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1: /*
2:  Copyright 2015 Fred Martin, fredm@cs.uml.edu
3:  Wed Apr  1 09:43:12 2015
4:  test file for GuitarString class
5:
6:  compile with
7:  g++ -c GStest.cpp -lboost_unit_test_framework
8:  g++ GStest.o GuitarString.o RingBuffer.o -o GStest -lboost_unit_test_frame
work
9: */
10:
11: #define BOOST_TEST_DYN_LINK
12: #define BOOST_TEST_MODULE Main
13: #include <boost/test/unit_test.hpp>
14:
15: #include <vector>
16: #include <exception>
17: #include <stdexcept>
18:
19: #include "GuitarString.hpp"
20:
21: using namespace std;
22:
23: BOOST_AUTO_TEST_CASE(GS) {
24:     vector<sf::Int16> v;
25:
26:     v.push_back(0);
27:     v.push_back(2000);
28:     v.push_back(4000);
29:     v.push_back(-10000);
30:
31:     //BOOST_REQUIRE_NO_THROW(GuitarString gs = GuitarString(v));
32:     BOOST_REQUIRE_NO_THROW(GuitarString gs(v));
33:     GuitarString gs = GuitarString(v);
34:
35:     // GS is 0 2000 4000 -10000
36:     BOOST_REQUIRE(gs.sample() == 0);
37:
38:     gs.tic();
39:     // it's now 2000 4000 -10000 996
40:     BOOST_REQUIRE(gs.sample() == 2000);
41:
42:     gs.tic();
43:     // it's now 4000 -10000 996 2988
44:     BOOST_REQUIRE(gs.sample() == 4000);
45:
46:     gs.tic();
47:     // it's now -10000 996 2988 -2988
48:     BOOST_REQUIRE(gs.sample() == -10000);
49:
50:     gs.tic();
51:     // it's now 996 2988 -2988 -4483
52:     BOOST_REQUIRE(gs.sample() == 996);
53:
54:     gs.tic();
55:     // it's now 2988 -2988 -4483 1984
56:     BOOST_REQUIRE(gs.sample() == 2988);
57:
58:     gs.tic();
59:     // it's now -2988 -4483 1984 0
60:     BOOST_REQUIRE(gs.sample() == -2988);
```

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61:
62:  // a few more times
63:  gs.tic();
64:  BOOST_REQUIRE(gs.sample() == -4483);
65:  gs.tic();
66:  BOOST_REQUIRE(gs.sample() == 1984);
67:  gs.tic();
68:  BOOST_REQUIRE(gs.sample() == 0);
69: }
```