

Product Backlog Items

Team #18

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As a voting official
I want to be able to pass in multiple election files
So that I can use different files from different polling/balloting locations for an election
Acceptance Criteria: <ul style="list-style-type: none">• Multiple files can be added to be passed in to the program
Definition of Done: <ul style="list-style-type: none">• 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 the program to process multiple IR file headers for an IR election
So that I can use different files from different polling/balloting locations for an election
Acceptance Criteria: <ul style="list-style-type: none">• Program can read the header of all the files for an IR election• Program can process the header and store necessary information
Definition of Done: <ul style="list-style-type: none">• 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

<p>I want the program to process multiple CPL file headers for a CPL election</p> <p>So that I can use different files from different polling/balloting locations for an election</p>
<p>Acceptance Criteria:</p> <ul style="list-style-type: none"> • Program can read the header of all the files for an CPL election • Program can process the header and store necessary information
<p>Definition of Done:</p> <ul style="list-style-type: none"> • Unit testing completed with all tests passed • Documentation for related methods completed • Comments in code properly written • Integration testing completed
<p>Effort: Medium (3 hours)</p>
<p>PBI Author(s): Lane Enget, Pyrenees Gavois, Jonathan Haak, Noreen Si</p>

<p>As a voting official</p> <p>I want the program to determine a winner for IR from multiple ballot files</p> <p>So that I can use different files from different polling/balloting locations for an election</p>
<p>Acceptance Criteria:</p> <ul style="list-style-type: none"> • Program can process ballots from multiple files • Program can determine one winner
<p>Definition of Done:</p> <ul style="list-style-type: none"> • Unit testing completed with all tests passed • Documentation for related methods completed • Comments in code properly written • Integration testing completed
<p>Effort: Small (1.5 hours)</p>
<p>PBI Author(s): Lane Enget, Pyrenees Gavois, Jonathan Haak, Noreen Si</p>

<p>As a voting official</p> <p>I want the program to determine seat allocation (winners/losers) for CPL from multiple ballot files</p> <p>So that I can use different files from different polling/balloting locations for an election</p>
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<p>Acceptance Criteria:</p> <ul style="list-style-type: none"> • Program can process ballots from multiple files • Program can determine winners and losers for CPL
<p>Definition of Done:</p> <ul style="list-style-type: none"> • Unit testing completed with all tests passed • Documentation for related methods completed • Comments in code properly written • Integration testing completed
<p>Effort: Medium (3 hours)</p>
<p>PBI Author(s): Lane Enget, Pyrenees Gavois, Jonathan Haak, Noreen Si</p>

<p>As a voting official</p> <p>I want the votes added and subtracted per candidate as well as exhausted ballots in an IR election to be calculated per round</p> <p>So that I can easily track the flow of ballots in an IR election</p>
<p>Acceptance Criteria:</p> <ul style="list-style-type: none"> • The votes added and subtracted per candidate are accurately calculated • Exhausted ballots are accurately totaled per round
<p>Definition of Done:</p> <ul style="list-style-type: none"> • Unit, integration testing completed with all tests passed • Documentation for related methods completed • Comments in code properly written • Integration testing completed
<p>Effort: Medium (3 hours)</p>
<p>PBI Author(s): Lane Enget, Pyrenees Gavois, Jonathan Haak, Noreen Si</p>

<p>As a voting official</p> <p>I want to be able to see a graphical table that shows IR election information, such as candidates, their parties, and number of votes added/subtracted/exhausted per round</p> <p>So that I can visually see key IR election information summarized neatly</p>
<p>Acceptance Criteria:</p> <ul style="list-style-type: none"> • The table shows the candidate names, parties, and votes

<p>added/subtracted/exhausted per round accurately</p> <ul style="list-style-type: none"> • The table is viewable by the election official when the algorithm finishes
<p>Definition of Done:</p> <ul style="list-style-type: none"> • Unit, integration testing completed with all tests passed • Documentation for related methods completed • Comments in code properly written • Integration testing completed
<p>Effort: Large (6 hours)</p>
<p>PBI Author(s): Lane Enget, Pyrenees Gavois, Jonathan Haak, Noreen Si</p>

<p>As a voting official</p> <p>I want the program to process multiple PO file headers for a PO election</p> <p>So that I can use different files from different polling/balloting locations for an election</p>
<p>Acceptance Criteria:</p> <ul style="list-style-type: none"> • Program can read the header of all the files for an PO election • Program can properly store relevant information from PO headers
<p>Definition of Done:</p> <ul style="list-style-type: none"> • Unit testing completed with all tests passed • Documentation for related methods completed • Comments in code properly written • Integration testing completed
<p>Effort: Medium (3 hours)</p>
<p>PBI Author(s): Lane Enget, Pyrenees Gavois, Jonathan Haak, Noreen Si</p>

<p>As a voting official</p> <p>I want the program to be able to break a tie for PO elections</p> <p>So that a winner can be determined fairly</p>
<p>Acceptance Criteria</p> <ul style="list-style-type: none"> • If two or more candidates win a PO, only one winner is selected (only one candidate can win) • Can break a tie/ties between candidate(s) fairly

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 the program to determine winners and losers of PO

So that I can know the result of a PO election run

Acceptance Criteria:

- Can properly run PO election with one winner selected

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 hrs

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

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: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • The audit file is populated with relevant information when the system is done running
Definition of Done: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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

<ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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:

<ul style="list-style-type: none"> • Election files with invalid ballots are now compatible with IRV • Files with flawed ballots produce the same output format as normal IRV files
<p>Definition of Done:</p> <ul style="list-style-type: none"> • Ballots with less than half (less than $.5 \times$ 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

<p>As a voting official</p> <p>I want to record the invalidated IRV ballots in a file</p> <p>So that there is a record of the invalidated ballots that can be verified by the Secretary of State if needed</p>
<p>Acceptance Criteria:</p> <ul style="list-style-type: none"> • The ballots are recorded in a file with filename format "invalidated_dateofelection.xxx" • The ballots are not counted in the election
<p>Definition of Done:</p> <ul style="list-style-type: none"> • 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