Gprof

Thursday, April 17, 2014

3:29 AM

1st GPROF

Machine generated alternative text: Problems ‘i Tasks Q Console fl Properties  gprof *
gmon file: C:\Users\pi4810\Desktop\Lab6_1\sdk_space\Hardware_gprof\Debug\gmon.out
program file: C:/Usersfpi48lO/Desktop/Lab6_1/sdk_space/Hardware_gprof/Debug/Hardware_gprof.elf
16 bytes per bucket, each sample counts as 99.999us
Name (location) Samples Calls Time/Call %Time
Summary 823
PLB46S_addrmap.c 0 0.0%
SDK_hw_AES.c 105
main 105 0
_profile_timer_hw.c 0 0.0%
microblaze_interrupt_handler.c 0 0.0%
platform.c 12 1.46%
xintcJ.c 706 85.78%

Screen clipping taken: 4/17/2014 3:29 AM

AES gprof

Machine generated alternative text: Problems .2J Tasks Console  Properties  gprof  gprof 2
gmon file: C:\Users\pi4810\Desktop\Lab6_1\sdk_space\AES_gprof\Debug\gmon.out
program file: C:/Users/pi4810/Desktop/Lab6_1/sdk_space/AES_gprof/Debug/AES_gprof.elf
16 bytes per bucket, each sample counts as 99.999us
Name (location) Samples Calls Time/Call %Time
4 Summary 2044
å AES.cpp 2009
encrypt(unsigned char (9 [4], unsigned char (9 [4], unsigned char (9 [4]) 2009 1 200.899ms
a AES_test.cpp 35
main 35 0
> _profile_timer_hw.c O
> microblazejnterrupt_handler.c 0 0.0%
> xintc_l.c 0 0.0%

Screen clipping taken: 4/17/2014 3:43 AM

Gprof with 100 iterations

Machine generated alternative text: ËProblems.Tasksf ConsolCfl Propertiesagpçer ‘cn Pprnrd flat-fl
gmon file: C:\Users\pi48fthDesktop\Lab6_1\sdk_spac\ÃESJgpÕebüñonái€’
program file: C:fUsers/pi4SlO!Desktop! La b6_1/ sd k_sp a ce!AES_gproffDebuglAES_gprof.elf
16 bytes per bucket, each sample counts as 99.999us
Summary 196466
AES.cpp 196300
enciypt(unsigned char (9 [4], 196300 loo
AES_test.cpp 117
_profile_timer_hw.c O
49
microblaze_interrupt_handler.c 0 0.0%
0 0.0%
Name (location)
—
Samples
fl#  #!.—,• C,
Calls
& Time
crt0.S
%Time
Time/Call
196.299ms
xintc_l.c
0.0%
0.02%

Screen clipping taken: 4/17/2014 4:13 AM

Machine generated alternative text: ê COM1:9600baud-TeraTermVT ___________ I
I File Edit Setup Control Window Help I

Screen clipping taken: 4/17/2014 4:37 AM

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| --- | --- | --- | --- |
| **Project Status (04/17/2014 - 18:14:05)** | | | |
| **Project File:** | system.xmp | **Implementation State:** | Programming File Generated |
| **Module Name:** | system | * **Errors:** | No Errors |
| **Product Version:** | EDK 14.2 | * **Warnings:** | [167 Warnings (167 new)](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/implementation/_xmsgs/*.xmsgs?&DataKey=Warning) |

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| **XPS Reports** | | | | | [**[-]**](?&ExpandedTable=EDKReports) |
| **Report Name** | **Generated** | **Errors** | **Warnings** | **Infos** | |
| [Platgen Log File](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/platgen.log) | Thu Apr 17 02:32:30 2014 | 0 | [6 Warnings (6 new)](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/__xps/ise/_xmsgs/platgen.xmsgs?&DataKey=Warning) | [183 Infos (183 new)](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/__xps/ise/_xmsgs/platgen.xmsgs?&DataKey=Info) | |
| Simgen Log File |  |  |  |  | |
| BitInit Log File |  |  |  |  | |
| [System Log File](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/system.log) | Thu Apr 17 04:41:20 2014 |  |  |  | |

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| **XPS Synthesis Summary (estimated values)** | | | | | | [**[-]**](?&ExpandedTable=EDKSynthesisSumary) |
| **Report** | **Generated** | **Flip Flops Used** | **LUTs Used** | **BRAMS Used** | **Errors** | |
| [system](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/synthesis/system_xst.srp) | Thu Apr 17 02:38:52 2014 | 7851 | 6260 | 9 | 0 | |
| [system\_fsl\_v20\_2\_wrapper](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/synthesis/system_fsl_v20_2_wrapper_xst.srp) | Thu Apr 17 02:31:40 2014 | 7 | 44 |  | 0 | |
| [system\_fsl\_v20\_1\_wrapper](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/synthesis/system_fsl_v20_1_wrapper_xst.srp) | Thu Apr 17 02:31:30 2014 | 7 | 44 |  | 0 | |
| [system\_fsl\_v20\_0\_wrapper](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/synthesis/system_fsl_v20_0_wrapper_xst.srp) | Thu Apr 17 02:31:22 2014 | 7 | 44 |  | 0 | |
| [system\_encrypt\_top\_0\_wrapper](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/synthesis/system_encrypt_top_0_wrapper_xst.srp) | Thu Apr 17 02:31:14 2014 | 511 | 628 | 2 | 0 | |
| [system\_xps\_intc\_0\_wrapper](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/synthesis/system_xps_intc_0_wrapper_xst.srp) | Thu Apr 17 02:30:46 2014 | 120 | 83 |  | 0 | |
| [system\_xps\_timer\_0\_wrapper](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/synthesis/system_xps_timer_0_wrapper_xst.srp) | Thu Apr 17 02:30:20 2014 | 358 | 291 |  | 0 | |
| [system\_proc\_sys\_reset\_0\_wrapper](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/synthesis/system_proc_sys_reset_0_wrapper_xst.srp) | Thu Apr 17 02:29:52 2014 | 69 | 53 |  | 0 | |
| [system\_mdm\_0\_wrapper](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/synthesis/system_mdm_0_wrapper_xst.srp) | Thu Apr 17 02:29:42 2014 | 126 | 123 |  | 0 | |
| [system\_clock\_generator\_0\_wrapper](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/synthesis/system_clock_generator_0_wrapper_xst.srp) | Thu Apr 17 02:29:28 2014 | 4 | 3 |  | 0 | |
| [system\_dip\_switches\_8bit\_wrapper](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/synthesis/system_dip_switches_8bit_wrapper_xst.srp) | Thu Apr 17 02:29:18 2014 | 125 | 65 |  | 0 | |
| [system\_ddr2\_sdram\_wrapper](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/synthesis/system_ddr2_sdram_wrapper_xst.srp) | Thu Apr 17 02:28:56 2014 | 3486 | 2102 | 5 | 0 | |
| [system\_sram\_wrapper](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/synthesis/system_sram_wrapper_xst.srp) | Thu Apr 17 02:26:28 2014 | 540 | 295 |  | 0 | |
| [system\_leds\_positions\_wrapper](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/synthesis/system_leds_positions_wrapper_xst.srp) | Thu Apr 17 02:26:04 2014 | 104 | 56 |  | 0 | |
| [system\_leds\_8bit\_wrapper](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/synthesis/system_leds_8bit_wrapper_xst.srp) | Thu Apr 17 02:25:40 2014 | 125 | 65 |  | 0 | |
| [system\_rs232\_uart\_1\_wrapper](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/synthesis/system_rs232_uart_1_wrapper_xst.srp) | Thu Apr 17 02:25:18 2014 | 148 | 131 |  | 0 | |
| [system\_lmb\_bram\_wrapper](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/synthesis/system_lmb_bram_wrapper_xst.srp) | Thu Apr 17 02:24:48 2014 |  |  | 2 | 0 | |
| [system\_ilmb\_cntlr\_wrapper](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/synthesis/system_ilmb_cntlr_wrapper_xst.srp) | Thu Apr 17 02:24:38 2014 | 2 | 6 |  | 0 | |
| [system\_dlmb\_cntlr\_wrapper](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/synthesis/system_dlmb_cntlr_wrapper_xst.srp) | Thu Apr 17 02:24:30 2014 | 2 | 6 |  | 0 | |
| [system\_dlmb\_wrapper](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/synthesis/system_dlmb_wrapper_xst.srp) | Thu Apr 17 02:24:22 2014 | 1 |  |  | 0 | |
| [system\_ilmb\_wrapper](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/synthesis/system_ilmb_wrapper_xst.srp) | Thu Apr 17 02:24:14 2014 | 1 |  |  | 0 | |
| [system\_mb\_plb\_wrapper](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/synthesis/system_mb_plb_wrapper_xst.srp) | Thu Apr 17 02:24:06 2014 | 162 | 501 |  | 0 | |
| [system\_microblaze\_0\_wrapper](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/synthesis/system_microblaze_0_wrapper_xst.srp) | Thu Apr 17 02:23:32 2014 | 1946 | 1720 |  | 0 | |

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| **Device Utilization Summary (actual values)** | | | | | [**[-]**](?&ExpandedTable=DeviceUtilizationSummary) |
| **Slice Logic Utilization** | **Used** | **Available** | **Utilization** | **Note(s)** | |
| Number of Slice Registers | 6,350 | 44,800 | 14% |  | |
| Number used as Flip Flops | 6,338 |  |  |  | |
| Number used as Latch-thrus | 12 |  |  |  | |
| Number of Slice LUTs | 5,562 | 44,800 | 12% |  | |
| Number used as logic | 5,280 | 44,800 | 11% |  | |
| Number using O6 output only | 5,019 |  |  |  | |
| Number using O5 output only | 75 |  |  |  | |
| Number using O5 and O6 | 186 |  |  |  | |
| Number used as Memory | 262 | 13,120 | 1% |  | |
| Number used as Dual Port RAM | 64 |  |  |  | |
| Number using O5 and O6 | 64 |  |  |  | |
| Number used as Shift Register | 198 |  |  |  | |
| Number using O6 output only | 197 |  |  |  | |
| Number using O5 output only | 1 |  |  |  | |
| Number used as exclusive route-thru | 20 |  |  |  | |
| Number of route-thrus | 99 |  |  |  | |
| Number using O6 output only | 89 |  |  |  | |
| Number using O5 output only | 4 |  |  |  | |
| Number using O5 and O6 | 6 |  |  |  | |
| Number of occupied Slices | 3,588 | 11,200 | 32% |  | |
| Number of LUT Flip Flop pairs used | 8,837 |  |  |  | |
| Number with an unused Flip Flop | 2,487 | 8,837 | 28% |  | |
| Number with an unused LUT | 3,275 | 8,837 | 37% |  | |
| Number of fully used LUT-FF pairs | 3,075 | 8,837 | 34% |  | |
| Number of unique control sets | 633 |  |  |  | |
| Number of slice register sites lost         to control set restrictions | 1,288 | 44,800 | 2% |  | |
| Number of bonded [IOBs](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/implementation/system_map.xrpt?&DataKey=IOBProperties) | 206 | 640 | 32% |  | |
| Number of LOCed IOBs | 205 | 206 | 99% |  | |
| IOB Flip Flops | 417 |  |  |  | |
| Number of BlockRAM/FIFO | 15 | 148 | 10% |  | |
| Number using BlockRAM only | 15 |  |  |  | |
| Number of 36k BlockRAM used | 11 |  |  |  | |
| Number of 18k BlockRAM used | 4 |  |  |  | |
| Total Memory used (KB) | 468 | 5,328 | 8% |  | |
| Number of BUFG/BUFGCTRLs | 6 | 32 | 18% |  | |
| Number used as BUFGs | 6 |  |  |  | |
| Number of IDELAYCTRLs | 3 | 22 | 13% |  | |
| Number of BSCANs | 1 | 4 | 25% |  | |
| Number of BUFIOs | 8 | 80 | 10% |  | |
| Number of DCM\_ADVs | 1 | 12 | 8% |  | |
| Number of DSP48Es | 3 | 128 | 2% |  | |
| Number of PLL\_ADVs | 1 | 6 | 16% |  | |
| Average Fanout of Non-Clock Nets | 3.45 |  |  |  | |

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| **Performance Summary** | | | | [**[-]**](?&ExpandedTable=PerformanceSummary) |
| **Final Timing Score:** | 0 (Setup: 0, Hold: 0, Component Switching Limit: 0) | **Pinout Data:** | [Pinout Report](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/implementation/system_par.xrpt?&DataKey=PinoutData) | |
| **Routing Results:** | [All Signals Completely Routed](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/implementation/system.unroutes) | **Clock Data:** | [Clock Report](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/implementation/system_par.xrpt?&DataKey=ClocksData) | |
| **Timing Constraints:** | [All Constraints Met](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/implementation/system.ptwx?&DataKey=ConstraintsData) |  |  | |

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| **Detailed Reports** | | | | | | [**[-]**](?&ExpandedTable=DetailedReports) |
| **Report Name** | **Status** | **Generated** | **Errors** | **Warnings** | **Infos** | |
| [Translation Report](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/implementation/system.bld) | Current | Thu Apr 17 02:42:44 2014 | 0 | [149 Warnings (149 new)](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/implementation/_xmsgs/ngdbuild.xmsgs?&DataKey=Warning) | [4 Infos (4 new)](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/implementation/_xmsgs/ngdbuild.xmsgs?&DataKey=Info) | |
| [Map Report](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/implementation/system_map.mrp) | Current | Thu Apr 17 02:45:18 2014 | 0 | [12 Warnings (12 new)](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/implementation/_xmsgs/map.xmsgs?&DataKey=Warning) | [766 Infos (766 new)](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/implementation/_xmsgs/map.xmsgs?&DataKey=Info) | |
| [Place and Route Report](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/implementation/system.par) | Current | Thu Apr 17 02:46:40 2014 | 0 | [4 Warnings (4 new)](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/implementation/_xmsgs/par.xmsgs?&DataKey=Warning) | [3 Infos (3 new)](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/implementation/_xmsgs/par.xmsgs?&DataKey=Info) | |
| [Post-PAR Static Timing Report](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/implementation/system.twr) | Current | Thu Apr 17 02:47:06 2014 | 0 | 0 | [4 Infos (4 new)](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/implementation/_xmsgs/trce.xmsgs?&DataKey=Info) | |
| [Bitgen Report](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/implementation/system.bgn) | Current | Thu Apr 17 02:48:08 2014 | 0 | [2 Warnings (2 new)](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/implementation/_xmsgs/bitgen.xmsgs?&DataKey=Warning) | 0 | |

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| **Secondary Reports** | | | [**[-]**](?&ExpandedTable=SecondaryReports) |
| **Report Name** | **Status** | **Generated** | |
| [WebTalk Report](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/implementation/usage_statistics_webtalk.html) | Current | Thu Apr 17 02:48:10 2014 | |
| [WebTalk Log File](C://Users/pi4810/Desktop/Lab6_1/xps_workspace/implementation/webtalk.log) | Current | Thu Apr 17 02:48:22 2014 | |

**Date Generated:** 04/17/2014 - 18:14:06

AES code

text data bss dec hex filename

67560 1552 2200 71312 11690 AES\_hprof.elf

text data bss dec hex filename

7738 400 2102 10240 2800 AES\_gprof.elf

Hardware code

text data bss dec hex filename

5254 544 2096 7894 1ed6 Hardware\_gprof.elf

text data bss dec hex filename

63044 1680 2164 66888 10548 Hardware.elf