

Interfacing FlashRunner 2.0 with the STD_JTAG driver

Algorithm Notes

Below the protocol supported:

- JTAG [fixed at 650kHz]

Parameters List

PIN_TCK

Set the DIO to use for TCK signal. (Default DIO2)

PIN_TMS

Set the DIO to use for TMS signal. (Default DIO5)

PIN_TDO

Set the DIO to use for TDO signal. (Default DIO3)

PIN_TDI

Set the DIO to use for TDI signal. (Default DIO4)

PIN_TRST

Set the DIO to use for TRST signal. (Default DIO0)

PIN_RST

Set the DIO to use for RST signal. (Default DIO1)

Commands List

Memory type:

S → SVF
X → XSUF

CONNECT

Connect command: Power-on.

SCAN

Scan the JTAG chain reporting the IDCODE of every device connected.

RST

RST <ON | OFF | Z>

Set the state of RST line. The SVF standard defines ON as active (low), OFF as inactive (high), and Z as high impedance.

TRST

TRST <ON | OFF | Z>

Set the state of TRST line. The SVF standard defines ON as active (low), OFF as inactive (high), and Z as high impedance.

PLAY

Launch the execution of the SVF file inserted into the FRB (Maximum size 8KB).

The user can execute only one PLAY or PLAY_X operation.

PLAY_X

Launch the execution of the XSVF file inserted into the FRB (Maximum size 2KB).

The user can execute only one PLAY or PLAY_X operation.

SIR

SIR, SDR, etc

All the standard SVF commands can be placed into the project file preceded by "#TPCMD".

For example: #TPCMD SDR 32 TDI (FFFFFFFF) SMASK (0) TDO (11140041) MASK (FFFFFFFF);

The user can execute a maximum of 20 operations of this kind.

SVF operations

Since the driver is based on an SVF player, it accepts any standard SVF command.

If you are not familiar with SVF standard, please, see this application note by Xilinx:

https://www.xilinx.com/support/documentation/application_notes/xapp503.pdf

To place an SVF or XSVF into the FRB, you just need to treat it like a binary file.