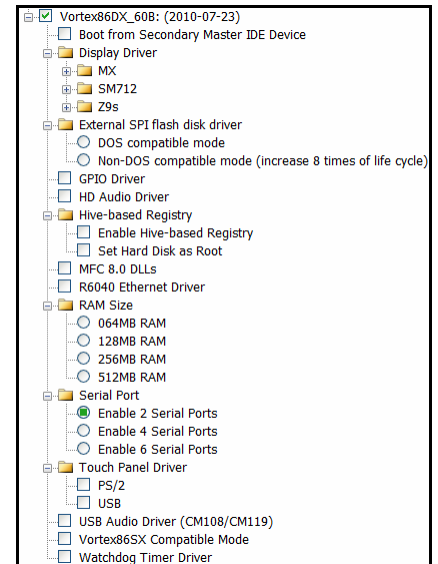
Install QFE

Download and Install QFE "**Windows Embedded CE 6.0 Cumulative Product Update Rollup 2009**" and "**Windows Embedded CE 6.0 Monthly Updates**" from http://msdn.microsoft.com/zh-tw/windowsembedded/ce/dd430902(en-us).aspx#ce6. Please check this link to get newest Windows CE environment.

IDE Issue for Vortex86DX Version D

In order to make IDE work on Vortex86DX version D, please set IDE as **native mode** in BIOS.
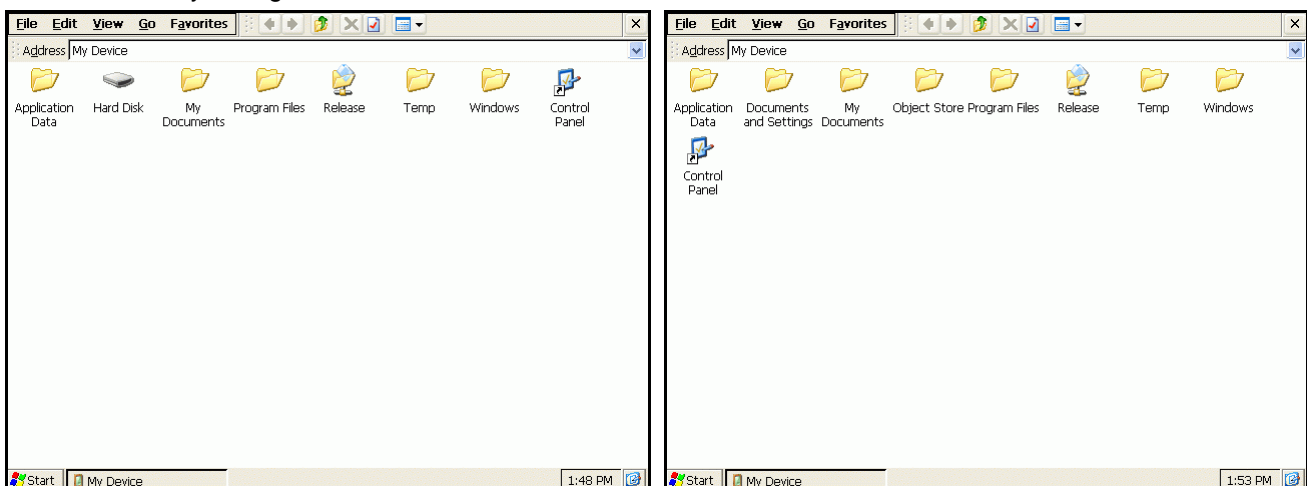

(Vortex86DX BSP Options)

Boot from Secondary Master IDE Device

Some CF or DOM on Vortex86SX/DX board is set as master device of secondary IDE (for example: eBox-3300A). Please enable this option to make them work properly.

Hive-based Registry

If developer need hive-based registry to save settings in storage, enable this option in BSP to add essentials components. Registry will saved onto hard disk as left picture. If "Set hard disk as root" is checked, Windows CE will use DOM or hard disk as root (right picture). It needs more time to boot because Windows CE will extract image onto hard disk. Any change to root will be saved.

XGI Z9s Display Driver

Z9s graphic chipset is for most Vortex86DX boards with video function. Vortex86DX BSP will not add XGI Z9s display driver by default. If your evaluation boards have video function, select one display resolution.

SMI SM712 Display Driver

Some boards will use SMI SM712 for graphic solution. Developers can select display mode in BSP to enable SM712 in Windows CE. It can work properly with CRT for most case. If you have trouble with SIM712 for display (ex: LCD support), please contact soc@dmp.com.tw or SMI.

Vortex86MX Display Driver

There is built-in VGA in Vorex86MX SoC. It can work properly with CRT for most case.
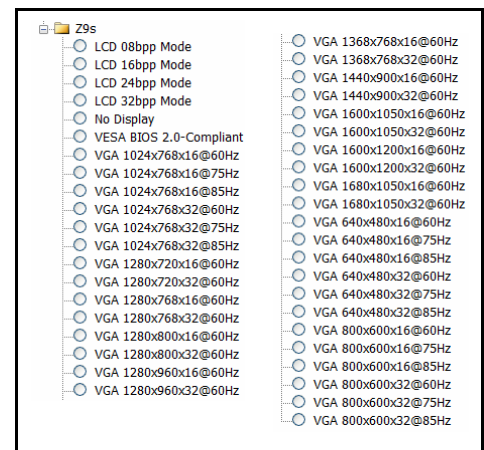
Vortex86SX

For Vortex86SX users, please select "Vortex86SX Compatible Mode" in BSP to enable floating point emulation in Windows CE image.

(Z9s modes)

(SM712 modes)

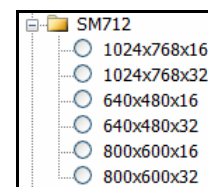(MX VGA modes)

R6040 Ethernet

R6040 is the built-in 10/100Mb Ethernet in Vortex86DX SoC. In order to use KITL to debug, please use eboot.bin at "Vortex86DX_60B\Src\Bootloader\eBoot\bin\".
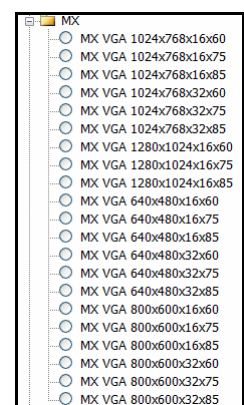
Serial Ports

Debug serial port on COM1 is disabled by default in BSP. If developers need it, please edit function OEMInitDebugSerial () in "\WINCE600\PLATFORM\Vortex86DX_60B\SRC\DRIVERS\OTHER\debug.c" to remove line 197.

History

2010-08-11

- Correct Z9s VGA modes.

2010-07-23

- Add GPIO and watchdog timer driver.
- Add HD audio driver for Vortex86MX.
- Update SPI flash disk driver.
- Update Vortex86MX VGA driver modes.

2010-06-21

- Add Vortex86MX VGA support.
- Add PS/2 touch panel driver in Vortex86DX2.

2010-05-28

- Fix registry settings for new IDE in Vortex86DX version D and newer.
- Add SMI SM712 support.

2009-10-28

- Support Vortex86DX version D.
- Add VESA VGA option in BSP.
- Add SPI flash disk support.

2009-08-20

- Add "No Display" option in Z9s driver.
- Support new IDE for Vortex86DX version D.

2009-03-24

- Fix registry settings for 4 serial port work together.

2009-03-19

- Fix registry settings for 4th serial port.

2009-03-03

- Add "Mount as Root" option for hive-based registry.

2009-02-17

- Fix: hive-based registry issue.

2009-01-22

- Add options for MFC 8.0 and 64M RAM size.
- Fix: booting from secondary master IDE device issue.

2008-12-25

- Add options for display resolution, USB audio, USB touch panel and RAM size.

Technical Support

For more technical support, please visit http://www.dmp.com.tw/tech/vortex86dx or mail to soc@dmp.com.tw.