

By this plot we can tell that MRV heuristic is faster than the FirstAvailable. For most of the time, MRV heuristic can give the smallest domain to start at so algorithm will take less time to test if number fit current variable. At bottom we can see three points showing that in those sudoku problem, FirstAvailable is faster than MRV. This could cause by the unassigned variable in those problems after pre-consistency are already having the smallest domain in the first available variable and so on for each recursion. Because the first available variable is already the smallest domain, in those problem it has MRV's advantage and doesn't need to make loop to figure out the smallest domain variable. For those point overlap at bottom left corner, can cause by the pre-consistency figures out all or most of the unassigned variable's number. So, before the backtracking, the answer already or mostly exist so FirstAvailable and MRV didn't really affect the time (but MRV shows after than FirstAvailable by the overlap mostly take space above the diagonal).