Statement – [Go]

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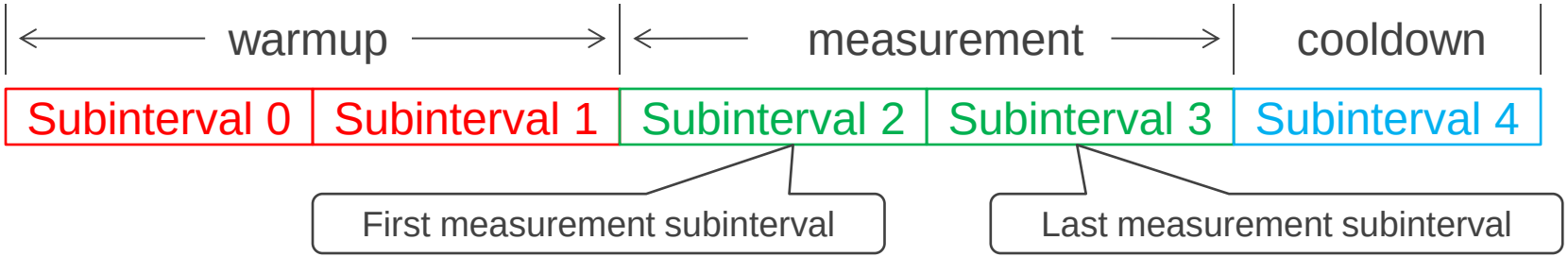
- `[Go] "stepname=random4K, subinterval_seconds=5, …"`
- The `[Go]` statement starts the workload threads running a "test step", which is a sequence of "subintervals" each of a duration specified in the `subinterval_seconds` parameter, defaulting to 5 seconds.
  - If you have a case for using ivy to measure a restricted set of things much more frequently, we can talk about putting in support.
  - Most of the time 5 seconds is plenty short and if you are going to be doing any tests that will run for hours you may want to consider a longer subinterval just to mercifully cut down on the size of the csv files by subinterval.
  - Sometimes when you say you want an answer to +/- 1% and the behaviour is a bit noisy, it can take time to see enough to say you are sufficiently confident statistically. (Did you say you wanted "valid" data?)

Test step = warmup, measure, cooldown



- There must be at least one warmup, one measurement, and one cooldown subinterval.
- Parameter defaults
  - `warmup_seconds = 5` - this number is divided by subinterval_seconds, and rounded up to get the (minimum) number of warmup subintervals.
  - `measure_seconds = 5` - also rounded up to the minimum number of measurement subintervals.
  - `cooldown_by_wp = on` - If a command device is available for the subsystem under test, the cooldown period is extended until write pending is empty.

For each test step you get:

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- A subfolder of the overall test output folder that contains the csv files with one line for each subinterval in that test step.
  - Nested subfolders for each workload data rollup
    - Containing a csv file for each rollup instance, with one line per subinterval.
  - A nested subfolder with raw RAID_subsystem RMLIB API data.
    - Collected time-synchronized "just before" the end of each subinterval.
- A single line in the overall test results "summary.csv" files.
  - In ivy terminology, this is called a "measurement" line, which represents the rollup from the first to last measurement subintervals.
    - Unless "`measure`" with specified accuracy timed out – then you get an error message line

cooldown_by_wp

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- Default: `cooldown_by_wp = on`
- Set `cooldown_by_wp = off`
  - When it is valid to carry forward Write Pending dirty data from one test step to the next.
  - This can speed up the next test step tremendously if
    - the next step doesn't stabilize until WP is full,
    - AND if both steps place the SAME things into WP.

The default `[Go]` statement

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- [go];
  - Default `warmup_seconds = 5`
  - Default `measure_seconds = 60`
  - runs at least one cooldown subinterval
    - if you have a command device, continuing more cooldown subintervals until WP is empty.
  - Useful when you are developing an ivyscript workflow and you just want to see quick sample csv files.

stepname

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- On the [Go] statement to start a test step, you can optionally specify `"stepname="`, which defaults to "step" followed by a four digit step number starting with 0000, so the default name for the first step is `step0000`.

- Giving a test step a meaningful name is useful when looking at overall measurement summary csv files (analogous to the vdbench "summary.html"), where you get one csv line for each test step.

- Those labels are handy when making Excel charts, as you can use the stepname column as the series name on a chart.