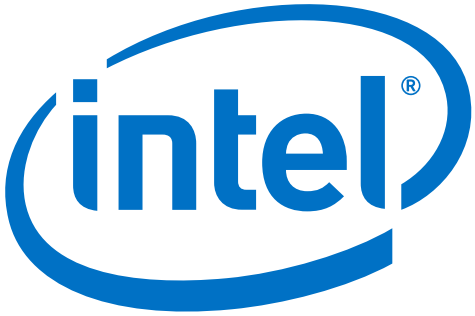

Movidius™

moviDebugServer

Manual

Version 00.90.0 / 2018-05-18

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1. Introduction

Movidius Debug Server (moviDebugServer) is an application that is used to provide the link between the moviDebug2 (Movidius Debugger) and the hardware targets (ASIC or FPGA). The communication with moviDebug2 is performed using a TCP/IP socket, which can be configured by the user using command line switches which are described in the following chapters. moviDebugServer can be used on the same computer with moviDebug2 (the default scenario) or on a remote computer, allowing the user to debug remote hardware targets. Still, remote debugging is somewhat limited as, depending on the debugged application, the debugger cannot provide the same touch and feel as debugging locally (e.g. debugging an application which contains some video effects on an LCD, or some sound effects). The debugging experience can be completed in these cases by dumping some buffers and using some external viewers for the data.

2. Conventions used in this document

General moviDebugServer command format is:

```
moviDebugServer{.exe} [<optionalParameters>]
```

The commands and parameters in the document are typed in the Courier New font. The words enclosed by < and > are not actually keywords, but values from a set like:

```
<registerName> is one of the registers.
```

The { } denote a series of possible values, | separates the values of the series. The [ ] denote an optional parameter. The parameters of moviDebugServer can be separated either by whitespaces (spaces, tabs) or by , (comma).

3. Usage Examples

moviDebugServer can be run from the command line using the

```
moviDebugServer{.elf|.exe} [<optionalParameters>]
```

command.

Also, it is started automatically by the moviEclipse environment at the start of the debug session.

4. Command line switches

`moviDebugServer` command line format is:

```
moviDebugServer <optionalParameters>
```

The command line options start with a - character and they are case sensitive. They can be one of the following:

Switch	Description
`--help` `-help`	**display the help screen**
`--version` `-version`	**just display the version and exit**
`-freq:<frequencyInKHz>`	**specify the JTAG dongle frequency in KHz**
`--[tcp-]host <ip/hostname>` `-tcpHost:<ip/hostname>`	**specify the ip/hostname of the network interface at which the moviDebugServer will be active**
`--[tcp-]port <portNumber>` `-tcpPort:<portNumber>`	**specify the port number at which the moviDebugServer will be active**
`-tcpNoLinger` `--[tcp-]no-linger`	**disable lingering on listen socket after close**
`-jtag`	**specify FTDI JTAG as debug interface (default)**
`-ftdiJtag:<SerialNumber>`	**Connect to a specific FTDI JTAG device**
`--mv229` `-mv229`	**specify the Movidius MV229 board (MA2x5x USB/JTAG interface) as debug interface**
`-mv229:<address>`	**connect to a specific moviUsbJtag device**
`-uart`	**specify UART as debug interface (deprecated)**
`--no-leon-rt` `-noLeonRT`	**skip initialisation of LeonRT during reset**
`--no-cpr-write` `-noCprWrite`	**block writes into CPR registers during reset**
`-debugMsg`	**print server transactions information**
`--debug-cpr-init`	**debug CPR register transactions during board reset**
`--debug-burst-retries` `-debugBurstRetries`	**print message whenever burst transaction is retried**
`-resetPulseLengthMs:<t>`	**set the reset pulse length in milliseconds** (default is 50ms)
`-waitAfterResetPulseMs:<t>`	**wait this much time after reset signal is pulsed** (default is 0ms)
`--[custom-]server-message <Message>`	**set custom server message sent to clients at connect**
`--busy-timeout[-seconds] <Seconds>`	**set timeout until *Server Busy* status is reported to client**

There might be more command line switches which might be referred to in the current document. They are still in testing phase or might be subject to change. Please do not use switches other than the ones presented in the above table in production code.

5. Quick Start

For using moviDebug2 in conjunction with moviDebugServer on a windows OS, the user can use the following sequence of commands:

Start moviDebugServer with no command line switch:

```
moviDebugServer.exe
```

moviDebugServer starts on the local machine using the default localhost, the default 4001 port, and the default JTAG frequency of 3000 Hz. moviDebugServer then waits for a moviDebug2 client to connect.

Start the moviDebug2 tool using the command:

```
moviDebug2
```

It displays a prompt at which the user can introduce commands which are interpreted by moviDebug2.

Example (debug session):

```
breset
loadelf file.elf
breakpoint add -type software -location myLoop
runw
mget i0
brekpoint remove #1
breakpoint add -file myFile.asm -line 10
cont
mget v0
cont
exit
```