Algoritmos y Estructuras de Datos
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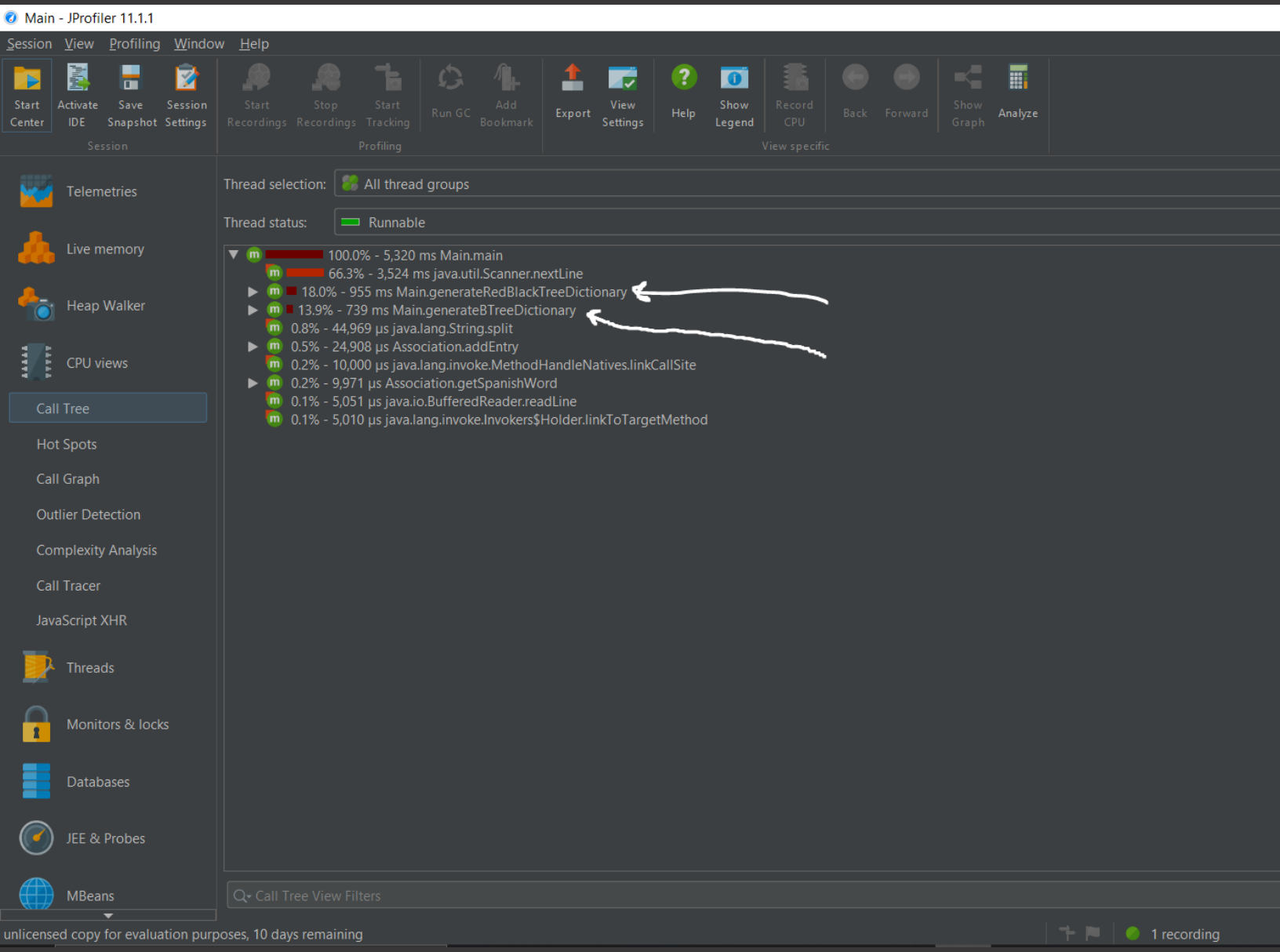
Pruebas de Junit y Profiler

A continuación, se muestran los tiempos para generar los diccionarios según la implementación utilizada. Para esto, se crearon métodos temporales que permitieron realizar el profiling.

Red Black Tree: 955 ms

B-Tree: 739 ms



Pruebas de Junit para insertar y buscar elementos del Red Black Tree

Main.java | text.txt | RedBlackBST.java | RedBlackTreeMap.java | RedBlackTreeMapTest.java | Spanish.txt | MapFactory.j

```java
import org.junit.Test;

import static org.junit.Assert.*;

public class RedBlackTreeMapTest {

    BTreeMap<String, String> RBT = new BTreeMap<>();
    @Test
    public void put() {
        RBT.put("This","TestRBT");
        assertEquals(RBT.get("This"),"TestRBT");
    }

    @Test
    public void get() {
        assertNull(RBT.get("ThisIsNotOnTheTree"));
    }
}
```

RedBlackTreeMapTest › put()

Run: Main | RedBlackTreeMapTest

Tests passed: 2 of 2 tests – 0 ms

RedBlackTreeMapTest 0 ms
get 0 ms
put 0 ms

```
"D:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2019.3.1\jbr\bin\

Process finished with exit code 0
```

4: Run | 6: TODO | 9: Version Control | JProfiler | Terminal | 0: Messages

Tests passed: 2 (moments ago)

Pruebas de Junit para insertar y buscar elementos del B-Tree

Main.java | text.txt | RedBlackBST.java | RedBlackTreeMap.java | Spanish.txt | MapFactory.java | BTreeMap.java

```java
import org.junit.Test;

import static org.junit.Assert.*;

public class BTreeMapTest {
    BTreeMap<String, String> BTreeTest = new BTreeMap<>();
    @Test
    public void put() {
        BTreeTest.put("This","Is_A_Test");
        assertEquals(BTreeTest.get("This"),"Is_A_Test");
    }

    @Test
    public void get() {
        assertEquals(BTreeTest.get("ThisIsNotOnTheTree"),null);

    }
}
```

BTreeMapTest › get()

Run: Main | BTreeMapTest

Tests passed: 2 of 2 tests – 1 ms

BTreeMapTest 1 ms
get 1 ms
put 0 ms

```
"D:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2019.3.1\jbr\

Process finished with exit code 0
```

4: Run | 6: TODO | 9: Version Control | JProfiler | Terminal

Tests passed: 2 (moments ago)