

I believe that the increased performance on the float version of the fractal program is due to the decreased precision of the floats, which decreases the amount of time it takes to complete the program. The decrease in time may be due to the less required memory bandwidth and faster ability to calculate the floats compared to the doubles. I think the reasoning behind using doubles is to achieve higher detail in the images, but if the goal is faster runtimes, floats should be used.