| **Project Name: Project 1: Voting System Team#08** | |
| --- | --- |
| **Test Stage: Unit \_x\_ System \_ \_** | **Test Date: 3/23/2023** |
| **Test Case ID#: CPLElection\_02** | **Name(s) of Testers: Dheva Subramaniam** |
| **Test Description:**   * Testing the ReadElection and the WriteResultsToFile methods * This test uses the CPLElectionTest\_Basic.csv file, which contains an election that has no ties, no use for remainder allocation, and no seat redistributions * Since the RunElection method is not called, this checks to see if the algorithm executes in the proper order using audit file statements inside of ReadElection |  |
| **Automated: yes\_x\_ no \_\_\_ using Google Test** |  |
| **Results: Pass \_\_\_\_x\_\_\_ Fail\_\_\_\_\_\_\_\_** |  |
|  |  |
| **Preconditions for Test:**  CPLElectionTest\_Basic.csv must be in the same directory as the testing executable | |

| **Step**  **#** | **Test Step**  **Description** | **Test**  **Data** | **Expected**  **Result** | **Actual**  **Result** | **Notes** |
| --- | --- | --- | --- | --- | --- |
| 1 | Opens CPLElectionTest\_Basic.csv | CPLElectionTest\_Basic.csv | ifstream object | ifstream object | N/A |
| 2 | Call ignore() on istream object with inputs 256 and ‘\n’ | int 256, char ‘\n’ | N/A | N/A | First line is being skipped as it is already known what type of election is being read |
| 3 | Create CPLElection object | istream generated by step 2, date string: “05022001” | CPLElection object | CPLElection object | N/A |
| 4 | Check that CPLElectionTest\_basic.csv is closed using is\_open() | istream object | false | false | N/A |
| 5 | Run the WriteResultsToFile | CPLElection object from step 3 | 05022001CPL.txt file | 05022001CPL.txt file | File generated from auditFiler |
| 6 | Open 05022001CPL.txt | 05022001CPL.txt | ifstream object | ifstream object | N/A |
| 7 | Read contents | ifstream object | See below Post Conditions | See below Post Conditions | Contents are compared using Google Test |

**Post condition(s) for Test:**

05022001CPL.txt file containing auditor information

Expected results for step 7:

CPLElection

Number of Parties: 5

PartyA: A,B,C,D

PartyB: E,F,G

PartyC: H,I,J,K,L

PartyD: M,N

PartyE: O

Number of seats: 3

Number of ballots: 8

Ballot ID: 1 Ballot Info: 1,,,,

Ballot ID: 2 Ballot Info: ,,1,,

Ballot ID: 3 Ballot Info: ,,,1,

Ballot ID: 4 Ballot Info: ,,1,,

Ballot ID: 5 Ballot Info: ,,1,,

Ballot ID: 6 Ballot Info: ,,,,1

Ballot ID: 7 Ballot Info: ,,,,1

Ballot ID: 8 Ballot Info: ,,,1,

Actual Result for Step 7:

CPLElection

Number of Parties: 5

PartyA: A,B,C,D

PartyB: E,F,G

PartyC: H,I,J,K,L

PartyD: M,N

PartyE: O

Number of seats: 3

Number of ballots: 8

Ballot ID: 1 Ballot Info: 1,,,,

Ballot ID: 2 Ballot Info: ,,1,,

Ballot ID: 3 Ballot Info: ,,,1,

Ballot ID: 4 Ballot Info: ,,1,,

Ballot ID: 5 Ballot Info: ,,1,,

Ballot ID: 6 Ballot Info: ,,,,1

Ballot ID: 7 Ballot Info: ,,,,1

Ballot ID: 8 Ballot Info: ,,,1,