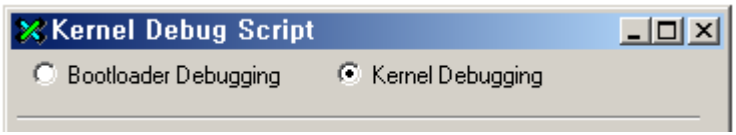
How to debug kernel

Script file to debug kernel connects j-tag debugger to CPU of target board, after target board is booted up in NAND boot mode.
Then It just loads symbol information of executed image.

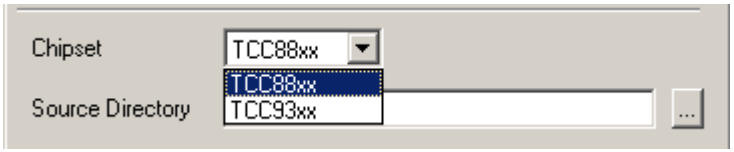
Chipset and android root directory information should be selected to debug kernel as below 3, 4.
Be careful that built image of source directory and downloaded image of target board should be the same.

1. Execute toolsWDebugScriptWDebug.cmm using j-tag debugger.

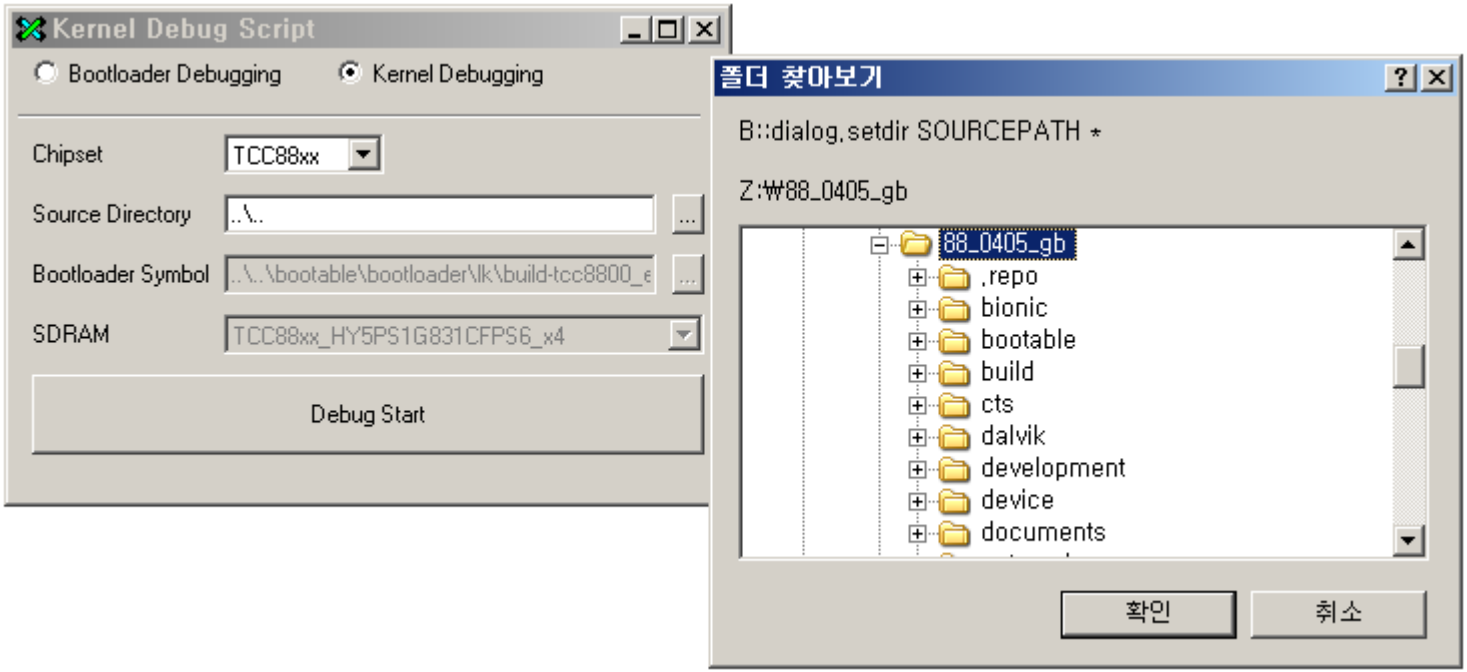
2. Select Kernel Debugging.



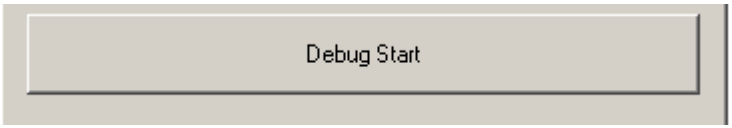
3. Select Chipset .



4. Select android root directory.
   The default source directory is ..₩.. .
   If Debug.cmm is in tools₩DebugScript₩ , It is not specifically necessary to select source directory.



5. First Boot up target board in NAND boot mode, then push quickly Debug Start button.



6. After bootloader booting is completed, j-tag debugger will stop at start_kernel function.
From now on, start debugging.

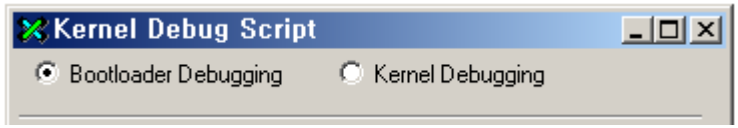
How to debug bootloader

Boot mode of Target board should be set to USB boot mode for debugging bootloader.
After TCC chip is booted up in USB boot mode, script file initialize SDRAM.
Then the script file downloads bootloader image to SDRAM and executes downloaded image.

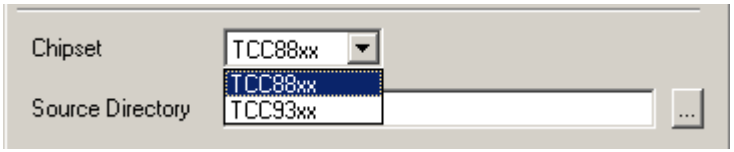
Chipset and android root directory, bootloader symbol file, sdram type information should be selected to debug bootloader as below 3, 4, 5, 6.

1. Execute tools₩DebugScript₩Debug.cmm using j-tag debugger.

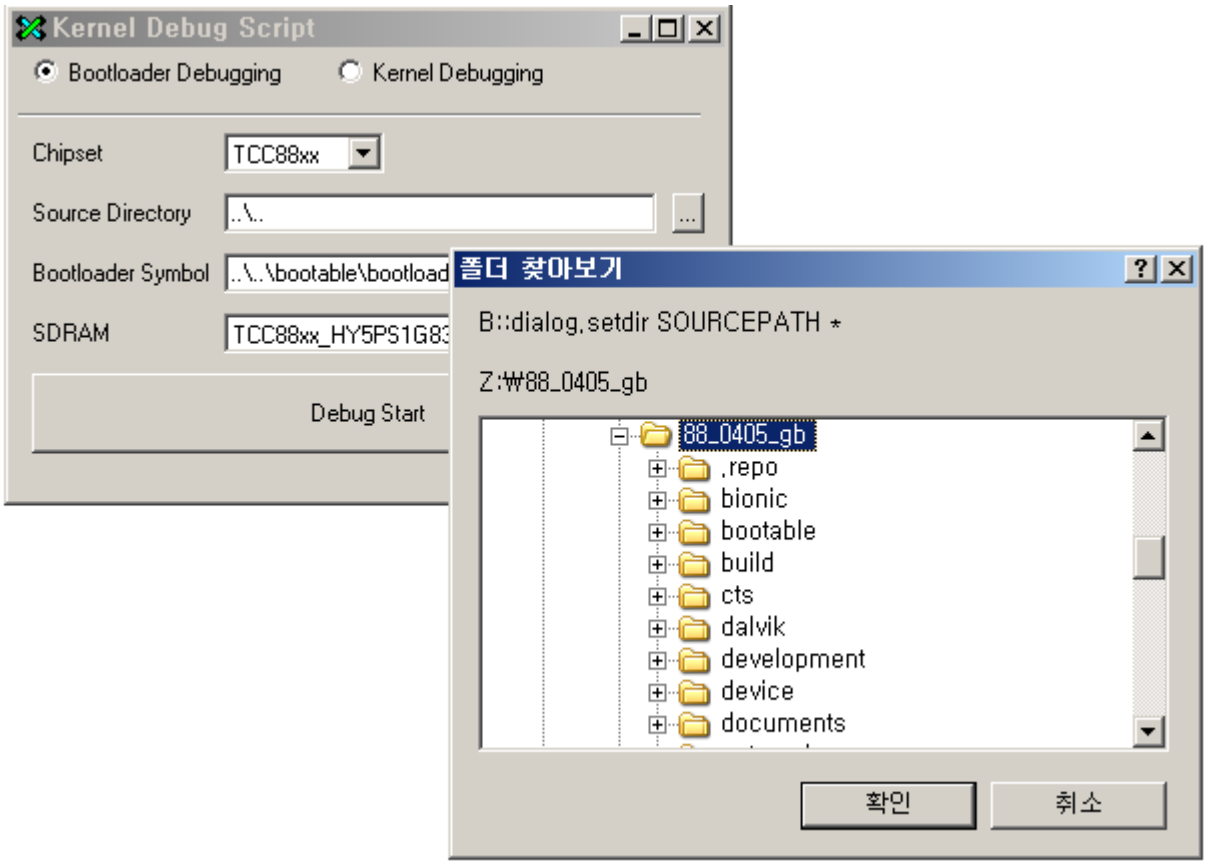
2. Select Bootloader Debugging.



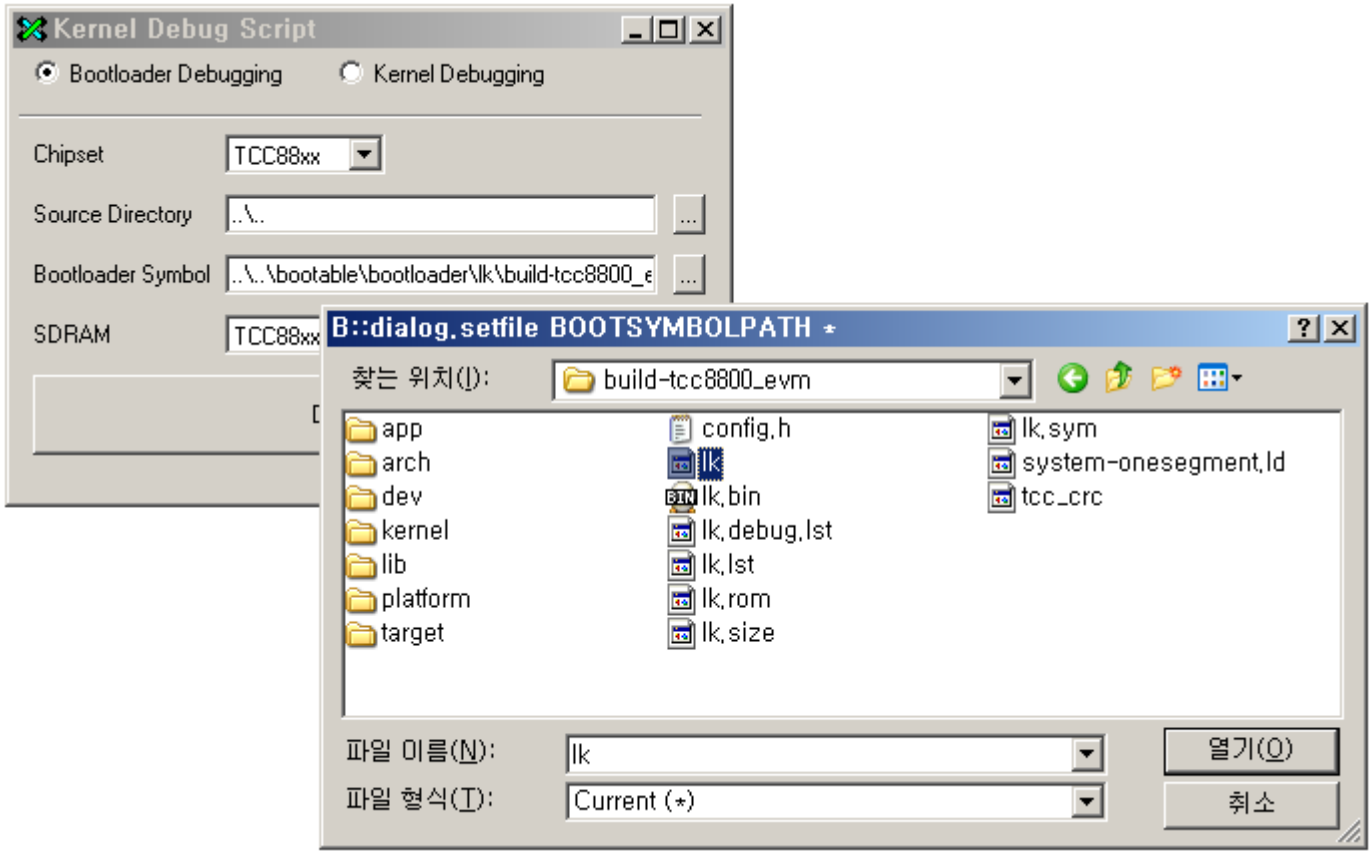
3. Select Chipset .



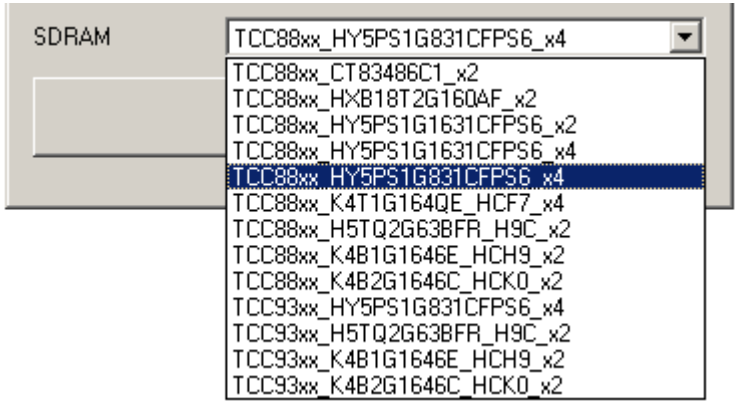
4. Select android root directory.
   The default source directory is ..₩.. .
   If Debug.cmm is in tools₩DebugScript₩ , It is not specifically necessary to choose source directory.



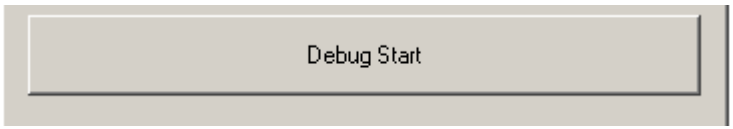
5. Select bootloader symbol file.
   In case of lk bootloader, symbol file of the bootloader is bootable₩bootloader₩lk₩build-xxxx-evm₩lk .



6. Select SDRAM type.
   * naming rule : TCC88xx_HY5PS1G831CFPS6_x4
      1) TCC88xx : the type of useable chipset
      2) HY5PS1G831CFPS6 : SDRAM part number
      3) x4 : the number of SDRAM on target board



7. First Boot up target board in USB boot mode, then push Debug Start button.
   It is not necessary to push the button quickly like kernel debugging.



8. After SDRAM initialization and bootloader image downloading are completed, j-tag debugger will stop at kmain function.
   From now on, start debugging.