

Connor Burleson

CS 201 – Assignment #6

HDD Simulation

Professor Hibbeler

**Experiment #1 (Seed 8):**

<b>Track Numbers (25 Requests)</b>	[96 170 47 183 157 108 88 140 152 158 169 138 186 22 137 142 177 68 131 102 96 118 0 77 27]
<b>FCFS Service Order</b>	[96 170 47 183 157 108 88 140 152 158 169 138 186 22 137 142 177 68 131 102 96 118 0 77 27]
<b>SSTF Service Order</b>	[102 96 96 88 77 68 47 27 22 0 108 118 131 137 138 140 142 152 157 158 169 170 177 183 186]
<b>SCAN Service Order</b>	[102 108 118 131 137 138 140 142 152 157 158 169 170 177 183 186 96 96 88 77 68 47 27 22 0]

<b>Scheduler Type</b>	<b>Mean Displacement Per Request</b>
FCFS	55.40
SSTF	11.60
SCAN	10.88

**Experiment #2 (Seed 11):**

<b>Track Numbers (25 Requests)</b>	[114 79 124 44 56 143 143 124 196 184 103 20 26 153 80 115 103 41 28 32 89 198 43 100 149]
<b>FCFS Service Order</b>	[114 79 124 44 56 143 143 124 196 184 103 20 26 153 80 115 103 41 28 32 89 198 43 100 149]
<b>SSTF Service Order</b>	[100 103 103 114 115 124 124 143 143 149 153 184 196 198 89 80 79 56 44 43 41 32 28 26 20]
<b>SCAN Service Order</b>	[103 114 115 124 143 149 153 184 196 198 143 124 103 100 89 80 79 56 44 43 41 32 28 26 20]

<b>Scheduler Type</b>	<b>Mean Displacement Per Request</b>
FCFS	51.96
SSTF	11.04
SCAN	11.14

**Experiment #3 (Seed 14):**

<b>Track Numbers (25 Requests)</b>	[133 189 0 104 156 177 197 109 39 10 37 103 66 85 23 88 29 14 125 161 82 77 86 122 72]
<b>FCFS Service Order</b>	[133 189 0 104 156 177 197 109 39 10 37 103 66 85 23 88 29 14 125 161 82 77 86 122 7]
<b>SSTF Service Order</b>	[103 104 109 122 125 133 156 161 177 189 197 88 86 85 82 77 72 66 39 37 29 23 14 10 0]
<b>SCAN Service Order</b>	[103 104 109 122 125 133 156 161 177 189 197 88 86 85 82 77 72 66 39 37 29 23 14 10 0]

<b>Scheduler Type</b>	<b>Mean Displacement Per Request</b>
FCFS	53.52
SSTF	11.76
SCAN	11.88

**Experiment #4 (Seed 16):**

<b>Track Numbers (25 Requests)</b>	[78 62 185 145 23 0 34 165 135 161 59 24 26 173 185 136 179 63 123 48 77 63 182 4 20]
<b>FCFS Service Order</b>	[78 62 185 145 23 0 34 165 135 161 59 24 26 173 185 136 179 63 123 48 77 63 182 4 20]
<b>SSTF Service Order</b>	[78 77 63 63 62 59 48 34 26 24 23 20 4 0 123 135 136 145 161 165 173 179 182 185 185]
<b>SCAN Service Order</b>	[123 135 136 145 161 165 173 179 182 185 185 78 77 63 63 62 59 48 34 26 24 23 20 4 0]

<b>Scheduler Type</b>	<b>Mean Displacement Per Request</b>
FCFS	62.56
SSTF	11.40
SCAN	10.80

**Experiment #5 (Seed 17):**

<b>Track Numbers (25 Requests)</b>	[151 99 77 165 56 11 52 93 83 36 171 185 106 17 166 61 155 187 22 91 75 156 129 145 194]
<b>FCFS Service Order</b>	[151 99 77 165 56 11 52 93 83 36 171 185 106 17 166 61 155 187 22 91 75 156 129 145 194]
<b>SSTF Service Order</b>	[99 93 91 83 77 75 61 56 52 36 22 17 11 106 129 145 151 155 156 165 166 171 185 187 194]
<b>SCAN Service Order</b>	[106 129 145 151 155 156 165 166 171 185 187 194 99 93 91 83 77 75 61 56 52 36 22 17 11]

Scheduler Type	Mean Displacement Per Request
FCFS	65.04
SSTF	10.90
SCAN	11.08