During my testing of the Binary and Trinary search methods I found that the Binary search is generally the faster of the two. Analysis of their big-O Time complexity tells us that both Binary and Trinary search are the same at O(log N). The big difference between the two, however, is found in the number of comparisons they make. From what I could find, Trinary search makes around double the comparisons of Binary search in the worst case.

|  |  |  |
| --- | --- | --- |
| Number of Elements | Binary Search Time | Trinary Search Time |
| 10 | 7.76e-05 | 6.833e-05 |
| 100 | 0.0001007 | 0.0003697 |
| 1000 | 0.0001133 | 0.00034 |

(Note: the times were measured using chrono high resolution clock). As you can see Binary Search Outperforms the Trinary Search especially as we get a larger set of elements.