

128M sdram configuration

Source:

<http://www.tech-archive.net/Archive/WindowsCE/microsoft.public.windowsce.platbuilder/2008-04/msg00736.html>

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dear all,
I know this might be an old question for u guys,
but I really met some troubles within it.

My platform is:
CPU : Xscale
OS : Windows CE .Net 4.2
Flash : 32MB
SDRAM : 128MB (32MBX4)

Now I want to set the configuration of 128M SDRAM.
following some suggestions,I modified the some files below,
but it does not work..

now,I list my main modification:

////////////////////////////////////

config.bib

////////////////////////////////////

```
MEMORY
IF IMGFLASH !
NK 800B8000 02000000 RAMIMAGE
RAM 820B8000 05C00000 RAM
EDBG 87F8D000 00020000 RESERVED
ENDIF
AUD_DMA 87CB8000 0000A000 RESERVED
SLEEP_SAV 87CC2000 00001000 RESERVED
DRV_GLB 87CC3000 00001000 RESERVED
CACHE_FLG 87CC4000 0003C000 RESERVED
DISPLAY 87D00000 00130000 RESERVED
BLOCK_BUF 87E30000 00080000 RESERVED
UNUSED_BUF 87EB0000 000DD000 RESERVED
```

```
whql_sig 00000001 00002000 EXTENSION
ZBANK 88000000 00100000 RESERVED
```

```
CONFIG
IF IMGFLASH !
AUTOSIZE=ON
ENDIF
```

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```
IF IMGFLASH !
ROMSTART=800B8000
ROMWIDTH=32
ENDIF
ROMSIZE=01D00000
```

```
////////////////////////////////////
```

```
memmap.inc
```

```
////////////////////////////////////
```

```
DCD SDRAM_BASE_C_VIRTUAL,SDRAM_BASE_PHYSICAL,128
DCD ZBANK_BASE_C_VIRTUAL, ZBANK_BASE_PHYSICAL, 1 DCD
MEMC_BASE_C_VIRTUAL, MEMC_BASE_PHYSICAL, 1 DCD
PERIF_BASE_C_VIRTUAL, PERIF_BASE_PHYSICAL,32 DCD
PCMCIA_S0_IO_C_VIRTUAL, PCMCIA_S0_IO_PHYSICAL, 32 DCD
PCMCIA_S0_ATTR_C_VIRTUAL, PCMCIA_S0_ATTR_PHYSICAL, 32
DCD PCMCIA_S0_CMN_C_VIRTUAL, PCMCIA_S0_CMN_PHYSICAL,
64
DCD PCMCIA_S1_IO_C_VIRTUAL, PCMCIA_S1_IO_PHYSICAL,32
DCD PCMCIA_S1_ATTR_C_VIRTUAL, PCMCIA_S1_ATTR_PHYSICAL,
32
DCD PCMCIA_S1_CMN_C_VIRTUAL, PCMCIA_S1_CMN_PHYSICAL,
64
DCD LCD_BASE_C_VIRTUAL,
LCD_BASE_PHYSICAL, 1
DCD BOOT_FLASH_BASE_C_VIRTUAL, BOOT_FLASH_BASE_PHYSICAL,
32
DCD CS8900A_BASE_C_VIRTUAL, CS8900A_BASE_PHYSICAL,
1
DCD XHYPER255B_PERI_C_VIRTUAL, XHYPER255B_PERI_PHYSICAL, 5
DCD CY7C67300_BASE_C_VIRTUAL,
CY7C67300_BASE_PHYSICAL, 1
DCD nCS4_BASE_C_VIRTUAL,
nCS4_BASE_PHYSICAL, 8
DCD nCS5_BASE_C_VIRTUAL,
nCS5_BASE_PHYSICAL, 8
DCD 0x00000000, 0x00000000, 0
```

then,I changed xsc1.h,xsc1.inc,xsc1bd.h,xsc1bd.inc to
be in sync with config.bib and OEMAddressTable,
and I checked a lot ,there's no problem with them.

```
////////////////////////////////////
```

and in memdefs.h, I was a little confused about the codes below:
and I modified the two values which I marked to sync.

```
////////////////////////////////////
```

```
#ifndef SABINAL
```

```
//
```

```
// Cotulla-32 Defs
```

```
//
```

```
#define MEM_BASE_PHYSICAL 0xA3CB8000
```

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```
#define MEM_BASE_C_VIRTUAL 0x87CB8000 //modified
#define EDBG_PHYSICAL_MEMORY_START 0x87F8D000 //modified
#else
//
// Sabinal Defs
//this seems not used,so I do not modify the value
#define MEM_BASE_PHYSICAL 0xA1CB8000
#define MEM_BASE_C_VIRTUAL 0x81CB8000
#define EDBG_PHYSICAL_MEMORY_START 0x81F8D000
#endif
```

```
////////////////////////////////////
in the end,I also changed the value in xsc1bd.inc
MDCNFG_VAL EQU 0x0AC80ACB
; Setup default MDCNFG value for 128MB SDRAM
```

when all of them had done,I download the NK.bin,
and the debug information shows:

```
rom_offset=0x0.
Found pTOC signature.
ROMHDR at Address 800B8044h
RomHdr.ulRAMStart=81C50000h RomHdr.physfirst=800B8000h.
Done.
Writing 0x80076BD8 to flash address 0xB8340000 (length=0xA40).
Sector=0x200 (Length=0x6) Block=0x1 (Length=0x1).
Handling non-block aligned data...
FlashErase: Unlocking flash block(s) [0x1, 0x1] (please wait): Done.
Erasing flash block(s) [0x1, 0x1] (please wait): .Done.
Writing to flash (please wait): Done.
Got EDBG_CMD_JUMPIMG
Got EDBG_CMD_CONFIG, flags:0x00000000
Download successful! Jumping to image at physical 0xA00B9000...
Begin
*****
*****
*****
*****
*****
OEMInitDebugSerial using UART2
Windows CE Kernel for ARM Built on Mar 13 2003 at 22:54:19
ProcessorType=02d0 Revision=6
sp_abt=ffff5000 sp_irq=ffff2800 sp_undef=ffffc800 OEMAddressTable =
800b9ef4
```

as u see,my system hang at last,
if in normal,sp=ffffc7cc should be printed behind
OEMAddressTable = 800b9ef4
but now,system hang there....

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Anybody has experience ?
could u give me some advice?
I so appreciate it, thank u a lot.