## **Product Backlog Items**

#### Team #18

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As a voting official

I want the statistics and percentages about how many votes the candidates received to be calculated for PO

So that constituents can know how well their candidate did

### Acceptance Criteria:

• The algorithm should calculate the percentage of votes each candidate received accurately (2 decimal places)

### Definition of Done:

- Unit testing completed with all tests passed
- Documentation for related methods completed
- Comments in code properly written
- Integration testing completed

Effort: Medium (3 hours)

PBI Author(s): Lane Enget, Pyrenees Gavois, Jonathan Haak, Noreen Si

### As a voting official

I want to see the winner, losers printed to the screen for PO

So that I can see visually who won and who lost

#### Acceptance Criteria:

- The screen displays the name, party of the winner
- Winner is made clear as the winner
- Winner is also written to the audit file
- Other losing candidates displayed on screen so official can know who lost

#### Definition of Done:

- Unit testing completed with all tests passed
- Documentation for related methods completed

- Comments in code properly written
- Integration testing completed

Effort: Medium (3 hours)

PBI Author(s): Lane Enget, Pyrenees Gavois, Jonathan Haak, Noreen Si

## As a voting official

I want to see the percentages of the votes each candidate got in a PO election printed on the screen

So that constituents can know how well their candidate did

### Acceptance Criteria:

- The screen displays the percentages of the number of votes a candidate received from the total number of votes onto the screen
- The percentages are accurate representations of the proportion of votes candidates got

#### Definition of Done:

- Unit testing completed with all tests passed
- Documentation for related methods completed
- Comments in code properly written
- Integration testing completed

Effort: Medium (3 hours)

PBI Author(s): Lane Enget, Pyrenees Gavois, Jonathan Haak, Noreen Si

## As a voting official

I want the program to write winners, losers, and statistics about candidates in a PO election to the audit file

So the Secretary of State can verify an election's validity

## Acceptance Criteria:

 The audit file is populated with relevant information when the system is done running

#### Definition of Done:

Unit testing completed with all tests passed

- Documentation for related methods completed
- Comments in code properly written
- Integration testing completed

Effort: Small (1 hour)

PBI Author(s): Lane Enget, Pyrenees Gavois, Jonathan Haak, Noreen Si

## As a voting official

I want to be able to pass in an election file through a graphical interface

So that I can easily see what file I'm using for the election

### Acceptance Criteria:

- A file can be added to the program through a graphical file manager interface
- System prompts user if a filename is invalid as usual
- Screen appears when program is started
- User should be able to look for file on disk using mouse or arrow keys
- User should be able to type in a filename

### Definition of Done:

- Unit testing completed with all tests passed
- Documentation for related methods completed
- Comments in code properly written
- Integration testing completed

Effort: Medium (3 hours)

PBI Author(s): Lane Enget, Pyrenees Gavois, Jonathan Haak, Noreen Si

## As a voting official

I want to be able to pass in multiple election files through a graphical interface

So that I can easily see what files I'm using for the election

#### Acceptance Criteria:

- Multiple files can be added to be used for an IR/CPL/PO election through a graphical file manager interface
- Screen appears when program is started
- User should be able to type in a filename
- User should be able to look for files on disk using mouse or arrow keys

• System prompts user if a filename is invalid as usual

#### Definition of Done:

- Unit testing completed with all tests passed
- Documentation for related methods completed
- Comments in code properly written
- Integration testing completed

Effort: Medium (3 hours)

PBI Author(s): Lane Enget, Pyrenees Gavois, Jonathan Haak, Noreen Si

## As a voting official

I want to be able to invalidate IRV ballots with less than half of the candidates ranked

So that only valid ballots are counted in the election

### Acceptance Criteria:

- Election files with invalid ballots are now compatible with IRV
- Files with flawed ballots produce the same output format as normal IRV files

## Definition of Done:

- Ballots with less than half (less than .5 x total number of candidates rounded up) declared invalid
- Unit testing completed with all tests passed
- Documentation for related methods completed
- Comments in code properly written

Effort: Small 1 hour

PBI Author(s): Lane Enget, Pyrenees Gavois, Jonathan Haak, Noreen Si

## As a voting official

I want to record the invalidated IRV ballots in a file

So that there is a record of the invalidated ballots that can be verified by the Secretary of State if needed

# Acceptance Criteria:

 The ballots are recorded in a file with filename format "invalidated dateofelection.xxx" • The ballots are not counted in the election

## Definition of Done:

- Unit testing completed with all tests passed
- Documentation for related methods completed
- Comments in code properly written
- Integration testing completed

Effort: Small 1 hour

PBI Author(s): Lane Enget, Pyrenees Gavois, Jonathan Haak, Noreen Si