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Lab 02 Questions

CPTS 460

Prof. KC Wang.

MK file questions

1. What does the command “arm-none-eabi-as -mcpu=arm926ej-s ts.s -o ts.o do?
   1. That command assembles the ts.s file into an arm compatible object files.
2. What does the command “arm-none-eabi-gcc -c -mcpu=arm926ej-s t.c -o t.o” do?
   1. It compiles the t.c file into an arm compatible object file.
3. What does the command “arm-none-eabi-ld -T t.ld ts.o t.o -o t.elf” do?
   1. It links the t.ld ts.o and t.o files into a linux compatible elf (lit. Executable Linux File) that is executable on ARM processors.
4. What does the command “arm-none-eabi-objcopy -O binary t.elf t.bin” do?
   1. It converts the ELF file into natively executable ARM machine code, removing the Linux specific header.

T.LD File Questions

1. What does the memory map of the image file generated by the linker look like?
   1. [  
       Text   
       Contains the executable code in the image.  
       Data   
       initialized global and static variables, and static constants.  
       BSS  
       unintialized and static variables, not given space in the executable image,  
       but populated upon execution.  
      ]