

| Table       | Base    | Columns   |    |      |           |           |     |        |         |      |     |     |  |      |      |       |     |  |      |        |      |      |
|-------------|---------|-----------|----|------|-----------|-----------|-----|--------|---------|------|-----|-----|--|------|------|-------|-----|--|------|--------|------|------|
| Program     | Address |           |    | Inst | truction  | IsPadding |     |        |         |      |     |     |  |      |      |       |     |  |      |        |      |      |
| Instruction | Address |           | CI | NIA  | IsPadding |           |     |        |         |      |     |     |  |      |      |       |     |  |      |        |      |      |
| Processor   | CLK     | IsPadding | IP | CI   | NIA       | IBO       |     | IB6    | JSP     | JS0  | JSD | ST0 |  | ST15 | OSP  | OSV   | HVO |  | HV3  | RAMP   | RAMV |      |
| OpStack     | CLK     | clk_di    |    |      |           |           | IB1 | (≘ shr | ink sta | ack) |     |     |  |      | OSP  | OSV   |     |  |      |        |      |      |
| RAM         | CLK     | clk_di    |    |      | bcpc0     | bcpc      | 1   |        |         |      |     |     |  |      |      |       |     |  |      | RAMP   | RAMV | IORD |
| JumpStack   | CLK     | clk_di    |    | CI   |           |           |     |        | JSP     | JS0  | JSD |     |  |      |      |       |     |  |      |        |      |      |
| Hash        | Roun    | ndNumber  |    |      |           |           |     |        |         |      |     | ST0 |  | ST15 | CONS | TANTO | A   |  | CONS | TANT15 | В    |      |

| #clk | instruction    |  |  |  |  |  |
|------|----------------|--|--|--|--|--|
| 2    | neg            |  |  |  |  |  |
| 4    | sub            |  |  |  |  |  |
| 68   | is_u32         |  |  |  |  |  |
| 139  | $split_assert$ |  |  |  |  |  |
| 146  | lte            |  |  |  |  |  |
| 148  | lt             |  |  |  |  |  |
| 295  | and            |  |  |  |  |  |
| 301  | xor            |  |  |  |  |  |
| 195  | reverse        |  |  |  |  |  |
| 164  | div            |  |  |  |  |  |