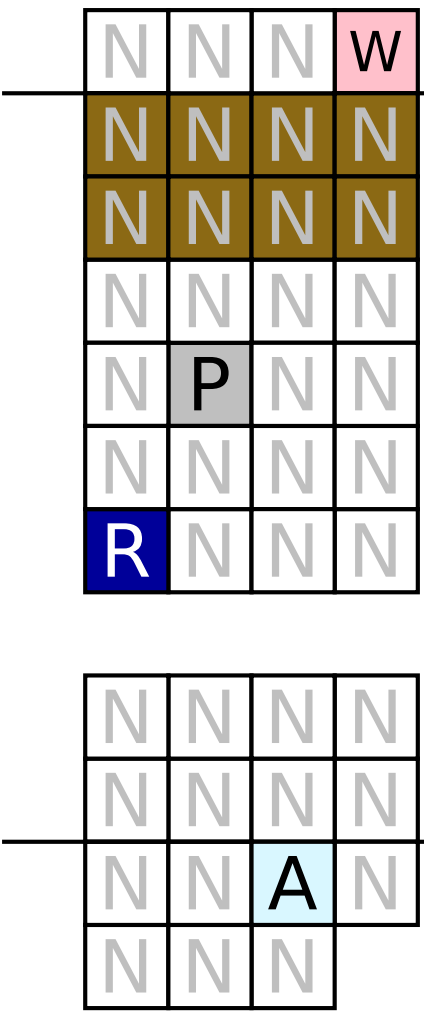
Maintenance Command Override for a Refresh Cycle



Once the refresh cycle begins, the first step will be to wait until all commands have finished. A simple way to do this is just to wait a minimum amount of time from when the last command *could* have been initiated. Here, we wait 4 bus clocks, or 14 command clocks.

This is a precharge all command. It will need tRP, or 5 nCK, clocks to complete before anything can be done with any of the banks--such as recharging them.

Once we issue the recharge command, we then need to wait tRFC, or 52 nCK before we can release the interface.

ckRFC = 52 nCK, or 13 clocks at 12.5ns.

Normal operations may resume. These will always start with an activate command, since all banks are at this time precharged.

Effeciency: 19 system clocks of every 624 will be used for maintenance/refresh