



Prepare Logic and Accuracy

Figure 40



▶ **Prepare Logic and Accuracy**

Election offices need to know that the equipment they use will work on Election Day. A common method is to test the equipment in a way that mirrors how it would actually be used in the election.



1.5.7.2 Prepare ballot sets

The election office will produce a set of ballots that cover the different contests / options available to the voters using that machine.



1.5.7.6 Provide notice to public

Logic and Accuracy tests may be open for public observation. If so, the election office will provide public notice.

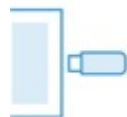
1.5.7.7 Perform logic and accuracy test

The exact steps taken in a test will vary depending on the nature of the system (touchscreen, paper ballot, or a mixture of both). Steps might include: feeding test ballots through the scanner, marking ballots using a touch screen or ballot marking device, and tabulating the votes to confirm they were counted properly. every race is on the ballot.



1.5.7.8 Validate Reports

At the conclusion of the test, various reports are generated that can be used to validate the performance of the machines, such as vote total reports. If machines fail to perform or count properly, they may be repaired or set aside during the election.



1.5.7.5 Configure machines

The machines are configured to read those ballots, just as they will be used on Election Day.



1.5.7.5.1 Test mechanisms

Each part of the machine the voter may interact with is tested for proper function such as if touch screens respond to touch, if receipts print, if the scanner feeds the ballot properly.



1.5.7.5.2 Validate configuration

The machine is checked to ensure that pre-programmed information such as candidates and contests are loaded properly.



1.5.7.5.4 Scan test deck

If the machine reads paper ballots, the paper test deck of ballots is run through the machine.



1.5.7.5.5 Vote ballot set

If the machine is a touchscreen, the selections are marked in accordance with the ballot set.

OR



1.5.7.9 Fix issue and retest

If issues are found during the test, the issues are investigated and resolved, and testing is redone until everything passes.

1.5.7.2

Prepare Ballot Sets

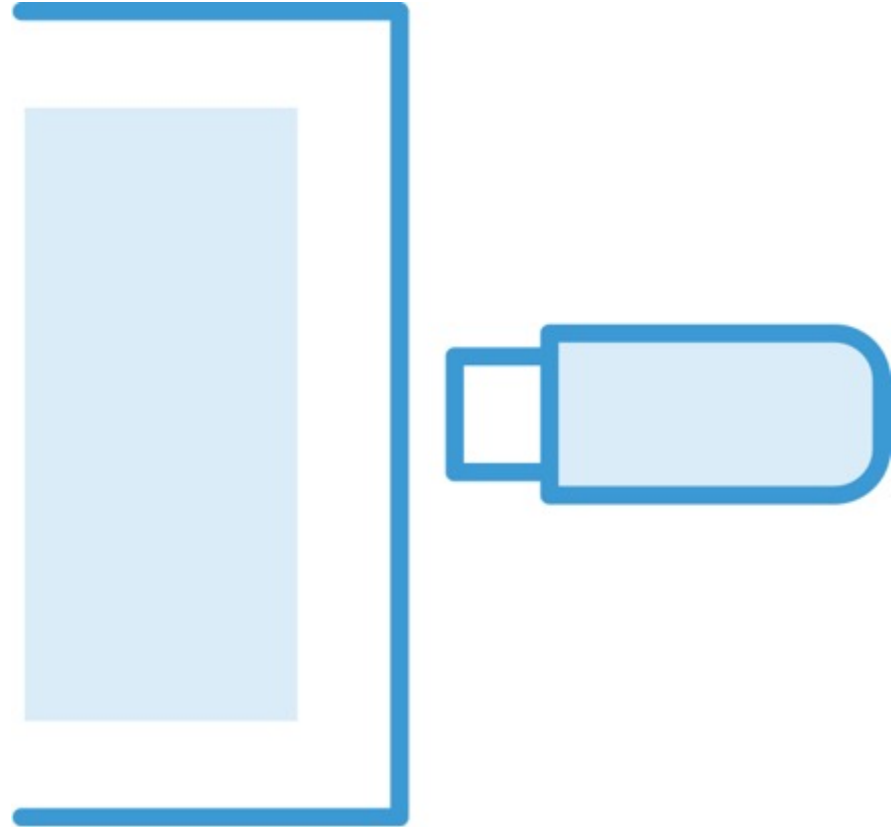
The election office will produce a set of ballots that cover the different contests / options available to the voters using that machine.



1.5.7.5

Configure machines

The machines are configured to read those ballots, just as they will be used on Election Day.



1.5.7.7

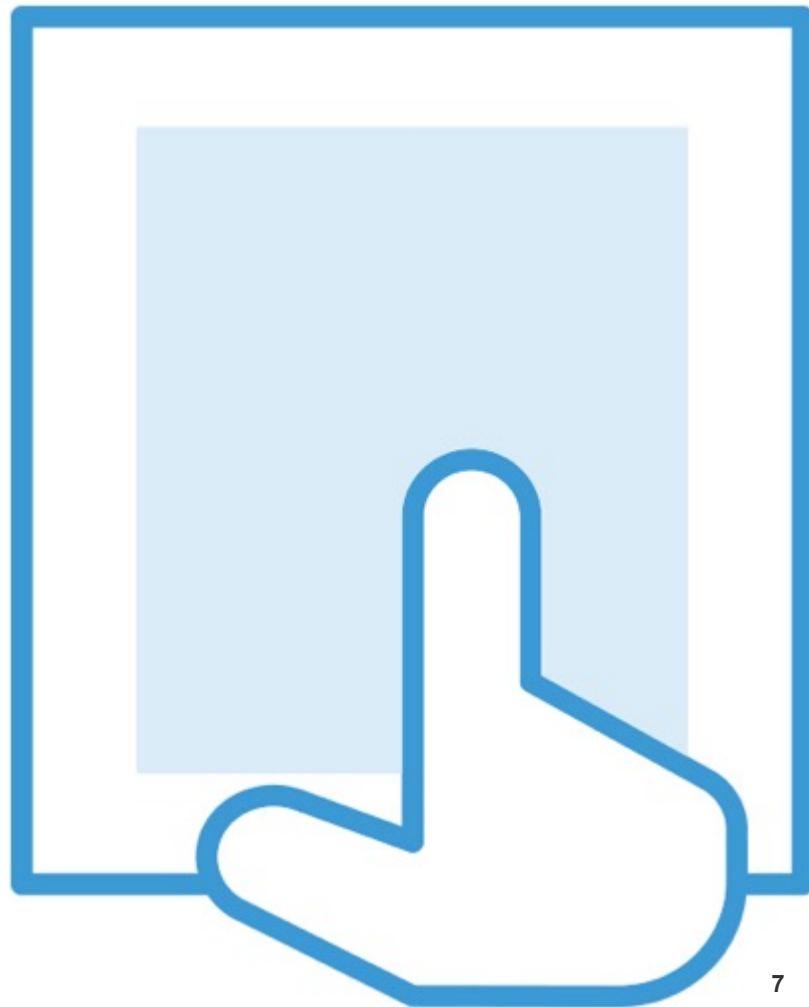
Perform logic and accuracy test

The exact steps taken in a test will vary depending on the nature of the system (touchscreen, paper ballot, or a mixture of both). Steps might include: feeding test ballots through the scanner, marking ballots using a touch screen or ballot marking device, and tabulating the votes to confirm they were counted properly. every race is on the ballot.

1.5.7.5.1

Test mechanisms

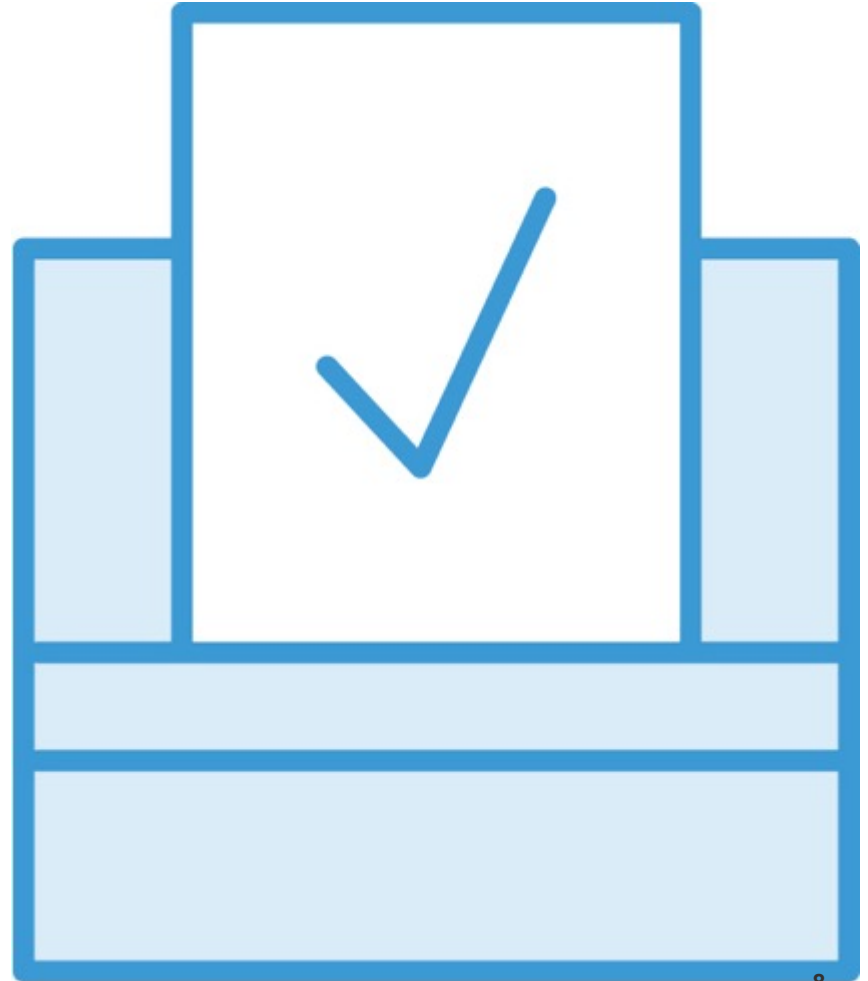
Each part of the machine the voter may interact with is tested for proper function such as if touch screens respond to touch, if receipts print, if the scanner feeds the ballot properly.



1.5.7.5.2

Validate configuration

The machine is checked to ensure that pre-programmed information such as candidates and contests are loaded properly.



1.5.7.5.4

Scan test deck

If the machine reads paper ballots, the paper test deck of ballots is run through the machine.

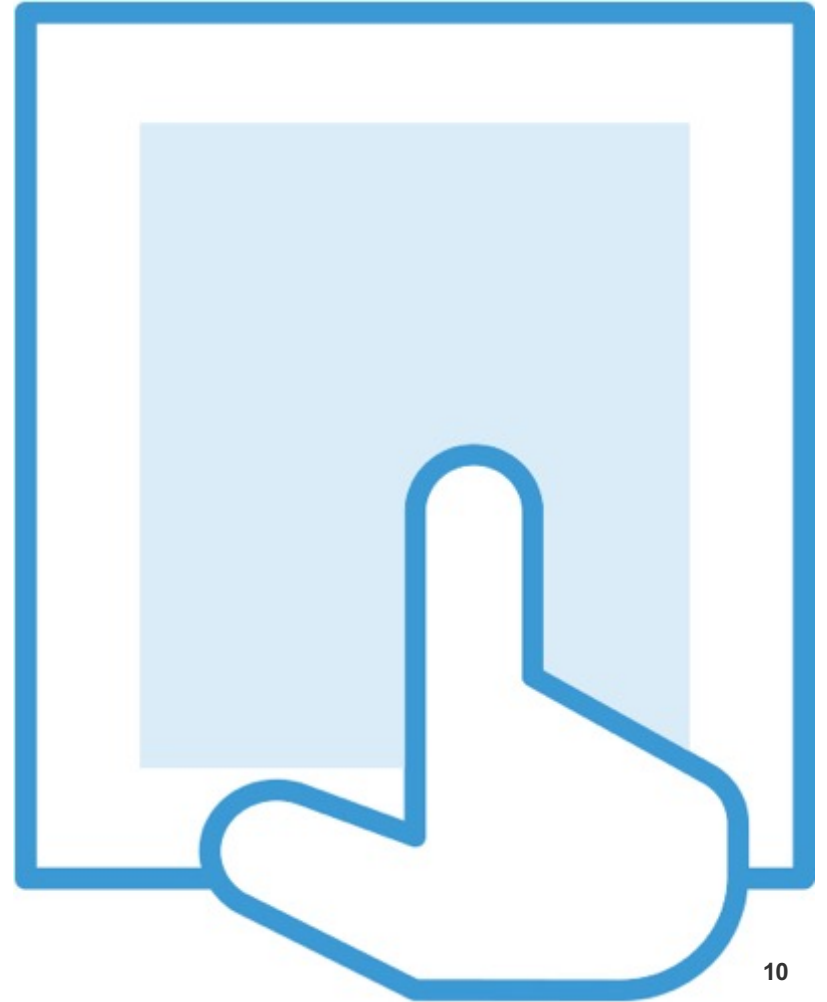
OR



1.5.7.5.5

Vote ballot set

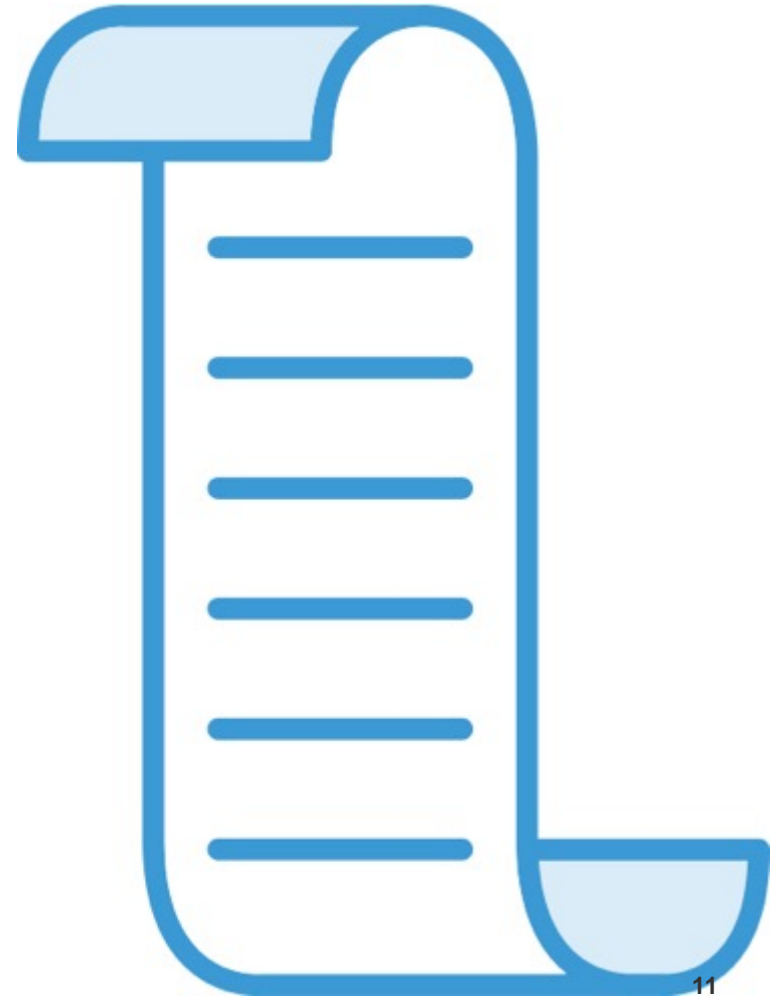
If the machine is a touchscreen, the selections are marked in accordance with the ballot set.



1.5.7.8

Validate Reports

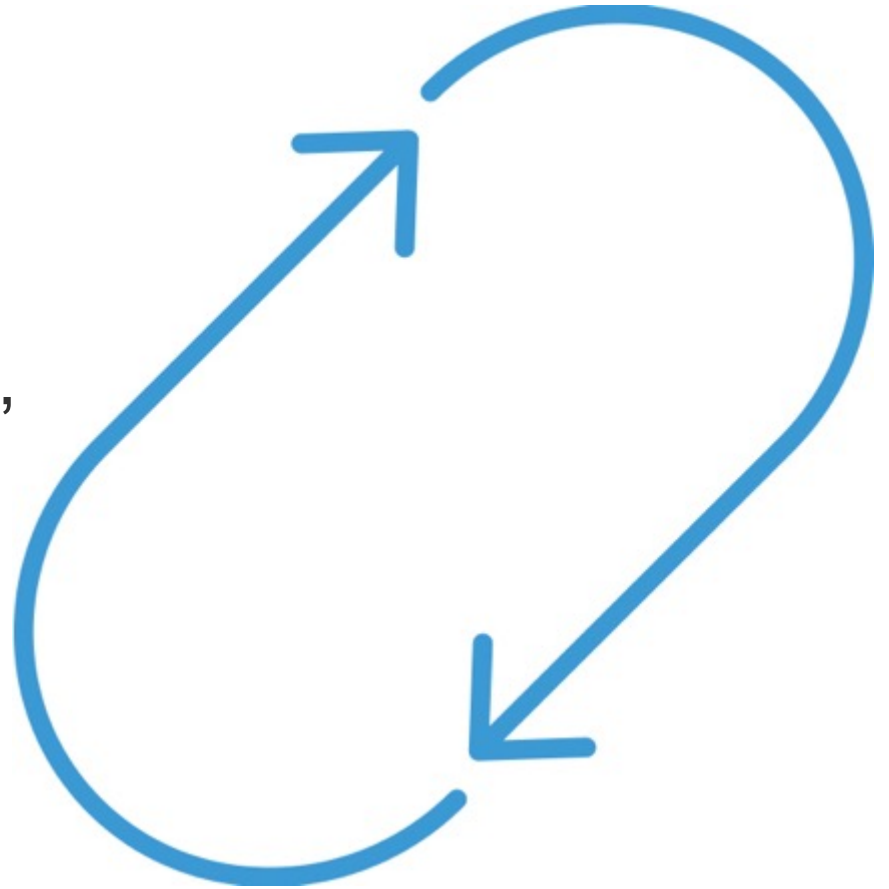
At the conclusion of the test, various reports are generated that can be used to validate the performance of the machines, such as vote total reports. If machines fail to perform or count properly, they may be repaired or set aside during the election.



1.5.7.9

Fix issue and retest

If issues are found during the test, the issues are investigated and resolved, and testing is redone until everything passes.



Acknowledgements

This work has been a collaborative effort of many over the years including, most recently, the NIST-EAC Interoperability Election Modeling Working Group under the tutelage of John Wack and the dedication of Kenneth Bennett, John Dziurlaj, and Katy Owens Hubler.

This slide deck was the work of Drew Davies & Mandy Mowers of Oxide Design.

The logo for the Democracy Fund features the words "democracy" and "fund" stacked vertically in a dark grey, sans-serif font. The text is partially overlaid by three overlapping circular arcs. A red arc is positioned at the top left, a blue arc is in the center, and a grey arc is on the right. Below the text, a blue arc is on the left and a red arc is on the right, creating a sense of interconnectedness and movement.

democracy
fund