

MIPS Datapath

Datapath

PC

Input

Output

Instruction Memory

Input

Output

Register File

Inputs

Read register 1

Read register 2

Write register

Write data

Control Line: Reg Write

Outputs

Read data 1

Read data 2

ALU

Inputs

Output

Instruction Formats

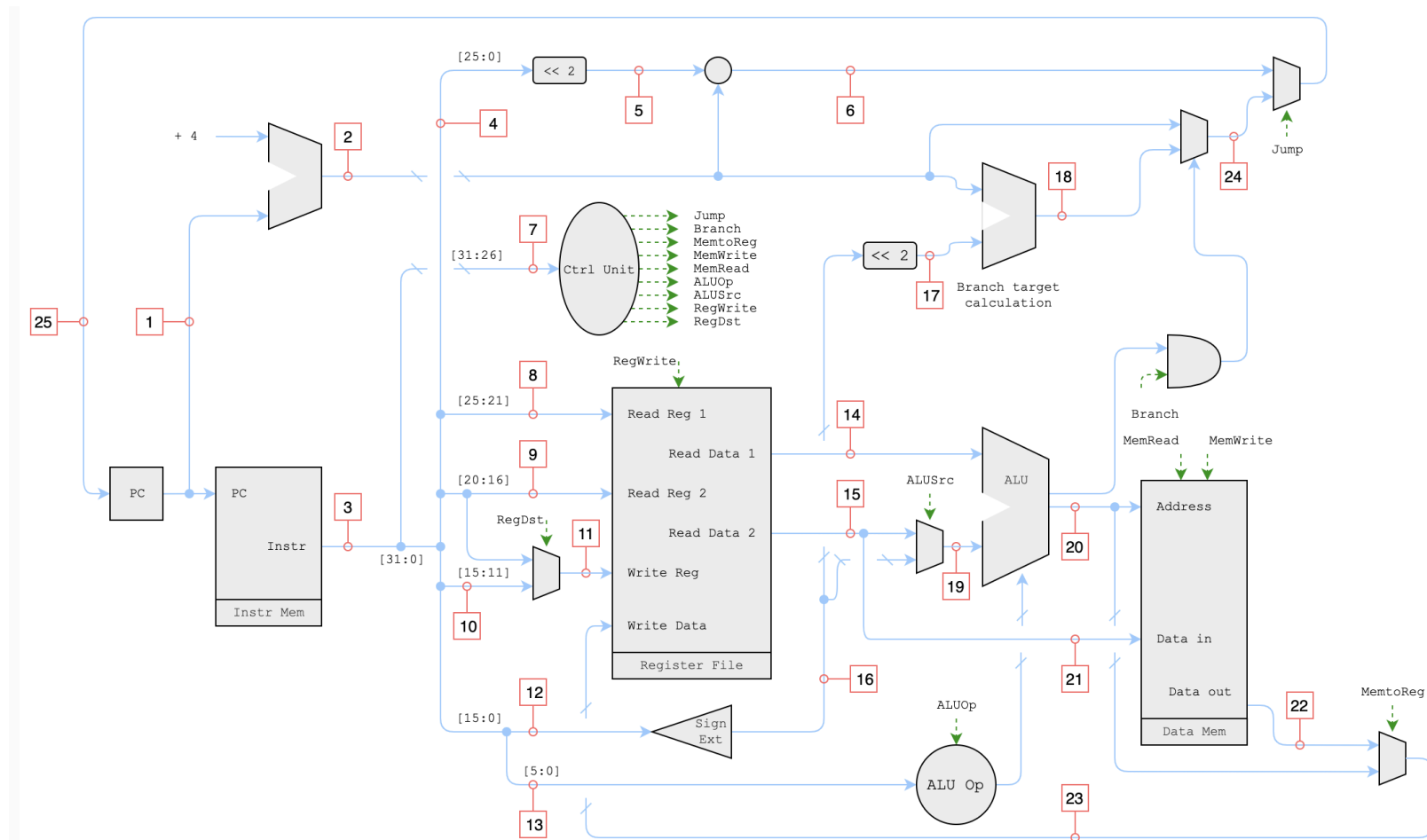
R Type

I Type

J Type

R Type

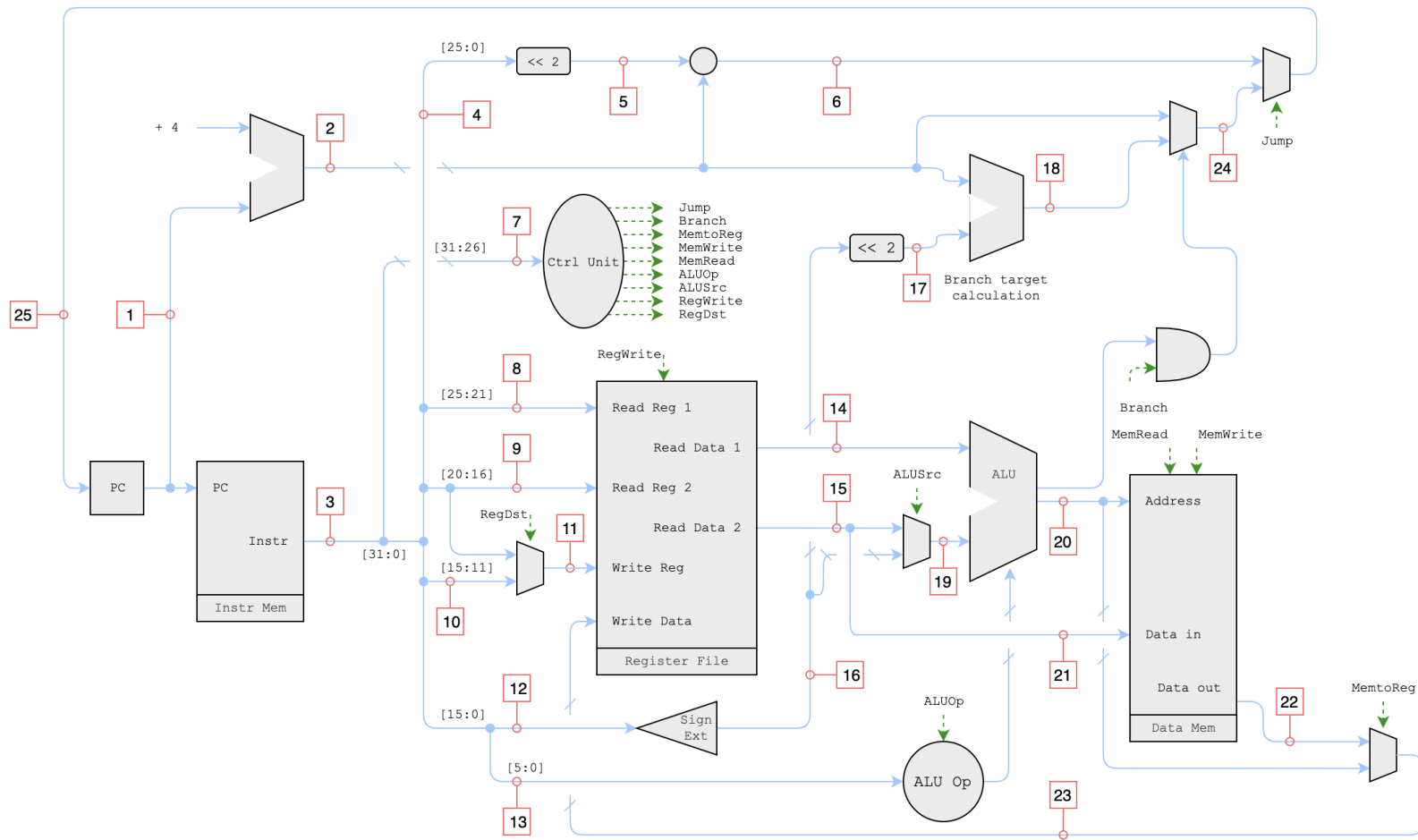
--	--	--	--	--	--



--	--	--	--	--	--

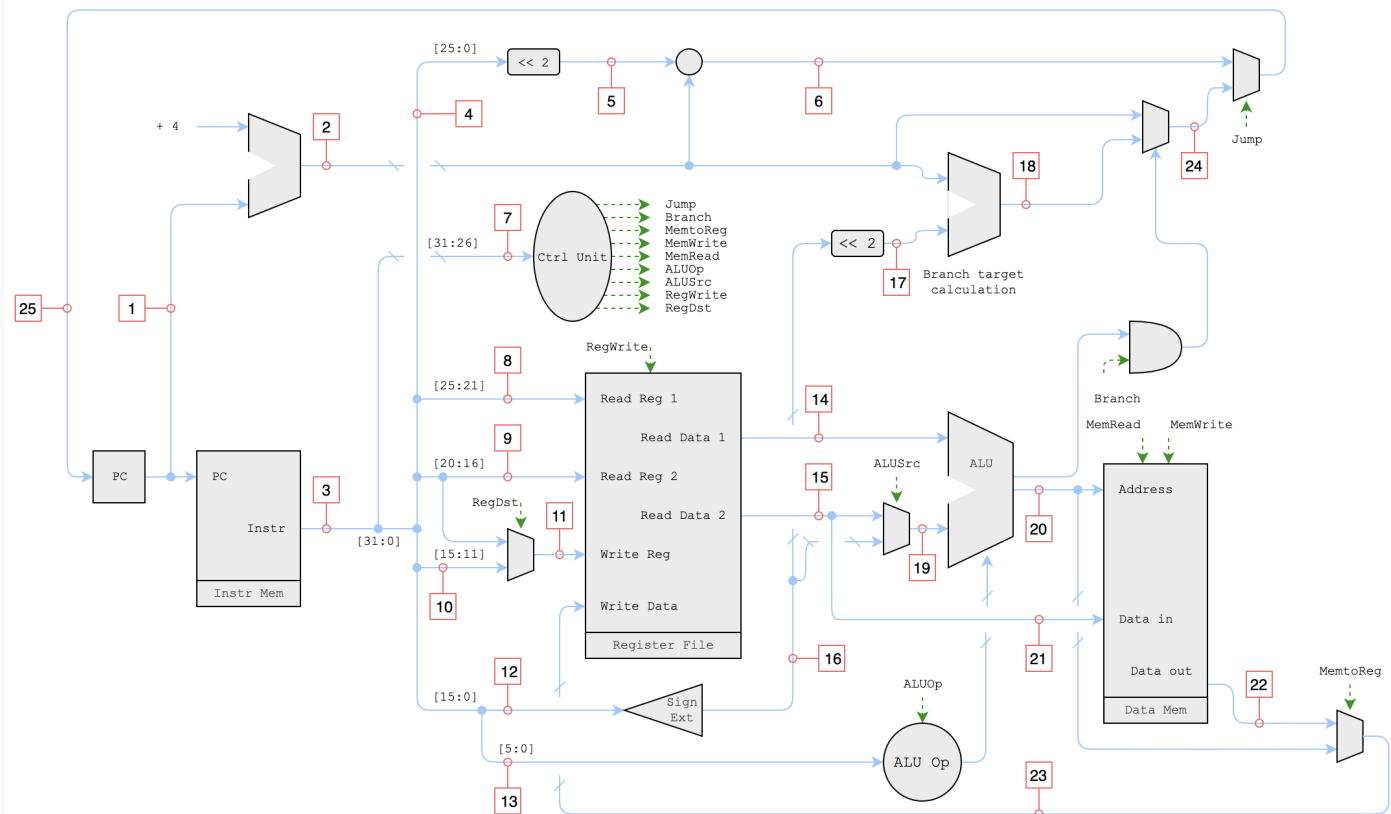
I Type

e.g.



Arithmetic Example: _____

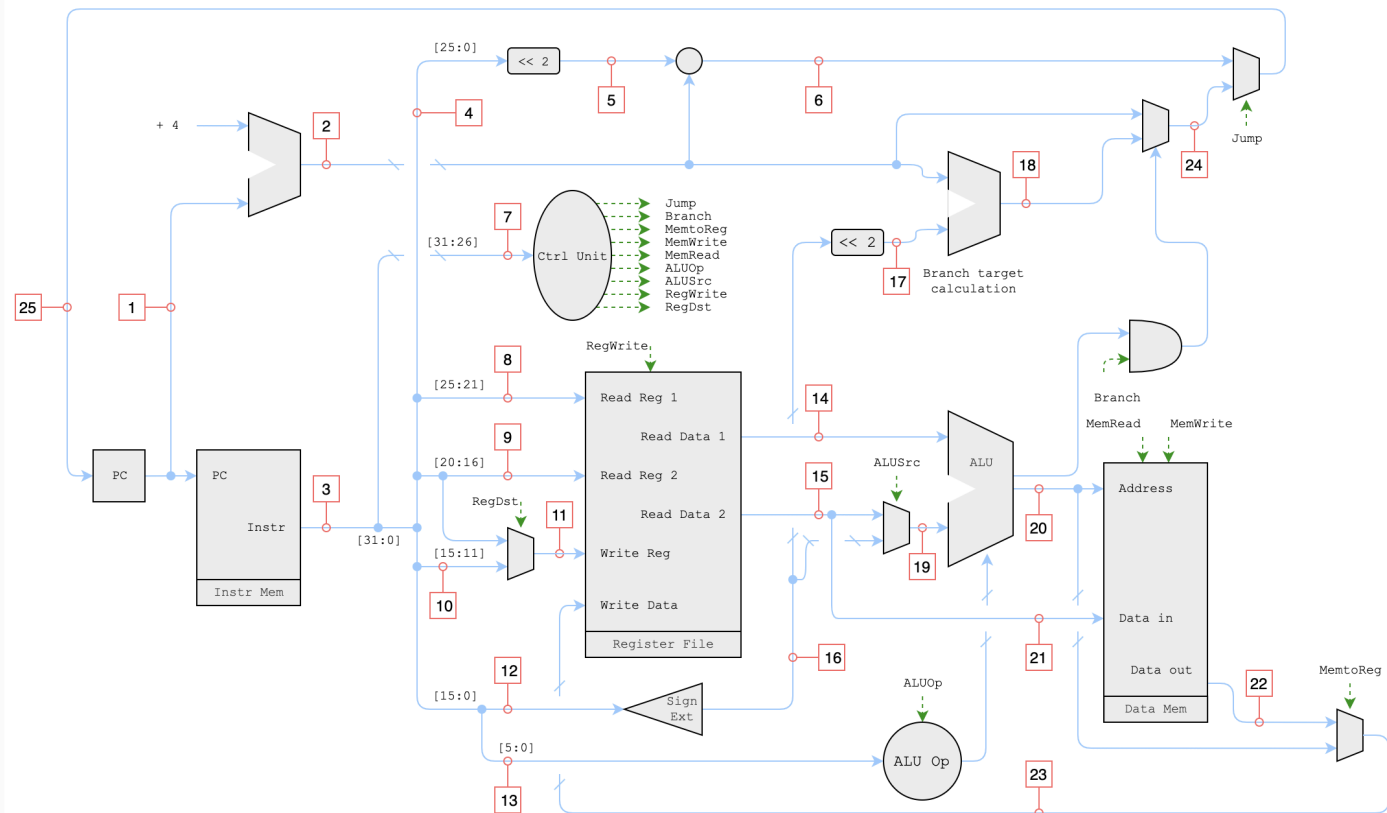
Initial Conditions



Load Example: _____

--	--	--	--

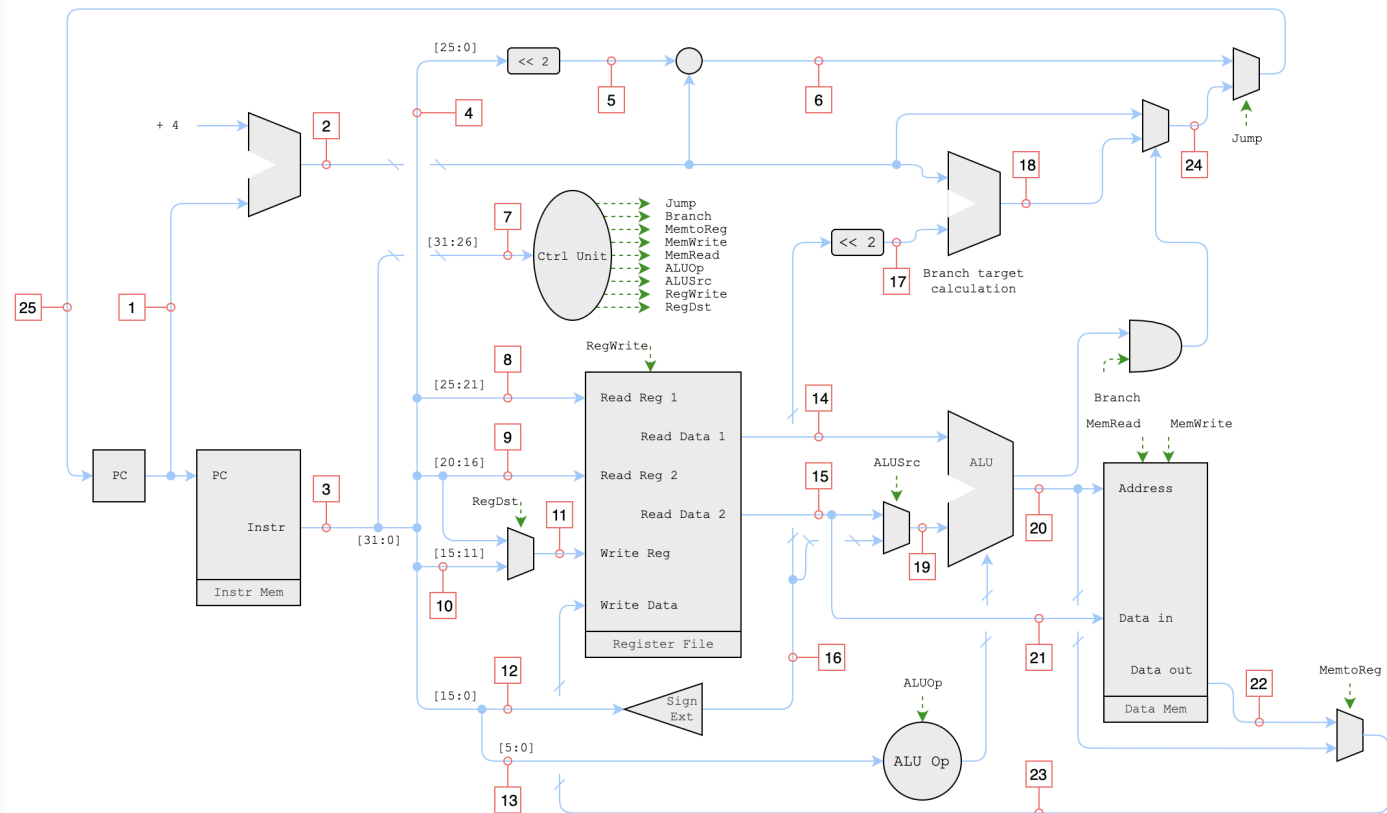
Initial Conditions



Store Example: _____

--	--	--	--

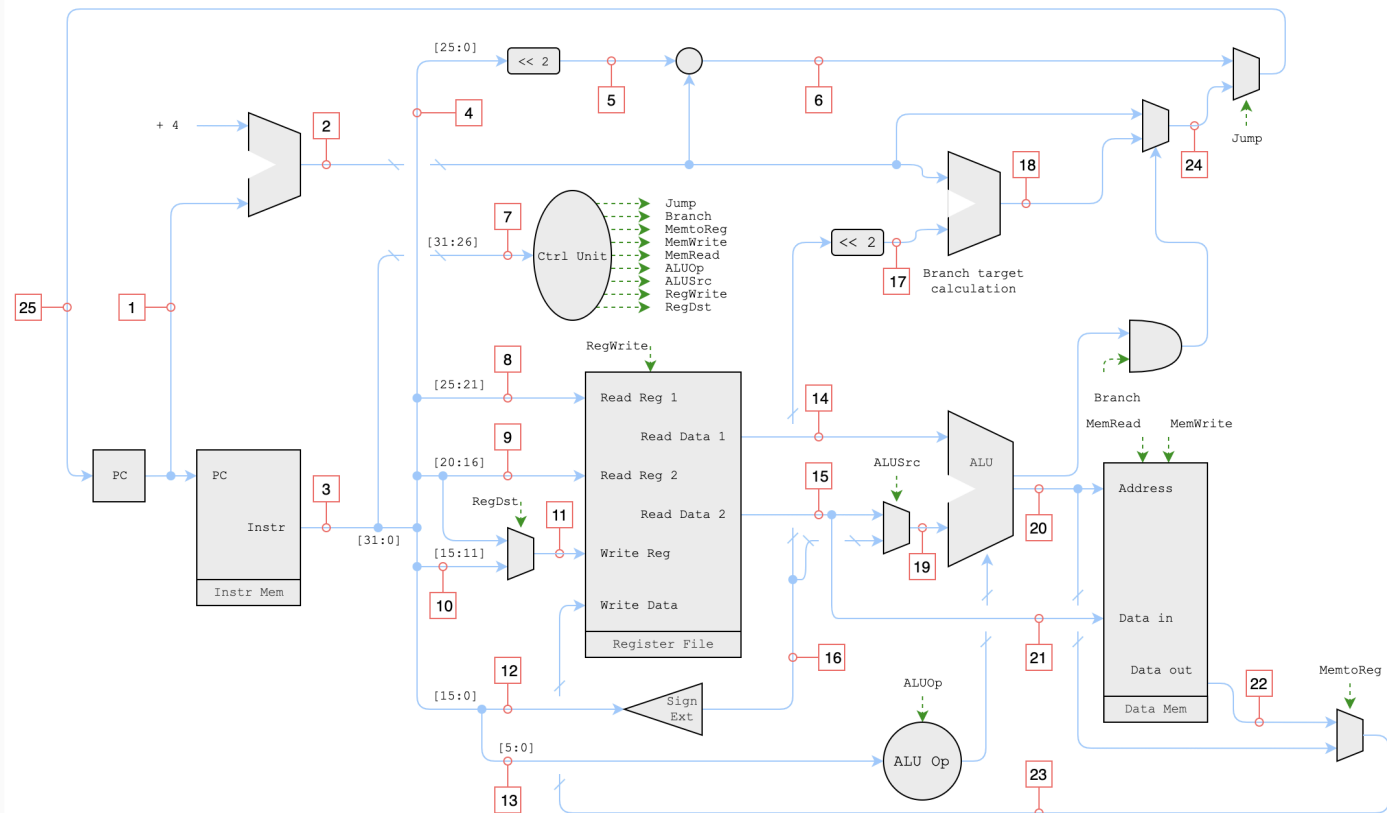
Initial Conditions



Branch Example: _____

--	--	--	--

Initial Conditions



J Type

