

openocd -- 目前在ubuntu 16.04系统上测试成功

openocd使用

```
jtag_rest 1 0          -- 复位jtag和TMS组合而成，如果有trstn的话，则产生trstn
irscan zynq.dap 0x5    -- 往tap寄存器写IR指令为0x5， TAP在target.cfg文件中定义jtag newtap
drscan zynq.dap 16 0x4321 -- 向指定TAP输入DR数据，长度为16，数据为0x4321
```

--- 注意，一定要先指定TAP IR, 然后才可以向 DR进行输入数据，不然openocd会报错退出 --- openocd使用tcl语法进行配置，可以使用telnet进行连接

ft2232h.cfg

```
interface ftdi
ftdi_vid_pid 0x0403 0x6010
ftdi_channel 0
ftdi_layout_init 0x08 0x0b
```

target.cfg

```
set _CHIPNAME zynq
jtag newtap $_CHIPNAME dap -irlen 8 -ircapture 0x01 -irmask 0x03

adapter_khz 5000
```

启动openocd服务 `sudo openocd -f ft2232h.cfg -f target.cfg`

## 1. RPC server

OpenOCD provides a simple RPC server that allows to run arbitrary Tcl commands and receive the results. To access it, your application needs to connect to a configured TCP port (see `tcl_port`). Then it can pass any string to the interpreter terminating it with `0x1a` and wait for the return value (it will be terminated with `0x1a` as well). This can be repeated as many times as desired without reopening the connection. Remember that most of the OpenOCD commands need to be prefixed with `ocd_` to get the results back. Sometimes you might also need the capture command. See `contrib/rpc_examples/` for specific client implementations.

可以参考openocd包目录`contrib/rpc_examples/`下的例子。

