Hardware Simulator (2.5) - /Users/mayurgupta/Desktop/nand2tetris/projects/05/CPU.hdl

File View Run Help

Slow Fast Animate: Program flow Format: D... View: Scr...

Chip Nam... CPU (Clocked) Time : 46

Input pins

Name	Value
inM[16]	11111
instruction[16]	32767
reset	0

Output pins

Name	Value
outM[16]	1
writeM	0
addressM[15]	32767
pc[15]	1

HDL

```
 * value, the inM input is expec
 * to write a value to the memor
 * output to the target address,
 * value may appear in outM).
 * If the reset input is 0, comp
 * pc output to that value. If t
 * Note: The outM and writeM out
 * instruction's execution durir
 * clocked: although they are af
 * their new values only in the
 */
CHIP CPU {

    IN  inM[16],         // M va
```

Internal pins

Name	Value
atype	1
ctype	0
ainstruct	1
cinstruct	0
aluout[16]	1
toareg[16]	32767
aregout[16]	32767
inputsel[16]	11111
dregout[16]	1
zrout	0
ngout	0
leqzero	0
posout	1
jgt	1

```
set instruction %B1110001100000111, // D;JMP
tick, output, tock, output;

set instruction %B1110111111010000, // D=1
tick, output, tock, output;

set instruction %B1110001100000001, // D;JGT
tick, output, tock, output;

set instruction %B1110001100000010, // D;JEQ
tick, output, tock, output;

set instruction %B1110001100000011, // D;JGE
tick, output, tock, output;

set instruction %B1110001100000100, // D;JLT
tick, output, tock, output;

set instruction %B1110001100000101, // D;JNE
tick, output, tock, output;

set instruction %B1110001100000110, // D;JLE
tick, output, tock, output;

set instruction %B1110001100000111, // D;JMP
tick, output, tock, output;

// Tests the impact of setting the reset input

set reset 1;
tick, output, tock, output;

set instruction %B0111111111111111, // @32767
set reset 0;
tick, output, tock, output;
```

End of script - Comparison ended successfully