

Eclipse setup for debugging ESP32

install openOCD:

https://www.google.nl/url?sa=t&rct=j&q=&esrc=s&source=web&cd=5&ved=0ahUKEwj--tyz9MbUAhXKJIAKHS2KAZEqFghRMAQ&url=https://espressif.com/sites/default/files/documentation/jtag_debugging_for_esp32_en.pdf&usq=AFQjCNGv3TyVUBk-9mVMpR0QWfbddtHyA&sig2=2QzGwSM8zKBKxZOBIAnDug

In eclipse:

set preferences :

Workspace items :

environment:

PATH /media/linuxData/ESP32/workspace/esp-idf

IDF_PATH /media/linuxData/ESP32/workspace/esp-idf

rest:

follow instructions in <https://esp-idf.readthedocs.io/en/v2.0/eclipse-setup.html>

Debugger:

in External Tools Configuration:

make new item openOCDserver:

location: <path to openOCD> /media/linuxData/ESP32/openOCD/openocd-esp32/src/openocd

Arguments: -f <path to .cfg> /media/linuxData/ESP32/workspace/esp32.cfg

See the OpenOCD doc for the right cfg. I use a all-in-one cfg, assembled from openOCD scripts.

Disable auto build.

run external tool openOCDserver.

You see in console something like: (with a segger Jlink edu)

adapter speed: 8000 kHz

force hard breakpoints

Info : No device selected, using first device.

Info : J-Link ARM V8 compiled Nov 28 2014 13:44:46

Info : Hardware version: 8.00

Info : VTarget = 3.319 V

Info : clock speed 8000 kHz

Info : JTAG tap: esp32.cpu0 tap/device found: 0x120034e5 (mfg: 0x272 (Tensilica), part: 0x2003, ver: 0x1)

Info : JTAG tap: esp32.cpu1 tap/device found: 0x120034e5 (mfg: 0x272 (Tensilica), part: 0x2003, ver: 0x1)

Info : esp32.cpu0: Debug controller was reset (pwrstat=0x5F, after clear 0x0F).

Info : esp32.cpu0: Core was reset (pwrstat=0x5F, after clear 0x0F).

Info : esp32.cpu1: Debug controller was reset (pwrstat=0x5F, after clear 0x0F).

Info : esp32.cpu1: Core was reset (pwrstat=0x5F, after clear 0x0F).

Debug configuration create new:

GDB- Hardware Debugging (NOT OpenOCD debugging!)

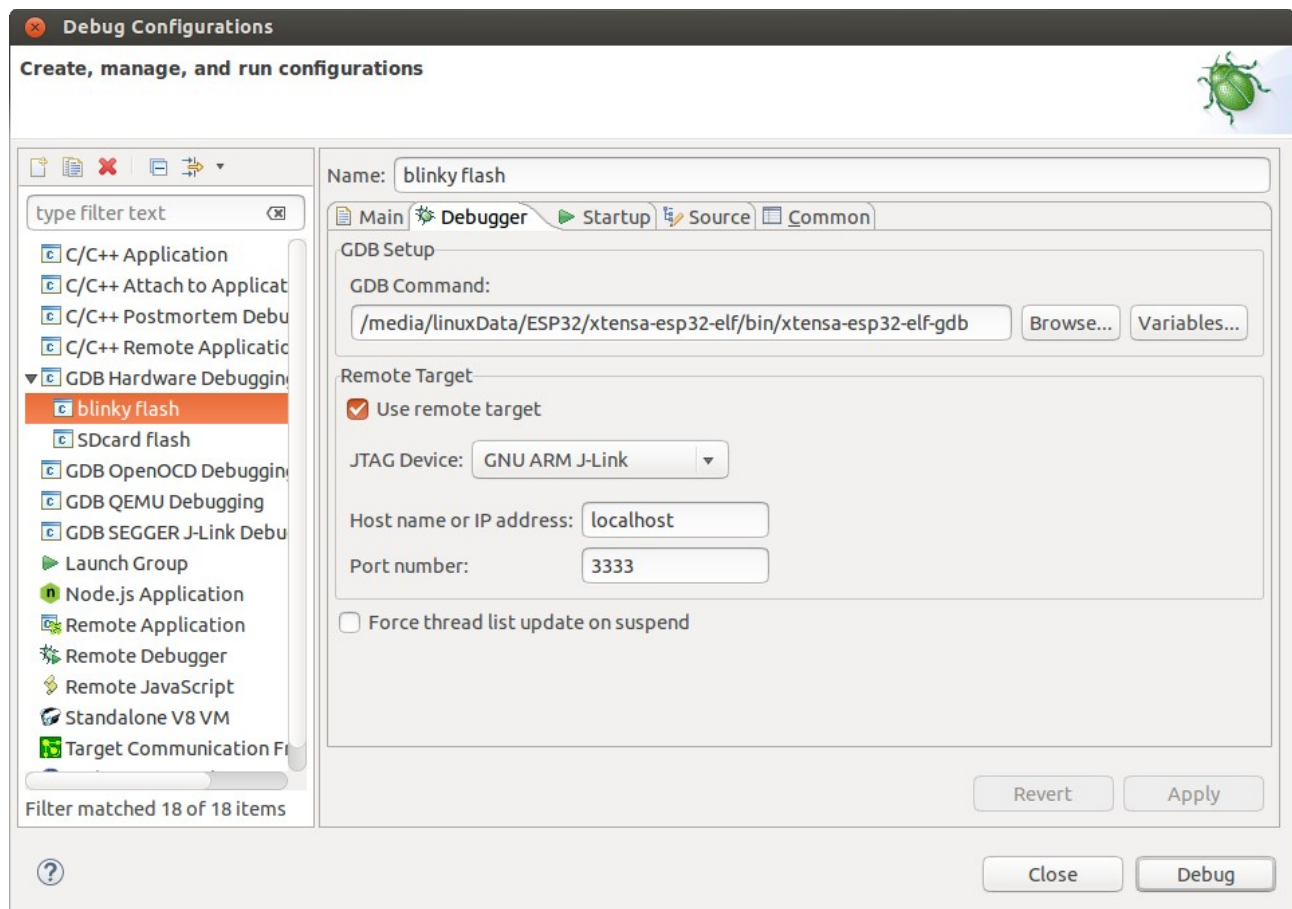
Main tab: select .elf application

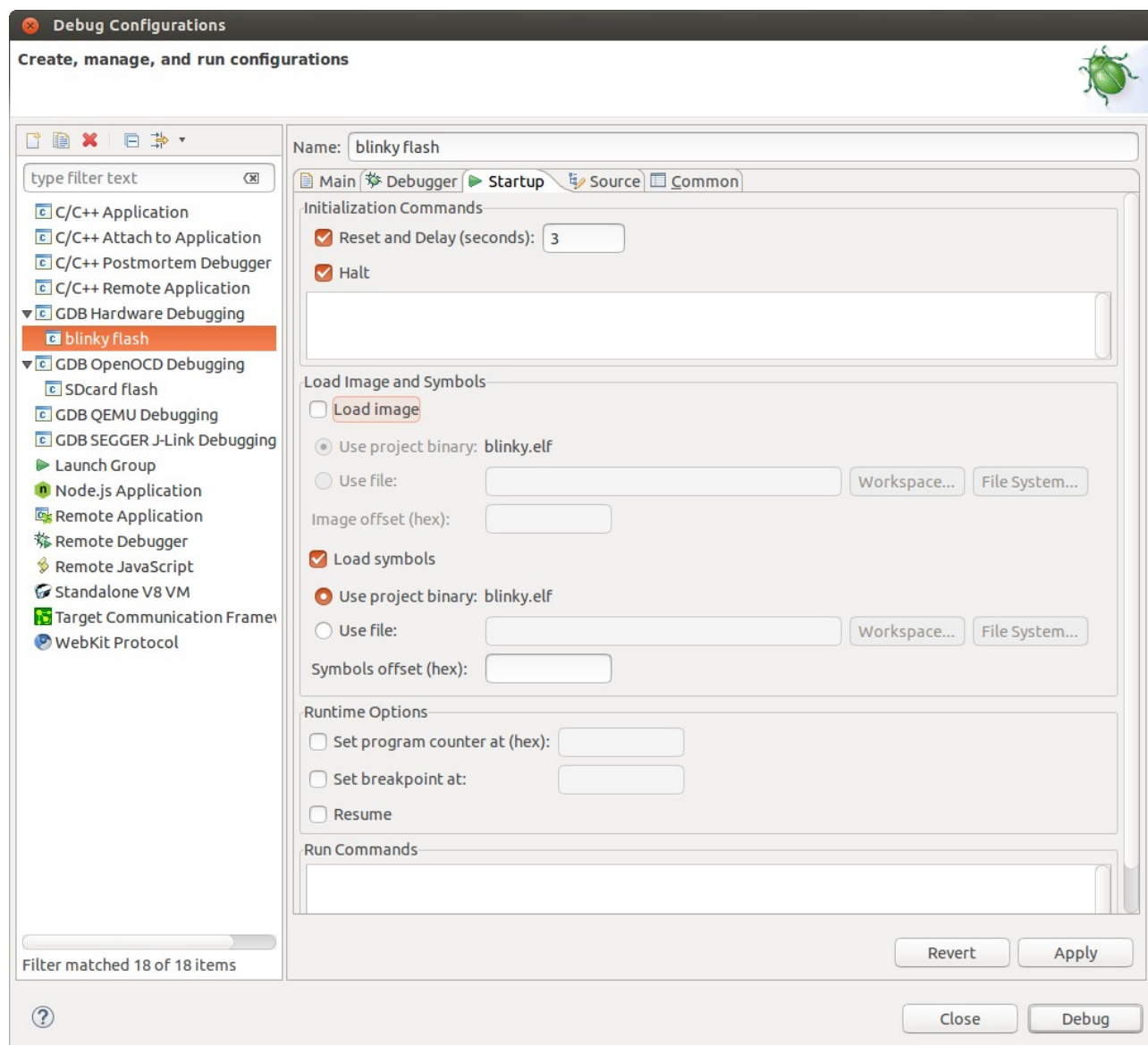
Disable auto build

GDB command < path to gdb esp32>

/media/linuxData/ESP32/xtensa-esp32-elf/bin/xtensa-esp32-elf-gdb

remote target port 3333





OpenOCD does not support flashing. Use `make -flash` to flash the chip over the serial port.
Run the debugger with a running server:

