System Enhancements for Universal Ranked Choice Voting Tabulator

URCVT v1.2.0-500-NY - System Enhancements for URCVT v.1.0.0 document is solely for use in the State of New York. This document can be expanded or updated as is necessary or required. Any recommendations listed in this document should not supersede user jurisdiction procedures or other controlling governance entities.

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This document lays out System Enhancements planned for the URCVT that impact elements of the system that are not part of the URCVT v 1.2.0 system solely for use in the State of New York. All system enhancements in this document are enhancements to features not included in this URCVT v.1.2.0 system. None of these settings will or should be used to process ranked-choice voting election data in New York. No New York City law permits or requires New York City to use these options. See ***URCVT 1.2.0 08-NY System Operations Guide v.1.0.0*** for the URCVT rules to use in New York City. This document also captures the vendor's planned resolution steps for these future enhancements.

- The information in the Hints bar on the User Interface incorrectly describes options available when using the Multi-Pass IRV Winner Election Mode. The hint says multi-pass IRV can use batch elimination or can continue the count down to the final two candidates. The tabulator currently does not permit the user to select these settings, however.
    - See https://github.com/BrightSpots/rcv/issues/556 for details.
- The information in the Hints bar on the User Interface incorrectly describes how the Tabulator calculates the Hare quota. The tabulator calculates the Hare quota by this formula: floor(V/S) + 1. This formula is incorrect, however, and should be (V/S).
    - V = votes in the first round
    - S = numberOfWinners
    - See https://github.com/BrightSpots/rcv/issues/557 for details.
- There is a known issue when using the "exhaustIfMultipleContinuing" overvote setting: the Tabulator does not always process a vote correctly. Within an overvoted contest, when one candidate is eliminated and the remaining two or more candidates are eligible within the contest, URCVT counts a vote towards one of these candidates instead of immediately exhausting the CVR record.
    - See https://github.com/BrightSpots/rcv/issues/554 for details.
- Error messaging around Overvote Rule is misleading. "Exhaust if multiple continuing" is selected displays in the console: "When overvoteLabel is supplied, overvoteRule must be either 'Always skip to next rank' or 'Exhaust if multiple continuing'!". However, the Overvote Label was not changed from its default. It is also understood that if the Overvote Label is changed, the error message should include Exhaust immediately and not Exhaust if multiple continuing. "Exhaust if multiple continuing" requires the use of an Overvote Delimiter which cannot be used alongside the Overvote Label.

- ○ See https://github.com/BrightSpots/rcv/issues/555 for details.
- If no candidate meets the minimum vote threshold (setting: minimumVoteThreshold), the tabulator fails to tabulate the contest and does not alert the user.
  - ○ See https://github.com/BrightSpots/rcv/issues/553 for details.
- If building software from scratch, cannot use Java 16 to run the build process via gradle.
  - ○ See https://github.com/BrightSpots/rcv/issues/565 for details.

Document Revision History

Date	Version	Description	Author
4/27/2021	1.0.0	Initial document capturing future system enhancements for URCVT software	Chris Hughes