**Using tictoc**

**Scenario one – 2 target features (Prevalence at times 50 & 75)**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Total runtime (secs ) | Model runtime (secs ) | Algorithm implementation time? (secs ) |
| Rejection | 1099.54  (18.33 mins) | 859.85 | 239.66 |
| Sequential | 2260.73  (37.68 mins) | 445.98 | 1814.75 |

**Using microbenchmark**

**Scenario one – 2 target features (Prevalence at times 50 & 75)**

**Number of simulations – 60000**

**Targets used – (0.644, 0.404)**

**Parameters used to generate targets – (beta = 0.2, gamma = 0.02)**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Total runtime (secs ) | Model runtime (secs ) | Algorithm implementation time? (secs ) |
| Rejection | 12386.56  (3.4 hrs) | 331.12 | 12055.44  (3.35 hrs) |
| Sequential | 11025.15  (3.04 hrs) | 213.33 | 10811.82  (3.0 hrs) |

**Scenario two – 3 target features (Prevalence at times 50 & 75 + peak prevalence)**

**Number of simulations – 75000**

**Targets used – (0.622, 0.371, 0.677)**

**Parameters used to generate targets – (beta = 0.2, gamma = 0.02)**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Total runtime (secs ) | Model runtime (secs ) | Algorithm implementation time? (secs ) |
| Rejection | 18318.17  (5 hrs) | 532.51 | 17785.66  (4.94 hrs) |
| Sequential | 23037.01  (6.4 hrs) | 563.92 | 22473.09  (6.2 hrs) |