The remote_bitbang JTAG driver is used to drive JTAG from a remote process. The remote_bitbang driver communicates via TCP or UNIX sockets with some remote process using an ASCII encoding of the bitbang interface. The remote process presumably then drives the JTAG however it pleases. The remote process should act as a server, listening for connections from the openocd remote_bitbang driver.

The remote bitbang driver is useful for debugging software running on processors which are being simulated.

The bitbang interface consists of the following functions.

blink on

Blink a light somewhere. The argument on is either 1 or 0.

read

Sample the value of tdo.

write tck tms tdi

Set the value of tck, tms, and tdi.

reset trst srst

Set the value of trst, srst.

An additional function, quit, is added to the remote_bitbang interface to indicate there will be no more requests and the connection with the remote driver should be closed.

These five functions are encoded in ASCII by assigning a single character to each possible request. The assignments are:

- B Blink on
- b Blink off
- R Read request
- Q Quit request
- 0 Write 0 0 0
- 1 Write 0 0 1
- 2 Write 0 1 0
- 3 Write 0 1 1
- 4 Write 1 0 0
- 5 Write 1 0 1
- 6 Write 1 1 0
- 7 Write 1 1 1 r - Reset 0 0
- s Reset 0 1
- t Reset 1 0
- u Reset 1 1

The read response is encoded in ASCII as either digit 0 or 1.