report2

March 30, 2024

1 SPRAWOZDANIE

system operacyjny: Linux Ubuntu 22.04.4 LTS
Intel® Core™ i7-7500U CPU @ 2.70GHz × 4
RAM 16 Gb

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1.1 KONFIGURACJA

[2]:
```
import os
import main
from matplotlib import pyplot as plt
import numpy as np

TEST_SIZES = [100, 5000, 10000, 15000, 20000, 25000, 30000, 35000, 40000,␣
 ↪45000, 50000, 55000, 60000, 65000, 70000]
MAX_NUM = 1000000
MIN_NUM = 10
SOURCES = 'sources'
BINS = 'bins'
TESTS = 'tests'
RESULTS = 'results'
VERBOSE = False
```

1.2 TWORZENIE TESTÓW

[2]:
```
main.create_tests(TESTS, TEST_SIZES, MAX_NUM, MIN_NUM)
```

1.3 KOMPILACJA

[3]:
```
main.compile_sources(SOURCES, BINS, v=True)
```

```
Executing: gcc sources/AVL.c -o bins/AVL -lm


Executing: gcc sources/BST.c -o bins/BST -lm
```

1.4 URUCHOMIENIE

[4]:
```
for algo in os.listdir(BINS):
    for ts in TEST_SIZES:
        main.run_algo(BINS, TESTS, RESULTS, ts, algo, v=VERBOSE)
```

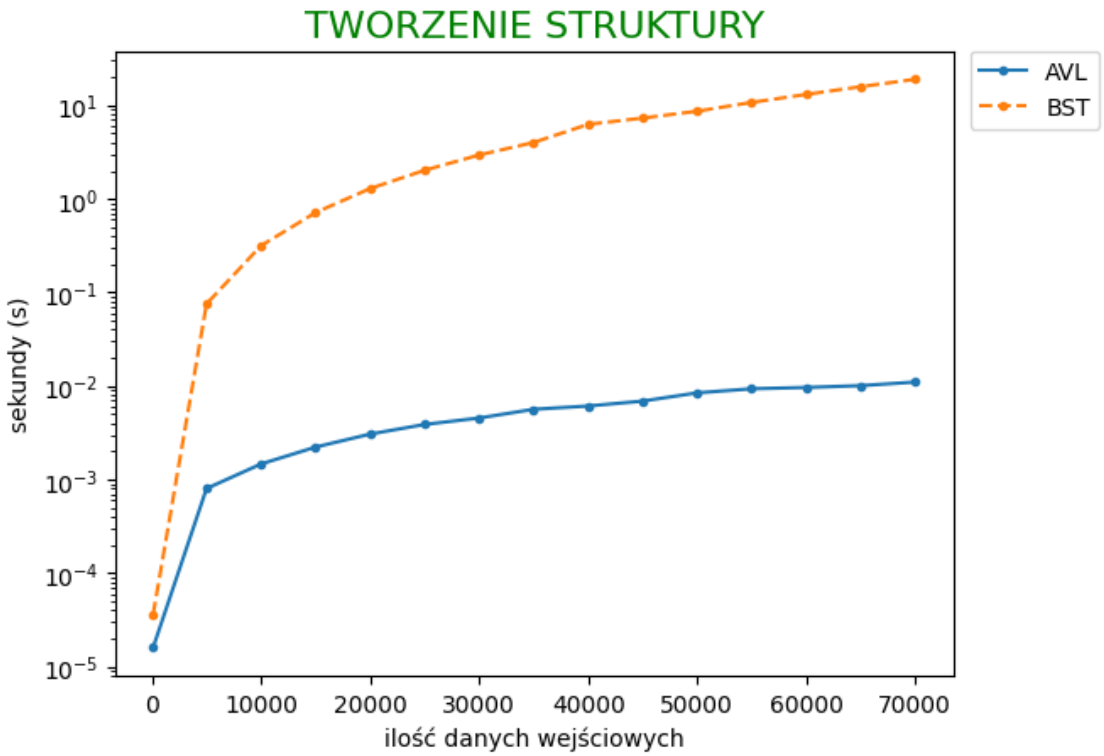
1.5 WYKRESY

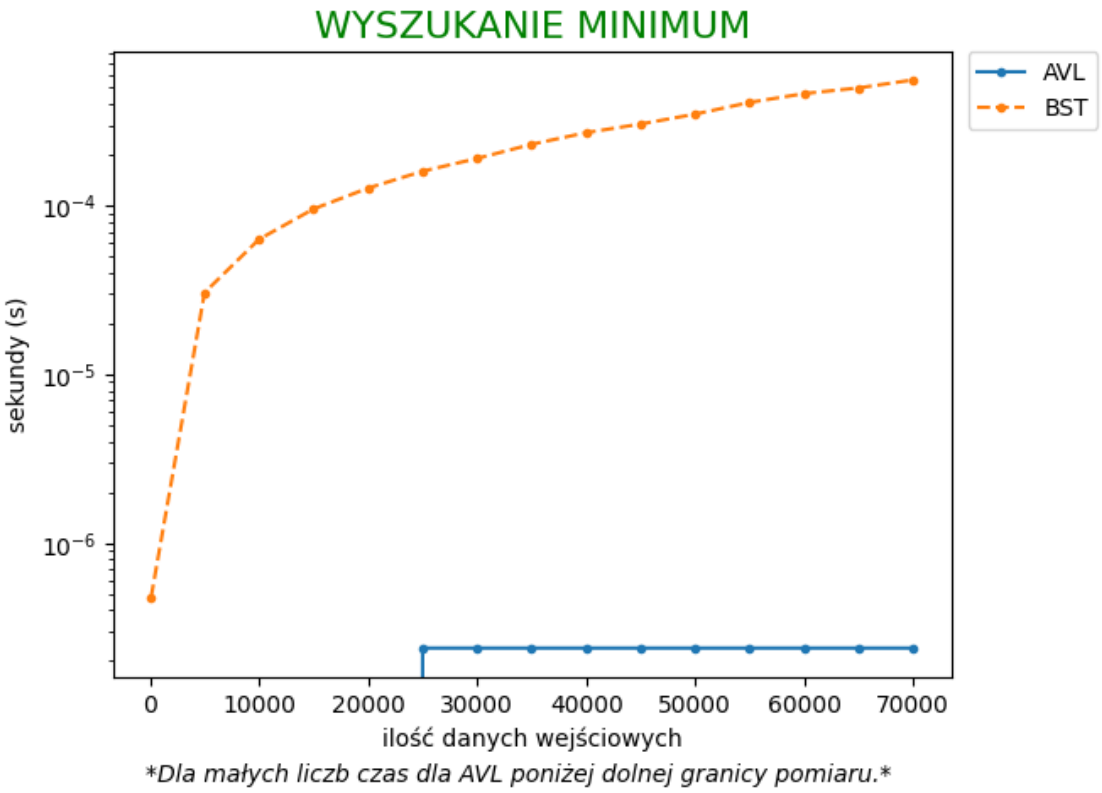
[3]:
```
create, minim, balance = main.read_results(RESULTS)

plt.title("TWORZENIE STRUKTURY", fontsize=16, color='green')
main.plot_graf(create, marker='.', linestyle='-', undtitle=False)

plt.title("WYSZUKANIE MINIMUM", fontsize=16, color='green')
main.plot_graf(minim, marker='.', linestyle='-', undtitle=True)

plt.title("RÓWNOWAŻENIE", fontsize=16, color='green')
main.plot_graf(balance, marker='.', linestyle='-', undtitle=False)
```





Dla małych liczb czas dla AVL poniżej dolnej granicy pomiaru.