The Queue Computer Project

QC-1 (QueueCore1) Processing Stage Algorithms

Technical Report, TRQC1PSA03

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1. Fetch Algorithm

![Fig 1. Fetch Algorithm Flow Chart](image-url)
2. Decode Algorithm

Fig 2. Decode Algorithm Flow Chart
3. Queue Computation Algorithm (QCU)
4. Barrier and Queue (BQU) Algorithm
5. Issue Algorithm
6. Execution Algorithm
Fig 6. Execution Algorithm Flow Chart

PC \leftarrow QH

rfs ?

YES

NO

PC \leq target

Inform BTB

YES

NO

QT \leq RV

YES

NO

Jump ?

YES

NO

branch ?

YES

NO

Execute

pf = 0?

NO

YES

Reset SF

Prediction succeeds ?

YES

NO

Inform BTB

Prediction is not taken ?

YES

NO

PC \leq target address

PC = PC + 2

Inform BTB

discard signal

Renew Queue Pointers (Inform QCU)
References


