Branch-Based & Flag-Based
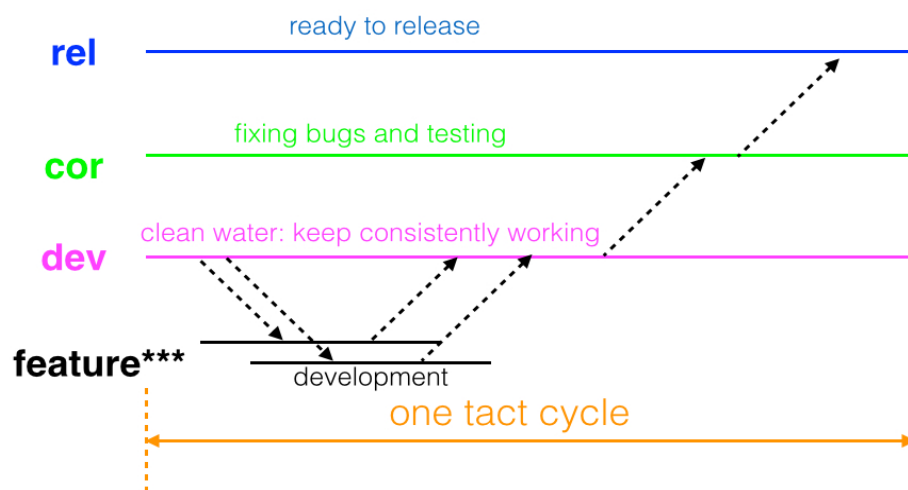
Group		Goal	Purpose	Feature flag-based KPI	Purpose	Branch-based KPI
1	One code line (From Gerrit) The deviation of code: how quickly to get the latest code in/out?	To minimize the time reaching to release	How soon does merge happen?	Average TAT for all/each subtopic branch (Turn Around Time)	Which branch is the bottleneck?	The maximum/average single life cycle among all feature branches (from "Start of Dev" until "End of Dev")
		To minimize the integration effort	How often are the successful merges?	Success rates (# of commits merged into master branch)	How difficult to merge a commit?	Size of merge commit (Indication of effort)
		To shorten the integration time	How long it takes to merge?	Average build time on master branch (total build time/# of non-trivial patch-sets)	How long it takes feature branch merged to dev?	The build time on dev branch (total build time/# feature branches)
2	High velocity (From Git)			Average LOC	X	X
				Average build time	X	X
				Success rate per subtopic/feature branch	X	X
3	~~Frequent delivery (From JIRA) (NA)~~			~~# of commits merged to stabi/cor branch~~	~~X~~	~~X~~
				~~Regression rate of cherry-pick fixes~~	~~X~~	~~X~~
				~~Incoming and outgoing defect rate~~	~~X~~	~~X~~

Flag-based Development Process

stabi ——————————— ready to release ———————————

master ——————— build + test + fix bugs ———————

subtopic* ————— development —————

one wave
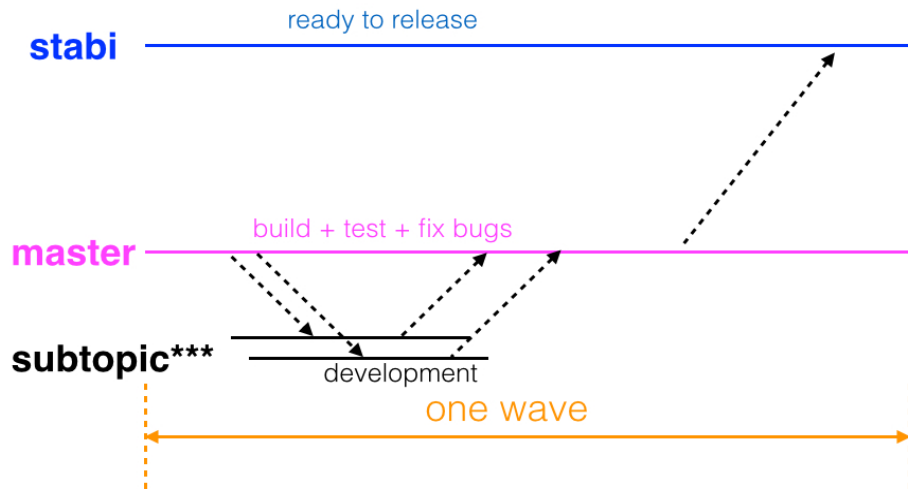
Each feature branch works separately. Check in to the master branch at anytime. If not complete, set the flag "off". Until all subtopic branches set the flag "on". One turnaround is done.

Branch-based Development Process

rel ——————————— ready to release ———————————

cor ——————— fixing bugs and testing ———————

dev ——— clean water: keep consistently working ———

feature* ————— development —————

one tact cycle

Each feature branch works on its own task separately. Check in to the dev branch until the whole feature is completed.