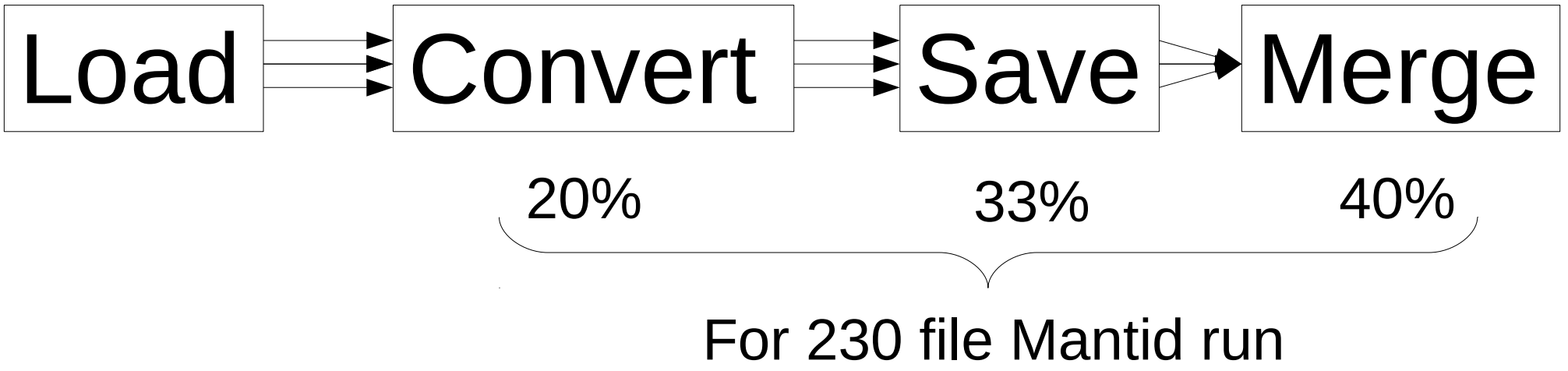
Mantid vs Horace on Melehan

Program	Number of Files	Combined File Size (GB)	Total Time (hours, quickest from all runs performed)
Mantid	230	139.6	2:48
Horace	230	156.3	1:06
Mantid	30	19.6	0:18
Horace	30	20.5	0:08



Slowest Areas on 150 GB Mantid Run on Melehan

- ~25 % of time spent in vector::reserve, called via MergeMDFiles, more time spent in vector::reserve as the run size increases, ~n^2 dependence
- ~13 % of time sorting to optimise loading, from SaveMD
- Writing to disk ~10 % of wall clock time, reading 2 % on Melehan
- Running on a desktop machine for a 20 GB output file reading is ~39 % and writing ~23% (memory limited – 16 GB on desktop and 256 GB on Melehan)
- Overhead from NeXus is small, although direct writing may allow for optimisation in terms of chunking and compression