Supporting Information – S1 file

K. Břinda, V. Boeva, G. Kucherov: Dynamic read mapping and online consensus calling for better variant detection

To evaluate different read mapping scenarios with Dynamic Mapping Simulator (`http://github.com/karel-brinda/dymas`), we designed a series of runs (Table 1) with several different parameters (Table 2). For all experiments described in the paper, all runs were performed. In our analysis, we mainly considered several selected runs, which we compared in a particular way (Figure 1).

Generated PDF reports for all runs can be found in **S2 file**. Full HTML reports (files `3_evaluation.html`) for all runs are located in git repository `https://github.com/karel-brinda/dymas` in directory `experiments`. For instance, subdirectory `exp2.01__Tuberculosis__0.07-baq` corresponds to Experiment 2, Run 01.

Run	Mutation rate	Options
x.01	0.07	baq
x.02	0.07	
x.03	0.07	ococo32
x.04	0.07	ococo16
x.05	0.07	delstats
x.06	0.07	ins, dels
x.07	0.07	delstats, baq
x.08	0.07	dels
x.09	0.07	bowtie2
x.10	0.07	ins
x.11	0.07	ococo16, noremap
x.12	0.11	
x.13	0.13	
x.14	0.15	
x.15	0.07	delta500
x.16	0.07	bowtie2local
x.17	0.07	ococo16, stochastic

Table 1: List of all runs with their assigned options.

Option	Simulation	Description
BAQ	Ad hoc script	Allow base alignment quality recalibration in `samtools mpileup` (otherwise called with the `--no-BAQ` option).
DelStats	Ad hoc script	Add number of deletions to coverage (with coverage derived from A, C, G, T counters only, decision about updates with the majority strategy at a position with many deletions may be incorrect).
Bowtie2	Ad hoc script	Use Bowtie 2 in the global mode for read mapping instead of BWA-MEM.
Bowtie2local	Ad hoc script	Use Bowtie 2 in the local mode (option `--local`) for read mapping instead of BWA-MEM.
Delta500	Ad hoc script	In evaluation using RNFtools, set `allowed_delta` (tolerance, see `http://rnftools.readthedocs.io/en/latest/reference/02_lavender.html`) to 500.
Ococo	Ococo	Call consensus with Ococo (with statistics of 16 or 32 bits per position, i.e, using 3 or 7 bit counters, respectively) instead of Ad hoc script.
NoRemap	Ococo	Do not simulate remapping.
Ins	Ococo	Allow insertion updates.
Dels	Ococo	Allow deletion updates.
Stochastic	Ococo	Use the stochastic strategy in Ococo (parameter `--strategy stochastic`) instead of the majority strategy.

Table 2: Possible options for a run.

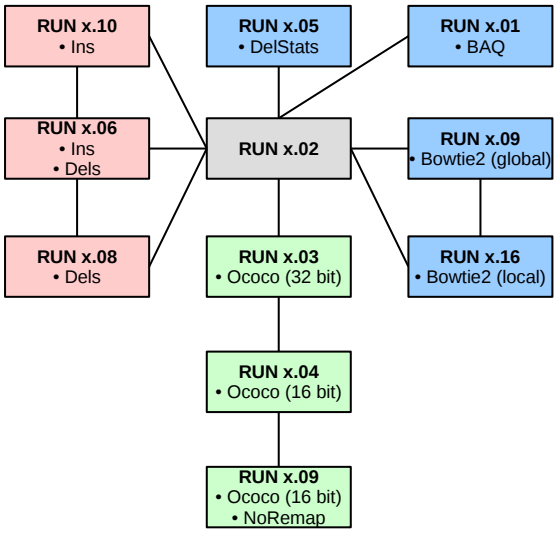

Figure 1: Scheme of selected runs with their options. Edges signalize runs to be considered for a mutual comparison.