Effective Designs for the Administration of Federal Elections

Section 5: Rolling DRE ballots

June 2007

U.S. Election Assistance Commission
Rolling direct-recording electronic (DRE) ballot interface

This section has three parts: (1) planning process information; (2) an overview of the basic rolling DRE voting process, and (3) illustrations of core screen templates.

**Planning**
The planning section on pages 5.4 and 5.5 outlines how to incorporate resources into your ballot development and production process; areas in which those resources may be of assistance; and when those activities should occur. It offers tips on possible challenges and opportunities.

**Voting process**
This section describes the basic linear voting experience offered by our rolling DRE ballot. Core user activities in all DRE systems include voting, reviewing votes, casting votes, getting help, and adjusting screen settings.

**Design templates**
Essential screen templates, designed in support of primary values for the DRE voting process (page 5.6) are outlined on pages 5.32–5.37.

**Voter audience**
This section details interface solutions for voters able to interact with a standard rolling DRE touchscreen input. Solutions use text sizes stipulated in 2005 Voluntary Voter System Guidelines (VVSG). Ballot instructions, labels, and navigation are written in simple language to support comprehension by voters at a third-grade reading level.

Rolling DRE specifications are based on information design principles, primary research findings, and accessibility requirements cited in VVSG section 3.2.

Investigation into the design of hardware leading to fully accessible voting solutions is strongly encouraged but was not a part of this effort—the contractor did not work with vendors on this particular aspect.

Final materials have been informed by an iterative research process involving reviews of existing products and practices, usability evaluations with representative voters, and interviews with elections professionals, subject matter experts, and poll workers. Without collaboration with vendors, design recommendations do not address the critical relationship between interaction design and hardware that many people with disabilities rely upon to vote. The best practices in this section focus exclusively on screen interactions.

**Areas of further study**
System solutions for alternative input/output variations (combining tactile, audio, and visual toolsets) and accessible prototypes for a Voter-Verified Paper Audit Trail (VVPAT) are recommended.
Suggestions for best practices
The general election rolling DRE ballot prototypes shown on the following pages are based on VVSG, Americans with Disabilities Act (ADA) guidelines, research findings, and information design principles.

— Emphasize voter needs over administrative and vendor requirements. Ensure that default screen settings (type size, color use, contrast levels) are usable for the broadest range of voters as is reasonably possible.

— Process should be clear. Voters should always know where they are in the process. At the contest level, voters should know how to vote in a particular contest or question and know how many votes they have remaining in multi-selection contests.

— Ensure that screen settings for language choices, text size, contrast, and audio support are readily available and easy to change.

— Use simple language for all content. Studies show that clear and concise writing is beneficial to voters of all literacy levels. Rewriting ballot instructions and voter information materials using simple language increases usability and, on the voter’s behalf, accuracy.

— Use color functionally to emphasize important information, highlight processes, and support usability needs. However, the use of color cannot be the sole means of conveying information or making distinctions. Some other noncolor mode such as contrast, icon, text style, etc., must complement the color. This is a mandatory VVSG requirement to address color blindness.

— Ensure that voters can review their voting record and change their votes from any point in the ballot.

— Ensure that voters can easily compare their on-screen voting record with their printed record. Provide redundant confirmations before a ballot is cast.

— Use upper- and lowercase sans serif type, set at a minimum of 25 points, for all ballot content voters will read. Given a choice between adequate type size and reducing the need to scroll lengthy referenda text, ballots with larger type were found to be more usable, even if voters needed to scroll. Avoid setting text in a centered alignment. Avoid setting text in all capital letters. Minimize the number of fonts used.

— Consideration should be given to candidate name order being rotated from precinct to precinct, so that all candidates will be listed first in roughly an equal number of precincts.

— Use instructional icons only. Universally recognized icons such as arrows are acceptable and encouraged.

Research findings
Detailed findings that support the DRE ballot design best practices are in section 7.
Planning process

The planning table on the following page outlines additional resources and steps that can be taken to ensure that ballot content and design best address voter needs.

These recommendations are based on the best practices in Cook County, Illinois, and the pilot test preparations in Nebraska.

**Planning goals**
These additional resources can help ensure that:

- Content is easily understood by voters, including those with low vision and literacy issues.
- The visual organization of the content supports ease of use and confidence in the process.
- Any necessary translations are accurate and sensitive to cultural differences in language and expression.

**Planning value by role/resource**

- **Simple-language expert** ensures that instructions and other ballot content are written in the most effective manner to help all voters (not just low-literacy voters) understand and follow instructions, and feel confident that they have properly cast their ballots.

- **Information designer** organizes the ballot content—text, graphics, illustrations—in a manner that is clear, simple, and functional, and that supports and enhances the voter’s comprehension of the content and voting process. (Note: The design field is very broad; it is important to work with a designer who has expertise in the organization and presentation of complex information.)

- **Usability expert** works with the information designer to develop review, testing, and revision processes that improve the ballot’s overall effectiveness, accuracy, and usability.

- **Translator** ensures proper grammatical, syntactic, and structural character of the content, and appropriate use of local dialect variations. Accurate translations are vital for non-English-speaking voters, and online translations are often misleading, unclear, or simply wrong (for Spanish translations, see EAC document “Glossary of Key Election Terminology, English-Spanish, 2007”).

- **Cultural expert** reviews translated material to ensure that the translations are accurate and culturally relevant, and that their visual presentation is appropriate.
### Production steps before election cycle

<table>
<thead>
<tr>
<th>Resources</th>
<th>Planning, design, and usability activities</th>
<th>Tips</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Election Official</strong></td>
<td>Use the current election to establish a baseline for future work. Get voter feedback before starting, not just afterward.</td>
<td>Whenever possible, hire a local person who will be able to meet with officials and the extended production team (vendors, printers, etc.).</td>
</tr>
<tr>
<td></td>
<td>Establish an approval process/team. Determine who must sign off on improvements at each phase.</td>
<td>Provide the designer with poll worker training, as well as any feedback from voters or poll workers.</td>
</tr>
<tr>
<td><strong>2. Election Official</strong></td>
<td>Choose an objective, professional resource to take ownership of information design challenges.</td>
<td>Provide the designer with a complete list of current election documents and legal requirements.</td>
</tr>
<tr>
<td></td>
<td>Simultaneously hire a designer and a usability professional who can offer additional feedback.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Partner with a policy advisor who can help guide design improvements through the necessary legislative processes.</td>
<td></td>
</tr>
<tr>
<td><strong>3. Designer and Usability Expert</strong></td>
<td>Review and become familiar with election design standards and recommendations.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Understand variance between EAC best practices and local requirements for poll worker and voter materials.</td>
<td></td>
</tr>
<tr>
<td><strong>4. Election Official</strong></td>
<td>Estimate value of design improvements.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gauge impact of the redesign process during the next election planning cycle.</td>
<td></td>
</tr>
</tbody>
</table>

### Resources during election cycle

<table>
<thead>
<tr>
<th>Resources</th>
<th>Content development activities</th>
<th>Tips</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Simple-Language Expert</strong></td>
<td>Edit final English-language content for low-literacy voters.</td>
<td>Understood the translator’s requirements before the election: data formats, time line, etc.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Have a third-party expert review the translated materials after the initial draft. Legal advisors may need to review the materials after simple language and design have been incorporated.</td>
</tr>
<tr>
<td><strong>Translator</strong></td>
<td>Translate content for non-English-speaking voters.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Alternative Language/Cultural Expert</strong></td>
<td>Review translated content in each alternative language for cultural relevancy.</td>
<td>Translation services may not be aware of possible cultural sensitivities of translated material.</td>
</tr>
<tr>
<td><strong>Designer</strong></td>
<td>Election official provides designer with final content for different materials, in English and other languages, after they have been reviewed by simple language and cultural experts.</td>
<td></td>
</tr>
</tbody>
</table>
Voting process

The rolling DRE interface design in this section supports intentional ballot completion by voters. Content, design, functionality, and navigation elements have each been developed to support this primary goal.

The interface design is based on VVSG statements on accessible type sizes for electronic displays. This default type size minimizes the screen setting steps required of low vision and it eliminates the need for many to adjust type size at all. This accessible type size allows language selection to be the first screen the voter sees. A voter can then receive all ballot content in their preferred language—without resorting to the "help" section or requesting help from a poll worker.

Depending on screen resolution and screen orientation, more candidates may be displayed than are shown in the examples. If there are more candidates than will fit on one screen, an alternative would be to reduce button size based on the following criteria:

VVSG minimum button height is 0.5 inches and the minimum distance between buttons is 0.1 inches. Using the accessible type size illustrated here, buttons could be reduced to .62 inches in height (the accessible type size will not comfortably fit in a button only 0.5 inches in height) and the distance between buttons could be decreased to 0.1 inches to allow more names to appear on the screen at one time.

**Key features of the voter’s experience are as follows:**
- Clear, simple instructions
- Completion indicators
- Persistent review/edit access prior to casting vote
- Undervoting notifications
- Easy to access help, instructions, and screen settings

The central rolling DRE flow (shown on the following pages) is organized in a linear voting sequence. This sequence first presents the core voting tasks and options, followed by optional or nonrequired paths (such as accessing voting help).

**Core tasks include:**
- Selecting a language
- Voting
- Reviewing choices
- Casting the ballot

**Optional tasks:**
- Accessing help
- Adjusting settings

**Experience flow**

The map on the next page presents an overview of the primary voting path and the navigational options that move users between task "sections." A map of the Help and adjustment screens, which are accessible from all points in the primary path, appears on the right-hand page.

A detailed walkthrough of the core path begins on page 5.9.
Voting process

Select language

Vote

Review

Cast

“No, go back and review my choices”

“Accept and print”

“Return to voting” or touch unvoted question

“Begin voting”

“Review your choices” or complete last question

“How to review your choices on screen

“How to confirrn your choices on paper

“How to change a vote

“How to vote

“Cast my vote” with unvoted questions

“Cast my vote” with votes on all questions

“Cast your ballot

“Review your choices

“No, go back and review my choices”

“Yes”

“Back."

“Begin voting”

“Cast my vote” with

“Cast my vote” with

“Accept and print”

“Return to voting” or touch unvoted question

“Review your choices” or complete last question

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“Cast my vote” with votes on all questions

“Cast your ballot

“Review your choices

“No, go back and review my choices”
5.8 Rolling DRE ballots

Voter process

Screen flowchart

Get help

"Help" [from any ballot screen]

"Back" [to original ballot screen]

"Changing screen settings"

Adjust settings

"Audio" [from any ballot screen]

"Text size" [from any ballot screen]

"Back" [to original screen]
Language selection, Welcome, and Voting

Language selection screen
Before any voting takes place, voters are asked to choose their preferred language.

When the voter selects the language, the Welcome screen (below) appears in the chosen language.

The screen can accommodate up to nine language buttons.

The voter can change the language through the “Help” button from any screen on the ballot.

Welcome screen
All content appears in the selected language.

The “Begin voting” button takesthe voter to the first contest screen (below).

Options to learn how to use the ballot, to see a list of the ballot’s contests and questions, and to change screen settings are also offered.

Persistent Audio, Text size, and Help options are introduced in the top band.

Contest screen
After the voter touches the “Begin voting” button above, the first contest screen appears and the voter can begin voting.
Voting: single selection

Vote for 1 pair
You have 1 choice left
To vote, touch a name. A check mark will appear to confirm your selection.
To change your vote, touch another name.

Contest screen
A “voter counter” indicates the number of votes remaining. Instructions explain how to make a selection and how to change a selection.

The voter is given a large touch area.

If the voter chooses to skip a contest by touching the “Skip” button, the next contest screen will appear.

When the voter makes a selection, it is highlighted by a check mark, color change, and contrast change.

Vote counter changes to indicate “0” votes remaining.

The navigation button changes from “Skip” to “Next,” and the color changes to green.

After the voter touches the “Next” button, the next contest screen appears and the above sequence is repeated.
## Voting: multiple selections

A vote counter indicates the number of votes remaining.

If the voter chooses to skip a contest by touching the “Skip” button, the next contest screen will appear.

With lengthy lists of candidates, scrolling may be necessary. Color and shape are used to differentiate scroll buttons from candidate buttons.

Voter makes selection. Selection is highlighted via check mark, color change, and contrast change.

The vote counter changes to indicate the number of votes remaining.

The navigation button changes from “Skip” to “Next,” and the color changes to green.

After the voter touches the “Next” button, the next question screen appears and the above sequence is repeated.
Voting: submitting names not on the ballot (write-in)

**Contest screen**
The voter chooses to submit a candidate not listed on the ballot (“Write-in”) and touches the button labeled “Touch here to submit another candidate” ①. The voter moves to the “Write-in” screen.

**Write-in screen**
Instructions specify the keypad entry method. The voter has the option to cancel ② or accept ③ an entry.

Once the choice is accepted, the voter is returned to the contest screen. Touching either the “Cancel” or “Accept” navigation buttons returns the voter to the previous contest screen.

The A-B-C keypad format is the current standard among electronic voting machines.

**Contest screen**
The submitted name appears on the contest screen ④. The voter may touch the “Next” button to move on to the next screen.

If the voter selects an existing name, the “Write-in” button will return to its original state and the new selection will be highlighted.
Accessing the review screen

Contest screen
From any point in the ballot the voter may access the review screen by touching the “Review your choices” button.

Review screen
Touching the “Return to ballot” button returns the voter to the previous contest or question.

The Review screen shows the updated list of votes upon each return.
5.14  Rolling DRE ballots

Voting process

Reviewing on screen

**Reviewing and revising choices**

*How to review*
Read each name and review each selection carefully. Use the yellow buttons to scroll up and down through your choices. When you are done, you will review your choices on paper.

*How to change a vote*
To change your vote, touch a check mark. To add a vote, touch an empty box.

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**Review screen**

Voters use the scroll buttons to review their list of votes.

Any unvoted or undervoted contests or questions are clearly indicated.

Touching a name again or touching a button that indicates an unvoted or undervoted contest or question takes the voter to that contest screen.

As shown here, the buttons that indicate a selection match the buttons the voter is familiar with from the voting screens.

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**Voting screen**

At the voting screen the voter can make or revise a selection.

Touching the “Review your choices” button returns voters to the review page—at the point in the list from which they left.

Alternatively, the voter can touch the “Next/Skip” button and move to the next contest screen.

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**Revised review screen**

The new or revised selection is indicated on the updated review screen.

Voter can continue to review their choices or move on to printing their paper verified ballot.
Confirming selections, printing verified ballot, and casting the ballot

Review screen
If all contests and questions have been voted on and the voter is satisfied with the on-screen review, the voter touches the “Accept and print” button 1.

The voter then moves to the confirm choices screen.

Confirm choices screen
This screen shows a facsimile of the printed verified ballot which the voter may match with the printed verified ballot (not shown). These two items should be identical.

To accept the paper verified ballot, the voter touches the “Cast my vote” button 2.

If the voter notices inconsistencies between the verified ballot (paper) and the voting tally on screen, a poll worker should be notified.

Cast ballot screen
The Cast ballot screen gives voters one more opportunity to go back to the review screen 3, or they can touch the “Yes” button 4 and finish.
Confirming selections, printing verified ballot, and casting the ballot

Review screen
If all contests and questions have not been voted but the voter is satisfied with the on-screen review, the voter can touch the “Accept and print” button.

An alert will appear cautioning that the voter has undervoted.

Undervote alert screen
This screen gives the voter two choices: either return to the review page and revise the ballot or cast the ballot (even though it is undervoted).

 Voters who choose to continue will move to the Confirm screen.

Confirm choices screen
This screen contains an on-screen facsimile of the printed verified ballot which the voter may match with the printed verified ballot (not shown). These two items should be identical.

To accept the paper verified ballot, the voter touches the “Cast my vote” button.
System alerts

General alert. If a screen is inactive for a specified number of minutes, an alert will appear with three choices for the voter: 1) to continue voting, 2) to go to the help section, or 3) to speak to a poll worker.
Accessing help

From any screen the voter can access the Help main screen by touching the “Help” button ①.

Main help screen
This screen serves as a hub, with four choices: the “Using the ballot” ②, “Submitting candidates not on the ballot” ③, and “Reviewing and casting your votes” ④ buttons all take the voter to detailed instructions on those topics. The fourth button, “Change screen settings” ⑤, leads to another hub, where voters can adjust language, text size, screen contrast, and color and turn on audio.

The background color for all Help screens changes to a darker gray to alert voters that they have left the ballot area.

Using the ballot
Instruction screens provide detailed text instructions combined with an animation loop that highlights key features and processes.
Changing screen settings

Main help screen
At the main Help screen, when voters touch the “Changing screen settings” button 1, they move to the main settings screen.

Main change screen
The settings screen serves as a hub, with five buttons: “Text size” 2; “Language” 3; “Screen color and contrast” 4; “Audio” (on/off and volume adjustment) 5; and “Return settings to default” 6.

Touching the “Languages” button moves the voter to a screen containing a list of languages as shown below.
Changing screen settings, continued

To change your selection, touch another choice.
When ready, touch “Accept” to confirm your choice and return to the ballot.

Language settings screen
To change the language the voter is using during the voting session, the voter goes to the main change settings screen (see previous page). The voter also goes to the main change settings screen to change any other available setting—text size, contrast, or audio.

The voter chooses a language by touching the choice. The choice is highlighted and the “Accept” button changes from a dimmed state to green color.

The voter can touch a different button to switch to another language.

Touching the “Accept” button returns the voter to the previous voting screen.
Persistent audio and text setting options

Available from every screen are two settings buttons, the “Audio” on/off and volume control 1; and the “Text size” setting button 2.

If the voter selects either of these buttons they will go directly to the appropriate settings page.

The audio settings button is not intended to replace conventional external audio setting hardware for low vision and blind voters. It is intended as a supplement for low-literacy voters or other voters who may have difficulty using a text- and graphics-only interface.

Audio settings screen
The voter is instructed to begin setting the volume by touching the “1,” the lowest volume setting button. A test tone sounds and the voter can adjust the volume accordingly. The choice is highlighted and the "Accept" button changes from a dimmed state to a green color (see page 5.20).

Touching the “Accept” button returns the voter to the previous screen.

The voter can touch a different button to readjust the volume.

Text size settings screen
Voters are instructed to choose their preferred text size. Touching the “Accept” button returns the voter to the previous voting screen.
Design templates

The DRE ballot interface, similar to an optical scan ballot, comprises four main components:

A. Election information (e.g., jurisdiction, general election date).
B. Ballot instructions.
C. Ballot navigation (including “next,” “back,” “help,” and “begin voting” buttons and screen numbers).
D. Content area (including contests, retentions, and ballot measures, as well as settings, review, and casting options).

Electronic files

Electronic versions of these files are available at www.eac.gov. The files are provided in two formats: Acrobat (.pdf) and InDesign (.indd).* and are named “RollingDRE.pdf” and RollingDRE.indd.”

The templates illustrate the interface design and provide guidelines for the DRE ballot produced by a vendor. As most vendor code is proprietary, this is the only way we can provide best practices.

*The EAC does not endorse any specific product or vendor. The best practices illustrated throughout this document do not rely on specific software, products, or vendors. For copyright reasons, the EAC cannot supply election officials with the fonts used in the InDesign files. They are available from numerous suppliers.
Welcome! What would you like to do?
- Begin voting
- Learn how to use this ballot
- See a list of the questions
- Change screen settings
National contests

Vote for 1 pair
You have 0 choices left
To vote, touch a pair of names. A check mark will appear to confirm your selection.
To change your vote, touch another pair of names.

President and Vice-President of the United States

Joseph Baarchi and Joseph Hallaren    Blue
Adam Cramer and Greg Vuoccolo        Yellow
Daniel Court and Amy Blumhardt       Purple
Alvin Boone and James Lian           Orange
Austin Hildebrand and James Garritty Pink
Martin Patterson and Clay Lariviere Gold
Elizabeth Harp and Antoine Jefferson Gray
Marzena Pazgier and Welton Phelps   Aqua

Touch here to submit another pair of names

State contests

U.S. Senator

To submit a name, touch the keypad letters to spell out the first and last names of the candidate.
To remove or change letters, touch “Delete”.
To add space between names, touch “Space”.
When ready, touch “Accept” to confirm your choice and return to the ballot.
To cancel your submission touch “Cancel”. Your name will not be added.

“Write-in” screen, single selection
### County Commissioners

**Vote for up to 3**

You have 1 choice left.

To vote, touch a name. A check mark will appear to confirm your selection.

<table>
<thead>
<tr>
<th>Name</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chloe Witherspoon</td>
<td>Blue</td>
</tr>
<tr>
<td>Amanda Marracini</td>
<td>Yellow</td>
</tr>
<tr>
<td>Charlene Hennessey</td>
<td>Yellow</td>
</tr>
<tr>
<td>Eric Savoy</td>
<td>Yellow</td>
</tr>
<tr>
<td>Sheila Moskowitz</td>
<td>Purple</td>
</tr>
<tr>
<td>Mary Tawa</td>
<td>Orange</td>
</tr>
</tbody>
</table>

To undo your choice touch the name again. The check mark will disappear.

You may vote for fewer than three candidates.

Touch here to submit another name.

Touch here to see additional candidates.

### Judicial Retention

**Chief Justice of the State Supreme Court**

Choose Yes or No

Retain **Robert Demergue** as Chief Justice of the State Supreme Court?

You have 1 choice left.

To vote, touch a choice. A check mark will appear to confirm your selection.

To change your vote, touch the other choice.

Yes

No
Ballot Measure 114: Financing for Mass Transit

Shall regional transportation district taxes be increased $158.34 million annually and by whatever additional amounts are raised annually thereafter by increasing the rate of sales tax levied by the district by four-tenths of one percent, from the current six-tenths of one percent to one percent commencing January 1, 2005 and, in connection therewith, shall regional transportation district debt be increased $3.477 billion, with a repayment cost of $7.129 billion with all proceeds of debt and taxes to be used for the construction and operation of a fixed guide way mass transit system, the construction of additional park-n-ride lots, the expansion and improvement of existing park-n-ride lots, and increased bus service, including the use of smaller buses and vans and alternative fuel vehicles as appropriate, as specified in and vans and alternative fuel vehicles as appropriate, as specified in and vans and alternative fuel vehicles as appropriate, as specified in.

Choose Yes or No

You have 1 choice left

To vote, touch a choice. A check mark will appear to confirm your selection.

To change your vote, touch the other choice.

Yes

No

Ballot Measure 111: Revenue Bonds for Renovation of Madison County Jail Facilities

Directs the Madison County Public Safety Authority, a building authority incorporated by Madison County and the City of Ijamsville pursuant to Section 346.27 of the State Code, for the purpose of acquiring, destroying, demolishing, improving, enlarging, equipping, furnishing, repairing, maintaining and operating one or more public buildings for the joint use of the County, the City or any school district which is part of the County, to issue its revenue bonds in an amount not exceeding $29,700,000 for the purpose of acquiring, constructing, furnishing, equipping, renovating and expanding existing jail facilities for the joint use of the County and the City.

Choose Yes or No

You have 0 choices left

To vote, touch a choice. A check mark will appear to confirm your selection.

To change your vote, touch the other choice.

Yes

No
How to review
Read each name and review each selection carefully. Use the yellow buttons to scroll up and down through your choices. When you are done, you will review your choices on paper.

How to change a vote
To change your vote, touch a check mark. To add a vote, touch an empty box.

Review your choices on screen

National contests

1. President and Vice-President of the United States
   Austin Hildebrand and James Garrity Pink

State contests

2. U.S. Senator
   Dennis Weiford Blue

3. U.S. Representative
   --

4. State Governor and Lieutenant-Governor
   Charlene Franz and Chris Norberg Blue

How to confirm
The illustration at right tells you where your votes are printed. Read each name carefully. Make sure your choices are correct. Make sure your choices match the names on the screen.

When you are done, touch "Cast my vote".

How to change a vote
To change a vote, touch "Back".

Confirm your choices on paper

President and Vice-President of the United States
   Austin Hildebrand and James Garrity Pink

U.S. Senator
   Dennis Weiford Blue

U.S. Representative
   --

State Governor and Lieutenant-Governor
   Charlene Franz and Chris Norberg Blue

State Attorney General
   Christian Poole Blue

State Treasurer
   Richard Sorenson Blue

Read more
Do you want to cast your ballot?

Yes

No, go back and review my choices

Casting query screen

Your ballot has been cast!

Thank you for voting!
How to confirm
The illustration at right tells you where your votes are printed. Read each name carefully. Make sure your choices are correct. Make sure your choices match the names on the screen.

How to change a vote
To change a vote, touch “Back.”

Attention
You have not voted on every contest or question. You are not required to vote every contest or question. What would you like to do?

- Review your choices
- Cast your ballot

Undervoting alert screen

Inactive alert screen
There are instructions on each screen that will tell you how to vote and how many votes you may choose.

When you have completed your selection touch the green “Next” button to go to the next contest.

You may review the selections you have made at any time by touching the “Review your selections” button.

You are not required to vote every contest or question. Your ballot will still be counted.
Main settings screen

Which setting would you like to change?

- Text size
- Language
- Screen color and/or contrast
- Audio
- Reset all settings to default

Changing languages screen

To change your selection, touch another choice.

Which language do you prefer?

- Vote in English
- Vote en Español
- Wählen Sie Deutsch
- Eleggere l’italiano
- Eleja português
- Voter le français
- 表決用中文

To change your selection, touch another choice.

When ready, touch "Accept" to confirm your choice and return to the ballot.
Changing contrast and color screen

To change your selection, touch another choice.
When ready, touch “Accept” to confirm your choice and return to the ballot.

Which setting do you prefer?
- Color
- White on black
- Black on white

Accept

Back

Turning audio on/off, adjusting volume screen

To turn on audio, touch the button marked “1”
You will hear a test sound.
To change volume, touch another button.
To turn audio off, touch “Off.”

Please select a volume level:

1
2
3
4
5
Off

Accept

Back
To change your selection, touch another choice.

When ready, touch “Accept” to confirm your choice and return to the ballot.

Please select from the following options:

- Use this text size
- Use this text size
- Use this text size

Back  Accept
### Vote for 1 pair

**You have 1 choice left**

To vote, touch a pair of names. A check mark will appear to confirm your selection.

To change your vote, touch another pair of names.

<table>
<thead>
<tr>
<th>Pair</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joseph Baarchi and Joseph Hallaren</td>
<td>Blue</td>
</tr>
<tr>
<td>Adam Cramer and Greg Vuoccolo</td>
<td>Yellow</td>
</tr>
<tr>
<td>Daniel Court and Amy Blumhardt</td>
<td>Purple</td>
</tr>
<tr>
<td>Alvin Boone and James Lian</td>
<td>Orange</td>
</tr>
<tr>
<td>Austin Hildebrand and James Garrity</td>
<td>Pink</td>
</tr>
<tr>
<td>Martin Patterson and Clay Lariviere</td>
<td>Gold</td>
</tr>
<tr>
<td>Elizabeth Harp and Antoine Jefferson</td>
<td>Gray</td>
</tr>
<tr>
<td>Marzena Pazgier and Welton Phelps</td>
<td>Aqua</td>
</tr>
</tbody>
</table>

Touch here to submit another pair of names

---

### Review your choices

Back 1 of 26 Skip

**President and Vice-President of the United States**

Joseph Baarchi and Joseph Hallaren

Adam Cramer and Greg Vuoccolo

Daniel Court and Amy Blumhardt

Alvin Boone and James Lian

Austin Hildebrand and James Garrity

Martin Patterson and Clay Lariviere

Elizabeth Harp and Antoine Jefferson

Marzena Pazgier and Welton Phelps

Touch here to submit another pair of names
Vote for 1 pair

You have 1 choice left

To vote, touch a pair of names. A check mark will appear to confirm your selection.

To change your vote, touch another pair of names.

Touch here to see additional candidates

Touch here to submit another pair of names

President and Vice-President of the United States

Joseph Baarchi and Joseph Hallaren Blue
Adam Cramer and Greg Vuoccolo Yellow
Daniel Court and Amy Blumhardt Purple
Alvin Boone and James Lian Orange
Austin Hildebrand and James Garrity Pink
Marzena Pazgier and Welton Phelps Aqua
Elizabeth Harp and Antoine Jefferson Gray
Martin Patterson and Clay Lariviere Gold

Review your choices Back 1 of 26 Skip

Larger text setting screen

Smaller text setting screen
### Typical Spanish-language contest screen

**Presidente y Vicepresidente de los Estados Unidos**

<table>
<thead>
<tr>
<th>Nombra una pareja</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joseph Baarchi y Joseph Hallaren</td>
<td>Azul</td>
</tr>
<tr>
<td>Adam Cramer y Greg Vuoccolo</td>
<td>Amarillo</td>
</tr>
<tr>
<td>Daniel Court y Amy Blumhardt</td>
<td>Violeta</td>
</tr>
<tr>
<td>Alvin Boone y James Lian</td>
<td>Naranja</td>
</tr>
<tr>
<td>Austin Hildebrand y James Garrity</td>
<td>Rosa</td>
</tr>
<tr>
<td>Martin Patterson y Clay Lariviere</td>
<td>Oro</td>
</tr>
<tr>
<td>Elizabeth Harp y Antoine Jefferson</td>
<td>Gris</td>
</tr>
<tr>
<td>Marzena Pazgier y Welton Phelps</td>
<td>Aqua</td>
</tr>
</tbody>
</table>

Para cambiar su voto, toque otra pareja de nombres.

---

### Typical Chinese-language contest screen

**美國總統和副總統**

<table>
<thead>
<tr>
<th>投票選兩位候選人</th>
<th>色彩</th>
</tr>
</thead>
<tbody>
<tr>
<td>約瑟夫·巴馳和約瑟夫·海勒倫</td>
<td>藍色</td>
</tr>
<tr>
<td>亞當·克萊默和柏瑞格·福奧科洛</td>
<td>黃色</td>
</tr>
<tr>
<td>丹尼爾·考恩特和艾米·布拉姆哈德</td>
<td>紫色</td>
</tr>
<tr>
<td>阿爾文·布恩和詹姆士·達羅</td>
<td>橙色</td>
</tr>
<tr>
<td>奧斯丁·希爾德布蘭德和詹姆士·蓋瑞德</td>
<td>粉紅色</td>
</tr>
<tr>
<td>馬丁·帕特森和克萊·拉瑞維爾</td>
<td>金色</td>
</tr>
<tr>
<td>伊麗莎白·哈珀和安托萬·傑斐遜</td>
<td>灰色</td>
</tr>
<tr>
<td>魏澤那·帕茲吉爾和威爾頓·費爾普斯</td>
<td>淺綠色</td>
</tr>
</tbody>
</table>

請觸摸選項提交其他兩位候選人的名字