

Address	Operation Statements	Comment
0:	R[ir] ← AND(R[pc], R[pc]); READ;	/ Read an ARC instruction from main memory
1:	DECODE;	/ 256-way jump according to opcode
	/ sethi	
1152:	R[rd] ← LSHIFT10(ir); GOTO 2047;	/ Copy imm22 field to target register
	/ call	
1280:	R[15] ← AND(R[pc], R[pc]);	/ Save %pc in %r15
1281:	R[temp0] ← ADD(R[ir], R[ir]);	/ Shift disp30 field left
1282:	R[temp0] ← ADD(R[temp0], R[temp0]);	/ Shift again
1283:	R[pc] ← ADD(R[pc], R[temp0]);	/ Jump to subroutine
	GOTO 0;	
	/ addcc	
1600:	IF R[IR[13]] THEN GOTO 1602;	/ Is second source operand immediate?
1601:	R[rd] ← ADDCC(R[rs1], R[rs2]);	/ Perform ADDCC on register sources
	GOTO 2047;	
1602:	R[temp0] ← SEXT13(R[ir]);	/ Get sign extended simm13 field
1603:	R[rd] ← ADDCC(R[rs1], R[temp0]);	/ Perform ADDCC on register/simm13
	GOTO 2047;	/ sources
	/ andcc	
1604:	IF R[IR[13]] THEN GOTO 1606;	/ Is second source operand immediate?
1605:	R[rd] ← ANDCC(R[rs1], R[rs2]);	/ Perform ANDCC on register sources
	GOTO 2047;	
1606:	R[temp0] ← SIMM13(R[ir]);	/ Get simm13 field
1607:	R[rd] ← ANDCC(R[rs1], R[temp0]);	/ Perform ANDCC on register/simm13
	GOTO 2047;	/ sources
	/ orcc	
1608:	IF R[IR[13]] THEN GOTO 1610;	/ Is second source operand immediate?
1609:	R[rd] ← ORCC(R[rs1], R[rs2]);	/ Perform ORCC on register sources
	GOTO 2047;	
1610:	R[temp0] ← SIMM13(R[ir]);	/ Get simm13 field
1611:	R[rd] ← ORCC(R[rs1], R[temp0]);	/ Perform ORCC on register/simm13 sources
	GOTO 2047;	
	/ orncc	
1624:	IF R[IR[13]] THEN GOTO 1626;	/ Is second source operand immediate?
1625:	R[rd] ← NORCC(R[rs1], R[rs2]);	/ Perform ORNCC on register sources
	GOTO 2047;	
1626:	R[temp0] ← SIMM13(R[ir]);	/ Get simm13 field
1627:	R[rd] ← NORCC(R[rs1], R[temp0]);	/ Perform NORCC on register/simm13
	GOTO 2047;	/ sources
	/ srl	
1688:	IF R[IR[13]] THEN GOTO 1690;	/ Is second source operand immediate?
1689:	R[rd] ← SRL(R[rs1], R[rs2]);	/ Perform SRL on register sources
	GOTO 2047;	
1690:	R[temp0] ← SIMM13(R[ir]);	/ Get simm13 field
1691:	R[rd] ← SRL(R[rs1], R[temp0]);	/ Perform SRL on register/simm13 sources
	GOTO 2047;	
	/ jmp1	
1760:	IF R[IR[13]] THEN GOTO 1762;	/ Is second source operand immediate?
1761:	R[pc] ← ADD(R[rs1], R[rs2]);	/ Perform ADD on register sources
	GOTO 0;	