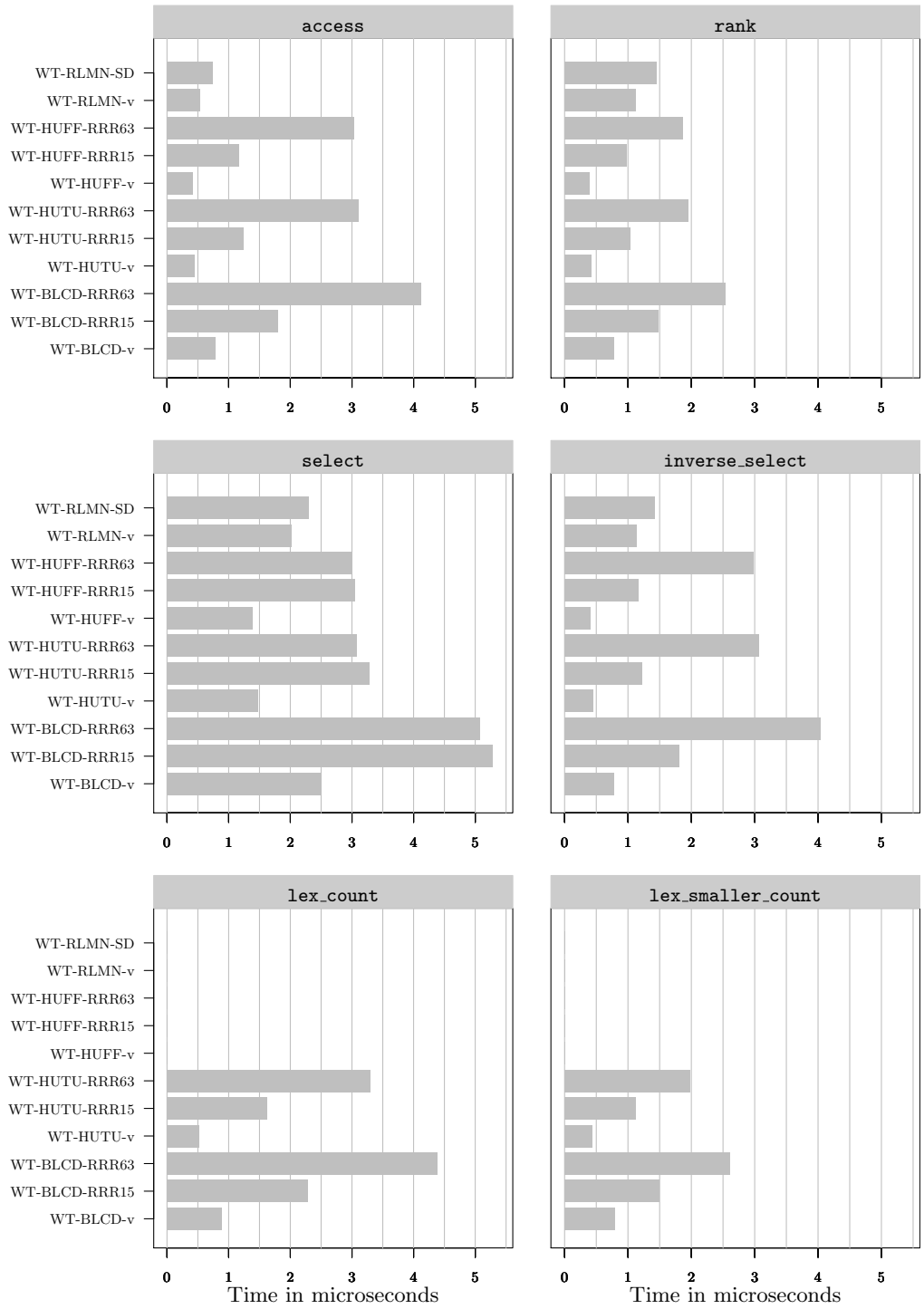
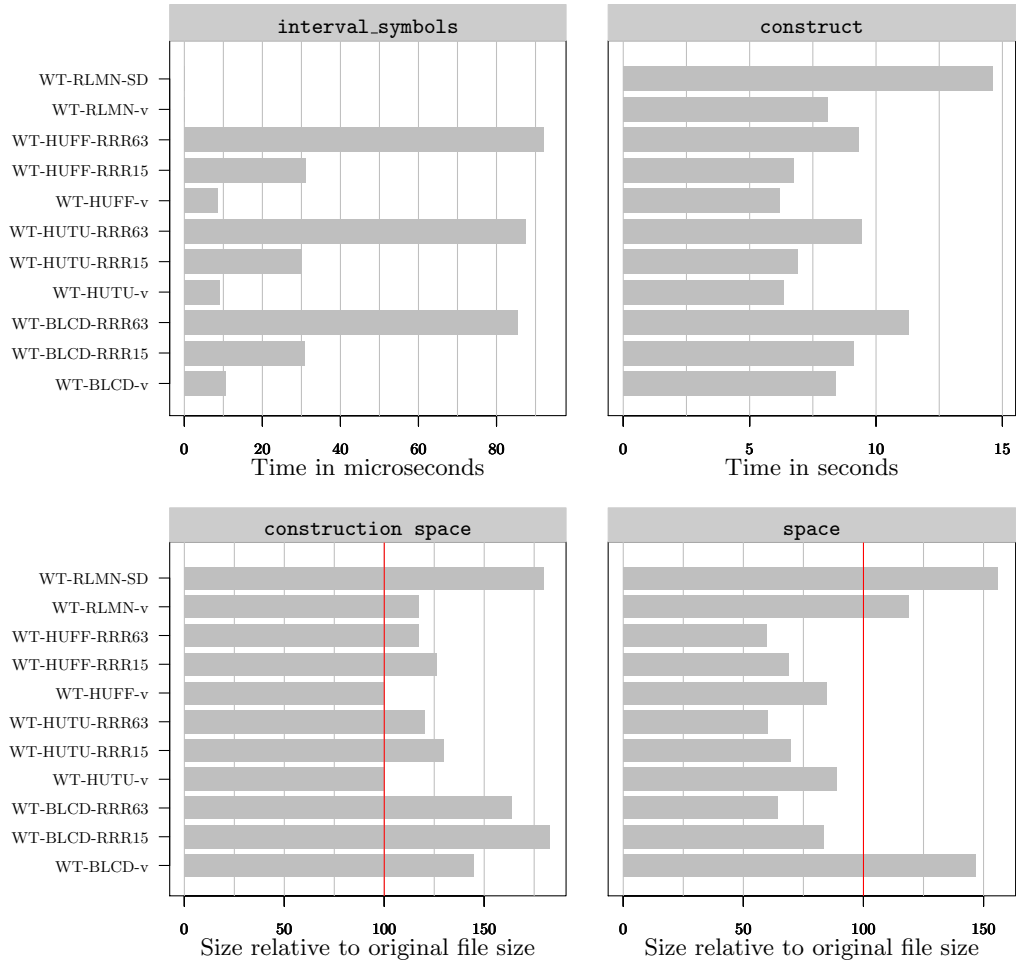
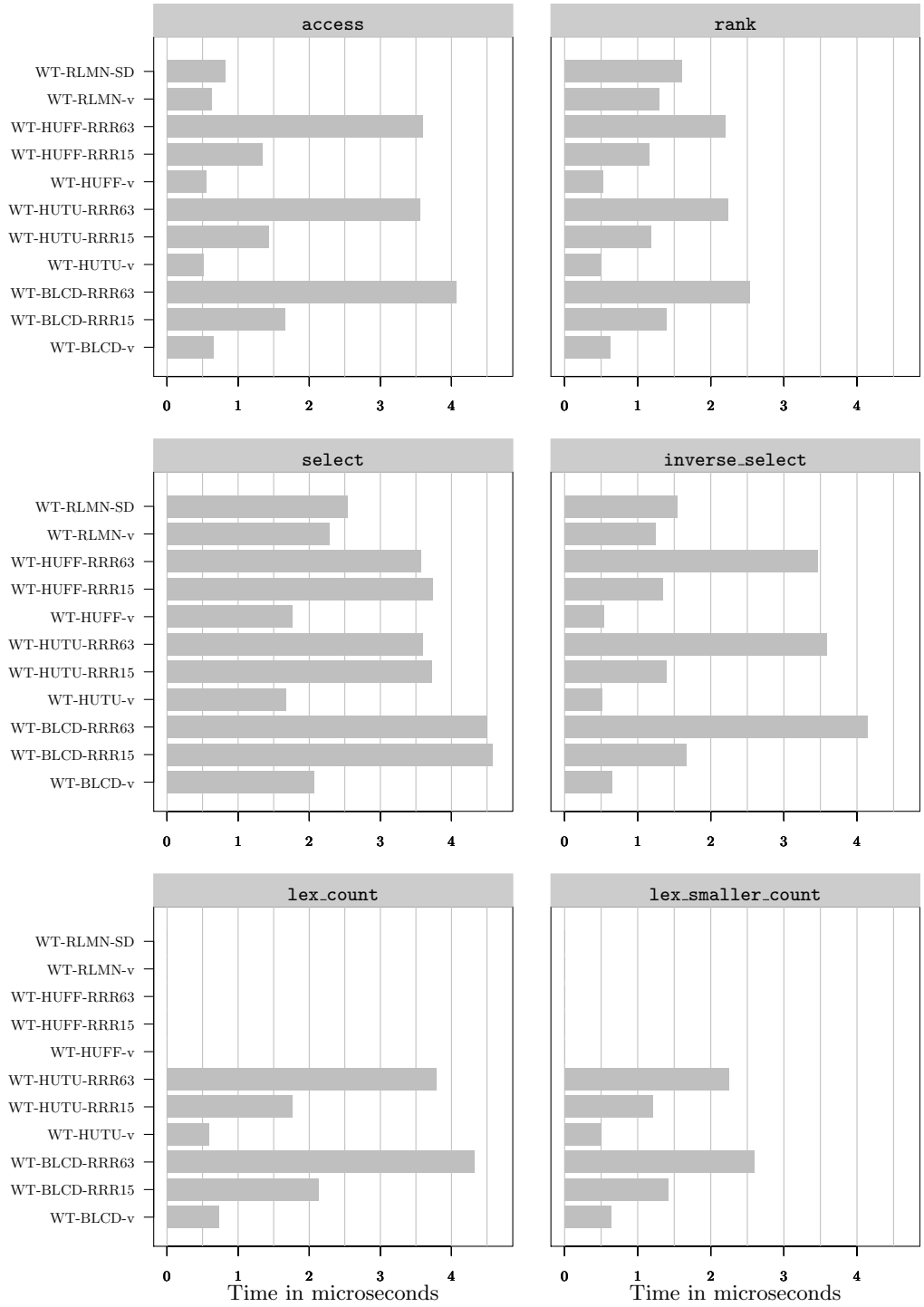
1 Result of the Wavelet Tree benchmark

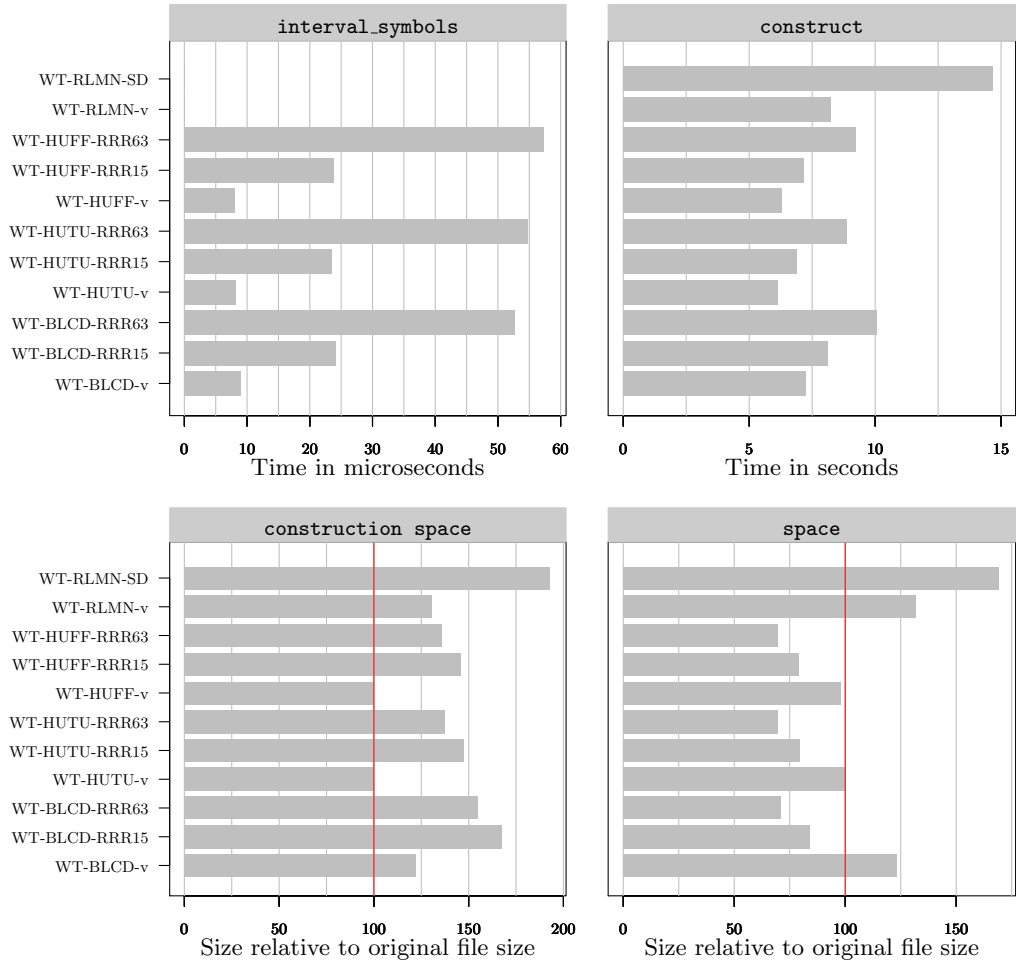
1.1 Test case: ENGLISH.200MB



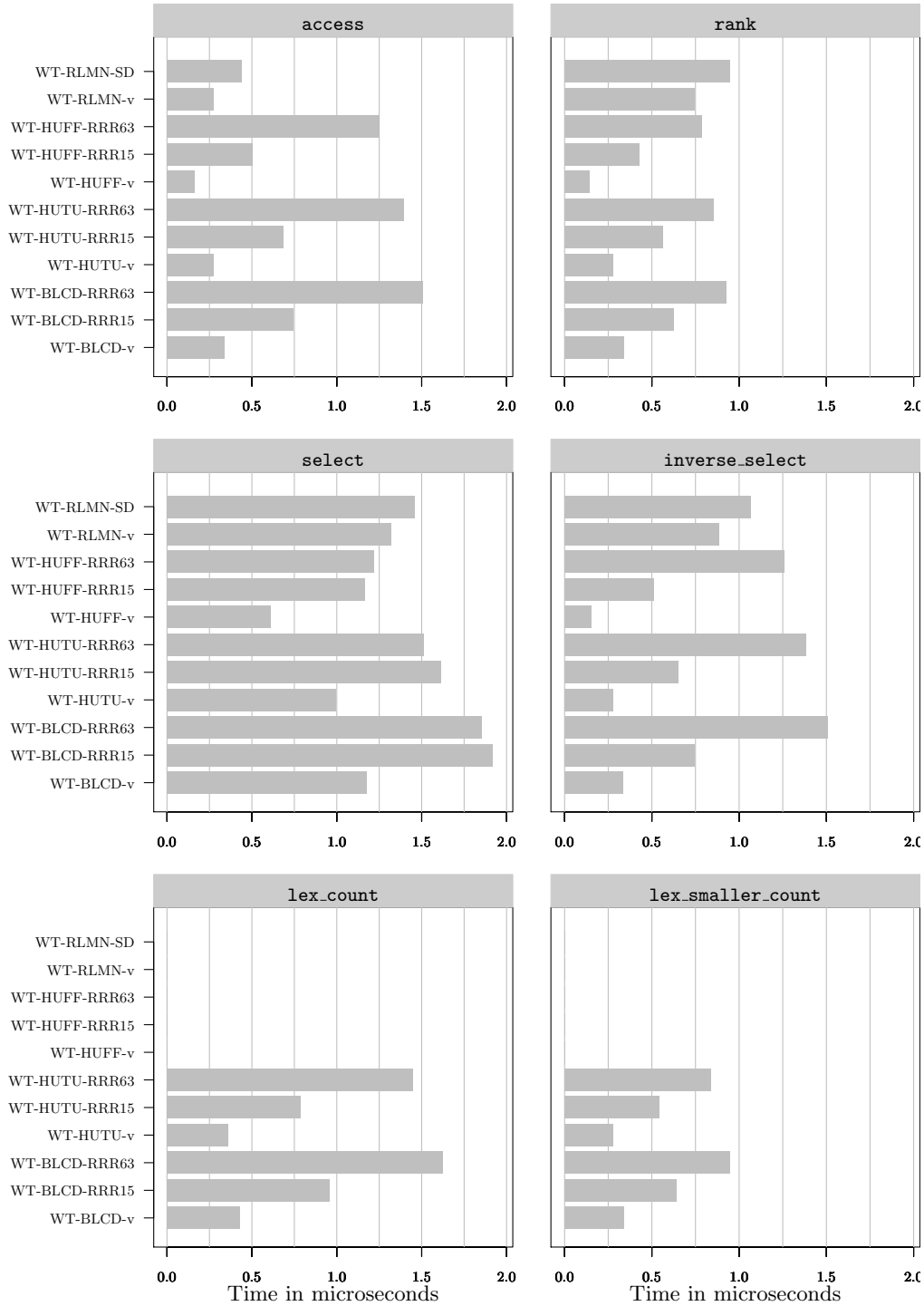

interval_symbols
construct
WT-RLMN-SD
WT-RLMN-v
WT-HUFF-RRR63
WT-HUFF-RRR15
WT-HUFF-v
WT-HUTU-RRR63
WT-HUTU-RRR15
WT-HUTU-v
WT-BLCD-RRR63
WT-BLCD-RRR15
WT-BLCD-v
0
20
40
60
80
Time in microseconds
0
5
10
15
Time in seconds
construction space
space
0
50
100
150
Size relative to original file size
0
50
100
150
Size relative to original file size

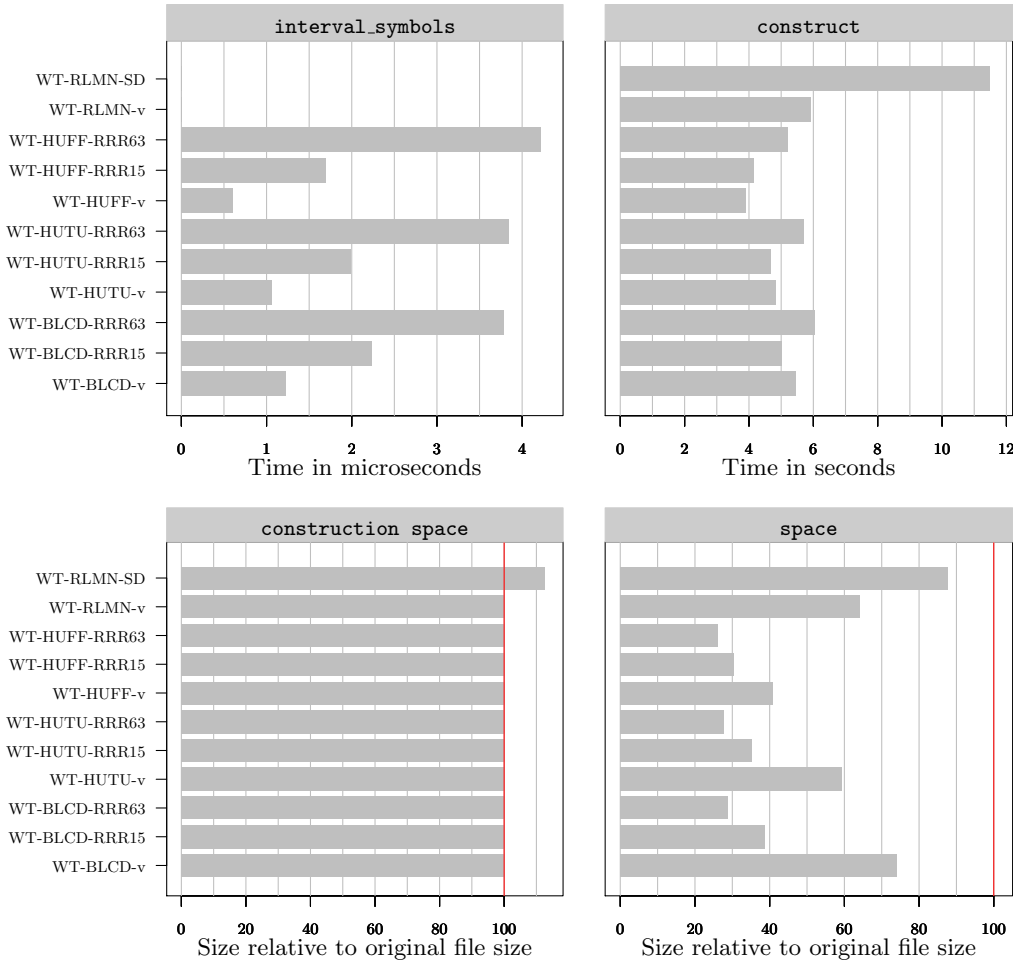
1.2 Test case: DBLP.XML.200MB



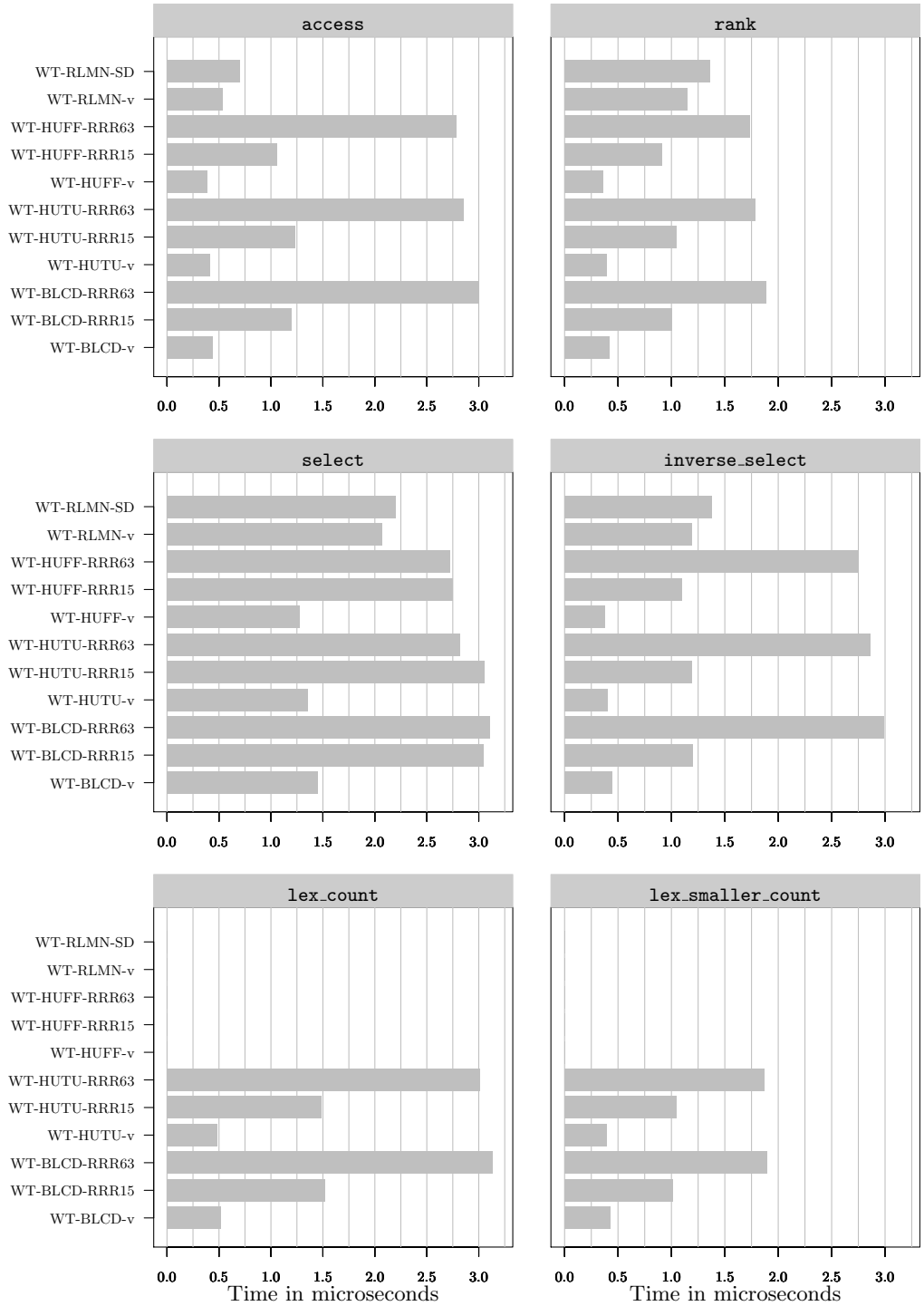

interval_symbols
construct
WT-RLMN-SD
WT-RLMN-v
WT-HUFF-RRR63
WT-HUFF-RRR15
WT-HUFF-v
WT-HUTU-RRR63
WT-HUTU-RRR15
WT-HUTU-v
WT-BLCD-RRR63
WT-BLCD-RRR15
WT-BLCD-v
0 10 20 30 40 50 60
Time in microseconds
0 5 10 15
Time in seconds
construction space
space
0 50 100 150 200
Size relative to original file size
0 50 100 150
Size relative to original file size

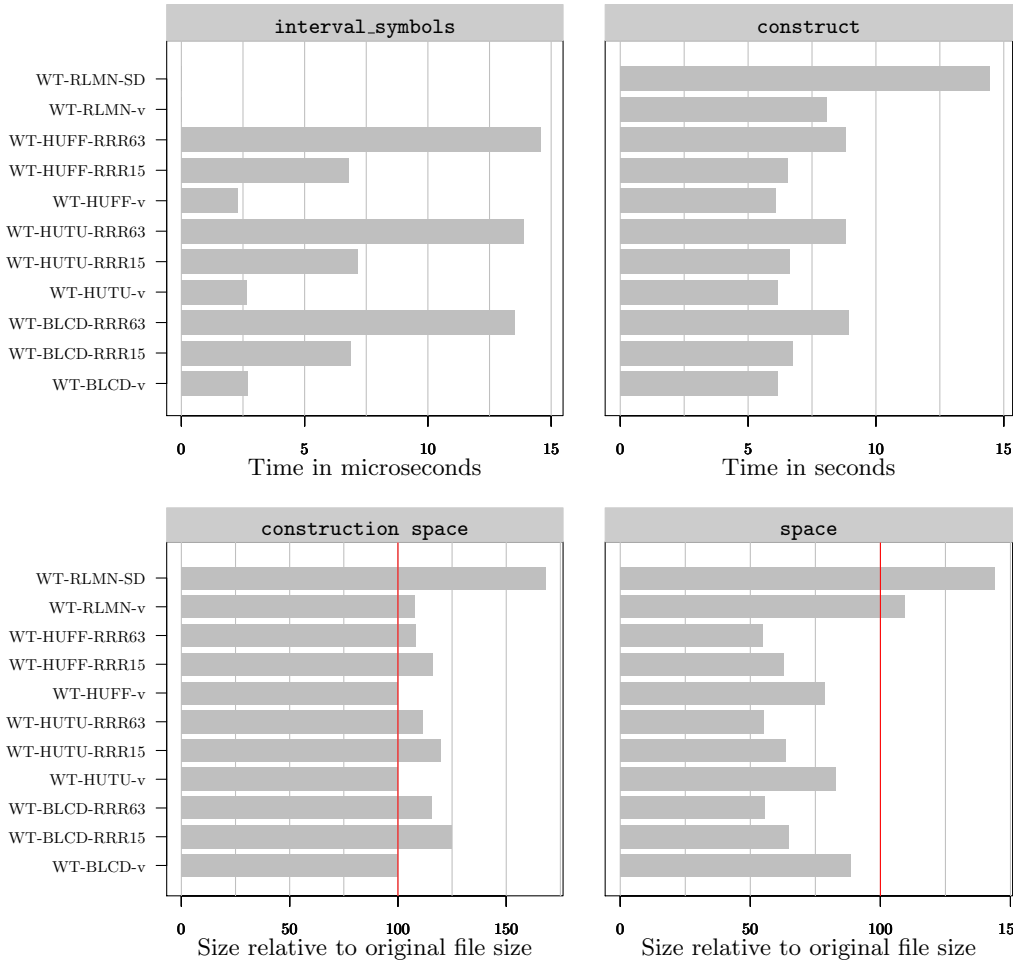
1.3 Test case: DNA.200MB



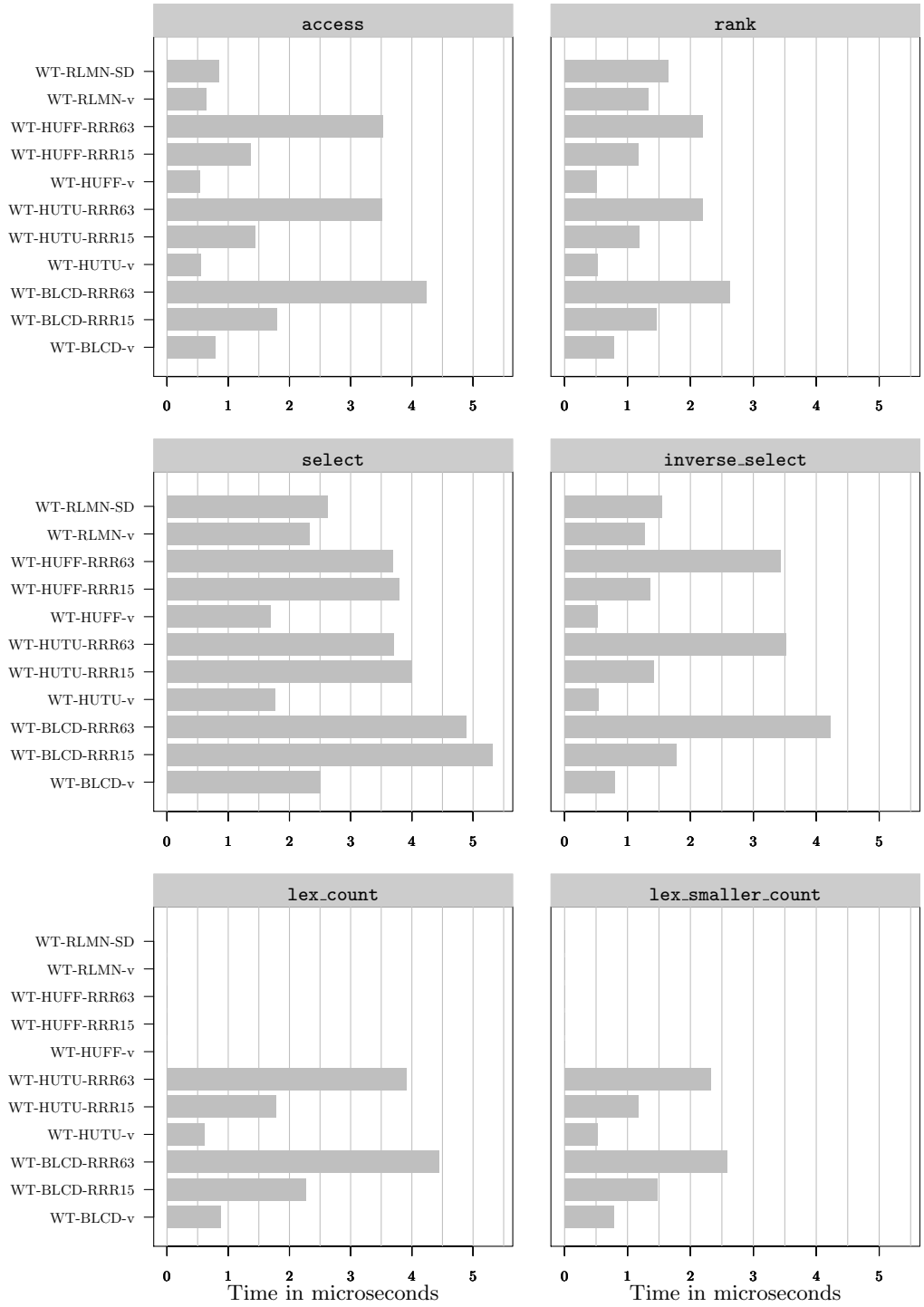

interval_symbols
construct
WT-RLMN-SD
WT-RLMN-v
WT-HUFF-RRR63
WT-HUFF-RRR15
WT-HUFF-v
WT-HUTU-RRR63
WT-HUTU-RRR15
WT-HUTU-v
WT-BLCD-RRR63
WT-BLCD-RRR15
WT-BLCD-v
0 1 2 3 4
Time in microseconds
0 2 4 6 8 10 12
Time in seconds
construction space
space
0 20 40 60 80 100
Size relative to original file size
0 20 40 60 80 100
Size relative to original file size

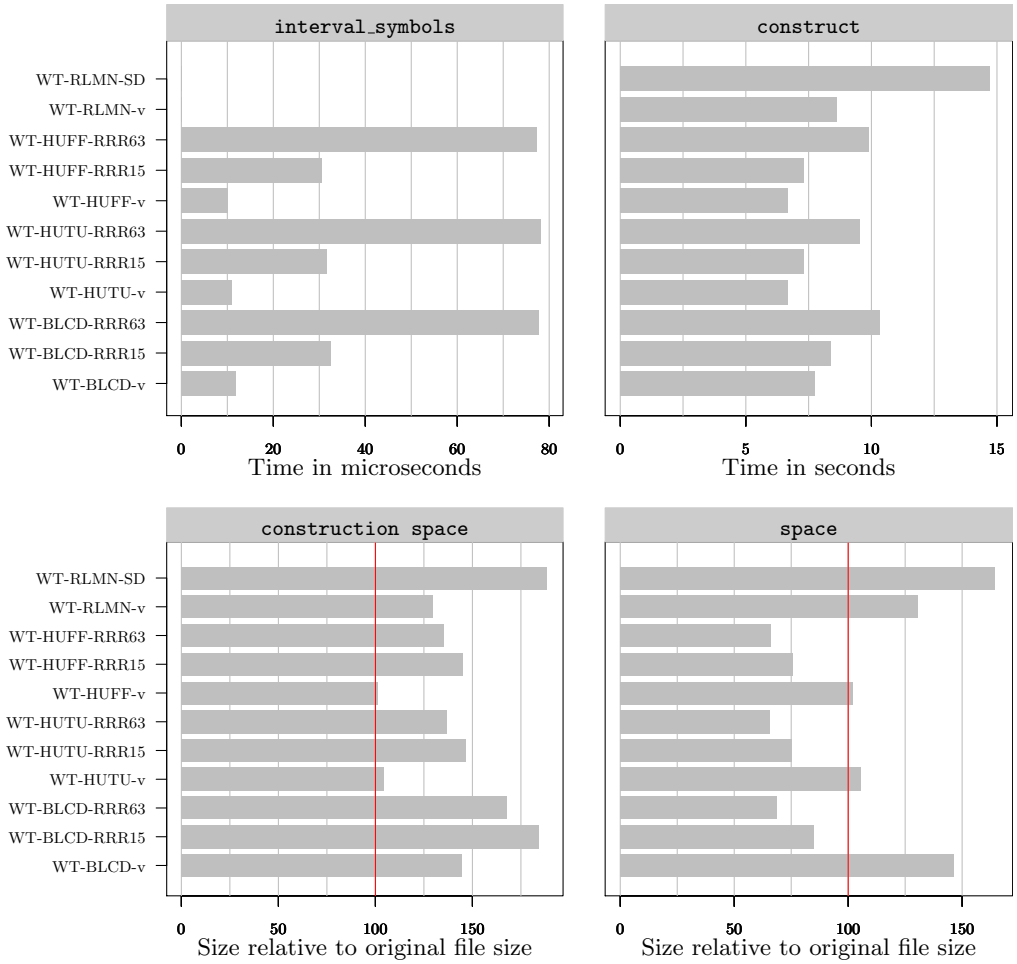
1.4 Test case: PROTEINS.200MB



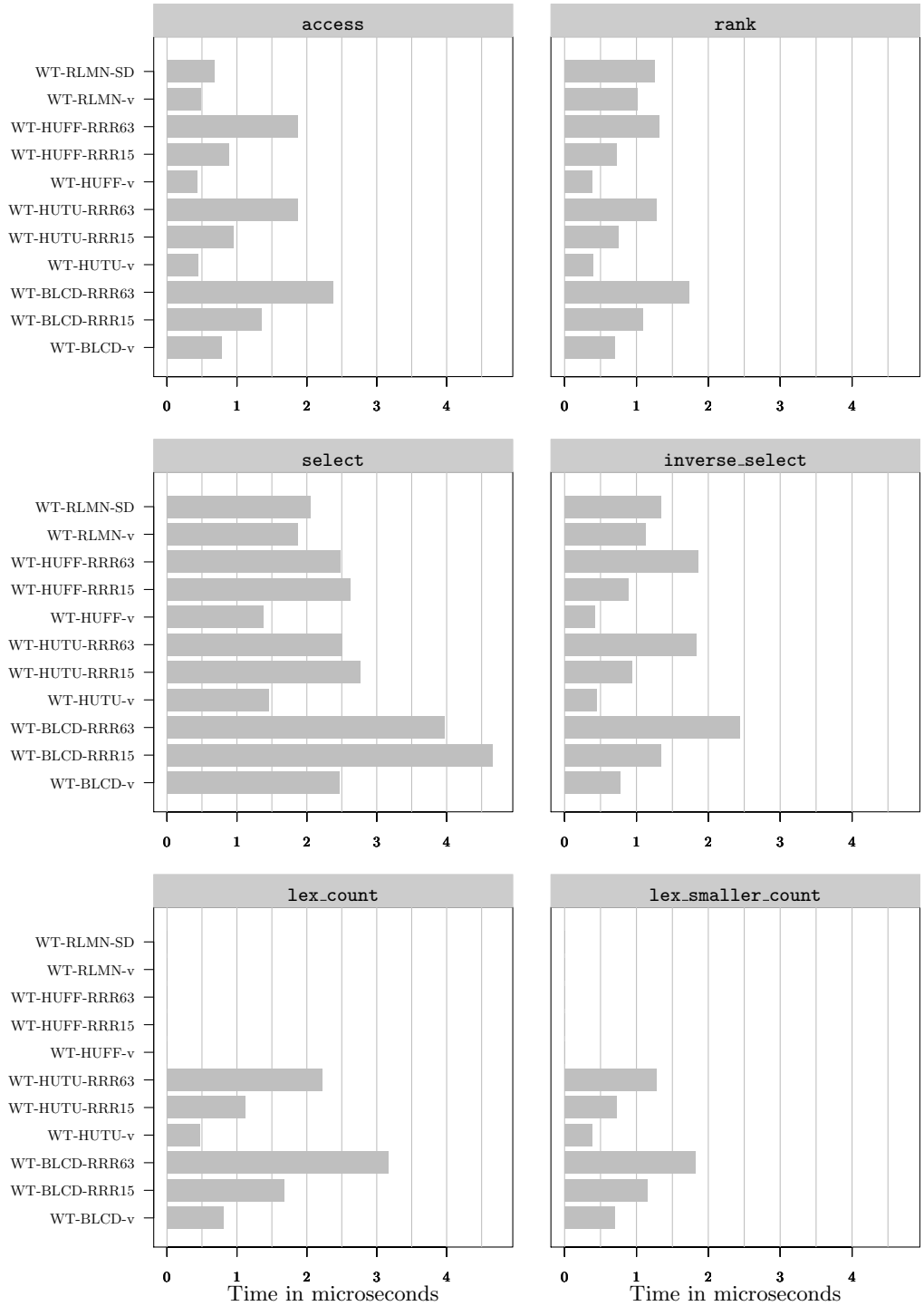

interval_symbols
construct
WT-RLMN-SD
WT-RLMN-v
WT-HUFF-RRR63
WT-HUFF-RRR15
WT-HUFF-v
WT-HUTU-RRR63
WT-HUTU-RRR15
WT-HUTU-v
WT-BLCD-RRR63
WT-BLCD-RRR15
WT-BLCD-v
0
5
10
15
Time in microseconds
Time in seconds
construction space
space
0
50
100
150
Size relative to original file size

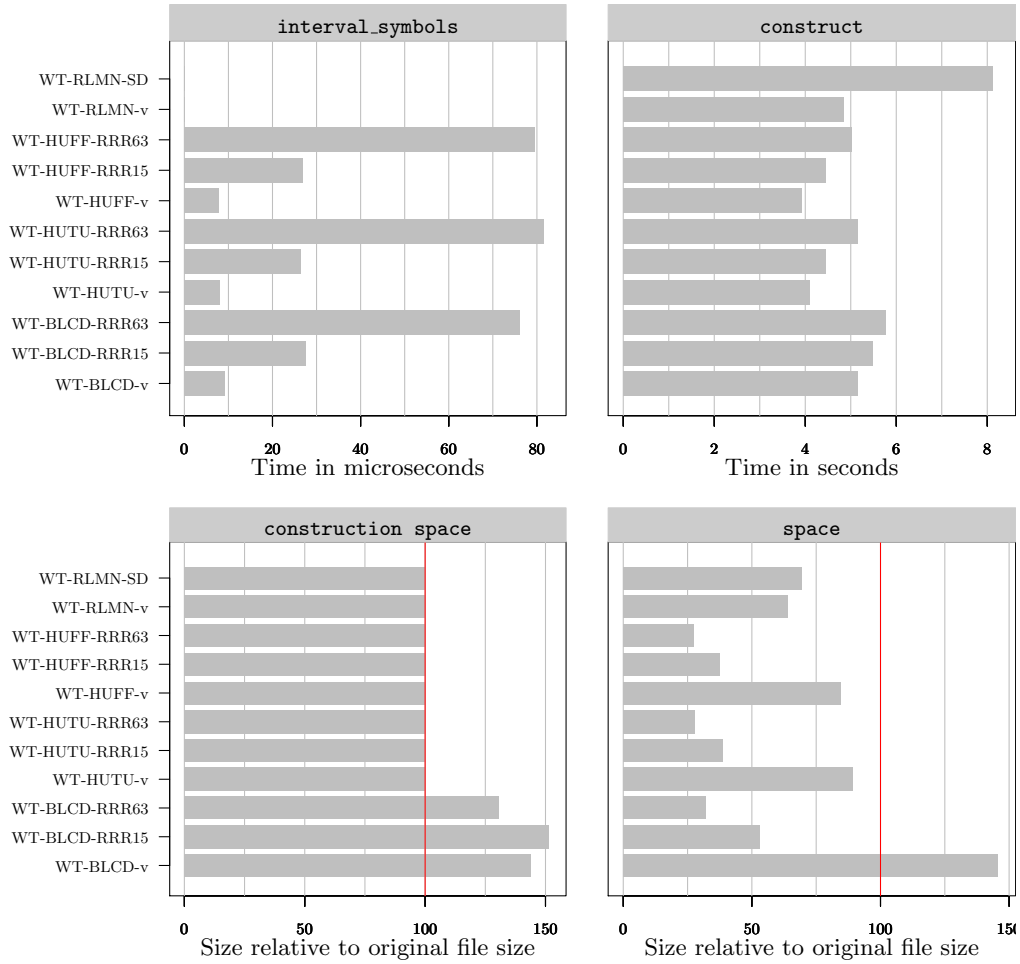
1.5 Test case: SOURCES.200MB



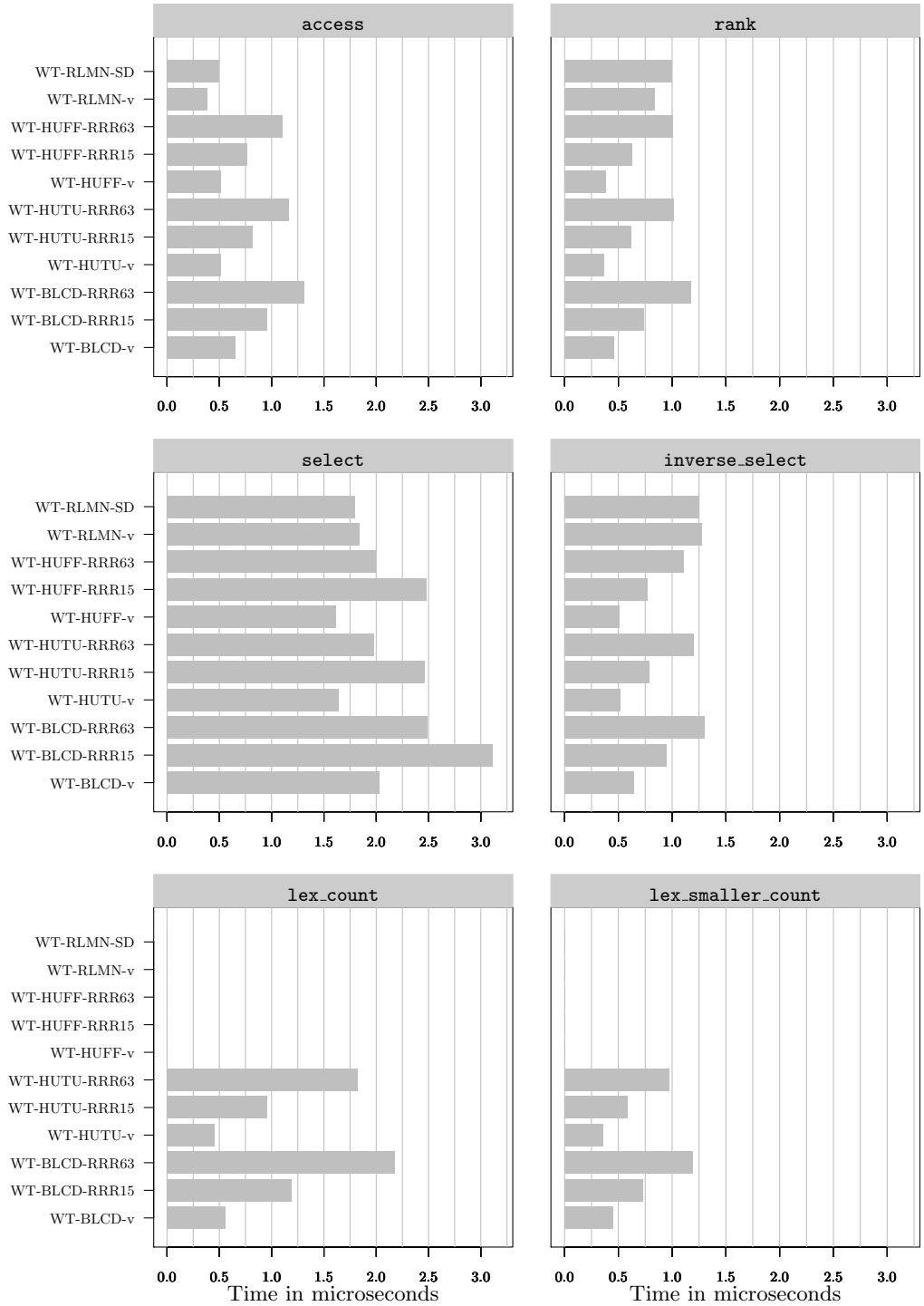

interval_symbols
construct
WT-RLMN-SD
WT-RLMN-v
WT-HUFF-RRR63
WT-HUFF-RRR15
WT-HUFF-v
WT-HUTU-RRR63
WT-HUTU-RRR15
WT-HUTU-v
WT-BLCD-RRR63
WT-BLCD-RRR15
WT-BLCD-v
0
20
40
60
80
Time in microseconds
0
5
10
15
Time in seconds
construction space
space
0
50
100
150
Size relative to original file size
0
50
100
150
Size relative to original file size

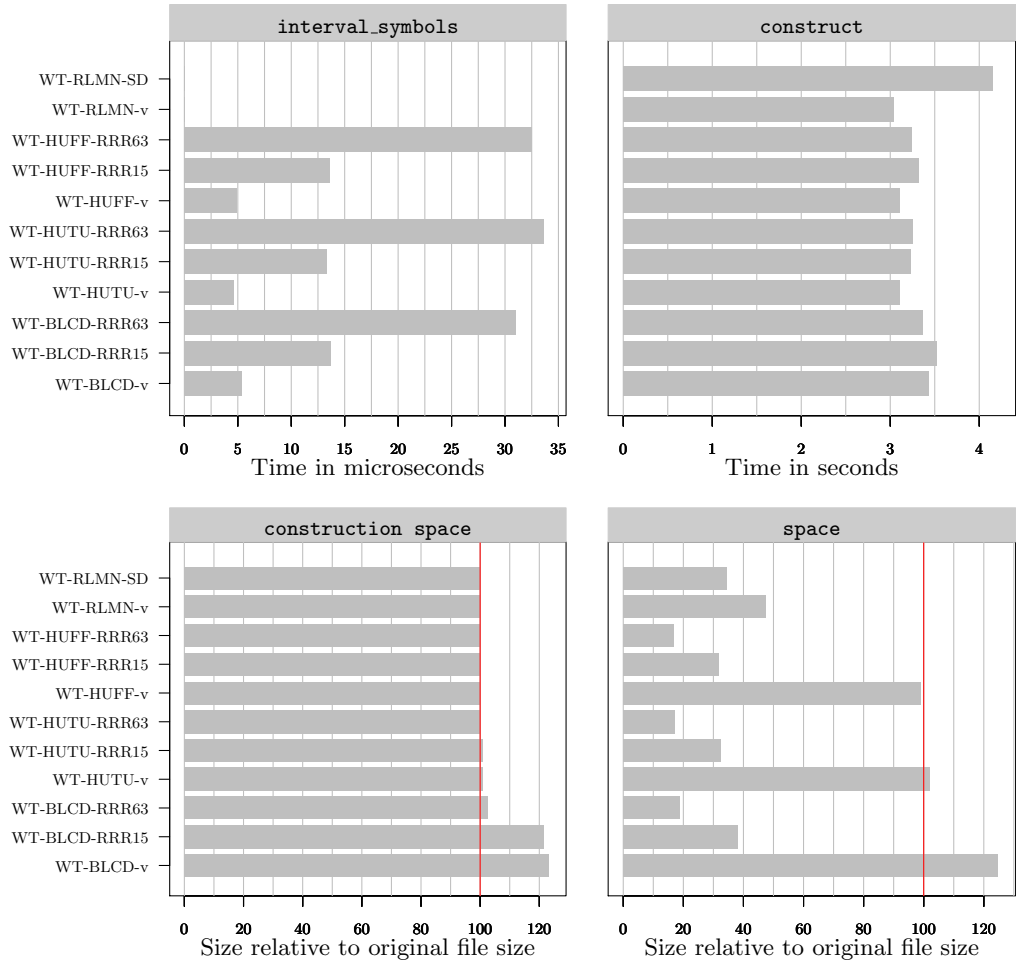
1.6 Test case: ENGLISH.200MB-BWT



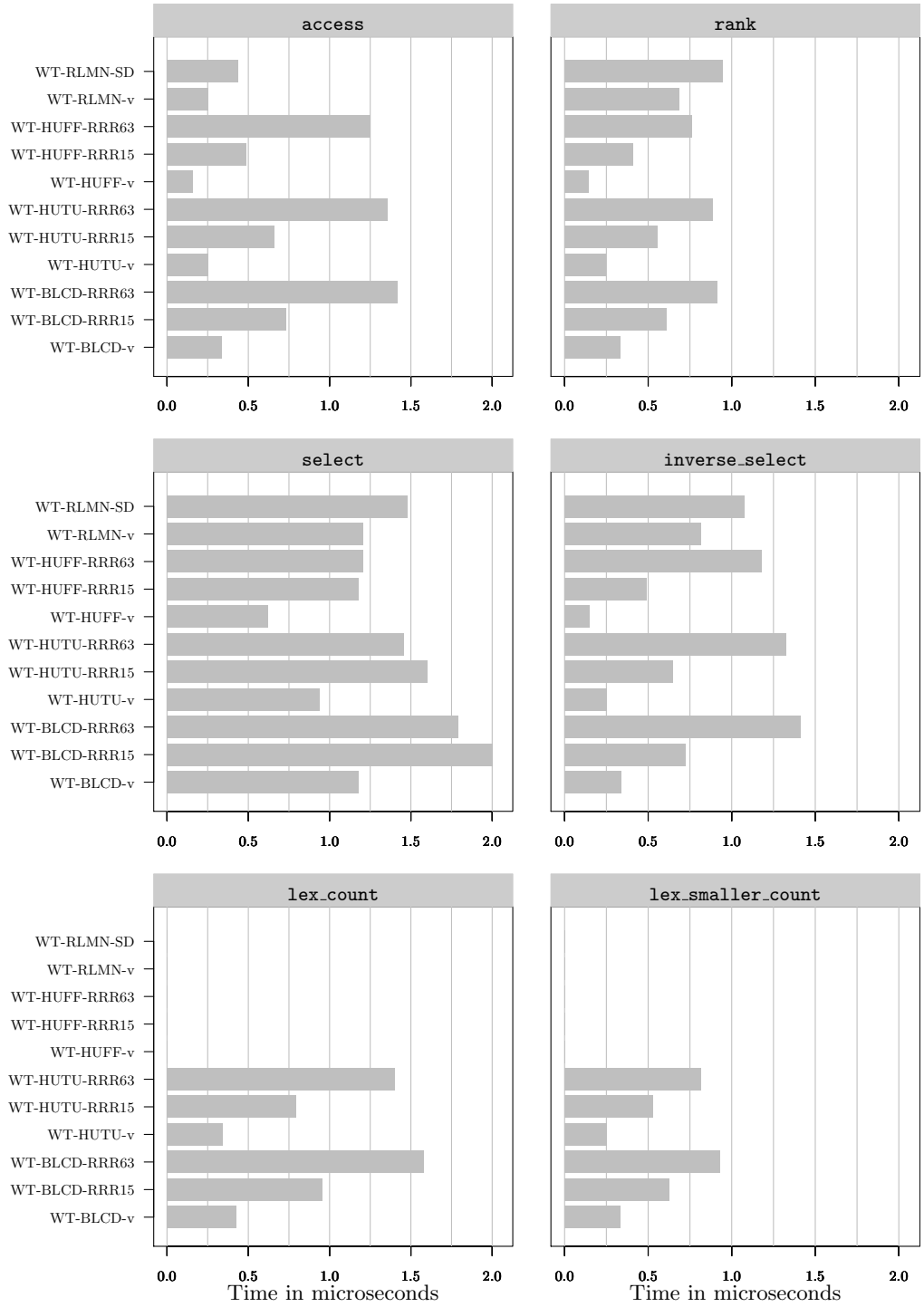

interval_symbols
construct
WT-RLMN-SD
WT-RLMN-v
WT-HUFF-RRR63
WT-HUFF-RRR15
WT-HUFF-v
WT-HUTU-RRR63
WT-HUTU-RRR15
WT-HUTU-v
WT-BLCD-RRR63
WT-BLCD-RRR15
WT-BLCD-v
0
20
40
60
80
Time in microseconds
0
2
4
6
8
Time in seconds
construction space
space
0
50
100
150
Size relative to original file size
0
50
100
Size relative to original file size

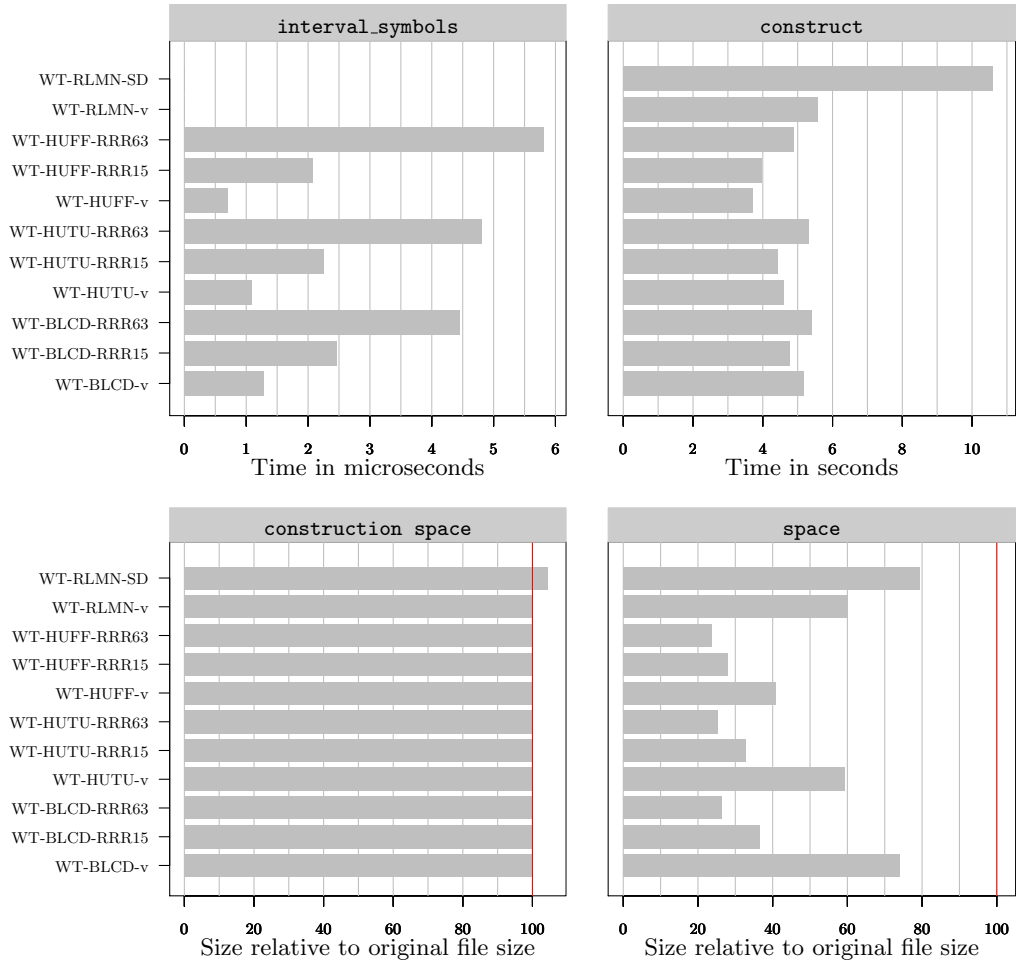
1.7 Test case: DBLP.XML.200MB-BWT



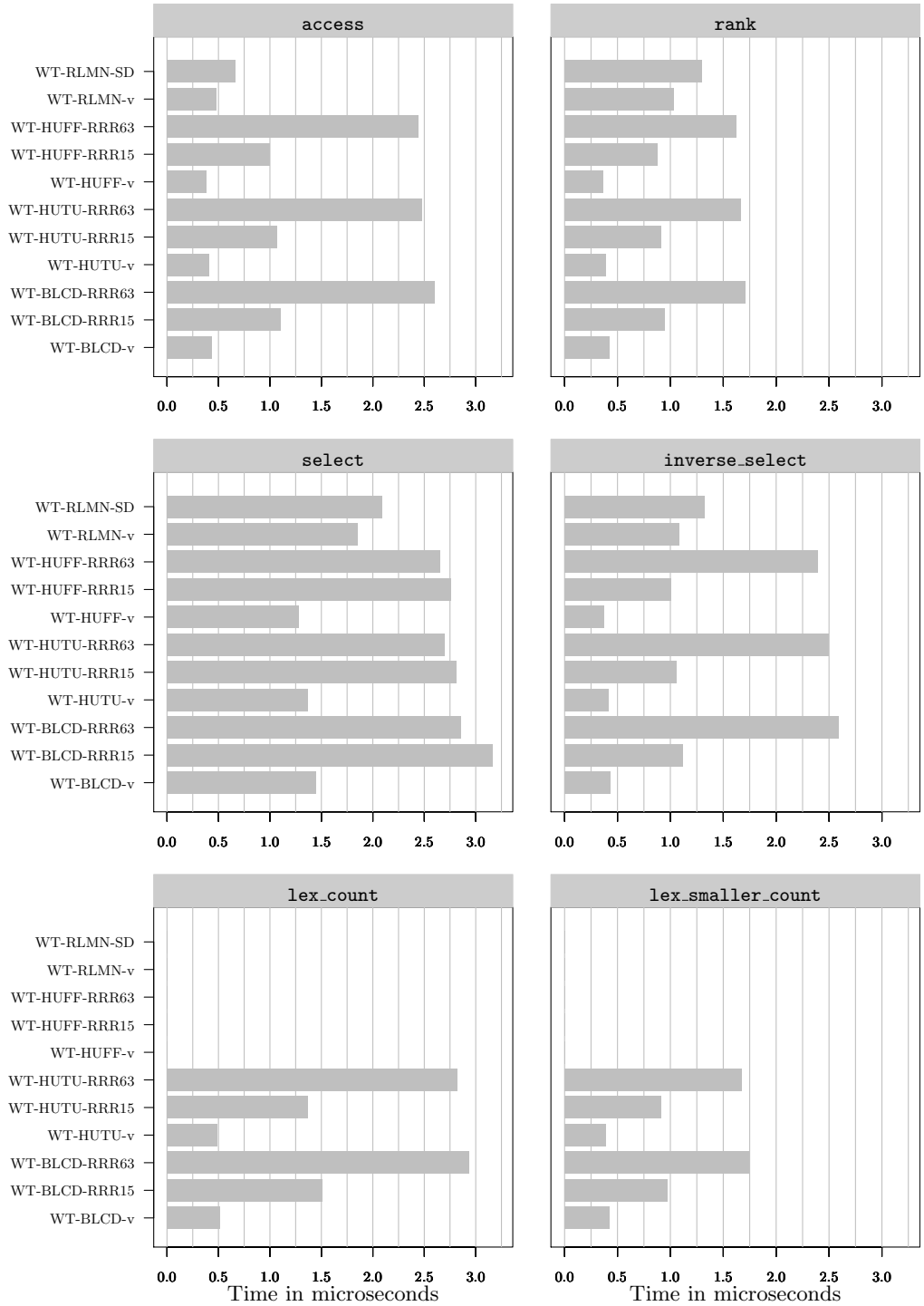

interval_symbols
construct
WT-RLMN-SD
WT-RLMN-v
WT-HUFF-RRR63
WT-HUFF-RRR15
WT-HUFF-v
WT-HUTU-RRR63
WT-HUTU-RRR15
WT-HUTU-v
WT-BLCD-RRR63
WT-BLCD-RRR15
WT-BLCD-v
0 5 10 15 20 25 30 35
Time in microseconds
0 1 2 3 4
Time in seconds
construction space
space
0 20 40 60 80 100 120
Size relative to original file size
0 20 40 60 80 100 120
Size relative to original file size

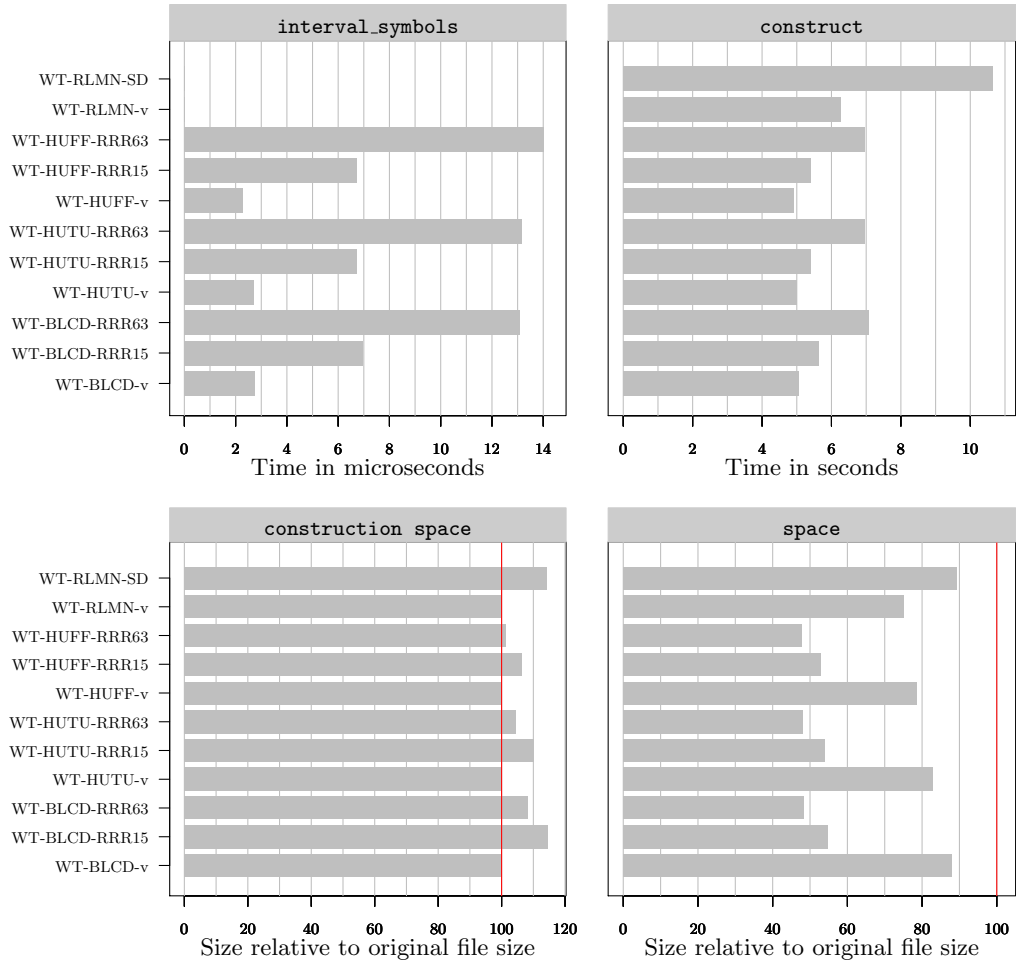
1.8 Test case: DNA.200MB-BWT



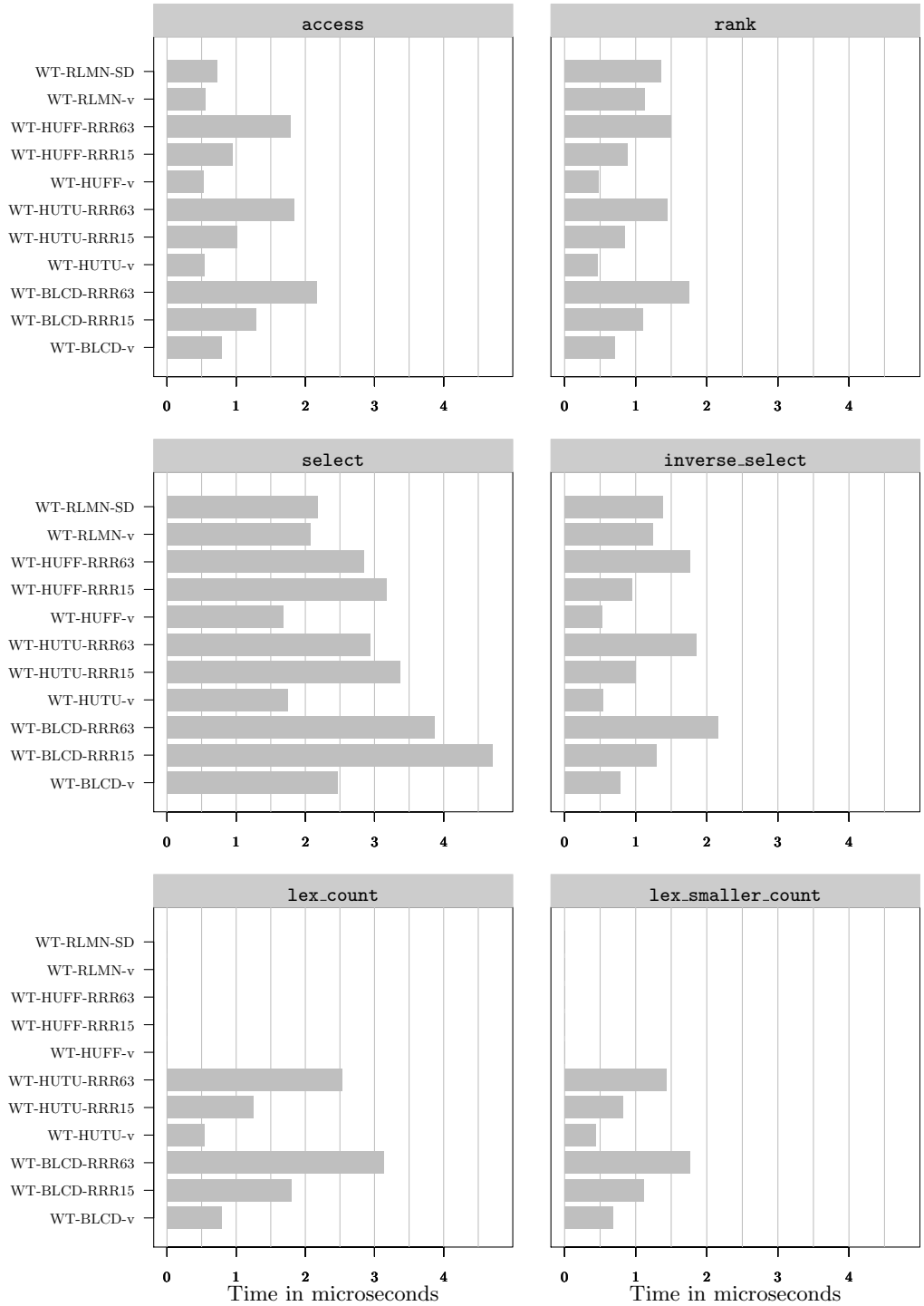

interval_symbols
construct
WT-RLMN-SD
WT-RLMN-v
WT-HUFF-RRR63
WT-HUFF-RRR15
WT-HUFF-v
WT-HUTU-RRR63
WT-HUTU-RRR15
WT-HUTU-v
WT-BLCD-RRR63
WT-BLCD-RRR15
WT-BLCD-v
0 1 2 3 4 5 6
Time in microseconds
0 2 4 6 8 10
Time in seconds
construction space
space
0 20 40 60 80 100
Size relative to original file size
0 20 40 60 80 100
Size relative to original file size

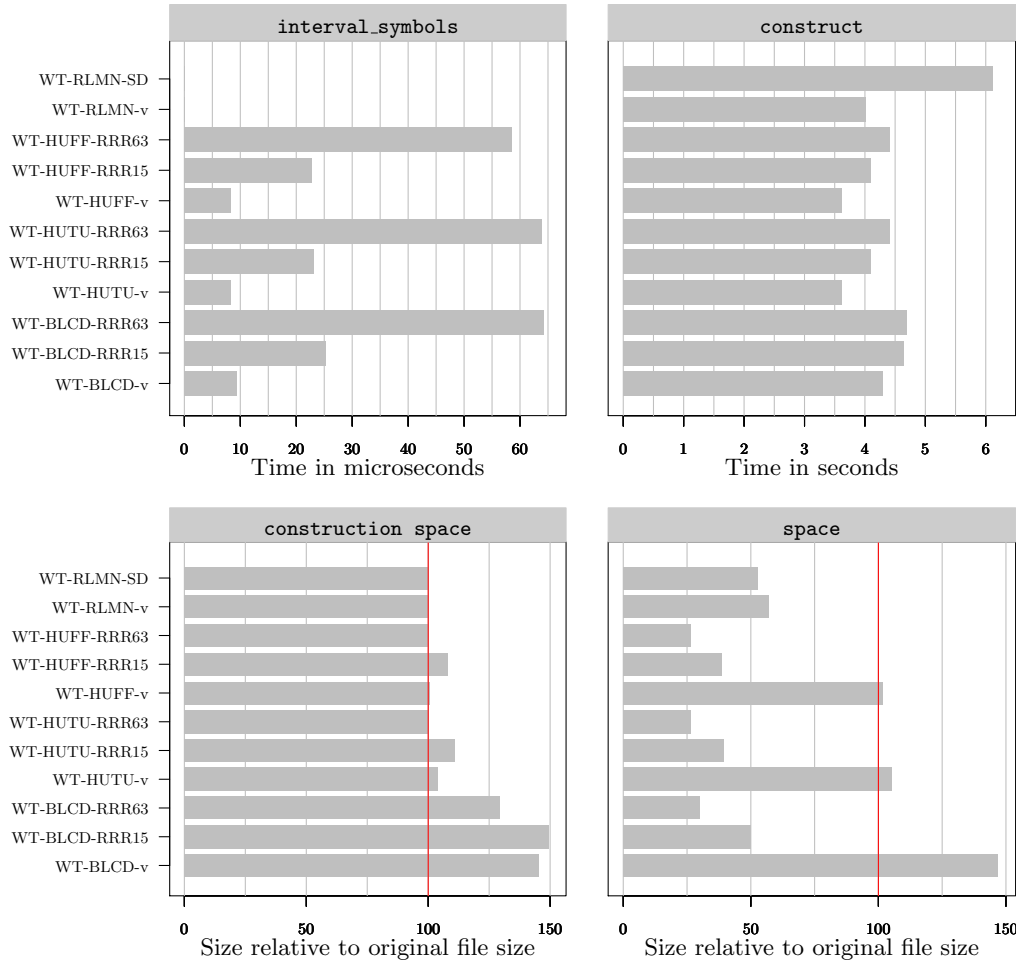
1.9 Test case: PROTEINS.200MB-BWT




interval_symbols
construct
WT-RLMN-SD
WT-RLMN-v
WT-HUFF-RRR63
WT-HUFF-RRR15
WT-HUFF-v
WT-HUTU-RRR63
WT-HUTU-RRR15
WT-HUTU-v
WT-BLCD-RRR63
WT-BLCD-RRR15
WT-BLCD-v
0 2 4 6 8 10 12 14
Time in microseconds
0 2 4 6 8 10
Time in seconds
construction space
space
0 20 40 60 80 100 120
Size relative to original file size
0 20 40 60 80 100
Size relative to original file size

1.10 Test case: SOURCES.200MB-BWT




interval_symbols
construct
WT-RLMN-SD
WT-RLMN-v
WT-HUFF-RRR63
WT-HUFF-RRR15
WT-HUFF-v
WT-HUTU-RRR63
WT-HUTU-RRR15
WT-HUTU-v
WT-BLCD-RRR63
WT-BLCD-RRR15
WT-BLCD-v
0 10 20 30 40 50 60
Time in microseconds
0 1 2 3 4 5 6
Time in seconds
construction space
space
0 50 100 150
Size relative to original file size
0 50 100 150
Size relative to original file size

Identifier	sdsl type
WT-BLCD-RRR63	wt_blcd<rrr_vector<63>, rrr_vector<63>::rank_1_type, rrr_vector<63>::select_1_type, rrr_vector<63>::select_0_type, byte_tree<>>
WT-BLCD-v	wt_blcd<bit_vector, rank_support_v<>, select_support_mcl<1>, select_support_mcl<0>, byte_tree<>>
WT-BLCD-RRR15	wt_blcd<rrr_vector<15>, rrr_vector<15>::rank_1_type, rrr_vector<15>::select_1_type, rrr_vector<15>::select_0_type, byte_tree<>>
WT-HUFF-RRR63	wt_huff<rrr_vector<63>, rrr_vector<63>::rank_1_type, rrr_vector<63>::select_1_type, rrr_vector<63>::select_0_type, byte_tree<>>
WT-HUFF-v	wt_huff<bit_vector, rank_support_v<>, select_support_mcl<1>, select_support_mcl<0>, byte_tree<>>
WT-HUFF-RRR15	wt_huff<rrr_vector<15>, rrr_vector<15>::rank_1_type, rrr_vector<15>::select_1_type, rrr_vector<15>::select_0_type, byte_tree<>>
WT-HUTU-RRR63	wt_hutu<rrr_vector<63>, rrr_vector<63>::rank_1_type, rrr_vector<63>::select_1_type, rrr_vector<63>::select_0_type, byte_tree<>>
WT-HUTU-v	wt_hutu<bit_vector, rank_support_v<>, select_support_mcl<1>, select_support_mcl<0>, byte_tree<>>
WT-HUTU-RRR15	wt_hutu<rrr_vector<15>, rrr_vector<15>::rank_1_type, rrr_vector<15>::select_1_type, rrr_vector<15>::select_0_type, byte_tree<>>
WT-RLMN-SD	wt_rlmn<sd_vector<>, sd_vector<>::rank_1_type, sd_vector<>::select_1_type, wt_huff<>>
WT-RLMN-v	wt_rlmn<bit_vector, rank_support_v<>, select_support_mcl<1>, wt_huff<>>

Table 1: Wavelet tree identifier and corresponding sdsl-type.