Assignment 2 Test Log (From MARS Simulator)

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Adr | Expected Machine Code (hex) | Actual Machine Code (hex) | pc | Registers (hex) | | | | | Memory Content (hex) | |
| $v0 | $v1 | $a0 | $a1 | $a3 | [80] | [84] |
| 3000 | 20020005 | 20020005 | 3004 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3004 | 2003000c | 2003000c | 3008 | 5 | c | 0 | 0 | 0 | 0 | 0 |
| 3008 | 2067fff7 | 2067fff7 | 300c | 5 | c | 0 | 0 | 3 | 0 | 0 |
| 300c | 00e22025 | 00e22025 | 3010 | 5 | c | 7 | 0 | 3 | 0 | 0 |
| 3010 | 00642824 | 00642824 | 3014 | 5 | c | 7 | 4 | 3 | 0 | 0 |
| 3014 | 00a42820 | 00a42820 | 3018 | 5 | c | 7 | b | 3 | 0 | 0 |
| 3018 | 10a7000a | 10a7000a | 301c | 5 | c | 7 | b | 3 | 0 | 0 |
| 301c | 0064202a | 0064202a | 3020 | 5 | c | 0 | b | 3 | 0 | 0 |
| 3020 | 10800001 | 10800001 | 3028 | 5 | c | 0 | b | 3 | 0 | 0 |
| 3024 | 20050000 | 20050000 | skips | skips | skips | skips | skips | skips | skips | skips |
| 3028 | 00e2202a | 00e2202a | 302c | 5 | c | 1 | b | 3 | 0 | 0 |
| 302c | 00853820 | 00853820 | 3030 | 5 | c | 1 | b | c | 0 | 0 |
| 3030 | 00e23822 | 00e23822 | 3034 | 5 | c | 1 | b | 7 | 0 | 0 |
| 3034 | ac670044 | ac670044 | 3038 | 5 | c | 1 | b | 7 | 7 | 0 |
| 3038 | 8c020050 | 8c020050 | 303c | 7 | c | 1 | b | 7 | 7 | 0 |
| 303c | 08100011 | 08000c11 | 3044 | 7 | c | 1 | b | 7 | 7 | 0 |
| 3040 | 20020001 | 20020001 | skips | skips | skips | skips | skips | skips | skips | skips |
| 3044 | ac020054 | ac020054 | 3048 | 7 | c | 1 | b | 7 | 7 | 7 |
| 3048 | 08100000 | 08000c00 | 0 | 7 | c | 1 | b | 7 | 7 | 7 |

Basys3 Functional Verification Log

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Expected Machine Code (hex) | Actual Instruction (hex) | pc\_current  (hex) | alu\_out (hex) | wd\_dm (hex) | Expected Result? (Y/N) |
| 20020005 | 20020005 | 0 | 5 | 0 | N |
| 2003000c | 2003000c | 4 | C | 0 | Y |
| 2067fff7 | 2067fff7 | 8 | 3 | 0 | Y |
| 00e22025 | 00e22025 | C | 7 | 5 | Y |
| 00642824 | 00642824 | 10 | 4 | 7 | Y |
| 00a42820 | 00a42820 | 14 | 8 | 7 | Y |
| 10a7000a | 10E5000A | 18 | FFFFFFF8 | B | N |
| 0064202a | 0064202a | 1C | 0 | 7 | Y |
| 10800001 | 10040001 | 20 | 0 | 0 | Y |
| 20050000 | skip | skip | skip | skip | Y |
| 00e2202a | 00e2202a | 28 | 1 | 5 | Y |
| 00853820 | 00853820 | 2C | C | B | Y |
| 00e23822 | 00e23822 | 30 | 7 | 5 | Y |
| ac670044 | ac670044 | 34 | 50 | 7 | Y |
| 8c020050 | 8c020050 | 38 | 50 | 5 | Y |
| 08100011 | 08100011 | 3C | 0 | 0 | Y |
| 20020001 | skip | skip | skip | skip | Y |
| ac020054 | ac020054 | 44 | 54 | 7 | Y |
| 08100000 | 08000000 | 48 | 0 | 0 | N |