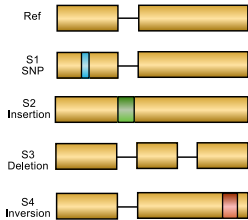
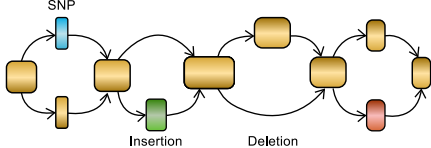
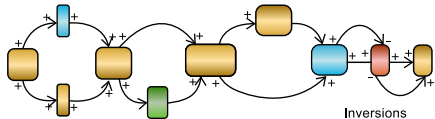


a

Multiple sequence alignment

bDirected acyclic genome graph (*Graphtyper*)**c**Bidirected genome graph (*vg*)