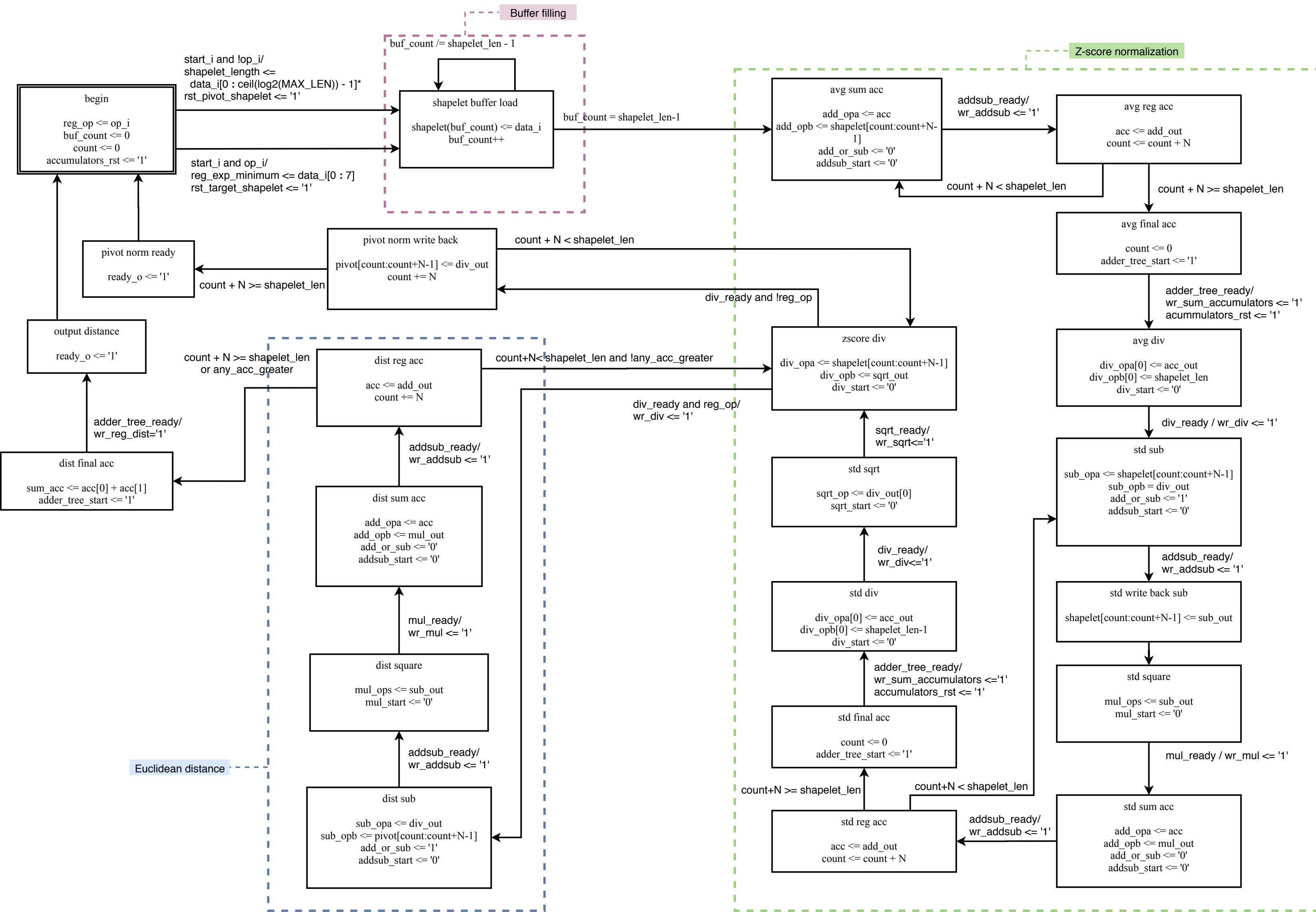


SHAPELET DISTANCE ACCELERATOR FSM



* Since MAX_LEN is a generic, $\text{ceil}(\log_2(\text{MAX_LEN}))$ is only computed in pre-synthesis, generating no hardware.

N is the number of processing units used (NUM_PU in the entity).

When not explicit, operands are assumed to have full length (e.g. `add_opa add_opa[0:N-1]`).

op_i indicates the operations performed by the accelerator:

0: Change length and normalize a new pivot shapelet

1: Calculate distance between normalized pivot shapelet and a new target shapelet

For operation 0, consider the signal `shapelet` in this FSM to mean pivot buffer and
for operation 1, consider the signal `shapelet` in this FSM to mean target buffer