

PB00

As an Election Official

I want to run an Instant Runoff (IR) election

Because I was told to do so by the Secretary of State.

Acceptance Criteria:

- Able to input a .csv file with 'IR' on the first line.
- Expected winner is announced after ballots are processed, according to IR algorithm.
- In the event of a tie, the tie will be resolved with a coin toss.

Definition of Done:

- Properly formatted file is passed into system without errors.
- Unit testing shows expected outcome of instant runoff election.
- Unit testing shows expected outcome of coin toss.
- Doxygen documentation updated.

Effort: Small

PBI Author: Scott Deyo

PB01

As an Election Official

I want to run an Open Party Listing (OPL) election

Because I was told to do so by the Secretary of State.

Acceptance Criteria:

- Able to input a .csv file with 'OPL' on the first line.
- Seats are allocated as expected after ballots are processed, according to rules of OPL seat allocation.
- In the event of ties, any tie will be resolved with a coin toss.

Definition of Done:

- Properly formatted file is passed into system without errors.
- Unit testing shows expected outcome of open party listing vote.
- Unit testing shows expected outcome of coin toss.
- Doxygen documentation updated.

Effort: Small

PBI Author: Scott Deyo

PB02

As an Election Official
I want to run a Popularity Only (PO) election
Because I was told to do so by the Secretary of State.

Acceptance Criteria:

- Able to input a .csv file with 'PO' on the first line.
- Candidate receiving the highest number of votes will be announced the winner.
- In the event of a tie, the tie will be resolved with a coin toss.
- Can take in up to ten candidates.

Definition of Done:

- Properly formatted file is passed into system without errors.
- Unit testing shows expected outcome of popular vote.
- Unit testing shows expected outcome of coin toss.
- Unit testing shows expected outcome with up to ten candidates.
- Doxygen documentation updated.

Effort: Extra Large

PBI Author: Scott Deyo

PB03

As an election official,
I want PO stats to be displayed to the screen at the end of an election,
So that I know who won and who lost, as well as the percentages of votes each candidate received.

Acceptance Criteria:

- Display candidates who won and who lost at the end of a PO election.
- Display the percentages of votes each candidate received at the end of a PO election.

Definition of Done:

- Changes to code are covered by unit tests.
- Unit tests passed.
- Doxygen documentation updated.

Effort: Small

PBI Author(s): Brian Lu

PB04

As an election official,
I want to bring in multiple files instead of a single file
So that I can bring in different files from different balloting locations

Acceptance Criteria:

- The result announcement, audit file, media report and short report of the elections are produced.

Definition of Done:

- Unit testing shows the expected outcome of each election.
- Doxygen documentation updated.

Effort: Small

PBI Author(s): King Yiu Suen

PB05

As an election official,
I want to have a GUI
So that I can type in a filename or look for file(s) on disk using my mouse or arrow keys.

Acceptance Criteria:

- A “choose file” button is created in the GUI. When clicked, an open file dialog is displayed, allowing the user to select multiple files as inputs.

Definition of Done:

- Unit testing shows the filenames are parsed properly.
- The GUI is displayed properly across different operating systems.
- Doxygen documentation update.

Effort: Extra Large

PBI Author(s): King Yiu Suen

PB06

As an election official,
I want to remove invalid ballots from an election using Instant Runoff voting,
So that we follow the standards set by state election officials.

Acceptance Criteria:

- Remove invalid ballots from an IR election.
- Ballots in an IR election must have at least half of the candidates ranked to be valid.

Definition of Done:

- Changes to code are covered by unit tests.
- Unit tests passed.
- Doxygen documentation updated.

Effort: Medium

PBI Author(s): Brian Lu

PB07

As an election official,
I want to have a file created that stores invalidated ballots in a IR election,
So that we can use it for auditing purposes.

Acceptance Criteria:

- Create a file that stores invalidated IR ballots, named `invalidated_dateofelection.xxx`.

Definition of Done:

- Changes to code are covered by unit tests.
- Unit tests passed.
- Doxygen documentation updated.

Effort: Small

PBI Author(s): Brian Lu

PB08

As an election official

I would like to see a table at the end of IRV and number of votes

So that I can see how many votes were subtracted or added during each round.

Acceptance Criteria:

- Table is shown with a row for each candidate, and a pair of columns for each round of voting.
- The pair of columns for each round shall include total votes and +/- votes for the given candidate in that round.
- The table shall have rows for exhausted/ discarded votes and for total votes.

Definition of Done:

- Table is formatted as per acceptance criteria.
- Doxygen documentation updated.

Effort: Large

PBI Author(s): Luisa Jimenez, Scott Deyo

PB09

As an election official

I want a short report

So that it can be printed and given to election certification officials.

Acceptance Criteria:

- The short report should have the date, type of election, candidates, number of seats and winner(s).

Definition of Done:

- The short report contains all information required
- Shows the correct output
- Formatted as electors required.

Effort: Small

PBI Author(s): Luisa Jimenez