Execute

- The execution of every RISC-U instruction has a well-defined effect. It changes the state of the machine only at a specific location involving little data.

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  - Every instruction modifies the **`PC`**.

  - Most instructions which modify **data** (another register or memory location) have trivial control flow (`PC` to next instruction).

  - Control-flow instructions have a more sophisticated **control flow**, that is, they may change the `PC` using relative or absolute addressing.

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- Example **`ADDI`**:

semantics: 64-bit unsigned addition with wrap-around semantics

  - Bits in `$rd` are overwritten with `$rs1 + imm`.
  - `PC = PC + INSTRUCTIONSIZE`.
  - Used for initialization - loading constants into registers.

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