

## Product Backlog

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As an election official, I want the system to be as hands-off as possible so that there is minimal room for human error.

**Acceptance criteria:** All election details are read in from the file other than the date of the election.

**Definition of Done:** Source code is updated appropriately to read in the election date. Test that election details (type, #of candidates, etc.) are read in from the file and populated into the internal data structures correctly.

**Effort:** Small (current product has electronic processing of election info implemented)

**Authors:** Neha Bhatia, Stuti Arora, Praful Das, Arpita Dev

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As a Product Owner, I want the system to process IRV elections without errors so that the product is available to Election Officials to process election files.

**Acceptance Criteria:** The system processes and displays the correct winner for the IR election file. Ties between candidates are broken with a fair coin toss.

**Definition of Done:** IR information is read in from the file correctly and the winner is displayed correctly. Audit files are generated.

**Effort:** Medium

**Authors:** Neha Bhatia, Stuti Arora

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As a Product Owner, I want the system to process OPL elections without errors so that the product is available to Election Officials to process election files.

**Acceptance Criteria:** The system processes and displays the correct winner for the OPL election file. Ties between parties are broken with a fair coin toss.

**Definition of Done:** OPL information is read in from the file correctly and the winner is displayed correctly. Audit files are generated. Appropriate testing for all system components is completed along with documentation.

**Effort:** Medium

**Authors:** Neha Bhatia

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As an election official, I want to determine winners from an MPO Election because it is an election type mandated by the Secretary of State.

**Acceptance Criteria:** I know the winner for an MPO election. Can run on CSE Lab Machines

**Definition of Done:** MPO information is read in from the file correctly and the winner is displayed correctly. Should provide fair and unbiased results. Audit files are generated. Appropriate testing for all system components is completed along with documentation.

**Effort:** Large

**Authors:** Neha Bhatia

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As an election official, I want to upload MPO ballots through a .csv file because that is how we receive election files from an election center.

**Acceptance Criteria:** The system can automatically process information for an MPO election through a formatted csv file.

**Definition of Done:** The system can process MPO csv files and populate data structures with the correct information. Source code is updated and appropriate documentation and testing is completed.

**Effort:** Medium

**Authors:** Stuti Arora

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As an election official, I want to be able to upload multiple files at a time so I don't need to hunt for each file every time I want to see results.

**Acceptance Criteria:** I want to upload all my election files at once.

**Definition of Done:** All files are uploaded at once, but elections are run independently. Each election passed in should be displayed individually and should have its own audit files.

**Effort:** Medium

**Authors:** Stuti Arora

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As an election official, I want to be able to view the stats from MPO Election on my screen so that I know who won and who lost and the constituents who voted know how well their candidate did in the election.

**Acceptance Criteria:** I can view the election stats after I input an MPO Election Data file into the system for vote counting.

**Definition of Done:** The percentage of votes each candidate received, are displayed on the user's screen correctly after the system has processed the election data file and counted the votes.

**Effort:** Medium

**Authors:** Praful Das

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As an election official, I want to have a GUI to be able to select ballot files from a directory so that I don't need to rely on remembering a filename.

**Acceptance Criteria:** I want a visual way to select files.

**Definition of Done:** Upon opening the program, the GUI window appears. Election officials should be able to successfully browse and select files from their directory to upload to the system. System should validate that the file was uploaded successfully.

**Effort:** Large

**Authors:** Stuti Arora

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As an election official, I want the system to verify the validity of IRV ballots and then accordingly eliminate and store invalidated ballots so that they match state election official regulations.

**Acceptance Criteria:** Invalid ballots are automatically eliminated and stored in a separate file and the ballots need have at least half of the candidates ranked (rounded up from 0.5)

**Definition of Done:** the feature has been integrated into the existing system without conflicts and the documentation has been updated to include the new invalidation feature.

**Effort:** Medium

**Authors:** Arpita Dev

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As an election official, I want to know how votes were distributed in each round to different candidates for an IR Election, so that I can verify that the winner was selected correctly.

**Acceptance Criteria:** I can see a table at the end of the election that shows each voting reassignment round of the IRV, along with how many votes were added/subtracted from each candidate.

**Definition of Done:** Prints each round information correctly to the GUI in a well organized and easy-to-read format. Testing and documentation is completed.

**Effort:** Large

**Authors:** Neha Bhatia