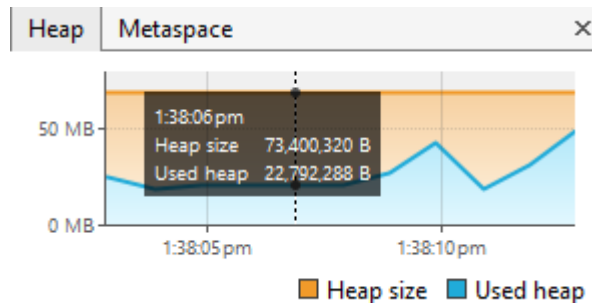


# Report for Memory Usage



For both layouts, I have used a max size of 50,000 Logs because this is the highest amount my computer can run without going buggy.

The first spike in memory usage is from the pattern layout. This is a spike of around 23 mb.

The second spike in memory usage is from the velocity layout, This is a spike of around 30 mb.

The pattern spike uses around 7mb less per 50,000 tests which is a significant amount.

The max size for a long variable is over 9 quintillion. This means that at full storage, the velocity pattern would use  $(9 \text{ quintillion} / 50,000) * 7 = 1.26e+15 \text{ mb}$  more than the pattern layout.

This would not be suitable at all for larger tests.

My theory as to why this is happening is due to the way I have had to code the velocity layout. By adding the template into a string and then using the string as the layout source, I have added a few extra lines of code that the program will have to run through for every instance, generating a very large backlog.